

Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 2/1/2023
Return Request: 2/10/2023
Project: New Dormitories – Bldg. 6
Supplier: Harrison Energy Partners
Manufacturer: Daikin
Submittal: Split System A/C
Submittal Number: 23 81 26-01
Drawing # and Installation: Mechanical Drawings

ARCHITECT

Stocks Mann Architects
401 W. Capitol, Suite 402
Little Rock, AR 72201
501-370-9207

ENGINEER

Bernhard TME
1 Allied Drive #2600, Building 2
Little Rock, AR 72202
501-666-6776

GENERAL CONTRACTOR

Alessi Keyes Construction
10623 Maumelle Blvd.
N. Little Rock, AR 72113
501-225-6699

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

CSUSA PROJECT NO.

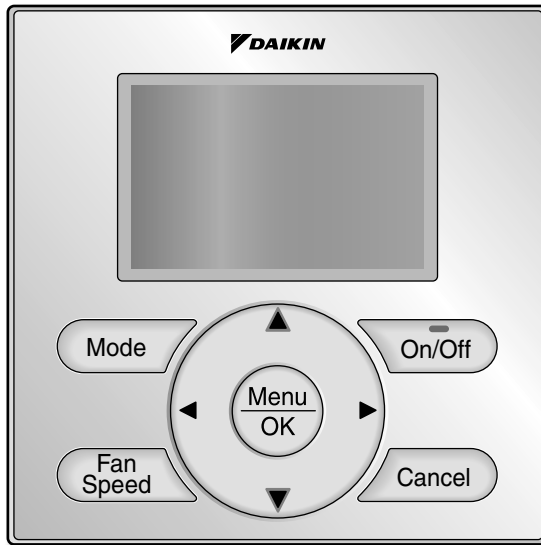
22-102

jon@comfortar.com

ALESSI KEYES CONSTRUCTION
REVIEWED FOR GENERAL COMPLIANCE
WITH CONTRACT DOCUMENTS
Charley Dawson 2/2/2023

WIRED REMOTE CONTROLLER

OPERATION MANUAL



MODEL BRC1E73

English

Français

Español

- Thank you for purchasing the wired remote controller.
- This manual describes safety measures which should be considered during the use of the product.
Read this manual carefully and be sure you understand the information provided before using the product.
Keep this manual where it is readily accessible to all current and future operators.
- Nous vous remercions pour votre achat de la télécommande câblée.
- Ce manuel décrit les précautions de sécurité à respecter lors de l'utilisation du produit.
Lisez soigneusement ce manuel et veillez à bien comprendre les renseignements fournis avant d'utiliser le produit.
Conserver ce manuel dans un endroit accessible à tous les opérateurs actuels et futurs.
- Gracias por su compra del control remoto alámbrico.
- Este manual describe las consideraciones de seguridad que deben ser observadas durante el uso del producto.
Lea cuidadosamente este manual y asegúrese de comprender la información provista antes de intentar usar el producto.
Guarde este manual en un lugar fácilmente accesible para los usuarios actuales y futuros.

Contents

Notices	Safety Considerations Items to be Strictly Observed 2
	Button Locations and Descriptions 4
Basic Operation	Cool/Heat/Auto/Fan Operation 10
	Dry Mode 13
	Setback 14
	Ventilation Mode 15
	Setting the Cool / Heat Changeover Master 16
	Key Lock 19
Quick Reference	Main Menu Items 20
Menu Options	Navigating the Main Menu Screen 22
	Airflow Direction 23
	Individual Airflow Direction 25
	Ventilation 28
	Schedule 30
	Off Timer 35
	Maintenance Information 37
	Configuration 38
	Current Settings 42
	Clock & Calendar 42
	Daylight Saving Time 45
	Language 48
Maintenance	Reset Filter Indicator 48
	Maintaining the Unit and LCD Display 49
Reference Information	Error Code Display 50
	After-sale Service 51

Safety Considerations




The original instructions are written in English. All other languages are translation of the original instructions.

Read these **SAFETY CONSIDERATIONS** carefully before operating the remote controller.





Train the customer to operate and maintain the remote controller.






Inform customers that they should store this Operations Manual with the Installation Manual for future reference.

Meanings of **WARNING** and **CAUTION** Symbols:

 WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
 NOTE	Indicates situations that may result in equipment or property-damage accidents only.






- The following pictograms are used in this manual.

	Never do.		Always follow the instructions given.
	Keep water and moisture away.		Keep wet hands away.




 WARNING	
	<ul style="list-style-type: none"> • Do not modify or repair the remote controller. Consult your Daikin dealer for any modification or for repairs.
	<ul style="list-style-type: none"> • Do not relocate or reinstall the remote controller by yourself. Improper installation may result in electric shocks or fire. Consult your Daikin dealer to relocate or for any reinstallation.
	<ul style="list-style-type: none"> • Do not use flammable materials (e.g., hairspray or insecticide) near the remote controller. Do not clean the product with organic solvents such as paint thinner. The use of organic solvents may cause cracking, damaging the product, causing electric shocks, or fire.
	<ul style="list-style-type: none"> • Consult the dealer if the remote controller was submerged under water due to a natural disaster, such as a flood or hurricane. Do not operate the remote controller at this time or a malfunction, electric shock, or fire can occur.

—Items to be Strictly Observed—

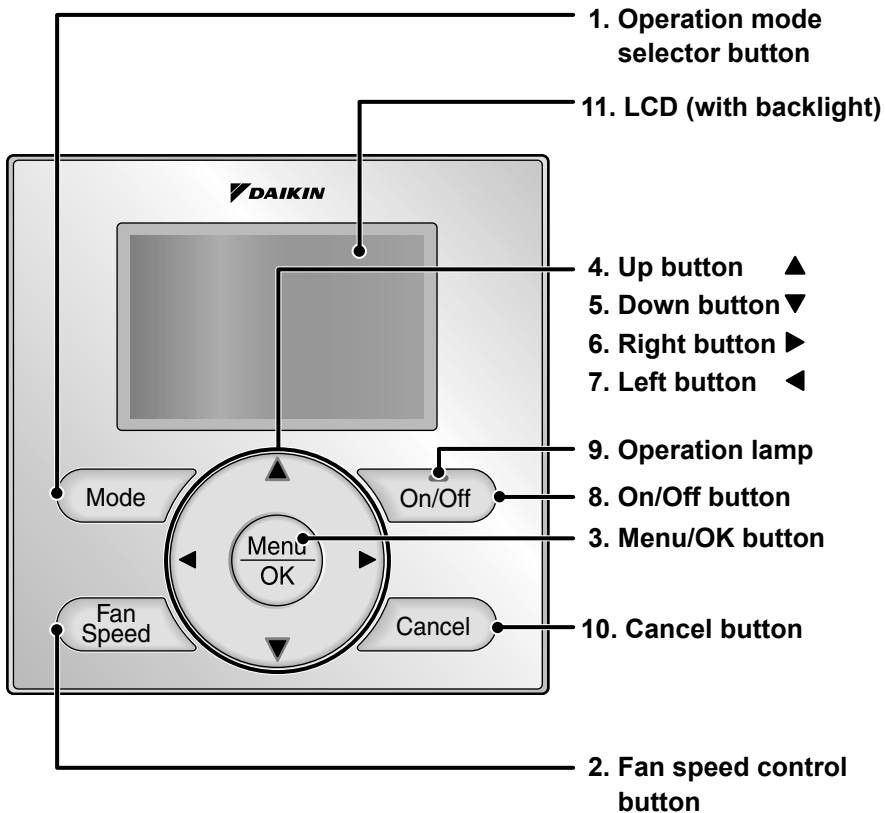
CAUTION

	<ul style="list-style-type: none">● Do not allow children to play with the remote controller to avoid causing damage to the product.
	<ul style="list-style-type: none">● Never disassemble the remote controller. Touching the interior parts may result in electric shocks or fire. Consult your Daikin dealer for internal inspections and adjustments.
	<ul style="list-style-type: none">● Do not touch the remote controller buttons with wet fingers. Touching the buttons with wet fingers can cause an electric shock.
	<ul style="list-style-type: none">● Do not wash the remote controller. Doing so may cause electric leakage and result in electric shocks or fire.
	<ul style="list-style-type: none">● Never let the remote controller to get wet. Water can cause damage to the remote controller, and may cause an electric shock or fire.

NOTE

	<ul style="list-style-type: none">● Never press the button of the remote controller with a hard and pointed object. The remote controller may be damaged.
	<ul style="list-style-type: none">● Never pull or twist the electric wire of the remote controller. It may cause the unit to malfunction.
	<ul style="list-style-type: none">● Do not wipe the remote controller with benzine, thinner, chemical dustcloth, etc. The remote controller may get discolored or the coating peeled off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the remote controller clean. And wipe it with another dry cloth.

Button Locations and Descriptions



Functions other than basic operation items (i.e., On/Off, Operation Mode, Fan Speed, and Setpoint) are set from the menu screen.

NOTE

- Do not install the remote controller in places exposed to direct sunlight, the LCD will be damaged.
- Do not pull or twist the remote controller cord, the remote controller may be damaged.
- Do not use objects with sharp ends to press the buttons on the remote controller, damage may result.

1. Operation mode selector button

- Press this button to select the operation mode of your preference. (See page 10.)
* Available modes vary with the indoor unit model.

2. Fan speed control button

- Press this button to select the fan speed of your preference. (See page 11.)
* Available fan speeds vary with the indoor unit model.

3. Menu/OK button

- Used to enter the main menu.
(See page 20 for the menu items.)
- Used to enter the selected item.

4. Up button ▲

- Used to raise the setpoint.
- The item above the current selection will be highlighted.
(The highlighted items will be scrolled continuously when the button is continuously pressed.)
- Used to change the selected item.

5. Down button ▼

- Used to lower the setpoint.
- The item below the current selection will be highlighted.
(The highlighted items will be scrolled continuously when the button is continuously pressed.)
- Used to change the selected item.

6. Right button ►

- Used to highlight the next items on the right-hand side.
- Each screen is scrolled in the right-hand direction.

7. Left button ◀

- Used to highlight the next items on the left-hand side.
- Each screen is scrolled in the left-hand direction.

8. On/Off button

- Press this button and system will start.
- Press this button again to stop the system.

9. Operation lamp

- This lamp illuminates solid green during normal operation.
- This lamp flashes if an error occurs.

10. Cancel button

- Used to return to the previous screen.

11. LCD (with backlight)

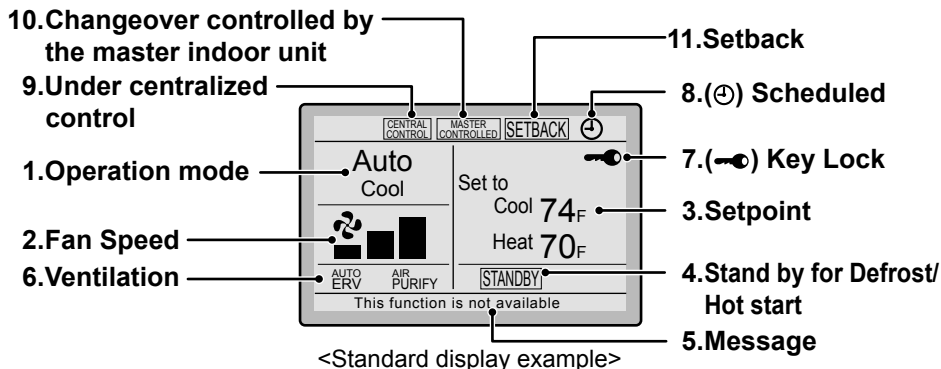
- The backlight will be illuminated for approximately 30 seconds by pressing any button.
- If two remote controllers are used to control a single indoor unit, only the controller accessed first will have backlight functionality.

Names and Functions

Liquid Crystal Display

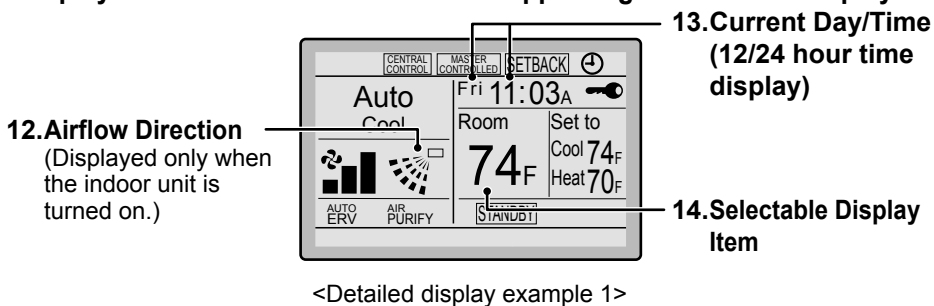
- Three types of display mode (Standard, Detailed and Simple) are available.
- Standard display is set by default.
- Detailed and Simple displays can be selected in the main menu. (See page 40.)

Standard display



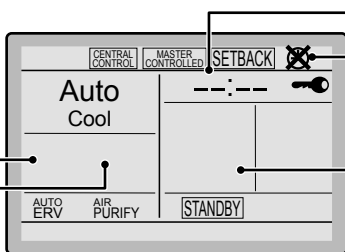
Detailed display

- The airflow direction, clock, and selectable item appear on Detailed display screen in addition to the items appearing on Standard display.



No Fan speed display
(with no fan speed control function)

No Airflow Direction display
(with no airflow direction settings)

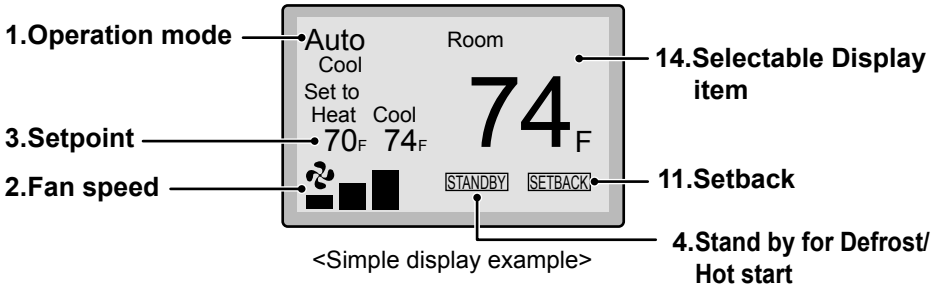


No Clock display
(when the clock has not been set yet)

15. (🔒) Unable to schedule

No Selectable Display Item display
(with no selectable display item selected)

Simple display



Note for all display modes

- Depending on the field settings, while the indoor unit is stopped, OFF may be displayed instead of the operation mode and/or the setpoint may not be displayed.

Names and Functions

1. Operation mode

- Used to display the current operation mode: Cool, Heat, Vent, Fan, Dry or Auto.
- In Auto mode, the actual operation mode (Cool or Heat) will be also displayed.
- Operation mode cannot be changed when OFF is displayed.
Operation mode can be changed after starting operation.


2. Fan Speed

- Used to display the fan speed that is set for the indoor unit.
- The fan speed will not be displayed if the connected model does not have fan speed control functionality.

3. Setpoint

- Used to display the setpoint for the indoor unit.
- Use the Celsius/Fahrenheit item in the main menu to select the temperature unit (Celsius or Fahrenheit).

4. Stand by for Defrost/Hot start

“” (See page 12.)

If ventilation icon is displayed in this field:

- Indicates that an energy recovery ventilator (ERV) is connected.
For details, refer to the Operation Manual of the ERV.

5. Message

The following messages may be displayed.

“**This function is not available**”

- Displayed for a few seconds when an **Operation** button is pressed and the indoor unit does not provide the corresponding function.
- In a remote control group, the message will not appear if at least one of the indoor units provides the corresponding function.

“**Error: Push Menu button**”

“**Warning: Push Menu button**”

- Displayed if an error or warning is detected (see page 50).



“**Time to clean filter**”

“**Time to clean element**”

“**Time to clean filter & element**”

- Displayed as a reminder when it is time to clean the filter and/or element (see page 48).

6. Ventilation

- Displayed when an energy recovery ventilator is connected.
- **Ventilation Mode icon.** “ ERV BYPASS ”
These icons indicate the current ventilation mode (ERV only) (AUTO, ERV, BYPASS).
- **Air Purify ICON** “ ”
This icon indicates that the air purifying unit (Optional) is in operation.

7. Key Lock (See page 19.)

- Displayed when the key lock is set.

8. Scheduled (See page 30.)

- Displayed if the Schedule or Off timer is enabled.

9. Under Centralized control “”

- Displayed if the system is under the management of a multi-zone controller (Optional) and the operation of the system through the remote controller is limited.

10. Changeover controlled by the master indoor unit “”

(VRV only)

- Displayed when another indoor unit on the system has the authority to change the operation mode between cool and heat.

11. Setback “” (See page 14.)

- The setback icon flashes when the unit is turned on by the setback control.

12. Airflow Direction “”

- Displayed when the airflow direction and swing are set (**see page 23**).
- If the connected indoor unit model does not include oscillating louvers this item will not be displayed.

13. Current Day/Time (12/24 hour time display)

- Displayed if the clock is set (**see page 42**).
- If the clock is not set, “-- : --” will be displayed.
- 12 hour time format is displayed by default.
- Select 12/24 hour time display option in the main menu under “Clock & Calendar”.

14. Selectable Display Item

- Room temperature is selected by default.
- For other choices see page 41.

15. ~~X~~ Unable to schedule

- Displayed when the clock needs to be set.
- The schedule function will not work unless the clock is set.

Basic Operation

Cool/Heat/Auto/Fan Operation (SkyAir and VRV)

How to follow the operation manual

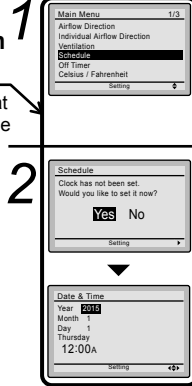
Operation procedure

Operation button display

Operation screen display

Describes screens that will be displayed on the remote controller in operation.

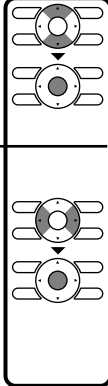
Operation



Explains the sequence of operation for the remote controller. Operate the buttons according to the procedure.

- Display the main menu screen. (See page 22.)
- Press **▼▲** buttons to select **Schedule** the main menu screen. Press **Menu/OK** button to display the timer screen.
- Before setting the schedule, the clock must be set.
- If the clock has not been set, a screen like the one on the left will appear. Press **▶◀** buttons to select **Yes** and press **Menu/OK** button.
- The date & time screen will appear.
- Set the current year, month, day, and time. (See clock settings on page 42.)

Displays the location of buttons to be operated.

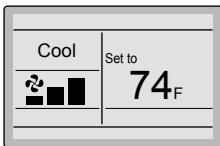


Preparation

- For mechanical protection purposes, apply power to the outdoor units at least six hours before starting the operation of the system.

Operation

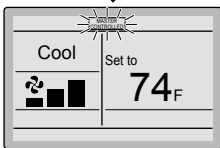
1



- Press **Mode** button several times until the desired mode Cool, Heat, Fan, or Auto mode is selected.



* Unavailable operation modes are not displayed.



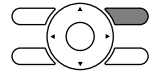
Note

- Both heat and cool mode may not be selected if the unit is master controlled. See page 16 if MASTER CONTROLLED icon flashes.

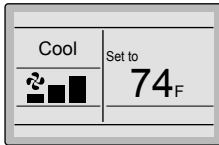
2



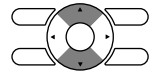
- Press **On/Off** button.
The Operation lamp will illuminate solid green and the system will start operating.



3

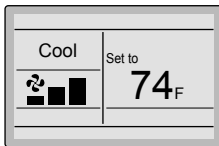


- The setpoint will increase by 1°F (or 1°C) when ▲ button is pressed and decrease by 1°F (or 1°C) when ▼ button is pressed.

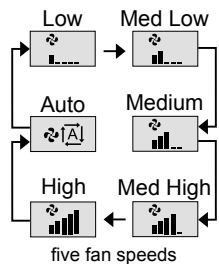
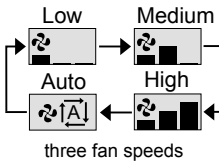
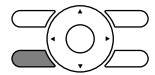


* Setpoint is not available in fan or dry mode.

4



- To change the fan speed, press **Fan speed control** button and select the fan speed from;
 - Low/High/Auto for two-speed
 - Low/Medium/High/Auto for three-speed
 - Low/Med Low/Medium/Med High/High/Auto for five-speed depending on the indoor unit model.



* The system may change the fan speed automatically for equipment protection purposes.

* The system may turn off the fan when the room temperature is satisfied.

* It is normal for a delay to occur when changing the fan speed.

* If the Auto is selected for the fan speed, the fan speed varies automatically based on the difference between setpoint and room temperature.

Basic Operation

5

- Adjust Airflow Direction from the main menu (see page 23).

* If the connected indoor unit does not have oscillating louvers, this function will not be available.

6



- When **On/Off** button is pressed again, the system will stop operating and the Operation lamp will turn off.



* When the system is stopped while in the heating mode, the fan will continue to operate for approximately one minute to remove residual heat from the indoor unit.

Note

- To prevent condensation water damage or system failure, do not shut off the power supply to the indoor unit immediately after operation. Wait at least five minutes for the condensate pump to finish draining residual water from the indoor unit.

Characteristics of Heat Mode

The system automatically controls the following operating modes to prevent the reduction of heating capacity and space comfort.

Defrost operation

- The system will automatically go into defrost operation to prevent frost accumulation at the outdoor unit and subsequent loss of heating capacity.
- The indoor unit fan will stop, and " **STANDBY** " will be displayed on the remote controller.
- The system will finish the Defrost operation and return to normal usually within six to eight minutes. It won't last for more than ten minutes.

Hot start

- When the system starts heating operation, the indoor unit fan will operate with a delay in order to prevent a cold draft. (In that case, " **STANDBY** " will be displayed on the remote controller.)

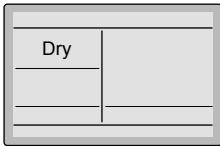
Dry Mode

Preparation

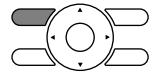
- For equipment protection purposes, apply power to the outdoor units at least six hours before starting the operation of the system.
- The dry mode may not be selected if the remote controller is master controlled and the system is not already in the cooling mode of operation. (see page 18 for details)

Operation

1



- Press **Mode** button several times until the Dry mode is selected.



* The dry mode may not be available depending on the type of indoor unit.

2



- Press **On/Off** button.
The Operation lamp will illuminate solid green and the system will start operating.



* In Dry mode, the system maintains automatic temperature and fan speed control. Therefore, temperature setpoint or fan speed settings are not available while the indoor unit is in the Dry mode.

3

- Adjust Airflow Direction from the main menu (see page 23).

* If the connected indoor unit does not have oscillating louvers, this function will not be available.

Basic Operation

4



- When **On/Off** button is pressed again, the system will stop operating and the Operation lamp will turn off.

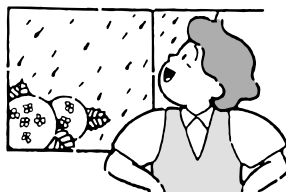


Note

- To prevent condensation water damage or system failure, do not shut off the power supply to the indoor unit immediately after operation. Wait at least five minutes for the condensate pump to finish draining residual water from the indoor unit.

Characteristic of Dry mode

The Dry mode dehumidifies the space at reduced cooling capacity to prevent the room temperature from dropping to an uncomfortable level.



Setback

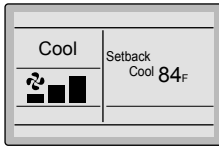
The Setback function can be used to maintain the space temperature in an assigned range for an unoccupied period.

Note

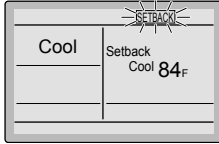
- When enabled, the Setback mode becomes active when the indoor unit is turned off by either the user, a schedule event or an off timer.
- This function is not available by default. It can be enabled by the system installer.

Operation

1



- The setback icon flashes when the unit is turned on by the setback control.



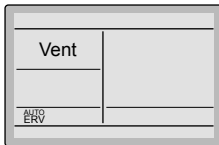
Ventilation Mode When the Indoor Unit is Interlocked with Energy Recovery Ventilator

Preparation

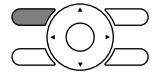
- For equipment protection purposes, apply power to the outdoor units at least six hours before starting the operation of the system.

Operation

1



- When operating the energy recovery ventilator (ERV) between seasons without the indoor unit, set the control to ventilation mode.



2

- Changes to the ventilation mode are made from the main menu.

* Ventilation Mode: Auto, ERV, and Bypass

3

- Changes to the ventilation rate are made from the main menu.

* Ventilation Rate: Low or High

Basic Operation

4



- Press **On/Off** button.
The Operation lamp will illuminate solid green and the system will start operating.



5



- When **On/Off** button is pressed again, the system will stop operating and the Operation lamp will turn off.



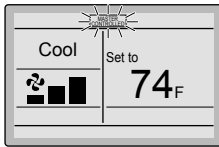
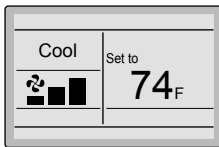
Setting the Cool / Heat Changeover Master

(VRV only)

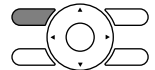
Setting Changes

See page 18 for an explanation of the cool/heat changeover master indoor unit.

1



- Press **Mode** button on the remote controller of the changeover master indoor unit for at least four seconds while the backlight is illuminated.




- The “**MASTER CONTROLLED**” icon on each remote controller for the indoor units connected to the same outdoor unit or Branch Selector unit will start flashing.

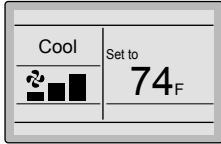
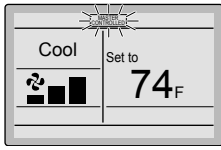
* Vent mode setting changes are possible regardless of the cool/heat changeover master indoor unit.
* If the outdoor unit is configured as cool/heat changeover master, all remote controllers serving the associated indoor units will display its “**MASTER CONTROLLED**” icon.

- Set the cool/heat changeover master indoor unit as outlined below.

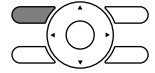
Selection Settings


The icon "  " will flash on all remote controllers when the power is turned ON for the first time.


2



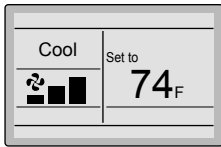
- Press **Mode** button on the remote controller of the indoor unit which is to serve as the cool/heat changeover master.




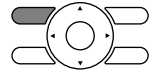
The remote controller for the changeover master indoor unit is established and the  icon is no longer displayed.

Other remote controllers in the system (indoor units served by the same outdoor unit or indoor units served by the same branch selector unit) will now display the  icon.

3



- Press **Mode** button on the remote controller of the indoor unit designated as the cool/heat changeover master (the remote controller not displaying the  icon) repeatedly until the desired mode is selected. The display will change to **Fan, Dry, Auto, Cool, Heat** each time the button is pressed.
- Simultaneously, the other indoor units on the system will follow suit and change modes to reflect the new mode selected at the changeover master remote controller.



Basic Operation

Cool / Heat Mode Selection Availability

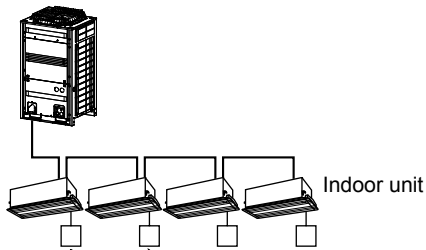
- “Cool”, “Heat”, and “Auto” are all only available for selection on the cool/heat changeover master indoor unit. The following table indicates the available operating modes of the other indoor units on the system based upon the selected mode of the master indoor unit.

When the master indoor unit is set to	The other indoor units in the system can be set to			
	Cool	Dry	Heat	Fan
Cool mode	✓	✓		✓
Dry mode	✓	✓		✓
Heat mode			✓	✓
Fan mode				✓
Auto mode (Cooling operation)	✓	✓		✓
Auto mode (Heating operation)			✓	✓

Precautions for Selecting the Cool / Heat Changeover Master Indoor Unit

- The cool/heat changeover master must be set for a single indoor unit in the following applications

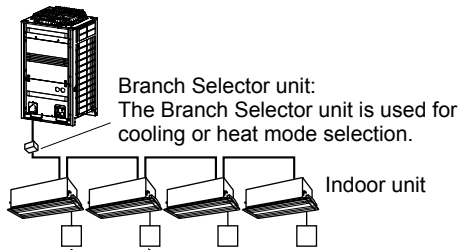
(2-Pipe Heat Pump System)



A number of indoor units are connected to a single outdoor unit.

Set any one of the indoor units as the cool/heat changeover master.

(3-Pipe Heat Recovery System)



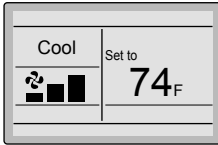
A number of indoor units are connected to a single Branch Selector unit.

Set any one of the indoor units as the cool/heat changeover master.

Key Lock

Operation Confirm and cancel Key Lock settings in the basic display screen.

1

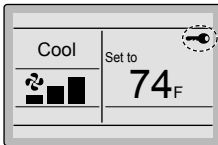



Basic screen

- Press **Menu/OK** button for at least four seconds while the backlight is illuminated.



2



- “” is displayed.
All buttons are disabled when the keys are locked.
- To cancel the key lock mode, continue pressing **Menu/OK** button for at least four seconds while the backlight is illuminated.

Quick Reference

■ The main menu has the following items.

Menu item		Description	Reference page
Airflow Direction		<p>Used to configure airflow direction settings.</p> <ul style="list-style-type: none"> • The airflow direction louver is automatically operated up and down (left and right). • The fixed airflow directions are configurable for five positions. <p>* This function is not available on all indoor unit models.</p>	23
Individual Airflow Direction (depends on indoor unit model)	Louver Setting	<p>Set the airflow direction individually for each of the 4 louvers.</p> <ul style="list-style-type: none"> • Maximum 16 units (unit 0 till 15). 	25
	Louver Setting List	Setting table for louver.	26
	Reset All Louvers Position	Reset all louvers to factory default setting.	27
Ventilation (Ventilation operation settings for energy recovery ventilator)	Ventilation Rate	Used to set "Low" or "High"	28
	Ventilation Mode	Used to set Auto, ERV, or Bypass.	29
Schedule	Daily Patterns	<ul style="list-style-type: none"> • Day settings are selected from four patterns, i.e., "7Days", "Weekday/Weekend", "Weekday/Sat/Sun", and "Everyday". 	31
	Settings	<ul style="list-style-type: none"> • Set the startup time and operation stop time. <ul style="list-style-type: none"> ON: Startup time, cooling and heating temperature setpoints can be configured. OFF: Operation stop time, cooling and heating setback temperature setpoints can be configured. (--: Indicates that the setback function is disabled for this time period.) ___: Indicates that the temperature setpoint and setback temperature setpoint for this time period is not specified. The last active setpoint will be utilized. • Up to five actions can be set for each day. 	32
Off Timer		<p>Used to set the run-time for the indoor unit using this controller.</p> <ul style="list-style-type: none"> • Possible to set in 10 minute increments from 30 to 180 minutes. 	35
Celsius / Fahrenheit		<ul style="list-style-type: none"> • Used to select whether temperature values will be displayed in Celsius or Fahrenheit. 	—

Menu item		Description	Reference page
Filter Auto Clean		Set the time when the filter needs to be automatically cleaned. For the detailed operation refer to the Operation Manual of the self cleaning decoration panel.	—
Maintenance Information		Used to display the maintenance information.	37
Configuration	Draft Prevention (Only available with Occ. sensor installed indoor unit model)	The draft prevention function can be enabled or disabled . When enabled, the Occ. sensor will adjust the louver's position to prevent air blowing directly on occupant.	38
	Contrast Adjustment	Used to make LCD contrast adjustment.	39
	Display	Used to set the display mode. <ul style="list-style-type: none"> • Display mode Standard, Detailed, or Simple display • Detailed and Simple displays provide the selectable display item among Room Temp, System, None or Outside Air Temp. 	40
Current Settings		<ul style="list-style-type: none"> • Used to display a list of current settings for available items. 	42
Clock & Calendar	Date & time	Used to configure date and time settings and corrections. <ul style="list-style-type: none"> • The default time display is 12H. • The clock will maintain accuracy to within ± 30 seconds per month. • If there is a power failure for a period not exceeding 48 hours, the clock will continue working with the built-in backup power supply. 	42
	12H/24H Clock	The time can be displayed in either a 12 hour or a 24 hour time format.	45
Daylight Saving Time		Used to adjust the clock in observance of daylight saving time.	45
Language		The display language can be selected between English , Francais , or Espanol .	48

Note: Available setting items vary with the indoor unit model.

Sub Remote Controller Menu Items		
If two remote controllers are connected to a single indoor unit, the following menu items are not set in the sub remote controller. In this case, the following items should be configured in the main remote controller.		
<ul style="list-style-type: none"> • Individual Airflow Direction • Schedule • Off timer 	<ul style="list-style-type: none"> • Setback • Draft Prevention 	

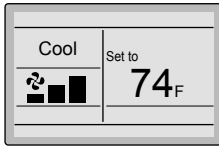
Menu Options

Navigating the Main Menu Screen

■ Display Method for Main Menu

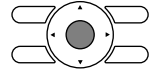
Operation

1

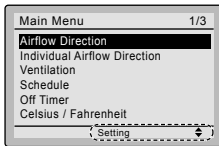


Basic screen

- Press **Menu/OK** button.



2



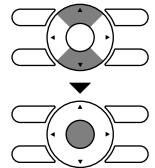
Main menu screen

- The main menu screen is displayed.

↳ Instructions for navigating the main menu will appear.

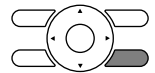
3

- Selecting items from the main menu.
 1. Press ▼▲ buttons to select the desired item to be set.
 2. Press **Menu/OK** button to display the details for the selected item.



4

- To go back to the basic screen from the main menu, press **Cancel** button.



Note

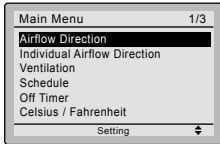
- If a button is not pressed for 5 minutes during configuration, the controller will automatically revert to the basic screen.

Airflow Direction

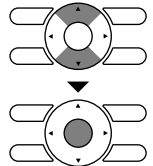
■ Configuring Airflow direction

Operation

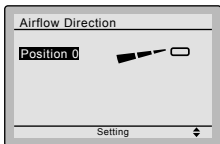
1



- Display the main menu screen.
(See page 22.)
- Press ▼▲ buttons to select **Airflow Direction** and press **Menu/OK** button.

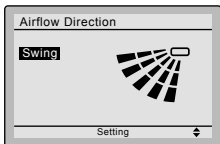
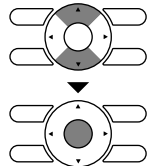


2

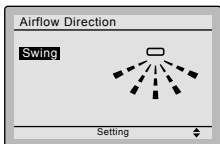


- (1) Adjusting method when there is single airflow direction.

- Select the desired airflow direction from **Position 0**, **Position 1**, **Position 2**, **Position 3**, **Position 4**, **Swing** or **Auto** using ▼▲ buttons.
- Press **Menu/OK** button to confirm the settings and to return to the basic screen.



Airflow direction setting (up/down)



Airflow direction setting (left/right)

Note

- The airflow directions appear on the screen as follows:

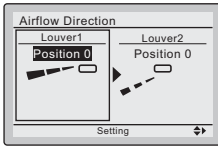


Notice

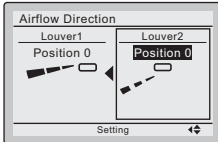
These operation and screen are example of single airflow direction type indoor unit.
It is different from Single flow cassette model.

Menu Options

3



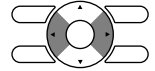
When front/back direction is selected



When left/right direction is selected

(2) Adjusting method for selecting dual airflow directions.

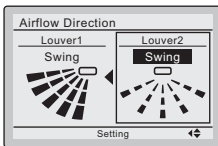
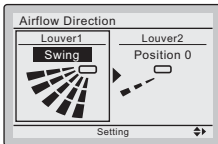
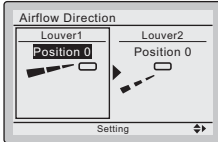
- Press ◀▶ buttons, to select front/back or left/right direction setting.



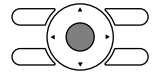
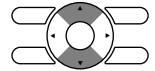
Notice

These operation and screen are example of dual airflow directions type indoor unit (Single flow cassette model).

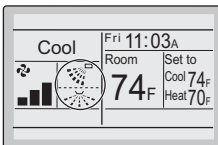
4



- Select the desired airflow direction from **Position 0**, **Position 1**, **Position 2**, **Position 3**, **Position 4**, **Swing** or **Auto** using ▼▲ buttons.
- Selecting **Swing** will cause the airflow direction louver to swing position 0 to 4.
- Setting **Auto** is not available when left/right direction is selected.
- Press **Menu/OK** button to confirm the settings and return to the basic screen.



5



Basic screen
(Detailed display)

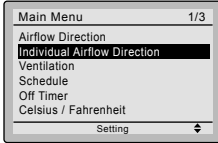
- If dual airflow directions are set, then the dual airflow direction icons are displayed in the basic screen.

Individual Airflow Direction

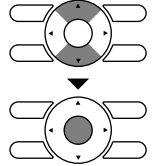
■ Louver Setting

Operation

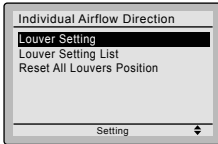
1



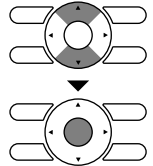
- Display the main menu screen.
(See page 22.)
- Select **Individual Airflow Direction** and press **Menu/OK** button.



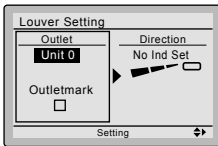
2



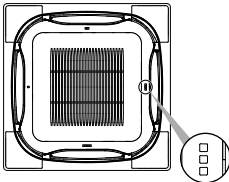
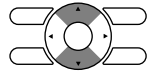
- Select **Louver Setting** and press **Menu/OK** button.



3



- Use ▼▲ buttons to select the unit and outlet mark.
- Maximum 16 units for each group (unit 0 till 15) can be selected.

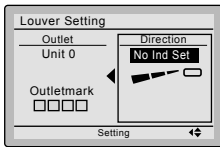


Note

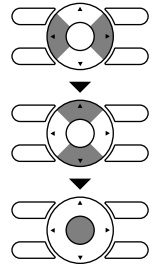
In case of four outlets (cassette type), you can control each one of the four louvers individually (the following marks are beside each air outlet: □, □, □□, □□□).

Menu Options

4



- Press ◀▶ button to select the airflow direction.
- Use ▼▲ buttons to change the airflow direction to the following:
No Ind Set , **Position 0** , **Position 1** ,
Position 2 , **Position 3** , **Position 4** ,
Swing or **Blocked** .

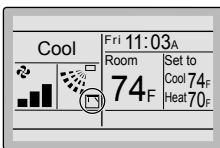


No Ind Set : No Individual Louver Setting.

Blocked : Individual airflow is blocked.

- Press **Menu/OK** button to confirm the settings and to return to the basic screen.

5



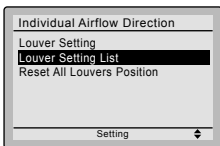
Basic screen
(Detailed display)

- If individual airflow direction is set, then the individual airflow direction icon is displayed in the basic screen.

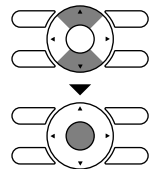
■ Louver Setting List

Operation

1



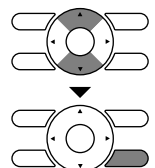
- Display the individual airflow direction screen. (See page 25.)
- Press ▼▲ buttons to select **Louver Setting List** and press **Menu/OK** button.



2

Louver Setting List		
Unit 0	Direction	Indiv.
□	Position 0	OFF
□□	Position 0	OFF
□□□	Position 0	OFF
□□□□	Position 0	OFF

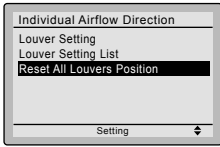
- A table shows the current settings. Press ▼▲ buttons to go to the next unit.
- Press **Cancel** button to return to the previous menu.



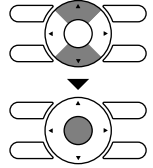
■ Reset All Louvers Position

Operation

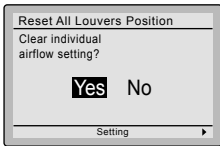
1



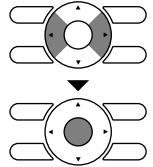
- Display the individual airflow direction screen.
(See page 25.)
- Press ▼▲ buttons to select **Reset All Louvers Position** and press **Menu/OK** button.



2



- Press ◀▶ buttons to select **Yes**.
- Press **Menu/OK** button to confirm the reset and to return to the basic screen.

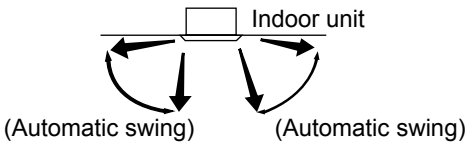


Operational Details and Functions

There are two types of airflow direction settings.

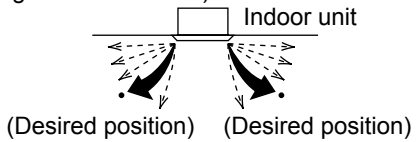
Airflow direction swing

The louvers automatically oscillate up and down.



Airflow direction

You can select from one of five fixed directions. (This has no relation to the angle of the louvers.)



Movement of airflow direction louver

Under the operating conditions shown next, airflow direction is controlled automatically. Actual operation may be different than what is displayed on the remote controller.

Menu Options

Operating condition

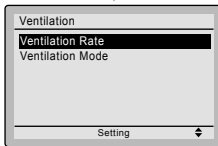
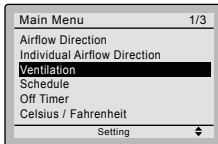
- Room temperature is higher than the remote controller's setpoint (in heating operation).
- When defrosting (in heating operation).
(The airflow discharges horizontally to avoid creating a draft for the room occupants.)
- Under continuous operation with the airflow discharging horizontally.

Ventilation

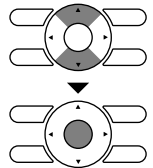
■ Ventilation screen display properties

Operation

1



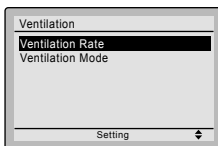
- Display the main menu screen.
(See page 22.)
- Press ▼▲ buttons to select **Ventilation** on the main menu screen.
(For models with no ventilation function, **Ventilation** will not be displayed on the main menu screen.)
Press **Menu/OK** button to display the ventilation screen.



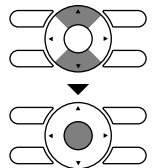
■ Changing the ventilation rate

Operation

1



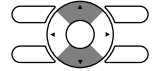
- Navigate to the ventilation screen
(see above).
- Press ▼▲ buttons to select **Ventilation Rate** on the ventilation screen.
Press **Menu/OK** button to display the ventilation rate screen.



2



- Press ▼▲ buttons to toggle between the **Low** and **High** settings.



* Only modes that can be set are displayed.

3

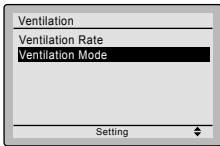
- Selecting and confirming the desired ventilation rate will take you back to the basic screen.
(Pressing **Cancel** button takes you back to the previous screen without changing the ventilation rate.)



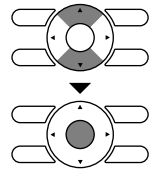
■ Changing the ventilation mode

Operation

1



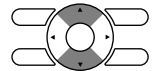
- Display the ventilation screen.
(See page 28.)
- Press ▼▲ buttons to select **Ventilation Mode** on the ventilation screen.
Press **Menu/OK** button to display the ventilation mode screen.



2



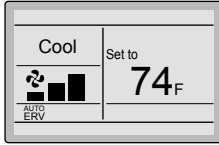
- Pressing ▼▲ buttons cycles through the settings in the order shown below.



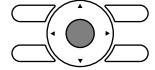
* Only modes that can be set are displayed.

Menu Options

3



- Selecting and confirming the desired ventilation mode will take you back to the basic screen.
(Pressing **Cancel** button takes you back to the previous screen without changing the ventilation mode.)



Ventilation Mode

Auto mode

Using information from the indoor unit (cool, heat, fan, and setpoint) and the energy recovery ventilator unit (indoor and outdoor temperatures), the ventilation mode is automatically changed between ERV and Bypass.

ERV mode

Outside air is passed through the ERV core and is supplied to the conditioned space.

Bypass mode

Outside air is supplied to the conditioned space without passing through the ERV core.

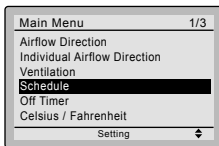
Schedule

■ Setting the schedule

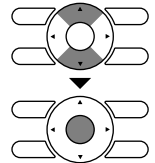
Operation

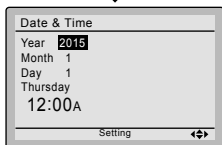
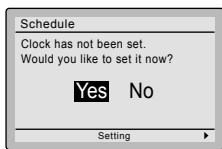
The schedule will disappear when a multizone controller is connected, but can be re-enabled by the system installer.

1

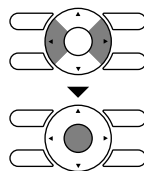


- Display the main menu screen.
(See page 22.)
- Press ▼▲ buttons to select **Schedule** .
Press **Menu/OK** button to display the schedule screen.

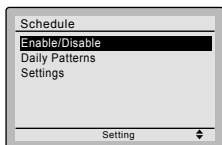




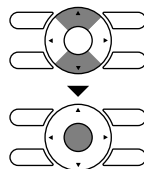
- Before setting the schedule, the clock must be set.
- If the clock has not been set, a screen like the one on the left will appear. Press ◀▶ buttons to select **Yes** and press **Menu/OK** button.
- The date & time screen will appear.
- Set the current year, month, day, and time. (See clock settings on page 42.)



2



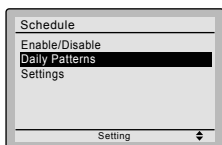
- Press ▼▲ buttons to select the desired function on the schedule screen and press **Menu/OK** button.



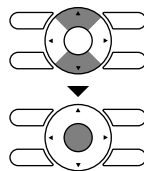
■ Daily Patterns

Operation

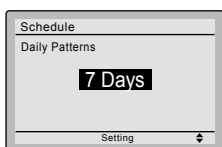
1



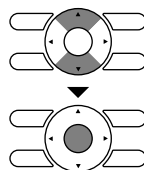
- The schedule screen will appear.
- Press ▼▲ buttons to select **Daily Patterns** on the schedule screen. The daily patterns screen will appear when **Menu/OK** button is pressed.



2

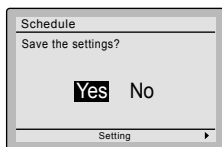


- Press ▼▲ buttons to select **7 Days**, **Weekday/Weekend**, **Weekday/Sat/Sun** or **Everyday** on the daily patterns screen. The confirmation screen will appear when **Menu/OK** button is pressed.

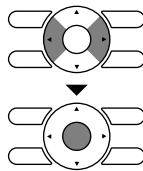


Menu Options

3



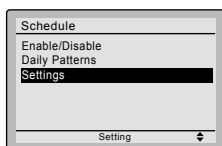
- Press ◀▶ buttons to select **Yes** on the confirmation screen.
- Pressing **Menu/OK** button enters the daily patterns in the schedule and takes you back to the main menu screen.



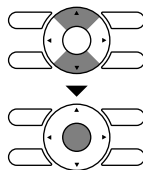
■ Settings

Operation

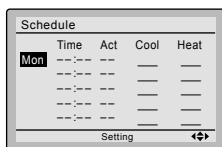
1



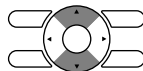
- The schedule screen will appear.
- Press ▼▲ buttons to select **Settings** on the schedule screen.
- The settings screen will appear when **Menu/OK** button is pressed.



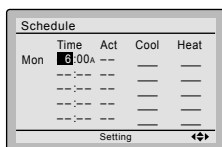
2



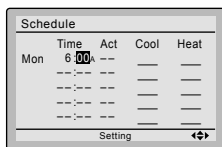
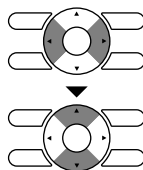
- Press ▼▲ buttons to select the day to be set.
- * It cannot be selected in the case of **EVDY**.



3

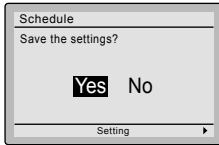


- Input the time for the selected day.
- Press ◀▶ buttons to move the highlighted item and press ▼▲ buttons to input the desired operation start time. Each press of ▼▲ buttons moves the numbers by 1 hour or 1 minute.

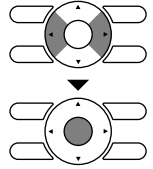


Menu Options

6



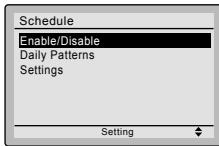
- Press ◀▶ buttons to select **Yes** on the confirmation screen. Pressing **Menu/OK** button confirms the settings for each day and takes you back to the basic screen.



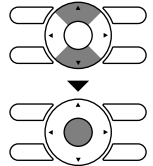
Enabling or disabling the schedule

Operation

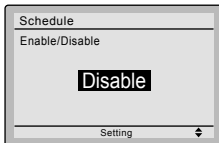
1



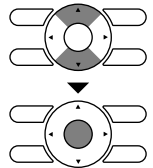
- Display the schedule screen. (See page 30.)
- Press ▼▲ buttons to select **Enable / Disable** on the schedule screen. Press **Menu/OK** button to display the enable/disable screen.



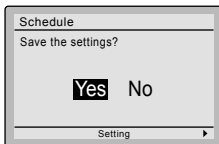
2



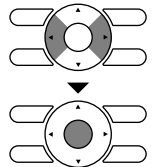
- Press ▼▲ buttons to select **Enable** or **Disable** on the enable/disable screen. Press **Menu/OK** button after selecting the item. The confirmation screen is displayed.



3



- Press ◀▶ buttons to select **Yes** on the confirmation screen. Pressing **Menu/OK** button confirms the enable/disable setting for the schedule and takes you back to the basic screen.

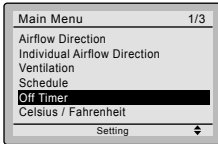


Off Timer

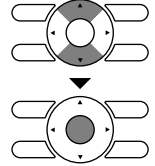
■ Configuring and Confirming the Off Timer settings

Operation

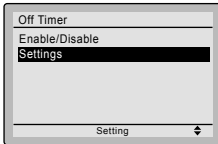
1



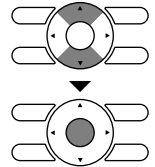
- Display the main menu screen.
(See page 22.)
- Press ▼▲ buttons to select the **Off Timer** on the main menu screen. Press **Menu/OK** button to display the off timer screen.



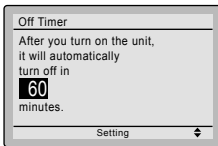
2



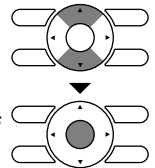
- Press ▼▲ buttons to select **Settings** on the off timer screen. Press **Menu/OK** button to display the configuration screen.



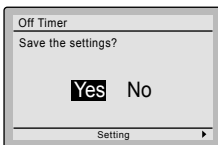
3



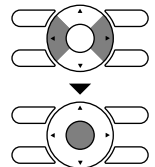
- Use ▼▲ buttons to set the time from operation start until the unit automatically stops. Selections can be made in increments of 10 minutes from 30 to 180 minutes. Holding down the button causes the number to change continuously.
- Select the desired time and press **Menu/OK** button. The confirmation screen will appear.



4



- Press ◀▶ button to select **Yes** on the confirmation screen. Pressing **Menu/OK** button confirms the off timer and takes you back to the basic screen.



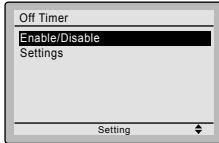
Menu Options



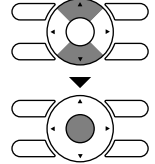
Enabling or disabling the off timer

Operation

1



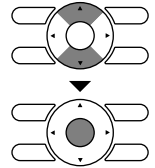
- Navigate to the off timer screen.
(See page 35.)
- Press **▼▲** buttons to select **Enable/Disable** on the off timer screen. Press **Menu/OK** button to display the enable/disable screen.



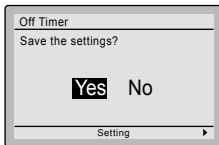
2



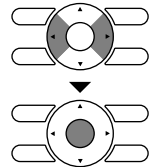
- Press **▼▲** buttons to select **Enable** or **Disable** on the enable/disable screen. Press **Menu/OK** button after selecting the item. Then the confirmation screen is displayed.



3



- Press **◀▶** button to select **Yes** on the confirmation screen. Pressing **Menu/OK** button confirms the enable/disable for the off timer and takes you back to the basic screen.

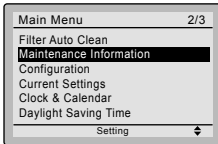


Maintenance Information

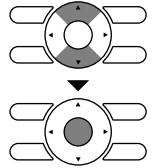
■ Displaying the service contact and model information

Operation

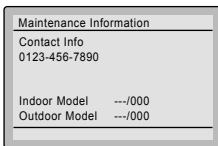
1



- Display the main menu screen.
(See page 22.)
- Press ▼▲ buttons to select **Maintenance Information** on the main menu screen and press **Menu/OK** button.



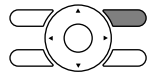
2



- The phone number for the contact is displayed at the top of the screen.
(If it has not yet been entered, it will not be displayed.)
- The model information of the indoor and outdoor units for your product will be displayed on the bottom of the screen.
(For some models the product code may be displayed.)

* The model name will not be displayed if the indoor unit PCB has been replaced.

* The error code history may also be displayed. If the Operation lamp is not flashing, the unit is working properly. The error code history is no longer displayed if you press **On/Off** button for more than 4 seconds.



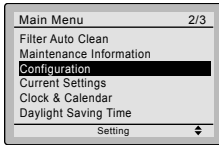
Menu Options

Configuration

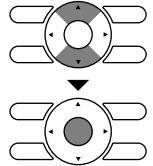
■ Draft Prevention

Operation

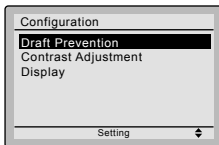
1



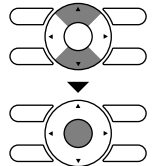
- Display the main menu screen.
(See page 22.)
- Press ▼▲ buttons to select **Configuration** and press **Menu/OK** button.



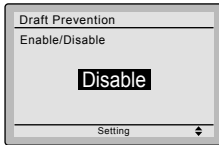
2



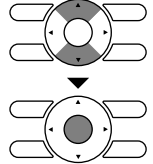
- Press ▼▲ buttons to select **Draft Prevention** and press **Menu/OK** button.



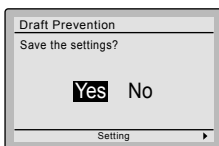
3



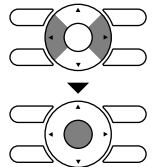
- Press ▼▲ buttons to select **Enable** or **Disable**.
- The confirmation screen will appear when **Menu/OK** button is pressed.



4



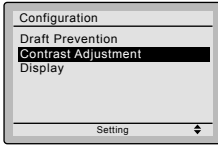
- Press ◀▶ buttons to select **Yes**.
- Press **Menu/OK** button to confirm the settings and to return to the basic screen.



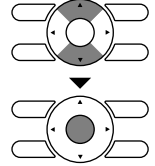
■ Contrast Adjustment

Operation

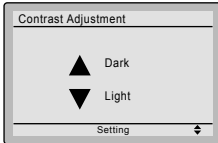
1



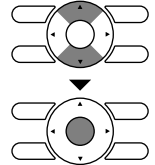
- Navigate to the configuration screen.
(See page 38.)
- Press ▼▲ buttons to select **Contrast Adjustment** on the configuration screen.
Press **Menu/OK** button to display the contrast adjustment screen.



2



- On the contrast adjustment screen press ▼▲ buttons until you reach the desired contrast.
After setting, press **Menu/OK** button and return to the basic screen.



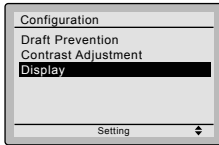
Menu Options

■ Display

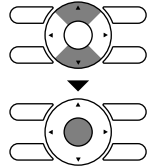
Display Mode

Operation

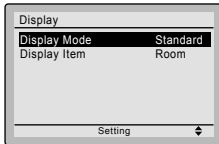
1



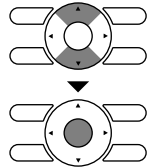
- Navigate to the configuration screen.
(See page 38.)
- Press ▼▲ buttons to select **Display** on the configuration screen. Press **Menu/OK** button to display the display screen.



2



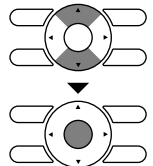
- Press ▼▲ buttons to select **Display Mode** on the display screen. Press **Menu/OK** button to display the display mode screen.



3



- Press ▼▲ buttons to select **Standard**, **Detailed** or **Simple** on the display screen.
- Press **Menu/OK** button to confirm the settings and return to the basic screen.

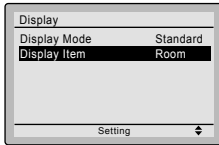


* Refer to **Display Item** to change the selectable display item for Detailed and Simple display modes. (See page 41.)

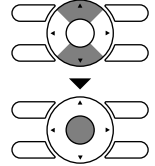
Display Item

Operation

1



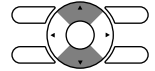
- Navigate to the display screen.
(See page 40.)
- Press ▼▲ buttons to select **Display Item** on the display screen. Press **Menu/OK** button to display the display item screen.



2



- Pressing ▼▲ buttons displays the following.



* Some models may not display these items even if they are selected.

- Be sure to read the following notes regarding display of room temperature and outside air temperature.

Room Temp

..... The temperature at the remote controller.

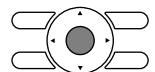
The temperature that is detected may be affected by the location of the remote controller.

Outside Air Temp

..... The temperature at the outdoor unit.

The temperature that is detected may be affected by factors such as the location of the unit (for example, if it is in direct sunlight) and unit operation during defrosting.

- After setting, press **Menu/OK** button to confirm settings and return to the basic screen.



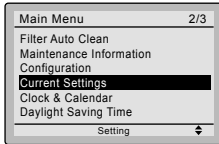
Menu Options

Current Settings

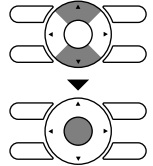
■ Confirming the current settings

Operation

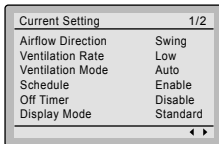
1



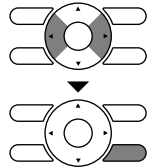
- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Current Settings** on the main menu screen and press **Menu/OK** button.



2



- A list showing the current setting status will appear. Press ◀▶ buttons to go to the next item.
- Pressing **Cancel** button takes you back to the main menu screen.



Display items	
Airflow Direction	Off Timer
Ventilation Rate	Display Mode
Ventilation Mode	Display Item
Schedule	Filter Auto Clean

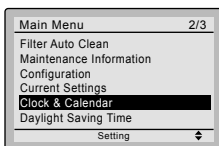
* Display items may differ depending on the model. Only the items that can be set are displayed.

Clock & Calendar

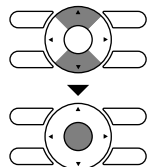
■ Date & Time

Operation

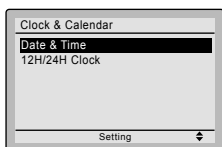
1



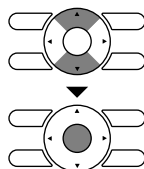
- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Clock & Calendar** on the main menu screen. Press **Menu/OK** button to display the clock & calendar screen.



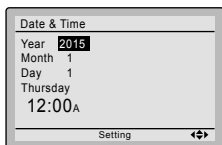
2



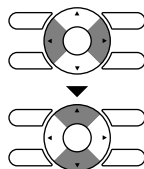
- Press ▼▲ buttons to select **Date & Time** on the clock & calendar screen. Press **Menu/OK** button to display the date & time screen.



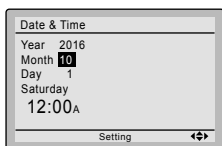
3



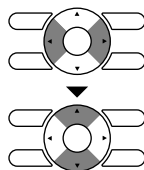
- Select **Year** with ◀▶ buttons. Change the year with ▼▲ buttons. Holding down the button causes the number to change continuously.



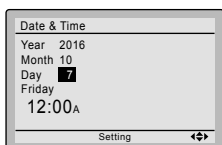
4



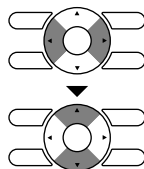
- Select **Month** with ◀▶ buttons. Change the month with ▼▲ buttons. Holding down the button causes the number to change continuously.



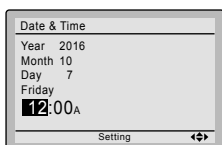
5



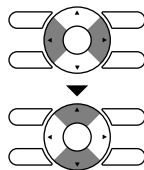
- Select **Day** with ◀▶ buttons. Change the day with ▼▲ buttons. Holding down the button causes the number to change continuously. Days of the week change automatically.



6

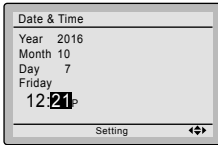


- Select **Hour** with ◀▶ buttons. Change the hour with ▼▲ buttons. Holding down the button causes the number to change continuously.

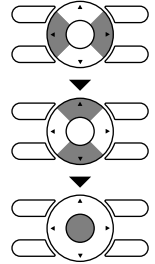


Menu Options

7



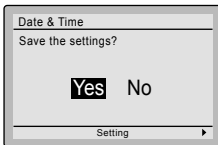
- Select **Minute** with ◀▶ buttons. Change the minute with ▼▲ buttons. Holding down the button causes the number to change continuously.
- Press **Menu/OK** button. The confirmation screen will appear.



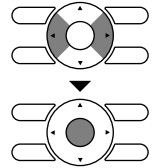
Note:

The date can be set between January 1, 2015 and December 31, 2099.

8



- Press ◀▶ button to select **Yes** on the confirmation screen. Press **Menu/OK** button to confirm the clock and return to the basic screen.

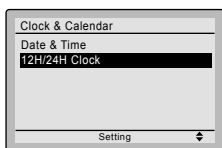


* When setting the schedule, the display returns to the settings screen.

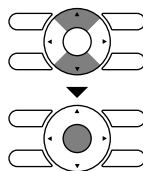
■ 12H/24H CLOCK

Operation

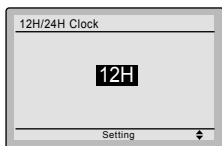
1



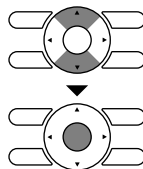
- Display the clock & calendar screen. (See page 42.)
- Press ▼▲ buttons to select **12H/24H Clock** on the clock & calendar screen. The 12H/24H clock screen will appear when **Menu/OK** button is pressed.



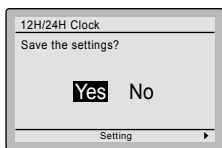
2



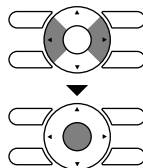
- By default, the time display is set to the 12H format.
- Press ▼▲ buttons to select **12H** **24H** on the 12H/24H clock screen.
 - The confirmation screen will appear when **Menu/OK** button is pressed.



3



- Press ◀▶ buttons to select **Yes** on the confirmation screen. Pressing **Menu/OK** button confirms the 12H or 24H and takes you back to the basic screen.

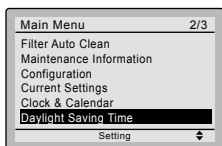


Daylight Saving Time

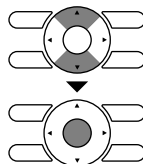
■ How to display Daylight Saving Time

Operation

1



- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Daylight Saving Time** on the main menu screen. Press **Menu/OK** button to display the daylight saving time screen.

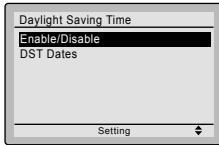


Menu Options

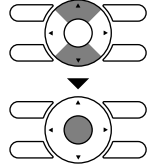
Enabling or disabling Daylight Saving Time

Operation

1



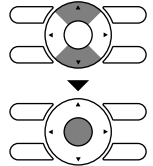
- Display the daylight saving time screen. (See page 45.)
- Press ▼▲ buttons to select **Enable/Disable** on the daylight saving time screen. Press **Menu/OK** button to display the enable/disable screen.



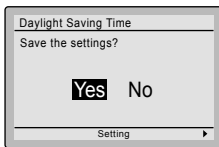
2



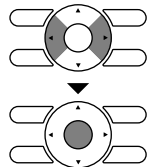
- Press ▼▲ buttons to select **Enable** or **Disable** on the enable/disable screen.
- Press **Menu/OK** button to display the setting confirmation screen.



3



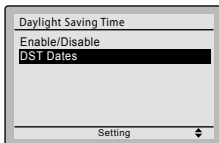
- Press ◀▶ buttons to select **Yes** on the setting confirmation screen. Pressing **Menu/OK** button confirms the daylight saving time enable/disable setting and takes you back to the basic screen.



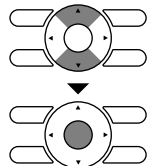
Setting the date

Operation

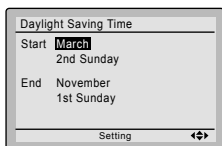
1



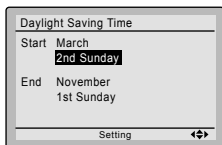
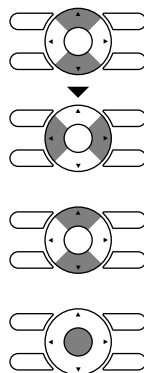
- Display the daylight saving time screen. (See page 45.)
- Press ▼▲ buttons to select **DST Dates** on the daylight saving time screen. Press **Menu/OK** button to display the duration setting screen.



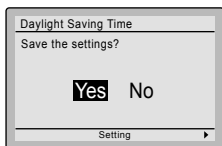
2



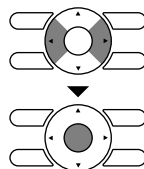
- Press ▼▲ buttons to select the start month and the end month.
- Press ◀▶ buttons to select the start week and the end week.
- After setting the Start and End dates, press **Menu/OK** button to display the setting confirmation screen.



3



- Press ◀▶ buttons to select **Yes** on the setting confirmation screen. Pressing **Menu/OK** button confirms the Daylight Saving Time settings and takes you back to the basic screen.



When Daylight Saving Time is enabled

When the time in the remote controller reaches 2:00 a.m. on the specified start date, the clock is automatically set forward by one hour. When the time in the remote controller reaches 2:00 a.m. on the end date, the clock is automatically set back by one hour.

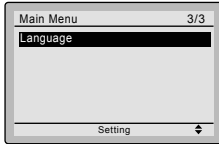
Menu Options

Language

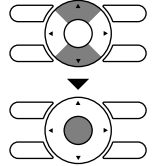
■ Selectable Languages

Operation

1



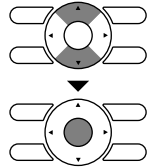
- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Language** on the main menu screen and press **Menu/OK** button.



2



- Press ▼▲ buttons to select the preferred language on the language screen. **English/Français/Español** are available.
- Press **Menu/OK** button to confirm the settings and return to the basic screen.

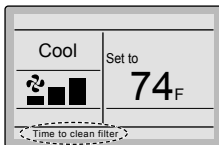


Maintenance

Reset Filter Indicator

Operation

1



- When it is time to clean or replace the filter, one of the following messages will be displayed on the bottom of the basic screen.

Time to clean filter

Time to clean filter & element

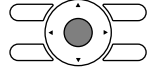
Time to clean element

* This is not displayed when Simple display is set.

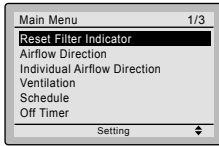
- Wash, clean, or replace the filter or element.
For details, refer to the operation manual supplied with the indoor unit.

2

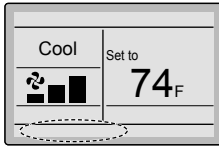
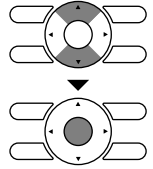
- Reset the filter indicator when the filter or element is cleaned or replaced.
- Press **Menu/OK** button.
The main menu screen will be displayed.



3



- Press **▼▲** buttons to select **Reset Filter Indicator** on the main menu screen and press **Menu/OK** button.



- The displayed message “Time to clean filter” is no longer displayed on the basic screen when the filter sign is reset.

Maintaining the Unit and LCD Display

- Wipe the LCD and surface of the remote controller with a dry cloth when they become dirty.
- If the dirt on the surface cannot be removed, soak the cloth in neutral detergent diluted with water, squeeze the cloth tightly, and clean the surface. Wipe the surface with a dry cloth.

Note

- Do not use any paint thinner, organic solvent, or strong acid.

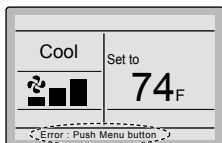
Reference Information

Error Code Display

■ Contact your Daikin dealer in the following cases

Operation

1



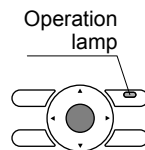
- If an error occurs, either one of the following items will flash in the basic screen.

Error: Push Menu button

- * The Operation lamp will flash.
- * For Simple display, the message is not displayed, and only the Operation lamp flashes.

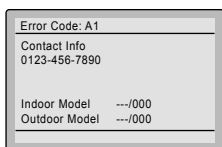
Warning: Push Menu button

- * The Operation lamp will not flash.
- * For Simple display, the message is not displayed, and the Operation lamp does not flash, either.



- Press **Menu/OK** button.

2



- The error code will flash and the service contact and model name or code may be displayed.
- Notify your Daikin dealer of the Error code and model name or code.

After-sale Service



Warning

- **Do not relocate or reinstall the remote controller by yourself.**

Improper installation may result in electric shocks or fire.
Consult your Daikin dealer.



■ Advise your Daikin Dealer of the following items

- Model name
- Date of installation
- Failure conditions: As precise as possible.
- Your address, name, and telephone number

■ Repairs after Warranty Period

Consult your Daikin dealer.

■ Inquiry about After-sale Service

Contact your Daikin dealer.

Table des matières

Notifications	Précautions de sécurité Articles devant être strictement observés 2
	Emplacement des boutons et leur description 4
Fonctionnement de base	Fonctionnements Rafraîchissement/Chauffage/ Automatique/Ventilateur 10
	Mode Sec 13
	Mode absence 14
	Mode de ventilation 15
	Régler la permutation sous commande pour rafraîchissement / Chauffage 16
	Verrouillage de la clé 19
Référence rapide	Articles du menu principal 20
Options du menu	Naviguer dans l'écran du menu principal 22
	Direction flux d'air 23
	Direction indiv flux d'air 25
	Ventil 28
	Programmation 30
	Arrêt automatique 35
	Information Maintenance 37
	Fonctions pratiques 38
	Liste des états de réglage 42
	Heure & calendrier 42
	Heure d'été 45
	Langue 48
Entretien	Réinitialiser voyant filtre 48
	Entretenir l'unité et l'écran à affichage à cristaux liquides 49
Informations à fournir	Affichage des codes d'erreur 50
	Service après-ventes 51

Précautions de sécurité




Les instructions originales sont écrites en anglais. Toutes les autres langues sont des traductions des instructions originales.

Lisez attentivement ces **PRÉCAUTIONS DE SÉCURITÉ** avant d'utiliser la télécommande.





Formez le client à utiliser et à entretenir la télécommande.






Informez les clients qu'ils doivent conserver ce Manuel d'Utilisation avec le manuel d'installation pour information.

Signification des symboles de **AVERTISSEMENT** et de **ATTENTION**:







 AVERTISSEMENT	Si ces instructions ne sont pas correctement respectées, cela peut entraîner des blessures ou la mort.
 ATTENTION	Si ces instructions ne sont pas correctement respectées, cela peut entraîner des dommages matériels ou des blessures pouvant être sérieuses en fonction des circonstances. Ils peuvent être aussi utilisés pour mettre en garde contre des manipulations imprudentes.
 REMARQUE	Si ces instructions ne sont pas correctement respectées, cela peut entraîner des dommages à l'équipement ou aux biens seulement.





- Les pictogrammes suivants sont utilisés dans ce manuel.

	Ne jamais faire.		Suivez toujours les instructions données.
	Gardez absolument toute eau et humidité au loin.		Évitez absolument les mains mouillées.

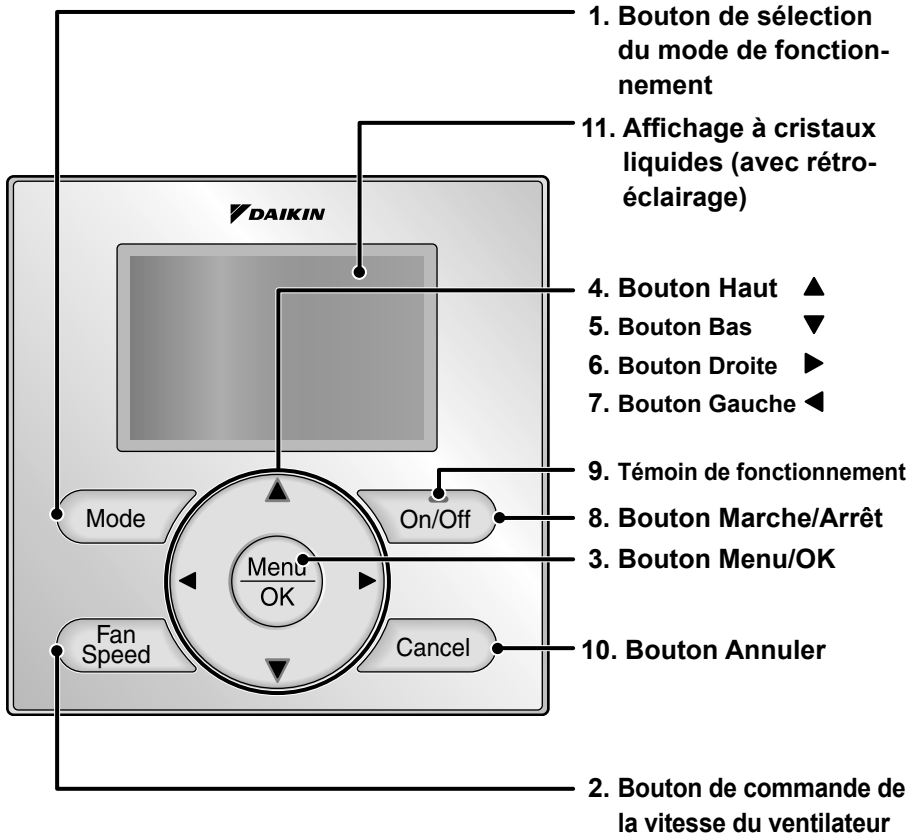
 AVERTISSEMENT	
	<ul style="list-style-type: none">• Ne modifiez pas ou ne réparez pas la télécommande. Consultez votre revendeur Daikin pour toute modification ou réparation.
	<ul style="list-style-type: none">• Ne transférez pas ou ne réinstallez pas la télécommande vous-même. Une mauvaise installation peut entraîner des décharges électriques ou un incendie. Consultez votre revendeur Daikin pour tout transfert ou réinstallation.
	<ul style="list-style-type: none">• Ne pas utiliser de matériaux inflammables (vaporisateur pour cheveux ou insecticide, par exemple) à proximité de la télécommande. Ne pas nettoyer le produit avec des solvants organiques comme du diluant pour peinture. L'utilisation de solvants organiques peut entraîner l'endommagement par fissuration du produit, des décharges électriques ou un incendie.
	<ul style="list-style-type: none">• Consultez le revendeur si la télécommande a été submergée par de l'eau à cause d'un désastre naturel tels qu'une inondation ou un ouragan. Dans ce cas, ne pas utiliser la télécommande sinon un mauvais fonctionnement, une décharge électrique ou un incendie peuvent se produire.

—Articles devant être strictement observés—

 ATTENTION	
	<ul style="list-style-type: none"> • Ne pas laisser les enfants jouer avec la télécommande afin d'éviter tout endommagement du produit.
	<ul style="list-style-type: none"> • Ne démontez jamais la télécommande. Toucher les pièces internes pourraient avoir pour conséquence des décharges électriques ou un incendie. Consultez votre revendeur Daikin pour les vérifications et les ajustements internes.
	<ul style="list-style-type: none"> • Ne pas toucher les boutons de la télécommande avec des doigts mouillés. Toucher les boutons avec des doigts mouillés peut causer une décharge électrique.
	<ul style="list-style-type: none"> • Ne lavez pas la télécommande. Cela peut provoquer des fuites électriques et entraîner des décharges électriques ou un incendie.
	<ul style="list-style-type: none"> • Ne jamais laisser la télécommande dans un endroit où elle pourrait être mouillée. L'eau peut endommager la télécommande et peut causer une décharge électrique ou un incendie.

 REMARQUE	
	<ul style="list-style-type: none"> • N'appuyez jamais sur le bouton de la télécommande avec un objet dur et pointu. Vous pourriez endommager la télécommande.
	<ul style="list-style-type: none"> • Ne tirez ou ne tordez jamais le fil électrique de la télécommande. Cela pourrait causer un mauvais fonctionnement de l'unité.
	<ul style="list-style-type: none"> • N'essayez pas la télécommande avec de la benzine, du diluant, un chiffon chimique, etc. Ceci pourrait causer une décoloration de la télécommande ou un écaillage du revêtement. Si elle est très sale, plongez un chiffon dans un détergent neutre dilué avec de l'eau, essorez-le bien et essuyez la télécommande jusqu'à ce qu'elle soit bien propre. Et essuyez-la avec un autre chiffon sec.

Emplacement des boutons et leur description



Les fonctions autres que les articles de fonctionnement de base (c'est-à-dire Marche/Arrêt, Mode de fonctionnement, Vitesse du ventilateur et Consigne température) sont réglées depuis l'écran des menus.

REMARQUE

- Ne laissez pas la télécommande dans un endroit exposé aux rayons directs du soleil, car l'écran LCD sera endommagé.
- Ne tirez pas et ne tordez pas le cordon de la télécommande, car la télécommande pourrait être endommagée.
- N'utilisez pas d'objets avec des extrémités coupantes pour appuyer sur les boutons de la télécommande; cela pourrait causer des dommages.

1. Bouton de sélection du mode de fonctionnement

- Appuyez sur ce bouton pour sélectionner votre mode de fonctionnement préféré. **(Reportez-vous à la page 10.)**
* Les modes disponibles varient en fonction des modèles d'unité intérieure.

2. Bouton de commande de la vitesse du ventilateur

- Appuyez sur ce bouton pour sélectionner votre vitesse de ventilateur préférée. **(Reportez-vous à la page 11.)**
* Les vitesses du ventilateur disponibles varient selon le modèle d'unité intérieure.

3. Bouton Menu/OK

- Utilisé pour entrer dans le menu principal. **(Reportez-vous à la page 20 pour les articles du menu.)**
- Bouton utilisé pour entrer l'option de réglage sélectionné.

4. Bouton Haut ▲

- Bouton utilisé pour augmenter le réglage de la température.
- L'élément au-dessus de la sélection en cours sera mis en surbrillance. (Les éléments en surbrillance défilent continuellement lorsque le bouton est maintenu enfoncé.)
- Bouton utilisé pour changer l'élément sélectionné.

5. Bouton Bas ▼

- Bouton utilisé pour baisser le réglage de la température.
- L'élément sous la sélection en cours sera mis en surbrillance. (Les éléments en surbrillance se défilent continuellement lorsque le bouton est maintenu enfoncé.)
- Bouton utilisé pour changer l'élément sélectionné.

6. Bouton Droite ►

- Ce bouton est utilisé pour mettre les articles du côté droit en surbrillance.
- Chaque écran se déroule vers la droite.

7. Bouton Gauche ◀

- Ce bouton est utilisé pour mettre les articles du côté gauche en surbrillance.
- Chaque écran se déroule vers la gauche.

8. Bouton Marche/Arrêt

- Appuyez sur ce bouton pour faire démarrer le système.
- Appuyez de nouveau sur ce bouton pour arrêter le système.

9. Témoin de fonctionnement

- Cette lampe s'illumine d'un vert brillant lors d'un fonctionnement normal.
- La lampe clignote si une erreur se produit.

10. Bouton Annuler

- Ce bouton est utilisé pour retourner à l'écran précédent.

11. Affichage à cristaux liquides (avec rétro-éclairage)

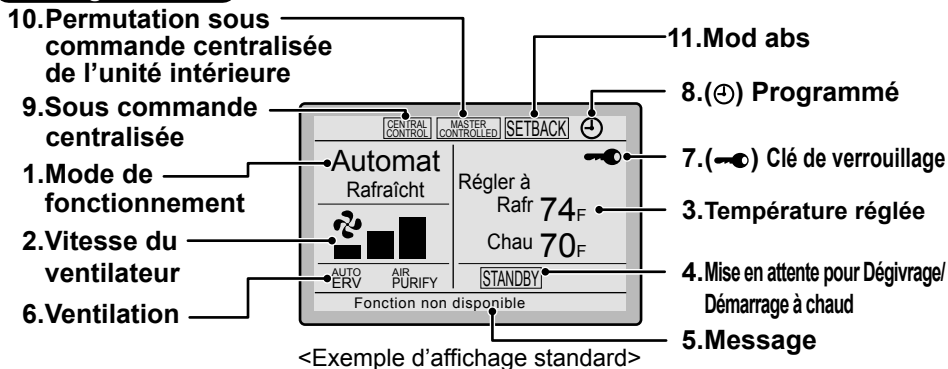
- Le rétro-éclairage s'allume pendant environ 30 secondes en appuyant sur n'importe quel bouton.
- Si deux télécommandes sont utilisées pour contrôler une seule unité intérieure, seule la télécommande accédée en premier aura la fonctionnalité de rétroéclairage.

Noms et fonctions

Affichage à cristaux liquides

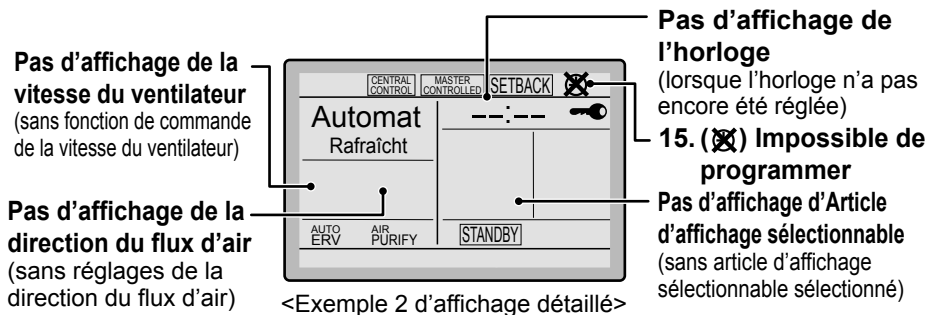
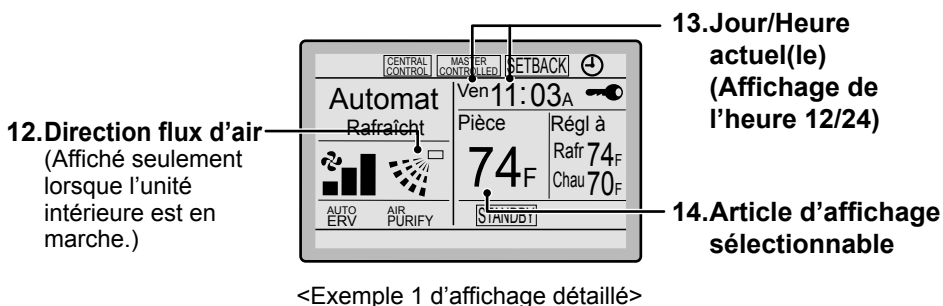
- Trois types de mode d'affichage (Standard, Détaillé et Simple) sont disponibles.
- L'affichage standard est réglé par défaut.
- Des affichages Détaillé et Simple peuvent être sélectionnés dans le menu principal.
(Reportez-vous à la page 40.)

Affichage standard

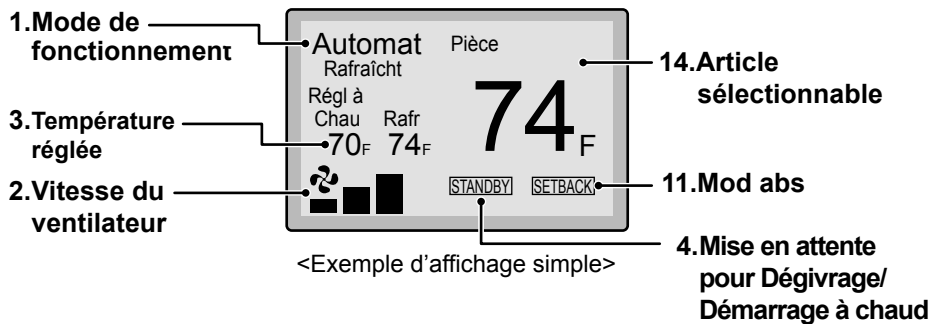


Affichage détaillé

- La direction du flux d'air, l'horloge et les objets sélectionnables apparaissent sur l'écran d'affichage Détaillé en addition des éléments apparaissant sur l'affichage Standard.



Affichage simple



Remarque pour tous les modes d'affichage

- Selon les réglages sur place, pendant que l'unité intérieure est arrêtée, il est possible que ARRET (OFF) s'affiche au lieu du mode de fonctionnement et/ou que la consigne de température ne s'affiche pas.

Noms et fonctions

1. Mode de fonctionnement

- Bouton utilisé pour afficher le mode de fonctionnement en cours: Rafrâicht, Chauffage, ventil, Ventilat, Sec ou Auto.
- En mode Auto, le mode de fonctionnement actuel (Rafrâicht ou Chauffage) sera aussi affiché.
- Le mode de fonctionnement ne peut pas être changé lorsque ARRET (OFF) est affiché. Le mode de fonctionnement peut être changé après avoir démarré le fonctionnement.

2. Vitesse du ventilateur

- Bouton utilisé pour afficher la vitesse du ventilateur réglée pour l'unité intérieure.
- La vitesse du ventilateur n'est pas affichée si le modèle connecté n'est pas muni d'une fonction de commande de vitesse du ventilateur.

3. Température réglée

- Bouton utilisé pour afficher la température réglée de l'unité intérieure.
- Utilisez les paramètres Centigrade/Fahrenheit dans le menu principal pour sélectionner l'unité de température (Centigrade ou Fahrenheit).

4. Mise en attente du Dégivrage/ Démarrage à chaud “”

(Reportez-vous à la page 12.)

Si l'icône de la ventilation est affichée dans ce champ:

- Cela indique qu'une unité d'échangeur de chaleur total est connectée. Pour plus de détails, reportez-vous au manuel d'utilisation du ERV (Échangeur de chaleur total).

5. Message

Le message suivant pourrait être affiché. “Fonction non disponible”

- Ce message est affiché pendant quelques secondes lorsqu'un bouton de Fonctionnement est appuyé et si l'unité intérieure n'est pas munie de la fonction correspondante.
- Dans le cas d'un groupe de télécommande, le message ne s'affichera pas si au moins une des unités intérieures dispose de la fonction correspondante.

“Dysfonction: appuyez menu”

“Alerte: appuyez menu”

- Cet affichage apparaît si une erreur ou un avertissement sont détectés (reportez-vous à la page 50).



“Nettoyer le filtre”

“Nettoyer l'élément”

“Nettoyer le filtre/l'élément”

- Affichée comme un rappel lorsqu'il est temps de nettoyer le filtre et/ou un élément (reportez-vous à la page 48).

6. Ventilation

- Affiché lorsqu'un échangeur de chaleur total est connecté.
- L'icône Mode de ventilation. “ ERV BYPASS ” Ces icônes indiquent le mode de ventilation en cours (ERV seulement) (AUTOMATIQUE, ÉCHANGE DE CHALEUR, DÉRIVATION).
- L'icône Purification de l'air “ ” Cette icône indique que l'unité de purification de l'air (Optionnelle) est en train de fonctionner.

7. Clé de verrouillage

(Reportez-vous à la page 19.)

- Cet affichage s'affiche lorsque le verrouillage de la clé est réglé.

8. Programmé (Reportez-vous à la page 30.)

- Ceci est affiché si la Programmation ou l'Arrêt automatique sont activés.

9. Sous commande centralisée “”

- Ceci est affiché lorsque le système est sous le contrôle d'une télécommande multi-zone (Optionnelle) et que le fonctionnement du système via la télécommande est limité.

10. Permutations sous commande centralisée de l'unité intérieure

“ ” (VRV seulement)

- Ceci est affiché lorsqu'une autre unité intérieure a l'éligibilité de changer le mode de fonctionnement entre rafraîchissement et chauffage.

11. Mod abs “ **SETBACK** ”

(Reportez-vous à la page 14.)

- L'icône du mode absence clignote lorsque l'unité est mise en marche par la commande du mode absence.

12. Direction flux d'air “ **↻** ”

- Cet affichage s'affiche lorsque la direction du flux d'air et l'oscillation sont réglées (reportez-vous à la page 23).
- Si le modèle de l'unité intérieure connectée n'est pas muni de lames oscillantes, cet élément ne s'affichera pas.

13. Jour/Heure actuel(le) (Affichage de l'heure 12/24)

- Cet affichage s'affiche lorsque l'horloge est réglée (reportez-vous à la page 42).
- Si l'horloge n'est pas réglée, “ -- : -- ” s'affiche.
- Le système horaire des 12 heures est le format d'affichage par défaut.
- Sélectionnez l'option d'affichage des systèmes horaires des 12/24 heures dans le menu principal sous “Heure & calendrier”.

14. Article d'affichage sélectionnable

- La température de la pièce est sélectionnée par défaut.
- Pour d'autres choix, reportez-vous à la page 41.

15. ~~X~~ Impossible de programmer

- Ceci est affiché lorsque l'horloge a besoin d'être réglée.
- La fonction de programmation ne fonctionne pas à moins que l'horloge n'ait été réglée.

Fonctionnement de base

Fonctionnements Rafraîchissement/Chauffage/Automatique/Ventilateur (SkyAir et VRV)

Comment utiliser le manuel d'utilisation

Procédure de fonctionnement

Affichage des boutons de fonctionnement

Ceci explique la série d'opérations pour la télécommande. Utilisez les boutons selon la procédure.

Ceci affiche l'emplacement des boutons à utiliser.

Operation

Affichage de l'écran de fonctionnement

Cet affichage décrit les écrans qui sont affichés sur la télécommande en cours de fonctionnement.

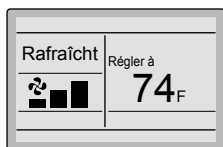
1		<ul style="list-style-type: none"> • Affichez l'écran du menu principal. (Reportez-vous à la page 22.) • Appuyez sur le bouton ▼ pour sélectionner Programmation. Appuyez sur le bouton Menu/OK pour afficher l'écran des réglages de la minuterie. 	
2		<ul style="list-style-type: none"> • L'horloge doit être réglée avant de régler la programmation. • Si l'horloge n'a pas été réglée, un écran comme celui montré à gauche apparaît. Appuyez sur les boutons ◀▶ pour sélectionner Oui et appuyez sur le bouton Menu/OK. • L'écran de la date et de l'heure apparaît. • Réglez l'année, le mois, le jour et l'heure en cours. (Reportez-vous aux réglages de l'horloge à la page 42.) 	

Préparation

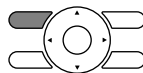
- Pour des raisons de protection mécanique, mettez l'unité extérieure en marche au moins six heures avant le démarrage du fonctionnement du système.

Fonctionnement

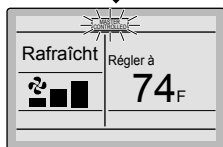
1



- Appuyez plusieurs fois sur le bouton **Mode** jusqu'à ce que le mode désiré Rafraîchit, Chauffage, Ventilat ou Auto soit sélectionné.



* Les modes de fonctionnement qui ne sont pas disponibles ne sont pas affichés.



Remarque

- Les deux modes chauffage et refroidissement peuvent ne pas être sélectionnés si l'unité est contrôlée centralement. Reportez-vous à la page 16 si l'icône MASTER CONTROLLED clignote.

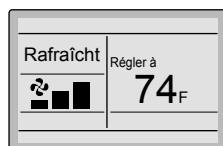
2



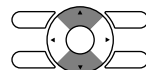
- Appuyez sur le bouton **On/Off**.
Le voyant de fonctionnement s'illuminera d'un vert brillant et le système commencera à fonctionner.



3

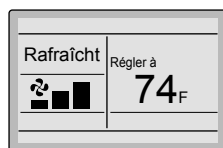


- Le réglage de la température augmente de 1°F (ou 1°C) lorsque le bouton ▲ est appuyé et il diminue de 1°F (ou 1°C) quand le bouton ▼ est appuyé.

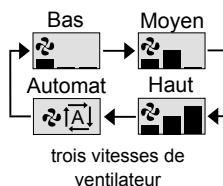


* Aucun réglage de température n'est disponible en mode ventilateur ou sec.

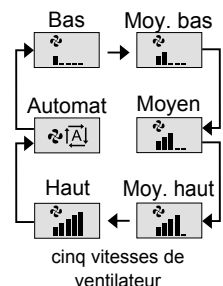
4



- Pour changer la vitesse du ventilateur, appuyez sur le bouton de **Commande de la vitesse du ventilateur** et sélectionnez la vitesse de ventilateur parmi :



- Bas/Haut/Automat pour deux vitesses
 - Bas/Moyen/Haut/Automat pour trois vitesses
 - Bas/Moy. bas/Moyen/Moy. haut/Haut/Automat pour cinq vitesses
- selon le modèle de l'unité intérieure.



- * Le système peut changer la vitesse de ventilateur automatiquement dans but de protéger le matériel.
- * Le système pourrait arrêter le ventilateur lorsque la température de la pièce est atteinte.
- * Il est normal qu'un délai se produise lors du changement de vitesse du ventilateur.
- * Si Auto est sélectionné pour la vitesse du ventilateur, la vitesse varie automatiquement en fonction de la différence entre la température réglée et celle de la pièce.

Fonctionnement de base

5

- Réglez la direction du flux d'air depuis le menu principal (reportez-vous à la page 23).

* Si l'unité intérieure raccordée n'a pas de volet oscillant, cette fonction ne sera pas disponible.

6



- Lorsque le bouton **On/Off** est à nouveau appuyé, le système arrêtera de fonctionner et le voyant de fonctionnement s'éteindra.



* Lorsque le système est arrêté en mode de fonctionnement chauffage, le ventilateur continue de fonctionner pendant environ une minute afin d'éliminer la chaleur de l'unité intérieure.

Remarque

- Pour prévenir des dommages dus à l'eau de condensation ou une défaillance du système, ne coupez pas l'alimentation électrique de l'unité intérieure immédiatement après le fonctionnement. Attendez au moins cinq minutes pour que la pompe de condensation ait fini de drainer l'eau résiduelle depuis l'unité intérieure.

Caractéristiques de fonctionnement du Mode Chauffage

Le système contrôle automatiquement les modes de fonctionnement suivants afin de prévenir la dégradation de la capacité de chauffage et de confort.

Fonctionnement du dégivrage

- Le système effectuera automatiquement l'opération de dégivrage pour empêcher l'accumulation de givre sur l'unité extérieure et la perte de capacité de chauffage qui s'ensuit.
- Le ventilateur de l'unité intérieure s'arrêtera, et " **STANDBY** " sera affiché sur la télécommande.
- Le système terminera l'opération de Dégivrage et retournera habituellement à la normale dans les six à huit minutes. Cela ne durera pas plus de dix minutes.

Démarrage à chaud

- Lorsque le système débute l'opération de chauffage, le ventilateur de l'unité intérieure fonctionnera avec un petit retard afin d'éviter un courant d'air froid.
(Dans ce cas, " **STANDBY** " sera affiché sur la télécommande.)

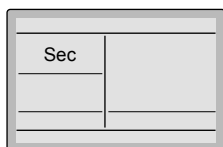
Mode Sec

Préparation

- Pour des raisons de protection mécanique, mettez en marche l'unité extérieure au moins six heures avant le démarrage du fonctionnement du système.
- Le mode sec peut ne pas pouvoir être sélectionné si la télécommande est contrôlée de manière centralisée et si le système n'est pas déjà en mode de fonctionnement de rafraîchissement. (reportez-vous à la page 18 pour plus de détails)

Fonctionnement

1



- Appuyez plusieurs fois sur le bouton **Mode** jusqu'à ce que le mode Sec soit sélectionné.



* Le mode sec peut ne pas être disponible en fonction du type d'unité intérieure.

2



- Appuyez sur le bouton **On/Off**. Le voyant de fonctionnement s'illuminera d'un vert brillant et le système commencera à fonctionner.



* En mode Sec, le système contrôle automatiquement la température et la vitesse du ventilateur. Par conséquent, les réglages de la température ou de la vitesse du ventilateur ne sont pas disponibles lorsque l'unité intérieure est en mode Sec.

3

- Réglez la Direction du flux d'air depuis le menu principal (reportez-vous à la page 23).

* Si l'unité intérieure raccordée n'a pas de volet oscillant, cette fonction ne sera pas disponible.

Fonctionnement de base

4



- Lorsque le bouton **On/Off** est à nouveau appuyé, le système arrêtera de fonctionner et le voyant de fonctionnement s'éteindra.

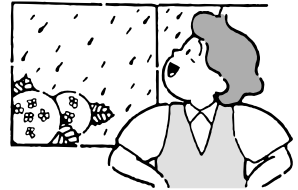


Remarque

- Pour prévenir des dommages dus à l'eau de condensation ou une défaillance du système, ne coupez pas l'alimentation électrique de l'unité intérieure immédiatement après le fonctionnement. Attendez au moins cinq minutes pour que la pompe de condensation finisse de rainer l'eau résiduelle depuis l'unité intérieure.

Caractéristique du mode Sec

Le mode Sec déshumidifie l'espace à une capacité de refroidissement réduite pour empêcher que la température de la pièce chute à un niveau inconfortable.



Mode absence

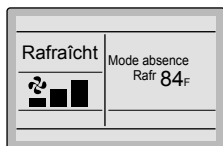
La fonction Mode absence peut être utilisée pour maintenir la température dans des limites assignées pendant une période d'inoccupation.

Remarque

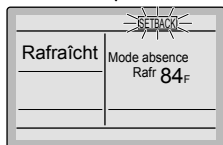
- Lorsqu'il est activé, le Mode absence devient actif lorsque l'unité intérieure est arrêtée que ce soit par l'utilisateur, un événement programmé ou l'arrêt automatique.
- Cette fonction n'est pas valable par défaut. Elle peut être activée par l'installateur du système.

Fonctionnement

1



- L'icône du mode absence clignote lorsque l'unité est mise en marche via la commande du mode absence.



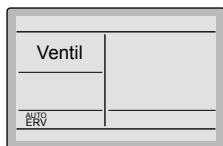
Mode de ventilation Lorsque l'unité intérieure est enclenchée avec l'Échangeur de Chaleur Total

Préparation

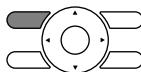
- Pour des raisons de protection mécanique, mettez en marche l'unité extérieure au moins six heures avant le démarrage du fonctionnement du système.

Fonctionnement

1



- Lors du fonctionnement de l'Échangeur de Chaleur Total (ERV) entre les saisons sans l'unité intérieure, réglez la commande sur le mode ventilation.



2

- Les Changements du mode de ventilation se font depuis le menu principal.

* Mode Ventilation: Automatique, Échange de chaleur, et Dérivation

3

- Les changements de vitesse de ventilation se font depuis le menu principal.

* Taux de ventilation: Bas ou Haut

Fonctionnement de base

4



- Appuyez sur le bouton **On/Off**.
Le voyant de fonctionnement s'illuminera d'un vert brillant et le système commencera à fonctionner.



5



- Lorsque le bouton **On/Off** est à nouveau appuyé, le système arrêtera de fonctionner et le voyant de fonctionnement s'éteindra.



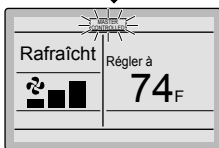
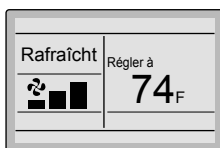
Régler la permutation sous commande pour rafraîchissement / Chauffage

(VRV seulement)

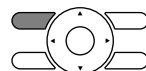
Reportez-vous à la page 18 pour une explication de la permutation sous commande des modes rafraîchissement/chauffage de l'unité intérieure.

Changement des réglages

1



- Appuyez sur le bouton de **Mode** de la télécommande de la Permutation sous commande de l'unité intérieure pendant au moins quatre secondes pendant que le rétro-éclairage est allumé.
- L'icône "MASTER CONTROLLED" sur chaque télécommande pour les unités intérieures connectées à la même unité extérieure ou à l'unité Sélection de branche commence à clignoter.



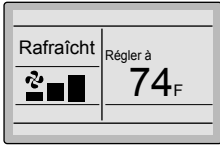
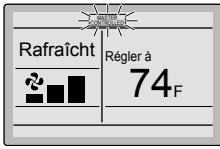
- * Les changements de réglage du mode Vent sont possibles quelque soit l'éligibilité de la sélection rafraîchissement/chauffage de l'unité intérieure.
- * Si l'unité extérieure est configurée en tant que maître pour la permutation refroidissement/chauffage, toutes les télécommandes utilisées pour les unités intérieures associées afficheront son icône "MASTER CONTROLLED".

- Réglez l'éligibilité de la sélection rafraîchissement/chauffage de l'unité intérieure comme expliqué ci-dessous.

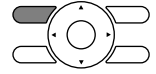
L'icône "MASTER CONTROLLED" clignote sur toutes les télécommandes lorsque l'alimentation est mise en marche pour la première fois.

Changement des réglages

2

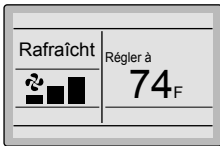


- Appuyez sur le bouton de **Mode** de la télécommande de l'unité intérieure qui doit servir de maître pour la permutation rafraîchissement/chauffage.

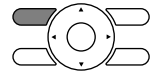


La télécommande pour l'unité intérieure servant de maître pour la permutation est effective et l'icône "MASTER CONTROLLED" cesse de s'afficher. Les autres télécommandes du système (unités intérieures alimentées par la même unité extérieure ou unités intérieures alimentées par la même unité de sélection de branche) affichent alors l'icône "MASTER CONTROLLED".

3



- Appuyez plusieurs fois sur le bouton **Mode** de la télécommande de l'unité intérieure désignée comme maître pour la permutation rafraîchissement/chauffage (télécommande n'affichant pas l'icône "MASTER CONTROLLED") jusqu'à ce que le mode désiré soit sélectionné. L'affichage change à **Ventilat, Sec, Automot, Rafraîchit, Chauffage** à chaque pression sur le bouton.
- Les autres unités intérieures du système suivent alors l'exemple et changent automatiquement l'affichage en fonction du nouveau mode sélectionné par la permutation de télécommande.



Fonctionnement de base

Eligibilité de la sélection du mode rafraîchissement / chauffage

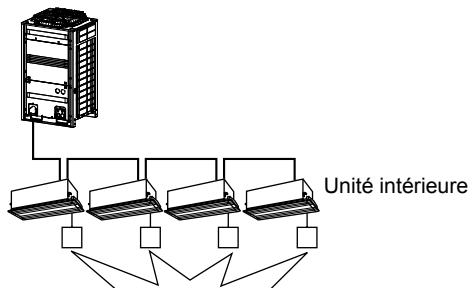
- "Rafraîchit", "Chauffage", et "Automat" ne sont utilisables que pour la sélection sur l'unité intérieure servant de maître pour la permutation rafraîchissement/chauffage. Le tableau suivant indique les modes de fonctionnement disponibles pour les autres unités d'intérieures du système en fonction du mode sélectionné sur l'unité intérieure primaire.

Lorsque l'unité intérieure primaire est réglée	Les autres unités intérieures du système peuvent être réglées			
	Rafraîchit	Sec	Chauffage	Ventilat
En mode Rafraîchissement	✓	✓		✓
En mode Séchage	✓	✓		✓
En mode Chauffage			✓	✓
En mode Ventilation				✓
En mode Auto (fonctionnement du rafraîchissement)	✓	✓		✓
En mode Auto (fonctionnement du chauffage)			✓	✓

Précautions pour sélectionner la permutation sous commande pour rafraîchissement / chauffage

- La permutation sous commande pour rafraîchissement/Chauffage doit être réglé pour une seule unité intérieure dans les applications suivantes

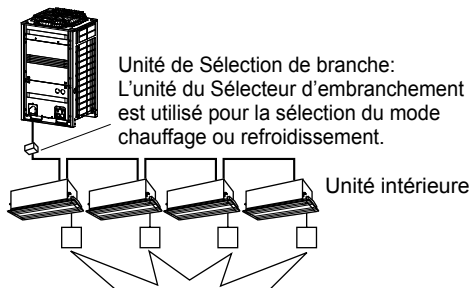
(système de thermopompe à 2 tuyaux)



Un nombre d'unités intérieures connectées à une unité extérieure simple.

Installez n'importe laquelle des unités intérieures comme maître de la permutation sous commande pour rafraîchissement/chauffage.

(système d'échangeur de chaleur total à 3 tuyaux)



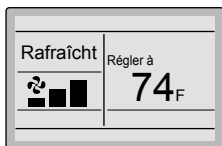
Plusieurs unités intérieures sont connectées à une seule unité de Sélection de branche.

Installez n'importe laquelle des unités intérieures comme maître de la permutation sous commande pour rafraîchissement/chauffage.

Verrouillage de la clé

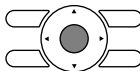
Fonctionnement Confirmez et annulez les réglages du verrouillage de la clé sur l'écran d'affichage basique.

1

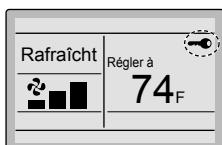



Ecran de base

- Appuyez sur le bouton **Menu/OK** pendant au moins quatre secondes pendant que le rétro-éclairage est allumé.



2



- “” s’affiche. Tous les boutons sont invalidés lorsque les clés sont verrouillées.
- Pour annuler le mode verrouillage de la clé, continuez à appuyer sur le bouton **Menu/OK** pendant au moins quatre secondes pendant que le rétro-éclairage est allumé.

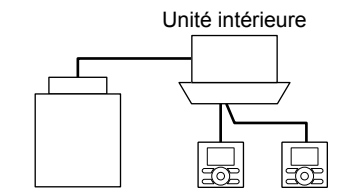
Référence rapide

■ Le menu principal présente les articles suivants.

Les options du menu		Description	Page de référence
Direction flux d'air		<p>Cet article est utilisé pour effectuer les réglages de la direction du flux d'air.</p> <ul style="list-style-type: none"> Les mouvements des lames de la direction du flux d'air sont automatiquement effectuée vers le haut et vers le bas (gauche et droite). Les directions du flux d'air fixées sont réglées sur cinq positions. <p>* Cette fonction n'est pas disponible sur tous les modèles d'unités intérieures.</p>	23
Direction indiv flux d'air (dépend du modèle d'unité intérieure)	Réglage des volets	<p>Réglez la direction du flux d'air pour chacun des 4 volets.</p> <ul style="list-style-type: none"> Maximum de 16 unités (unité 0 à 15). 	25
	Liste des régl. des volets	Tableau des réglages pour les volets.	26
	Réinit. Posit. tous volets	Réinitialisez tous les volets aux valeurs d'usine.	27
Ventil (Réglages du fonctionnement de la ventilation pour l'échangeur de chaleur total)	Taux de ventilation	Mode utilisé pour régler sur "Bas" ou "Haut"	28
	Mode de ventilation	Mode utilisé pour régler sur "Auto", "Ech chal" ou "Dérivat".	29
Programmation	Définir semaine	<ul style="list-style-type: none"> Les réglages du jour sont sélectionnés parmi quatre modèles, par exemple : "7 jours", "5 jours/Weekend", "5 jours/Sam/Dim", et "Quotidien". 	31
	Réglages paramètres	<ul style="list-style-type: none"> Réglez l'heure de démarrage et l'heure d'arrêt du fonctionnement. ON: Les réglages de l'heure du démarrage du rafraîchissement et de la température du chauffage peuvent être paramétrés. OFF: L'heure d'arrêt du fonctionnement du rafraîchissement et le réglage de la température du chauffage en mode absence peuvent être paramétrés. (--: indique que le mode absence est désactivé durant cette période de temps.) ___: Ceci indique que le réglage de la température et de la température du mode absence pour cette période n'est pas spécifié. Le dernier réglage actif sera utilisé. Jusqu'à cinq actions par jour peuvent être réglées. 	32
Arrêt automatique		<p>Utilisé pour régler le temps de marche pour l'unité intérieure en utilisant la télécommande.</p> <ul style="list-style-type: none"> Il est possible de régler par incrément 10 minutes, de 30 à 180 minutes. 	35
Centigrade / Fahrenheit		<ul style="list-style-type: none"> Ceci est utilisé pour sélectionner l'unité de température, Centigrade ou Fahrenheit à afficher. 	—

Les options du menu		Description	Page de référence
Réglage auto filtre		Réglez l'heure à laquelle le filtre a besoin d'être nettoyé automatiquement. Pour le fonctionnement détaillé reportez-vous au manuel d'utilisation du panneau de décoration autonettoyant.	—
Contact / modèle		Affichage utilisé pour afficher les informations de maintenance.	37
Configuration	Protect auto courant air (Disponible seulement sur les modèles d'unité intérieure avec détecteur Occ. installé)	La prévention des courants d'air peut être activée ou désactivé . Lorsqu'elle est activée, le détecteur Occ. ajustera la position du volet pour éviter que l'air souffle directement sur l'occupant.	38
	Réglage du contraste	Ce réglage est utilisé pour effectuer l'ajustement du contraste de l'affichage à cristaux liquides.	39
	Afficher permutation	Utilisé pour régler le mode d'affichage. <ul style="list-style-type: none"> • Mode d'affichage Affichage Standard, Détaillé ou Simple • Les affichages Détaillé et Simple fournissent les éléments d'affichage sélectionnable parmi Temp Pièce, Système, Aucun ou Temp ext. 	40
Liste des états de réglage		<ul style="list-style-type: none"> • Cet affichage est utilisé pour afficher une liste des réglages en cours pour les articles disponibles. 	42
Heure & calendrier	Date & heure	Cet affichage est utilisé pour régler ou modifier la date et l'heure. <ul style="list-style-type: none"> • L'affichage par défaut de l'horloge est celui du système des 12 heures. • L'exactitude de l'horloge est de ± 30 secondes par mois. • Si une panne de courant dont la durée n'excède pas 48 heures se produit, l'horloge continue de fonctionner à l'aide de l'alimentation électrique de secours intégrée. 	42
	Régl heure (12H/24H)	L'heure peut être affichée soit au format de 12 heures, soit au format de 24 heures.	45
Heure d'été		Réglage utilisé pour régler l'horloge en accord avec l'heure d'été.	45
Langue		La langue d'affichage peut être sélectionnée parmi Anglais, Français, et Espagnol .	48

Remarque: Les options de réglages disponibles varient en fonction du modèle d'unité intérieure.

Options du menu de la télécommande secondaire		
Si deux télécommandes sont utilisées pour contrôler une seule unité intérieure, les éléments du menu suivant ne sont pas réglés avec la télécommande secondaire. Dans ce cas, les éléments suivants devront être configurés avec la télécommande principale.		 <p>Unité intérieure</p> <p>Unité extérieure</p> <p>Méthode d'affichage du menu principal</p>
<ul style="list-style-type: none"> • Direction indiv flux d'air • Programmation • Arrêt automatique 	<ul style="list-style-type: none"> • Mod abs • Protect auto courant air 	

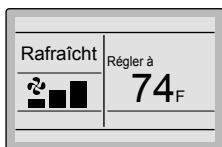
Options du menu

Naviguer dans l'écran du menu principal

■ Méthode d'affichage du menu principal

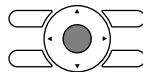
Fonctionnement

1

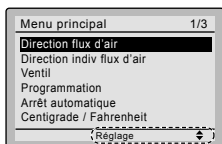


Ecran de base

- Appuyez sur le bouton **Menu/OK**.



2



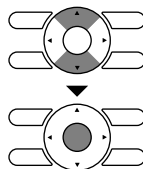
Ecran du menu principal

- Le menu principal est affiché.

⇐ Des Instructions pour naviguer dans le menu principal apparaîtront.

3

- Sélection des articles du menu principal.
 1. Appuyez sur les boutons ▼▲ pour sélectionner les articles désirés devant être réglés.
 2. Appuyez sur le bouton **Menu/OK** pour afficher les détails des options sélectionnées.



4

- Pour retourner à l'écran de base depuis le menu principal, appuyez sur le bouton **Annuler**.



Remarque

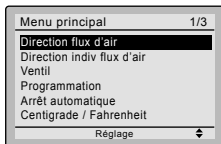
- Si aucun bouton n'est appuyé pendant 5 minutes durant le réglage, la télécommande retourne à l'écran de base.

Direction flux d'air

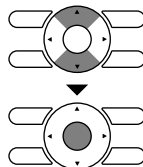
■ Configuration de Direction flux d'air

Fonctionnement

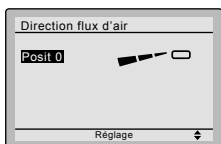
1



- Affichez l'écran du menu principal. (Reportez-vous à la page 22.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Direction flux d'air** et appuyez sur le bouton **Menu/OK**.

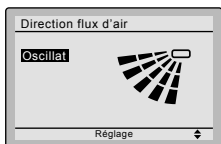
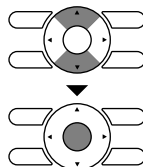


2



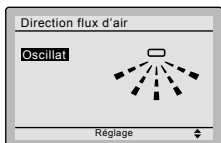
(1) Méthode d'ajustement lorsqu'il y a une direction du flux d'air unique.

- Sélectionnez la direction de flux d'air souhaitée entre **Posit 0**, **Posit 1**, **Posit 2**, **Posit 3**, **Posit 4**, **Oscillat** ou **Automat** en utilisant ▼▲ les boutons.



Réglage de la direction du flux d'air (haut/bas)

- Appuyez sur le bouton **Menu/OK** pour confirmer les réglages et pour retourner à l'écran de base.



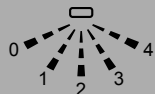
Réglage de la direction du flux d'air (gauche/droite)

Remarque

- Les directions du flux d'air apparaissent à l'écran comme suit :



Direction haut/bas



Direction gauche/droite

0 : Posit 0
1 : Posit 1
2 : Posit 2
3 : Posit 3
4 : Posit 4

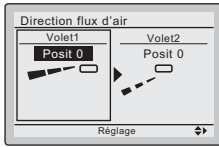
Notification

Ces opérations et écrans sont des exemples d'unités intérieures à direction de flux d'air unique.

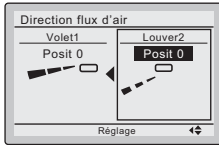
Cela est différent d'un modèle à cassette à débit unique.

Options du menu

3

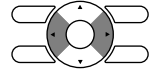


Lorsque la direction avant/arrière est sélectionnée.



Lorsque la direction gauche/droite est sélectionnée.

(2) Méthode d'ajustement pour la sélection de directions de flux d'air doubles.

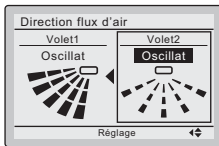
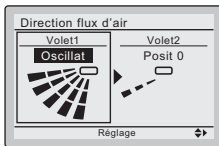
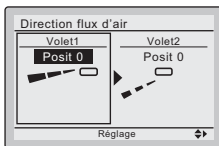


- Appuyez sur les boutons ◀▶ pour sélectionner le réglage de direction avant/arrière ou gauche/droite.

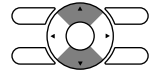
Notification

Ces opérations et écrans sont des exemples d'unités intérieures à directions de flux d'air doubles (Modèle à cassette à débit unique).

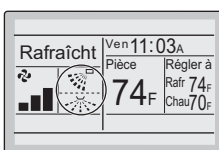
4



- Sélectionnez la direction de flux d'air souhaitée entre **Posit 0**, **Posit 1**, **Posit 2**, **Posit 3**, **Posit 4**, **Oscillat** ou **Automat** en utilisant les boutons ▼▲.
- La sélection de **Oscillat** provoquera une oscillation du volet de direction de la position 0 à 4.
- Le réglage **Automat** n'est pas disponible lorsque la direction gauche/droite est sélectionnée.
- Appuyez sur le bouton **Menu/OK** pour confirmer les réglages et pour retourner à l'écran de base.



5



Ecran de base
(Affichage détaillé)

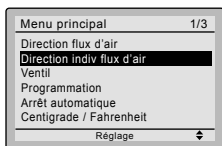
- Si des directions de flux d'air doubles sont établies, les icônes de direction de flux d'air double sont alors affichées sur l'écran de base.

Direction indiv flux d'air

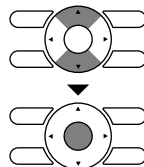
■ Réglage des volets

Fonctionnement

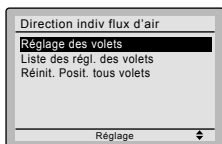
1



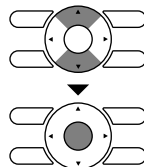
- Affiche l'écran du menu principal. (Reportez-vous à la page 22.)
- Sélectionnez **Direction indiv flux d'air** et appuyez sur le bouton **Menu/OK**.



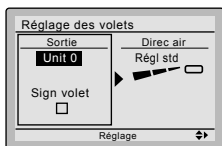
2



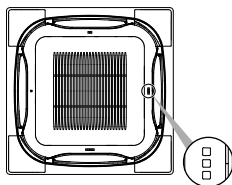
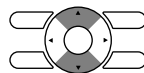
- Sélectionnez **Réglage des volets** et appuyez sur le bouton **Menu/OK**.



3



- Utilisez les boutons ▼▲ pour sélectionner l'unité et le signe de sortie.
- Un maximum de 16 unités pour chaque groupe (unité 0 à 15) peut être sélectionné.

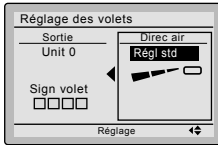


Remarque

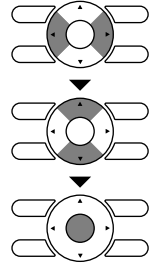
Dans le cas de quatre sorties (type cassette), vous pouvez contrôler individuellement chacun des quatre volets (les signes suivants sont à côté de chaque sortie d'air : □, □□, □□□, □□□□).

Options du menu

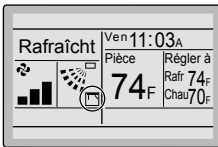
4



- Appuyez sur les boutons ◀▶ pour sélectionner la direction de flux d'air.
- Utilisez les boutons ▼▲ pour changer la direction de flux d'air comme suit : **Régl std** , **Posit 0** , **Posit 1** , **Posit 2** , **Posit 3** , **Posit 4** , **Oscillat** ou **Bloquée** .
Régl std : Pas réglage individuel des volets.
Bloquée : La direction individuelle du flux d'air est bloquée.
- Appuyez sur le bouton **Menu/OK** pour confirmer les réglages et retourner à l'écran de base.



5



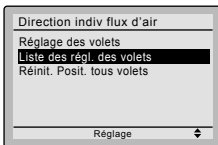
Ecran de base
(Affichage détaillé)

- Si des directions de flux d'air individuelles sont établies, l'icône de direction de flux d'air individuelle est alors affichée sur l'écran de base.

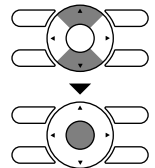
■ Liste des régl. des volets

Fonctionnement

1



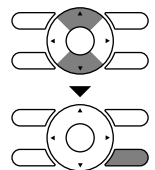
- Affiche l'écran de la direction individuelle du flux d'air. (Reportez-vous à la page 25.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Liste des régl. des volets** et appuyez sur le bouton **Menu/OK**.



2

Liste des régl. des volets		
Unit 0	Direc air	Indiv.
<input type="checkbox"/>	Posit 0	OFF
<input type="checkbox"/>	Posit 0	OFF
<input type="checkbox"/>	Posit 0	OFF
<input type="checkbox"/>	Posit 0	OFF

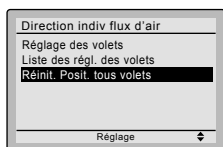
- Un tableau montre les réglages actuels. Appuyez sur les boutons ▼▲ pour aller à l'unité suivante.
- Appuyez sur le bouton **Annuler** pour revenir au menu précédent.



■ Réinit. Posit. tous volets

Fonctionnement

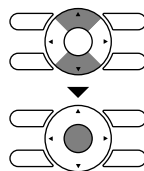
1



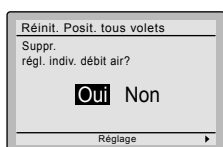
- Affiche l'écran de la direction de flux d'air individuelle.

(Reportez-vous à la page 25.)

- Appuyez sur les boutons ▼▲ pour sélectionner **Réinit. Posit. tous volets** et appuyez sur le bouton **Menu/OK**.

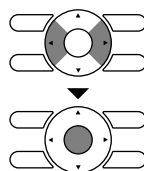


2



- Appuyez sur les boutons ◀▶ pour sélectionner **Oui**.

- Appuyez sur le bouton **Menu/OK** pour confirmer la réinitialisation et retourner à l'écran de base.

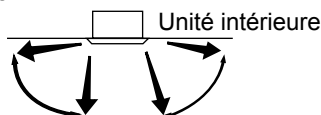


Détails des fonctionnements et des fonctions

Il y a deux types de réglages de la direction du flux d'air.

Oscillation de la direction du flux d'air

Les lames de la direction du flux d'air oscillent automatiquement vers le haut et vers le bas.

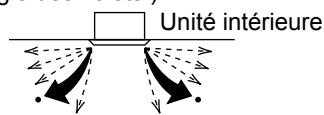


(Oscillation automatique)

(Oscillation automatique)

Direction du flux d'air

Vous pouvez sélectionner parmi cinq directions fixes. (Ceci n'a aucun rapport avec l'angle des volets.)



(Position désirée)

(Position désirée)

Mouvement des lames de la direction du flux d'air

Sous les conditions de fonctionnement montrées ensuite, la direction du flux d'air est contrôlée automatiquement. Le fonctionnement actuel peut être différent de ce qui est affiché sur la télécommande.

Options du menu

Conditions du fonctionnement

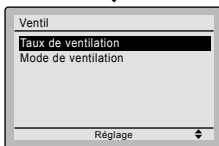
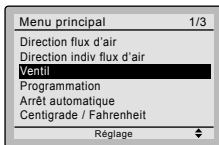
- La température ambiante est supérieure au réglage de la température de la télécommande (en mode chauffage).
- Lors du dégivrage (en mode chauffage).
(Le flux d'air souffle horizontalement de façon à ce que les occupants de la pièce ne soient pas dans le courant d'air froid.)
- En fonctionnement continu avec le flux d'air s'évacuant horizontalement.

Ventil

■ Propriétés de l'affichage de l'écran de réglage de la ventilation affichage

Fonctionnement

1



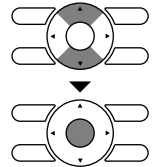
- Affichez l'écran du menu principal.

(Reportez-vous à la page 22.)

- Appuyez sur les boutons ▼▲ pour sélectionner **Ventil** sur l'écran du menu principal.

(Pour les modèles sans fonction de ventilation, **Ventil** ne s'affiche pas sur l'écran du menu principal.)

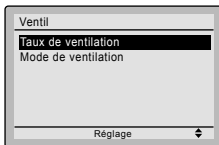
Appuyez sur le bouton **Menu/OK** pour afficher l'écran des réglages de la ventilation.



■ Changement du taux de ventilation

Fonctionnement

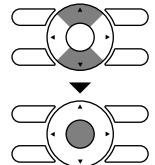
1



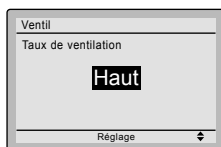
- Appelez l'écran des réglages de la ventilation (reportez-vous ci-dessus).

- Appuyez sur les boutons ▼▲ pour sélectionner **Taux de ventilation** sur l'écran des réglages de la ventilation.

Appuyez sur le bouton **Menu/OK** pour afficher l'écran des réglages du taux de ventilation.



2



- Appuyez sur les boutons ▼▲ pour changer le réglage dans l'ordre **Bas** et **Haut**.



* Seuls les modèles pouvant être réglés s'affichent.

3

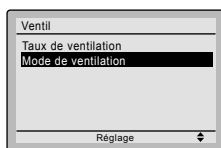
- Sélectionnez et entrez le taux de ventilation pour retourner à l'écran de base.
(Appuyez sur le bouton **Annuler** pour retourner à l'écran précédent sans changer le taux de ventilation.)



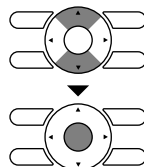
■ Changement du mode de ventilation

Fonctionnement

1



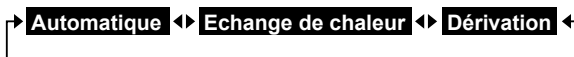
- Affichez l'écran des réglages de la ventilation. (Reportez-vous à la page 28.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Mode de ventilation** sur l'écran des réglages de la ventilation. Appuyez sur le bouton **Menu/OK** pour afficher l'écran des réglages du mode de ventilation.



2



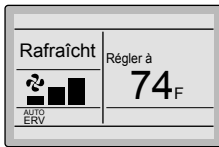
- Appuyez sur les boutons ▼▲ pour changer les réglages dans l'ordre comme montré ci-dessous.



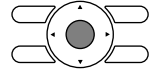
* Seuls les modèles pouvant être réglés s'affichent.

Options du menu

3



- Sélectionnez et entrez le mode de ventilation désiré pour retourner à l'écran de base.
(Appuyez sur le bouton **Annuler** pour retourner à l'écran précédent sans changer le mode de ventilation.)



Mode de ventilation

Mode Automatique

En utilisant les informations de l'unité intérieure (refroidissement, chauffage, ventilateur, et température réglée) et l'unité de l'échangeur de chaleur total (températures intérieures et extérieures), le mode de ventilation est changé automatiquement entre l'Échangeur de chaleur (ERV) et Dérivation.

Mode Echange de chaleur (Échangeur de chaleur total)

L'air extérieur passe par l'Echange de chaleur et est fourni à l'intérieur de l'espace climatisé.

Mode de Dérivation

L'air extérieur est fourni à l'intérieur de l'espace climatisé sans passer par l'Échangeur de chaleur.

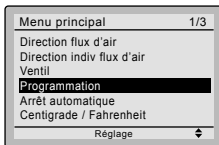
Programmation

■ Réglage de la programmation

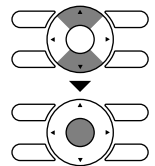
La programmation disparaîtra lorsqu'une télécommande multi-zone est connectée mais peut être réactivée par l'installateur du système.

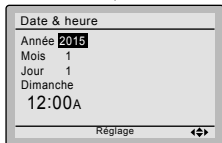
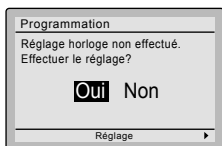
Fonctionnement

1

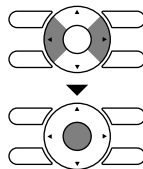


- Affichez l'écran du menu principal.
(Reportez-vous à la page 22.)
- Appuyez sur le bouton ▼▲ pour sélectionner **Programmation**.
Appuyez sur le bouton **Menu/OK** pour afficher l'écran des réglages de la minuterie.

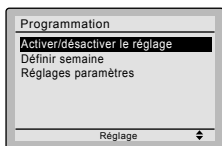




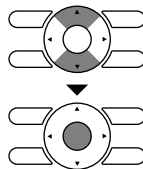
- L'horloge doit être réglée avant de régler la programmation.
- Si l'horloge n'a pas été réglée, un écran comme celui montré à gauche apparaît. Appuyez sur les boutons ◀▶ pour sélectionner **Oui** et appuyez sur le bouton **Menu/OK**.
- L'écran de la date et de l'heure apparaît.
- Réglez l'année, le mois, le jour et l'heure en cours. (Reportez-vous aux réglages de l'horloge à la page 42.)



2



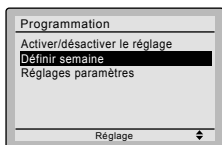
- Appuyez sur le bouton ▼▲ de l'écran de réglage de la programmation pour sélectionner la fonction désirée puis Appuyez sur le bouton **Menu/OK**.



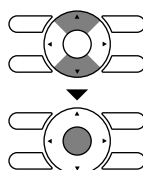
■ Définir semaine

Fonctionnement

1



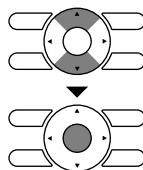
- L'écran de réglage de la programmation apparaît.
- Appuyez sur les boutons ▼▲ pour sélectionner **Définir semaine** sur l'écran de réglage de la programmation. L'écran de définition de la semaine apparaît lorsque le bouton **Menu/OK** est appuyé.



2

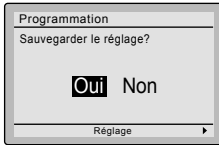


- Appuyez sur les boutons ▼▲ pour sélectionner **7 jours**, **5 jours/Weekend**, **5 jours/Sam/Dim** ou **Quotidien** sur l'écran de définition de la semaine. L'écran de confirmation des réglages apparaît lorsque le bouton **Menu/OK** est appuyé.

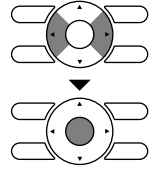


Options du menu

3



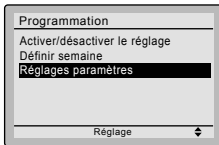
- Appuyez sur les boutons ◀▶ pour sélectionner **Oui** sur l'écran de confirmation des réglages. Appuyez sur le bouton **Menu/OK** pour entrer les paramètres du jour de la programmation et retourner à l'écran du menu principal.



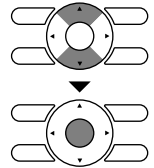
■ Réglages paramètres

Fonctionnement

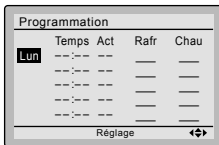
1



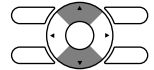
- L'écran de programmation apparaît.
- Appuyez sur les boutons ▼▲ pour sélectionner **Réglages paramètres** sur l'écran de programmation. L'écran de réglage des paramètres apparaît lorsque le bouton **Menu/OK** est appuyé.



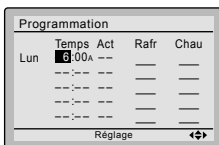
2



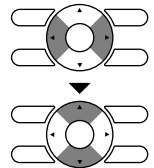
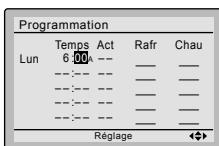
- Appuyez sur les boutons ▼▲ pour sélectionner le jour à paramétrer.
* Il ne peut pas être sélectionné dans le cas de **QUOT**.



3

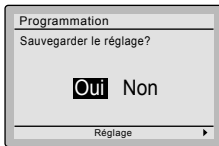


- Saisissez l'heure pour le jour sélectionné.
- Appuyez sur les boutons ◀▶ pour faire défiler le point de réglage en surbrillance et appuyez sur les boutons ▼▲ pour entrer l'heure de démarrage du fonctionnement désirée. Chaque pression sur les boutons ▼▲ déplace les nombres de 1 heure ou de 1 minute.

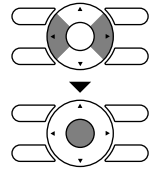


Options du menu

6



- Appuyez sur les boutons ◀▶ pour sélectionner **Oui** sur l'écran de confirmation des réglages. Appuyez sur le bouton **Menu/OK** pour entrer les réglages de chaque jour et pour retourner à l'écran de base.



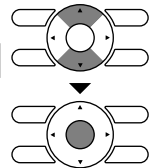
Validation ou invalidation de la programmation

Fonctionnement

1



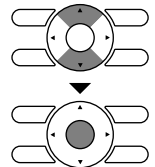
- Affichez l'écran de programmation. (Reportez-vous à la page 30.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Activer/désactiver le réglage** sur l'écran de programmation. Appuyez sur le bouton **Menu/OK** pour afficher l'écran de validation/invalidation.



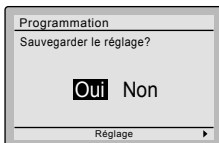
2



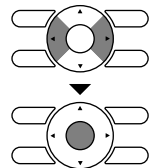
- Appuyez sur les boutons ▼▲ pour sélectionner **Validat** ou **Invalida** sur l'écran de validation/invalidation. Appuyez sur **Menu/OK** après avoir sélectionné l'article. L'écran de confirmation des réglages est affiché.



3



- Appuyez sur les boutons ◀▶ pour sélectionner **Oui** sur l'écran de confirmation de réglages. Appuyez sur le bouton **Menu/OK** pour entrer les réglages de validation/invalidation de la programmation et pour retourner à l'écran de base.

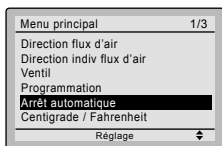


Arrêt automatique

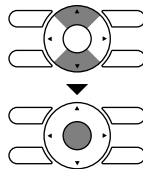
■ Régler et vérifier les réglages de la minuterie d'arrêt automatique

Fonctionnement

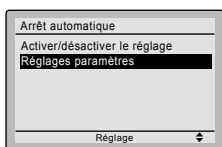
1



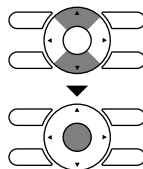
- Affichez l'écran du menu principal. (Reportez-vous à la page 22.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Arrêt automatique** sur l'écran du menu principal. Appuyez sur le bouton **Menu/OK** pour afficher l'écran des réglages de la minuterie de rappel d'arrêt.



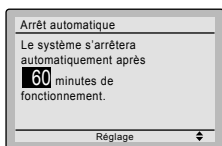
2



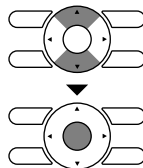
- Appuyez sur les boutons ▼▲ pour sélectionner **Réglages paramètres** sur l'écran des réglages de la minuterie d'arrêt automatique. Appuyez sur le menu **Menu/OK** pour afficher l'écran de réglage des paramètres.



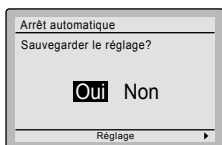
3



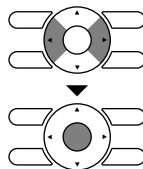
- Utilisez les boutons ▼▲ pour régler l'heure de démarrage du fonctionnement jusqu'à ce que l'unité s'arrête automatiquement. Les sélections peuvent s'effectuer par incrément de 10 minutes de 30 minutes à 180 minutes. Maintenez le bouton enfoncé pour que les nombres changent continuellement.
- Sélectionnez l'article désiré et appuyez sur le bouton **Menu/OK**. L'écran de confirmation des réglages apparaît.



4



- Appuyez sur les boutons ◀▶ pour sélectionner **Oui** sur l'écran de confirmation des réglages. Appuyez sur le bouton **Menu/OK** pour entrer les réglages de la minuterie de rappel d'arrêt et pour retourner à l'écran de base.



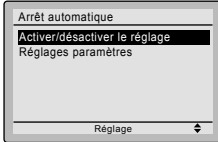
Options du menu



Valider ou invalider la minuterie d'arrêt automatique

Fonctionnement

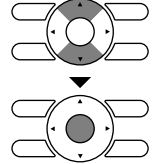
1



- Naviguer sur l'écran de réglage de la minuterie d'arrêt automatique.

(Reportez-vous à la page 35.)

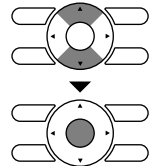
- Appuyez sur les boutons ▼▲ pour sélectionner **Activer/désactiver le réglage** sur l'écran de la minuterie d'arrêt automatique. Appuyez sur le bouton **Menu/OK** pour afficher l'écran de validation/invalidation.



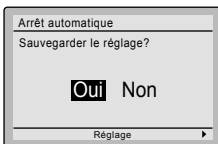
2



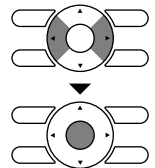
- Appuyez sur le bouton ▼▲ pour sélectionner **Validat** ou **Invalida** sur l'écran de validation/invalidation. Appuyez sur le bouton **Menu/OK** après avoir sélectionné l'article. L'écran de confirmation des réglages est affiché.



3



- Appuyez sur le bouton ◀▶ pour sélectionner **Oui** sur l'écran de configuration des réglages. Appuyez sur le bouton **Menu/OK** pour entrer la validation/l'invalidation de la minuterie d'arrêt automatique et pour retourner à l'écran de base.

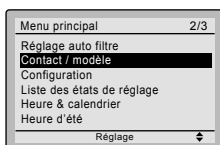


Information Maintenance

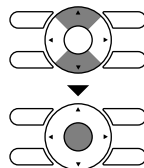
■ Affichez le service à contacter et les informations concernant le modèle

Fonctionnement

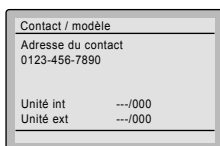
1



- Affichez l'écran du menu principal.
(Reportez-vous à la page 22.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Contact / modèle** sur l'écran du menu principal et appuyez sur le bouton **Menu/OK**.



2



- Le numéro de téléphone de l'adresse du contact s'affiche en haut de l'écran.
(S'il n'a pas encore été enregistré, il ne sera pas affiché.)
- Les informations du modèle des unités intérieures et extérieures de votre produit s'affichent en bas de l'écran.
(Pour certains modèles, le code du produit peut s'afficher.)

* Le nom du modèle ne s'affiche pas si la plaque des circuits de l'unité intérieure a été remplacée.

- * L'historique des codes d'erreur peut également s'afficher.
Si le voyant de fonctionnement ne clignote pas, l'unité fonctionne correctement.
L'historique des codes d'erreur ne s'affiche plus si vous appuyez sur le bouton **On/Off** pendant plus de 4 secondes.



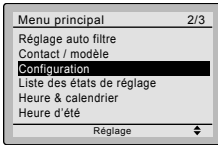
Options du menu

Fonctions pratiques

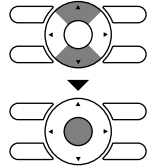
■ Protect auto courant air

Fonctionnement

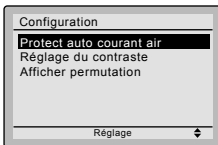
1



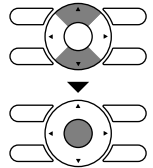
- Affiche l'écran du menu principal. (Reportez-vous à la page 22.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Configuration** et appuyez sur le bouton **Menu/OK**.



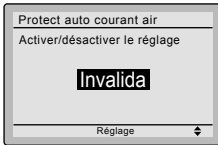
2



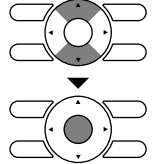
- Appuyez sur les boutons ▼▲ pour sélectionner **Protect auto courant air** et appuyez sur le bouton **Menu/OK**.



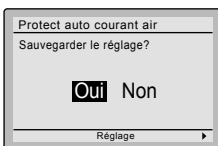
3



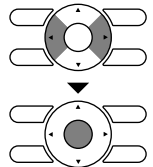
- Appuyez sur les boutons ▼▲ pour sélectionner **Validat** ou **Invalida**.
- L'écran de confirmation apparaîtra lorsque le bouton **Menu/OK** est appuyé.



4



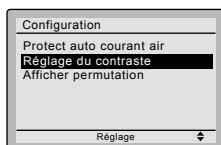
- Appuyez sur les boutons ◀▶ pour sélectionner **Oui**.
- Appuyez sur le bouton **Menu/OK** pour confirmer les réglages et pour retourner à l'écran de base.



■ Ajustement du contraste

Fonctionnement

1

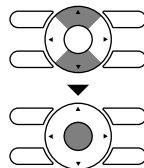


- Naviguer sur l'écran de réglage des fonctions pratiques.

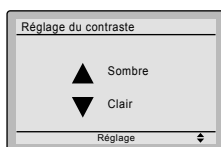
(Reportez-vous à la page 38.)

- Appuyez sur les boutons ▼▲ pour sélectionner **Réglage du contraste** sur l'écran de réglage des fonctions pratiques.

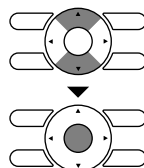
Appuyez sur le bouton **Menu/OK** pour afficher l'écran de réglage du contraste.



2



- Sur l'écran de réglage du contraste, appuyer sur les boutons ▼▲ jusqu'à ce que vous atteigniez le contraste désiré. Après avoir effectué les réglages, appuyez sur le bouton **Menu/OK** et retournez à l'écran de base.



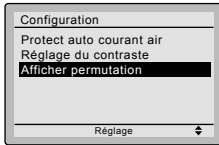
Options du menu

■ Afficher permutation

Affichage lecture

Fonctionnement

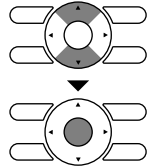
1



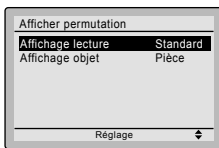
- Naviguer sur l'écran de réglage des fonctions pratiques.

(Reportez-vous à la page 38.)

- Appuyez sur les boutons ▼▲ pour sélectionner **Afficher permutation** sur l'écran de réglage de l'affichage. Appuyez sur le bouton **Menu/OK** pour afficher l'écran de réglage de l'affichage.

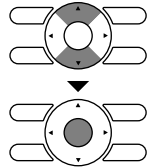


2

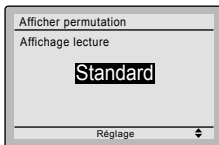


- Appuyez sur les boutons ▼▲ pour sélectionner **Affichage lecture** sur l'écran d'affichage.

Appuyez sur le bouton du **Menu/OK** pour afficher l'écran du mode d'affichage.



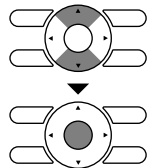
3



- Appuyez sur les boutons ▼▲ pour sélectionner **Standard**, **Détaillé** ou **Simple** sur l'écran de réglage de l'affichage.

- Appuyez sur le bouton **Menu/OK** pour confirmer les réglages et retourner à l'écran de base.

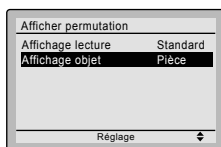
* Appelez **Affichage objet** pour changer l'article d'affichage sélectionnable pour les modes d'affichage Détaillé et Simple. (Reportez-vous à la page 41.)



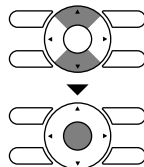
Affichage objet

Fonctionnement

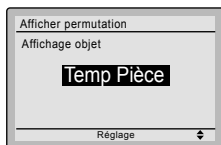
1



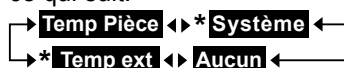
- Naviguer sur l'écran des options d'affichage. (Reportez-vous à la page 40.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Affichage objet** sur l'écran. Appuyez sur le bouton **Menu/OK** pour afficher les options d'affichage de l'écran.



2



- Appuyez sur les boutons ▼▲ pour afficher ce qui suit.



* Certains modèles peuvent ne pas afficher ces articles, même s'ils sont sélectionnés.

- Veillez à bien lire les remarques suivantes concernant l'affichage de la température ambiante et de la température extérieure.

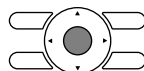
Temp Pièce

..... La température à proximité de la télécommande.
La température qui est détectée peut être affectée par l'emplacement de la télécommande.

Temp ext

..... La température à proximité de l'unité extérieure.
La température qui est détectée peut être affectée par des facteurs tels que l'emplacement de l'unité (si elle est dans les rayons directs du soleil, par exemple) et le fonctionnement de l'unité lors du dégivrage.

- Après avoir effectué les réglages, appuyez sur le bouton **Menu/OK** et retournez à l'écran de base.



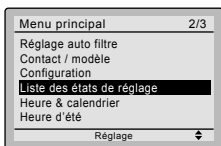
Options du menu

Liste des états de réglage

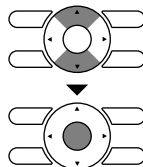
■ Confirmation des réglages actuels

Fonctionnement

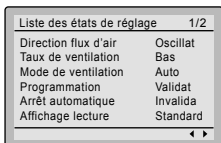
1



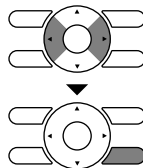
- Affichez l'écran du menu principal. (Reportez-vous à la page 22.)
- Appuyez les boutons ▼▲ **Liste des états de réglage** sur l'écran du menu principal et appuyez sur le bouton **Menu/OK**.



2



- Une liste montrant l'état de réglage en cours apparaît. Appuyez sur les ◀▶ pour passer à l'article suivant.
- Appuyez sur le bouton **Annuler** pour retourner à l'écran du menu principal.



Articles affichés

Direction flux d'air	Arrêt automatique
Taux de ventilation	Affichage lecture
Mode de ventilation	Affichage objet
Programmation	Réglage auto filtre

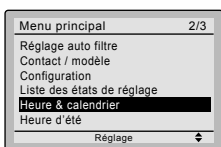
* Les articles affichés peuvent différer en fonction du modèle. Seuls les articles pouvant être réglés sont affichés.

Heure & calendrier

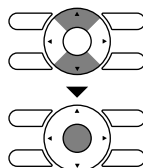
■ Date & heure

Fonctionnement

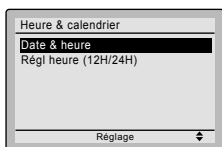
1



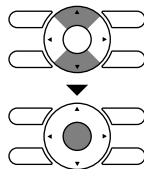
- Affichez l'écran du menu principal. (Reportez-vous à la page 22.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Heure & calendrier** sur l'écran du menu principal. Appuyez sur le bouton **Menu/OK** pour afficher l'écran de réglage de l'horloge et du calendrier.



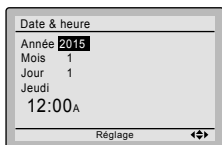
2



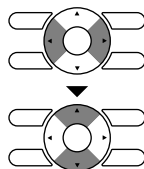
- Appuyez sur les boutons ▼▲ pour sélectionner **Date & heure** sur l'écran de réglage de l'horloge et du calendrier. Appuyez sur le bouton **Menu/OK** pour afficher l'écran de la date et de l'heure.



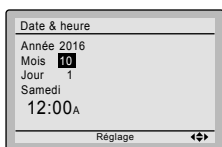
3



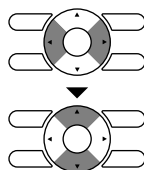
- Sélectionnez **Année** avec les boutons ◀▶. Sélectionnez l'année avec les boutons ▼▲. Maintenez le bouton enfoncé pour faire changer le nombre continuellement.



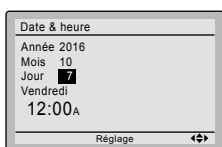
4



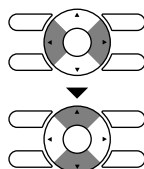
- Sélectionnez **Mois** avec les boutons ◀▶. Sélectionnez le mois avec les boutons ▼▲. Maintenez le bouton enfoncé pour faire changer le nombre continuellement.



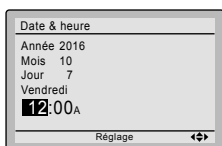
5



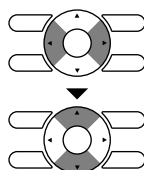
- Sélectionnez **Jour** avec les boutons ◀▶. Sélectionnez le jour avec les boutons ▼▲. Maintenez le bouton enfoncé pour faire changer le nombre continuellement. Les jours de la semaine changent automatiquement.



6

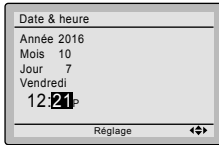


- Sélectionnez **Heure** avec les boutons ◀▶. Sélectionnez l'heure avec les boutons ▼▲. Maintenez le bouton enfoncé pour faire changer le nombre continuellement.

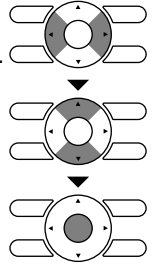


Options du menu

7



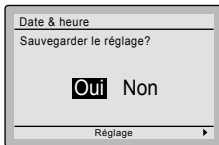
- Sélectionnez **Minute** avec les boutons ◀▶. Sélectionnez les minutes avec les boutons ▼▲. Maintenez le bouton enfoncé pour faire changer le nombre continuellement.
- Appuyez sur le bouton **Menu/OK**. L'écran de confirmation apparaît.



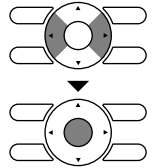
Remarque: _____

La date peut être réglée entre le 1^{er} Janvier 2015 et le 31 Décembre 2099.

8



- Appuyez sur le bouton ◀▶ pour sélectionner **Oui** sur l'écran de confirmation. Appuyez sur le bouton **Menu/OK** pour confirmer le réglage de l'horloge et pour retourner à l'écran de base.

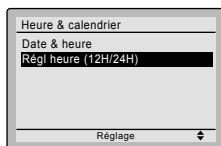


* Lors du réglage de la programmation, l'affichage retourne à l'écran des réglages.

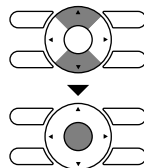
■ Régl heure (12H/24H)

Fonctionnement

1



- Ceci affiche l'horloge & l'écran du calendrier. (Reportez-vous à la page 42.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Régl heure (12H/24H)** sur l'écran heure & calendrier.



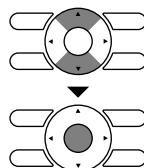
L'écran de réglage de l'horloge 12H/24H apparaîtra lorsque le bouton **Menu/OK** est appuyé.

2



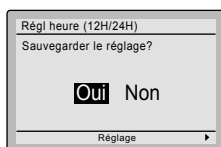
Par défaut, l'affichage de l'heure est réglée sur le système horaire des 12 heures.

- Appuyez sur les boutons ▼▲ pour sélectionner **12H** **24H** sur l'écran de réglage de l'horloge 12H/24H.

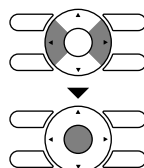


- L'écran de confirmation apparaît quand le bouton **Menu/OK** est appuyé.

3



- Appuyez sur le bouton ◀▶ pour sélectionner **Oui** sur l'écran de confirmation. Appuyez sur le bouton **Menu/OK** pour confirmer le système horaire des 12H ou des 24H et pour retourner à l'écran de base.

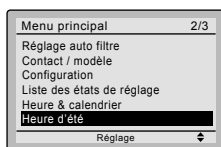


Heure d'été

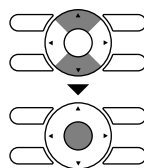
■ Comment régler l'heure d'été

Fonctionnement

1



- Affiche l'écran du menu principal. (Reportez-vous à la page 22.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Heure d'été** sur l'écran du menu principal. Appuyez sur le bouton **Menu/OK** pour afficher l'écran de l'heure d'été.

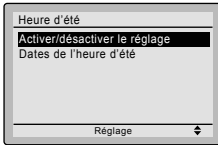


Options du menu

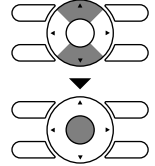
Activation ou désactivation de l'heure d'été

Fonctionnement

1



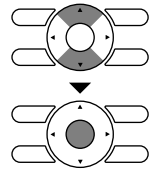
- Affiche l'écran de l'heure d'été.
(Reportez-vous à la page 45.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Activer/Désactiver** sur l'écran de l'heure d'été.
Appuyez sur le bouton **Menu/OK** pour afficher l'écran activer/désactiver.



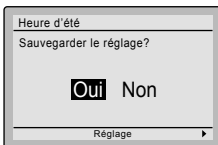
2



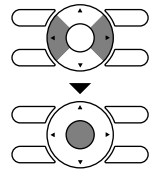
- Appuyez sur les boutons ▼▲ pour sélectionner **Validat** ou **Invalida** sur l'écran activer/désactiver.
- Appuyez sur le bouton **Menu/OK** pour afficher l'écran de confirmation des réglages.



3



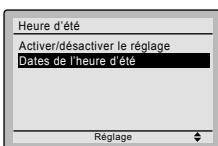
- Appuyez sur les boutons ◀▶ pour sélectionner **Oui** sur l'écran de confirmation des réglages.
Appuyer sur le bouton **Menu/OK** confirme le réglage pour activer/désactiver l'heure d'été et vous ramène à l'écran de base.



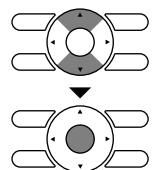
Réglage de la date

Fonctionnement

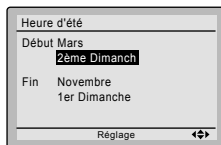
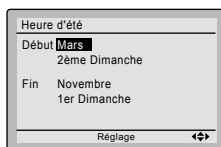
1



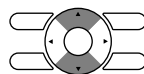
- Affiche l'écran de l'heure d'été.
(Reportez-vous à la page 45.)
- Appuyez sur les boutons ▼▲ pour sélectionner **Dates de l'heure d'été** sur l'écran de l'heure d'été.
Appuyez sur le bouton **Menu/OK** pour afficher l'écran de durée.



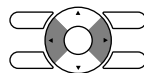
2



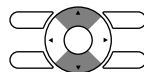
- Appuyez sur les boutons ▼▲ pour sélectionner le mois de début et le mois de fin.



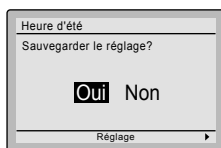
- Appuyez sur les boutons ◀▶ pour sélectionner la semaine de début et la semaine de fin.



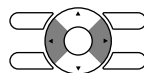
- Après avoir réglé les dates de Début et de Fin, appuyez sur le bouton **Menu/OK** pour afficher l'écran de confirmation des réglages.



3



- Appuyez sur les boutons ◀▶ pour sélectionner **Oui** sur l'écran de confirmation des réglages.



Appuyez sur le bouton **Menu/OK** pour confirmer les réglages de l'heure d'été et retourner à l'écran de base.



Lorsque l'heure d'été est activée

Lorsque l'heure de la télécommande arrive à 2:00. pour la date de début spécifiée, l'horloge est avancée automatiquement d'une heure. Lorsque l'heure de la télécommande arrive à 2:00 pour la date de fin spécifiée, l'horloge est reculée automatiquement d'une heure.

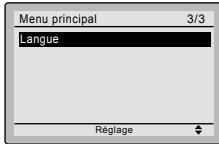
Options du menu

Langue

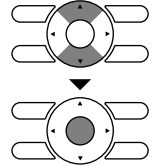
■ Langues pouvant être sélection

Fonctionnement

1



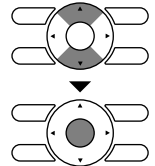
- Affichage de l'écran du menu principal. (Reportez-vous à la page 22.)
- Appuyez sur le bouton ▼▲ pour sélectionner **Langue** sur l'écran du menu principal et appuyez sur le bouton **Menu/OK**.



2



- Appuyez sur le bouton ▼▲ sur l'écran de réglage de la langue pour sélectionner la langue souhaitée. **English/Français/Español** sont disponibles.
- Appuyez sur le bouton **Menu/OK** pour confirmer les réglages et retourner à l'écran de base.

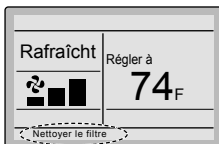


Entretien

Réinitialiser voyant filtre

Fonctionnement

1



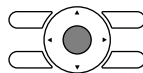
- Lorsque le temps de nettoyer ou remplacer le filtre est arrivé, l'un des messages suivants s'affiche en bas de l'écran de base.
Nettoyer le filtre
Nettoyer le filtre/l'élément
Nettoyer l'élément

* Cela n'est pas affiché lorsque l'affichage Simple est en cours.

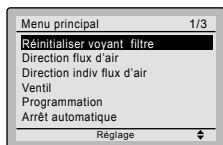
- Lavez, nettoyez ou remplacez le filtre ou l'élément. Pour plus de détails, veuillez vous référer au manuel d'utilisation fourni avec l'unité intérieure.

2

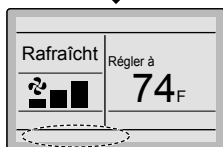
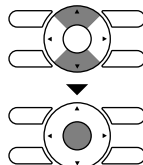
- Réinitialisez le voyant filtre quand le filtre ou l'élément a été nettoyé ou remplacé.
- Appuyez sur le bouton **Menu/OK**.
L'écran du menu principal apparaît.



3



- Appuyez sur les boutons ▼▲ pour sélectionner **Réinitialiser voyant filtre** sur l'écran de menus principal et pressez le bouton **Menu/OK**.



- Le message affiché "Nettoyer le filtre" n'est plus affiché sur l'écran de base lorsque le signe du filtre est réinitialisé.
-

Entretien l'unité et l'écran à affichage à cristaux liquides

- Essuyer l'écran à cristaux liquides et la surface de la télécommande avec un chiffon sec lorsqu'ils deviennent sales.
- Si la crasse ne peut pas être enlevée de la surface, humectez le chiffon avec un détergent neutre dilué avec de l'eau, essorez bien le chiffon et nettoyez la surface. Essuyez ensuite la surface avec un chiffon sec.

Remarque

- N'utilisez pas de diluant pour peinture, de solvant organique ou d'acide fort.

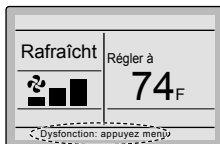
Informations à fournir

Affichage des codes d'erreur

■ Contactez votre revendeur Daikin dans les cas suivants

Fonctionnement

1



- Si une erreur se produit, l'un des éléments suivant clignote sur l'écran de base.

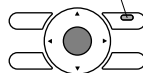
Dysfonction: appuyez menu

- * Le voyant de fonctionnement clignotera.
- * Pour l'affichage Simple, le message n'est pas affiché et seul le voyant de fonctionnement clignote.

Alerte: appuyez menu

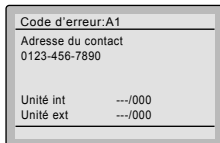
- * Le voyant de fonctionnement ne clignotera pas.
- * Pour l'affichage Simple, le message n'est pas affiché et le voyant de fonctionnement ne clignote pas non plus.

Témoin de fonctionnement



- Appuyez sur le bouton **Menu/OK**.

2



- Le code erreur clignote et le service à contacter ainsi que le nom du modèle ou son code peuvent s'afficher.
- Avisez votre revendeur Daikin du Code d'erreur et du nom du modèle ou de son code.

Service après-ventes



Avertissement

- **Ne transférez pas ou ne réinstallez pas la télécommande vous-même.**

Une mauvaise installation peut entraîner des décharges électriques ou un incendie.

Consultez votre revendeur Daikin.



■ Informer votre revendeur Daikin des points suivants

- Nom du modèle
- Date d'installation
- Conditions de la panne: Aussi précisément que possible.
- Vos adresse, nom et numéro de téléphone

■ Réparations après l'expiration de la période de garantie

Consultez votre revendeur Daikin.

■ Demande de renseignements concernant le service après-ventes

Consultez votre revendeur Daikin.

Contenidos

Notificaciones	Consideraciones de Seguridad	
	Puntos a ser estrictamente observados	2
	Localizaciones y Descripciones de los Botones	4
Operación Básica	Funcionamiento Frío/Calor/Autmático/Ventilad	10
	Modo Seco	13
	Límite de la Temperatura Cuando Ausente	14
	Modo de Ventilación	15
	Ajuste del Maestro de Cambio Frío / Calor	16
	Seguro de Llave	19
Referencia Rápida	Ítems de Menú Principal	20
Opciones de Menú	Navegar a la pantalla del Menú principal	22
	Dirección Flujo Aire	23
	Dir. flujo de aire individual	25
	Ventilación	28
	Programación	30
	Temporizador Apagar	35
	Información de Mantenimiento	37
	Configuración	38
	Ajustes Corrientes	42
	Reloj y Calendario	42
	Horario de Verano	45
	Lenguaje	48
Mantenimiento	Reajuste Señal de Filtro	48
	Mantenimiento de la Unidad y la Pantalla de Cristal Líquido (LCD)	49
Información de Referencia	Visualización de Código de Error	50
	Servicio Después de la Venta	51

Consideraciones de Seguridad




Las instrucciones originales están escritas en inglés. Los manuales en todos los otros idiomas son una traducción de las instrucciones originales.

Leas estas **CONSIDERACIONES DE SEGURIDAD** cuidadosamente antes de operar el control remoto.





Capacite al cliente en la operación y mantenimiento del control remoto.

Informe a los clientes que deben guardar este manual de operación junto con el manual de instalación para referencia futura.

Significados de los símbolos **ADVERTENCIA** y **PRECAUCIÓN**:

 ADVERTENCIA	Indica una situación potencialmente peligrosa, que si no se evita, podría resultar en la muerte o lesiones serias.
 PRECAUCIÓN	Indica una situación potencialmente peligrosa, que si no se evita, podría resultar en lesiones menores o moderadas. También puede ser usada para alertar contra prácticas inseguras.
 NOTA	Indica las situaciones que pueden resultar sólo en accidentes con daños en los equipos o la propiedad.






- Los siguientes pictogramas se usan en este manual.

	Nunca lo haga		Siempre siga las instrucciones entregadas.
	Mantenga el agua y la humedad fuera.		Mantenga las manos mojadas fuera.



 ADVERTENCIA	
	<ul style="list-style-type: none"> • No modifique ni repare el control remoto. Consulte con su concesionario Daikin por cualquier modificación o reparaciones.
	<ul style="list-style-type: none"> • No realocalice ni reinstale el control remoto por sí mismo. La instalación inadecuada puede resultar en descargas eléctricas o incendio. Consulte con su concesionario Daikin para la relocalización o por cualquier reinstalación.
	<ul style="list-style-type: none"> • No use materiales inflamables (por ejemplo; pulverizador para el cabello o insecticida) cerca del control remoto. No limpie el producto con disolventes orgánicos o diluyente de pintura. El uso de solventes orgánicos puede causar trituración y daño del producto, y consecuentemente, descargas eléctricas o incendio.
	<ul style="list-style-type: none"> • Consulte con el concesionario si el control remoto estuvo bajo agua debido a un desastre natural, tal como inundación o huracán. No opere el control remoto en este momento, hacerlo podría causar mal funcionamiento, descargas eléctricas o incendios.

—Puntos a ser estrictamente observados—

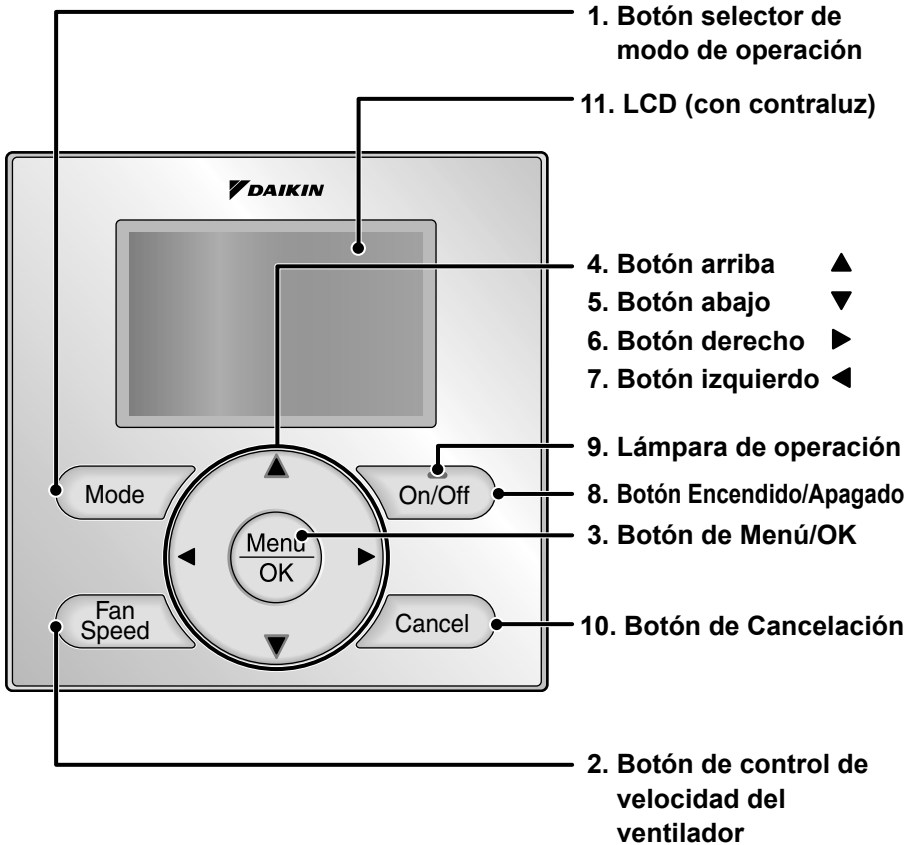
PRECAUCIÓN

	<ul style="list-style-type: none">● No permita que los niños jueguen con el control remoto para evitar dañar el producto.
	<ul style="list-style-type: none">● Nunca desarme el control remoto. Tocar las partes interiores puede resultar en descargas eléctricas o incendio. Consulte con su concesionario Daikin para las inspecciones internas y ajustes.
	<ul style="list-style-type: none">● No toque los botones del control remoto con los dedos mojados. Tocar los botones con los dedos mojados puede causar descargas eléctricas.
	<ul style="list-style-type: none">● No lavar el control remoto. Hacerlo puede causar filtraciones eléctricas y resultar en descargas eléctricas o incendio.
	<ul style="list-style-type: none">● Nunca permita que el control remoto se moje. El agua puede causar daño al control remoto, y causar descargas eléctricas o incendios.

NOTA

	<ul style="list-style-type: none">● Nunca presione el botón del control remoto con un objeto duro y puntiagudo. De lo contrario se podría dañar el control remoto.
	<ul style="list-style-type: none">● No tire o tuerce el cable eléctrico del control remoto. De lo contrario se podría ocasionar un malfuncionamiento.
	<ul style="list-style-type: none">● No limpie el control remoto con bencina, diluyente, paños químicos, etc. De lo contrario el control remoto se podría decolorar o descascarar. Si está muy sucio, empape un palo en agua con una dilución de detergente neutro, escúrralo bien y limpie el control remoto. Luego límpielo con otro paño seco.

Localizaciones y Descripciones de los Botones



Las funciones distintas de los puntos de operación básica (a decir; Encendido/Apagado, Modo de operación, Velocidad del ventilador y Punto de ajuste) se ajustan desde la pantalla del menú.

NOTA

- No instale el control remoto en lugares expuestos a la luz solar directa, se dañará la pantalla de cristal líquido (LCD).
- No tire ni tuerza el cordón del control remoto, se podría dañar el control remoto.
- No use objetos de extremos con filos para presionar los botones del control remoto o podría resultar dañado.

1. Botón selector de modo de operación

- Presione este botón para seleccionar el modo de funcionamiento de su preferencia. (Véase la página 10.)

* Los modos disponibles varían dependiendo del modelo de unidad interior.

2. Botón de control de velocidad del ventilador

- Presione este botón para seleccionar la velocidad del ventilador de su preferencia. (Véase la página 11.)

* Las velocidades de ventilador disponibles varían dependiendo del modelo de unidad interior.

3. Botón de Menú/OK

- Se usa para acceder al menú principal. (Véase la página 20 para los ítems del menú.)
- Se usa para ingresar el ítem seleccionado.

4. Botón arriba ▲

- Se usa para elevar el punto de ajuste.
- El ítem sobre la selección actual será destacado.
(Los ítems destacados serán recorridos continuamente cuando se mantiene presionado el botón.)
- Se usa para cambiar el ítem seleccionado.

5. Botón abajo ▼

- Se usa para bajar el punto de ajuste.
- El ítem bajo la selección actual será destacado.
(Los ítems destacados serán recorridos continuamente cuando se mantiene presionado el botón.)
- Se usa para cambiar el ítem seleccionado.

6. Botón derecho ►

- Se usa para destacar los próximos ítems en el lado de la mano derecha.
- Cada pantalla se desplaza en la dirección a la mano derecha.

7. Botón izquierdo ◀

- Se usa para destacar los próximos ítems en el lado de la mano izquierda.
- Cada pantalla se desplaza en la dirección a la mano izquierda.

8. Botón Encendido/Apagado

- Presione este botón para arrancar el sistema.
- Presione este botón nuevamente para detener el sistema.

9. Lámpara de operación

- Esta lámpara se ilumina de verde durante la operación normal.
- Esta lámpara parpadea si se produce un error.

10. Botón de Cancelación

- Se usa para retornar a la pantalla previa.

11. LCD (con contraluz)

- La contraluz se iluminará por aproximadamente 30 segundos presionando cualquier botón.
- Si se usan dos controles remotos para controlar una unidad interior única, sólo el control a ser accedido primero tendrá su funcionalidad a contraluz.

Nombres y Funciones

Pantalla de Cristal Líquido (LCD)

- Se dispone de tres tipos de modo de visualización (Estándar, Detallada y Simple).
- La visualización Estándar se ajusta por defecto.
- Las pantallas detalladas y simples pueden ser seleccionadas en el menú principal. (Véase la página 40.)

Pantalla estándar

10. Conmutación controlada por la unidad interior maestra

9. Control centralizado inferior

1. Modo de funcionamiento

2. Velocidad del ventilador

6. Ventilación

11. Temperatura limite cuando ausente

8. (Ⓢ) Programado

7. (Ⓢ) Seguro de teclas

3. Temperatura de ajuste

4. En espera para arranque de Desescarche/Calor

5. Mensaje

<Ejemplo de pantalla estándar>

Visualización detallada

- La dirección de flujo de aire, el reloj y el ítem seleccionable aparecen en la pantalla de visualización Detallada además de los ítems que aparecen en la visualización Estándar.

12. Dirección Flujo Aire
(Se visualiza sólo cuando la unidad interior está encendida.)

13. Día/Hora actual (visualización de la hora de 12/24 horas)

14. Ítem seleccionable en la pantalla

<Ejemplo de pantalla detallada 1>

No hay visualización de la velocidad del ventilador (sin función de control de velocidad del ventilador)

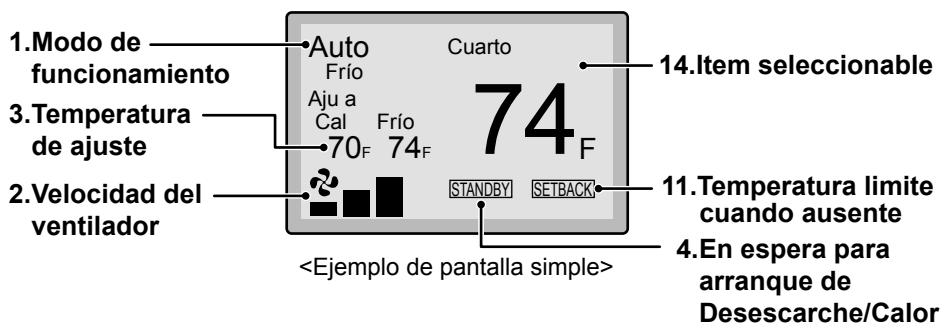
No hay visualización de la dirección de flujo de aire (sin ajustes de dirección flujo aire)

15. (Ⓢ) No es posible programar

No hay visualización de ítem seleccionable (sin seleccionar ítem seleccionable)

<Ejemplo de pantalla detallada 2>

Visualización simple



Nota para todos los modos de visualización

- Dependiendo de los ajustes de campo, mientras la unidad interior está apagada, se visualizará OFF en vez del modo de operación y/o podría no visualizarse el punto de ajuste.

Nombres y Funciones

1. Modo de funcionamiento

- Se usa para visualizar el modo de operación actual: Frío, Cal, Vent, Ventil, Seco o Auto.
- En el modo Auto, también se visualizará el modo de operación actual (Frío o Calor).
- Cuando se visualiza OFF, no se puede cambiar el modo de operación. Después de comenzar la operación se podrá cambiar el modo de operación.

2. Velocidad del ventilador

- Se usa para visualizar la velocidad del ventilador ajustada para la unidad interior.
- La velocidad del ventilador no se visualizará si el modelo conectado no tiene función de control de velocidad del ventilador.

3. Temperatura de ajuste

- Se usa para visualizar el punto de ajuste para la unidad interior.
- Use el ítem Centígrado/Fahrenheit en el menú principal para seleccionar la unidad de temperatura (Centígrado o Fahrenheit).

4. En espera para arranque de Desescarche/Calor “” (Véase la página 12.)

Si el ícono de ventilación se visualiza en este campo:

- Indica que un ventilador de recuperación de energía está conectado. Para los detalles, refiérase al manual de operación de la ERV.

5. Mensaje

Se pueden visualizar los siguientes mensajes. “Función no disponible”

- Se visualiza por algunos segundos cuando se presiona un botón **Operación** y la unidad interior no está dotada de la función correspondiente.
- En un grupo de control remoto, el mensaje no aparecerá si al menos una de las unidades interiores cuenta con la función correspondiente.

“Error: Presione menú”

“Advertencia: Presione menú”

- Se visualiza si se detecta un error o advertencia (véase la página 50).



“Limpie el filtro”

“Limpie el elemento”

“Limpie el filtro/elemento”

- Se visualiza como un recordatorio cuando sea el momento de limpiar el filtro y/o el elemento (véase la página 48).

6. PurifVent

- Se visualiza cuando se conecta un ventilador de recuperación de energía.
- **Ícono de modo de ventilación.** “ ERV BYPASS”
Estos íconos indican el modo de ventilación actual (sólo ERV) (AUTOMÁTICO, ERV, BYPASS).
- **ÍCONO purificación de aire** “ AIR PURIFY”
Este ícono indica que la unidad de purificación de aire (opcional) está en operación.

7. Seguro de teclas

(Véase la página 19.)

- Se visualiza cuando el seguro de tecla está ajustado.

8. Programado (Véase la página 30.)

- Se visualiza si Programación o Temporizador apagar está habilitado.

9. Control centralizado inferior “”

- Se visualiza si el sistema está bajo la administración de un control de zonas múltiples (opcional) y la operación del sistema a través del control remoto está limitada.

10. Conmutación controlada por la unidad interior maestra

“ MASTER CONTROLLED” (solamente VRV)

- Se visualiza cuando otra unidad interior en el sistema tiene la autoridad para cambiar el modo de operación entre frío y calor.

11. Temperatura límite cuando ausente “ ”

(Véase la página 14.)

- El ícono de límite temp ausente parpadea cuando la unidad está encendida por el control del límite temp ausente.

12. Dirección Flujo Aire “ ”

- Se visualiza cuando la dirección de flujo aire y la oscilación están ajustadas (véase la página 23).
- Si el modelo de unidad interior conectada no incluye rejillas oscilantes, este ítem no se visualizará.

13. Día/Hora actual (visualización de la hora de 12/24 horas)

- Se visualiza si el reloj está ajustado (véase la página 42).
- Si el reloj no está ajustado, “ -- : -- ” será visualizado.
- El formato de hora de 12 horas se visualiza por defecto.
- Seleccione la opción de visualización de la hora de 12/24 horas en el menú principal bajo “Reloj y Calendario”.

14. Ítem seleccionable en la pantalla

- Se selecciona la temperatura ambiente por defecto.
- Para elegir otras opciones véase la página 41.

15. ~~X~~ No es posible programar

- Se visualiza cuando el reloj requiere ser ajustado.
- La función de programa no funcionará a menos que el reloj sea ajustado.

Operación Básica

Funcionamiento Frío/Calor/Autómco/Ventilad (SkyAir y VRV)

Manera de usar el manual de operación

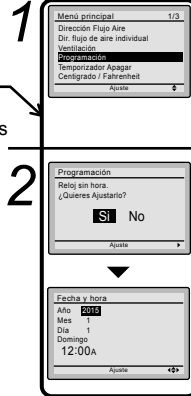
Procedimiento de operación

Visualización del botón de operación

Visualización de la pantalla de operación

Describe las pantallas que serán visualizadas en la operación de control remoto.

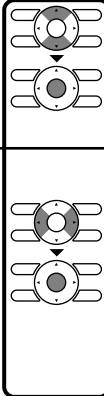
Operación



Explica la secuencia de operación para el control remoto. Opere los botones de acuerdo con el procedimiento.

- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones **▼▲** para seleccionar **Programación**. Presione el botón de **Menú/OK** para visualizar la pantalla temporizador.
- Antes de ajustar la programación se debe ajustar el reloj.
- Si el reloj no ha sido ajustado, se visualizará una pantalla como la de la izquierda. Presione los botones **◀▶** para seleccionar **Si** y presione el botón de **Menú/OK**.
- La pantalla de fecha y hora aparecerá.
- Ajuste el año, el mes, el día y la hora actuales. (Véanse los ajustes de reloj en la página 42.)

Visualiza las posiciones de los botones a ser operados.



Preparación

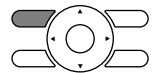
- Para las finalidades de protección mecánica, aplique alimentación eléctrica a las unidades exteriores al menos seis horas antes de comenzar la operación del sistema.

Operación

1



- Presione el botón **Modo** varias veces hasta que el modo deseado Frío, Cal, Ventil, o Auto sea seleccionado.



* Los modos de funcionamiento no disponibles no se visualizan.



Nota

- Tanto el modo de calor como frío no pueden ser seleccionados si la unidad está controlada por maestro. Véase la página 16 si el ícono MASTER CONTROLLED parpadea.

2

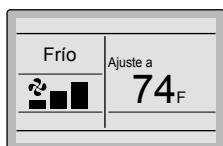


- Presione el botón **On/Off**.

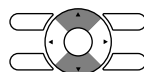
La lámpara de operación se encenderá en un verde fijo y el sistema comenzará a operar.



3



- El punto de ajuste aumentará en 1°F (ó 1°C) cuando se presiona el botón ▲ y disminuye en 1°F (ó 1°C) cuando se presiona el botón ▼ .

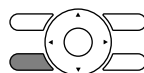


* El punto de ajuste no está disponible en el modo ventilador o seco.

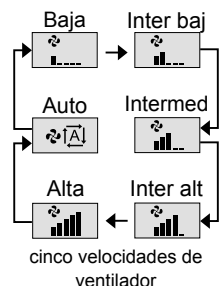
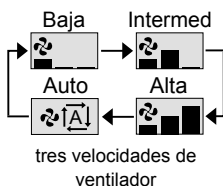
4



- Para cambiar la velocidad del ventilador, presione el botón de **Control de velocidad del ventilador** y seleccione la velocidad de ventilador deseada entre;



- Baja/Alta/Auto para dos velocidades
 - Baja/Intermed/Alta/Auto para tres velocidades
 - Baja/Inter baj/Intermed/Inter alt/Alta/Auto para cinco velocidades
- dependiendo del tipo de unidad interior.



- * El sistema puede cambiar automáticamente la velocidad de ventilador para protección del equipo.
- * El sistema puede apagar el ventilador cuando la temperatura del cuarto es la deseada.
- * Es normal que se produzca un retraso cuando se cambie la velocidad del ventilador.
- * Si se ha seleccionado Auto para la velocidad del ventilador, la velocidad del ventilador variará automáticamente de acuerdo a la diferencia entre la temperatura de ajuste y la temperatura interior.

Operación Básica

5

- Ajuste dirección flujo aire desde el menú principal (véase la página 23).

* Si la unidad interior conectada no incluye paletas oscilantes, esta función no estará disponible.

6



- Cuando se presiona el botón **On/Off** nuevamente, el sistema detendrá su operación y la lámpara de operación se apagará.



* Cuando el sistema se detiene en el modo de calefacción, el ventilador continuará operando por aproximadamente un minuto para eliminar el calor residual desde la unidad interior.

Nota

- Para evitar el daño por condensación de agua o la falla del sistema, no desconecte inmediatamente después de la operación el suministro de energía a la unidad interior. Espere por lo menos cinco minutos para que la bomba de condensado termine el drenaje de agua residual desde la unidad interior.

Características del Modo Calor

El sistema controla automáticamente los siguientes modos de operación para evitar la reducción de la capacidad de calefacción y comodidad de espacio.

Operación de desescarche

- El sistema entrará automáticamente en la operación de desescarche para evitar la acumulación de congelamiento y la subsiguiente pérdida de capacidad de calefacción.
- El ventilador de la unidad interior se detendrá, y " **STANDBY** " se visualizará en el control remoto.
- El sistema terminará la operación de desescarche y retornará a la operación normal generalmente dentro de seis a ocho minutos. No demorará más de diez minutos.

Arranque caliente

- Cuando el sistema entra en el modo de calentamiento, el ventilador de la unidad interior operará con un retraso para evitar una corriente fría. (En ese caso, " **STANDBY** " se visualizará en el control remoto).

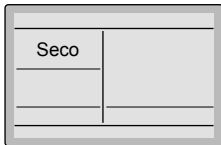
Modo Seco

Preparación

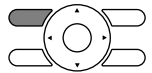
- Para las finalidades de protección de los equipos, aplique alimentación eléctrica a las unidades exteriores al menos seis horas antes de comenzar la operación del sistema.
- El modo seco puede no ser seleccionado si el control remoto es controlado por maestro y el sistema no está ya en el modo de enfriamiento de operación. (véase la página 18 para los detalles)

Operación

1



- Presione el botón de **Modo** varias veces hasta que se seleccione el modo Seco.



* El modo seco puede no estar disponible, dependiendo del tipo de unidad interior.

2



- Presione el botón **On/Off**.

La lámpara de operación se encenderá en un verde fijo y el sistema comenzará a operar.



* En el modo Seco, el sistema mantiene la temperatura automática y el control de velocidad del ventilador. Por lo tanto, el punto de ajuste de temperatura, o los ajustes de velocidad del ventilador no están disponibles mientras la unidad interior está en el modo Seco.

3

- Ajuste Dirección flujo aire desde el menú principal (véase la página 23).

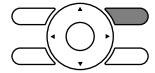
* Si la unidad interior conectada no incluye paletas oscilantes, esta función no estará disponible.

Operación Básica

4



- Cuando se presiona el botón **On/Off** nuevamente, el sistema detendrá su operación y la lámpara de operación se apagará.

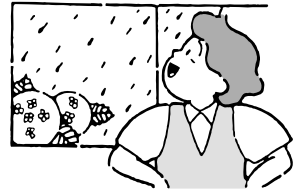


Nota

- Para evitar el daño por condensación de agua o la falla del sistema, no desconecte inmediatamente después de la operación el suministro de energía a la unidad interior. Espere por lo menos cinco minutos para que la bomba de condensado termine el drenaje de agua residual desde la unidad interior.

Característica del modo Seco

El modo seco deshumidifica el espacio a una capacidad de enfriamiento reducida para evitar que la temperatura de la sala baje a niveles incómodos.



Limite de la Temperatura Cuando Ausente

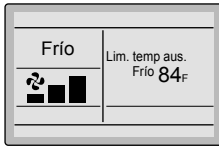
Se puede usar la característica de límite temp ausente para mantener la temperatura del espacio en un rango específico durante los períodos sin ocupar.

Nota

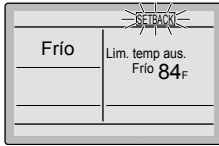
- Cuando está habilitada, esta función se activa cuando una unidad interior es apagada ya sea por el usuario, un evento programado o temporizador de apagado.
- Esta función no está disponible de forma predeterminada. Puede ser habilitada por el instalador del sistema.

Operación

1



- El ícono de límite temp ausente parpadea cuando la unidad está encendida por el control del límite temp ausente.



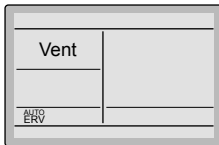
Modo de Ventilación Cuando la unidad interior está enclavada con el ventilador de recuperación de energía

Preparación

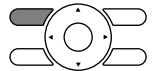
- Para las finalidades de protección de los equipos, aplique alimentación eléctrica a las unidades exteriores al menos seis horas antes de comenzar la operación del sistema.

Operación

1



- Cuando se opera el ventilador de recuperación de energía (ERV) entre las temporadas sin la unidad interior, ajuste el control al modo de ventilación.



2

- Los cambios al modo de ventilación se hacen desde el menú principal.

* Modo de ventilación: Auto, ERV, y Bypass

3

- Los cambios a la tasa de ventilación se hacen desde el menú principal.

* Tasa de ventilación: Baja o Alta

Operación Básica

4



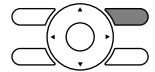
- Presione el botón **On/Off**.
La lámpara de operación se encenderá en un verde fijo y el sistema comenzará a operar.



5



- Cuando se presiona el botón **On/Off** nuevamente, el sistema detendrá su operación y la lámpara de operación se apagará.



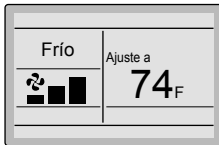
Ajuste del Maestro de Cambio Frío / Calor

(VRV solamente)

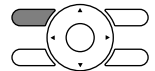
Ajuste de los Cambios

Véase la página 18 para una explicación de la unidad interior maestra de cambio de frío/calor.

1



- Presione el botón **Modo** en el control remoto de la unidad interior maestra de conmutación por al menos cuatro segundos mientras se ilumina a contraluz.
- El ícono “**MASTER CONTROLLED**” en cada control remoto para las unidades interiores se conecta a la misma unidad exterior o unidad Selector de derivación comenzará a parpadear.




* Los cambios de ajuste del modo de ventilación son posibles independientemente de la unidad interior maestra de conmutación de frío/calor.

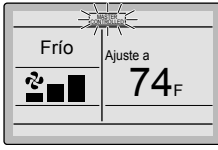
* Si la unidad exterior está configurada como maestro de cambio de frío/calor, todos los controles remotos que sirven a las unidades interiores asociadas visualizarán su ícono “**MASTER CONTROLLED**”.

- Ajuste la unidad interior maestra de conmutación de frío/calor de la manera que se describe abajo.

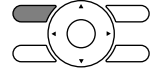
Ajustes de Selección


El ícono “” parpadeará en todos los controles remotos cuando la alimentación eléctrica se encienda por primera vez.


2



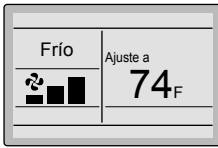
- Presione el botón **Modo** en el control remoto de la unidad interior que sirve como maestro de conmutación de frío/calor.




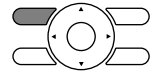
El control remoto para la unidad interior maestra de conmutación se establece y el ícono  no se visualiza más.

Otros controles remotos en el sistema (las unidades interiores servidas por la misma unidad exterior o las unidades interiores servidas por la misma unidad de selector de derivación) ahora visualizará el ícono .

3



- Presione el botón **Modo** en el control remoto de la unidad interior designada como maestro de conmutación de frío/calor (el control remoto no visualiza el ícono ) repetidamente hasta que se seleccione el modo deseado. La visualización cambiará a **Ventil, Seco, Auto, Frío, Cal** cada vez que se presione el botón.
- Simultáneamente, las otras unidades interiores en el sistema actuarán idénticamente y cambiarán los modos para reflejar el nuevo modo seleccionado en el control remoto maestro de conmutación.



Operación Básica

Disponibilidad de la Selección de Modo de Frío / Calor

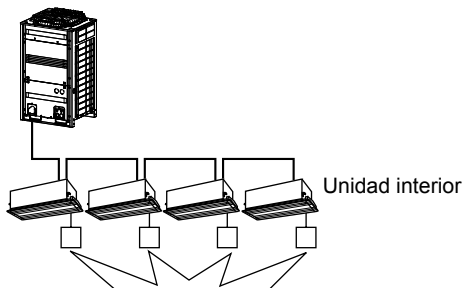
- “Frío”, “Cal”, y “Auto” están todos solamente disponibles para selección en la unidad interior maestra de conmutación frío/calor. La siguiente tabla indica los modos de operación disponibles de las otras unidades interiores en el sistema, basándose en el modo seleccionado de la unidad interior maestra.

Cuando la unidad interior maestra se ajusta a	Las demás unidades interiores en el sistema pueden ser ajustadas a			
	Frío	Seco	Cal	Ventil
Modo frío	✓	✓		✓
Modo seco	✓	✓		✓
Modo calor			✓	✓
Modo ventilador				✓
Modo automático (operación de enfriamiento)	✓	✓		✓
Modo automático (operación de calefacción)			✓	✓

Precauciones para Seleccionar la Unidad Interior Maestra de Conmutación Frío/Calor

- El maestro de conmutación de frío/calor debe ser ajustado para una unidad interior única en las siguientes aplicaciones

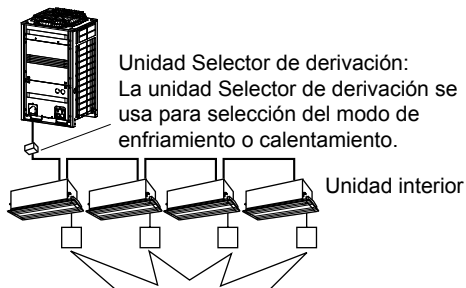
(Sistema de la bomba de calor de 2 tubos)



Un número de unidades interiores se conecta a una unidad exterior única.

Ajuste cualquiera de las unidades interiores como maestro de conmutación de frío/calor.

(Sistema de recuperación de calor de 3 tubos)



Unidad Selector de derivación:
La unidad Selector de derivación se usa para selección del modo de enfriamiento o calentamiento.

Un número de unidades interiores se conecta a una unidad Selector de derivación única.

Ajuste cualquiera de las unidades interiores como maestro de conmutación de frío/calor.

Seguro de Llave

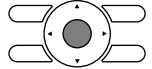
Operación Confirme y cancele los ajustes de seguro de llave en la pantalla de visualización básica.

1




Pantalla básica

- Presione el botón **Menú/OK** por al menos cuatro segundos mientras se ilumina la contraluz.



2



- Se visualizará “”.
- Todos los botones se inhabilitan cuando las teclas están bloqueadas.
- Para cancelar el modo de seguro de teclas, continúe presionando el botón **Menú/OK** por al menos cuatro segundos mientras se ilumina la contraluz.

Referencia Rápida

■ El menú principal tiene al menos los siguientes ítems.

Ítem de menú		Descripción	Página de referencia
Dirección Flujo Aire		<p>Se usa para configurar los ajustes de dirección de flujo de aire.</p> <ul style="list-style-type: none"> La rejilla de dirección de flujo de aire se opera automáticamente hacia arriba y abajo (izquierda y derecha). Las direcciones de flujo de aire fijas son configurables para cinco posiciones. <p>* Esta función no está disponible para todos los modelos de unidad interior.</p>	23
Dir. flujo de aire individual (depende del modelo de unidad interior)	Ajuste de paletas	<p>Ajuste individualmente la dirección del flujo de aire para cada una de las 4 paletas.</p> <ul style="list-style-type: none"> Máximo 16 unidades (unidad 0 hasta 15). 	25
	Lista de ajuste de paletas	Ajustar tabla para paleta.	26
	Resetear todas pos paletas	Restablecer todas las paletas al ajuste de fábrica por defecto.	27
Ventilación (Ajustes de operación de ventilación para el ventilador de recuperación de energía)	Velocidad vent	Se usa para ajustar "Baja" o "Alta"	28
	Modo de ventilación	Se usa para ajustar "Auto", "Recup" o "Bypass".	29
Programación	Pautas Diarias	<ul style="list-style-type: none"> Los ajustes de día se seleccionan a partir de cuatro patrones, es decir "Semana", "Día Laboral/ Día Fin", "Día Laboral/Sáb/Dom", y "Diario". 	31
	Ajustes	<ul style="list-style-type: none"> Ajuste la hora de arranque y la hora de parada de operación. <ul style="list-style-type: none"> ON: Se pueden configurar los puntos de ajuste de temperatura de enfriamiento y calefacción del momento de arranque. OFF: Se pueden configurar los puntos de ajuste de temperatura de límite temp si ausente de enfriamiento y calefacción del momento de parada. (--: Indica que la función de límite temp ausente está inhabilitada para este período de tiempo.) ___: Indica que el punto de ajuste de la temperatura y el punto de ajuste de temperatura de límite temp si ausente para este período de tiempo no están especificados. El último punto de ajuste activo será utilizado. Se pueden ajustar hasta 5 acciones para cada día. 	32
Temporizador Apagar		<p>Se usa para ajustar el periodo de operación para la unidad interior usando este control.</p> <ul style="list-style-type: none"> Es posible ajustar en incrementos de 10 minutos desde 30 a 180 minutos. 	35
Centígrado / Fahrenheit		<ul style="list-style-type: none"> Se usa para seleccionar si los valores de temperatura serán visualizados en Centígrado o Fahrenheit. 	—

Ítem de menú		Descripción	Página de referencia
Ajuste Autolimpieza		Ajuste el tiempo cuando el filtro necesite limpiarse automáticamente. Para la operación detallada consulte el Manual de operación del panel de decoración de autolimpieza.	—
Info de Mantenimiento		Se usa para visualizar la información de mantenimiento.	37
Configuración	Prevención de Corrientes (Solo disponible en el modelo de la unidad interior con el sensor Occ. instalado)	La función de prevención de corrientes se puede habilitar o inhabilitar . Al habilitar, el sensor Occ. ajustará la posición de la paleta para evitar crear una corriente de aire sobre un ocupante.	38
	Ajuste de Contraste	Se usa para hacer los ajustes de contraste de la pantalla de cristal líquido (LCD).	39
	Pantalla	Se usa para ajustar el modo de pantalla. <ul style="list-style-type: none"> • Modo de exhibición Visualización estándar, detallada o simple. • Las pantallas Detalladas y Simple proporcionan el ítem seleccionable en la pantalla entre Temperatura Cuarto, Sistema, Ninguno o Temperatura Exterior. 	40
Ajustes Corrientes		<ul style="list-style-type: none"> • Se usa para visualizar una lista de ajustes actuales para los temporizadores disponibles. 	42
Reloj y Calendario	Fecha y Hora	Se usa para hacer los ajustes y correcciones de fecha y hora. <ul style="list-style-type: none"> • La visualización de la hora por defecto es de 12 horas. • El reloj mantendrá una precisión dentro de ± 30 segundos por mes. • Si hay una falla de alimentación eléctrica por un período que no sobrepase de 48 horas, el reloj continuará funcionando con la alimentación eléctrica de respaldo incorporada. 	42
	12H/24H Reloj	La hora puede ser visualizada en el formato de 12 horas o 24 horas.	45
Horario de Verano		Se usa para ajustar el reloj de acuerdo con la hora de ahorro de luz solar.	45
Lenguaje		El lenguaje de visualización puede ser seleccionado entre Inglés, Francés, o Español .	48

Nota: Los ítems de ajuste disponibles varían dependiendo del modelo de unidad interior.

Ítems de Menú de Control Remoto Secundario		
Si hay dos controles remotos conectados a una unidad interior única, los siguientes ítems de menú no están ajustados en el control remoto secundario. En este caso, los siguientes ítems deben ser configurados en el control remoto principal.		<p>Unidad exterior Unidad interior</p> <p>Método de visualización para el menú principal</p>
<ul style="list-style-type: none"> • Dir. flujo de aire individual • Programación • Temporizador Apagar 	<ul style="list-style-type: none"> • Lim aus • Prevención de Corrientes 	

Opciones de Menú

Navegar a la pantalla del Menú principal

■ Método de Visualización para el Menú Principal

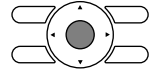
Operación

1

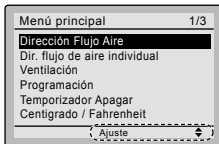


Pantalla básica

- Presione el botón de **Menú/OK**.



2



Pantalla del menú principal

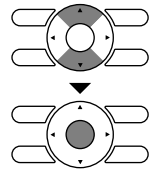
- Se visualiza el menú principal.

↩ Aparecerán instrucciones sobre cómo navegar por la pantalla del Menú principal.

3

- Selección de ítems desde el menú principal.

1. Presione los botones ▼▲ para seleccionar el ítem deseado a ser ajustado.
2. Presione el botón **Menú/OK** para visualizar los detalles para el ítem seleccionado.



4

- Para retornar a la pantalla básica desde el menú principal, presione el botón **Cancelación**.



Nota

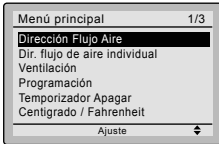
- Si el botón no se presiona por 5 minutos durante la configuración, el control retornará automáticamente a la pantalla básica.

Dirección Flujo Aire

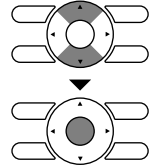
■ Configuración de Dirección Flujo Aire

Operación

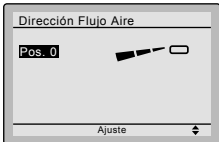
1



- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Dirección Flujo Aire** y el botón **Menú/OK**.

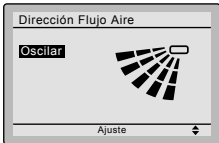
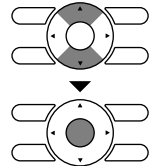


2



- (1) Método de ajuste cuando hay una sola dirección de flujo de aire.

- Seleccione la dirección de flujo de aire deseada entre **Pos. 0**, **Pos. 1**, **Pos. 2**, **Pos. 3**, **Pos. 4**, **Oscilar** o **Auto** usando los botones ▼▲.
- Presione el botón **Menú/OK** para confirmar el ajuste y regresar a la pantalla básica.



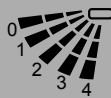
Ajuste de Dirección Flujo Aire (arriba/abajo)



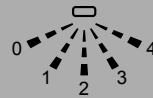
Ajuste de Dirección Flujo Aire (izquierda/derecha)

Nota

- La dirección de flujo de aire aparece en la pantalla de la siguiente manera:



Dirección arriba/abajo



Dirección izquierda/derecha

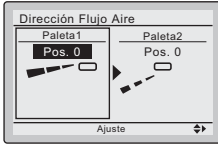
0 : Pos. 0
1 : Pos. 1
2 : Pos. 2
3 : Pos. 3
4 : Pos. 4

Aviso

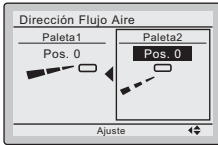
Esta operación y la pantalla son ejemplos de una unidad interior con un solo tipo de dirección de flujo de aire. Es diferente al modelo de casete de flujo único.

Opciones de Menú

3



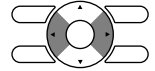
Cuando se selecciona la dirección frontal/posterior



Cuando se selecciona la dirección izquierda/derecha

(2) Método de ajuste para seleccionar direcciones de flujo de aire doble.

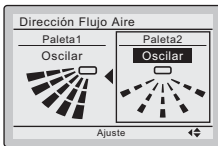
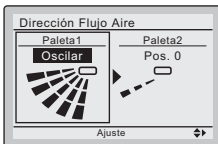
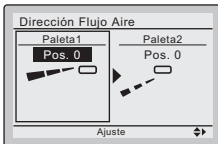
- Presione los botones ◀▶ para seleccionar el ajuste de dirección frontal/posterior o izquierda/derecha.



Aviso

Esta operación y pantalla son ejemplos de una unidad interior de dirección de flujo de aire doble (Modelo de casete de flujo único).

4

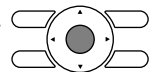
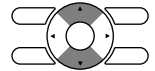


- Seleccione la dirección de flujo de aire deseada entre **Pos. 0**, **Pos. 1**, **Pos. 2**, **Pos. 3**, **Pos. 4**, **Oscilar** o **Auto** usando los botones ▼▲.

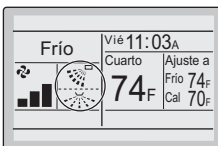
- Al seleccionar **Oscilar** hará que la paleta de dirección del flujo de aire oscile entre las posiciones 0 a 4.

- La opción de ajuste **Auto** no está disponible cuando la dirección izquierda/derecha esta seleccionada.

- Presione el botón **Menú/OK** para confirmar el ajuste y regresar a la pantalla básica.



5



Pantalla básica
(Pantalla detallada)

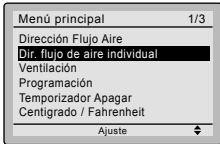
- Si se ajustan direcciones de flujo de aire dobles, entonces en la pantalla básica se muestran los íconos de dirección de flujo de aire doble.

Dir. flujo de aire individual

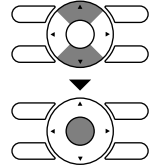
■ Ajuste de paletas

Operación

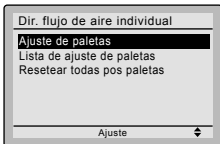
1



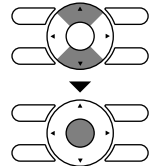
- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Seleccione **Dir. flujo de aire individual** y presione el botón **Menú/OK**.



2



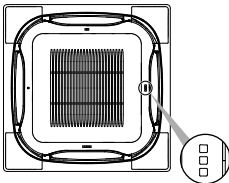
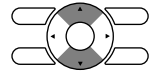
- Seleccione **Ajuste de paletas** y presione el botón **Menú/OK**.



3



- Use los botones **▼▲** para seleccionar la unidad y la marca de salida.
- Se puede seleccionar un máximo de 16 unidades por cada grupo (unidad 0 hasta 15).



Nota

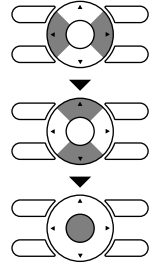
En el caso de cuatro salidas (tipo casete), puede controlar individualmente cada una de las cuatro paletas (las siguientes marcas se encuentran junto a cada salida de aire: □, □□, □□□, □□□□).

Opciones de Menú

4



- Presione el botón ◀▶ para seleccionar la dirección del flujo de aire.
- Use los botones ▼▲ para cambiar la dirección del flujo de aire a los siguientes: **No aj. Esp**, **Pos. 0**, **Pos. 1**, **Pos. 2**, **Pos. 3**, **Pos. 4**, **Oscilar** o **Bloqueado**.
No aj. Esp : No hay ajustes individuales de paleta.
Bloqueado : El flujo de aire individual está bloqueado.
- Presione el botón **Menú/OK** para confirmar el ajuste y regresar a la pantalla básica.



5



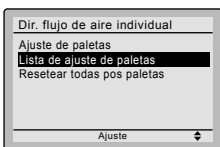
Pantalla básica
(Pantalla detallada)

- Si se ajusta la dirección de flujo de aire individual, entonces en la pantalla básica se muestra el ícono de dirección de flujo de aire individual.

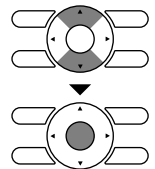
■ Lista de ajuste de paletas

Operación

1



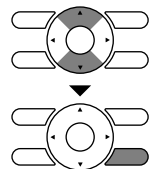
- Visualiza la pantalla de dirección de flujo de aire individual. (Véase la página 25.)
- Presione los botones ▼▲ para seleccionar **Lista de ajuste de paletas** y presione el botón **Menú/OK**.



2

Lista de ajuste de paletas			
Unit 0	Marca imp.	Dirección	Indiv.
	<input type="checkbox"/>	Pos. 0	OFF
	<input type="checkbox"/>	Pos. 0	OFF
	<input type="checkbox"/>	Pos. 0	OFF
	<input type="checkbox"/>	Pos. 0	OFF

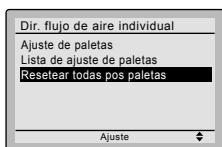
- Una tabla muestra los ajustes actuales. Presione los botones ▼▲ para ir a la siguiente unidad.
- Presione el botón **Cancelación** para regresar al menú anterior.



■ Resetear todas pos paletas

Operación

1

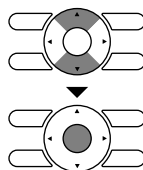


- Visualiza la pantalla de dirección de flujo de aire individual.

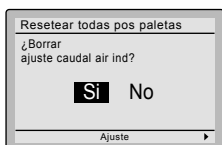
(Véase la página 25.)

- Presione los botones ▼▲ para seleccionar

Resetear todas pos paletas y presione el botón **Menú/OK**.

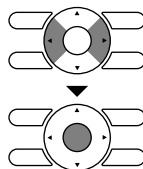


2



- Presione los botones ◀▶ para seleccionar **Si**.

- Presione el botón **Menú/OK** para confirmar el reseteo y regresar a la pantalla básica.

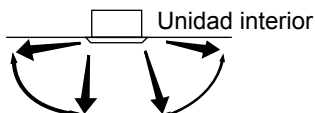


Detalles y Funciones Operacionales

Hay dos tipos de ajuste de dirección de flujo de aire que pueden ser usados.

Oscilación de la dirección de flujo de aire

Las rejillas oscilan automáticamente hacia arriba y abajo.

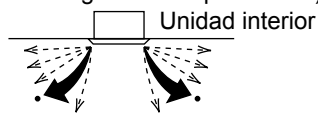


(Oscilar automático)

(Oscilar automático)

Dirección de flujo de aire

Usted puede seleccionar de una de las cinco direcciones fijas. (Esto no tiene relación con el ángulo de las persianas.)



(Posición deseada)

(Posición deseada)

Movimiento de la rejilla de dirección de flujo

Bajo las condiciones de operación mostradas a continuación, la dirección del flujo de aire se controla automáticamente. La operación actual puede ser diferente a la que se muestra en el control remoto.

Opciones de Menú

Condición de operación

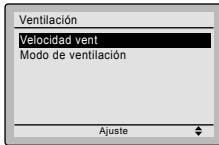
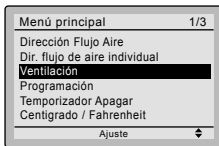
- La temperatura de la sala es mayor que la del punto de ajuste del control remoto (en el modo de calefacción).
- Durante el descongelamiento (en el modo de calefacción). (El flujo de aire se descarga horizontalmente para evitar crear una corriente para los ocupantes de la sala.)
- Bajo la operación continua con el flujo de aire descargándose horizontalmente.

Ventilación

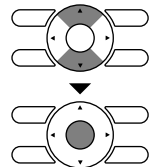
■ Propiedades de visualización de la pantalla de ventilación

Operación

1



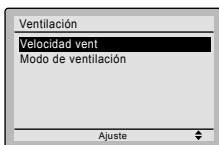
- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Ventilación** en la pantalla del menú principal. (Para los modelos sin función de ventilación, **Ventilación** no se visualizará en la pantalla de menú principal.) Presione el botón de **Menú/OK** para visualizar la pantalla de ajustes de ventilación.



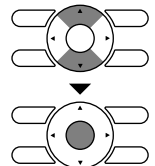
■ Cambio de la velocidad vent

Operación

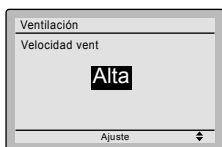
1



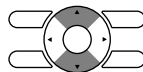
- Trae la pantalla de ajustes de ventilación (véase arriba).
- Presione los botones ▼▲ para seleccionar **Velocidad vent** en la pantalla de ajustes de ventilación. Presione el botón de **Menú/OK** para visualizar la pantalla de ajustes de la velocidad vent.



2



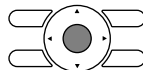
- Al presionar los botones ▼▲ se cambia el ajuste en el orden **Baja** y **Alta**.



* Sólo los modos que pueden ser ajustados se visualizan.

3

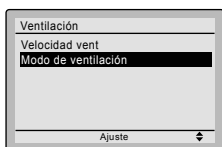
- La selección y confirmación de la tasa de ventilación deseada le llevará de vuelta a la pantalla básica.
(Al presionar el botón **Cancelación** se retorna a la pantalla previa sin cambiar la velocidad de ventilación.)



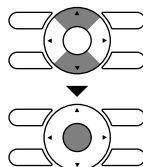
■ Cambio del modo de ventilación

Operación

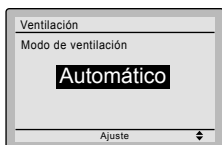
1



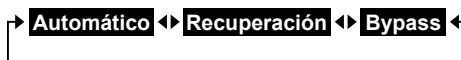
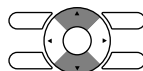
- Visualiza la pantalla de ajustes de ventilación. (Véase la página 28.)
- Presione los botones ▼▲ para seleccionar **Modo de ventilación** en la pantalla de ajustes de ventilación. Presione el botón de **Menú/OK** para visualizar la pantalla de ajustes del modo de ventilación.



2



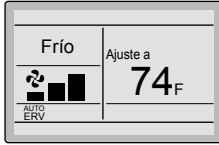
- Al presionar los botones ▼▲ se cambian los ajustes en el orden que se indica abajo.



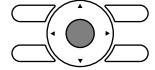
* Sólo los modos que pueden ser ajustados se visualizan.

Opciones de Menú

3



- La selección y confirmación del modo de ventilación deseado le llevará de vuelta a la pantalla básica. (Al presionar el botón **Cancelación** se retorna a la pantalla previa sin cambiar el modo de ventilación.)



Modo de Ventilación

Modo Automático

Usando la información desde la unidad interior (frío, calor, ventilador y temperatura de ajuste) y la unidad del ventilador de recuperación de energía (temperaturas interior y exterior), el modo de ventilación cambia automáticamente entre Recuperación (ERV) y Bypass.

Modo Recuperación

El aire exterior se pasa a través del núcleo de ERV y se suministra al espacio acondicionado.

Modo de Bypass

El aire exterior se suministra al espacio acondicionado sin pasar a través del núcleo de ERV.

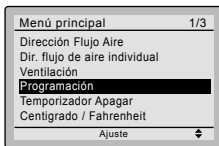
Programación

■ Ajuste del programa

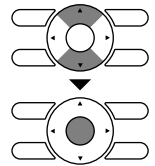
La programación desaparecerá cuando un control multizona se conecta, pero puede volver a habilitarse por el instalador del sistema.

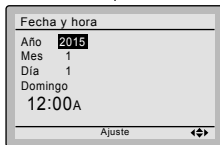
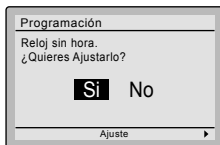
Operación

1

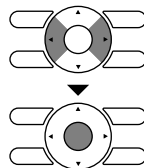


- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Programación**. Presione el botón de **Menú/OK** para visualizar la pantalla temporizador.

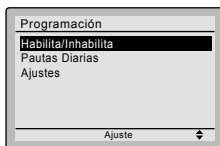




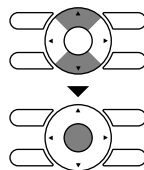
- Antes de ajustar la programación se debe ajustar el reloj.
- Si el reloj no ha sido ajustado, se visualizará una pantalla como la de la izquierda.
Presione los botones ◀▶ para seleccionar **Si** y presione el botón de **Menú/OK**.
- La pantalla de fecha y hora aparecerá.
- Ajuste el año, el mes, el día y la hora actuales. (Véanse los ajustes de reloj en la página 42.)



2



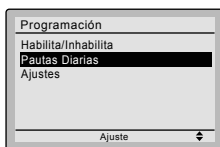
- Presione los botones ▼▲ para seleccionar la función deseada en la pantalla de programa y presione el botón **Menú/OK**.



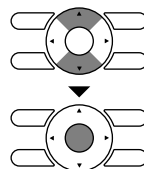
■ Pautas Diarias

Operación

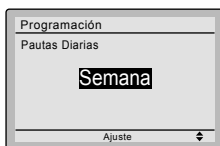
1



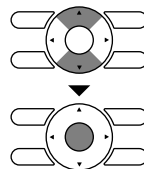
- La pantalla de programa aparecerá.
- Presione los botones ▼▲ para seleccionar **Pautas Diarias** en la pantalla de programa.
La pantalla de pautas diarias aparecerá cuando se presione el botón **Menú/OK**.



2

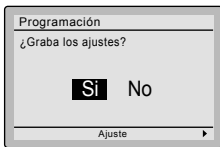


- Presione los botones ▼▲ para seleccionar **Semana**, **Día Laboral/Día Fin**, **Día Laboral/Sáb/Dom** o **Diario** en la pantalla de pautas diarias.
La pantalla de confirmación aparecerá cuando se presione el botón **Menú/OK**.

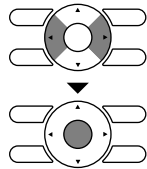


Opciones de Menú

3



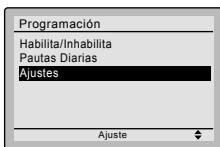
- Presione los botones ◀▶ para seleccionar **Si** en la pantalla de confirmación. Al presionar el botón **Menú/OK** se ingresa a pautas diarias en el programa y le lleva de vuelta a la pantalla de menú principal.



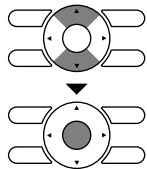
■ Ajustes

Operación

1



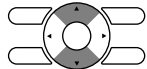
- La pantalla de programa aparecerá.
- Presione los botones ▼▲ para seleccionar **Ajustes** en la pantalla de programa. La pantalla de ajustes aparecerá cuando se presione el botón **Menú/OK**.



2



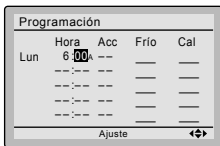
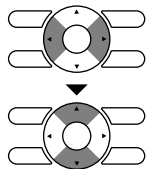
- Presione los botones ▼▲ para seleccionar el día a ser ajustado.
* No se puede seleccionar en caso de **Diario**.



3



- Ingrese la hora para el día seleccionado.
- Presione los botones ◀▶ para mover el ítem destacado y presione los botones ▼▲ para ingresar la hora de comienzo de operación deseada. Cada presión de los botones ▼▲ mueve los números en 1 hora ó 1 minuto.



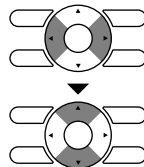
4

Programación				
	Hora	Acc	Frío	Cal
Lun	6:00a	ON		
	--:--	--		
	--:--	--		
	--:--	--		
	--:--	--		
Ajuste				



Programación				
	Hora	Acc	Frío	Cal
Lun	6:00a	ON	75F	90F
	--:--	--		
	--:--	--		
	--:--	--		
	--:--	--		
Ajuste				

- Presione los botones ◀▶ para mover el ítem destacado y presione los botones ▼▲ para configurar los ajustes ON/OFF/--.



--, ON u OFF cambia en secuencia cuando se presionan los botones ▼▲.

ON: Se pueden configurar los puntos de ajuste de temperatura.

OFF: Se pueden configurar los puntos de ajuste de límite temp si ausente.

--: Los puntos de ajuste de temperatura y los puntos de ajuste de límite temp si ausente temperatura de ajuste posterior se inhabilitan.

Programación				
	Hora	Acc	Frío	Cal
Lun	8:00a	OFF	75F	70F
	--:--	--		
	--:--	--		
	--:--	--		
	--:--	--		
Ajuste				

- Se configuran los puntos de ajuste de temperatura de enfriamiento y calefacción tanto para ON y OFF (Límite temp si ausente).

___: Indica que el punto de ajuste de la temperatura y el punto de ajuste de temperatura de límite temp si ausente para este periodo de tiempo no están especificados. El último punto de ajuste activo será utilizado.

--: Indica que la función de limite temp ausente está inhabilitada para este periodo de tiempo.

5

Programación				
	Hora	Acc	Frío	Cal
Lun	6:00a	ON	75F	70F
	8:00a	OFF	85F	50F
	5:30p	ON	75F	70F
	10:00p	---		
	--:--	--		
	--:--	--		
Ajuste				



Programación				
	Hora	Acc	Frío	Cal
Lun	6:00a	ON	75F	70F
	8:00a	OFF	85F	50F
	5:30p	ON	75F	70F
	10:00p	OFF	82F	62F
	--:--	--		
	--:--	--		
Ajuste				



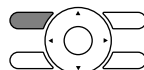
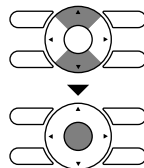
Programación				
	Hora	Acc	Frío	Cal
Mar	6:00a	ON	75F	70F
	8:00a	OFF	85F	50F
	5:30p	ON	75F	70F
	10:00p	OFF	82F	62F
	--:--	--		
	--:--	--		
Ajuste				

Se puede ajustar un máximo de cinco acciones por día.

- Presione el botón **Menú/OK** cuando se completan los ajustes para cada día. La pantalla de confirmación aparecerá.

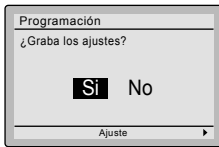
Para copiar los ajustes para el día previo, presione el botón **Modo** de manera que se copiarán los ajustes existentes.

Ejemplo: Los contenidos para Lunes se copian presionando el botón **Modo** después de seleccionar Martes.

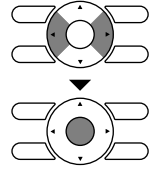


Opciones de Menú

6



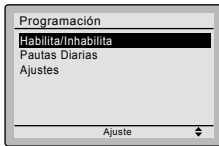
- Presione los botones ◀▶ para seleccionar **Si** en la pantalla de confirmación. Al presionar el botón **Menú/OK** se confirman los ajustes para cada día y se retorna a la pantalla básica.



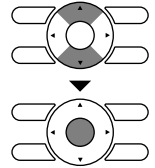
Habilitación o inhabilitación del programa

Operación

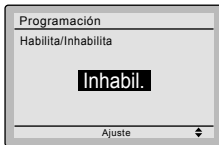
1



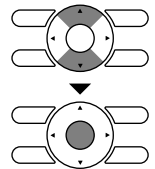
- Visualización de la pantalla de programa. (Véase la página 30.)
- Presione los botones ▼▲ para seleccionar **Habilita/Inhabilita** en la pantalla de programa. Presione el botón **Menú/OK** para visualizar la pantalla habilita/inhabilita.



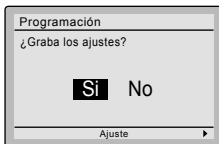
2



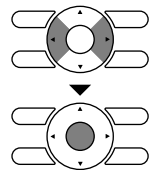
- Presione los botones ▼▲ para seleccionar **Habil.** o **Inhabil.** en la pantalla habilita/inhabilita. Presione el botón **Menú/OK** después de seleccionar el ítem. Se visualizará la pantalla de confirmación.



3



- Presione los botones ◀▶ para seleccionar **Si** en la pantalla de confirmación. Al presionar el botón **Menú/OK** se confirma el ajuste habilita/inhabilita para el programa, y se retorna a la pantalla básica.

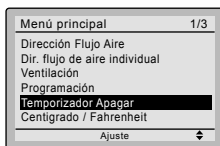


Temporizador Apagar

■ Configurar y confirmar los ajustes de Temporizador apagar

Operación

1

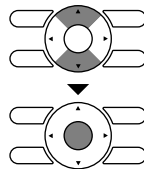


- Visualiza la pantalla del menú principal.

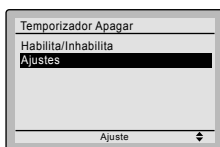
(Véase la página 22.)

- Presione los botones ▼▲ para seleccionar **Temporizador Apagar** en la pantalla del menú principal.

Presione el botón **Menú/OK** para visualizar la pantalla temporizador apagado.

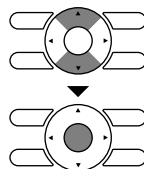


2

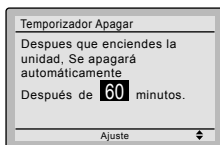


- Presione los botones ▼▲ para seleccionar **Ajustes** en la pantalla temporizador apagado.

Presione el botón **Menú/OK** para visualizar la pantalla de configuración.



3

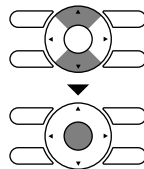


- Use los botones ▼▲ para ajustar la hora desde el comienzo de la operación hasta que la unidad se detiene automáticamente. Las selecciones pueden ser hechas en incrementos de 10 minutos desde 30 a 180 minutos.

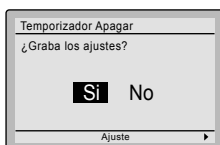
Mantener el botón presionado causa que el número cambie continuamente.

- Seleccione el tiempo deseado y presione el botón de **Menú/OK**.

La pantalla de confirmación aparecerá.

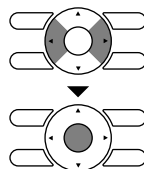


4



- Presione el botón ◀▶ para seleccionar **Sí** en la pantalla de confirmación.

Al presionar el botón de **Menú/OK** se confirma el temporizador apagado y se retorna a la pantalla básica.



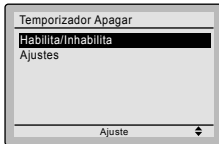
Opciones de Menú



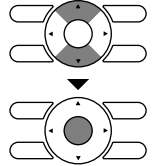
Habilitación o inhabilitación del temporizador apagado

Operación

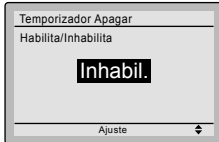
1



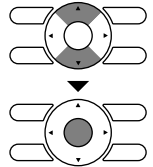
- Navegar a la pantalla de temporizador apagado. (Véase la página 35.)
- Presione los botones ▼▲ para seleccionar **Habilita/Inhabilita** en la pantalla de temporizador apagado. Presione el botón **Menú/OK** para visualizar la pantalla habilita/inhabilita.



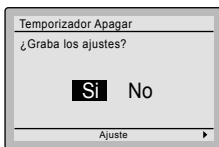
2



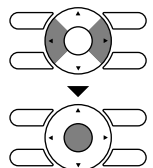
- Presione los botones ▼▲ para seleccionar **Habil.** o **Inhabil.** en la pantalla habilita/inhabilita. Presione el botón de **Menú/OK** después de seleccionar el ítem. Se visualizará la pantalla de confirmación.



3



- Presione el botón ◀▶ para seleccionar **Si** en la pantalla de confirmación. Al presionar el botón **Menú/OK** se confirma el ajuste habilita/inhabilita para el temporizador apagado y se retorna a la pantalla básica.

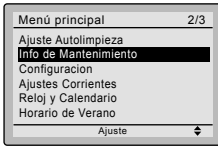


Información de Mantenimiento

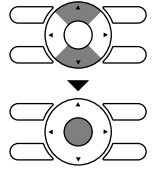
■ Visualización del contacto de servicio y la información del modelo

Operación

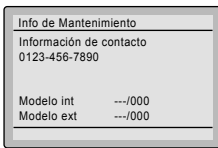
1



- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Info de Mantenimiento** en la pantalla del menú principal y el botón de **Menú/OK**.



2



- El número telefónico para la dirección de contacto se visualizará en la parte superior de la pantalla. (Si aún no se ha ingresado, éste no se visualizará.)
- La información del modelo de las unidades interior y exterior de su producto se visualizará en la parte inferior de la pantalla. (Para algunos modelos el código del producto puede no visualizarse.)

* El nombre del modelo no se visualizará si el tablero de circuitos impresos (PCB) de la unidad interior ha sido reemplazado.

* El registro de códigos de errores también se visualizará. Si la lámpara de operación no está parpadeando, la unidad está trabajando apropiadamente. El registro de código de errores desaparecerá si usted presiona el botón **On/Off** por más de 4 segundos.



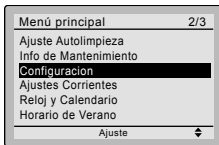
Opciones de Menú

Configuración

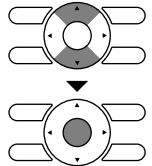
■ Prevención de Corrientes

Operación

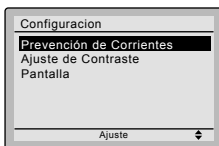
1



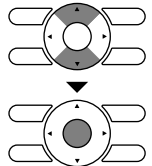
- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Configuración** y presione el botón **Menú/OK**.



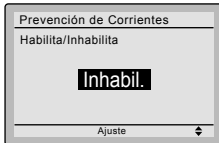
2



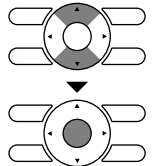
- Presione los botones ▼▲ para seleccionar **Prevención de Corrientes** y presione el botón **Menú/OK**.



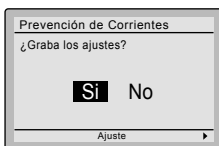
3



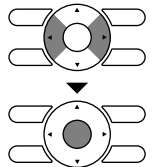
- Presione los botones ▼▲ para seleccionar **Inhabil.** o **Habil.**
- La pantalla de confirmación aparecerá cuando se presione el botón **Menú/OK**.



4



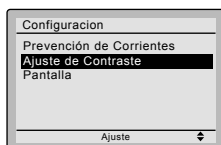
- Presione los botones ◀▶ para seleccionar **Si**.
- Presione el botón **Menú/OK** para confirmar el ajuste y regresar a la pantalla básica.



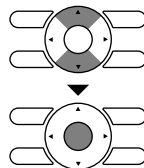
■ Ajustar Contraste

Operación

1



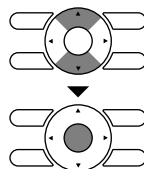
- Navegar a la pantalla de configuración. (Véase la página 38.)
- Presione los botones ▼▲ para seleccionar **Ajuste de Contraste** en la pantalla de configuración. Presione el botón **Menú/OK** para visualizar la pantalla de ajustes de contraste.



2



- En la pantalla de ajustes de contraste, presione los botones ▼▲ hasta que alcance el contraste deseado. Después del ajuste, presione el botón de **Menú/OK** para retornar a la pantalla básica.



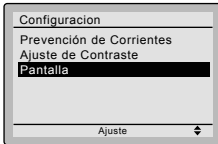
Opciones de Menú

■ Pantalla

Modo de Exhibición

Operación

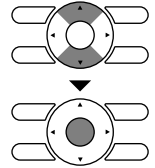
1



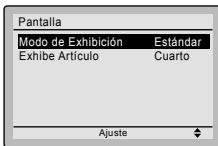
- Navegar a la pantalla de configuración. (Véase la página 38.)

- Presione los botones ▼▲ para seleccionar **Pantalla** en la pantalla de configuración.

Presione el botón **Menú/OK** para visualizar la pantalla de visualización.

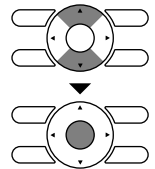


2



- Presione los botones ▼▲ para seleccionar **Modo de Exhibición** en la pantalla de visualización.

Presione el botón **Menú/OK** para visualizar la pantalla del modo de visualización.



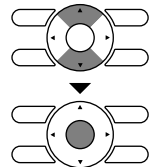
3



- Presione los botones ▼▲ para seleccionar **Estándar**, **Detall.** o **Facil** en la pantalla de visualización.

- Presione el botón de **Menú/OK** para confirmar los ajustes y retornar a la pantalla básica.

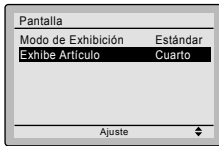
* Refiérase a **Exhibe artículo** para cambiar el ítem seleccionable para los modos de visualización Detallado y Simple. (Véase la página 41.)



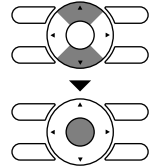
Exhibe Artículo

Operación

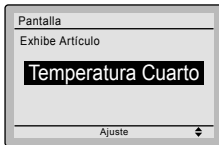
1



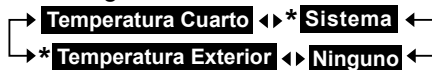
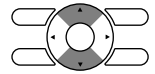
- Navegar a la pantalla de visualización. (Véase la página 40.)
- Presione los botones ▼▲ para seleccionar **Exhibe Artículo** en la pantalla de visualización. Presione el botón **Menú/OK** para visualizar la pantalla de ítems de visualización.



2



- Al presionar los botones ▼▲ se visualiza lo siguiente.



* Algunos modelos pueden no visualizar estos ítems, incluso si se seleccionan.

- Asegúrese de leer las siguientes notas referentes a la pantalla de la temperatura de la sala y la temperatura de aire exterior.

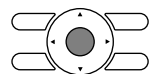
Temperatura Cuarto

..... La temperatura en el control remoto. La temperatura que se detecta puede ser afectada por la localización del control remoto.

Temperatura Exterior

..... La temperatura en la unidad exterior. La temperatura que se detecta puede ser afectada por factores tales como la localización de la unidad (por ejemplo, si está a la luz solar directa) y la operación de la unidad durante descongelamiento.

- Después del ajuste, presione el botón **Menú/OK** para confirmar los ajustes y retornar a la pantalla básica.



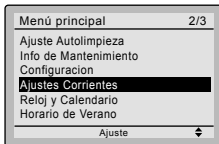
Opciones de Menú

Ajustes Corrientes

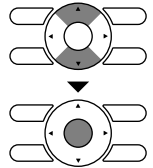
■ Confirmación de los ajustes actuales

Operación

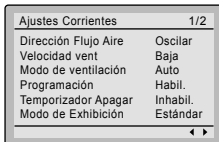
1



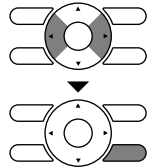
- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Ajustes Corrientes** en la pantalla del menú principal y el botón de **Menú/OK**.



2



- Aparecerá una lista que muestra el estado de los ajustes actuales. Presione los botones ◀▶ para pasar al próximo ítem.
- Presionar el botón **Cancelación** le retorna a la pantalla de menú principal.



Ítemes de pantalla

Dirección Flujo Aire	Temporizador Apagar
Velocidad vent	Modo de Exhibición
Modo de ventilación	Exhibe Artículo
Programación	Ajuste Autolimpieza

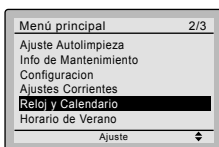
* Los ítemes de visualización pueden diferir dependiendo del modelo. Sólo los ítemes que pueden ser ajustados se visualizan.

Reloj y Calendario

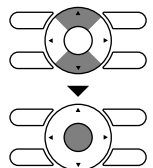
■ Fecha y Hora

Operación

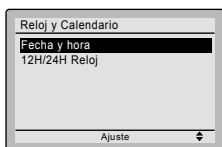
1



- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Reloj y Calendario** en la pantalla del menú principal. Presione el botón **Menú/OK** para visualizar la pantalla de reloj y calendario.

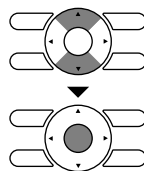


2

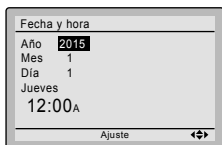


- Presione los botones ▼▲ para seleccionar **Fecha y hora** en la pantalla de reloj y calendario.

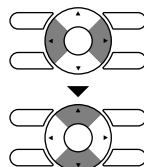
Presione el botón **Menú/OK** para visualizar la pantalla de fecha y hora.



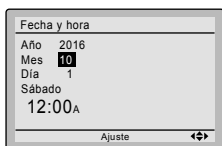
3



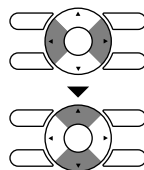
- Seleccione **Año** con los botones ◀▶. Cambie el año con los botones ▼▲. Mantener el botón presionado causa que el número cambie continuamente.



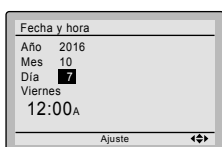
4



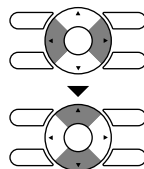
- Seleccione **Mes** con los botones ◀▶. Cambie el mes con los botones ▼▲. Mantener el botón presionado causa que el número cambie continuamente.



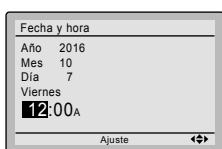
5



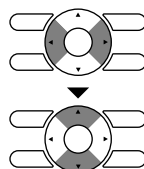
- Seleccione **Día** con los botones ◀▶. Cambie el día con los botones ▼▲. Mantener el botón presionado causa que el número cambie continuamente. Los días de la semana cambian automáticamente.



6

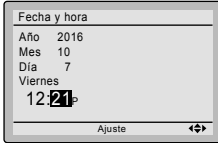


- Seleccione **Hora** con los botones ◀▶. Cambie la hora con los botones ▼▲. Mantener el botón presionado causa que el número cambie continuamente.

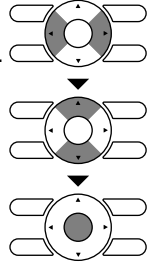


Opciones de Menú

7



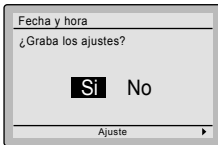
- Seleccione **Minuto** con los botones ◀▶. Cambie los minutos con los botones ▼▲. Mantener el botón presionado causa que el número cambie continuamente.
- Presione el botón de **Menú/OK**. La pantalla de confirmación aparecerá.



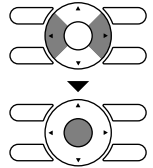
Nota:

La fecha puede ser ajustada entre 1º de enero del 2015 y el 31 de diciembre de 2099.

8



- Presione los botones ◀▶ para seleccionar **Si** en la pantalla de confirmación. Presione el botón **Menú/OK** para confirmar el reloj y retornar a la pantalla básica.

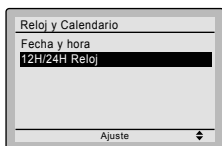


* Cuando se ajusta el programa, la visualización retorna a la pantalla de ajustes.

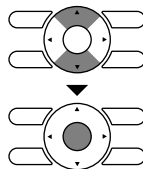
■ 12H/24H Reloj

Operación

1

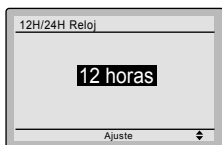


- Visualiza la pantalla de reloj y calendario. (Véase la página 42.)
- Presione los botones ▼▲ para seleccionar **12H/24H Reloj** en la pantalla de reloj y calendario.



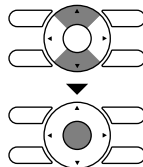
La pantalla 12H/24H Reloj aparecerá cuando se presione el botón **Menú/OK**.

2

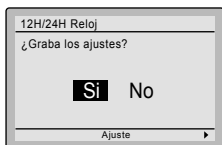


Por defecto, la pantalla de la hora se ajusta al formato de 12H.

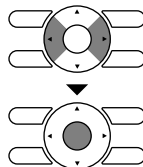
- Presione los botones ▼▲ para seleccionar **12 horas** o **24 horas** en la pantalla 12H/24H Reloj.
- La pantalla de confirmación aparecerá cuando se presione el botón **Menú/OK**.



3



- Presione los botones ◀▶ para seleccionar **Si** en la pantalla de confirmación. Al presionar el botón **Menú/OK** se confirma 12 horas o 24 horas y se retorna a la pantalla básica.

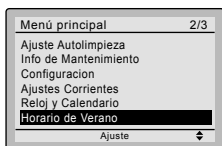


Horario de Verano

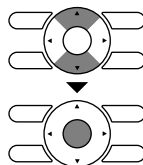
■ Cómo visualizar el horario de verano

Operación

1



- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar el **Horario de Verano** en la pantalla del menú principal. Presione el botón **Menú/OK** para visualizar la pantalla de horario de verano.

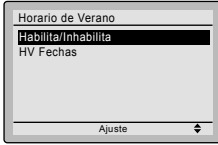


Opciones de Menú

Activación o desactivación del horario de verano

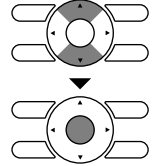
Operación

1

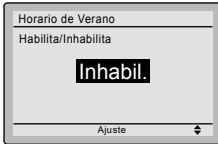


- Visualiza la pantalla de horario de verano. (Véase la página 45.)
- Presione los botones ▼▲ para seleccionar **Habilita/Inhabilita** en la pantalla del horario de verano.

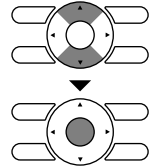
Presione el botón **Menú/OK** para visualizar la pantalla de Habilita/Inhabilita.



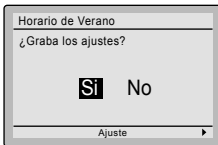
2



- Presione los botones ▼▲ para seleccionar **Habil.** o **Inhabil.** en la pantalla de Habilitar/Inhabilitar.
- Presione el botón **Menú/OK** para visualizar la pantalla de confirmación de ajuste.

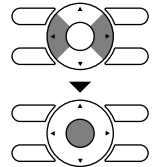


3



- Presione los botones ◀▶ para seleccionar **Si** en la pantalla de confirmación de ajuste.

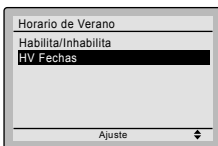
Presionando el botón **Menú/OK** confirma el ajuste Habilitar/Inhabilitar el horario de verano y se retorna a la pantalla básica.



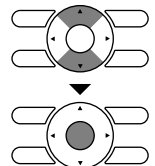
Ajuste de la fecha

Operación

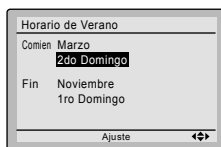
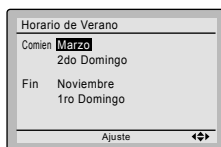
1



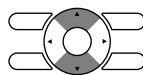
- Visualiza la pantalla de horario de verano. (Véase la página 45.)
- Presione los botones ▼▲ para seleccionar **HV Fechas** en la pantalla de horario de verano. Presione el botón **Menú/OK** para visualizar la pantalla de ajuste de duración.



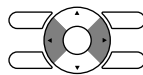
2



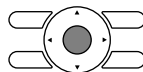
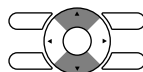
● Presione los botones ▼▲ para seleccionar un mes de comienzo y un mes de final.



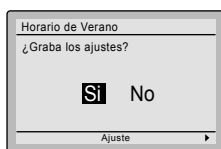
● Presione los botones ◀▶ para seleccionar la semana de comienzo y la semana de final.



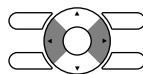
● Después de ajustar las fechas de Comienzo y Final, presione el botón **Menú/OK** para visualizar la pantalla de confirmación de ajuste.



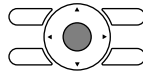
3



● Presione los botones ◀▶ para seleccionar **Si** en la pantalla de confirmación de ajuste.



Presionando el botón **Menú/OK** confirma el ajuste de horario de verano y se retorna a la pantalla básica.



Cuando el horario de verano está activado

Cuando el reloj en el control remoto llegue a las 2:00 a.m. de la fecha de comienzo especificada, el reloj se adelantará automáticamente en una hora. Cuando el reloj en el control remoto llegue a las 2:00 a.m. de la fecha de final especificada, el reloj se atrasará automáticamente en una hora.

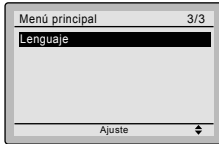
Opciones de Menú

Lenguaje

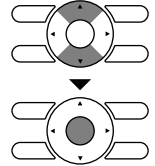
■ Lenguajes Seleccionables

Operación

1



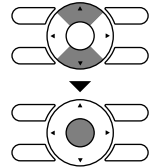
- Visualiza la pantalla del menú principal. (Véase la página 22.)
- Presione los botones ▼▲ para seleccionar **Lenguaje** en la pantalla de menú principal y presione el botón **Menú/OK**.



2



- Presione los botones ▼▲ para seleccionar el lenguaje preferido en la pantalla de lenguaje. Se dispone de **English/Français/Español**.
- Presione el botón de **Menú/OK** para confirmar los ajustes y retornar a la pantalla básica.



Mantenimiento

Reajuste Señal de Filtro

Operación

1



- Cuando llega el momento de limpiar o reemplazar el filtro, uno de los siguientes mensajes se visualizará en la parte inferior de la pantalla básica.

Limpie el filtro

Limpie el filtro/elemento

Limpie el elemento

* Esto no se muestra cuando pantalla Simple esta ajustada.

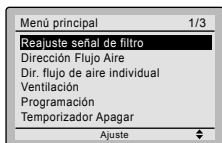
- Lave, limpie o reemplace el filtro o el elemento.
Para los detalles, refiérase al manual de operación suministrado con la unidad interior.

2

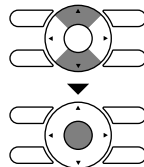
- Reponga el indicador de filtro cuando el filtro o el elemento son limpiados o reemplazados.
- Presione el botón de **Menú/OK**.
El menú principal aparecerá.



3



- Presione los botones ▼▲ para seleccionar **Reajuste señal de filtro** en la pantalla de menú principal y presione el botón de **Menú/OK**.



- Cuando la señal del filtro se resetee, en la pantalla básica ya no se mostrará el mensaje "Limpie el filtro".

Mantenimiento de la Unidad y la Pantalla de Cristal Líquido (LCD)

- Limpie la pantalla de cristal líquido (LCD) y la superficie del control remoto con un paño seco cuando se ensucian.
- Si la suciedad en la superficie no puede ser removida, empape el paño en un detergente neutro diluido con agua, estruje fuerte el paño, y limpie la superficie. Limpie la superficie con un paño seco.

Nota

- No use ningún diluyente de pintura, solvente orgánico ni ácido fuerte.

Información de Referencia

Visualización de Código de Error

- **Contacte a su concesionario Daikin en los siguientes casos.**

Operación

1



- Si se produce un error, uno de los siguientes ítems parpadeará en la pantalla básica.

Error: Presione menú

- * La lámpara de operación parpadeará.
- * Para la pantalla Simple, el mensaje no se muestra y solo parpadea la lámpara de operación.

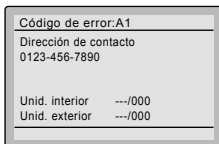
Advertencia: Presione menú

- * La lámpara de operación no parpadeará.
- * Para la pantalla Simple, el mensaje no se muestra y tampoco parpadea la lámpara de operación.

- Presione el botón de **Menú/OK**.



2



- El código de error parpadeará y el contacto de servicio y el nombre de modelo o código se visualizarán.
- Notifique a su concesionario Daikin el código de error y el nombre de modelo o código

Servicio Después de la Venta



Advertencia

- **No realice ni reinstale el control remoto por sí mismo.**
La instalación inadecuada puede resultar en descargas eléctricas o incendio.
Consulte con su concesionario Daikin.



■ Notifique a su concesionario Daikin los siguientes ítems.

- | |
|--|
| <ul style="list-style-type: none">● Nombre del modelo● Fecha de instalación● Condiciones de falla: Tan preciso como sea posible.● Su dirección, nombre y número telefónico. |
|--|

■ Reparaciones después del Período de Garantía

Consulte con su concesionario Daikin.

■ Consulta sobre el Servicio Después de la Venta

Contacte a su concesionario Daikin.

DAIKIN



Our continuing commitment to quality products may mean a change in specifications without notice.
© 2015 **DAIKIN NORTH AMERICA LLC** · Houston, Texas · USA · www.daikincomfort.com

DAIKIN INDUSTRIES, LTD.

Head office:

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo office:

JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan

DAIKIN

OPERATION MANUAL

VRV SYSTEM Inverter Air Conditioners

MODELS

Wall-mounted type

FXAQ07PVJU

FXAQ09PVJU

FXAQ12PVJU

FXAQ18PVJU

FXAQ24PVJU

English

Français

Español

Read these instructions carefully before installation.
Keep this manual in a handy place for future reference.
This manual should be left with the equipment owner.

Lire soigneusement ces instructions avant l'installation.
Conserver ce manuel à portée de main pour référence ultérieure.
Ce manuel doit être donné au propriétaire de l'équipement.


Lea cuidadosamente estas instrucciones antes de instalar.
Guarde este manual en un lugar a mano para leer en caso de tener alguna duda.
Este manual debe permanecer con el propietario del equipo.


SAFETY CONSIDERATIONS


Read these *Safety Considerations for Operations* carefully before installing air conditioning equipment. After completing the installation, make sure that the unit operates properly during the startup operation. Instruct the customer on how to operate and maintain the unit.


Inform customers that they should store this Operation Manual with the Installation Manual for future reference.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE** Indicates situations that may result in equipment or property-damage accidents only.

DANGER

- Do not install the unit in an area where flammable materials are present due to risk of explosion resulting in serious injury or death.
 - Any abnormalities in the operation of the air conditioner such as smoke or fire could result in severe injury or death. Turn off the power and contact your dealer immediately.
 - Refrigerant gas may produce toxic gas if it come in contact with fire, such as from a fan, heater, stove, or cooking device. Exposure to this gas could cause severe injury or death.
 - For refrigerant leakage, consult your dealer. Refrigerant gas is heavier than air and replaces oxygen. A massive leak could lead to oxygen depletion, especially in basements, and an asphyxiation hazard could occur leading to serious injury or death.
 - If equipment utilizing a burner is used in the same room as the air conditioner, there is the danger of oxygen deficiency which could lead to an asphyxiation hazard resulting in serious injury or death. Be sure to ventilate the room sufficiently to avoid this hazard.
 - Safely dispose of the packing materials. Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.
 - Tear apart and throw away plastic packaging bags so that children will not play with them. Children playing with plastic bags face the danger of death by suffocation.
-

WARNING

- Contact your dealer for repair and maintenance. Improper repair and maintenance may result in water leakage, electric shock, and fire. Only use accessories made by Daikin that are specifically designed for use with the equipment and have them installed by a professional.
 - Contact your dealer to move and reinstall the air conditioner. Incomplete installation may result in water leakage, electric shock, and fire.
 - Never let the indoor unit or the remote controller get wet. Water can cause an electric shock or a fire.
 - Never use flammable spray such as hair spray, lacquer, or paint near the unit. Flammable spray may cause a fire.
 - When a fuse blows out, never replace it with one of incorrect ampere ratings or different wires. Always replace any blown fuse with a fuse of the same specification.
 - Never remove the fan guard of the unit. A fan rotating at high speed without the fan guard is very dangerous.
 - Never inspect or service the unit by yourself. Contact a qualified service person to perform this work.
 - Turn off all electrical power before doing any maintenance to avoid the risk of serious electric shock; never sprinkle or spill water or liquids on the unit.
 - Do not touch the switch with wet fingers. Touching a switch with wet fingers can cause electric shock.
 - Do not allow children to play on or around the unit to prevent injury.
 - The heat exchanger fins are sharp enough to cut. To avoid injury wear gloves or cover the fins while working around them.
 - Do not put a finger or other objects into the air inlet or air outlet. The fan is rotating at high speed and will cause injury.
 - Check the unit foundation for damage on a continuous basis, especially if it has been in use for a long time. If left in a damaged condition the unit may fall and cause injury.
 - Placing a flower vase or other containers with water or other liquids on the unit could cause a shock or fire if a spill occurs.
 - Do not touch the air outlet or horizontal blades while the swing flap is in operation because fingers could get caught and injured.
 - Never touch the internal parts of the controller. Do not remove the front panel because some parts inside are dangerous to touch. To check and adjust internal parts, contact your dealer.
 - Be sure to establish a ground. Do not ground the unit to a utility pipe, arrester, or telephone ground. Incomplete grounding may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.
 - Be sure to install a ground fault circuit interrupter. Failure to install a ground fault circuit interrupter may result in electric shocks, or fire.
-



CAUTION

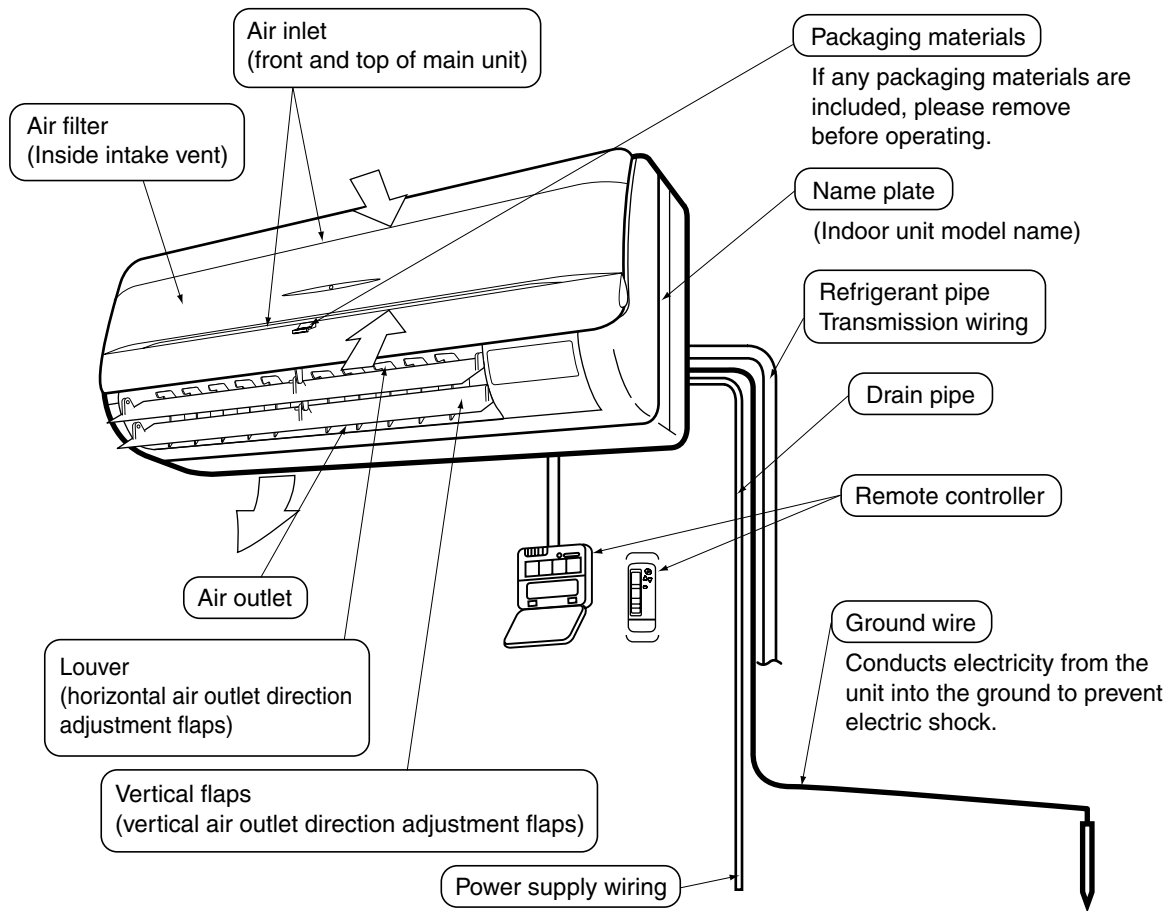
- Do not use the air conditioner for any other purposes other than comfort cooling or heating. Do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Do not place items under the indoor unit as they may be damaged by condensates that may form if the humidity is above 80% or if the drain outlet gets blocked.
- Before cleaning, stop the operation of the unit by turning the power off or by pulling the supply cord out from its receptacle. Otherwise, an electric shock and injury may result.
- Do not wash the air conditioner with excessive water. An electric shock or fire may result.
- Avoid placing the controller in a spot splashed with water. Water entering the controller may cause an electric shock or damage the internal electronic parts.
- Do not operate the air conditioner when using a room fumigation type of insecticide. Failure to observe this could cause the chemicals to be deposited in the unit and can endanger the health of those who are hypersensitive to chemicals.
- Do not turn off the power immediately after stopping operation. Always wait for at least five minutes before turning off the power. Otherwise, water leakage may occur.
- The appliance is not intended for use by young children or infirm persons without supervision.
- The remote controller should be kept away from children so they cannot play with it.
- Consult with the installation contractor for cleaning.
- Incorrect cleaning of the inside of the air conditioner could make the plastics parts break and cause water leakage or electric shock.
- Do not touch the air inlet or aluminum fin of the air conditioner as they can cut and cause injury.
- Do not place objects in direct proximity of the outdoor unit. Do not let leaves and other debris accumulate around the unit. Leaves are a hotbed for small animals which can enter the unit. Once inside the unit, animals can cause the unit to malfunction, and cause smoke or fire when they make contact with electrical parts.



NOTE

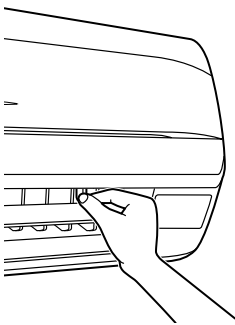
- Never press the button of the remote controller with a hard, pointed object. The remote controller may be damaged.
- Never pull or twist the electric wire of the remote controller. It may cause the unit to malfunction.
- Do not place appliances that produce open flames in places that are exposed to the airflow of the unit or under the indoor unit. It may cause incomplete combustion or deformation of the unit due to the heat.

- Do not expose the controller to direct sunlight. The LCD display can become discolored and may fail to display the data.
- Do not wipe the controller operation panel with benzene, thinner, chemical dust cloth, etc. The panel may get discolored or the coating can peel off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Then wipe it with another dry cloth.
- Dismantling of the unit, disposal of the refrigerant, oil, and additional parts, should be done in accordance with the relevant local, state, and national regulations.
- Operate the air conditioner in a sufficiently ventilated area and not surrounded by obstacles. Do not use the air conditioner in the following places.
 - a. Places with a mist of mineral oil, such as cutting oil.
 - b. Locations such as coastal areas where there is a lot of salt in the air.
 - c. Locations such as hot springs where there is a lot of sulfur in the air.
 - d. Locations such as factories where the power voltage varies a lot.
 - e. In cars, boats, and other vehicles.
 - f. Locations such as kitchens where oil may splatter or where there is steam in the air.
 - g. Locations where equipment produces electromagnetic waves.
 - h. Places with an acid or alkaline mist.
 - i. Places where fallen leaves can accumulate or where weeds can grow.
- Take snow protection measures. Contact your dealer for the details of snow protection measures, such as the use of a snow protection hood.
- Do not attempt to do electrical work or grounding work unless you are licensed to do so. Consult with your dealer for electrical work and grounding work.
- Pay Attention to Operating Sound. Be sure to use the following places:
 - a. Places that can sufficiently withstand the weight of the air conditioner yet can suppress the operating sound and vibration of the air conditioner.
 - b. Places where warm air from the air outlet of the outdoor unit or the operating sound of the outdoor unit does not annoy neighbors.
- Make sure that there are no obstacles close to the outdoor unit. Obstacles close to the outdoor unit may drop the performance of the outdoor unit or increase the operating sound of the outdoor unit.
- Consult your dealer if the air conditioner in operation generates unusual noise.
- Make sure that the drainpipe is installed properly to drain water. If no water is discharged from the drainpipe while the air conditioner is in the cooling mode, the drainpipe may be clogged with dust or dirt and water leakage from the indoor unit may occur. Stop operating the air conditioner and contact your dealer.



HOW TO ADJUST THE HORIZONTAL FAN DIRECTION ANGLE

Hold the tabs on edge louvers (horizontal air outlet direction adjustment flaps) down slightly and adjust left and right to match the room conditions or your preference.



Stop the vertical flaps at a position where you can hold the tabs and adjust the louver left and right.

MAINTENANCE (FOR SERVICE PERSONNEL)



NOTE

- Do not remove the air filter except when cleaning. This may cause breakage.

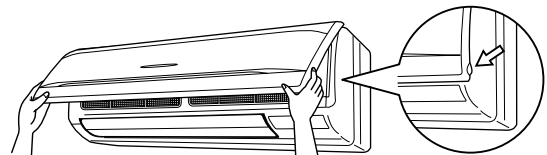
HOW TO CLEAN THE AIR FILTER

Clean the air filter when the display shows "TIME TO CLEAN FILTER".

- It will display that it will operate for a set amount of time.
- Increase the frequency of cleaning if the unit is installed in a room where the air is extremely contaminated.
- If the dirt becomes impossible to clean, change the air filter (Air filter for exchange is optional)

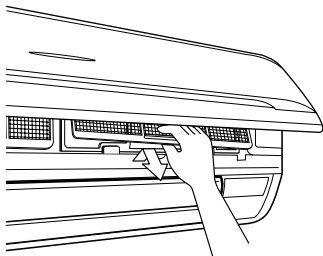
1. Open the front panel.

Place your fingers on the panel protrusions on the left and right sides of the main unit and open until the panel stops. (Follow the same procedure for closing.)



2. Pullout the air filter.

Push up the tab in the center of the air filter slightly then pull out in a downward direction.



3. Clean the air filter.

Use vacuum cleaner **A)** or wash the air filter with water **B)**.

A) Using a vacuum cleaner



B) Washing with water

When the air filter is very dirty, use soft brush and neutral detergent



Remove water and dry in the shade.



NOTE

- Do not wash the air filter with hot water of more than 120°F, as doing so may result in discoloration and/or deformation.
- Do not expose it to fire, as doing so may result in burning.

4. Attach the air filter.

Once cleaning is done be sure to replace the air filter as it was.

5. Shut the front panel.

Refer to item No.1.

6. Press the FILTER SIGN RESET button on the remote controller.

The "TIME TO CLEAN FILTER" display vanishes.

HOW TO CLEAN THE AIR OUTLET AND EXTERIOR

- Clean with soft cloth.
- When it is difficult to remove stains, use water or neutral detergent.



NOTE

- Do not use gasoline, benzene, thinner, polishing powder, liquid insecticide. It may cause discoloring or warping.
- Do not use water or air of 120°F or higher for cleaning air filters.
- When the flap is extremely contaminated, remove it as below and clean or exchange it. (Flap for exchange is optional.)

HOW TO CLEAN THE FRONT PANEL

You can remove the front panel to clean it.



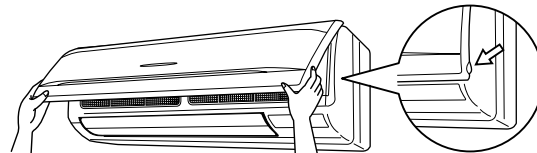
NOTE

- Hold the front panel firmly so that it does not fall.
- Do not use gasoline, benzene, thinner, polishing powder, liquid insecticide. It may cause discoloring or warping.

- Do not let the indoor unit get wet. It may cause an electric shock or a fire.
- Do not scrub firmly when washing the blade with water. The surface sealing may peel off.
- Do not use water or air of 120°F or higher for cleaning air filters and outside panels.
- Make sure the front panel is solidly in place.

1. Open the front panel.

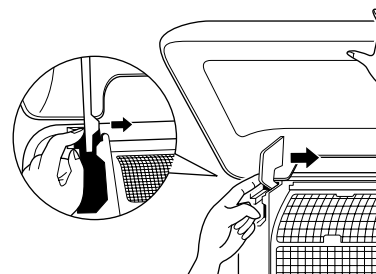
Place your fingers on the panel protrusions on the left and right sides of the main unit and open until the panel stops. (Follow the same procedure for closing.)



2. Remove the front panel.

Push the axes on either side of the front panel towards the center of the main unit and remove.

(You can also remove it by sliding the front panel either to the left or right and pulling it forward.)



3. Clean the front panel.

- Wipe gently with a soft wet cloth.
- Only use neutral cleaning agents.
- After washing off, wipe off any excess water and dry in a shaded location.
- **When very grimy**
Directly apply the type of detergent used for cleaning ventilation fans or ovens, wait 10 minutes, and then rinse with water.



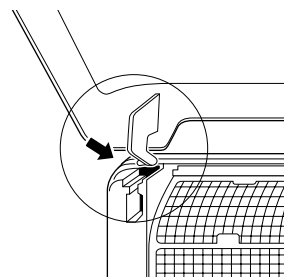
NOTE

- Do not wash the air conditioner with hot water of more than 120°F. Doing so may result in discoloration or deformation.

4. Attach the front panel.

Set the keys of the front panel into the slots and push them in all the way.

Close the front panel slowly in this state.



DAIKIN AC (AMERICAS), INC.

1645 Wallace Drive, Suite 110
Carrollton, TX 75006 USA

info@daikinac.com
www.daikinac.com

DAIKIN INDUSTRIES, LTD.

Head office:

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo office:

JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan



DAIKIN



OPERATION MANUAL

VRV SYSTEM Inverter Air Conditioners

MODELS Air Handling Unit

FXTQ09TAVJUA	FXTQ09TAVJUD
FXTQ12TAVJUA	FXTQ12TAVJUD
FXTQ18TAVJUA	FXTQ18TAVJUD
FXTQ24TAVJUA	FXTQ24TAVJUD
FXTQ30TAVJUA	FXTQ30TAVJUD
FXTQ36TAVJUA	FXTQ36TAVJUD
FXTQ42TAVJUA	FXTQ42TAVJUD
FXTQ48TAVJUA	FXTQ48TAVJUD
FXTQ54TAVJUA	FXTQ54TAVJUD
FXTQ60TAVJUA	FXTQ60TAVJUD

English

Français

Español

Read these instructions carefully before installation. Keep this manual in a handy place for future reference. This manual should be left with the equipment owner.

Lire soigneusement ces instructions avant l'installation.
Conserver ce manuel à portée de main pour référence ultérieure. Ce manuel doit être donné au propriétaire de l'équipement.

Lea cuidadosamente estas instrucciones antes de instalar.
Guarde este manual en un lugar a mano para leer en caso de tener alguna duda. Este manual debe permanecer con el propietario del equipo.



CONTENTS

1. SAFETY INSTRUCTIONS 2
 2. PART NOMENCLATURE 3
 3. MAINTENANCE 6
 4. PRECAUTIONS 7


1. SAFETY INSTRUCTIONS


Read these “SAFETY INSTRUCTIONS for Operations” carefully before installing. After completing the installation, make sure that the unit operates properly during the startup operation.


Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Operation Manual with the Installation Manual for future reference.


Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION** and **NOTE** Symbols:

 **DANGER**..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE**..... Indicates situations that may result in equipment or property-damage accidents only.

 **DANGER**

- Any abnormalities in the operation of the heat pump such as smoke or fire could result in severe injury or death. Turn off the power and contact your dealer immediately.
- Refrigerant gas may produce toxic gas if it comes in contact with fire, such as from a fan, heater, stove or cooking device. Exposure to this gas could cause severe injury or death.

- For refrigerant leakage, consult your dealer. Refrigerant gas is heavier than air and replaces oxygen. A massive leak could lead to oxygen depletion, especially in basements and an asphyxiation hazard could occur leading to serious injury or death.
- If equipment utilizing a burner is used in the same room as the heat pump, there is the danger of oxygen deficiency which could lead to an asphyxiation hazard resulting in serious injury or death. Be sure to ventilate the room sufficiently to avoid this hazard.
- Safely dispose of the packing materials. Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.
- Tear apart and throw away plastic packaging bags so that children will not play with them. Children playing with plastic bags face the danger of death by suffocation.

 **WARNING**

- Contact your dealer for repair and maintenance. Improper repair and maintenance may result in water leakage, electric shock and fire. Only use accessories made by Daikin that are specifically designed for use with this equipment and have them installed by a professional.
- Contact your dealer to move and reinstall the heat pump. Incomplete installation may result in water leakage, electric shock and fire.
- Never let the indoor unit or the remote controller get wet. Water can cause an electric shock or a fire.
- Never use flammable spray such as hair spray, lacquer or paint near the unit. Flammable spray may cause a fire.
- Never remove the front panel of the unit. A fan rotating at high speed without the front panel is very dangerous.
- Never inspect or service the unit by yourself. Contact a qualified service person to perform this work.
- Turn off all electrical power before doing any maintenance to avoid the risk of serious electric shock. Never sprinkle or spill water or liquids on the unit.
- Do not touch the switch with wet fingers. Touching a switch with wet fingers can cause electric shock.

- Do not allow children to play on or around the unit to prevent injury.
- The heat exchanger fins are sharp enough to cut. To avoid injury, wear gloves or cover the fins while working around them.
- Do not put a finger or other objects into the air inlet or air outlet. The fan is rotating at high speed and will cause injury.
- Check the unit foundation for damage on a continuous basis, especially if it has been in use for a long time. If left in a damaged condition the unit may cause injury.
- Placing a flower vase or other containers with water or other liquids on the unit could cause a shock or fire if a spill occurs.
- Never touch the internal parts of the controller. Do not remove the front panel because some parts inside are dangerous to touch. To check and adjust internal parts, contact your dealer.

⚠ CAUTION

- Do not use the heat pump for any other purposes other than comfort cooling or heating. Do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Do not place items under the indoor unit as they may be damaged by condensates that may form if the humidity is above 80% or if the drain outlet gets blocked.
- Before cleaning, stop the operation of the unit by turning the power off or by pulling the supply cord out from its receptacle. Otherwise, an electric shock and injury may result.
- Do not wash the heat pump with excessive water. An electric shock or fire may result.
- Avoid placing the controller in a spot splashed with water. Water entering the controller may cause an electric shock or damage the internal electronic parts.
- Do not operate the heat pump when using a room fumigation type of insecticide. Failure to observe this could cause the chemicals to be deposited in the unit and can endanger the health of those who are hypersensitive to chemicals.
- The appliance is not intended for use by young children or infirm persons without supervision.
- The remote controller should be kept away from children so they cannot play with it.

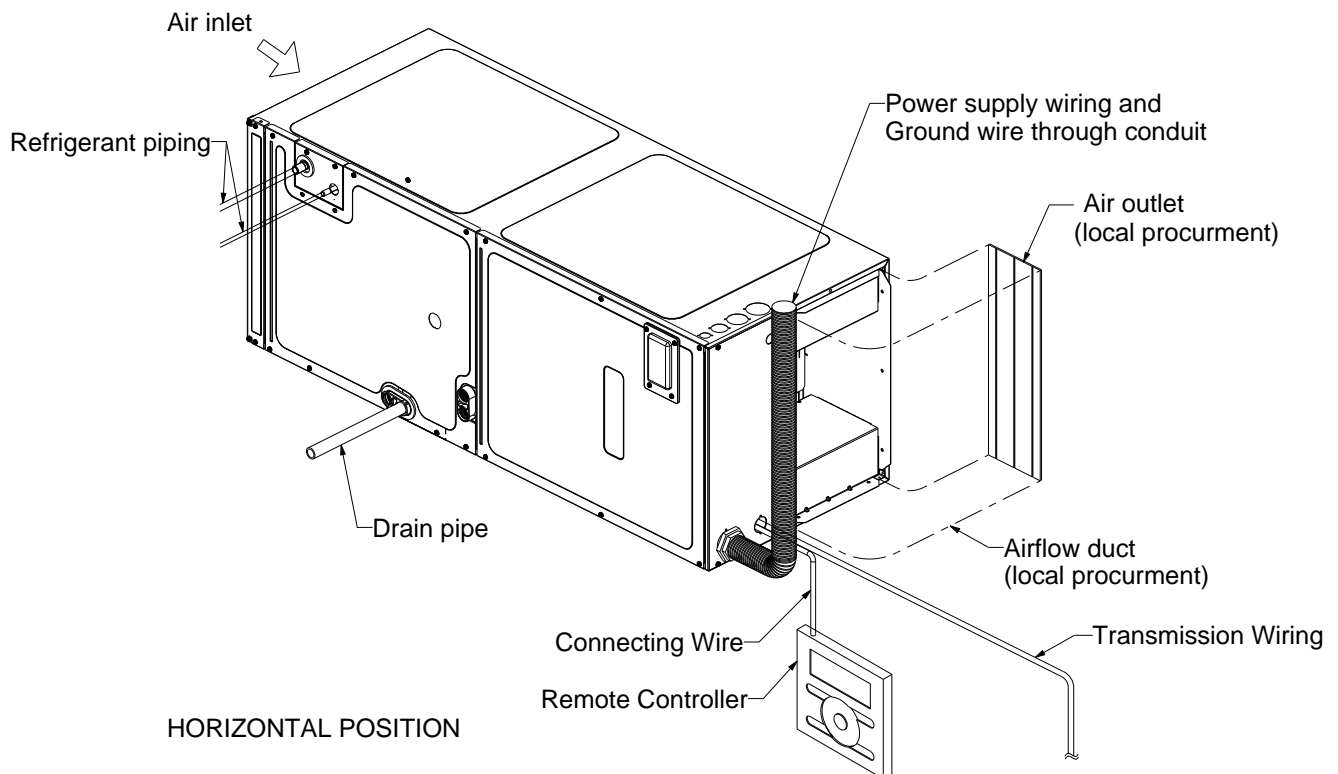
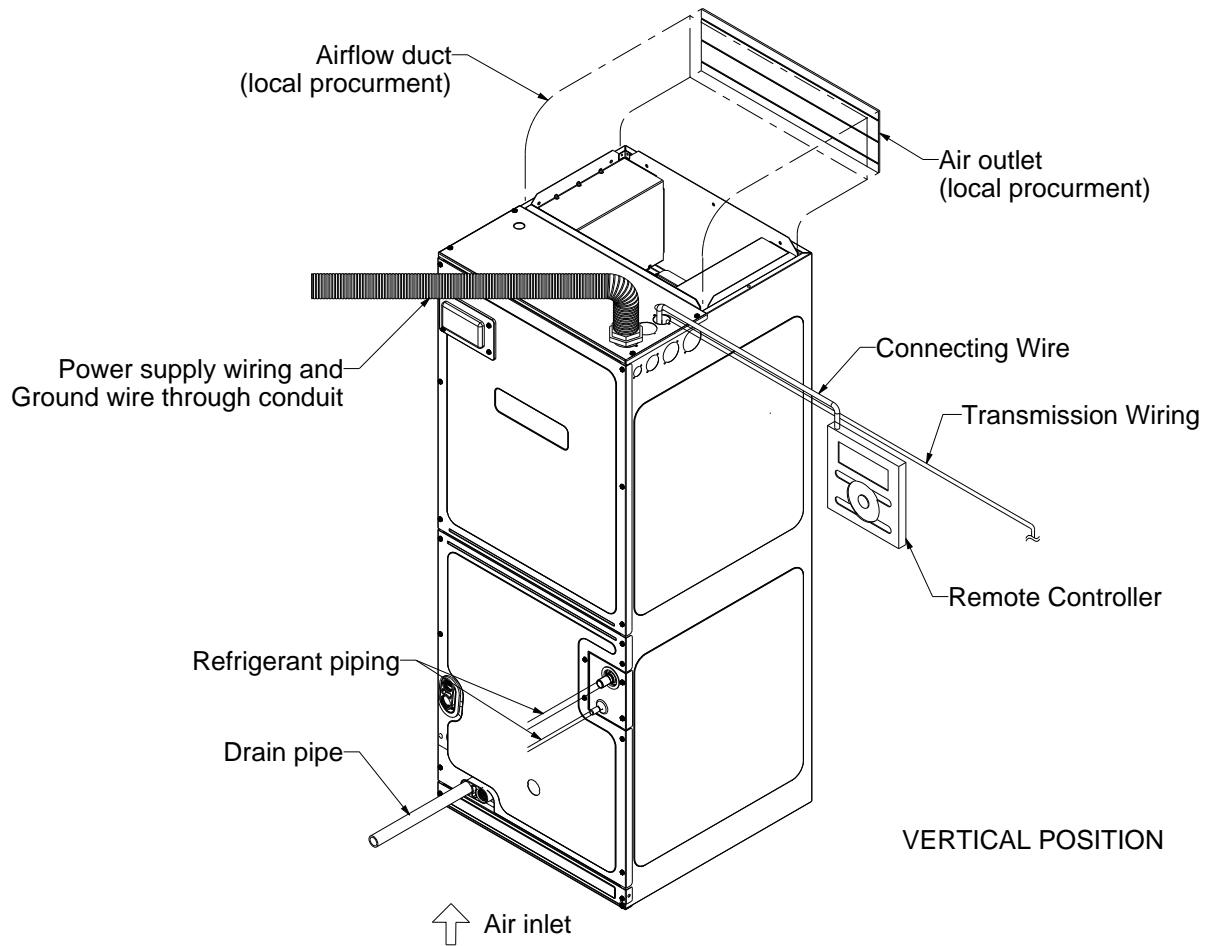
- Consult with the installation contractor for cleaning.
- Incorrect cleaning of the inside of the heat pump could make the plastic parts break and cause water leakage or electric shock.
- Do not touch the air inlet or aluminum fin of the heat pump as they can cut and cause injury.
- Do not place objects in direct proximity of the outside unit. Do not let leaves and other debris accumulate around the unit. Leaves are a hotbed for small animals which can enter the unit. Once inside the unit, animals can cause the unit to malfunction and cause smoke or fire when they make contact with electrical parts.

⚠ NOTE

- Never press the button of the remote controller with a hard, pointed object. The remote controller may be damaged.
- Never pull or twist the electric wire of the remote controller. It may cause the unit to malfunction.
- Do not place appliances that produce open flames in places that are exposed to the air flow of the unit or under the indoor unit. It may cause incomplete combustion or deformation of the unit due to the heat.
- Do not expose the controller to direct sunlight. The LCD display can become discolored and may fail to display the data.
- Do not wipe the controller operation panel with benzene, thinner, chemical dust cloth, etc. The panel may get discolored or the coating can peel off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Then wipe it with another dry cloth.
- Dismantling of the unit, disposal of the refrigerant, oil, and additional parts, should be done in accordance with the relevant local, state, and national regulations.
- Operate the heat pump in a sufficiently ventilated area and not surrounded by obstacles. Do not use the heat pump in the following places.
 - a. Places with a mist of mineral oil, such as cutting oil.
 - b. Locations such as coastal areas where there is a lot of salt in the air.
 - c. Locations such as hot springs where there is a lot of sulfur in the air.
 - d. Locations such as factories where the power voltage varies a lot.

- e. In cars, boats, and other vehicles.
 - f. Locations such as kitchens where oil may splatter or where there is steam in the air.
 - g. Locations where equipment produces electromagnetic waves.
 - h. Places with an acid or alkaline mist.
 - i. Places where fallen leaves can accumulate or where weeds can grow.
- Do not attempt to do electrical work or grounding work, unless you are licensed to do so. Consult with your dealer for electrical work and grounding work.
- Pay attention to operating sound. Be sure to use the following places:
 - a. Places that can sufficiently withstand the weight of the heat pump yet can suppress the operating sound and vibration of the heat pump.
 - b. Places where warm air from the air outlet of the outside unit or the operating sound of the outside unit does not annoy neighbors.
 - Consult your dealer if the heat pump in operation generates unusual noise.
 - Make sure that the drainpipe is installed properly to drain water. If no water is discharged from the drainpipe while the heat pump is in the cooling mode, the drainpipe may be clogged with dust or dirt and water leakage from the indoor unit may occur. Stop operating the heat pump and contact your dealer.
-

2. PART NOMENCLATURE



3. MAINTENANCE

WARNING

- **Only a qualified person is allowed to perform maintenance without daily maintenance.**
- **Before touching any of the connection wirings, be sure to turn off all power supply switches.**
- **For installation of optional parts, only a qualified person is allowed to do so.**

Be sure to use optional parts specified by the manufacturer. Installation in your own manner may result in water leakage, electric shock or fire.
- Do not use flammable material (e.g. hair-spray or insecticide) near the product.

CAUTION

- Only proceed with the unit cleaning after stopping the operation and turning the power supply off.

Failure to do so may result in electric shocks or injury.
- **Do not wash the heat pump or air handler with water.**

Failure to do so may result in an electric shock.
- **Consult with installation contractor for cleaning the inside of the air handler.**

Wrong cleaning procedures may break plastic parts or cause water leakage or electric shock.
- **Use a stable prep stand.**

Pay extra attention when cleaning the air handler.

(Maintenance and inspection)

- Clean the drain pan periodically. The drain pipes clogged with dust will cause water leakage.
- For cleaning, consult with your Daikin dealer. (Before each season when cooling or heating is required, clean the air handler.)
- If the area around the indoor unit is very dusty, use a dust proof cover (local procurement).

(Cleaning the inside of the indoor unit)

- It is necessary to clean the inside of the indoor unit periodically.

Since the cleaning requires special technologies, request a Daikin dealer to clean them.

(Electric heater replacement interval)

- The electric heater should be replaced every ten years. This replacement interval is a guideline for ensuring safe and trouble-free operation of the product for many years.

(Cleaning the air filter)

- The air filter is an optional accessory.

EXPLANATION:

- Removing the air filter except when cleaning the air handler may result in accidents.
- Replace the filter when one of the following messages displayed on the bottom of remote controller screen.
 - Time to clean filter & element
 - Time to clean filter
- If using the air handler under very dusty environment, increase the frequency of air filter cleaning.
- Reset the filter sign on main menu of remote controller. Refer an operation manual of remote controller for detail.
- Consult dealer to change filter setting time to display filter change alarm on remote controller screen. (The default factory setting is 2500 hours.)
- There are the following time, display pattern: 1250, 2500, 5000, 10000.

⚠ WARNING

- **Do not allow the indoor unit to get wet as it may cause an electric shock or fire.**

4. PRECAUTIONS

If the following phenomenon occurs, contact your dealer.

⚠ DANGER

- **Any abnormalities in the operation of the heat pump or air handler such as smoke or fire could result in severe injury or death.**

Turn off the power and contact your dealer immediately for instructions.

Phenomenon

- The unit may operate with the airflow rate at high speed even though the airflow rate was set to low speed using the remote controller during ELECTRIC HEATER operation.

Take the following actions before contact.

Check to see if an optional electric heater is installed. The unit operates with the airflow rate at high speed during ELECTRIC HEATER operation regardless of the remote controller airflow rate setting or display.

Phenomenon

- The safety devices such as fuse, breaker, ground fault interrupter, etc. often operate or operations of the operation switch are unstable.

Take the following actions before contact.

Turn off the switch.

- If the ON/OFF switch does not properly work,

Take the following actions before contact.

Turn off the main power switch.

Phenomenon

- Water leaks out from the air handler.

Take the following actions before contact.

Stop the operation.

Phenomenon

- Error message is displayed. See the remote controller operation manual for details.

Inform the dealer of the details being displayed on the remote controller.

AIR HANDLER

AIR HANDLER HOMEOWNER'S ROUTINE MAINTENANCE RECOMMENDATIONS

We strongly recommend a bi-annual maintenance checkup be performed before the heating and cooling seasons begin by a **qualified servicer**.

REPLACE OR CLEAN FILTER

IMPORTANT NOTE: Never operate unit without a filter installed as dust and lint will build up on internal parts resulting in loss of efficiency, equipment damage and possible fire.

An indoor air filter must be used with your comfort system. A properly maintained filter will keep the indoor coil of your comfort system clean. A dirty coil could cause poor operation and/or severe equipment damage.

Your air filter or filters could be located in your furnace, in a blower unit, or in "filter grilles" in your ceiling or walls. The installer of your air conditioner or heat pump can tell you where your filter(s) are, and how to clean or replace them.

Check your filter(s) at least once a month. When they are dirty, replace or clean as required. Disposable type filters should be replaced. Reusable type filters may be cleaned.

You may want to ask your dealer about high efficiency filters. High efficiency filters are available in both electronic and non-electronic types. These filters can do a better job of catching small airborne particles.

MOTORS

Indoor and outdoor fan motors are permanently lubricated and do not require additional oiling.

ALUMINUM INDOOR COIL CLEANING (QUALIFIED SERVICER ONLY)

This unit is equipped with an aluminum tube evaporator coil. The safest way to clean the evaporator coil is to simply flush the coil with water. This cleaning practice remains as the recommended cleaning method for both copper tube and aluminum tube residential evaporator coils.

It has been determined that many coil cleaners and drain pan tablets contain corrosive chemicals that can be harmful to aluminum tube and fin evaporator coils. Even a one-time application of these corrosive chemicals can cause premature aluminum evaporator coil failure. Any cleaners that contain corrosive chemicals including, but not limited to, chlorine and hydroxides, should not be used.

An alternate cleaning method is to use one of the products listed in TP-109* to clean the coils. The cleaners listed are the only agents deemed safe and approved for use to clean round tube aluminum coils. TP-109 is also available on the web site in Partner Link > Service Toolkit.

NOTE: Ensure coils are rinsed well after use of any chemical cleaners.

BEFORE YOU CALL YOUR SERVICER

- Check the thermostat to confirm that it is properly set.
- Wait 15 minutes. Some devices in the outdoor unit or in programmable thermostats will prevent compressor operation for awhile, and then reset automatically. Also, some power companies will install devices which shut off air conditioners for several minutes on hot days. If you wait several minutes, the unit may begin operation on its own.
- Check the electrical panel for tripped circuit breakers or failed fuses. Reset the circuit breakers or replace fuses as necessary.
- Check the disconnect switch near the indoor furnace or blower to confirm that it is closed.
- Check for obstructions on the outdoor unit. Confirm that it has not been covered on the sides or the top. Remove any obstruction that can be safely removed. If the unit is covered with dirt or debris, call a qualified servicer to clean it.
- Check for blockage of the indoor air inlets and outlets. Confirm that they are open and have not been blocked by objects (rugs, curtains or furniture).
- Check the filter. If it is dirty, clean or replace it.
- Listen for any unusual noise(s), other than normal operating noise, that might be coming from the outdoor unit. If you hear unusual noise(s) coming from the unit, call a qualified servicer.



WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



CAUTION

TO AVOID THE RISK OF EQUIPMENT DAMAGE OR FIRE, INSTALL THE SAME AMPERAGE BREAKER OR FUSE AS YOU ARE REPLACING. IF THE CIRCUIT BREAKER OR FUSE SHOULD OPEN AGAIN WITHIN THIRTY DAYS, CONTACT A QUALIFIED SERVICER TO CORRECT THE PROBLEM. IF YOU REPEATEDLY RESET THE BREAKER OR REPLACE THE FUSE WITHOUT HAVING THE PROBLEM CORRECTED, YOU RUN THE RISK OF SEVERE EQUIPMENT DAMAGE.

OPERATION MANUAL

VRV System air conditioner

MODEL

REYQ72XATJ*	REYQ72XAYD*	REYQ72XAYC*
REYQ96XATJ*	REYQ96XAYD*	REYQ96XAYC*
REYQ120XATJ*	REYQ120XAYD*	REYQ120XAYC*
REYQ144XATJ*	REYQ144XAYD*	REYQ144XAYC*
REYQ168XATJ*	REYQ168XAYD*	REYQ168XAYC*
REYQ192XATJ*	REYQ192XAYD*	REYQ192XAYC*
REYQ216XATJ*	REYQ216XAYD*	REYQ216XAYC*
REYQ240XATJ*	REYQ240XAYD*	REYQ240XAYC*
REYQ264XATJ*	REYQ264XAYD*	REYQ264XAYC*
REYQ288XATJ*	REYQ288XAYD*	REYQ288XAYC*
REYQ312XATJ*	REYQ312XAYD*	REYQ312XAYC*
REYQ336XATJ*	REYQ336XAYD*	REYQ336XAYC*
REYQ360XATJ*	REYQ360XAYD*	REYQ360XAYC*
REYQ384XATJ*	REYQ384XAYD*	REYQ384XAYC*
REYQ408XATJ*	REYQ408XAYD*	REYQ408XAYC*
REYQ432XATJ*	REYQ432XAYD*	REYQ432XAYC*
REYQ456XATJ*	REYQ456XAYD*	

Read these instructions carefully before installation.
Keep this manual in a handy place for future reference.
This manual should be left with the equipment owner.

Regarding the operation procedures of the remote controller,
refer to the manual included to the corresponding remote controller.


English


Français


Español


Safety Considerations

Read these *Safety Considerations for Operations* carefully before installing air conditioner or heat pump. Make sure that the unit operates properly during the startup operation. Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Operation Manual with the Installation Manual for future reference. Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

 **DANGER**.....Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**.....Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**.....Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE**.....Indicates situations that may result in equipment or property-damage accidents only.

DANGER

- Do not install the unit in an area where flammable materials are present due to risk of explosion resulting in serious injury or death.
- Any abnormalities in the operation of the air conditioner or heat pump such as smoke or fire will result in severe injury or death. Turn off the power and contact your dealer immediately.
- Refrigerant gas may produce toxic gas if it comes into contact with fire, such as from a fan, heater, stove, or cooking device. Exposure to this gas will result in severe injury or death.
- For refrigerant leakage, consult your dealer. Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result leading to serious injury or death.
- If equipment utilizing a burner is used in the same room as the air conditioner or heat pump, there is the danger of oxygen deficiency which could lead to an asphyxiation hazard resulting in serious injury or death. Be sure to ventilate the room sufficiently to avoid this hazard.
- Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation may cause injuries or death by suffocation.

WARNING

- Contact your dealer for repair and maintenance. Improper repair and maintenance could result in water leakage, electric shock, and fire. Only use accessories made by Daikin that are specifically designed for use with the equipment and have them installed by a professional.
- Contact your dealer to move and reinstall the air conditioner or heat pump. Incomplete installation could result in water leakage, electric shock, and fire.
- Never let the indoor unit or the remote controller get wet. Water could result in an electric shock or a fire.
- Never use flammable spray such as hair spray, lacquer, or paint near the unit. Flammable spray could result in a fire.
- When a fuse blows out, never replace it with one of incorrect ampere ratings or different wires. Always replace any blown fuse with a fuse of the same specification.
- Never remove the fan guard of the unit. A fan rotating at high speed without the fan guard is very dangerous and could result in injury.
- Never inspect or service the unit by yourself. Contact a qualified service person to perform this work.
- Turn off all electrical power before doing any maintenance to avoid the risk of serious electric shock; never sprinkle or spill water or liquids on the unit.
- Do not touch the switch with wet fingers. Touching a switch with wet fingers could result in electric shock.
- Do not allow children to play on or around the unit to prevent injury.
- The heat exchanger fins are sharp enough to cut. To avoid injury wear gloves or cover the fins while working around them.
- Do not put a finger or other objects into the air inlet or air outlet. The fan is rotating at high speed and could result in injury.
- Check the unit foundation for damage on a continuous basis, especially if it has been in use for a long time. If left in a damaged condition the unit may fall and could result in injury.
- Placing a flower vase or other containers with water or other liquids on the unit could result in a shock or fire if a spill occurs.
- Do not touch the air outlet or horizontal blades while the swing flap is in operation could result in fingers getting caught and injured.
- Never touch the internal parts of the controller. Do not remove the front panel because some parts inside are dangerous to touch. To check and adjust internal parts, contact your dealer.
- Be sure to establish a ground. Do not ground the unit to a utility pipe, arrester, or telephone ground. Incomplete grounding may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.

- Although this is a recognized measure for additional protection, with the grounding system in North America, a dedicated GFCI may not be necessary.



CAUTION

- Do not use the air conditioner or heat pump for any other purposes other than comfort cooling or heating. Do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Do not place items under the indoor unit it could result in damage by condensates that may form if the humidity is above 80% or if the drain outlet gets blocked.
- Before cleaning, stop the operation of the unit by turning the power off or by pulling the supply cord out from its receptacle. Otherwise, an electric shock and injury could result.
- Do not wash the air conditioner or heat pump with excessive water. An electric shock or fire could result.
- Avoid placing the controller in a spot splashed with water. Water entering the controller could result in an electric shock or damage the internal electronic parts.
- Do not operate the air conditioner or heat pump when using a room fumigation type of insecticide. Failure to observe this could result in the chemicals to be deposited in the unit and can endanger the health of those who are hypersensitive to chemicals.
- Do not turn off the power immediately after stopping operation. Always wait for at least five minutes before turning off the power. Otherwise, water leakage could result.
- The appliance is not intended for use by young children or infirm persons without supervision.
- The remote controller should be kept away from children so they cannot play with it.
- Consult with the installation contractor for cleaning.
- Incorrect cleaning of the inside of the air conditioner or heat pump could result in the plastics parts break resulting in water leakage or electric shock.
- Do not touch the air inlet or aluminum fin of the air conditioner or heat pump as they can cut and could result in injury.
- Do not place objects in direct proximity of the outdoor unit. Do not let leaves and other debris accumulate around the unit. Leaves are a hotbed for small animals which can enter the unit. Once inside the unit, animals result in the unit malfunctioning, and could result in smoke or fire when they make contact with electrical parts.



NOTE

- Never press the button of the remote controller with a hard, pointed object. The remote controller result in damage.
- Never pull or twist the electric wire of the remote controller. It may result in the unit malfunctioning.
- Do not place appliances that produce open flames in places that are exposed to the air flow of the unit or under the indoor unit. It may result in incomplete combustion or deformation of the unit due to the heat.

- Do not expose the controller to direct sunlight. The LCD display can become discolored and may result in fail to display the data.
- Do not wipe the controller operation panel with benzene, thinner, chemical dust cloth, etc. The result may be that the panel becomes discolored or the coating can peel off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Then wipe it with another dry cloth.
- Dismantling of the unit, disposal of the refrigerant, oil, and additional parts, should be done in accordance with the relevant local, state, and national regulations.
- Operate the air conditioner or heat pump in a sufficiently ventilated area and not surrounded by obstacles. Do not use the air conditioner or heat pump in the following places.
 - a. Places with a mist of mineral oil, such as cutting oil.
 - b. Locations such as coastal areas where there is a lot of salt in the air.
 - c. Locations such as hot springs where there is a lot of sulfur in the air.
 - d. Locations such as factories where the power voltage varies a lot.
 - e. In cars, boats, and other vehicles.
 - f. Locations such as kitchens where oil may splatter or where there is steam in the air.
 - g. Locations where equipment produces electromagnetic waves.
 - h. Places with an acid or alkaline mist.
 - i. Places where fallen leaves can accumulate or where weeds can grow.
- Take snow protection measures. Contact your dealer for the details of snow protection measures, such as the use of a snow protection hood.
- Do not attempt to do electrical work or grounding work unless you are licensed to do so. Consult with your dealer for electrical work and grounding work.
- Pay Attention to Operating Sound. Be sure to use the following places:
 - a. Places that can sufficiently withstand the weight of the air conditioner or heat pump yet can suppress the operating sound and vibration.
 - b. Places where warm air from the air outlet of the outdoor unit or the operating sound of the outdoor unit does not annoy neighbors.
- Make sure that there are no obstacles close to the outdoor unit. Obstacles close to the outdoor unit may drop the performance of the outdoor unit or increase the operating sound of the outdoor unit.
- Consult your dealer if the air conditioner or heat pump in operation generates unusual noise.
- Make sure that the drainpipe is installed properly to drain water. If no water is discharged from the drainpipe while the air conditioner or heat pump is in the cooling mode, the result may be that the drainpipe becomes clogged with dust or dirt and water leakage from the indoor unit may occur. Stop operating the air conditioner or heat pump and contact your dealer.

Safety Considerations

[Place of Installation]

- **Make sure that the air conditioner is located in a sufficiently ventilated place not surrounded by obstacles.**
- **Do not use the air conditioner in the following places.**
 - a. Places with a mist of mineral oil, such as cutting oil.
 - b. Locations such as coastal areas where there is a lot of salt in the air.
 - c. Locations such as hot springs resorts where there is a lot of sulfur in the air.
 - d. Locations such as factories where the power voltage varies a lot.
 - e. In cars, boats, and other vehicles.
 - f. Locations such as kitchens where oil may splatter or there is steam in the air.
 - g. Locations where equipment that produces electromagnetic waves is found.
 - h. Places with an acid or alkaline mist.
 - i. Places where fallen leaves are accumulated or weeds grow close together.
- **Take snow protection measures.**

Contact your local dealer for the details of snow protection measures, such as the use of a snow protection hood.

[Electrical Work]

- **Do not attempt to conduct electrical work or grounding work unless you are licensed to do so.**

Consult with your local dealer for electrical work and grounding work.
- **Use a dedicated circuit for the air conditioner.**

[Pay Attention to Operating Sound]

- **Be sure to use the following places.**
 - a. Places that can sufficiently withstand the weight of the air conditioner and suppress the operating sound and vibration of the air conditioner.
 - b. Places where warm air from the air outlet of the outdoor unit or the operating sound of the outdoor unit does not annoy neighbors.
- **Make sure that there are no obstacles close to the outdoor unit.**

Obstacles close to the outdoor unit may drop the performance of the outdoor unit or an increase in the operating sound of the outdoor unit.
- **Consult your local dealer if the air conditioner in operation generates unusual noise.**

[Drainage through Drainpipe]

- **Make sure that the drainpipe is installed properly to drain water.**

If no water is discharged from the drainpipe while the air conditioner is cooling operation, the drainpipe may be clogged with dust or dirt and water leakage from the indoor units may result.

Stop operating the air conditioner and consult your local dealer.

REYQ72XATJ*	REYQ240XATJ*	REYQ408XATJ*	REYQ72XAYD*	REYQ240XAYD*	REYQ408XAYD*	REYQ72XAYC*	REYQ240XAYC*	REYQ408XAYC*
REYQ96XATJ*	REYQ264XATJ*	REYQ432XATJ*	REYQ96XAYD*	REYQ264XAYD*	REYQ432XAYD*	REYQ96XAYC*	REYQ264XAYC*	REYQ432XAYC*
REYQ120XATJ*	REYQ288XATJ*	REYQ456XATJ*	REYQ120XAYD*	REYQ288XAYD*	REYQ456XAYD*	REYQ120XAYC*	REYQ288XAYC*	
REYQ144XATJ*	REYQ312XATJ*		REYQ144XAYD*	REYQ312XAYD*		REYQ144XAYC*	REYQ312XAYC*	
REYQ168XATJ*	REYQ336XATJ*		REYQ168XAYD*	REYQ336XAYD*		REYQ168XAYC*	REYQ336XAYC*	
REYQ192XATJ*	REYQ360XATJ*		REYQ192XAYD*	REYQ360XAYD*		REYQ192XAYC*	REYQ360XAYC*	
REYQ216XATJ*	REYQ384XATJ*		REYQ216XAYD*	REYQ384XAYD*		REYQ216XAYC*	REYQ384XAYC*	

Contents

Safety Considerations[i] [ii] [iii]

Specifications 2

What to do before Operation 3

Operation Range 3

Name and Function of Each Switch and Display..... 4

Operation Procedure 4

Maintenance 6

Reference Information 7

Optimum Operation 8

Seasonal Maintenance 8

Following Symptoms are not Air Conditioner Troubles 9

Trouble Shooting..... 11

After-Sales Service and Warranty 12

The original instructions are written in English. All other languages are translations of the original instructions.

Specifications

This table shows the specifications of the single module.

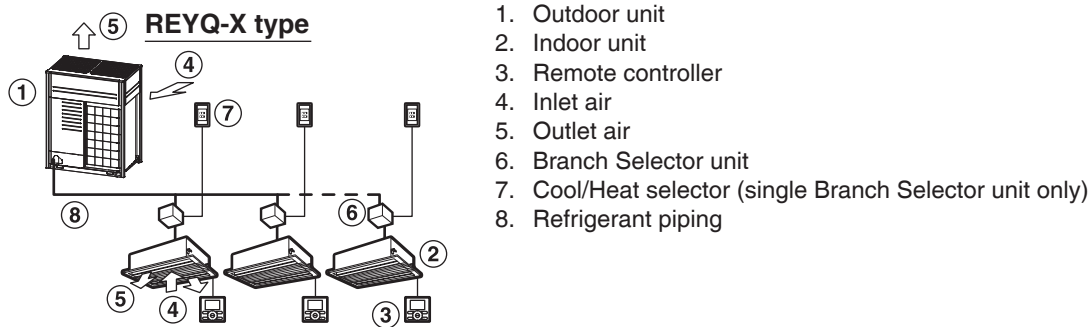
For the specifications of the multi module system, refer to the specifications of each single module that constitutes the system.

Model name		REYQ72XATJ*	REYQ96XATJ*	REYQ120XATJ*	REYQ144XATJ*	REYQ168XATJ*
Power supply						
Phase	—	3~	3~	3~	3~	3~
Frequency	Hz	60	60	60	60	60
Voltage	V	208/230	208/230	208/230	208/230	208/230
Nominal cooling Maximum capacity	Btu/h	72,000	96,000	120,000	144,000	164,000
Nominal heating Maximum capacity	Btu/h	81,000	108,000	135,000	162,000	188,000
Dimensions H×W×D	inch (mm)	66-11/16 (1694) × 48-7/8 (1242) × 30-3/16 (767)				
Mass	lbs. (kg)	727 (330)	727 (330)	727 (330)	793 (360)	793 (360)
Refrigerant						
Type	—	R410A	R410A	R410A	R410A	R410A
Charge	lbs. (kg)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)
Design pressure						
High side	psig (MPa)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)
Low side	psig (MPa)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)
Model name		REYQ72XAYD*	REYQ96XAYD*	REYQ120XAYD*	REYQ144XAYD*	REYQ168XAYD*
Power supply						
Phase	—	3~	3~	3~	3~	3~
Frequency	Hz	60	60	60	60	60
Voltage	V	460	460	460	460	460
Nominal cooling Maximum capacity	Btu/h	72,000	96,000	120,000	144,000	164,000
Nominal heating Maximum capacity	Btu/h	81,000	108,000	135,000	162,000	188,000
Dimensions H×W×D	inch (mm)	66-11/16 (1694) × 48-7/8 (1242) × 30-3/16 (767)				
Mass	lbs. (kg)	727 (330)	727 (330)	727 (330)	793 (360)	793 (360)
Refrigerant						
Type	—	R410A	R410A	R410A	R410A	R410A
Charge	lbs. (kg)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)
Design pressure						
High side	psig (MPa)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)
Low side	psig (MPa)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)
Model name		REYQ72XAYC*	REYQ96XAYC*	REYQ120XAYC*	REYQ144XAYC*	REYQ168XAYC*
Power supply						
Phase	—	3~	3~	3~	3~	3~
Frequency	Hz	60	60	60	60	60
Voltage	V	575	575	575	575	575
Nominal cooling Maximum capacity	Btu/h	72,000	96,000	120,000	144,000	164,000
Nominal heating Maximum capacity	Btu/h	81,000	108,000	135,000	162,000	188,000
Dimensions H×W×D	inch (mm)	66-11/16 (1694) × 48-7/8 (1242) × 30-3/16 (767)				
Mass	lbs. (kg)	727 (330)	727 (330)	727 (330)	793 (360)	793 (360)
Refrigerant						
Type	—	R410A	R410A	R410A	R410A	R410A
Charge	lbs. (kg)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)	25.8 (11.7)
Design pressure						
High side	psig (MPa)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)
Low side	psig (MPa)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)

What to do before Operation

This operation manual is for the following system with standard control. Before initiating operation, contact your local dealer for the operation that corresponds to your system type.

If your installation has a customized control system, ask your local dealer for the operation that corresponds to your system.



Note

- The Cool/Heat selector cannot connect to the multi Branch Selector unit.

Operation Range

	COOLING	HEATING
Outdoor temperature	23 to 110°FDB (-5 to 43°CDB)	-13 to 60°FWB (-25 to 16°CWB)
Indoor temperature	57 to 77°FWB (14 to 25°CWB)	59 to 80°FDB (15 to 27°CDB)
Indoor humidity	80%	—

Note

- Cooling operation:
If the air conditioner is operated continuously while the indoor temperature is 70°FDB (21°CDB) or below and the humidity is 80% or over, the interiors of the indoor units may cause icing and water leakage may result.
- Heating operation:
The air conditioner may stop operating for the protection of the machine if the outdoor temperature is 70°FDB (21°CDB) or over.

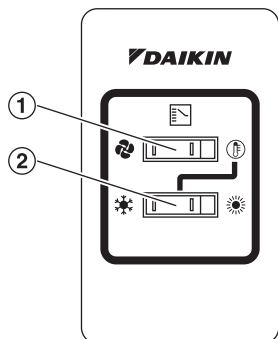
Name and Function of Each Switch and Display

Cool/Heat Selector



- Use to switch between cooling and heating operation from each Branch Selector unit. (The Cool/Heat selector cannot connect to a multi Branch Selector unit.)

When the Cool/Heat selector remote controller is installed, the remote controller connected to the indoor unit cannot be used to switch between cooling and heating operation.

<Cool/Heat selector>



1. Fan only/air conditioning selector switch

- Set the switch to “” for fan only operation or to “” for heating or cooling operation.

2. COOL/HEAT changeover switch

- Set the switch to “” for cooling operation or to “” for heating operation.

Remote controller

- For more information, see the operation manual that came with the remote controller.

Operation Procedure

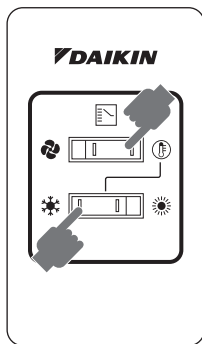
- Operation procedure varies according to the combination of outdoor unit and remote controller. Read the chapter “What to do before Operation”.
- Do not turn it off during the air conditioning season for starting operation smoothly.
- If the main power supply is turned off during operation, operation will restart automatically after the power turns back on again.

Cool/Heat Selector

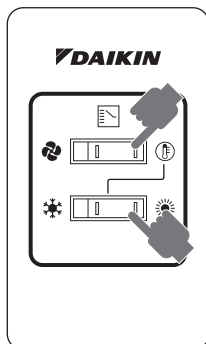
Cooling, Heating and Fan only operation

- Select operation mode with the Cool/Heat selector as follows:

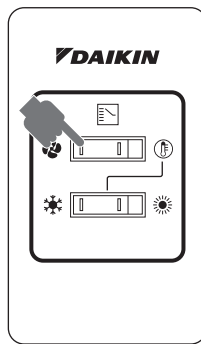
Cooling operation



Heating operation



Fan only operation

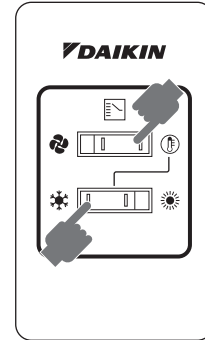


- Press On/Off button.
The operation lamp lights up and the system starts operation.
- The system can now be controlled from the remote controller.

Dry Mode

Preparation

- For equipment protection purposes, apply power to the outdoor units at least 6 hours before starting the operation of the system.
- The dry mode may not be selected if the remote controller is master controlled and the system is not already in the cooling mode of operation (see the following section).
- In case of changing the operation mode by the Cool/Heat selector, set it to cooling operation mode.
- The system can now be controlled from the remote controller.



Cool/Heat Mode Selection Availability

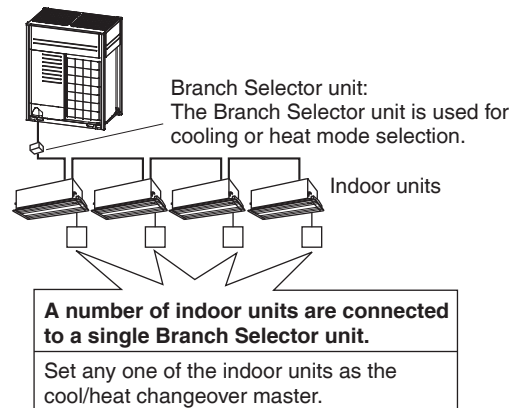
- “Cool”, “Heat” and “Auto” are all only available for selection on the COOL/HEAT changeover master indoor unit. The following table indicates the available operating modes of the other indoor units on the system based upon the selected mode of the master indoor unit.

When the master indoor unit is set to	The other indoor units in the system can be set to			
	Cool	Dry	Heat	Fan
Cool mode	✓	✓		✓
Dry mode	✓	✓		✓
Heat mode			✓	✓
Fan mode				✓
Auto mode (Cooling operation)	✓	✓		✓
Auto mode (Heating operation)			✓	✓

Precautions for Selecting the COOL/HEAT Changeover Master Indoor Unit

- The COOL/HEAT changeover master must be set for a single indoor unit in the following applications.

(3-Pipe Heat Recovery System)

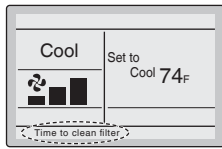


Maintenance

Reset Filter Indicator

Operation

1



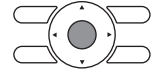
- When it is time to clean or replace the filter, one of the following messages will appear on the bottom of the basic screen.

“Time to clean filter”
“Time to clean filter & element”
“Time to clean element”

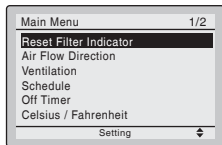
- Wash, clean, or replace the filter or element.
For details, refer to the Operation Manual supplied with the indoor unit.

2

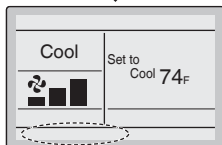
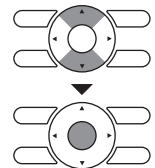
- Reset the filter indicator when the filter or element is cleaned or replaced.
- Press Menu/OK button.
The main menu screen will appear.



3



- Press ▼▲ buttons to select **Reset Filter Indicator** on the main menu screen and press Menu/OK button.



- The message shown in illustration 1 will disappear from the basic screen when the filter sign is reset.

Maintaining the Unit and LCD Display

- Wipe the LCD and surface of the remote controller with a dry cloth when they become dirty.
- If the dirt on the surface cannot be removed, soak the cloth in neutral detergent diluted with water, squeeze the cloth tightly, and clean the surface. Wipe the surface with a dry cloth.

Note

- Do not use any paint thinner, organic solvent, or strong acid.

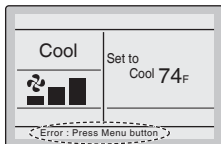
Reference Information

Error Code Display

■ Contact your local dealer in the following cases

Operation

1



- If an error occurs, either one of the following items will flash in the basic screen.

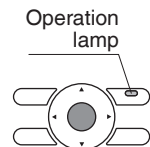
“Error: Press Menu button”

* The operation lamp will flash.

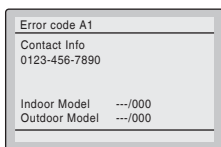
“Warning: Press Menu button”

* The operation lamp will not flash.

- Press Menu/OK button.



2



- The Error code will flash and the service contact and model name or code may appear.
- Notify your local dealer of the Error code and model name or code.

Precautions for Group Control System or Two Remote Controller Control System

This system provides two other control systems beside individual control (one remote controller controls one indoor unit) system. Confirm which type of your unit is the following system.

- **Group control system**

One remote controller controls up to 16 indoor units. All indoor units are equally set.

- **Two remote controller control system**

Two remote controllers control one indoor unit (in case of group control system, one group of indoor units). The unit is individually operated.

Note

- Contact your local dealer in case of changing the combination or setting of group control and two remote controller control systems.

Optimum Operation

Observe the following precautions to ensure the system operates properly.

- Prevent direct sunlight from entering a room during cooling operation by using curtains or blinds.
- Do not leave doors and windows open. If the doors and windows remain open, air will flow out of your room causing a decrease in the cooling or heating effect.
- Do not use other heating devices directly beneath the indoor unit.
If you do, they might get deformed by the heat.
- Never place objects near the air inlet or the air outlet of the unit. It may cause deterioration in the effect or stop the operation.
- Adjust the room temperature properly for a comfortable environment. Avoid excessive heating or cooling.
- Ventilate often.
Extended use requires special attention to ventilation.
- Keep the indoor unit and remote controller at least 3.5 ft. (1 m) away from televisions, radios, stereos, and other similar equipment.
Failing to do so may cause static or distorted pictures.
- Turn off the main power supply switch to the unit when the unit is not used for longer periods of time. If the switch is on, it uses electricity. Before restarting the unit, turn on the main power supply switch 6 hours before operation to ensure smooth running. (Refer to the chapter "Maintenance" in the indoor unit manual.)
- Fully use the function of air flow direction adjust.
Cold air gathers on the floor, and warm air gathers in the ceiling.
Set the air flow direction parallel during cooling or dry operation, and set it downwards during heating operation.
Do not let the air blow directly to a person.
- It takes time for the room temperature to reach the set temperature.
We recommend starting the operation in advance using schedule operation.

Seasonal Maintenance

Caution

- **Do not touch the air inlets or aluminum fins of the outside or indoor units.**
Touching them may result in injury.
- **Do not wash the outside or indoor units with water.**
An electric shock or fire may result.
- **Watch your steps at the time of air filter cleaning etc.**
If the scaffold is unstable, you may fall or topple down, thus causing injury.
- **Be sure to stop the operation, and turn the breaker off before cleaning.**
This may cause electric shock and injury.
- **Consult with the dealer for cleaning the interior of the indoor units.**
Incorrect cleaning may damage the plastic parts and cause failures, such as water leakage, and an electric shock may result.

■ At the beginning of the season

Check

- Are the indoor and outdoor unit intake and outlet vents blocked?
Remove anything that might be blocking them.

Clean the exterior.

- See the Operation Manual included with the indoor unit for details on how to clean it.

Turn the power on.

- When the power comes on, the characters in the remote controller display appear.
(To protect the unit, turn the power on at least 6 hours before operating it. This makes operation smoother.)

■ At the end of the season

On a clear day, use fan operation for around half a day to thoroughly dry out the interior of the unit.

- This step is performed to prevent buildup of mold and other harmful organisms.

Turn off the power.

- When the power is shut off, the characters in the remote controller display disappear.
- When the power is on, the unit consumes up to several dozen Watts of power.
Turn off the power to conserve energy.

Clean the exterior.

- See the Operation Manual included with the indoor unit for details on how to clean it.

Following Symptoms are not Air Conditioner Troubles

■ The system does not operate

- **The air conditioner does not start immediately when restarting or changing the operation mode.**
If the operation lamp lights, the system is in normal condition.
To prevent overloading of the compressor motor, the air conditioner starts 5 minutes after it is turned ON again in case it was turned OFF just before.
- If “**CENTRAL CONTROL**” is displayed on the remote controller and pressing the operation button causes the display to blink for a few seconds.
This indicates that the central device is controlling the unit.
The blinking display indicates that the remote control cannot be used.
- **The system does not start immediately after the power supply is turned on.**
Wait 10 minutes until the micro computer is prepared for operation.

■ It stops sometimes

- **The remote controller display reads “U4” or “U5” and the unit stops but then restarts after a few minutes.**
This is because the remote control is intercepted by noise from electrical appliances other than the air conditioner, and this prevents communication between the units, causing them to stop.
Operation automatically restarts when the noise goes away.

■ Cool/heat cannot be changed over

- **When the display shows “**MASTER CONTROLLED**”.**
It shows that this is a slave remote controller.
- **When the Cool/Heat selector switch is installed and the display shows “**MASTER CONTROLLED**”.**
This is because COOL/HEAT changeover is controlled by the Cool/Heat selector. Ask your local dealer where the Cool/Heat selector is installed.

■ Fan operation is possible, but cooling and heating do not work

- **Immediately after the power is turned on.**
The micro computer is getting ready to operate. Wait 10 minutes.

■ The fan speed does not correspond to the setting

- **The fan speed does not change even if the fan speed control button is pressed.**
During heating operation, when the room temperature reaches the set temperature, the outdoor unit goes off and the indoor unit changes to whisper the fan speed.
This is to prevent cold air blowing directly on occupants of the room.
The fan speed will not change even if the button is pressed, when another indoor unit is in heating operation.

■ The fan direction does not correspond to the setting

- **The fan direction does not correspond to the remote control display.**
The fan direction does not swing.
This is because the unit is being controlled by the micro computer.

Following Symptoms are not Air Conditioner Troubles

■ White mist comes out of the unit

Indoor unit

- **When humidity is high during cooling operation.**

If the interior of indoor unit is extremely contaminated, the temperature distribution inside a room becomes uneven. It is necessary to clean the interior of the indoor unit. Ask your local dealer for details on cleaning the unit. This operation requires a qualified service person.

- **Immediately after the cooling operation stops and if the room temperature and humidity are low.**

This is because warm refrigerant gas flows back into the indoor unit and generates steam.

Outdoor unit

- **When the system is changed over to heating operation after defrost operation.**

Moisture generated by defrost becomes steam and is exhausted.

■ Noise of air conditioners

Indoor unit

- **An electric starting sound is heard immediately after the power supply is turned on.**

The electronic expansion valve inside an indoor unit starts working and makes the noise. Its volume will reduce in about 1 minute.

- **A continuous low hissing sound like flowing water is heard when the system is in cooling operation or at a stop.**

When the drain pump (an optional accessory) is in operation, this noise is heard.

- **A squeaking sound is heard when the system stops after heating operation.**

Expansion and contraction of plastic parts caused by temperature change make this noise.

- **A low sound like dripping water is heard while the indoor unit is stopped.**

When the other indoor unit is in operation, this noise is heard. In order to prevent oil and refrigerant from remaining in the system, a small amount of refrigerant is kept flowing.

Outdoor unit

- **When the tone of operating noise changes.**

This noise is caused by the change of frequency.

Indoor unit, outdoor unit

- **A continuous low hissing sound is heard when the system is in cooling or defrost operation.**

This is the sound of refrigerant gas flowing through both indoor and outdoor units.

- **A hissing sound which is heard at the start or immediately after stopping operation or defrost operation.**

This is the noise of refrigerant caused by flow stop or flow change.

■ Dust comes out of the unit

- **When the unit is used after stopping for a long time.**

This is because dust has gotten into the unit.

■ The units can give off odors

- **During operation.**

The unit can absorb the smell of rooms, furniture, cigarettes, etc., and then emit it again.

■ The outdoor unit fan does not rotate

- **During operation.**

The speed of the fan is controlled in order to optimize product operation.

■ The compressor or fan in the outdoor unit does not stop

- **This is to prevent oil and refrigerant from remaining in the compressor. The unit will stop after 5 to 10 minutes.**

■ The inside of outdoor unit is warm even when the unit has stopped

- **This is because the crankcase heater is warming the compressor so that the compressor can start smoothly.**

■ Hot air is emitted even though the unit is stopped

- **Hot air can be felt when the unit is stopped.**

Several different indoor units are being run on the same system, so if another unit is running, some refrigerant will still flow through the unit.

■ Does not cool very well

- **Dry operation.**

Dry operation is designed to lower the room temperature as little as possible.
Refer to page 5.

Trouble Shooting

If one of the following malfunctions occur, take the measures shown below and contact your local dealer.

Warning

- **Stop operation and shut off the power if anything unusual occurs (burning smells, etc.)**

Leaving the unit running under such circumstances may cause breakage, electrical shock, or fire.
Contact your local dealer.

- If a safety device such as a fuse or a breaker frequently actuates;
Measure : Do not turn on the main power switch.
- If the ON/OFF switch does not properly work;
Measure : Turn off the main power switch.
- If water leaks from unit;
Measure : Stop the operation.
- The operation mode selector button does not work well.
Turn off the power.

If the system does not properly operate except for the above mentioned cases and none of the above mentioned malfunctions is evident, investigate the system according to the following procedures.

If it is impossible to fix the problem after checking all the above items, contact your local dealer.

Let them know the symptoms, system name, and model name.

1. If the system does not operate at all;

- Check if there is no power failure.

Wait until power is restored. If power failure occurs during operation, the system automatically restarts immediately after the power supply is recovered.

- Check if no fuse has blown;

Turn off the power supply.

- Check if the breaker is blown.

Turn the power on with the breaker switch in the OFF position.

Do not turn the power on with the breaker switch in the Trip position.

(Contact your local dealer.)

2. If the system stops soon after starting the operation;

- Check if air inlet or outlet of outside or indoor unit is not blocked by obstacles.

Remove any obstacle and make it well-ventilated.

- Check if the remote controller display shows "Time to clean filter & element";

Refer to the Operation Manual of the indoor unit. And clean the air filter or element.

3. The system operates but cooling or heating is insufficient;

- Check if air inlet or outlet of outside or indoor unit is not blocked by obstacles.

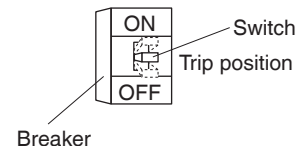
Remove any obstacle and make it well-ventilated.

- Check if the remote controller display shows "Time to clean filter & element";

Refer to the Operation Manual of the indoor unit. And clean the air filter or element.

- Check the temperature setting.

Refer to "Operation Procedure".



Trouble Shooting

- Check the fan speed setting on your remote controller.
Refer to “Operation Procedure”.
- Check for open doors or windows.
Shut doors and windows to prevent wind from coming in.
- Check if there are too many occupants in the room during cooling operation.
- Check if the heat source of the room is excessive during cooling operation.
- Check if direct sunlight enters the room during cooling operation.
Use curtains or blinds.
- Check if the air flow angle is not proper.
Refer to “Operation Procedure”.

After-Sales Service and Warranty

After-sale Service

Danger

- Refrigerant gas may produce a toxic gas if it comes in contact with fire such as from a fan, heater, stove or cooking device.
Exposure to this gas could cause severe injury or death.

Warning

- **Do not disassemble, modify or repair the unit.**
This may cause water leakage, electric shock or fire.
Contact your local dealer.
- **Do not remove or reinstall the unit by yourself.**
Incorrect installation may cause water leakage, electrical shock or fire.
Contact your local dealer.

- **When asking your local dealer to repair, inform related staff of the details as follows:**

- Model name and product No. of air conditioner
- Shipping date and installation date
- Malfunction:
Inform the staff of the defective details. (Malfunction code being displayed on the remote controller.)
- Name, address, telephone number

- **Repair after the warranty term is expired**

Contact your local dealer. If necessary to repair, pay service is available.

- **Minimum storage period of important parts**

Even after a certain type of air conditioner is discontinued, we have the related important parts in stock for 9 years at least. The important parts indicate parts essential to operate the air conditioner.

- **Recommendations for maintenance and inspection**

Since dust collects after using the unit for several years, the performance will be deteriorated to some extent. Disassembling and cleaning inside require technical expertise, so we recommend entering a maintenance and inspection contract (at a cost) separate from normal maintenance.

- **Recommended inspection and maintenance cycles**

[Note: The maintenance cycle is not the same as the warranty period.]

Table 1 assumes the following usage conditions.

1. Normal use without frequent starting and stopping of the machine.
(Although it varies with the model, we recommend not starting and stopping the machine more than 6 times/hour for normal use.)
2. Operation of the product is assumed to be 10 hours/day and 2,500 hours/year.

• Table 1 “Inspection Cycle” and “Maintenance Cycle” Lists

Name of Main Part	Inspection Cycle	Maintenance Cycle [replacements and/or repairs]
Compressor	1 year	20,000 hours
Electric motor (fan, damper, etc.)		20,000 hours
Printed circuit boards		25,000 hours
Heat exchanger		5 years
Sensor (thermistor, etc.)		5 years
Remote controller and switches		25,000 hours
Drain pan		8 years
Expansion valve		20,000 hours
Electromagnetic valve		20,000 hours
FAN		Outside : 10 years Indoor : 13 years

Note 1

This table indicates main parts.
See the maintenance and inspection contract for details.

Note 2

This maintenance cycle indicates recommended lengths of time until the need arises for maintenance work, in order to ensure the product is operational as long as possible.
Use for appropriate maintenance design (budgeting maintenance and inspection fees, etc.).
Depending on the content of the maintenance and inspection contract, the inspection and maintenance cycles may in reality be shorter than those listed here.

Shortening of “maintenance cycle” and “replacement cycle” needs to be considered in the following cases.

1. When used in hot, humid locations or locations where temperature and humidity fluctuate greatly.
2. When used in locations where power fluctuation (voltage, frequency, wave distortion, etc.) is high.
(Cannot be used if it is outside the allowable range.)
3. When installed and used in locations where bumps and vibrations are frequent.
4. When used in bad locations where dust, salt, harmful gas or oil mist such as sulfurous acid and hydrogen sulfide may be present in the air.
5. When used in locations where the machine is started and stopped frequently or operation time is long. (Example: 24 hour air-conditioning)

■ Recommended replacement cycle of wear-out parts

[The cycle is not the same as the warranty period.]

• Table 2 “Replacement Cycle” Lists

Name of Main Part	Inspection Cycle	Replacement Cycle
Air filter	1 year	5 years
High efficiency filter (Optional accessory)		1 year
Fuse		10 years
Crankcase heater		8 years

Note 1

This table indicates main parts.
See the maintenance and inspection contract for details.

Note 2

This maintenance cycle indicates recommended lengths of time until the need arises for maintenance work, in order to ensure the product is operational as long as possible.
Use for appropriate maintenance design (budgeting maintenance and inspection fees, etc.).
Contact your local dealer for details.
Note: Breakage due to taking apart or cleaning inside by anyone other than our authorized dealers may not be included in the warranty.

After-Sales Service and Warranty

■ Moving and discarding the unit

This unit uses chlorofluorocarbon.

Contact your local dealer for discarding this unit since it is required by law to collect, transport and discard the refrigerant in accordance with "chlorofluorocarbon collection and destruction" law.

■ Where to call

For after-sales service, etc., consult with your local dealer.

DAIKIN MANUFACTURING COMPANY, L.P

Daikin Texas Technology Park,
19001 Kermier Road,
Waller, TX, 77484, U.S.A.





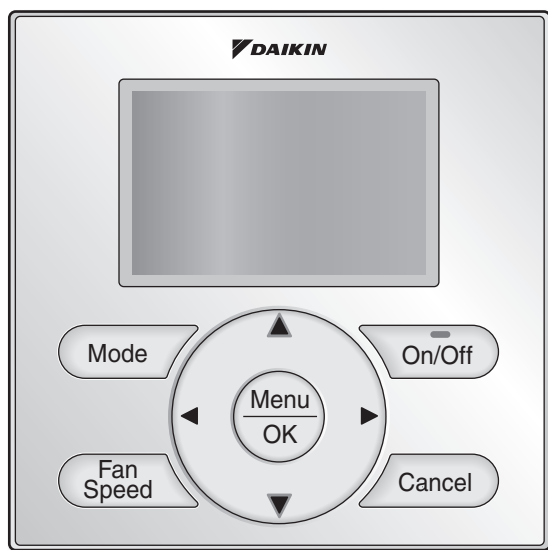
WIRED REMOTE CONTROLLER

INSTALLATION MANUAL

English

Français

Español



MODEL BRC1E73

Be sure to read this installation manual before installing this product.

Veillez à lire ce manuel d'installation avant d'installer ce produit.

Asegúrese de leer este manual de instalación antes de instalar este producto.

Contents

1. Safety Considerations	2
2. Accessories	4
3. Remote Controller Installation Procedure	4
4. Functions and Menu Items of Remote Controller Buttons	10
5. Power-on	12
6. Field Settings	13
7. Test Operation	16
8. Procedure for Checking Error History	19
9. Adding Maintenance Contact Information	20
10. Confirming Registered Details	21
11. Clock & Calendar	21
12. Language	22

1. Safety Considerations

The original instructions are written in English. All other languages are translations of the original instructions.

All phases of the field-installation, including, but not limited to, electrical, piping, safety, etc. must be in accordance with manufacturer's instructions and must comply with national, state, provincial and local codes.




Read these **SAFETY CONSIDERATIONS** carefully before installing the remote controller.


After completing the installation, ensure that the remote controller operates properly during the startup operation.

Train the customer to operate and maintain the remote controller. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.

Always use a licensed installer or contractor to install this product. Improper installation can result in electrical shock, fire, or explosion.

Meanings of **WARNING**, **CAUTION**, and **NOTE** Symbols.

 WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
 NOTE	Indicates situations that may result in equipment or property-damage accidents only.

 WARNING
Only qualified personnel must carry out the installation work.
Consult your Daikin dealer regarding relocation and reinstallation of the remote controller. Improper installation work may result in electric shocks or fire.
Electrical work must be performed in accordance with relevant local and national regulations and with instructions in this installation manual. Improper installation may cause electrical shocks or fire.
Use only specified accessories and parts for installation work. Failure to use specified parts may result in electric shocks, fire, or the unit falling.
Do not disassemble, reconstruct, or repair. Electric shock or fire may occur.
Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation may result in fire.
Before touching electrical parts, confirm the power-off to the unit.

 **CAUTION**

Keep water out of the remote controller.

To avoid electric shock due to entry of water or insects, fill the wiring through-hole with putty.
Do not wash the remote controller with water as it may result in electrical shocks or fire.

Do not touch the remote controller buttons with wet fingers.

Touching the buttons with wet fingers can cause an electric shock.

Do not install the remote controller in the following locations:

- (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen.
Plastic parts may deteriorate.
- (b) Where corrosive gas, such as sulfurous acid gas, is produced.
- (c) Near machinery emitting electromagnetic waves.
Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
- (d) Where flammable gas may leak, where there is carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.
Operating the unit in such conditions can cause a fire.
- (e) High temperature area or direct flame.
Overheating and/or fire can occur.
- (f) Moist area, where there is exposure to water. If water enters the inside of the remote controller, it may cause electric shock and electrical components may fail.

 **NOTE**







Install the control wires for the indoor and the remote controller at least 3.5 feet (1 meter) away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet (1 meter) may not be sufficient to eliminate the noise.

When remote controller's temperature sensor is used, select the installation location as per the following:

- A place where average temperature in the room can be detected.
- A place where it is not exposed to direct sunlight.
- A place where it is far away from any heat source.
- A place where it is not affected directly by outside air.

2. Accessories

The following accessories are included.

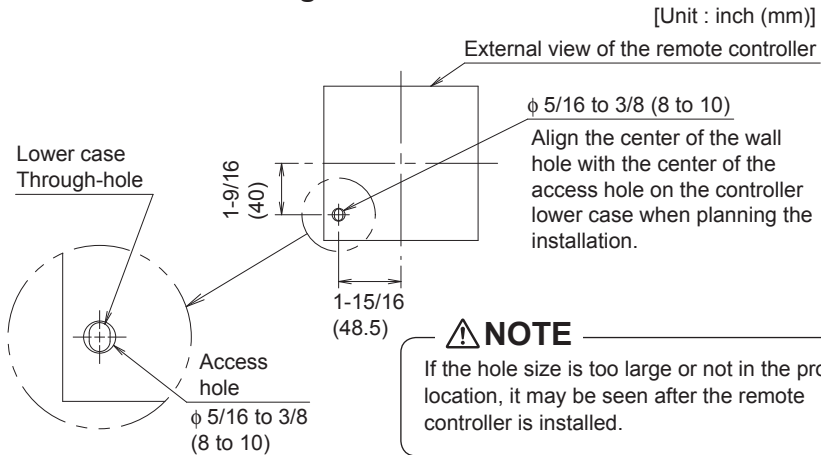
Drywall screw	Drywall anchor	Wire tie	Operation manual	Installation manual	Wiring retainer
					
(2 pcs.)	(2 pcs.)	(1 pc.)	(1 pc.)	(1 pc.)	(1 pc.)

3. Remote Controller Installation Procedure

3-1 Determine where to install the remote controller.

Make sure to follow the **Safety Considerations** when determining the location.

3-2 If the control wire for the remote controller is to be routed from the rear, consider the location of the access hole in the lower case for making a hole in the wall.

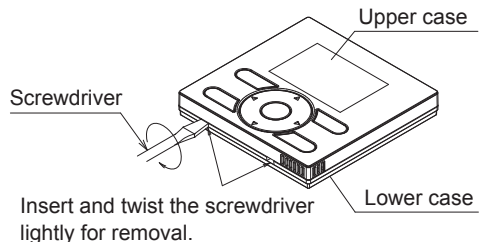


3-3 Remove upper case.

Insert a screwdriver in the recess of lower case to remove the upper case (2 points).

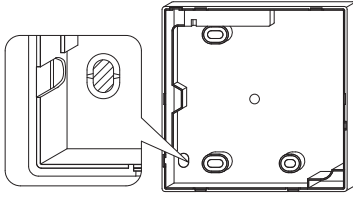
Remote controller printed-circuit board is installed on the upper case. Be careful not to damage the printed-circuit board with the screwdriver.

Be careful not to let dust or moisture touch the printed-circuit board.



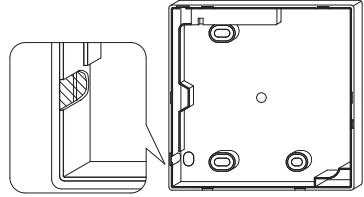
3-4 Determine the location where the wiring will enter the remote controller (back, left side, top left, top center).

3-4-1 Back outlet



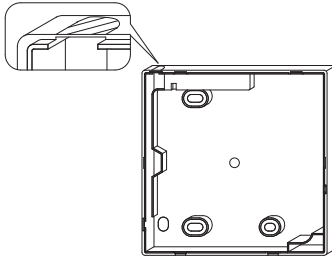
Cut off resin area (notched area).

3-4-2 Left outlet



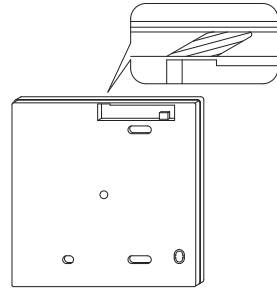
Cut the plastic at the notched area and remove any remaining burrs.

3-4-3 Top left outlet



Cut the plastic at the notched area and remove any remaining burrs.

3-4-4 Top center outlet



Cut the plastic at the notched area and remove any remaining burrs.

3-5 Install wiring.

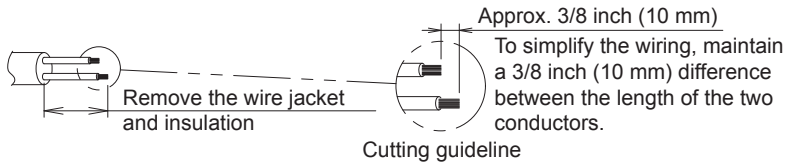
! NOTE

1. Switch box and control wiring are field supplied.
2. Do not touch the remote controller printed-circuit board.

Wiring Specifications

Wiring Type	Non-shielded, 2-conductor, stranded copper wire
Wiring Size	AWG-18
Wiring Length	Maximum 1640 feet (500 m)

Prepare the wiring for connection to the remote controller following these instructions:

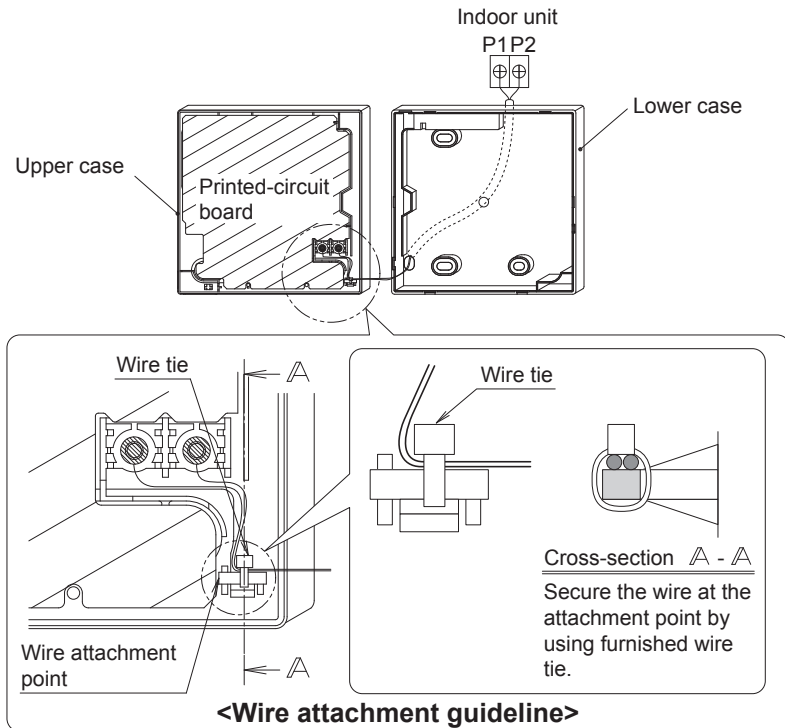


Length of jacket to be removed:

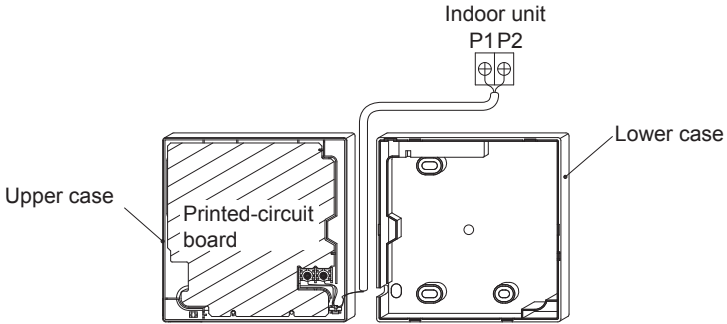
- Approx. 6 inch (150 mm) for top left outlet
- Approx. 8 inch (200 mm) for top center outlet

Connect the terminals (P/P1, N/P2) of the remote controller to the terminals (P1, P2) of the indoor unit. (P1 and P2 are not polarity sensitive.)

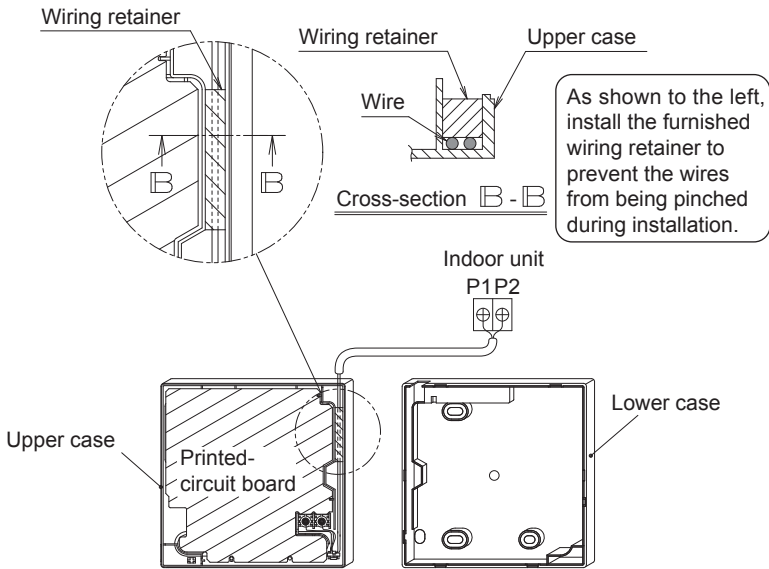
3-5-1 Back outlet



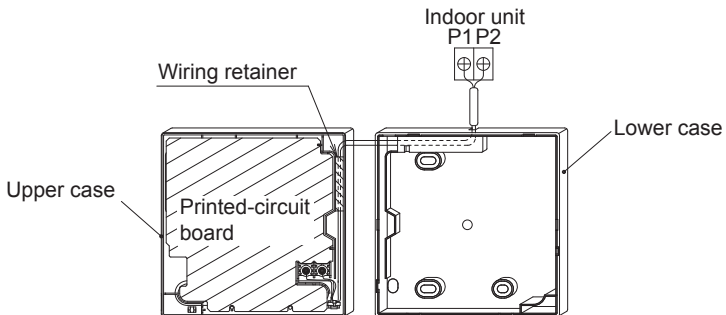
3-5-2 Left outlet



3-5-3 Top left outlet



3-5-4 Top center outlet



⚠ NOTE

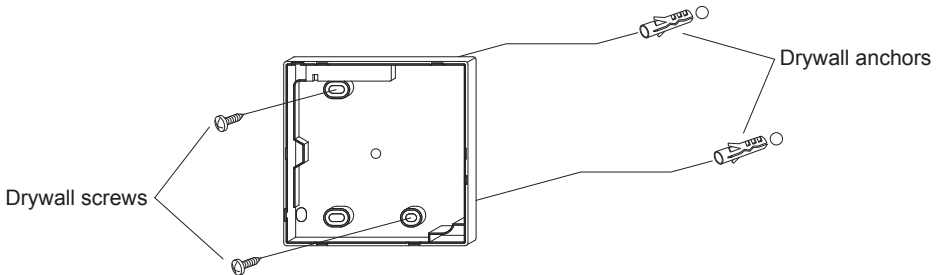
- To prevent electrical noise and possible communication errors, avoid installing the remote controller wiring parallel to or in the vicinity of line voltage circuits.

3-6 Installation procedure for the lower case.

When wiring the remote controller through the top center or rear access points, attachment of the wire to the lower case is required before it is wall mounted. Closely follow the wiring procedures.

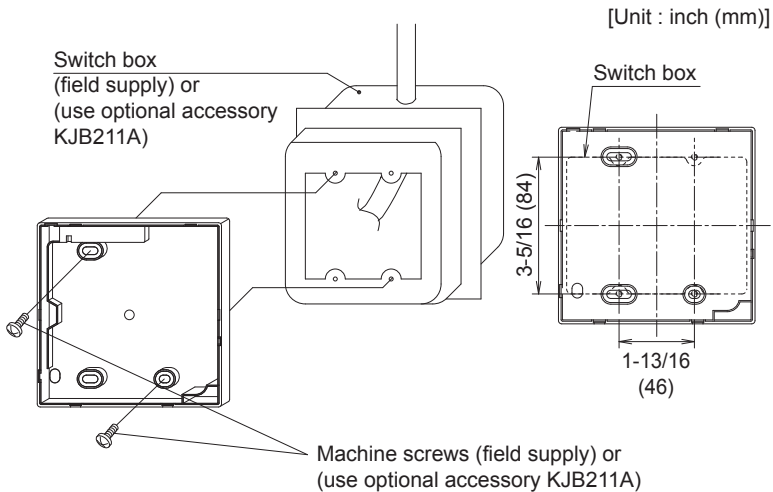
3-6-1 Wall installation

Secure by using furnished drywall anchors and screws (2 pcs.).



3-6-2 Switch box installation

Secure by using field supplied machine screws (2 pcs.).

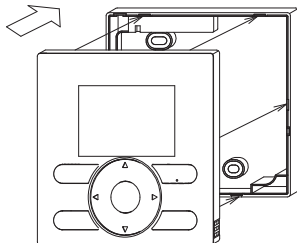


⚠ NOTE

- Install the control on a flat surface only.
- To prevent deformation of the lower case, avoid over-tightening the installation screws.

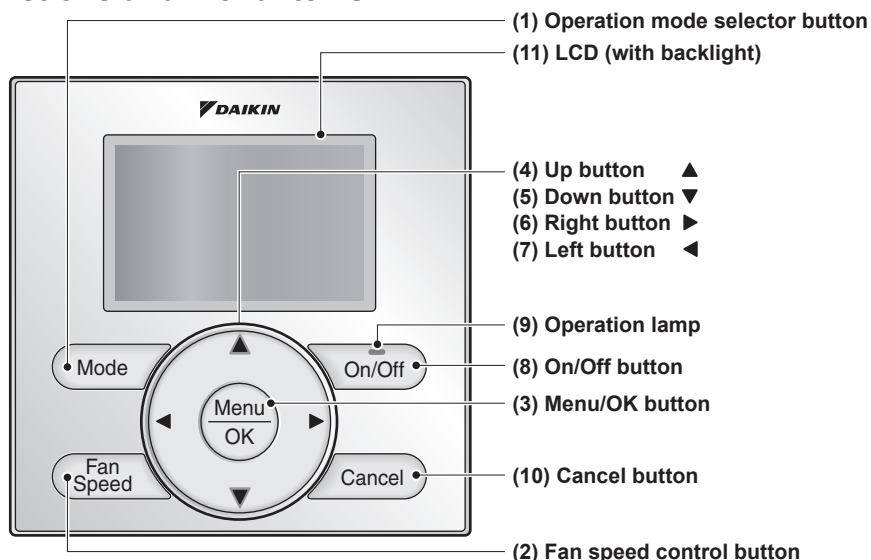
3-7 Install the upper case.

- Align the upper case with tabs of the lower case (6 points), insert and install the upper case.
- Install the wiring with care to prevent pinching.
- Peel off the protective membrane which overlays the upper case.



4. Functions and Menu Items of Remote Controller Buttons

4-1 Functions and menu items



(1) Operation mode selector button

Used to change the mode.

(2) Fan speed control button

Used to change the fan control.

(3) Menu/OK button

- Used to access the main menu.
(For details of the main menu, see the operation manual.)
- Used to enter the item selected.

Main Menu

*Airflow Direction
 *Individual Airflow Direction
 *Ventilation
 Schedule
 Off Timer
 Celsius / Fahrenheit
 Filter Auto Clean
 Maintenance Information
 Configuration
 Current Settings
 Clock & Calendar
 Daylight Saving Time
 Language

*Depending on connected model

(4) Up button ▲

- Used to raise the setpoint temperature.
- The previous menu items will be highlighted.
(The highlighted items will be scrolled continuously when the button is pressed continuously.)
- Used to change the selected item.

(5) Down button ▼

- Used to lower the setpoint temperature.
- Items below the currently selected item will be highlighted.
(The highlighted items will be scrolled continuously when the button is pressed continuously.)
- Used to change the selected item.

(6) Right button ►

- Used to highlight items to the right of the currently selected item.
- Display contents are changed to next screen per page.

(7) Left button ◀

- Used to highlight items to the left of the currently selected item.
- Display contents are changed to previous screen per page.

(8) On/Off button

Press once to operate, and press once again to stop.

(9) Operation lamp

Green lamp lights up during operation. The lamp will flash if a malfunction occurs.

(10) Cancel button

- Used to return to the previous screen.
- Press and hold this button for 4 seconds or longer to display service settings menu.

(11) LCD (with backlight)

The backlight will illuminate for approximately 30 seconds by pressing any operation button.

Service Settings menu

- Test Operation
- Maintenance Contact
- Field Settings
- *Energy Saving Options
- Prohibit Function
- Min Setpoints Differential
- *Outdoor unit AirNet Address
- Error History
- *Indoor Unit Status
- *Outdoor Unit Status
- Forced Fan ON
- Switch Main Sub Controller
- Filter Indicator
- *Brush/Filter Ind.
- *Disable Filter Auto Clean

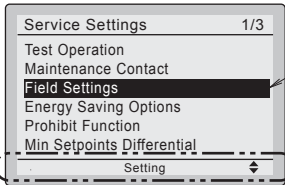
*Depending on connected model

⚠ NOTE

- Operate the button while the backlight is illuminated.
- When one indoor unit is controlled by two remote controllers (main / sub) only the first controller to be accessed by the user will illuminate it's backlight.

4-2 Button menu display descriptions

<Service settings menu screen>



Highlighted display (selected items)

In the highlighted display (selected items) setting screen, button operation descriptions are displayed.

5. Power-on

- Check for completion of indoor/outdoor unit wiring.
- Ensure that covers have been replaced on electrical component boxes for both indoor and outdoor units prior to restoring power.

5-1 The following message is displayed after power-on.
Checking the connection.
Please stand by.

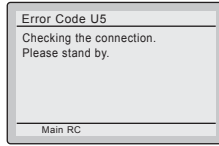
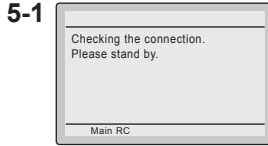
When the above message is displayed, the backlight will not be ON.

In the case that 1 indoor unit is controlled by 2 remote controllers:

Make sure to set the sub remote controller when the above message is displayed. Hold **Mode** button for 4 seconds or longer to set.

When the display is changed from "Main RC" to "Sub RC" the setting is completed.

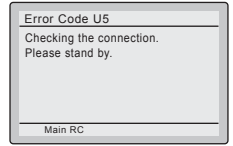
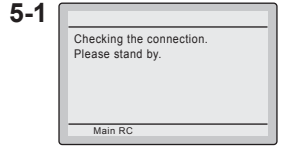
<Main remote controller>



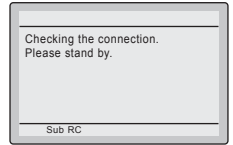
<Basic screen>



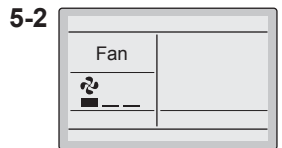
<Sub remote controller>



Press and hold 4 seconds or longer **Mode** button of sub remote controller side.



<Basic screen>



5-2 Basic screen is displayed.

NOTE

If sub remote controller is not set at power-on in the case of one indoor unit controlled by two remote controllers, **Error Code: U5** is displayed in the connection checking screen.

Select the sub remote controller by pressing **Mode** button of either one of the remote controllers for 4 seconds or longer.

If the basic screen is not displayed in 2 minutes after the "Sub RC" is displayed, shut off the power supply and check the wiring.

NOTE

When selecting a different language, refer to **Chapter 12. Language.**

(See page 22.)

6. Field Settings

6-1 Press and hold **Cancel** button for 4 seconds or longer. Service settings menu is displayed.

6-2 Select **Field Settings** in the Service Settings menu, and press **Menu/OK** button. Field settings screen is displayed.

6-3 Highlight the mode, and select desired "Mode No." by using **▲▼** (Up/Down) button.

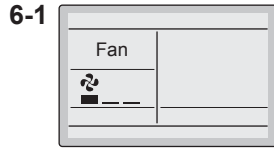
6-4 In the case of setting per indoor unit during group control (When Mode No. such as **20**, **21**, **22**, **23**, **25** are selected), highlight the unit No. and select "Indoor unit No." to be set by using **▲▼** (Up/Down) button. (In the case of group setting, this operation is not needed.)

In the case of individual setting per indoor unit, current settings are displayed. And, SECOND CODE NO. " - " means no function.

6-5 Highlight SECOND CODE NO. of the FIRST CODE NO. to be changed, and select desired "SECOND CODE NO." by using **▲▼** (Up/Down) button. Multiple identical mode number settings are available.

In the case of setting for all indoor units in the remote control group, available SECOND CODE NO. is displayed as "*" which means it can be changed. When SECOND CODE NO. is displayed as "-", there is no function.

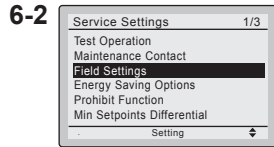
<Basic screen>



Press and hold **Cancel** button for 4 seconds or longer during backlight lit.



<Service settings menu screen>

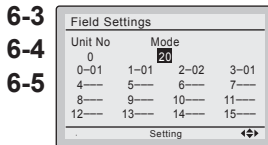


Press **Menu/OK** button.

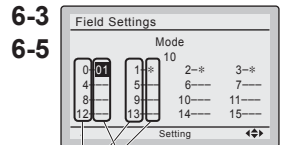


<Service settings screen>

In the case of individual setting per indoor unit



In the case of group total setting



SECOND CODE NO. FIRST CODE (SW) NO.



Press **Menu/OK** button.

6-6 Press **Menu/OK** button. Setting confirmation screen is displayed.

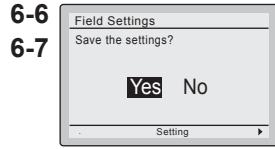
6-7 Select **Yes** and press **Menu/OK** button. Setting details are determined and field settings screen returns.

6-8 In the case of multiple setting changes, repeat “**6-3**” to “**6-7**”.

6-9 After all setting changes are completed, press **Cancel** button twice.

6-10 Backlight goes out, and **[Checking the connection. Please stand by.]** is displayed for initialization. After the initialization, the basic screen returns.

↓
<Setting confirmation screen>



Press **Menu/OK** button.



Setting confirmation

NOTE

- Installation of optional accessories on the indoor unit may require changes to field settings. See the manual of the optional accessory.
- For field setting details related to the indoor unit, see installation manual shipped with the indoor unit.

Mode No. (Note 1)	First Code No.	Description	Second Code No. (Note 2) (Items in bold are factory default settings)													
			01	02	03	04	05	06	07	08	09	10	11	12	13	
10 (20)	2	Priority of thermostat sensors for space temperature control	The return air thermostat is primary and the remote controller thermostat is secondary.	The remote controller thermostat is not utilized. Only the return air thermostat will be utilized.	Only the remote controller thermostat will be utilized.	—	—	—	—	—	—	—	—	—	—	
	5	Room temperature value reported to multizone controllers	Return air thermostat	Thermostat designated by 10-2 above (Note 3)	—	—	—	—	—	—	—	—	—	—	—	—
12 (22)	2	Thermo-on/off deadband (Note 4)	2F (1C)	1F (0.5C)	—	—	—	—	—	—	—	—	—	—	—	—
1	1	Thermostat sensor for auto changeover and setback control by the remote controller	Utilize the return air thermostat	Utilize the remote controller thermostat	—	—	—	—	—	—	—	—	—	—	—	—
			Level 2	Level 3	—	—	—	—	—	—	—	—	—	—	—	—
10	10	Remote controller thermostat offset (Main RC, Auto mode) (Note 5)	-5.4F (-3.0C)	-4.5F (-2.5C)	-3.6F (-2.0C)	-2.7F (-1.5C)	-1.8F (-1.0C)	-0.9F (-0.5C)	±0.0F (±0.0C)	0.9F (0.5C)	1.8F (1.0C)	2.7F (1.5C)	3.6F (2.0C)	4.5F (2.5C)	5.4F (3.0C)	
			11	11	Remote controller thermostat offset (Sub RC, Auto mode) (Note 5)	-5.4F (-3.0C)	-4.5F (-2.5C)	-3.6F (-2.0C)	-2.7F (-1.5C)	-1.8F (-1.0C)	-0.9F (-0.5C)	±0.0F (±0.0C)	0.9F (0.5C)	1.8F (1.0C)	2.7F (1.5C)	3.6F (2.0C)
1c	12	Remote controller thermostat offset (Main RC, Cool mode) (Note 5)	-5.4F (-3.0C)	-4.5F (-2.5C)	-3.6F (-2.0C)	-2.7F (-1.5C)	-1.8F (-1.0C)	-0.9F (-0.5C)	±0.0F (±0.0C)	0.9F (0.5C)	1.8F (1.0C)	2.7F (1.5C)	3.6F (2.0C)	4.5F (2.5C)	5.4F (3.0C)	
			13	13	Remote controller thermostat offset (Main RC, Heat mode) (Note 5)	-5.4F (-3.0C)	-4.5F (-2.5C)	-3.6F (-2.0C)	-2.7F (-1.5C)	-1.8F (-1.0C)	-0.9F (-0.5C)	±0.0F (±0.0C)	0.9F (0.5C)	1.8F (1.0C)	2.7F (1.5C)	3.6F (2.0C)
14	14	Remote controller thermostat offset (Sub RC, Cool mode) (Note 5)	-5.4F (-3.0C)	-4.5F (-2.5C)	-3.6F (-2.0C)	-2.7F (-1.5C)	-1.8F (-1.0C)	-0.9F (-0.5C)	±0.0F (±0.0C)	0.9F (0.5C)	1.8F (1.0C)	2.7F (1.5C)	3.6F (2.0C)	4.5F (2.5C)	5.4F (3.0C)	
			15	15	Remote controller thermostat offset (Sub RC, Heat mode) (Note 5)	-5.4F (-3.0C)	-4.5F (-2.5C)	-3.6F (-2.0C)	-2.7F (-1.5C)	-1.8F (-1.0C)	-0.9F (-0.5C)	±0.0F (±0.0C)	0.9F (0.5C)	1.8F (1.0C)	2.7F (1.5C)	3.6F (2.0C)
1e	2	Setback availability	N/A	Heat only	Cool only	Cool/Heat	—	—	—	—	—	—	—	—	—	—

- Notes)
- Field settings are normally applied to the entire remote control group, however if individual indoor units in the remote control group require specific settings or for confirmation that settings have been established, utilize the mode number in parenthesis.
 - Any features not supported by the connected indoor unit will not be displayed.
 - When mode 10-2-01 is selected, only the return air temperature value is reported to the multizone controller.
 - The actual default deadband value will depend upon the indoor unit model.
 - If different offset values are set for cooling and heating modes, the following issues may occur in auto operation mode:
 - The indoor unit may switch more frequently between cooling/heating modes
 - The indoor unit may switch less frequently between cooling/heating modes
 - Setback on/off may happen more frequently
 - Setback on/off may happen less frequently
 To avoid these issues, set the offset values for auto mode.

7. Test Operation

Also see installation manuals furnished with the indoor unit and the outdoor unit.

- Verify that the wiring of the indoor unit and the outdoor unit is completed.
- Ensure that covers have been replaced on electrical component boxes for both indoor and outdoor units prior to restoring power.
- After refrigerant piping, drain piping and electric wiring are completed, clean inside of the indoor unit and decorative panel.
- Perform the test operation according to following procedure.
- To protect the compressor, apply power to the outdoor unit at least 6 hours prior to test operation.
- Set the remote controller display mode to standard or detailed display mode. Refer to Operation Manual for the setting method.

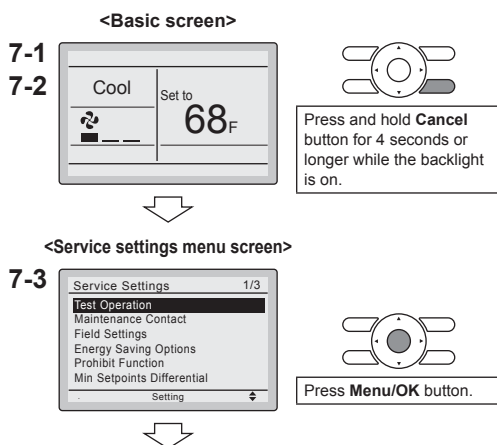
Notes for backlight

- The backlight will be ON for 30 seconds by pressing any button.
- The initial push of the button will only turn on the backlight. While the backlight is turned on, the buttons assigned functionality will be available.

7-1 Set the operation mode to cooling by using the remote controller.

7-2 Press and hold **Cancel** button for 4 seconds or longer. Service settings menu is displayed.

7-3 Select **Test Operation** in the service settings menu, and press **Menu/OK** button. Basic screen returns and message "Test Operation" is displayed at the bottom.



7-4 Press **On/Off** button within 10 seconds, and the test operation starts. Monitor the operation of the indoor unit for a minimum of 10 minutes. During test operation, the indoor unit will continue to cool regardless of the temperature setpoint and room temperature.

* Note) In the case of above-mentioned procedures **7-3** and **7-4** in reverse order, test operation can start as well.

7-5 Press **Menu/OK** button in the basic screen. Main menu is displayed.

7-6 In the case of a model having airflow direction function, select **Airflow Direction** in the main menu and check that airflow direction is actuated according to the setting. For operation of airflow direction setting, see the operation manual.

7-7 After the operation of airflow direction is confirmed, press **Menu/OK** button. Basic screen returns.

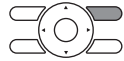
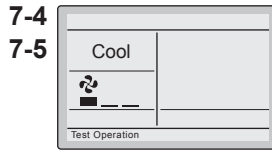
7-8 Press and hold **Cancel** button for 4 seconds or longer in the basic screen. Service settings menu is displayed.

7-9 Select **Test Operation** in the service settings menu, and press **Menu/OK** button. Basic screen returns and normal operation is conducted.
* Note) The test operation will automatically finish in 30 minutes.

7-10 Check the functions according to the operation manual.

7-11 When the decorative panel is not installed, shut off the power supply after the test operation finishes.

- If construction activities are planned within the space following the test operation procedure, recommend to the customer that the indoor unit is not operated to prevent contamination from paints, drywall dust and other airborne materials.



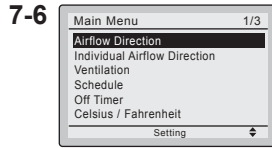
Press **On/Off** button (within 10 seconds).



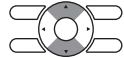
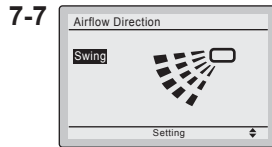
Press **Menu/OK** button.



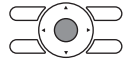
<Main menu screen>



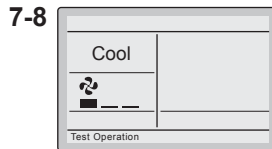
Press **Menu/OK** button.



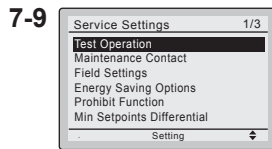
Change the airflow direction by using **▲▼** (Up/Down) button.



Press **Menu/OK** button.



Press and hold **Cancel** button for 4 seconds or longer while the backlight is on.



Press **Menu/OK** button.



<Basic screen>

⚠ NOTE

- If operation is not possible due to a malfunction, refer to following **Failure diagnosis method**.
- After the test operation finishes, check whether the error code history is displayed on the maintenance information screen of the main menu according to the following procedure.

7-12 Press **Menu/OK** button in the basic screen. Main menu screen is displayed.

7-13 Select **Maintenance Information** in the main menu, and press **Menu/OK** button.

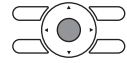
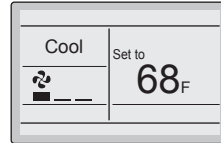
7-14 Maintenance information screen is displayed. Check whether the error code history is displayed on the screen.

* If no error code history is displayed following this procedure the system has normally completed the test operation mode.

7-15 If the error code history is displayed, conduct the failure diagnosis referring to <Error code list> in the installation manual of the indoor unit. After the failure diagnosis finishes, press and hold **On/Off** button for 4 seconds or longer in the maintenance information screen to erase the error code history.

<Basic screen>

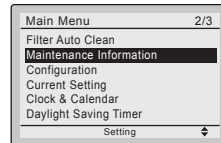
7-12



Press **Menu/OK** button.

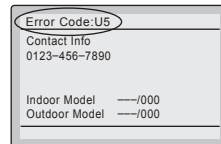
<Main menu screen>

7-13



Press **Menu/OK** button.

7-14



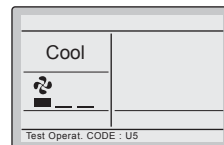
7-15



Press and hold **On/Off** button for 4 seconds or longer during backlight lit.

Failure diagnosis method

- Whenever the remote controller display is blank or displays [**Checking the connection. Please stand by.**], troubleshoot the system with the items in the Description column of the following table.
- If an error occurs, **CODE** is displayed on the LCD as shown to the right. Conduct the failure analysis referring to <Error code list> in the installation manual of the indoor unit. When the unit No. which detected the error during group control is confirmed, refer to **Chapter 8: Procedure for Checking Error History**.



Remote controller display	Description
No display	<ul style="list-style-type: none"> ● Power outage, power voltage error or open-phase ● Incorrect wiring (between indoor and outdoor units) ● Indoor printed-circuit board assembly failure ● Remote controller wiring not connected ● Remote controller failure ● Open fuse or tripped circuit breaker (outdoor unit)
Checking the connection. Please stand by. *	<ul style="list-style-type: none"> ● Indoor printed-circuit board assembly failure ● Wrong wiring (between indoor and outdoor units)

* [Checking the connection. Please stand by.] will be displayed for up to 90 seconds following the application of power to the indoor unit. This is normal and does not indicate a malfunction.

8. Procedure for Checking Error History

8-1 Press and hold **Cancel** button for 4 seconds or longer in the basic screen. Service settings menu is displayed.

8-2 Select **Error History** in the service settings menu, and press **Menu/OK** button. The error history menu screen is displayed.

8-3 Select **RC Error History** in the error history menu, and press **Menu/OK** button. Error codes and unit No. can be confirmed in the RC error history screen.

8-4 In the error history, the 10 most recent items are displayed in order of occurrence.

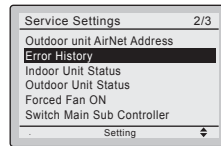
8-5 Press **Cancel** button in the RC error history screen 3 times. The basic screen returns.

8-1 <Basic screen>



<Service settings menu screen>

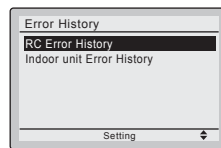
8-2



Press Menu/OK button.



8-3



Press Menu/OK button.

8-4

8-5

Unit	Error	Date	Time
01	---	-/-/---	---:--
02	---	-/-/---	---:--
03	---	-/-/---	---:--
04	---	-/-/---	---:--

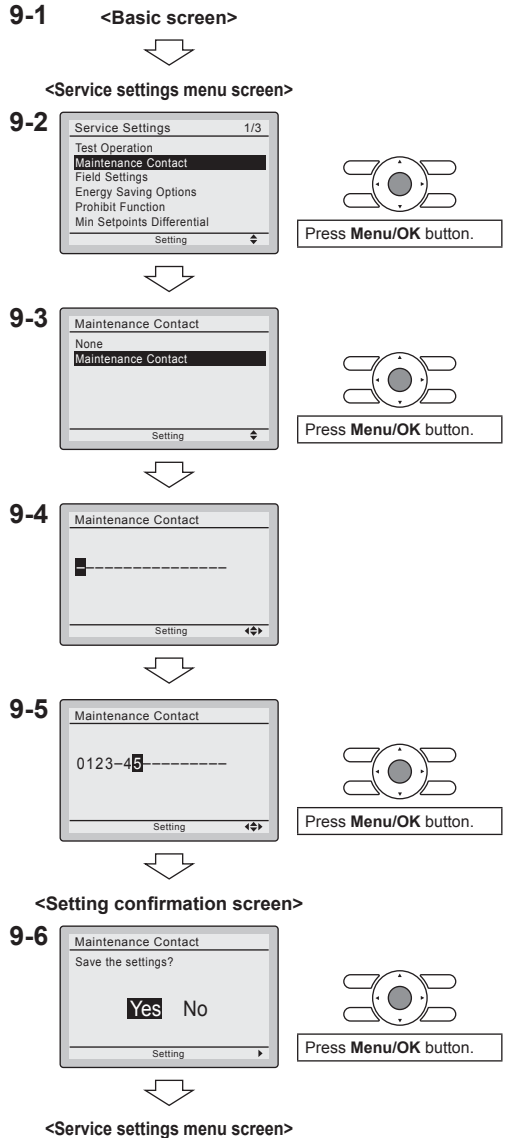
Unit No.

Latest record

9. Adding Maintenance Contact Information

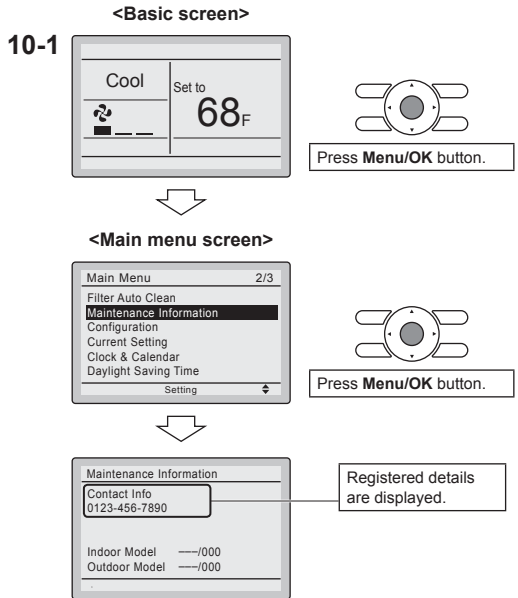
- Registration of the maintenance contact.

- 9-1** Press and hold **Cancel** button for 4 seconds or longer in the basic screen.
Service settings menu is displayed.
- 9-2** Select **Maintenance Contact** in the service settings menu, and press **Menu/OK** button. Maintenance contact menu screen is displayed.
- 9-3** Select **Maintenance Contact**, and press **Menu/OK** button.
- 9-4** Enter the telephone number.
Scroll through the numbers by using **▲▼** (Up/Down) buttons. Start from the left side. Blank digits should remain as “-”.
- 9-5** Press **Menu/OK** button.
Setting confirmation screen is displayed.
- 9-6** Select **Yes** and press **Menu/OK** button.
Setting details are saved and service settings menu screen returns.
- 9-7** Press **Cancel** button once.
The basic screen returns.



10. Confirming Registered Details

10-1 Press **Menu/OK** button in the basic screen.
Main menu is displayed.
Select **Maintenance Information** in the main menu, and press **Menu/OK** button.

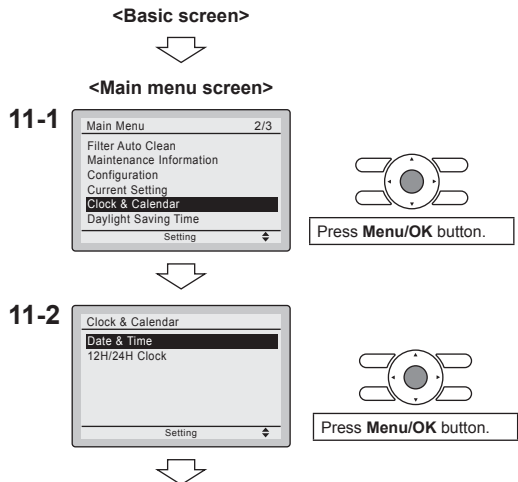


10-2 Press **Cancel** button twice.
The basic screen returns.

11. Clock & Calendar

11-1 Press **Menu/OK** button in the basic screen.
Main menu is displayed.
Select **Clock & Calendar** in the main menu, press **Menu/OK** button.

11-2 Press **▲▼** buttons to select **Date & Time** on the clock & calendar screen.
* The date & time screen will appear when **Menu/OK** button is pressed.



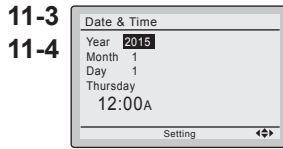
11-3 Select **year, month, day** and **time** by using ◀▶ (Left/Right) button and set by using ▲▼ (Up/Down) button in the date & time screen. Press and hold the button for continuous change of the numeric value.

* Day of the week is set automatically.

11-4 Press **Menu/OK** button. Setting confirmation screen is displayed.

11-5 Select **Yes** and press **Menu/OK** button. Setting details are saved and basic screen returns.

* If power outage exceeds 48 hours, reset is needed.



11-4



Press **Menu/OK** button.



Press **Menu/OK** button.



<Basic screen>

12. Language

12-1 Press **Menu/OK** button in the basic screen. Main menu is displayed. Select **Language** in the main menu, press **Menu/OK** button.

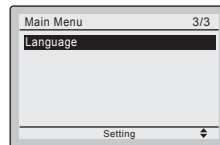
12-2 Press ▲▼ (Up/Down) buttons to select **Language** on the language screen. **English/Français/Español** Press **Menu/OK** button.

<Basic screen>



<Main menu screen>

12-1



Press **Menu/OK** button.



12-2



DAIKIN

Our continuing commitment to quality products may mean a change in specifications without notice.
© 2015 **DAIKIN NORTH AMERICA LLC** · Houston, Texas · USA · www.daikincomfort.com

DAIKIN INDUSTRIES, LTD.

Head office:

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo office:

JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan

INSTALLATION MANUAL

VRV *System air conditioner*

MODEL
Branch Selector unit

BS4Q54TAVJ
BS10Q54TAVJ
BS12Q54TAVJ

English

Français

Español

Read these instructions carefully before installation.
Keep this manual in a handy place for future reference.
This manual should be left with the equipment owner.

Lire soigneusement ces instructions avant l'installation.
Conserver ce manuel à portée de main pour référence ultérieure.
Ce manuel doit être donné au propriétaire de l'équipement.

Lea cuidadosamente estas instrucciones antes de instalar.
Guarde este manual en un lugar a mano para leer en caso de tener alguna duda.
Este manual debe permanecer con el propietario del equipo.

Safety considerations

Read these Safety considerations for Installation carefully before installing an air conditioner. After completing the installation, make sure that the unit operates properly during the startup operation.


Instruct the customer on how to operate and maintain the unit.


Inform customers that they should store this Installation Manual with the Operation Manual for future reference.


Always use a licensed installer or contractor to install this product.


Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE** Indicates situations that may result in equipment or property damage accidents only.

DANGER

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result in serious injury or death.
 - Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding will result a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes will result a gas leak and potential explosion resulting in severe injury or death.
 - If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas will result in producing toxic gas if it comes into contact with fire. Exposure to this gas will result in severe injury or death.
 - After completing the installation work, check that the refrigerant gas does not leak throughout the system.
 - Do not install unit in an area where flammable materials are present due to risk of explosions that will result in serious injury or death.
 - Safely dispose of all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation will result in injuries or death by suffocation.
-

WARNING

- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation could result in water leakage, electric shock, or fire.
 - When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, could result in oxygen deficiency.
 - Use only specified accessories and parts for installation work. Failure to use specified parts could result in water leakage, electric shocks, fire, or the unit falling.
 - Install the air conditioner on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength could result in the unit falling and causing injuries.
 - Take into account strong winds, typhoons, or earthquakes when installing. Improper installation could result in the unit falling and causing accidents.
 - Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state and national regulations. An insufficient power supply capacity or improper electrical construction could result in electric shocks or fire.
 - Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation could result in fire.
 - When wiring, position the wires so that the control box cover can be securely fastened. Improper positioning of the control box cover could result in electric shocks, fire, or the terminals overheating.
 - Before touching electrical parts, turn off the unit.
 - This equipment can be installed with a Ground-Fault Circuit Interrupter (GFCI). Although this is a recognized measure for additional protection, with the grounding system in North America, a dedicated GFCI is not necessary.
 - Securely fasten the unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the outdoor unit and could result in fire or electric shock.
 - When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit could result in abnormal pressure rise or rupture, resulting in injury.
 - Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion could result.
 - Do not install in a wet room such as a bathroom or laundry room due to a risk of fire or electric shock.
-

⚠ CAUTION

- Do not touch the switch with wet fingers. Touching a switch with wet fingers may result in electric shock.
- Do not allow children to play on or around the unit or it may result in injury.
- The heat exchanger fins are sharp enough to cut, and may result in injury if improperly used. To avoid injury wear glove or cover the fins when working around them.
- Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. It may result in your hands getting burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Insulate piping to prevent condensation.
- Be careful when transporting the product.
- Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may result.
- Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
- Refrigerant R410A in the system must be kept clean, dry, and tight.
 - (a) Clean and Dry - Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
 - (b) Tight - R410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter Refrigerant Piping and follow the procedures.
- Since R410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a gaseous state, its composition can change and the system will not work properly.
- The indoor unit is for R410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
- Handheld remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
- Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.
- Do not install the air conditioner in the following locations:
 - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen.
Plastic parts may deteriorate and fall off and thus may result in water leakage.
 - (b) Where corrosive gas, such as sulfuric acid gas, is produced.
Corroding copper pipes or soldered parts may result in refrigerant leakage.
- (c) Near machinery emitting electromagnetic waves.
Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
- (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions may result in a fire.
- Take adequate measures to prevent the outdoor unit from being used as a shelter by small animals. Small animals making contact with electrical parts may result in malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

⚠ NOTE

- Install the power supply and transmission wires for the indoor and outdoor units at least 3.5 ft. (1 m) away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 ft. (1 m) may not be sufficient to eliminate the noise.
- Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
- Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
- If the conventional refrigerant and refrigerator oil are mixed in R410A, the refrigerant result in deterioration.
- This air conditioner is an appliance that should not be accessible to the general public.
- As design pressure is 580 psi (4.0 MPa), the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.

Codes and Regulations

This product is designed and manufactured to comply with national codes. Installation in accordance with such codes and/or prevailing local codes/regulations is the responsibility of the installer. The manufacturer assumes no responsibility for equipment installed in violation of any codes or regulations. Rated performance is achieved after 72 hours of operation.

CONTENTS

Safety considerations	i
Codes and Regulations	ii
1. BEFORE INSTALLATION	2
2. SELECTING INSTALLATION SITE.....	4
3. PREPARATIONS BEFORE INSTALLATION	5
4. BRANCH SELECTOR UNIT INSTALLATION	5
5. REFRIGERANT PIPING WORK.....	6
6. ELECTRIC WIRING WORK.....	11
7. INITIAL SETTING	17
8. ADDING AN ADDITIONAL CHARGE OF REFRIGERANT	18
9. CHECK OPERATION AND TEST OPERATION	18

The original instructions are written in English. All other languages are translations of the original instructions.

1. BEFORE INSTALLATION

1-1 Precautions





- Be sure to verify in advance that the refrigerant used in installation work is R410A. The unit will not operate correctly with a different type of refrigerant.
- When moving the unit during or after unpacking, hold it using the 4 hanger brackets and avoid subjecting other parts, particularly refrigerant pipes and the control box, to force.
- For more information about installation of outdoor and indoor units, refer to the installation manual that came with each unit.






1-2 Accessories

- Verify that the following accessories have been included in the packaging.

Important

Do not throw away any accessories that may be needed in installation work until installation is complete.

Name		(1) Clamps	(2) Insulation tube		(3) Vinyl tube
Quantity	BS4Q54TAVJ	22 pcs.	4 pcs.	4 pcs.	1 pc.
	BS10Q54TAVJ	48 pcs.	10 pcs.	10 pcs.	
	BS12Q54TAVJ	56 pcs.	12 pcs.	12 pcs.	
Shape		(1) 	(2)-1  (Thin)	(2)-2  (Thick)	(3) 

Name		(4) Stopper pipes		(5) Insulation tube for stopper pipes		(6) Installation manual
Quantity	BS4Q54TAVJ	1 pc.		1 pc.		1 copy
	BS10Q54TAVJ					
	BS12Q54TAVJ					
Shape		(4)-1  $\phi 3/8$ in. ($\phi 9.5$ mm)	(4)-2  $\phi 5/8$ in. ($\phi 15.9$ mm)	(5)-1  (Thin)	(5)-2  (Thick)	

NOTE

- You will need reducers (to be supplied in the field) if the diameter of the pipe on site as described in the outdoor unit's installation manual or Engineering Data Book does not match the diameter of the connection pipe on the outdoor side of the Branch Selector unit.
- Thermal insulation for connection pipes on the outdoor unit side must be supplied in the field.

1-3 Combination

- For series of applicable indoor units and outdoor units, refer to the catalog or other literature.
- Select the Branch Selector unit to fit the total capacity (sum of unit's capacity) of the indoor units to be connected downstream, refer to the Table 1. About indoor unit's capacity, refer to the Table 2.

Table 1

Model	Total capacity of all downstream indoor units
BS4Q54TAVJ	A ≤ 144 (*)
BS10Q54TAVJ BS12Q54TAVJ	A ≤ 290 (*)

* The total capacity and number of indoor units connectable to each branch connector are up to 54 and 5, respectively. When the total capacity of indoor units to be connected downstream is larger than 54 (MAX. 96), use a junction pipe kit (KHRP26A250T, sold separately) to join two connections downstream from the Branch Selector unit.

Table 2

Capacity expressed as indoor unit's model No.	05	07	09	12	15	18	24	30	36	42	48	54	72	96
Indoor unit's capacity (for use in computation)	5.8	7.5	9.5	12	15	18	24	30	36	42	48	54	72	96

<Example selection>

In the case of a Branch Selector unit connected to a FXFQ12 and a FXMQ18.

$$\text{Total capacity} = 12 + 18 = 30$$

1-4 Checklist

Exercise particular care concerning the following items during installation work and check again after installation is complete:

Post-installation checklist

Checklist	If defective	Check here.
Has the Branch Selector unit been installed securely?	The unit may fall, vibrate, or operate noisily.	
Did you conduct a gas leak inspection?	The unit may fail to heat or cool as designed.	
Was the unit fully insulated? (Refrigerant pipes)	The unit may leak water.	
Is the supply voltage the same as the voltage indicated on the label?	The unit may fail to operate or burn up.	
Are there any wiring mistakes or erroneous wiring or erroneous pipe connections?	The unit may fail to operate, burn up, or produce abnormal noise.	
Has the unit been grounded?	The unit may pose a hazard in the event of a short-circuit.	
Was the size of the electrical wiring selected in accordance with relevant local and national codes?	The unit may fail to operate or have electrical issues.	

Delivery checklist

Checklist	Check here.
Has a cover been installed on the control box?	
Did you give the customer the installation manual?	

2. SELECTING INSTALLATION SITE

Consider the following requirements when choosing the installation location and obtain the customer's consent:

- The location must be able to withstand the weight of the Branch Selector unit.
- The location must allow inspection holes to be installed on the control box side. (A separate opening is necessary when lowering the product.)
- There must be adequate space in which to perform installation and service work. (Refer to Fig. 1.)
- The length of pipe to the indoor unit and outdoor unit must be less than or equal to the permissible pipe length (as listed in the installation manual included with the outdoor unit).
- Refrigerant circulated through the pipes can generate sound. Ensure that the installation takes necessary precautions when installing in a sound sensitive applications.

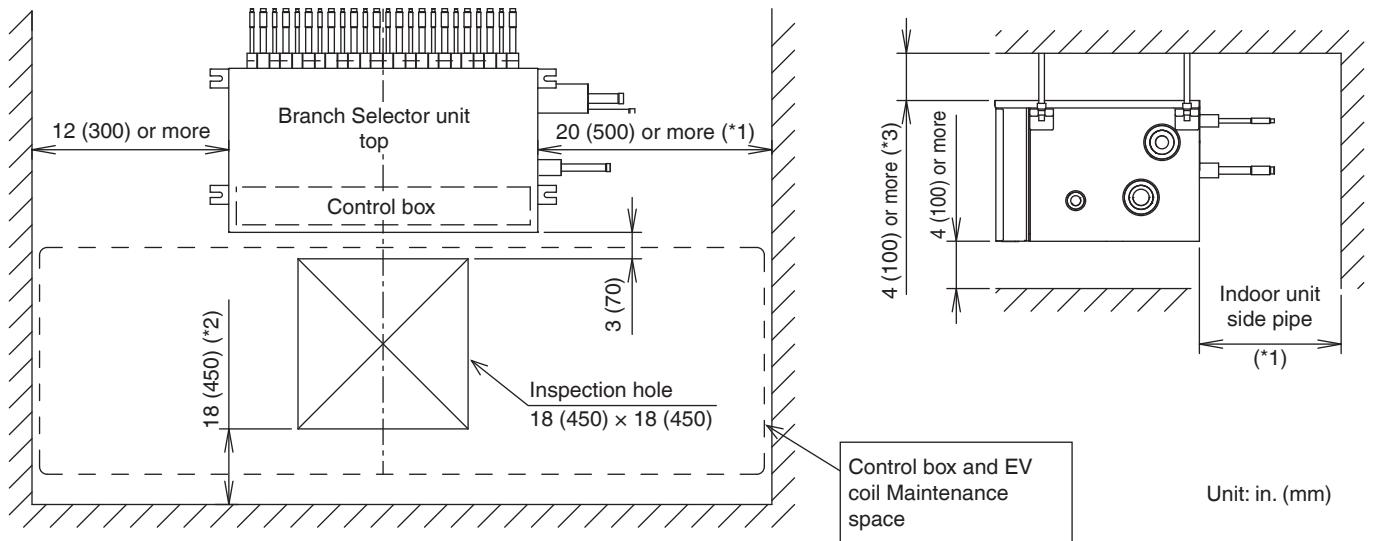


Fig. 1

(*1) Leave enough space to connect the field pipes.

(*2) This space is needed to place the top plate when performing service on EV coil.

(*3) This space is needed to remove the top plate when performing service on EV coil.

— ⚠ WARNING —

Securely install the unit at a location that is capable of withstanding its weight.

Inadequate strength may cause the Branch Selector unit to fall, resulting in bodily injury.

— ⚠ CAUTION —

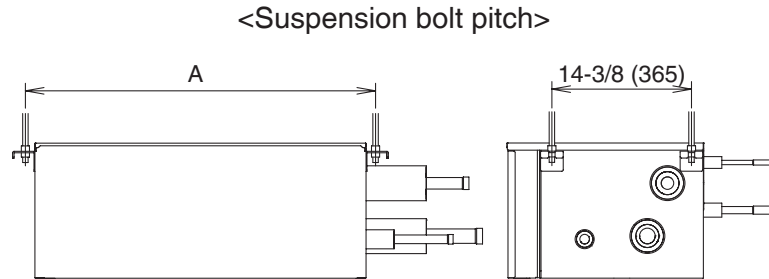
- Leave enough space to perform maintenance on the control box.
- To prevent video and audio interference, install the Branch Selector unit as well as associated power supply wiring and transmission wiring at least 3.5 ft. (1 m) away from TVs and radios. However, depending on the reception, interference may result even if a minimum distance of 3.5 ft. (1 m) is maintained.

3. PREPARATIONS BEFORE INSTALLATION

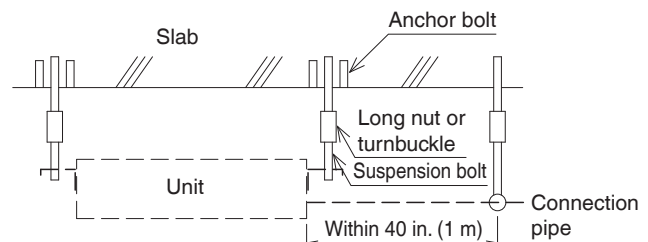
Install suspension bolts and hanger brackets as illustrated in the diagram below.

- Use a suspension bolt size of 3/8 in.(M8) to 7/16 in.(M10).
- Use mold-in inserts and embedded foundation bolts for new installations or hole-in anchor bolts or similar hardware for existing installations, taking care to install in a manner that can withstand the unit's weight.

Branch Selector unit	Unit: in. (mm)
BS4Q54TAVJ	A
BS10Q54TAVJ	16-5/16 (415)
BS12Q54TAVJ	34-1/16 (865)



- Use the hanger brackets to support the connection pipes on both the front and back of the unit within 40 in. (1 m) of the unit's side. Placing an excessive amount of weight on the hanger brackets may cause the unit to fall, resulting in bodily injury.

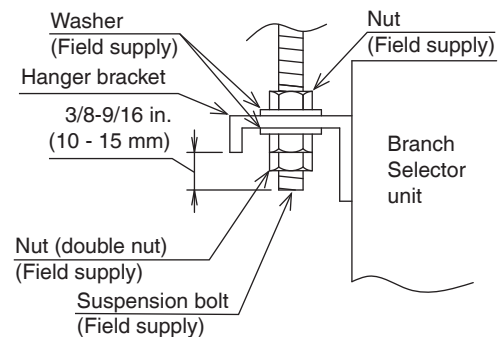


Note: All the above parts must be supplied in the field
<Example installation>

4. BRANCH SELECTOR UNIT INSTALLATION

Use only accessories and parts that conform to the designated specifications when installing the unit.

1. Position the Branch Selector unit and secure it temporarily in place. Attach the hanger brackets to the suspension bolts as per the instructions in the figure on the right. Be sure to affix nuts (3/8 in.(M8) or 7/16 in.(M10), 3 pieces in 4 locations) and washers (for 3/8 in.(M8), outside diameter of 15/16 in. (24 mm) to 1-1/8 in. (28 mm) or for 7/16 in.(M10), outside diameter of 1-3/16 in. (30 mm) to 1-5/16 in. (34 mm): 2 pieces in 4 locations) (to be supplied in the field) from both the top and bottom of the hanger brackets on both sides of the unit to secure it in place.
2. Adjust the height of the unit as desired.
3. Using a level, verify that the unit has been installed in a level orientation.



⚠ WARNING

- Install the Branch Selector unit in a level orientation. (Vertical installation is not permitted.)
- Attach nuts on both the top and bottom of the hanger brackets. Overtightening the lower nut without the upper nut in place may cause the hanger bracket and top plate to deform, causing the unit to produce abnormal noise.

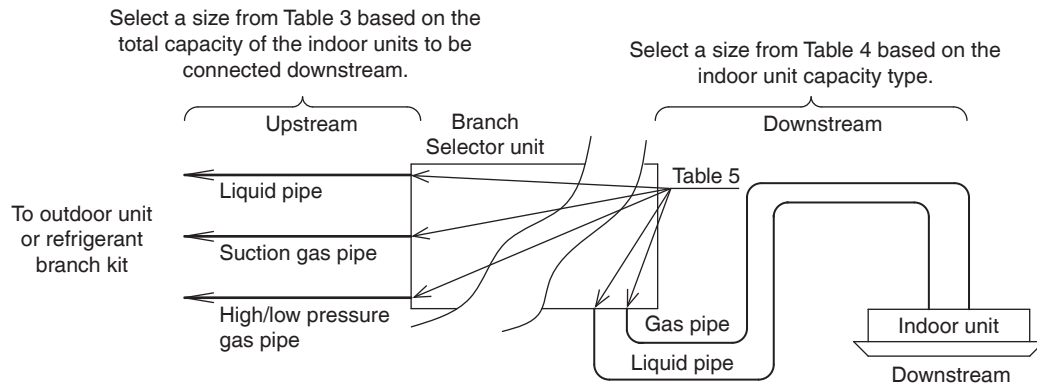
5. REFRIGERANT PIPING WORK

- For instructions for installing piping between the outdoor unit and the Branch Selector unit, selecting a refrigerant branch kit, and installing piping between the refrigerant branch kit and indoor units, refer to the installation manual included with the outdoor unit.
- Before beginning the work, be sure to verify that the type of refrigerant used is R410A.
(The unit will not operate correctly with a different type of refrigerant.)
- Insulate all of the piping, including the liquid pipes, high/low pressure gas pipes, suction gas pipes, gas pipes, and the pipe connections for these.
Not insulating these pipes could result in water leaks or burns.
In particular, low-temperature gas flows in the high/low pressure gas piping during full cooling operation, so the same amount of insulation as used for the suction gas pipes is required.
In addition, high-temperature gas flows in the high/low pressure gas piping and gas piping, so use insulation that can withstand more than 250°F (120°C).
- Select insulation material as necessary for the installation environment.
For details, refer to the Engineering Data Book.
If you fail to do so, condensation could form on the surface of the insulation.

5-1 Pipe size selection

Select the size of piping between the outdoor unit (refrigerant branch kit) and the Branch Selector unit and between the Branch Selector unit and indoor units (refrigerant branch kits) based on example connections 1 and 2 below and Tables 3, 4 and 5.

Example connection 1 : When connecting 1 indoor unit downstream of the Branch Selector unit



Example connection 2 : When there is a branch downstream from the Branch Selector unit

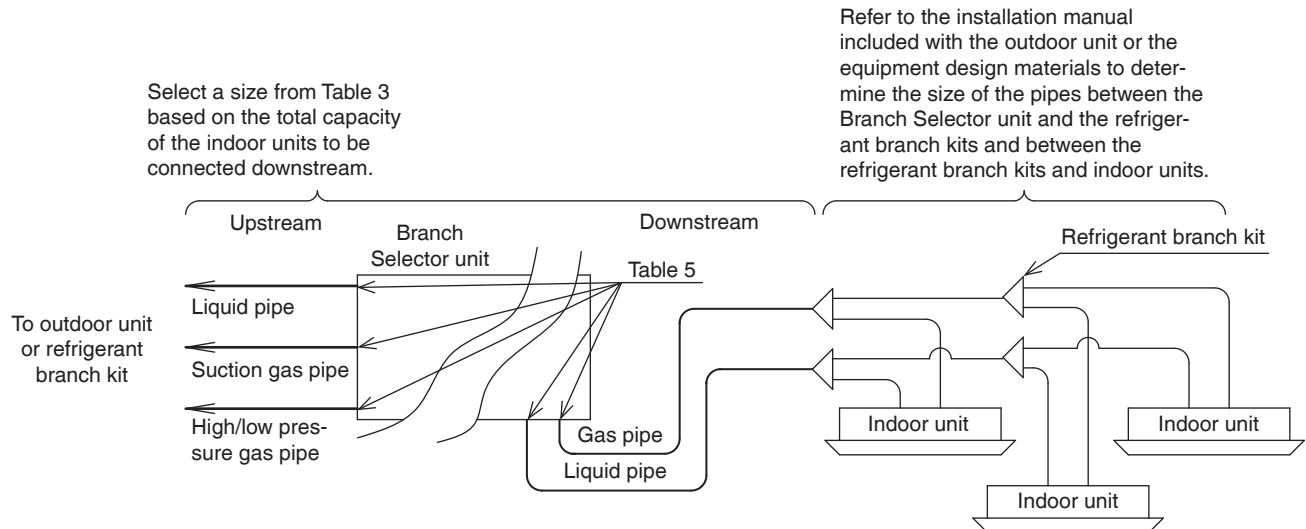


Table 3 Total indoor unit capacity and pipe size

Total indoor unit capacity (x)	Pipe size (Outside diameter)									
	Upstream						Downstream			
	Suction		High/low pressure		Liquid		Gas pipe		Liquid pipe	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
x < 54	φ5/8	φ15.9	φ1/2	φ12.7	φ3/8	φ9.5	φ5/8	φ15.9	φ3/8	φ9.5
54 ≤ x < 72	φ3/4	φ19.1	φ5/8	φ15.9			φ3/4	φ19.1		
72 ≤ x < 111	φ7/8	φ22.2	φ3/4	φ19.1			φ7/8	φ22.2		
111 ≤ x < 162	φ1-1/8	φ28.6			φ1/2	φ12.7				
162 ≤ x < 230			φ5/8	φ15.9						
230 ≤ x ≤ 290			φ1-3/8	φ34.9	φ1-1/8	φ28.6	φ3/4	φ19.1		

- In case of connection to the main pipe, refer to the installation manual included with the outdoor unit or the Engineering Data Book.

Table 4 Indoor unit connection pipe size

Indoor unit capacity size	Pipe size (Outside diameter)			
	Gas pipe		Liquid pipe	
	in.	mm	in.	mm
05, 07, 09, 12, 15, 18	φ1/2	φ12.7	φ1/4	φ6.4
24, 30, 36, 42, 48, 54	φ5/8	φ15.9	φ3/8	φ9.5
72	φ3/4	φ19.1		
96	φ7/8	φ22.2		

- Table 5 lists Branch Selector unit connection pipe size.

Table 5 Branch Selector unit connection pipe size

Outdoor unit side (*1)

Branch Selector unit	Pipe size (Outside diameter)					
	Suction pipe		High/low pressure gas pipe		Liquid pipe	
	in.	mm	in.	mm	in.	mm
BS4Q54TAVJ	φ7/8	φ22.2	φ3/4	φ19.1	φ3/8	φ9.5
BS10Q54TAVJ	φ1-1/8	φ28.6	φ1-1/8	φ28.6	φ5/8	φ15.9
BS12Q54TAVJ						

Indoor unit side (*2)

Branch Selector unit	Pipe size (Outside diameter)			
	Gas pipe		Liquid pipe	
	in.	mm	in.	mm
BS4Q54TAVJ	φ1/2 (φ5/8)	φ12.7 (φ15.9)	φ1/4 (φ3/8)	φ6.4 (φ9.5)
BS10Q54TAVJ				
BS12Q54TAVJ				

- *1 If the pipe size differs from that of the size selected from Table 3, you will need reducers (to be supplied in the field).
- *2 The pipe diameter in parentheses can be used by cutting the pipes on the Branch Selector unit side with a pipe cutter. For details, refer to “5-3 Piping connection.”

NOTE

- If the number of indoor units to be connected is less than the number of branch ports (so that there are empty branch ports left, or if you plan to increase the number in the future), any of the branch ports can be left unused. Ensure to follow appropriate procedure for closing the unused ports.
- If you plan to add new indoor units in the future, select a pipe size based on the total indoor unit capacity before addition of new units. Do not select a pipe size based on the total future capacity. It will result in abnormal operation. If piping size doesn't change before and after extension, extension will be allowed.
- For more information about extension, contact your Daikin sales representative.

5-2 Pipe connection work precautions

Connect the pipes.

- Braze (*2) refrigerant pipes after nitrogen replacement (replacing air with nitrogen while allowing nitrogen to flow inside the refrigerant pipe (*1)). **(Refer to Fig. 2.)**

(*1) The pressure regulator for the nitrogen released when doing the brazing should be set to about 2.9 psi (0.02 MPa) (enough to feel a slight breeze on your cheek).

(*2) Do not use flux when brazing the refrigerant pipe.

Use phosphor copper (B-Cu93P-710/795: ISO 3677), which does not require flux, as the filler metal for brazing.

(Using chlorine flux may cause the pipes to corrode, and if it contains fluoride it may cause the refrigerant lubricant to degrade, adversely affecting the refrigerant piping system.)

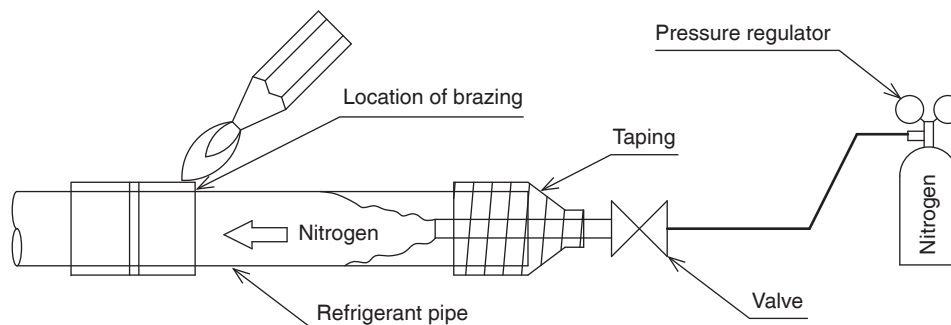


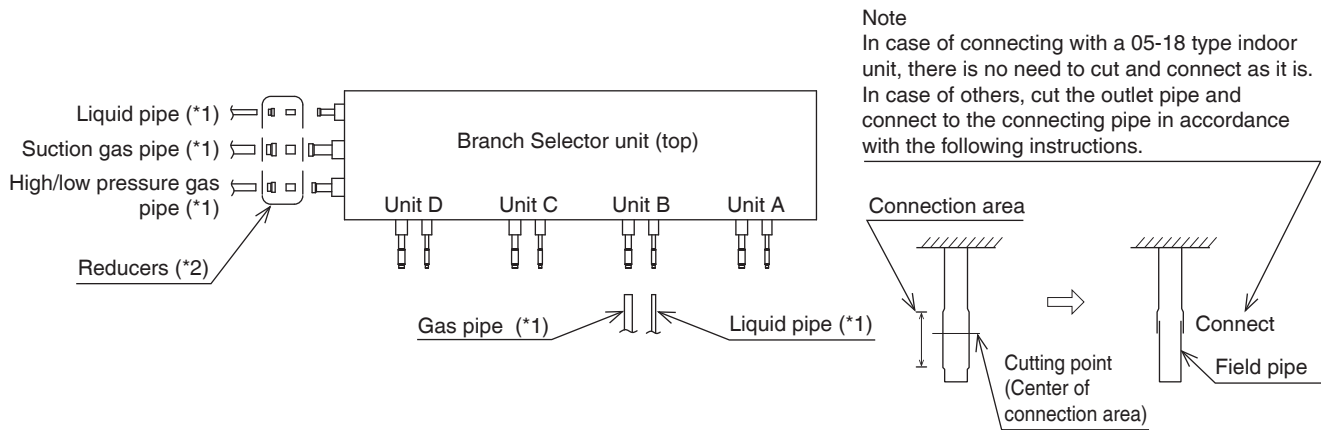
Fig. 2



CAUTION

- Do not use an anti-oxidizing agent when brazing the piping.
(Residual debris could clog the piping or cause parts to malfunction.)
- For more information about outdoor unit refrigerant pipes, see the installation manual included with the outdoor unit or the Engineering Data Book.
(Failure to purge air from the pipes or fill additional refrigerant may result in an insufficient volume of refrigerant in the pipes or other problems, causing the equipment to malfunction [for example, to not cool or heat properly].)

5-3 Piping connection



Note
In case of connecting with a 05-18 type indoor unit, there is no need to cut and connect as it is. In case of others, cut the outlet pipe and connect to the connecting pipe in accordance with the following instructions.

(*1) Indicates field pipe.

(*2) Reducers may be required (field supply) if the field pipe size does not suit on the pipe size of the Branch Selector unit (Table 5).

— If there are branch ports left unused (not connected to an indoor unit)

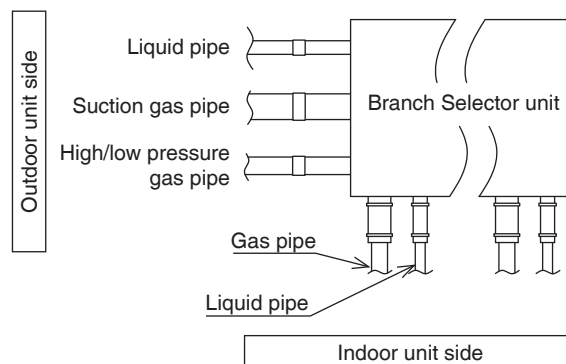
- If there are unused branch ports, use stopper pipe (Accessory (4)).
If there are many unused branch ports, be sure to use an optional Closed pipe kit (KHFP26A100C).

5-4 Airtightness test and vacuum drying

- After completing refrigerant piping work for the indoor units, Branch Selector unit, and outdoor unit, conduct an airtightness test and vacuum drying.
For more information about the airtightness test pressure, refer to the outdoor unit's installation manual.

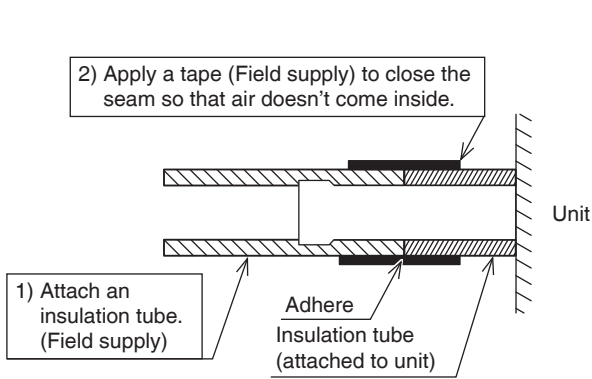
5-5 Piping insulation

- After the gas leak inspection is completed, refer to the following figures and use the included insulation tube (Accessory (2)) and clamps (Accessory (1)) to apply the insulation.

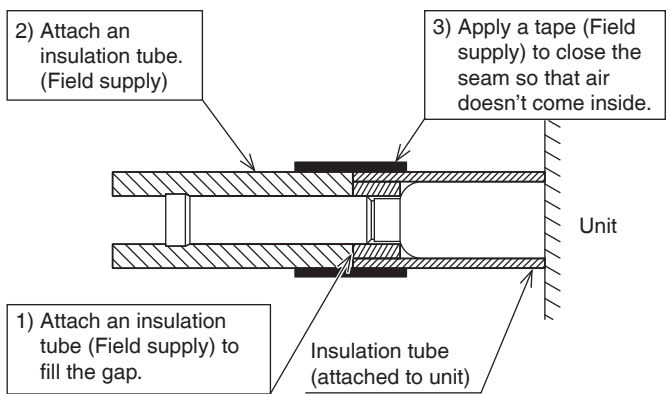


CAUTION

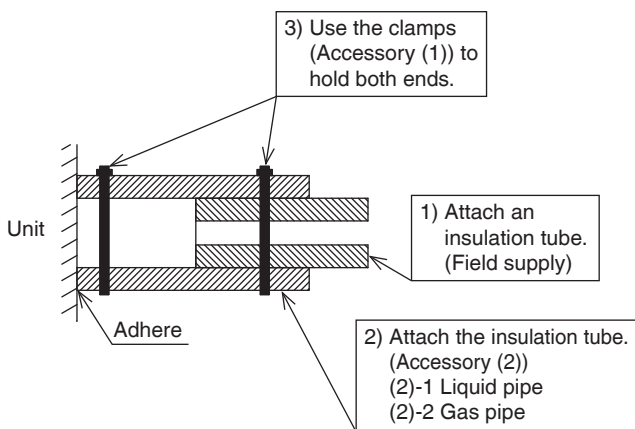
- Insulate all of the piping including the liquid pipes, high/low pressure gas pipes, suction gas pipes, gas pipes, and the pipe connections for these.
Not insulating these pipes could result in water leaks or burns.
In particular, low-temperature gas flows in the high/low pressure gas pipes during full cooling operation, so the same amount of insulation as used for the suction gas pipes is required.
In addition, high-temperature gas flows in the high/low pressure gas piping and gas piping, so use insulation that can withstand more than 250°F (120°C).
- When reinforcing the insulation material in accordance with the installation environment, also reinforce the insulation on the piping protruding from the unit.
Insulation material required for reinforcement work should be supplied in the field.
For more information, refer to the Engineering Data Book.
- If the taping or clamps of the insulation material is tightly wound, the thickness of the insulation material will decrease and it will lead to deterioration of the insulation performance.



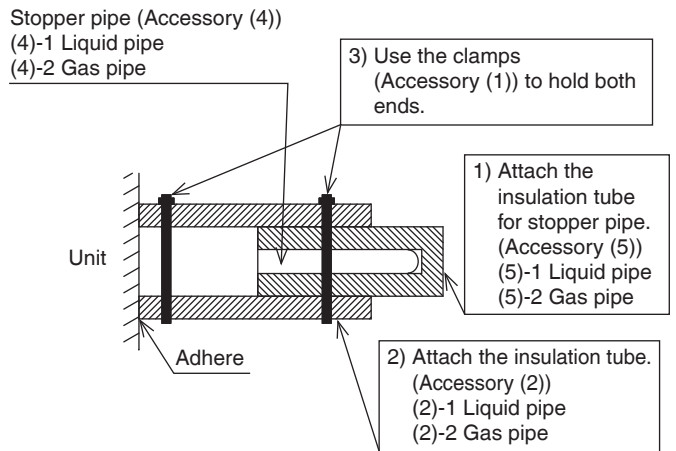
Insulation material installation instructions
(Outdoor unit side) (Liquid pipes)



Insulation material installation instructions
(Outdoor unit side)
(Suction and high/low pressure gas pipes)

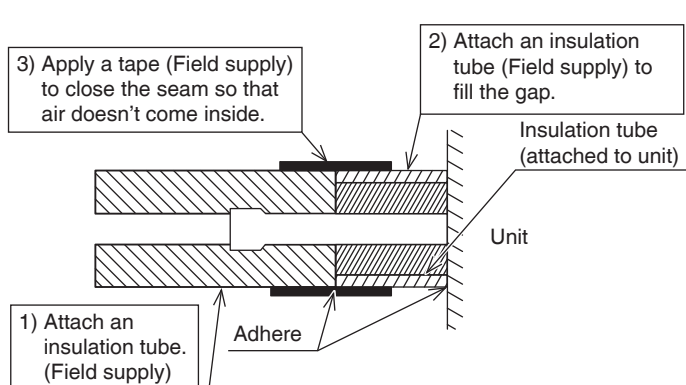


Insulation tube installation instructions
(Indoor unit side) (Gas and liquid pipes)

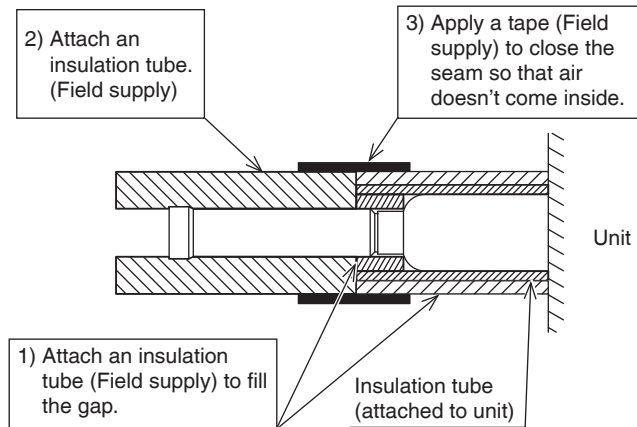


Insulation tube installation instructions for unused branch ports
(Indoor unit side) (Gas and liquid pipes)

- If the installation environment is high temperature and high humidity, reinforce the insulation of high/low pressure, suction gas pipes (outdoor unit side) and gas pipes (indoor unit side). Refer below for how to attach the insulation materials.



Insulation material installation instructions at high temperature and high humidity (Indoor unit side) (Gas pipes)



Insulation material installation instructions at high temperature and high humidity (Outdoor unit side) (High/low pressure gas and suction pipes)

— **CAUTION** —

- Wrap insulation material with the seam facing up to prevent condensation from leaking through it. (Refer to Fig. 3.)

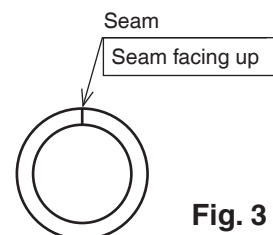


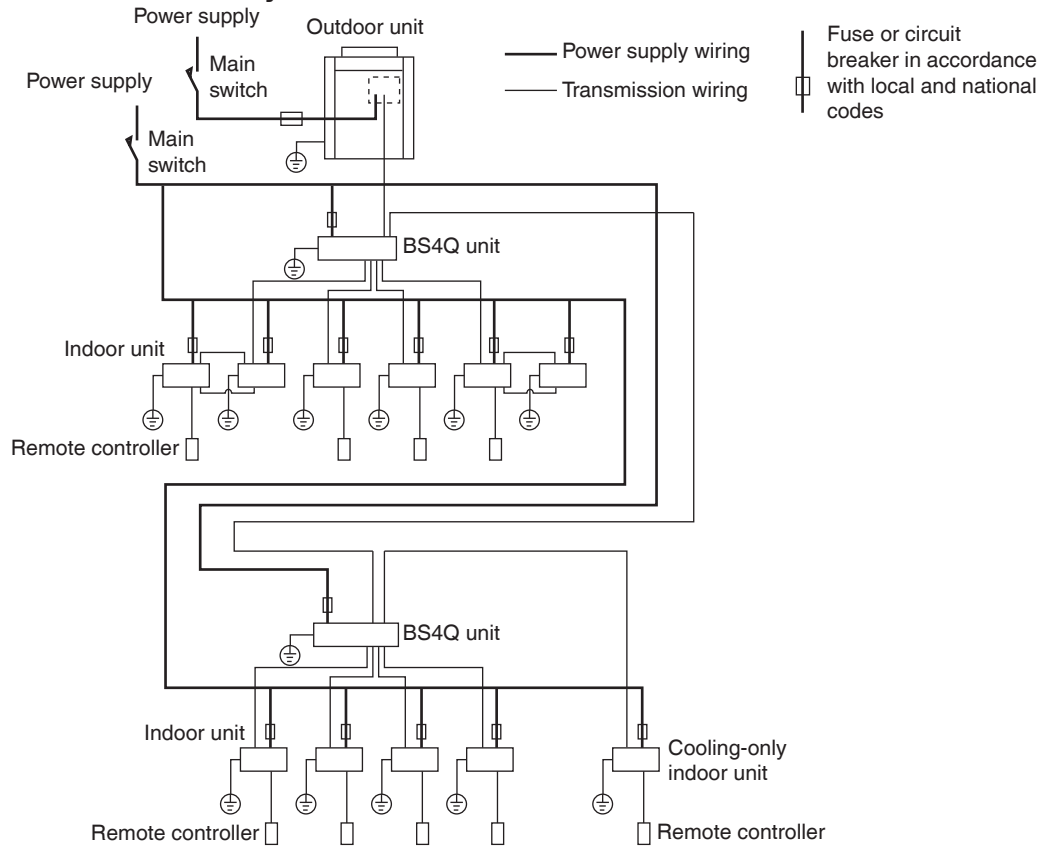
Fig. 3

6. ELECTRIC WIRING WORK

6-1 General instructions

- All wiring must be performed by an authorized electrician.
- All field supplied parts and materials, electric works must conform to local codes.
- Always ground wires. (In accordance with national regulations of the pertinent country.)
- Always turn off the power supply before performing the electric wiring work.
- Follow the “WIRING DIAGRAM” attached to the control box cover to wire the outdoor unit and indoor units.
- Properly connect wire of the specified wire type and copper thickness. Also use the included clamp to avoid applying excessive force to the terminal (field wire, ground wire).
- A disconnection incorporated in the fixed wiring is to be provided. Use an all-pole disconnection type breaker with at least 1/8 in. (3 mm) between the contact point gaps.
- Do not let the ground wire come in contact with gas pipes, water pipes, lightning rods, or telephone ground wires.
 - Gas pipes: gas leaks can cause explosions and fire.
 - Water pipes: cannot be grounded if hard vinyl pipes are used.
 - Telephone ground and lightning rods: the ground potential when struck by lightning gets extremely high.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.
- This system consists of multiple Branch Selector units. Mark each Branch Selector unit as unit A, unit B . . . , and be sure the symbols on the terminal blocks to the outdoor unit and indoor unit are properly matched. If wiring and piping between the outdoor unit, Branch Selector unit and an indoor unit are mismatched, the system may cause a malfunction.
- Do not turn on the power supply (branch switches, overload interrupters) until all other work is done.

6-2 Example for the whole system



6-3 Power supply circuit, safety device and cable requirements

- A power supply circuit (refer to Table 6) must be provided for connection of the unit. The circuit must be protected with safety devices in accordance with local and national codes i.e a fuse, a circuit breaker or a GFCI.
- When using residual current operated circuit breakers, be sure to use a high-speed type (0.1 second or less) 30mA rated residual operating current.
- Use copper conductors only.
- Use insulated wire for the power supply.
- Select the power supply cable type and size in accordance with relevant local and national regulations.
- Use vinyl cord with sheath or cable (2 wire) of AWG 18 - 16 for transmission wiring.
- The transmission wire lengths are as follows:
 - Between the Branch Selector unit and indoor units: Max. 3,280 ft. (1,000 m)
 - Between the Branch Selector unit and outdoor unit: Max. 3,280 ft. (1,000 m)
 - Between Branch Selector units: Max. 3,280 ft. (1,000 m)
 - Total wiring length: 6,560 ft. (2,000 m) or less

Table 6

Model	Type	Hz	Units		Power supply		
			Voltage	Voltage range		MCA	MOP
				Min.	Max.		
BS4Q54TAVJ	VJ	60	208/230	187	253	0.4	15
BS10Q54TAVJ						1.0	
BS12Q54TAVJ						1.2	

MCA: Minimum Circuit Ampacity (A); MOP: Maximum Overcurrent Protective Device (A)

NOTE

- The above Table 6 of electrical characteristics refers to one Branch Selector unit.

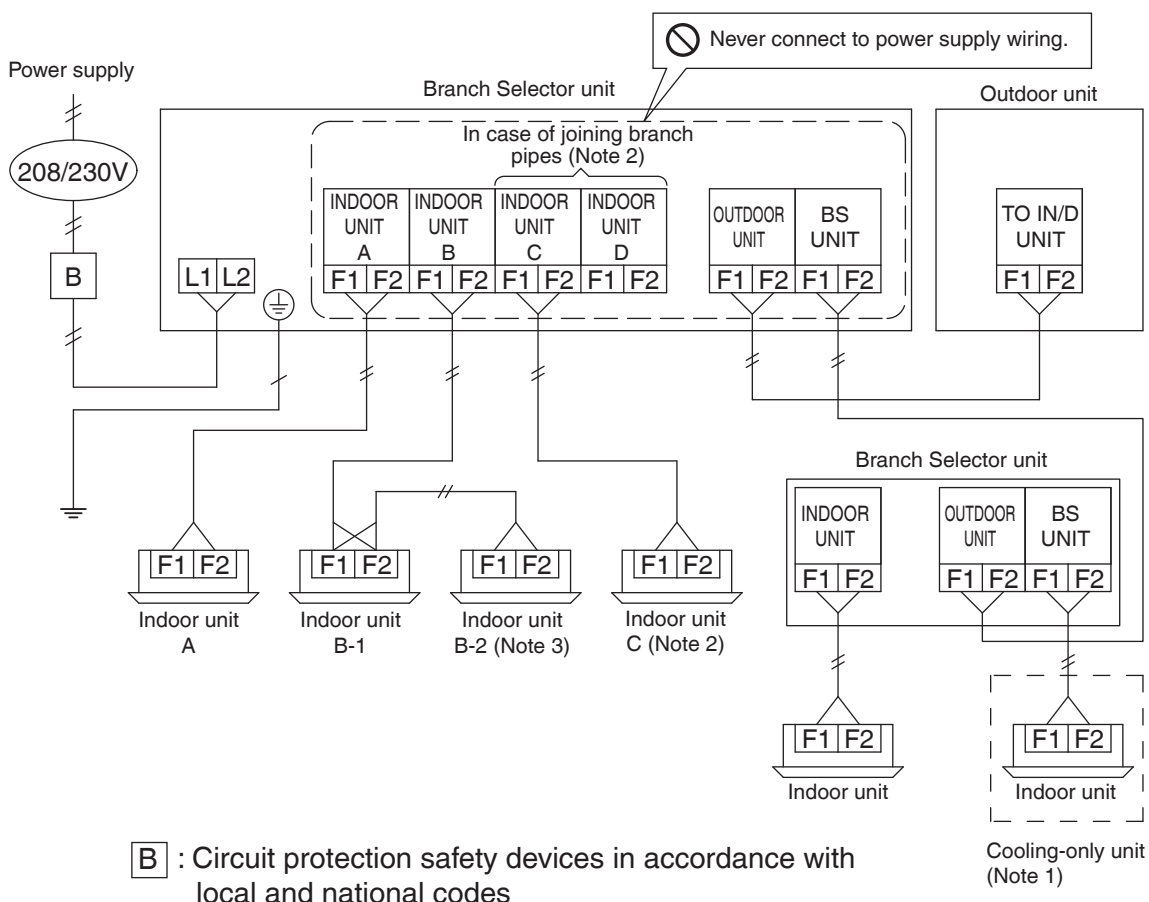
6-4 Wiring example

⚠ WARNING

Install circuit protection safety devices in accordance with local and national codes.

Failure to install circuit protection safety devices in accordance with local and national codes may result in electric shock or fire.

- A transmission wiring example is shown below.
- Connect “TO IN/D UNIT (F1, F2)” terminals on the printed circuit board of the outdoor unit to “OUTDOOR UNIT (F1, F2)” terminals of the first Branch Selector unit.



NOTE

1. Connect the cooling-only unit to “BS UNIT (F1, F2)” terminals of the final Branch Selector unit.
2. This wiring example applies when joining the C and D branch ports and connecting them to indoor unit.
The terminal block to which the transmission wiring is connected can be connected to either indoor unit C or indoor unit D.
However, the DIP switches must be set appropriately.
For more information about how to set DIP switches, refer to “7. INITIAL SETTING”.
3. The maximum number of indoor units connected to one branch port is 5.

CAUTION

- Use 2-core transmission wiring.
Using the same wire with 3 or more cores to connect 2 or more indoor units may cause them to stop with an error.
- When shielded wire is used, be sure to ground one side of the shielded wire.
The total wiring length is 4,920 ft. (1,500m) when shielded wire is used.
- Be sure to use ring type crimp style terminals with insulation sleeves to connect wires to the power supply terminal block. **(Refer to Fig. 4.)**
- Do not use with the power supply terminal block and ground terminal connected to wiring for another circuit.
- Do not pre-solder stranded wire.
- Connect wires securely so that the terminals will not be subjected to external force.
- Use an appropriately sized screwdriver to tighten the terminal screws.
Use of a screwdriver that is too small could damage the screw head and prevent proper tightening.
- Overtightening the terminal screws could damage the screw.
Refer to the table for the terminal screw tightening torque.

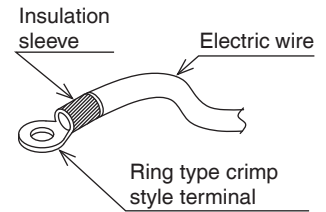


Fig. 4

Terminal screw size	Tightening torque
M3.5 (Transmission wire terminal block)	0.65 ± 0.05 ft·lbf (0.88 ± 0.08 N·m)
M4 (Power supply terminal block)	0.97 ± 0.09 ft·lbf (1.31 ± 0.13 N·m)
M4 (Ground terminal)	1.25 ± 0.12 ft·lbf (1.69 ± 0.17 N·m)

- Never connect power supply wiring to the transmission wiring terminal block.
Doing so may damage the entire system.
- A daisy chain configuration is required for transmission wiring. Transmission wiring cannot be branched again after the initial branch.
(Refer to Fig. 5.)

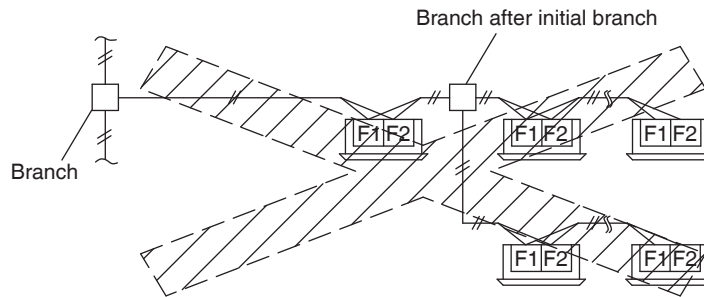
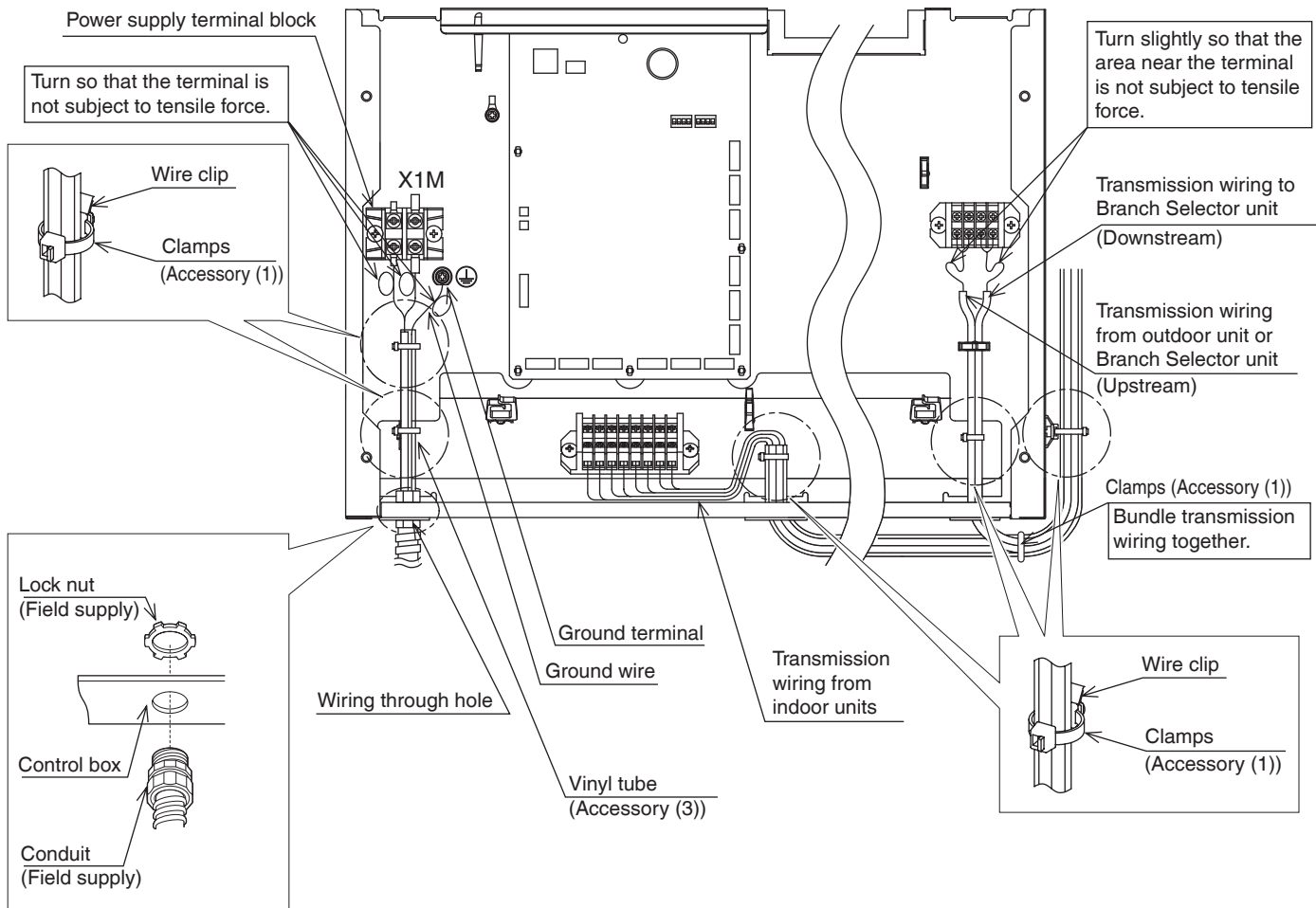


Fig. 5

6-5 Wiring connections

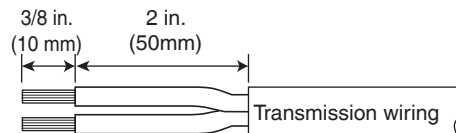
(Remove the control box cover and connect the wiring as shown in the figure below.)



- **Transmission wiring**

Remove the control box cover and connect the wires to the transmission wiring terminals (outdoor unit F1 and F2, Branch Selector unit F1 and F2, and each indoor unit (for example, for the BS12Q54TAVJ, indoor unit A through L) (F1 and F2)).

At this time, pass the wiring into the unit through the wiring through hole and use the included clamp (Accessory (1)) to securely hold the wires. For more information about how much insulation to strip off transmission wiring, refer to the following figure.



— **CAUTION** —

Verify that the piping line coincides with the transmission wiring.

- Power supply wiring and ground wires

Remove the control box cover and connect the power supply wiring to the power supply terminal block (X1M).

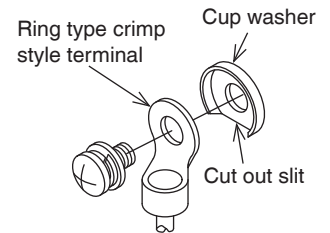
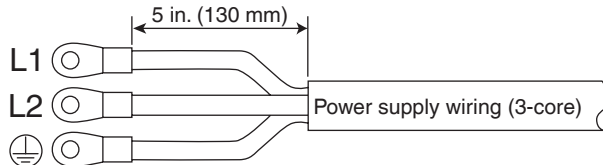
Also connect the ground wiring to the ground wire terminal.

Pass both the power supply wires and the ground wiring together through the conduit hole (left) into the control box and use the included clamp (Accessory (1)) to securely hold the wires in place.

Be sure to wire the ground wiring so that it comes out of the cut out slit in the cup washer.

(Not doing so could cause insufficient ground wire contact, causing the wire not to function as a ground.)

For more information about how much sheath to strip off power supply wiring, refer to the following figure.



— **⚠ WARNING** —

Organize the wiring and securely reattach the control box cover.
Pinched wires or a loose control box cover could result in electric shock or fire.

— **⚠ CAUTION** —

- When fastening the wire, use the included clamp (Accessory (1)) so as not to apply tensile force to the wire connection and then securely fasten the wire.

Also, after the wiring is completed, organize the wiring so that the control box cover does not pop up and then properly replace the control box cover.

Make sure no wires are pinched when replacing the control box cover.

Always use the wire through hole to protect wires.

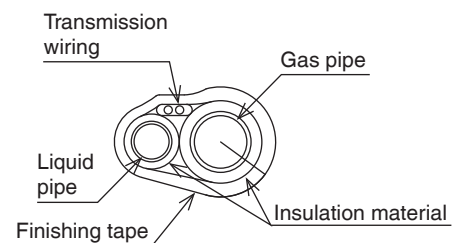
- Do not pass the transmission wiring and power supply wiring through the same locations, and outside of the unit keep them separated by at least 2 in. (50 mm).

Not doing so could cause the transmission wiring to pick up electric noise (external noise) and result in a malfunction or breakdown.

- After the wiring work is complete, use sealer (to be supplied in the field) to seal closed the conduit hole.

(Entry by small animals, etc., could cause a malfunction.)

- As shown in the figure on the right, wrap the transmission wiring between each Branch Selector unit and indoor unit with finishing tape (to be supplied in the field).



7. INITIAL SETTING

7-1 Settings in the field

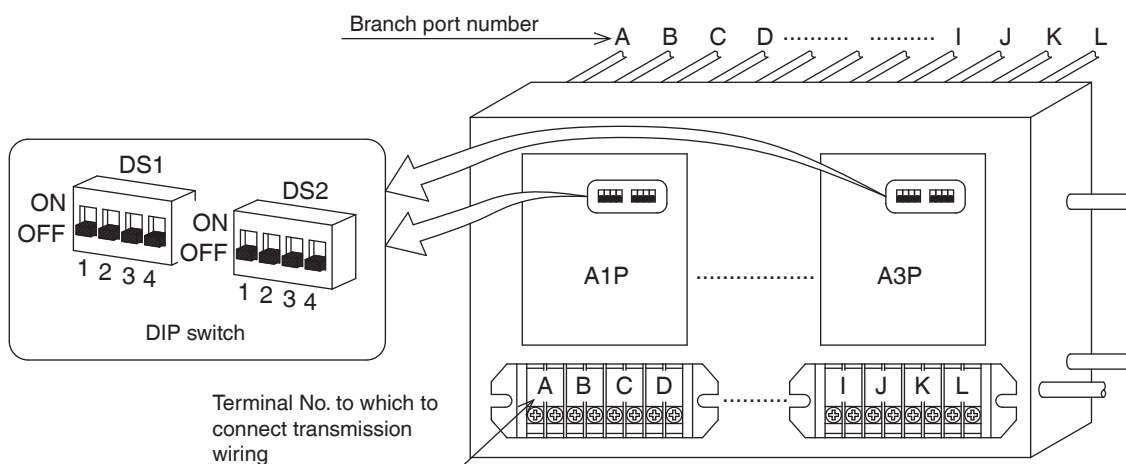
Follow the instructions below to set the DIP switches as necessary.

— WARNING

Electric shock hazard! Before performing work, be sure to disconnect any power source connected to the unit.

Procedure

1. Disconnect the power source.
2. Set the DIP switches (DS1, DS2) for the corresponding branch ports based on the following table.
3. Once work is complete, be sure to close the control box cover.



<Setting>

1. Setting for branch ports to which no indoor unit is connected

	Setting	Setting for branch ports to which no indoor unit is connected (Example 1)											
	DIP switch setting	ON (Not connected) OFF (Factory default)											
	DIP switch No.	DS1 (A1P)				DS1 (A2P)				DS1 (A3P)			
	Target branch port	1	2	3	4	1	2	3	4	1	2	3	4
BS4Q54TAVJ	Unit A Unit B Unit C Unit D Unit E Unit F Unit G Unit H Unit I Unit J Unit K Unit L												
BS10Q54TAVJ													
BS12Q54TAVJ													

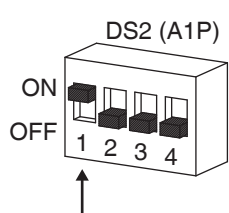
(Example 1)
When not connecting the indoor unit to the A and B branch circuits

DS1 (A1P)
ON OFF 1 2 3 4
↑ ↑

2. Setting when joining branch ports

	Setting	Setting when joining branch ports (Example 2)					
	DIP switch setting	ON (Joined) OFF (Factory default)					
	DIP switch No.	DS2 (A1P)		DS2 (A2P)		DS2 (A3P)	
		1	2	1	2	1	2
BS4Q54TAVJ	Target branch port	A and B units joined	C and D units joined	E and F units joined	G and H units joined	I and J units joined	K and L units joined
BS10Q54TAVJ							
BS12Q54TAVJ							

(Example 2)
When joining the A and B branches



When joining branches, only the branch port combinations shown in the above table can be used. (For example, units B and C cannot be joined.)

8. ADDING AN ADDITIONAL CHARGE OF REFRIGERANT

Follow the instructions in the installation manual included with the outdoor unit to add an additional charge of refrigerant.

9. CHECK OPERATION AND TEST OPERATION

1. Verify that the control box cover is reattached to the control box.
2. Refer to the installation manual included with the outdoor unit and conduct a check and a test run after all the work on the Branch Selector unit and outdoor and indoor units is completed and the operational safety of the units is confirmed.
 - You will hear the motor operated valve operating for about 90 seconds as it is automatically initialized (closed) after power is turned on, but this is not a problem.
 - System malfunctions can be verified by means of the following methods:
Indication on the remote controller
Overall system malfunctions, including the Branch Selector unit, can be identified using the LCD display on the remote controller. For more information about the malfunction display and its significance, refer to the installation manual included with the outdoor unit.

DAIKIN MANUFACTURING COMPANY, L.P

Daikin Texas Technology Park,
19001 Kermier Road,
Waller, TX, 77484, U.S.A.



DAIKIN



INSTALLATION MANUAL

VRV SYSTEM Inverter Air Conditioners

MODELS

Wall-mounted type

FXAQ07PVJU

FXAQ09PVJU

FXAQ12PVJU

FXAQ18PVJU

FXAQ24PVJU

Read these instructions carefully before installation.
Keep this manual in a handy place for future reference.
This manual should be left with the equipment owner.

Lire soigneusement ces instructions avant l'installation.
Conserver ce manuel à portée de main pour référence
ultérieure.
Ce manuel doit être donné au propriétaire de l'équipement.

Lea cuidadosamente estas instrucciones antes de instalar.
Guarde este manual en un lugar a mano para leer en caso
de tener alguna duda.
Este manual debe permanecer con el propietario del
equipo.

English

Français

Español

CONTENTS

1. SAFETY CONSIDERATIONS.....	1
2. BEFORE INSTALLATION	4
3. SELECTING INSTALLATION SITE	6
4. INDOOR UNIT INSTALLATION	8
5. REFRIGERANT PIPING WORK.....	12
6. DRAIN PIPING WORK	15
7. ELECTRIC WIRING WORK.....	16
8. WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER	17
9. FIELD SETTINGS	23
10. TEST RUN.....	24


1. SAFETY CONSIDERATIONS


Read these **SAFETY CONSIDERATIONS for Installation** carefully before installing air conditioning equipment. After completing the installation, make sure that the unit operates properly during the startup operation.


Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.


Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

 **DANGER**Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**.....Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE**Indicates situations that may result in equipment or property-damage accidents only.

—  **DANGER** —

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak can lead to oxygen depletion, especially in basements, and an asphyxiation hazard could occur leading to serious injury or death.
- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding can cause a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes could cause a gas leak and potential explosion causing severe injury or death.

- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas may produce toxic gas if it comes in contact with fire. Exposure to this gas could cause severe injury or death.
 - After completing the installation work, check that the refrigerant gas does not leak throughout the system.
 - Do not install unit in an area where flammable materials are present due to risk of explosions that can cause serious injury or death.
 - Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation may cause injuries or death by suffocation.
-

 **WARNING**

- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation may result in water leakage, electric shock, or fire.
 - When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, can lead to oxygen deficiency.
 - Use only specified accessories and parts for installation work. Failure to use specified parts may result in water leakage, electric shocks, fire, or the unit falling.
 - Install the air conditioner on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength may result in the unit falling and causing injuries.
 - Take into account strong winds, typhoons, or earthquakes when installing. Improper installation may result in the unit falling and causing accidents.
 - Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state and national regulations. An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.
 - Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation may result in fire.
 - When wiring, position the wires so that the control box lid can be securely fastened. Improper positioning of the control box cover may result in electric shocks, fire, or the terminals overheating.
 - Before touching electrical parts, turn off the unit.
 - Be sure to install a ground fault circuit interrupter if one is not already available. This helps prevent electrical shocks or fire.
 - Securely fasten the outdoor unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the outdoor unit causing fire or electric shock.
 - When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit can cause an abnormal pressure rise or rupture, resulting in injury.
 - Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may occur.
-

 **CAUTION**

- Do not touch the switch with wet fingers. Touching a switch with wet fingers can cause electric shock.
- Do not allow children to play on or around the unit to prevent injury.

- Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. Your hands may suffer burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Heat exchanger fins are sharp enough to cut.
To avoid injury wear glove or cover the fins when working around them.
- Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
- Insulate piping to prevent condensation.
- Be careful when transporting the product.
- Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may occur.
- Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
- Refrigerant R410A in the system must be kept clean, dry, and tight.
 - (a) Clean and Dry -- Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
 - (b) Tight -- R410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter Refrigerant Piping work and follow the procedures.
- Since R410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
- The indoor unit is for R410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
- Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors.
- Do not install the air conditioner in the following locations:
 - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen. Plastic parts may deteriorate and fall off or result in water leakage.
 - (b) Where corrosive gas, such as sulfurous acid gas, is produced. Corroding copper pipes or soldered parts may result in refrigerant leakage.
 - (c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
 - (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions can cause a fire.
- Take adequate measures to prevent the outdoor unit from being used as a shelter by small animals. Small animals making contact with electrical parts can cause malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.

 NOTE

- Install the power supply and control wires for the indoor and outdoor units at least 3.5 feet away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet may not be sufficient to eliminate the noise.
- Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.

- **Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.**
 - **If the conventional refrigerant and refrigerator oil are mixed in R410A, the refrigerant may deteriorate.**
 - **This air conditioner is an appliance that should not be accessible to the general public.**
 - **The wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.**
-

2. BEFORE INSTALLATION

- **When moving the unit while removing it from the packing case, be sure to lift it by the four hanger brackets. Avoid putting any pressure on other parts, especially, horizontal flaps, the refrigerant piping, drain piping, and other resin parts.**
- Be sure to remove a cushion (corrugated paper) located between the heat exchanger and the right air filter.
- Be sure to check the type of R410A refrigerant to be used before installing the unit. (Using an incorrect refrigerant will prevent normal operation of the unit.)
- The accessories needed for installation must be retained in your custody until the installation work is completed. Do not discard them!
- Decide upon a line of transport.
- Leave the unit inside its packaging while moving, until reaching the installation site. Where unpacking is unavoidable, use a sling of soft material or protective plates together with a rope when lifting, to avoid damage or scratches to the unit.
- For the installation of an outdoor unit, refer to the installation manual attached to the outdoor unit.
- When using the wireless remote controller, refer to the installation manual attached to the wireless remote controller.
- Do not install or operate the unit in rooms mentioned below.
 - **Laden with mineral oil, or filled with oil vapor or spray like in kitchens. (Plastic parts may deteriorate which could eventually cause the unit to fall out of place, or could lead to leaks.)**
 - **Where corrosive gas like sulfurous gas exists. (Copper tubing and brazed spots may corrode which could eventually lead to refrigerant leaks.)**
 - **Where machines can generate electromagnetic waves. (Control system may malfunction.)**
 - **Where the air contains high levels of salt such as that near the ocean and where voltage fluctuates greatly such as that in factories.**
- **Also in vehicles or vessels.**
- This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment. If installed as a household appliance it could cause electromagnetic interference.

WARNING

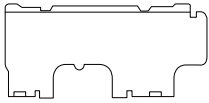

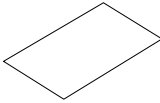
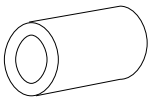
- Entrust installation to the place of purchase or an authorized serviceman. Improper installation could lead to leaks and, in worse cases, electric shock or fire.
 - Use of unspecified parts could lead to the unit falling, leaks and, in worse cases, electric shock or fire.
-




NOTE

- Be sure to read this manual before installing the indoor unit.
-

2-1 ACCESSORIES

Check the following accessories are included with your unit.

Name	(1) Installation panel	(2) Attachment screws for the installation panel	(3) Paper pattern for installation	(4) Insulating tape
Quantity	1 set	8 pcs. → FXAQ07, 09, 12 type 9 pcs. → FXAQ18, 24 type	1 pc.	1 pc.
Shape		 M4 × 25L		

Name	(5) Clamp	(6) Securing screws	(7) Insulating tube	(Other) • Operation manual • Installation manual
Quantity	1 large 4 small	2 pcs.	1 long 1 short	
Shape		 M4 × 12L		

2-2 OPTIONAL ACCESSORIES

Remote controller type	Model
Wired type	BRC1E71
Wireless type	BRC7E818

FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED.

1. Items to be checked after completion of work

Items to be checked	If not properly done, what is likely to occur	Check
Are the indoor and outdoor unit fixed firmly?	The units may drop, vibrate or make noise.	
Is the gas leak test finished?	It may result in insufficient cooling.	
Is the unit fully insulated?	Condensate water may drip.	
Does drainage flow smoothly?	Condensate water may drip.	
Does the power supply voltage correspond to that shown on the name plate?	The unit may malfunction or the components burn out.	
Are wiring and piping correct?	The unit may malfunction or the components burn out.	
Is the unit safely grounded?	It may be dangerous at electric leakage.	
Is wiring size according to specifications?	The unit may malfunction or the components burn out.	
Is something blocking the air outlet or inlet of either the indoor or outdoor units?	It may result in insufficient cooling.	
Are refrigerant piping length and additional refrigerant charge noted down?	The refrigerant charge in the system is not clear.	

2. Items to be checked at time of delivery

* Also review the "SAFETY CONSIDERATIONS"

Items to be checked	Check
Did you explain about operations while showing the operation manual to your customer?	
Did you hand the operation manual over to your customer?	

2-3 NOTE TO THE INSTALLER

Be sure to instruct customers how to properly operate the unit (especially cleaning filters, operating different functions, and adjusting the temperature) by having them carry out operations themselves while looking at the manual.

3. SELECTING INSTALLATION SITE

(1) Select an installation site where the following conditions are fulfilled and that meets with your customer's approval.

- In the upper space (including the back of the ceiling) of the indoor unit where there is no possible dripping of water from the refrigerant pipe, drain pipe, water pipe, etc.
- Where the wall is strong enough to bear the indoor unit weight.
- Where sufficient clearance for installation and maintenance can be ensured.
(Refer to Fig. 1 and Fig. 2)
- Where optimum air distribution can be ensured.
- Where nothing blocks the air passage.
- Where condensate can be properly drained.
- Where the wall is not significantly tilted.

- Where piping between indoor and outdoor units is possible within the allowable limit.
(Refer to the installation manual of the outdoor unit.)
- Install the indoor and outdoor units, power supply wiring and connecting wires at least 3.5ft. away from televisions or radios in order to prevent image interference or noise.
(Depending on the radio waves, a distance of 3.5ft. may not be sufficient enough to eliminate the noise.)
- Where the cool (warm) air reaches all across the room.

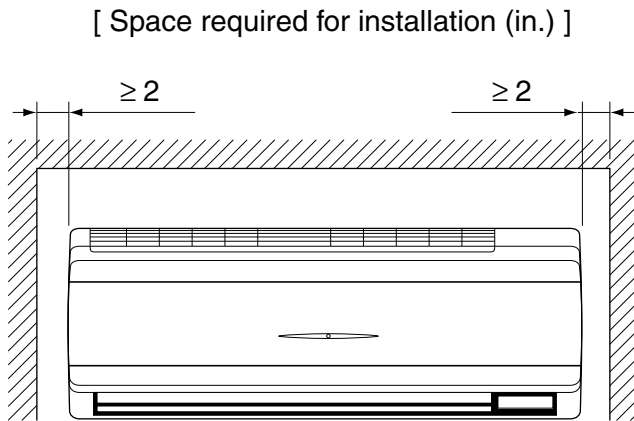


Fig. 1

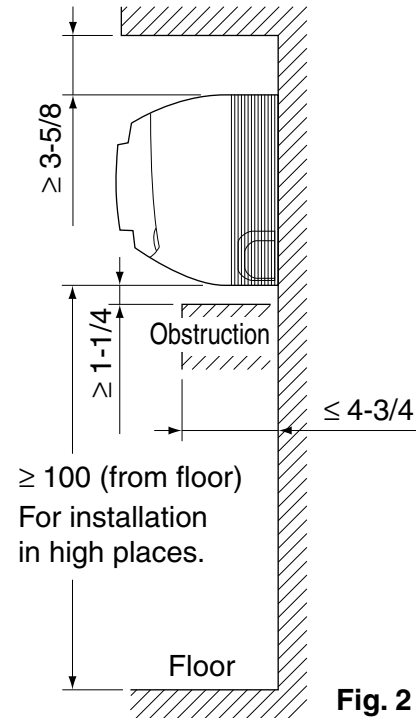


Fig. 2

- (2) Consider whether the place where the unit will be installed can support the full weight of the unit, and reinforce it with boards and beams, etc. if needed before proceeding with the installation. Also, reinforce the place to prevent vibration and noise before installing.
(The installation pitch can be found on the paper pattern for installation (3), so refer to it when considering the necessity for reinforcing the location.)
- (3) The indoor unit may not be directly installed on the wall. Use the attached installation panel (1) before installing the unit.

⚠ DANGER

- Do not install unit in an area where flammable materials are present due to risk of explosion resulting in serious injury or death.

⚠ WARNING

- If the supporting structural members are not strong enough to take the unit's weight, the unit could fall out of place and cause serious injury.

4. INDOOR UNIT INSTALLATION

- Use only accessories and parts which are of the designated specification when installing.

⚠ CAUTION

- Install so that the unit does not tilt to either side or forward.
- Do not hold the unit by the horizontal flaps when lifting it. (This may damage the horizontal flaps.)

(1) Open the piping through-hole.

- The refrigerant pipe and drain pipe can be passed out in one of 5 directions: left, bottom-left, back-left, bottom-right, and back-right. **(Refer to Fig. 3)**
- Using the paper pattern for installation (3), choose where to pass the piping out and open a through-hole ($\phi 3-1/8$ ") in the wall.
Open the hole so that there is a downward slope for the drain piping. (See " 6. DRAIN PIPING WORK ")

(2) Remove the installation panel (1) from the unit and attach to the wall.

(The installation panel is temporarily attached to the unit with a screw. (In case of 07, 09, 12 type))
(Refer to Fig. 3)

- (a) Check the location for the hole using the included paper pattern for installation (3).
 - Choose a location so that there is at least a 3-1/2" gap between the ceiling and the main unit.
- (b) Temporarily attach the installation panel (1) at the temporary-securing position on the paper pattern for installation (3) and use a level to make sure the drain hose is either level or tilted slightly downward.
- (c) Secure the installation panel (1) to the wall using either screws or bolts.
 - If using the attachment screws for the installation panel (2), attach using at least 4 screws on either side (for a total of 8 screws (07, 09, 12 type), 9 screws (18, 24 type)) of the recommended installation cleat position on the included paper pattern for installation (3).
 - If using bolts, attach using a M8 - M10 bolt or equivalent (for a total of 2 bolts) on either side.
 - If dealing with concrete, use commercially available foundation bolts (M8 - M10 or equivalent).

(3) If using the left, bottom-left, or bottom-right positions for the piping, cut out the through-hole for the piping in the front grille. (Refer to Fig. 4)

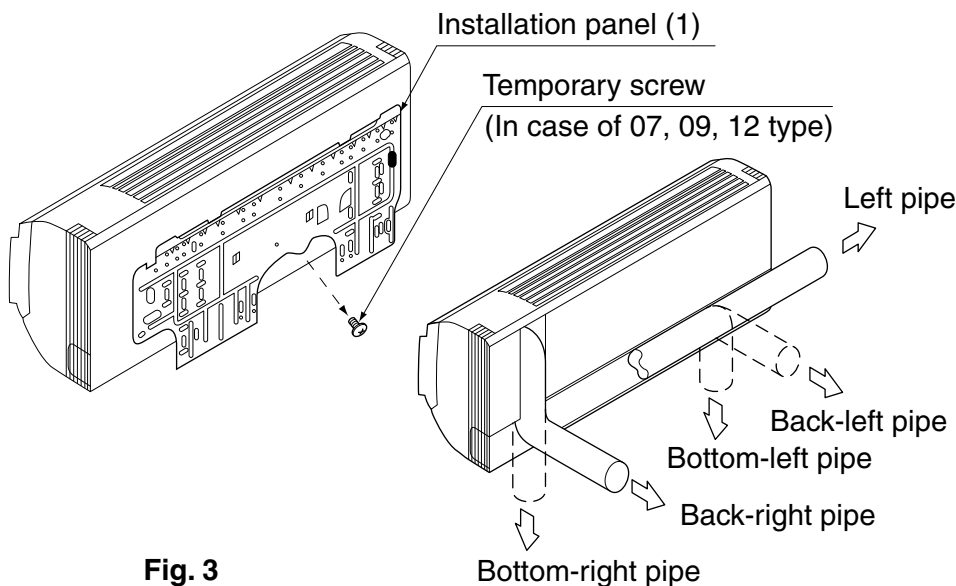


Fig. 3

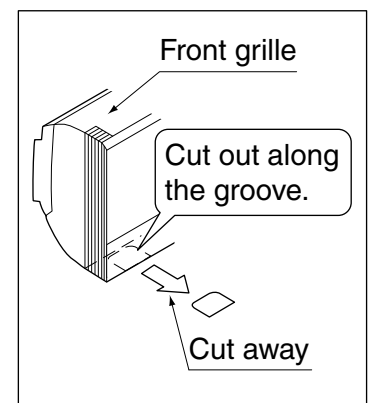


Fig. 4

(4) Remove the front panel and the control box cover. (Refer to Fig. 5)

< How to remove the front panel and control box cover >

- (1) Open the front panel to the point where it stops.
- (2) Push the axes on either side of the front panel towards the center of the main unit and remove. (You can also remove it by sliding the front panel either to the left or right and pulling it forward.)
- (3) Remove the screw from the control box cover and pull the handle forward.

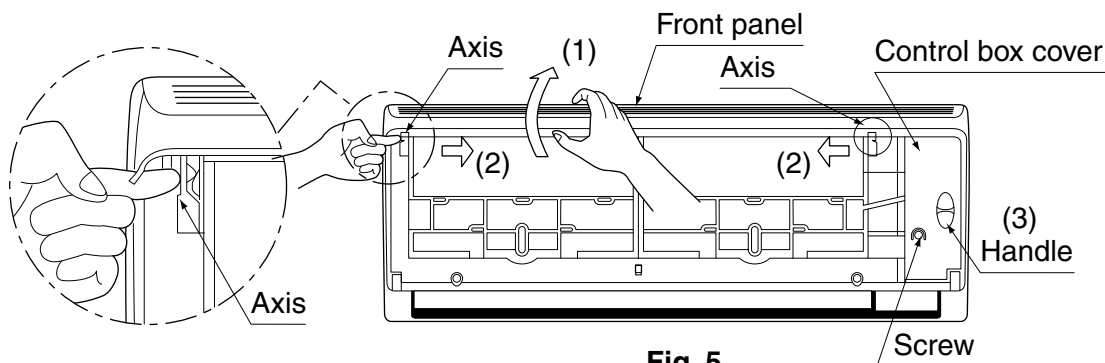


Fig. 5

(5) Point the pipe in the direction it will be passed out.

For bottom-right and back-right piping (Refer to Fig. 6)

- Wrap the drain hose and the refrigerant piping together with the insulating tape (4) so that the drain hose is below the refrigerant piping.

For left, bottom-left, and back-left piping

- Remove the front grille. (Refer to Fig. 7)

< How to remove the front grille >

Remove the front grille as described below when securing the indoor unit with screws or when attaching Optional Accessories (wireless remote controller, adapter PC board, etc.).

- (1) Remove the front panel.
- (2) Remove the screws (2 places in case of 07, 09, 12 type/3 places in case of 18, 24 type) securing the front grille.
- (3) Remove the tabs (3 places) securing the front grille by pushing them in the direction of the arrows.

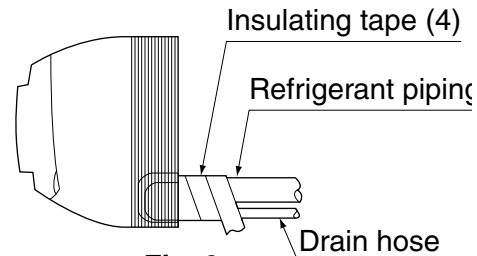
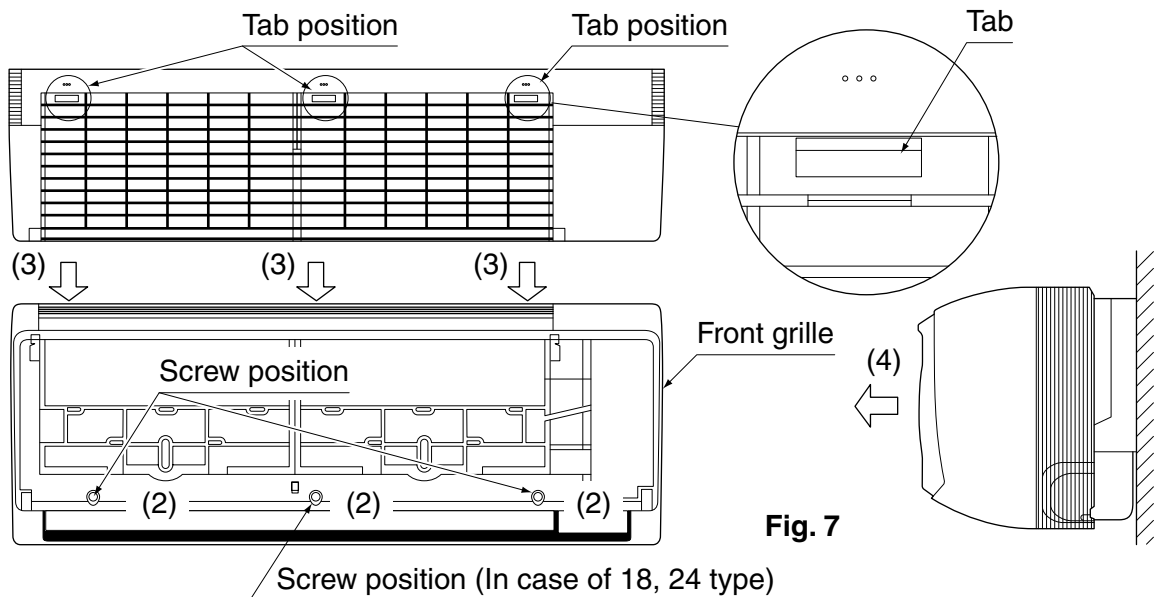


Fig. 6

- (4) Making sure not to catch the horizontal flaps, remove the front grille by pulling in the direction of the arrow.

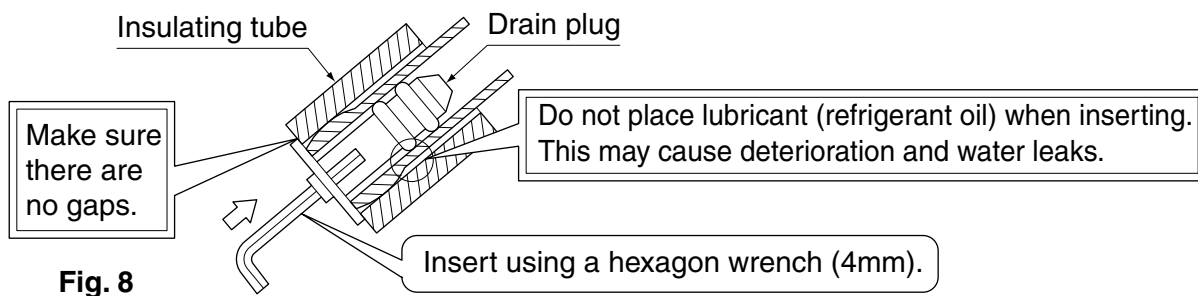


Screw position (In case of 18, 24 type)

- Remove the drain plug, the insulation tube, and the drain hose from the drain pan and replace. (Refer to Fig. 8)
- Connect the local refrigerant piping ahead of time, matching it to the liquid pipe and gas pipe marks engraved on the installation panel (accessory) (1).

< Replacing the drain hose and drain plug >

- (1) Remove the drain plug and insulation tube.
- (2) Remove the drain hose and replace onto the left side.
- (3) Replace the drain plug and the insulation tube onto the right side.



(6) Hook the indoor unit onto the installation panel. (Refer to Fig. 9)

- Placing buffering material between the wall and the indoor unit at this time will make work easier.

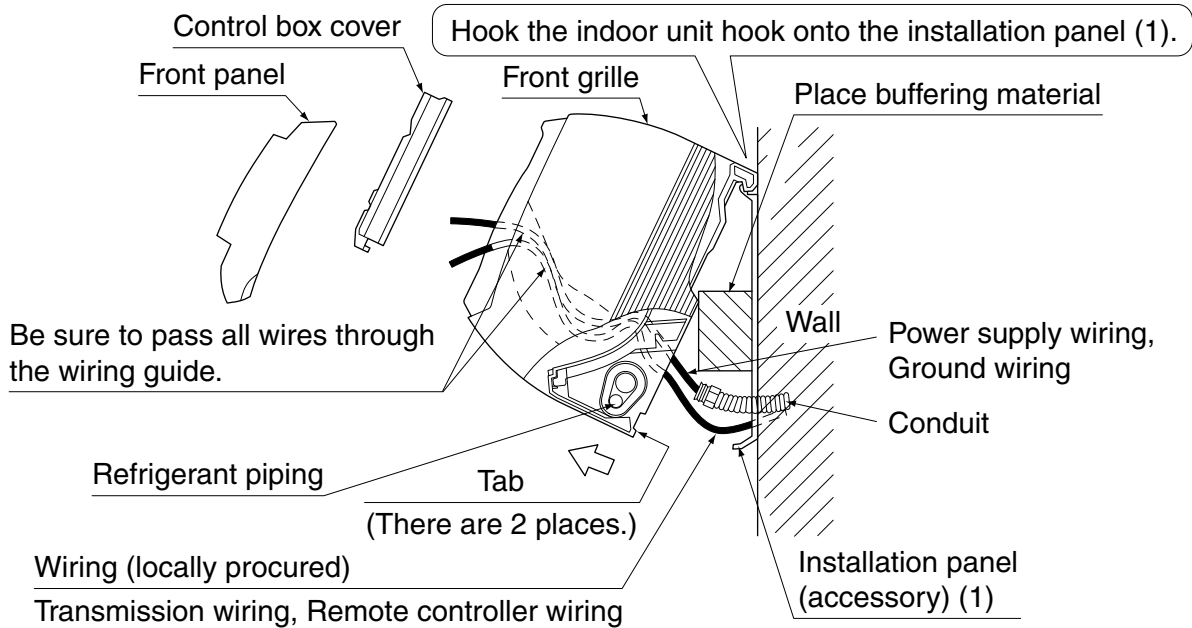


Fig. 9

For bottom-right and back-right piping

- Pass the drain hose and the refrigerant piping to the wall.

(7) Pass power supply wiring and ground wiring threaded through conduit (For connecting the conduit to the unit, see “8-1 HOW TO CONNECT WIRINGS”), and remote controller wiring through the wiring guide in through the back of the indoor unit and to the front.

(8) Connect the piping. (See “5. REFRIGERANT PIPING WORK” and Fig. 10)

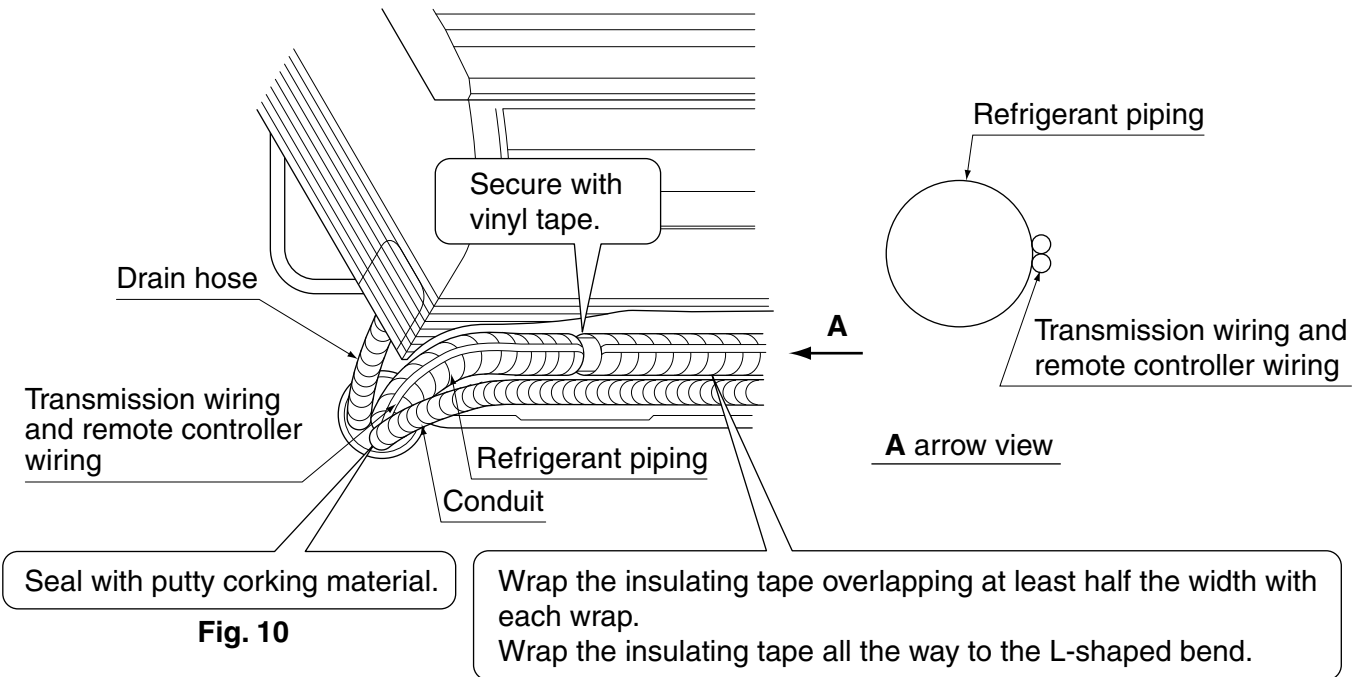


Fig. 10

- Seal the piping through-hole with putty corking material.

(9) Push on both bottom edges of the indoor unit using both hands and hook the tab on the back of the indoor unit onto the installation panel (1). (Refer to Fig. 9)

- At this time remove the buffering material placed in step (6).
- Make sure power supply wiring, transmission wiring, ground wiring and remote controller wiring are not caught inside the indoor unit.

■ **When screwing in the indoor unit**

- Remove the front grille. (Refer to Fig. 7)
- Secure the indoor unit to the installation panel (1) with the securing screws (6). (Refer to Fig. 11)

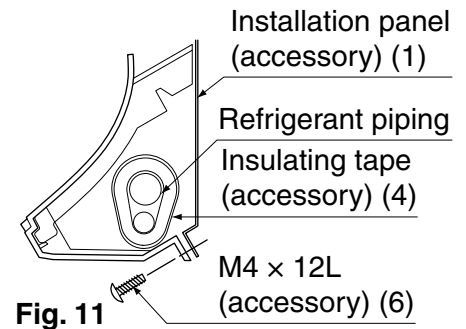


Fig. 11

5. REFRIGERANT PIPING WORK

⟨For refrigerant piping of outdoor units, see the installation manual attached to the outdoor unit.⟩

⟨Execute heat insulation work completely on both sides of the gas piping and the liquid piping.⟩

Otherwise, a water leakage can result sometimes.⟩

(When using a heat pump, the temperature of the gas piping can reach up to approximately 250°F, so use insulation which is sufficiently resistant.)

⟨Also, in cases where the temperature and humidity of the refrigerant piping sections might exceed 86°F or RH80 %, reinforce the refrigerant insulation. (13/16" or thicker) Condensation may form on the surface of the insulating material.⟩

⟨Before refrigerant piping work, check which type of refrigerant is used. Proper operation is not possible if the types of refrigerant are not the same.⟩

⚠ DANGER

- Refrigerant gas may produce toxic gas if it comes in contact with fire such as from a fan, heater, stove or cooking device. Exposure to this gas could result in severe injury or death.

⚠ NOTE

- Use a pipe cutter and flare suitable for the type of refrigerant.
 - To prevent dust, moisture or other foreign matter from infiltrating the tube, either pinch the end or cover it with tape.
 - Do not allow anything other than the designated refrigerant to get mixed into the refrigerant circuit, such as air, etc.
 - If any refrigerant gas leaks while working on the unit, ventilate the room thoroughly right away.
-

- The outdoor unit is charged with refrigerant.
- Use copper alloy seamless pipes.
- Be sure to use both a spanner and torque wrench together, as shown in the drawing, when connecting or disconnecting pipes to/from the unit. **(Refer to Fig. 12)**
- Refer to “Table 1” for the dimensions of flare.
- When connecting the flare nut, coat the flare section with ester oil or ether oil, rotate three or four times first, then screw in. **(Refer to Fig. 13)**

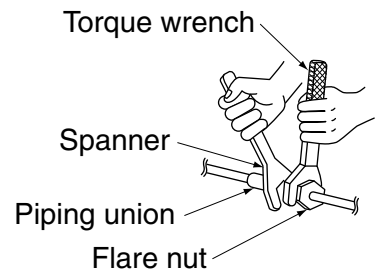


Fig. 12

-
- ⚠ CAUTION**
- Over-tightening may cause the flare nuts to crack or the refrigerant to leak.
 - Use the flare nut included with the unit.
-

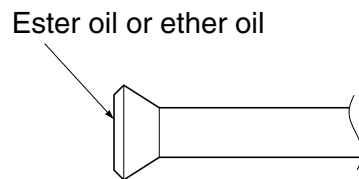


Fig. 13

- Refer to Table 1 for tightening torque.

Table 1

Pipe size	Tightening torque (ft-lbf)	Flare dimensions A (in.)	Flare shape (in.)
φ 1/4"	10.5 – 12.7	0.343 – 0.358	
φ 3/8"	24.1 – 29.4	0.504 – 0.520	
φ 1/2"	36.5 – 44.5	0.638 – 0.654	
φ 5/8"	45.6 – 55.6	0.760 – 0.776	

Not recommended but in case of emergency

You must use a torque wrench but if you are obliged to install the unit without a torque wrench, you may follow the installation method mentioned below.

After the work is finished, make sure to check that there is no gas leak.

When you keep on tightening the flare nut with a spanner, there is a point where the tightening torque suddenly increases. From that position, further tighten the flare nut the angle shown below:

Table 2

Pipe size (in.)	Further tightening angle	Recommended arm length of tool (in.)
φ 1/4"	60 to 90 degrees	Approx. 5-7/8"
φ 3/8"	60 to 90 degrees	Approx. 7-7/8"
φ 1/2"	30 to 60 degrees	Approx. 9-13/16"
φ 5/8"	30 to 60 degrees	Approx. 11-13/16"

⚠ CAUTION

- **CAUTION TO BE TAKEN WHEN BRAZING REFRIGERANT PIPING**
 “Do not use flux when brazing refrigerant piping. Therefore, use the phosphor copper brazing filter metal (BCuP) which does not require flux.”
 (Flux has an extremely negative effect on refrigerant piping systems. For instance, if chlorine based flux is used, it will cause pipe corrosion. If the flux contains fluorine, it will damage the refrigerant oil.)
-

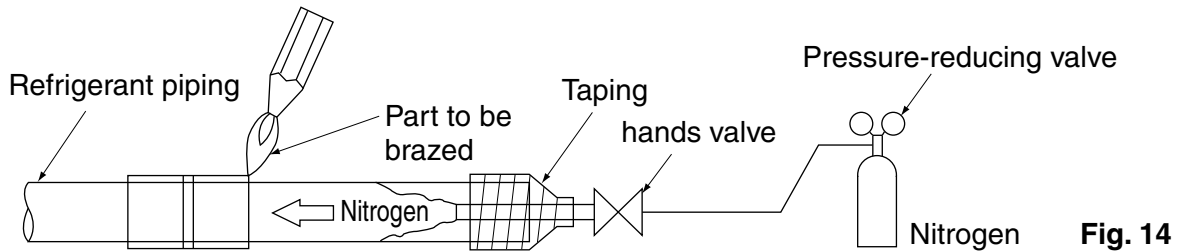
- When brazing the refrigerant piping, only begin brazing after having carried out nitrogen substitution (NOTE 1) or while inserting nitrogen into the refrigerant piping (NOTE 2). Once this is done, connect the indoor unit with a flared or a flanged connection.

⚠ DANGER

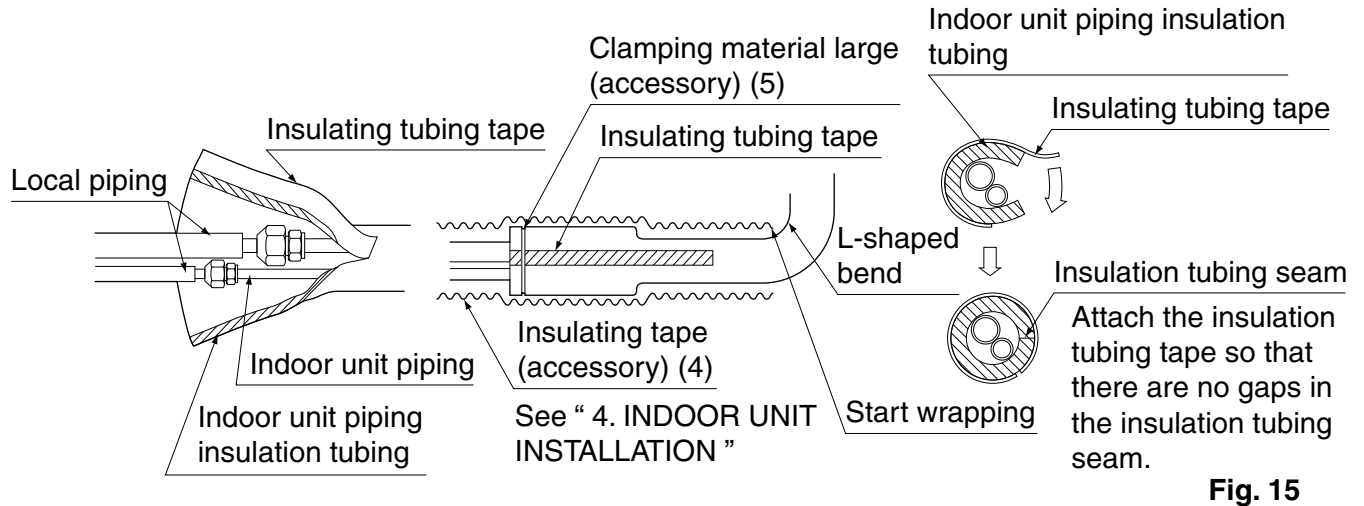
- Use of oxygen may cause an explosion resulting in serious injury or death. Only use nitrogen gas.

⚠ NOTE

1. Refer to the “Manual for Multi Installation for Buildings” for directions on how to carry out nitrogen substitution. (Inquire with your dealer.)
2. Nitrogen should be set to 2.9 psi with a pressure-reducing valve if brazing while inserting nitrogen into the piping. **(Refer to Fig. 14)**



- After checking for gas leaks, be sure to insulate the pipe connections using the supplementary piping insulation tubing and insulating tape (4). The insulating tape (4) should be wrapped from the L-shaped bend all the way to the end inside the unit. **(Refer to Fig. 15)**



⚠ CAUTION

- Be sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping may cause condensate or burns if touched.

6. DRAIN PIPING WORK

(1) Install the drain piping. (Refer to Fig. 16)

- The drain pipe should be short with a downward slope and should prevent air pockets from forming.
- Watch out for the points in the figure 16 when performing drain work.

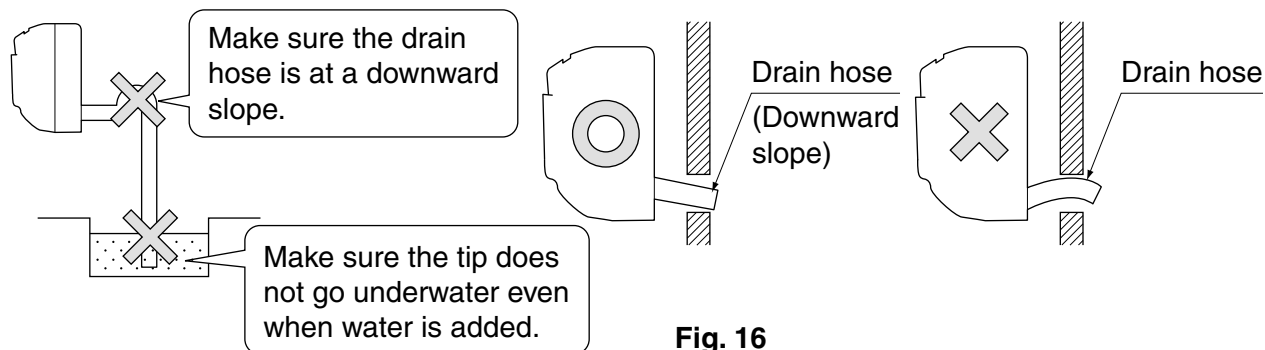
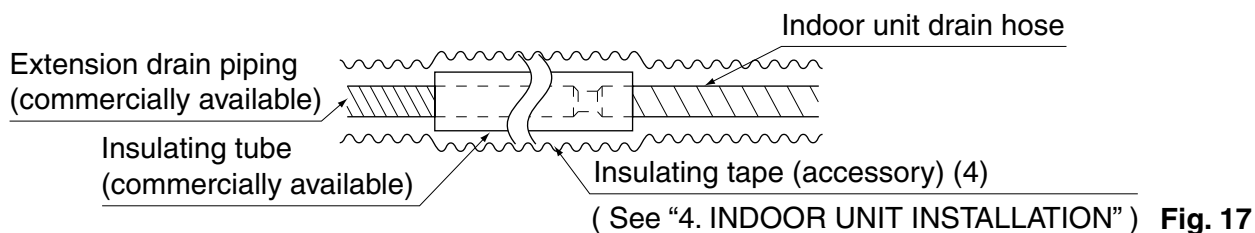


Fig. 16

- When extending the drain hose, use a commercially available drain extension hose, and be sure to insulate the extended section of the drain hose which is indoors. (Refer to Fig. 17)



- Make sure the diameter of the extension drain piping is the same as the indoor unit drain hose (hard vinyl chloride, I.D. 9/16") or bigger.
- In case of converging multiple drain pipes, install them referring to Fig. 18.
- Select diameter of drain piping which adapts to the capacity of the unit connected.

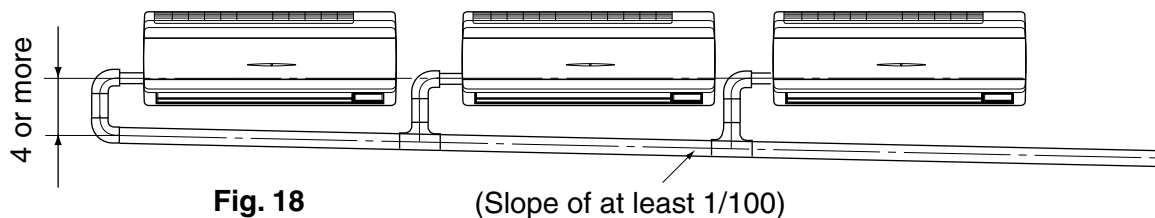


Fig. 18

(Slope of at least 1/100)

(2) Make sure the drain works properly.

- After drain work is complete, perform a drain check by opening the front panel, **removing the air filter**, pouring water into the drain pan, and making sure water flows smoothly out of the drain hose. (Refer to Fig. 19)

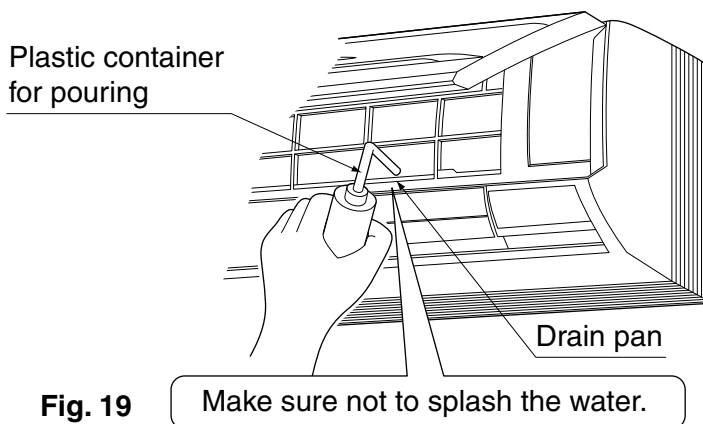


Fig. 19

Make sure not to splash the water.

⚠ CAUTION

- Drain piping connections
Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.
Keep in mind that it will become the cause of getting drain pipe blocked if water collects on drain pipe.
-

7. ELECTRIC WIRING WORK

7-1 GENERAL INSTRUCTIONS

- All field supplied parts and materials and electric works must conform to local codes.
- Use copper wire only.
- For electric wiring work, refer to also “WIRING DIAGRAM” attached to the unit.
- For remote controller wiring details, refer to the installation manual attached to the remote controller.
- All wiring must be performed by an authorized electrician.
- This system consists of multiple indoor units. Mark each indoor unit as unit A, unit B..., and be sure the terminal block wiring to the outdoor unit and BS unit is properly matched. If wiring and piping between the outdoor unit and indoor unit are mismatched, the system may cause a malfunction.
- A circuit breaker capable of shutting down power supply to the entire system must be installed.
- Refer to the installation manual attached to the outdoor unit for the size of power supply wiring connected to the outdoor unit, the capacity of the circuit breaker and switch, and wiring instructions.
- Be sure to ground the air conditioner.

⚠ DANGER

- Do not ground units to water pipes, telephone wires or lightning rods because incomplete grounding could cause a severe shock hazard resulting in severe injury or death, and to gas pipes because a gas leak could result in an explosion which could lead to severe injury or death.
-


7-2 ELECTRICAL CHARACTERISTICS

Model	Units			Power supply		Fan motor	
	Hz	Volts	Voltage range	MCA	MOP	W	FLA
FXAQ07PVJU	60	208/230	Max. 253 Min. 187	0.4	15	40	0.3
FXAQ09PVJU				0.4	15	40	0.3
FXAQ12PVJU				0.4	15	40	0.3
FXAQ18PVJU				0.5	15	43	0.4
FXAQ24PVJU				0.6	15	43	0.5

MCA: Minimum Circuit Amps (A);
W: Fan Motor Rated Output (W);

MOP: Maximum Overcurrent Protective Device (A)
FLA: Full Load Amps (A)

7-3 SPECIFICATIONS FOR FIELD SUPPLIED FUSES AND WIRE

Model	Power supply wiring		Remote controller wiring Transmission wiring	
	Field fuses 	Size	Wire	Size
FXAQ07PVJU	15A	Size must comply with local codes.	Sheathed wire (2 wire)	AWG18-16
FXAQ09PVJU				
FXAQ12PVJU				
FXAQ18PVJU				
FXAQ24PVJU				

- Allowable length of transmission wiring and remote controller wiring are as follows.
 - (1) Outdoor unit - Indoor unit: Max. 3280ft. (Total wiring length: 6560ft.)
 - (2) Indoor unit - Remote controller: Max. 1640ft.
- Insulated thickness: 1/16" or more

8. WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER

8-1 HOW TO CONNECT WIRINGS

- Conduit for power supply wiring
 Unscrew and remove the conduit mounting plate from the control box. **(Refer to Fig. 20)**
 Fix a conduit to the plate with a lock nut and reattach them at original position.

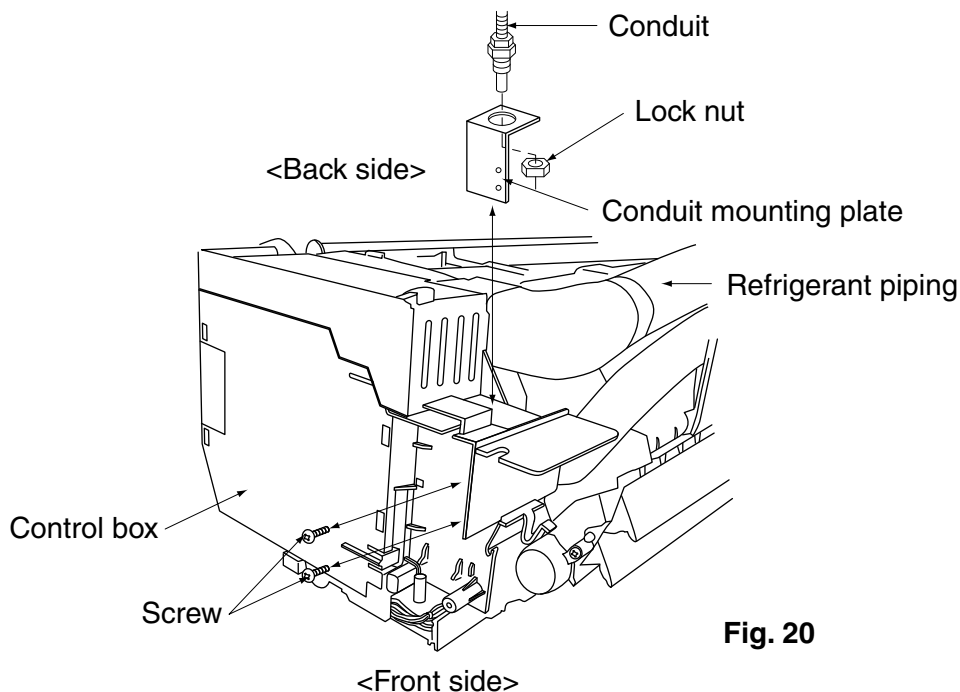


Fig. 20

- Power supply wiring and ground wiring
 Unscrew and remove the control box cover.
 Thread the power supply wiring and ground wiring through the included insulating tube (short) (7) and secure them with the included clamp (small) (5). **(Refer to Fig. 21)**
 Connect the power supply wiring and ground wiring to the power supply terminal block (3P).
 When doing this, firmly secure using the included clamp (small) (5) according to the figure. **(Refer to Fig. 22)**

- Transmission wiring and remote controller wiring

Unscrew and remove the control box cover.

Thread the remote controller wiring and transmission wiring through the included insulating tube (long) (7) and secure them with the included clamp (small) (5). **(Refer to Fig. 21)**

Connect the remote controller wiring and the transmission wiring to the terminal block (6P).

When doing this, tie the remote controller wiring and the transmission wiring using the included clamp (small) (5) and then firmly secure using the included clamp (small) (5) according to the figure.

(Refer to Fig. 22)

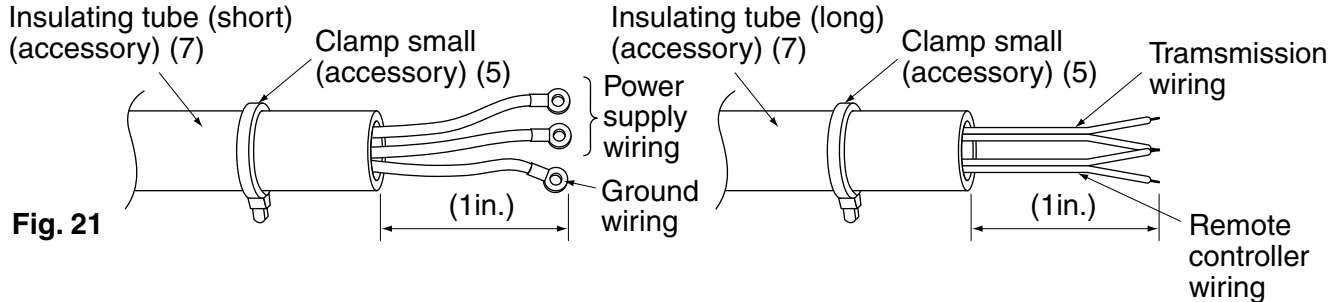


Fig. 21

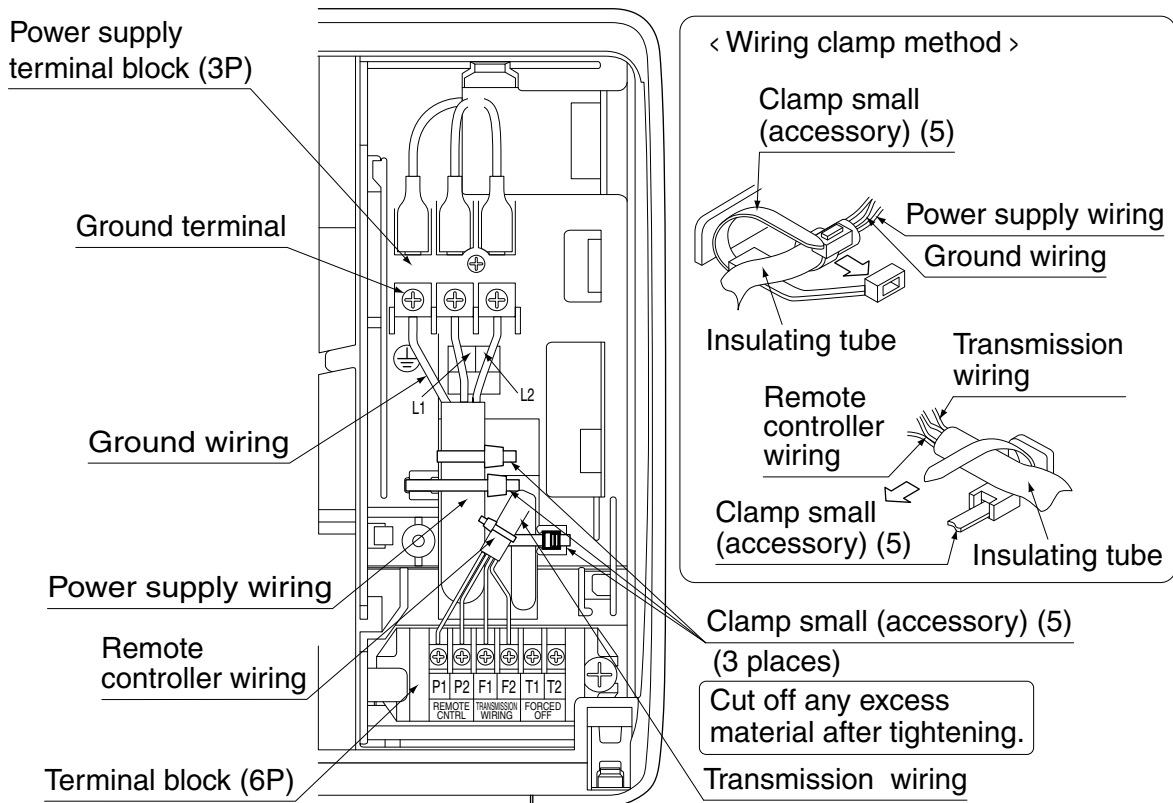


Fig. 22

⚠ WARNING

- Never connect power supply wiring to the terminal block for remote controller wiring as this could damage the entire system.
- Use only specified wire and connect wires to the terminal tightly. Be careful wires do not place external stress on terminals. Keep wires in neat order so as not to obstruct other equipment. Make sure that the control box cover fits tightly. Incomplete connections could result in overheating and, in worse case, result in electric shock or fire.

- To avoid a short circuit in the control box, be sure to apply sealing material or putty (not included) to the wiring hole to prevent the infiltration of water as well as insects or other small creatures. Otherwise a short-circuit may occur inside the control box.

⚠ CAUTION

- When clamping the wirings, be sure no tension is applied to the wire connections by using the included clamp. Also, when wiring, make sure the cover on the control box fits snugly by arranging the wirings neatly and attaching the control box cover firmly. When attaching the control box cover, make sure no wirings get caught in the edges. Pass wiring through holes to prevent damage to them.
- Make sure the remote controller wiring and transmission wiring between the units, and other electrical wiring do not pass through the same locations outside the unit, separating them by at least 5", otherwise electrical noise (external static) could cause incorrect operation or breakage. Use only specified wire and tightly connect wires to terminals. Be careful wires do not place external stress on terminals. Keep wiring in neat order and so as not to obstruct other equipment such as popping open the control box cover. Make sure the cover closes tight. Incomplete connections could result in overheating, and in worse case, electric shock or fire.

[PRECAUTIONS]

1. Use round crimp-style terminals for connecting wires to the power supply terminal block.

(Refer to Fig. 23)

If unavailable, observe the following points when wiring.

- Do not connect wires of different gauge to the same power supply terminal. (Looseness in the connection may cause overheating.)
- Use the specified electric wire. Connect the wire securely to the terminal. Lock the wire down without applying excessive force to the terminal. (Tightening torque: 0.97ft.lbf ±10 %)

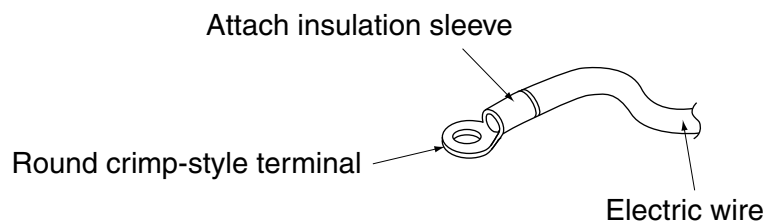


Fig. 23

2. **Tightening torque for the terminal screws.**

- Use the correct screwdriver for tightening the terminal screws. If the blade of screwdriver is too small, the head of the screw might be damaged, and the screw will not be properly tightened.
- If the terminal screws are tightened too hard, screws might be damaged.
- Refer to the table below for the tightening torque of the terminal screws.

Terminal	Size	Tightening torque (ft-lbf)
Remote controller, Transmission wiring and Forced off terminal block (6P)	M3.5	0.58 – 0.72
Power supply and Ground terminal block (3P)	M4	0.87 – 1.06

3. Do not connect wires of different gauge to the same ground terminal. Looseness in the connection may lessen protection.
4. Keep transmission wiring at least 5" away from power supply wiring. The equipment may malfunction if subjected to electrical (external) noise.
5. For remote controller wiring, refer to the "INSTALLATION MANUAL OF REMOTE CONTROLLER" attached to the remote controller.

8-2 WIRING EXAMPLE

- Fit the power supply wire of each unit with a switch and fuse as shown in the drawing.

COMPLETE SYSTEM EXAMPLE (3 systems)

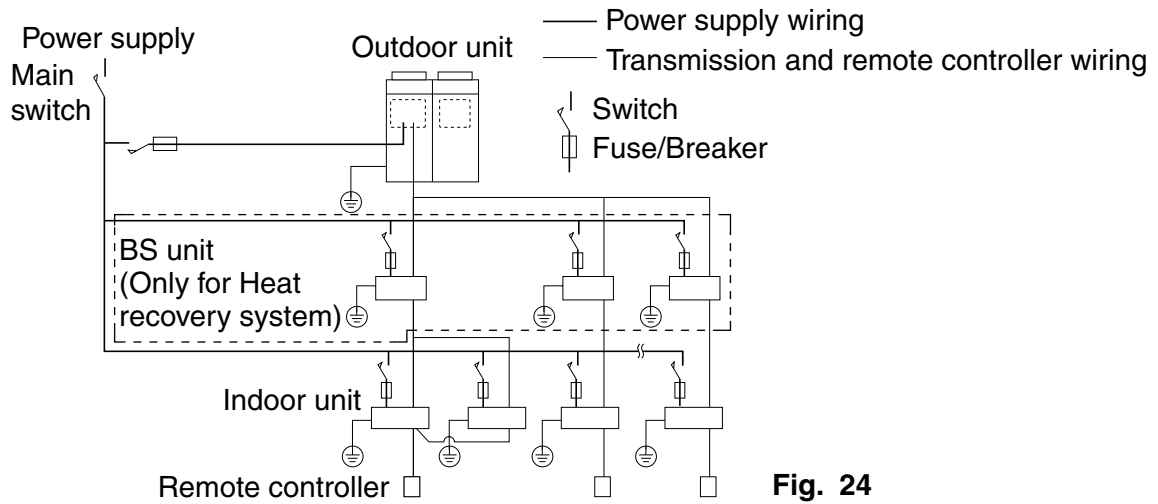


Fig. 24

1. When using 1 remote controller for 1 indoor unit. (Normal operation)

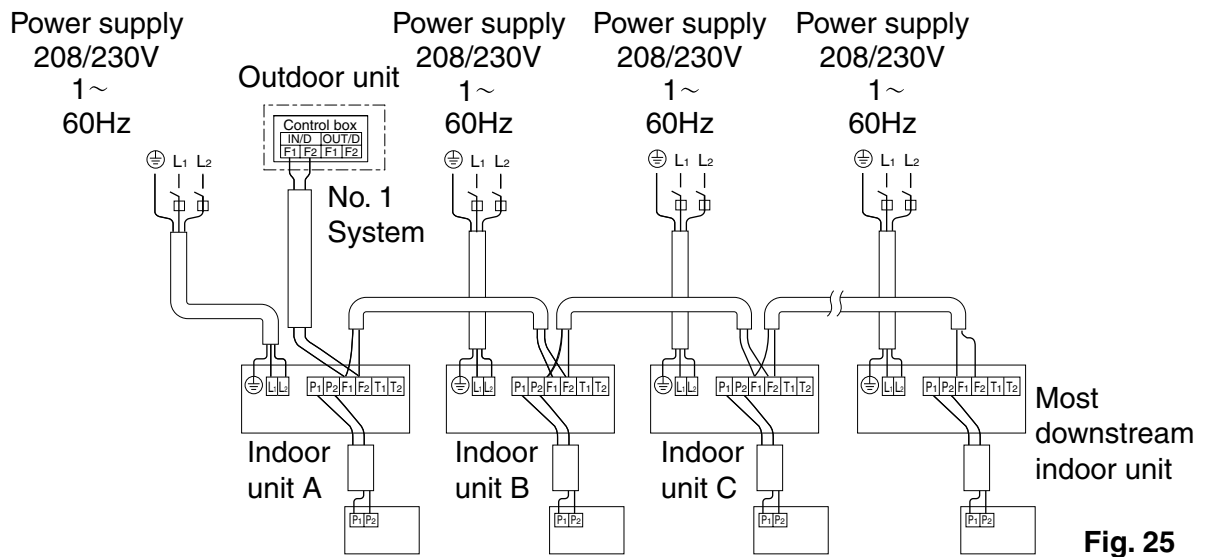
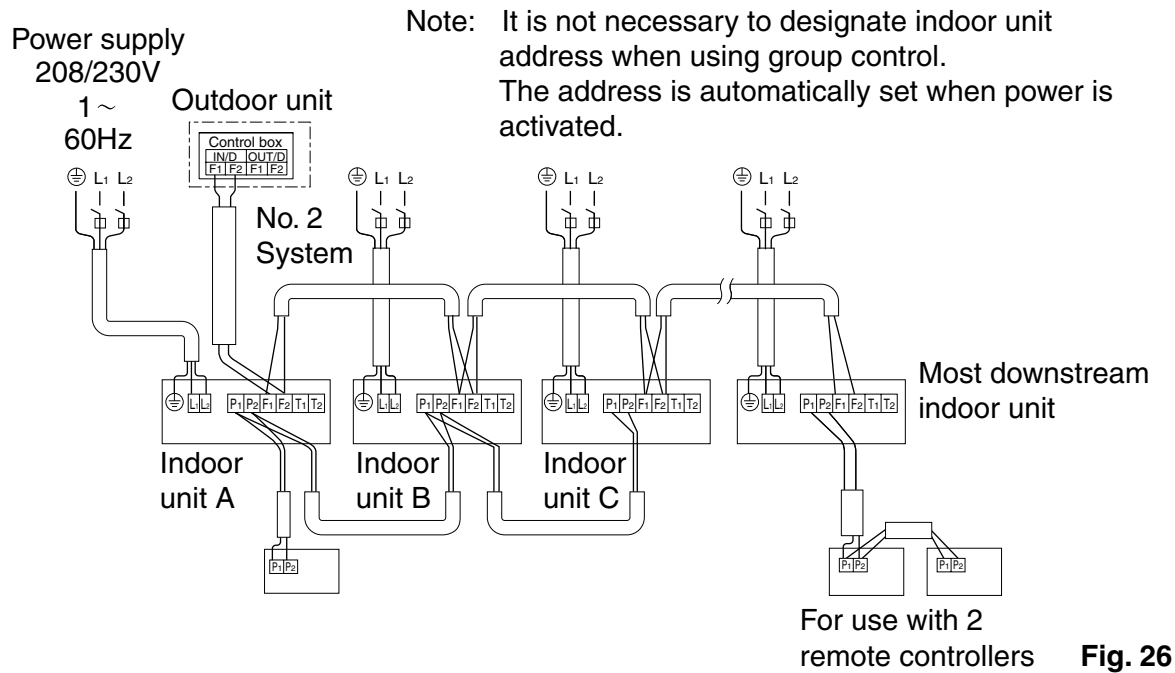
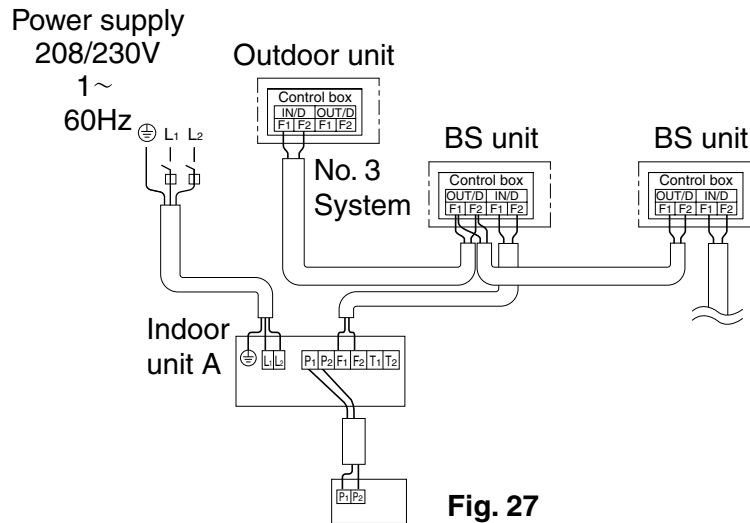


Fig. 25

2. For group control or use with 2 remote controllers



3. When including BS unit



⚠ NOTE

1. A single switch can be used to supply power to units on the same system. However, branch switches and branch circuit breakers must be selected carefully.
2. Do not ground the equipment on gas pipes, water pipes or lightning rods, or crossground with telephones. Improper grounding could result in electric shock.

8-3 CONTROL BY 2 REMOTE CONTROLLERS (CONTROLLING 1 INDOOR UNIT BY 2 REMOTE CONTROLLERS)

- When using 2 remote controllers, one must be set to “MAIN” and the other to “SUB”. For details, refer to the installation manual attached to the remote controller.

Wiring Method (See “7. ELECTRIC WIRING WORK”)

- Remove the control box cover.
- Add the remote control 2 (sub) to the terminal block (6P) for remote controller (P1, P2) in the control box.
(There is no polarity.) (Refer to Fig. 26 and section 7-3 for the wiring size.)

8-4 COMPUTERISED CONTROL (FORCED OFF AND ON/OFF OPERATION)

- Wire specifications and how to perform wiring
 - Connect the input from outside to terminals T1 and T2 of the terminal block (6P).

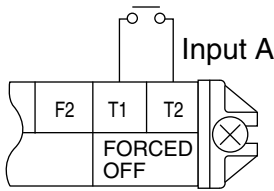


Fig. 28

Wire specification	Sheathed vinyl cord or cable (2 wire)
Gauge	AWG18-16
Length	Max. 328 ft.
External terminal	Contact that can ensure the minimum applicable load of 15V DC, 1 mA.

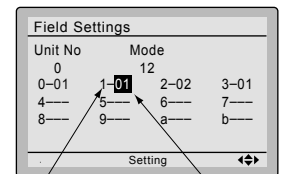
(2) Actuation

- The following table explains FORCED OFF and ON/OFF OPERATIONS in response to Input A.

FORCED OFF	ON/OFF OPERATION
Input “ON” stops operation (impossible by remote controllers).	Input OFF → ON turns ON unit.
Input OFF enables control by remote controller.	Input ON → OFF turns OFF unit.

(3) How to select FORCED OFF and ON/OFF OPERATION

- Turn the power on and then use the remote controller to select operation.
- Set the remote controller to the field set mode. For details, refer to the “HOW TO SET IN THE FIELD”, in the remote controller manual.
- When in the field set mode, select mode No. 12, then set the FIRST CODE (switch) NO. to “1”. Then set SECOND CODE (position) NO. to “01” for FORCED OFF and “02” for ON/OFF OPERATION.
(FORCED OFF at factory set) (Refer to Fig. 29)



FIRST CODE NO. SECOND CODE NO.

Fig. 29

8-5 CENTRALIZED CONTROL

- For centralized control, it is necessary to designate the group No. For details, refer to the manual of each optional controllers for centralized control.

9. FIELD SETTINGS

(1) Make sure the control box covers are closed on the indoor and outdoor units.

(2) Field settings must be made from the remote controller in accordance with installation conditions.

- Settings can be made by changing the “Mode No”, “FIRST CODE NO.” and “SECOND CODE NO.”. Refer to the installation manual attached to the remote controller.
- The “Field Settings” included with the remote controller lists the order of the settings and method of operation.

* Setting is made in all units in a group. To set for individual indoor units or to check the setting, use the mode Nos. (with “2” in upper digit) in parentheses ().

9-1 SETTING AIR FILTER SIGN

- Remote controllers are equipped with liquid crystal display air filter signs to display the time to clean air filters.
- Change the SECOND CODE NO. according to Table 3 depending on the amount of dirt or dust in the room.
(SECOND CODE NO. is factory set to “01” for air filter contamination-light)

Table 3

Setting	Spacing time of display air filter sign	Mode No.	FIRST CODE NO.	SECOND CODE NO.
Air filter contamination-light	Approx. 200 hours	10 (20)	0	01
Air filter contamination-heavy	Approx. 100 hours			02

9-2 SETTING AIRFLOW RATE INCREASE MODE

- It is possible to raise set airflow (HIGH and LOW) from the field. Change the SECOND CODE NO. as shown in Table 4 to suit your needs.
(SECOND CODE NO. is factory set to “01” for Standard.)

Table 4

Setting	Mode No.	FIRST CODE NO.	SECOND CODE NO.
Standard	13 (23)	0	01
A little increase			02
Increase			02

〈When using wireless remote controllers〉

- When using wireless remote controllers, wireless remote controller address setting is necessary. Refer to the installation manual attached to the wireless remote controller for setting instructions.

10. TEST RUN


Make sure the control box covers are closed on the indoor and outdoor units.

Refer to the installation manual of the outdoor unit.

- The operation lamp of the remote controller will flash when a malfunction occurs. Check the malfunction code on the liquid crystal display to identify the point of trouble. An explanation of malfunction codes and the corresponding trouble is provided in the installation manual of the outdoor unit.

If any of the items in Table 5 are displayed, there may be a problem with the wiring or power, so check the wiring again.

Table 5

Remote controller display	Content
“  ” (under centralized control) is lit up	<ul style="list-style-type: none"> • There is a short circuit at the FORCED OFF terminals (T1, T2).
“U4” is lit up “UH” is lit up	<ul style="list-style-type: none"> • The power on the outdoor unit is off. • The outdoor unit has not been wired for power supply. • Incorrect wiring for the transmission wiring and/or FORCED OFF wiring. • The transmission wiring is cut.
No display	<ul style="list-style-type: none"> • The power on the indoor unit is off. • The indoor unit has not been wired for power supply. • Incorrect wiring for the remote controller wiring, the transmission wiring, and/or the FORCED OFF wiring. • The remote controller wiring is cut.

- If “U3” is lit up, the malfunction code shows the test run has not been performed yet.

DAIKIN AC (AMERICAS), INC.

1645 Wallace Drive, Suite 110
Carrollton, TX 75006 USA

info@daikinac.com
www.daikinac.com

DAIKIN INDUSTRIES, LTD.

Head office:

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo office:

JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan



INSTALLATION MANUAL

VRV *System air conditioner*

MODEL

REYQ72XATJ*	REYQ72XAYD*	REYQ72XAYC*
REYQ96XATJ*	REYQ96XAYD*	REYQ96XAYC*
REYQ120XATJ*	REYQ120XAYD*	REYQ120XAYC*
REYQ144XATJ*	REYQ144XAYD*	REYQ144XAYC*
REYQ168XATJ*	REYQ168XAYD*	REYQ168XAYC*
REYQ192XATJ*	REYQ192XAYD*	REYQ192XAYC*
REYQ216XATJ*	REYQ216XAYD*	REYQ216XAYC*
REYQ240XATJ*	REYQ240XAYD*	REYQ240XAYC*
REYQ264XATJ*	REYQ264XAYD*	REYQ264XAYC*
REYQ288XATJ*	REYQ288XAYD*	REYQ288XAYC*
REYQ312XATJ*	REYQ312XAYD*	REYQ312XAYC*
REYQ336XATJ*	REYQ336XAYD*	REYQ336XAYC*
REYQ360XATJ*	REYQ360XAYD*	REYQ360XAYC*
REYQ384XATJ*	REYQ384XAYD*	REYQ384XAYC*
REYQ408XATJ*	REYQ408XAYD*	REYQ408XAYC*
REYQ432XATJ*	REYQ432XAYD*	REYQ432XAYC*
REYQ456XATJ*	REYQ456XAYD*	

English

Français

Español

Please visit <http://www.daikinac.com/content/resources/manuals> for the most current version of installation instructions. In the event of conflicting information, the online installation instruction is to be used.

Veillez visiter <http://www.daikinac.com/content/resources/manuals> pour obtenir la version la plus récente des instructions d'installation. En cas de conflit d'informations, les instructions d'installation en ligne doivent être utilisées.

Visite <http://www.daikinac.com/content/resources/manuals> para obtener la versión más actualizada de las instrucciones de instalación. En caso de información conflictiva, se debe utilizar la instrucción de instalación en línea.

Safety considerations

Read these Safety considerations for Installation carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the startup operation.


Instruct the customer on how to operate and maintain the unit.


Inform customers that they should store this Installation Manual with the Operation Manual for future reference.


Always use a licensed installer or contractor to install this product.


Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.


Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE** Indicates situations that may result in equipment or property-damage accidents only.

 **INFORMATION** . . . This symbol identifies useful tips or additional information.

DANGER

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result in serious injury or death.
- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding will result a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes will result a gas leak and potential explosion resulting in severe injury or death.
- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas will result in producing toxic gas if it comes into contact with fire. Exposure to this gas will result in severe injury or death.
- After completing the installation work, check that the refrigerant gas does not leak throughout the system.
- Do not install unit in an area where flammable materials are present due to risk of explosions that will result in serious injury or death.
- Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation will result in injuries or death by suffocation.

WARNING

- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation could result in water leakage, electric shock, or fire.
- When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, could result in oxygen deficiency.
- Use only specified accessories and parts for installation work. Failure to use specified parts could result in water leakage, electric shocks, fire, or the unit falling.
- Install the air conditioner or heat pump on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength could result in the unit falling and causing injuries.
- Take into account strong winds, typhoons, or earthquakes when installing. Improper installation could result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state and national regulations. An insufficient power supply capacity or improper electrical construction could result in electric shocks or fire.
- Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation could result in fire.
- When wiring, position the wires so that the control box cover can be securely fastened. Improper positioning of the control box cover could result in electric shocks, fire, or the terminals overheating.
- Before touching electrical parts, turn off the unit.
- This equipment can be installed with a Ground-Fault Circuit Interrupter (GFCI). Although this is a recognized measure for additional protection, with the grounding system in North America, a dedicated GFCI is not necessary.
- Securely fasten the unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the outdoor unit and could result in fire or electric shock.
- When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit could result in abnormal pressure rise or rupture, resulting in injury.
- Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion could result.

⚠ CAUTION

- Do not touch the switch with wet fingers. Touching a switch with wet fingers may result in electric shock.
- Do not allow children to play on or around the unit or it may result in injury.
- The heat exchanger fins are sharp enough to cut, and may result in injury if improperly used. To avoid injury wear glove or cover the fins when working around them.
- Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. It may result in your hands getting burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
- Insulate piping to prevent condensation.
- Be careful when transporting the product.
- Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may result.
- Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
- Refrigerant R410A in the system must be kept clean, dry, and tight.
 - (a) Clean and Dry - Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
 - (b) Tight - R410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter Refrigerant Piping and follow the procedures.
- Since R410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
- The indoor unit is for R410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
- Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.
- Do not install the air conditioner or heat pump in the following locations:
 - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen. Plastic parts may deteriorate and fall off and thus may result in water leakage.
 - (b) Where corrosive gas, such as sulfurous acid gas, is produced. Corroding copper pipes or soldered parts may result in refrigerant leakage.
- (c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
- (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions may result in a fire.
- Take adequate measures to prevent the outdoor unit from being used as a shelter by small animals. Small animals making contact with electrical parts may result in malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.

⚠ NOTE

- Install the power supply and transmission wires for the indoor and outdoor units at least 3.5 ft. (1 m) away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 ft. (1 m) may not be sufficient to eliminate the noise.
- Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
- Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
- If the conventional refrigerant and refrigerator oil are mixed in R410A, the refrigerant result in deterioration.
- This air conditioner or heat pump is an appliance that should not be accessible to the general public.
- As design pressure is 478 psi (3.3 MPa), the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.

Codes and Regulations

This product is designed and manufactured to comply with national codes. Installation in accordance with such codes and/or prevailing local codes/regulations is the responsibility of the installer. The manufacturer assumes no responsibility for equipment installed in violation of any codes or regulations. Rated performance is achieved after 72 hours of operation.

Make sure to use a DAIKIN specified checker while measuring sub cooling. Do not use the check valve or the other port to measure it.

REQY72XATJ+	REQY240XATJ+	REQY408XATJ+	REQY72XAYD+	REQY240XAYD+	REQY408XAYD+	REQY72XAYC+	REQY240XAYC+	REQY408XAYC+
REQY96XATJ+	REQY264XATJ+	REQY432XATJ+	REQY96XAYD+	REQY264XAYD+	REQY432XAYD+	REQY96XAYC+	REQY264XAYC+	REQY432XAYC+
REQY120XATJ+	REQY288XATJ+	REQY456XATJ+	REQY120XAYD+	REQY288XAYD+	REQY456XAYD+	REQY120XAYC+	REQY288XAYC+	
REQY144XATJ+	REQY312XATJ+		REQY144XAYD+	REQY312XAYD+		REQY144XAYC+	REQY312XAYC+	
REQY168XATJ+	REQY336XATJ+		REQY168XAYD+	REQY336XAYD+		REQY168XAYC+	REQY336XAYC+	
REQY192XATJ+	REQY360XATJ+		REQY192XAYD+	REQY360XAYD+		REQY192XAYC+	REQY360XAYC+	
REQY216XATJ+	REQY384XATJ+		REQY216XAYD+	REQY384XAYD+		REQY216XAYC+	REQY384XAYC+	

CONTENTS

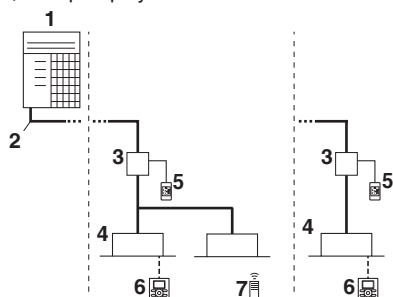
Safety considerations	i	9.3. Leading wire procedure.....	19
Codes and Regulations.....	ii	9.4. Transmission wiring connection procedure	20
1. Introduction	2	9.5. Power wiring connection procedure	21
1.1. General information.....	2	9.6. Procedure for Wiring Inside Units.....	21
1.2. Combinations and options.....	2	10. Air tight test and vacuum drying	22
1.3. Indoor capacity range.....	3	11. Pipe insulation.....	23
1.4. Scope of the manual	3	12. Checking of device and installation conditions	24
2. Accessories	3	13. Making field settings.....	24
2.1. Accessories supplied with this unit.....	3	13.1. Accessing the push buttons on the printed circuit board.....	24
3. Overview of unit	4	13.2. Operating the push buttons and DIP switches on the printed circuit board.....	24
3.1. Opening the unit.....	4	13.3. Connecting the PC configurator to the outdoor unit	26
3.2. Technical and Electrical specifications	4	14. Charging refrigerant.....	26
3.3. Main components.....	4	14.1. Precautions	26
4. Selecting an installation location	4	14.2. Calculating the additional refrigerant charge	26
4.1. General precautions on installation.....	4	14.3. Method for adding refrigerant.....	28
4.2. Weather related precautions	5	15. Start-up and configuration	30
4.3. Selecting a location in cold climates	5	15.1. Checks before initial start up.....	30
5. Dimensions and service space	6	15.2. Monitoring function and field settings....	31
5.1. Dimensions of outdoor unit	6	15.3. Energy saving and optimum operation..	37
5.2. Service space.....	6	15.4. Test operation.....	39
6. Inspecting, handling and unpacking the unit	7	15.5. Malfunction code list.....	40
6.1. Inspection.....	7	16. Operation of the unit	43
6.2. Handling.....	7	17. Maintenance and service.....	43
6.3. Unpacking	7	17.1. Maintenance introduction	43
6.4. Installing the unit.....	8	17.2. Service precautions.....	43
6.5. Method for removing shipping plates	8	17.3. Service mode operation	45
6.6. Method for opening the sliding plate	9	18. Caution for refrigerant leaks	45
7. Refrigerant pipe size and allowable pipe length	9	18.1. Introduction	45
7.1. General information.....	9	19. Disposal requirements.....	45
7.2. Selection of piping material	9		
7.3. Selection of piping size	9		
7.4. Selection of refrigerant branch kits.....	10		
7.5. System piping (length) limitations	11		
8. Precautions on refrigerant piping.....	14		
8.1. Caution for brazing	14		
8.2. Connecting the refrigerant piping.....	14		
8.3. Guidelines for handling stop valve.....	17		
9. Field wiring	18		
9.1. Power circuit, safety device and cable requirements	19		
9.2. Wiring connection example for whole system.....	19		

The original instructions are written in English. All other languages are translations of the original instructions.

1. Introduction

1.1. General information

This installation manual concerns the VRV REYQ-X series, full inverter driven, heat pump system.



- 1 Outdoor unit
- 2 Refrigerant piping
- 3 Branch Selector unit
- 4 VRV indoor unit
- 5 Cool/Heat selector (single Branch Selector unit only)
- 6 User interface (dedicated depending on indoor unit type)
- 7 User interface (wireless, dedicated depending on indoor unit type)

The figure above is the example when outdoor unit is connected with general VRV indoor units. When the VRV outdoor unit is connected with Low-temperature hydrobox or EEV Kit For DOAS, refer to those installation manuals and Engineering Data Book for details.

i INFORMATION

Not all combinations of indoor units are allowed. For guidance, see 1.2. Combinations and options.

1.2. Combinations and options

The VRV REYQ-X series heat recovery system can be combined with several types of indoor units and is intended for R410A use only.

For an overview which units are available you can consult the product catalogue for VRV REYQ-X series.

! NOTE

To be sure your system setup (outdoor unit + Branch Selector unit(s) + indoor unit(s)) will work, you have to consult the latest technical engineering data for VRV REYQ-X series.

An overview is given indicating the allowed combinations of indoor units and outdoor units. Not all combinations are allowed. They are subject to rules (combination between outdoor-indoor, single outdoor unit use, multiple outdoor units use, combinations between indoor units, etc.) mentioned in the technical engineering data.

The Branch Selector units that combined with REYQ-X units for changing the refrigerant flow to indoor units are T type (BSQ-T*, BS-Q54T*, BSF-Q54T*) only. Do not combine the T type and P type (BSVQ-PVJU, BSV-Q36PVJU) in the system. Combination of T type and P type cause malfunction.

1.2.1. Indoor units combinations

In general VRV indoor units can be connected to REYQ-X units. Low-temperature hydrobox must be connected to outdoor units with VRV indoor units. Mix combination of EEV Kit For DOAS and VRV indoor units is prohibited.

1.2.2. Outdoor units combinations

Combination for REYQ-X units are as indicated in tables right, where REYQ 192-456 consists of multiple REYQ 96-168 single modules as indicated.

	72	96	120	144	168
REYQ72XATJ*/XAYD*/XAYC*	1				
REYQ96XATJ*/XAYD*/XAYC*		1			
REYQ120XATJ*/XAYD*/XAYC*			1		
REYQ144XATJ*/XAYD*/XAYC*				1	
REYQ168XATJ*/XAYD*/XAYC*					1
REYQ192XATJ*/XAYD*/XAYC*		2			
REYQ216XATJ*/XAYD*/XAYC*		1	1		
REYQ240XATJ*/XAYD*/XAYC*			2		
REYQ264XATJ*/XAYD*/XAYC*			1	1	
REYQ288XATJ*/XAYD*/XAYC*				2	
REYQ312XATJ*/XAYD*/XAYC*				1	1
REYQ336XATJ*/XAYD*/XAYC*					2
REYQ360XATJ*/XAYD*/XAYC*			3		
REYQ384XATJ*/XAYD*/XAYC*			2	1	
REYQ408XATJ*/XAYD*/XAYC*			1	2	
REYQ432XATJ*/XAYD*/XAYC*				3	
REYQ456XATJ*/XAYD*				2	1

To install the outdoor unit, the following accessory parts are also required.

1 Refrigerant branch kit.

Description	Model name	
	(for 3 pipes)	(for 2 pipes)
REFNET header	KHRP25M33H9 KHRP25M33HA	KHRP26M22H9 KHRP26M22HA
	KHRP25M72H9 KHRP25M72HA	KHRP26M33H9 KHRP26M33HA
	KHRP25M73HU9 KHRP25M73HUA	KHRP26M72H9 KHRP26M72HA
REFNET joint	KHRP25A22T9 KHRP25A22TA	KHRP26A22T9 KHRP26A22TA
	KHRP25A33T9 KHRP25A33TA	KHRP26A33T9 KHRP26A33TA
	KHRP25M72TU9 KHRP25M72TUA	KHRP26M72TU9 KHRP26M72TUA
	KHRP25M73TU9 KHRP25M73TUA	—

For the selection of the optimal branch kit, refer to 7.4. Selection of refrigerant branch kits on page 10.

2 Outdoor unit multi connection piping kit.

Number of outdoor units connected	
2	3
BHFP26P100U BHFP26P100UA	BHFP26P151U BHFP26P151UA

3 In order to control the cooling or heating operation from a central location, the following option can be connected:

- Cool/Heat selector: KRC19-26A
- With optional fixing box for the switch: KJB111A
- Centralized control devices (e.g., intelligent Touch Manager)

4 To instruct specific operation with an external input coming from a central control the external control adaptor (DTA104A61/62) can be used. Instructions (group or individual) can be instructed for low noise operation and power consumption limitation operation.

5 For REYQ-X units it is also possible to make several commissioning field settings through a personal computer interface. For this option 999482P3 is required which is a dedicated cable to communicate with the outdoor unit. The software for the user interface program can be obtained from your local Daikin sales office.

i INFORMATION

Refer to the technical engineering data for the latest option names.

1.3. Indoor capacity range

NOTE

When the VRV outdoor unit is installed with Low-temperature hydro-box or EEV Kit For DOAS in the system, refer to those installation manuals and Engineering Data Book.

1.3.1. Connection Ratio

Connection Ratio = Total capacity index of the indoor units / Capacity index of the outdoor units

Type	Min. combination ratio
	Types of connected outdoor units
	REYQ-X type
Single outdoor units	50% (*1)
Double outdoor units	
Triple outdoor units	

*1. 70% : REYQ72X type

Type	Max. connection ratio				
	Types of connected indoor units			Types of connected air treatment	
	When using only FXDQ, FXMQ-PB, FXAQ, FXSQ07-54 TA	When using at least one FXZQ05 TA, FXSQ05 TA, FXFQ07/09	When using other indoor unit models	FXMQ-MF	
				When FXMQ-MF is only connected	When FXMQ-MF and indoor units are connected
Single outdoor unit	200% *1	180% *1	200% *1	100%	100% *2
Double outdoor units		160% *1	160% *1		
Triple outdoor units		130%	130%		

Notes: *1. If the operational capacity of indoor units is more than 130%, low airflow operation is enforced in all the indoor units. This limitation can be abolished through field setting.
*2. When outdoor-air processing units (FXMQ-MF) and standard indoor units are connected, the total connection capacity of the outdoor-air processing units (FXMQ-MF) must not exceed 30% of the capacity index of the outdoor units. And the connection ratio must not exceed 100%.

1.3.2. Outdoor Unit Combinations

Total capacity of indoor units needs to be within the specified range.
REYQ-X type

<Outdoor unit>	<Total capacity index of indoor units>
REYQ72XATJ*/XAYD*/XAYC*	51-93
REYQ96XATJ*/XAYD*/XAYC*	48-124
REYQ120XATJ*/XAYD*/XAYC*	60-156
REYQ144XATJ*/XAYD*/XAYC*	72-187
REYQ168XATJ*/XAYD*/XAYC*	84-218
REYQ192XATJ*/XAYD*/XAYC*	96-249
REYQ216XATJ*/XAYD*/XAYC*	108-280
REYQ240XATJ*/XAYD*/XAYC*	120-312
REYQ264XATJ*/XAYD*/XAYC*	132-343
REYQ288XATJ*/XAYD*/XAYC*	144-374
REYQ312XATJ*/XAYD*/XAYC*	156-405
REYQ336XATJ*/XAYD*/XAYC*	168-436
REYQ360XATJ*/XAYD*/XAYC*	180-468
REYQ384XATJ*/XAYD*/XAYC*	192-499
REYQ408XATJ*/XAYD*/XAYC*	204-530
REYQ432XATJ*/XAYD*/XAYC*	216-561
REYQ456XATJ*/XAYD*	228-592

NOTE

Higher capacity than the above table can be selected, this may affect heating and cooling capacity. For additional information see technical engineering data.

1.4. Scope of the manual

This manual describes the procedures for handling, installing and connecting the VRV REYQ-X series outdoor units. This manual has been prepared to ensure adequate maintenance of the unit, and it will provide help in case problems occur.

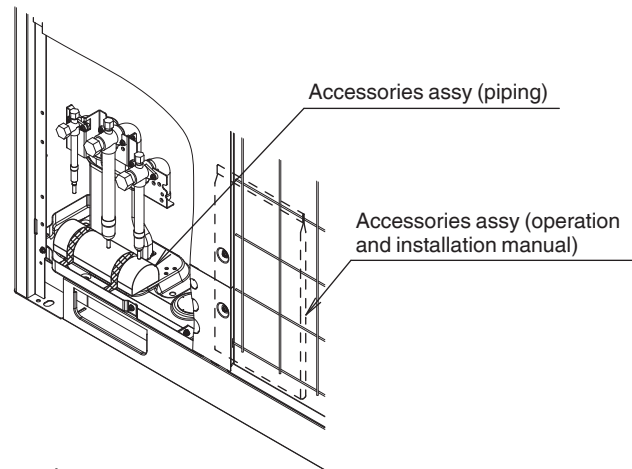
INFORMATION

The installation of the indoor unit(s) is described in the indoor unit installation manual provided with the indoor unit(s).

2. Accessories

2.1. Accessories supplied with this unit

Confirm the following accessories are included. The storage location of the accessories is shown in the figure below.



NOTE

Do not throw away any of the accessories until installation is complete. They are needed for installation work.

Name	Clamp (1)	Clamp (2)	Clamp (3)	Vinyl tube	Manuals, etc.
Quantity	7 pcs.	1 pc.	1 pc.	5 pcs.	1 pc. each
Shape	(Small)	(Large)			<ul style="list-style-type: none"> Operation Manual Installation Manual REQUEST FOR THE INDICATION label (Installation records)

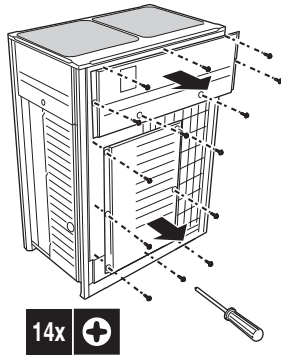
Name	Liquid side accessory pipe (1)	Liquid side accessory pipe (2)	Gas side accessory pipe (1)	Gas side accessory pipe (2)
Quantity	1 pc.	1 pc.	1 pc.	1 pc.
Shape		72-144X 168X	72,120X 96X 144,168X	72X 120X 96,144,168X

Name	High and low gas side accessory pipe (1)	High and low gas side accessory pipe (2)	L type accessory joint
Quantity	1 pc.	1 pc.	2 pcs.
Shape	72X 96-168X	72,96X 120-168X	

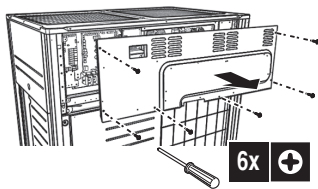
3. Overview of unit

3.1. Opening the unit

To gain access to the unit, front panels need to be opened as follows:



Once the front panel open, the control box can be accessed by removing the control box cover as follows.



For service purposes, the push buttons on the main printed circuit board need to be accessed. To access these push buttons, the control box cover does not need to be opened. See 13. Making field settings on page 24.

— **⚠ DANGER: ELECTRICAL SHOCK** —

See Safety considerations on page i.

— **⚠ DANGER: DO NOT TOUCH PIPING AND INTERNAL PARTS** —

See Safety considerations on page i.

3.2. Technical and Electrical specifications

Refer to the Engineering Data Book for the complete list of specifications.

3.3. Main components

For main components and function of the main components, refer to the Engineering Data Book.

4. Selecting an installation location

— **⚠ WARNING** —

Be sure to provide for adequate measures in order to prevent that the unit is used as a shelter by small animals.

Small animals making contact with electrical parts can cause malfunctions, smoke or fire. Please instruct the customer to keep the area around the unit clean and clear.

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

— **⚠ CAUTION** —

Appliance not accessible to the general public, install it in a secured area, protected from easy access.

This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment.

4.1. General precautions on installation

Select an installation site that meets the following requirements:

- The foundation must be strong enough to support the weight of the unit.
- Installation location is flat to prevent vibrations and noise generation and to have sufficient stability.
- The space around the unit is adequate for maintenance and servicing (refer to 5.2. Service space on page 6).
- The space around the unit allows for sufficient air circulation.
- There is no danger of fire due to leakage of inflammable gas.
- The equipment is not intended for use in a potentially explosive atmosphere.
- Select the location of the unit in such a way that the sound generated by the unit does not disturb anyone, and the location is selected according to the applicable legislation.
- All piping lengths and distances have been taken into consideration (refer to 7.5. System piping (length) limitations on page 11).
- Take care that in the event of a water leak, water cannot cause any damage to the installation space and surroundings.
- When installing the unit in a small room, take measures in order to keep the refrigerant concentration from exceeding allowable safety limits in the event of a refrigerant leak, refer to 18. Caution for refrigerant leaks on page 45.

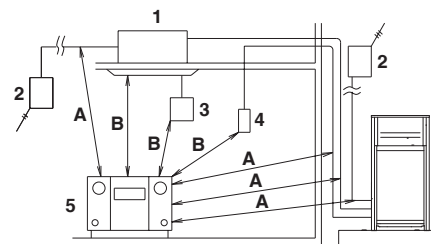
— **⚠ CAUTION** —

Excessive refrigerant concentrations in a closed room can lead to oxygen deficiency.

— **⚠ NOTE** —

The equipment described in this manual may cause electronic noise generated from radio-frequency energy. The equipment complies to specifications that are designed to provide reasonable protection against such interference. However, there is no guarantee that interference will not occur in a particular installation.

It is therefore recommended to install the equipment and electric wires keeping proper distances away from stereo equipment, personal computers, etc



- 1 Indoor unit
 - 2 Branch switch, overcurrent breaker
 - 3 Remote controller
 - 4 Cool/Heat selector
 - 5 Personal computer or radio
- A ≥60 in. (1500 mm)
B ≥40 in. (1000 mm)

An inverter air conditioner may cause electronic noise generated from AM broadcasting. Examine where to install the main air conditioner and electric wires, keeping proper distances away from stereo equipment, personal computers, etc.

Particularly for locations with weak reception, ensure there is a distance of at least 10 ft. (3 m) for indoor remote controllers, place power wiring and transmission wiring in conduits, and ground the conduits.

- The refrigerant R410A itself is nontoxic, non-flammable and is safe. If the refrigerant should leak however, its concentration may exceed the allowable limit depending on room size. Due to this, it could be necessary to take measures against leakage. Refer to 18. Caution for refrigerant leaks on page 45.
- Do not install in the following locations:
 - Locations where sulfurous acids and other corrosive gases may be present in the atmosphere. Copper piping and soldered joints may corrode, causing refrigerant to leak.
 - Locations where a mineral oil mist, spray or vapor may be present in the atmosphere. Plastic parts may deteriorate and fall off or cause water leakage.
 - Locations where equipment that produces electromagnetic waves is found. The electromagnetic waves may cause the control system to malfunction, preventing normal operation.
 - Locations where flammable gases may leak, where thinner, gasoline and other volatile substances are handled, or where carbon dust and other incendiary substances are found in the atmosphere. Leaked gas may accumulate around the unit, causing an explosion.
- When installing, take strong winds, hurricanes or earthquakes into account, improper installation may result in the unit turning over.

4.2. Weather related precautions

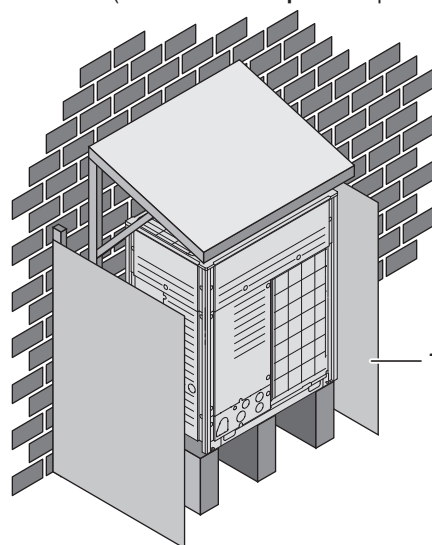
- Be sure that the air inlet of the unit is not positioned towards the main wind direction. Frontal wind will disturb the operation of the unit. If necessary, use a screen to block the wind.
- Ensure that water cannot cause any damage to the location by adding water drains to the foundation and prevent water traps in the construction.
- When installing in areas where air contains high levels of salt such as near the ocean; Contact your Daikin sales representative for additional precautions.

4.3. Selecting a location in cold climates

⚠ NOTE

- When operating the unit in a low outdoor ambient temperature, be sure to follow the instructions described below.
- The following images are for reference only. For more details contact your local dealer.

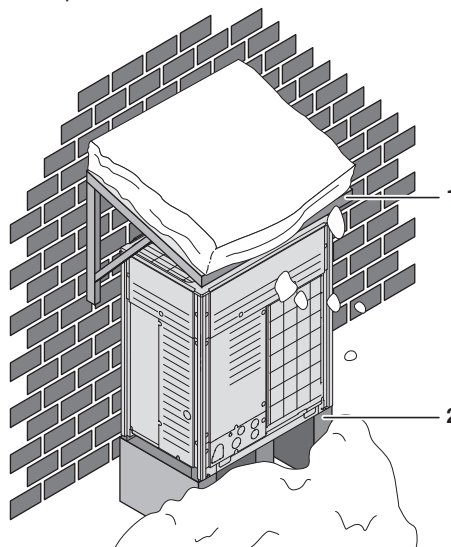
To prevent exposure to wind and snow, install a baffle plates on the air side of the outdoor unit (see 5.2. Service space for space requirement):



1 Baffle plates

In heavy snowfall areas it is very important to select an installation site where the snow will not affect the unit. Additionally, installation of a snow guard is recommended. When installing the unit in a location where there is heavy snowfall, remove the coil guards to prevent snow from accumulating on the fins.

If lateral snowfall is possible, make sure that the heat exchanger coil is not affected by the snow (if necessary construct a lateral canopy). Install the outdoor unit so that the bottom frame is at least 19-11/16 in. (500 mm) above predicted snowfall levels.



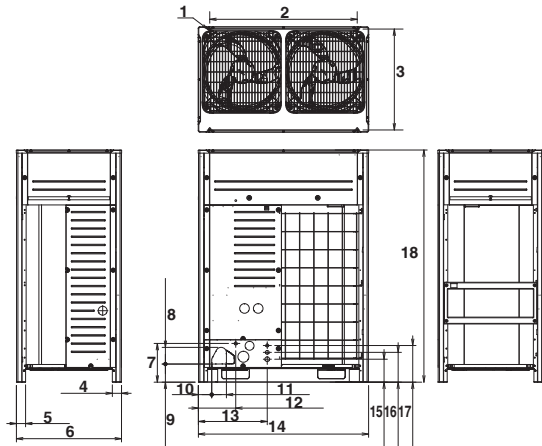
- 1 Construct a large canopy.
- 2 Construct a pedestal.

⚠ NOTE

When operating the unit in a low outdoor ambient temperature with high humidity conditions, make sure to take precautions to keep the drain holes of the unit free.

5. Dimensions and service space

5.1. Dimensions of outdoor unit

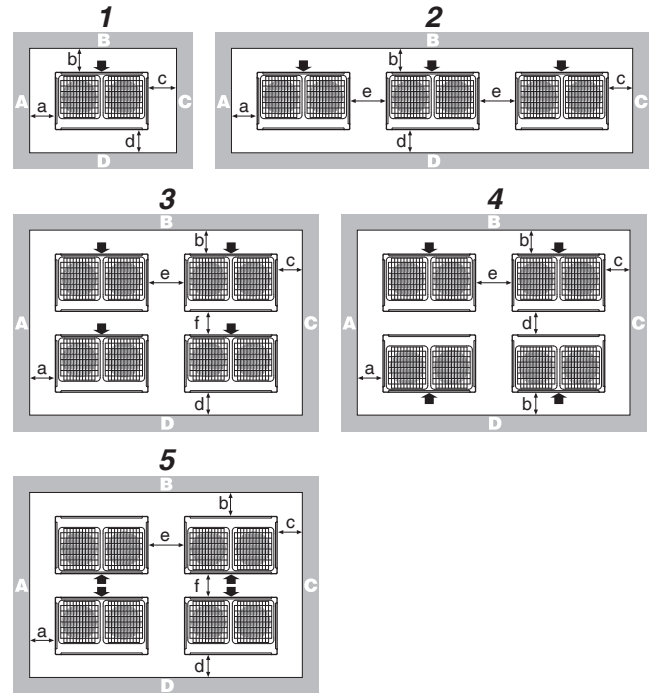


Unit: in. (mm)

REYQ72-168X type	
1	Foundation bolt holes 9/16 (15)×7/8 (22.5) oblong holes×4
2	Pitch of foundation bolt holes 42-3/8 (1076)
3	Pitch of foundation bolt holes 28-7/16 to 29 (722 to 737)
4	2-5/8 (67)
5	2-5/8 (67)
6	30-3/16 (767)
7	11-1/8 (282)
8	4-13/16 (122)
9	5-3/16 (132)
10	3-7/8 (98)
11	4-3/16 (107)
12	10-11/16 (272)
13	19-3/4 (502)
14	48-7/8 (1242)
15	6-9/16 (167)
16	8-9/16 (217)
17	10-1/2 (267)
18	66-11/16 (1694)

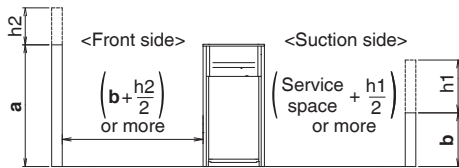
5.2. Service space

The space around the unit is adequate for servicing and the minimum space for air inlet and air outlet is available (refer to the figure below and choose one of the possibilities).



ABCD Sides along the installation site with obstacles
 ➔ Suction side

	A+B+C+D		A+B
1	a≥3/8 (10) b≥11-3/4 (300) c≥3/8 (10) d≥19-5/8 (500)	a≥2 (50) b≥3-7/8 (100) c≥2 (50) d≥19-5/8 (500)	a≥7-7/8 (200) b≥11-3/4 (300)
2	a≥3/8 (10) b≥11-3/4 (300) c≥3/8 (10) d≥19-5/8 (500) e≥3/4 (20)	a≥2 (50) b≥3-7/8 (100) c≥2 (50) d≥19-5/8 (500) e≥3-7/8 (100)	a≥7-7/8 (200) b≥11-3/4 (300) e≥15-3/4 (400)
3	a≥3/8 (10) b≥11-3/4 (300) c≥3/8 (10) d≥19-5/8 (500) e≥3/4 (20) f≥23-5/8 (100)	a≥2 (50) b≥3-7/8 (100) c≥2 (50) d≥19-5/8 (500) e≥3-7/8 (100) f≥19-5/8 (500)	Unit: in.(mm)
4	a≥3/8 (10) b≥11-3/4 (300) c≥3/8 (10) d≥19-5/8 (500) e≥3/4 (20)	a≥2 (50) b≥3-7/8 (100) c≥2 (50) d≥19-5/8 (500) e≥3-7/8 (100)	
5	a≥3/8 (10) b≥19-5/8 (500) c≥3/8 (10) d≥19-5/8 (500) e≥3/4 (20) f≥35-7/16 (900)	a≥2 (50) b≥19-5/8 (500) c≥2 (50) d≥19-5/8 (500) e≥3-7/8 (100) f≥23-5/8 (600)	



- a 59 in. (1500 mm)
- b 19-5/8 in. (500 mm)

- In case of an installation site where sides A+B+C+D have obstacles, the wall heights of sides A+C have no impact on service space dimensions. Refer to the foregoing figure for impact of wall heights of sides B+D on service space dimensions.
- In case of an installation site where only the sides A+B have obstacles, the wall heights have no influence on any indicated service space dimensions.

i INFORMATION

- Please secure enough space in front of the outdoor unit for on-site installation of the refrigerant piping.
- The service space dimensions in above figure are based on cooling operation at 95°F (35°C) ambient temperature (standard conditions).
- If the design outdoor temperature exceeds 95°F (35°C) or the heat load exceeds maximum capacity in all the outdoor unit, take an even large space on the intake shown in figure in 5.2. Service space.
- If installing snow guard (optional accessory), please incorporate the dimensions of the snow guard into the unit's outer dimensions in order to calculate the necessary amount of space.
- In places with low winter temperatures that may freeze the waste water created by defrosting during heating operation, please leave enough space between the bottom frame of the outdoor unit and its base. (19-11/16 in. (500 mm) to 40 in. (1000 mm) of space is recommended.)

i INFORMATION

Further specifications can be found in the Engineering Data Book.

6. Inspecting, handling and unpacking the unit

6.1. Inspection

At delivery, the unit must be checked and any damage must be reported immediately to the carrier's claims agent.

6.2. Handling

- 1 When handling the unit, take into account the following:



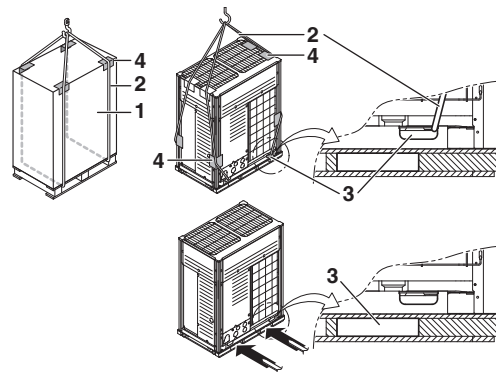
Fragile, handle the unit with care.



Keep the unit upright in order to avoid compressor damage.

- 2 Choose beforehand the path along which the unit is to be brought in.

- 3 Bring the unit as close as possible to its final installation position in its original package to prevent damage during transport.



- 1 Packaging material
- 2 Belt sling
- 3 Opening
- 4 Protector

- 4 Lift the unit preferably with a crane and 2 belts of at least 27 ft. (8 m) long as shown in the figure above.

Always use protectors to prevent belt damage and pay attention to the position of the unit's center of gravity.

! NOTE

Use a belt sling of $\leq 3/4$ in. (20 mm) wide that adequately bears the weight of the unit.

A forklift can only be used for transport as long as the unit remains on its pallet as shown above.

6.3. Unpacking

! CAUTION

To avoid injury, do not touch the air inlet or aluminum fins of the unit.

! WARNING

Tear apart and throw away plastic packaging bags so that children will not play with them. Children playing with plastic bags face danger of death by suffocation.

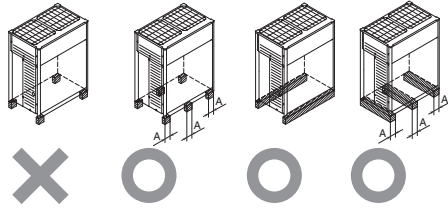
- 1 Remove the unit from its packing material. Take care not to damage the unit when unpacking.
- 2 Remove the 4 bolts fixing the unit to its pallet.
- 3 Make sure that all accessories as mentioned in 2.1. Accessories supplied with this unit on page 3 are available in the unit.

6.4. Installing the unit

Make sure the unit is installed level on a sufficiently strong base to prevent vibration and noise.



When the installation height of the unit needs to be increased, do not use stands to only support the corners.

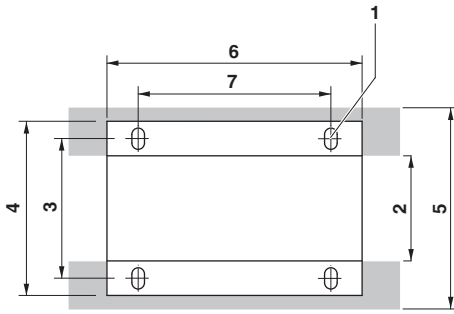


A $\geq 3\text{-}7/8$ in. (100 mm)

X Not allowed

O Allowed

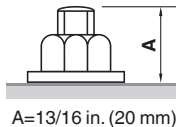
- The height of the foundation must be at least 5-7/8 in. (150 mm) from the floor.
In heavy snowfall areas, this height should be increased, depending on the installation place and condition.
- The unit must be installed on a solid longitudinal foundation (steel beam frame or concrete) and make sure the base under the unit is larger than the gray marked area.



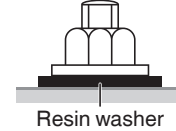
Dimensions for above figure

Dimensions for above figure		
1	Hole for foundation bolt	$\phi 9/16$ in. (15 mm) dia: 4 positions
2	2 Inner dimension of the base	$\leq 24\text{-}7/8$ in. (631 mm)
3	Distance between foundation bolt holes	29 in. (729 mm)
4	Width of unit	$30\text{-}3/16$ in. (767 mm)
5	Outer dimension of the base	$\geq 30\text{-}3/16$ in. (767 mm)
6	Longitudinal foundation dimension	$48\text{-}7/8$ in. (1242 mm)
7	Distance between foundation bolt holes	$42\text{-}3/8$ in. (1076 mm)

- Fasten the unit in place using 4 foundation bolts 7/16 in. (M12). It is best to screw in the foundation bolts until their length remains 13/16 in. (20 mm) above the foundation surface.

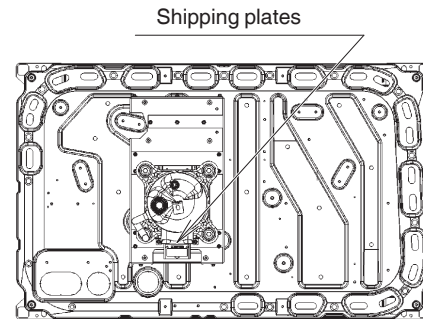


- There are restrictions on the refrigerant pipe connecting order between outdoor units in the case of the multi system. See 1.2.2. Outdoor units combinations on page 2 for detail.
- When installing on a roof, make sure the roof floor is strong enough and be sure to waterproof all work.
- Make sure the area around the machine drains properly by setting up drainage grooves around the foundation.
- Drain water is sometimes discharged from the outdoor unit when it is running.
- For anti-corrosion type, use nuts with resin washers. If the paint on nut connections comes off, the anti-corrosion effect may decrease.



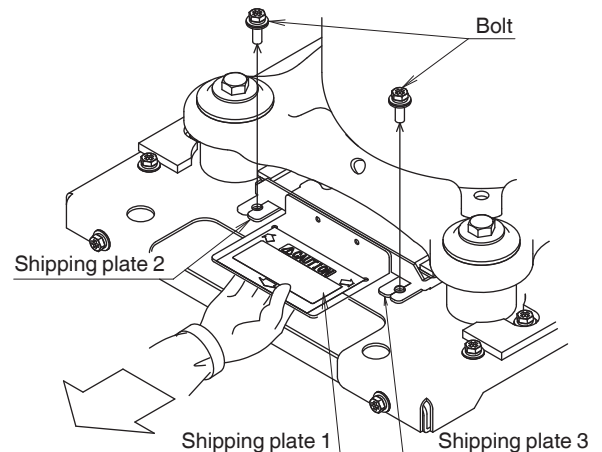
6.5. Method for removing shipping plates

The shipping plates installed over the compressor legs for protecting the unit during transport must be removed. Proceed as shown in the figure and procedure below. REYQ72-120X does not have the shipping plates.



Front
REYQ144.168X type

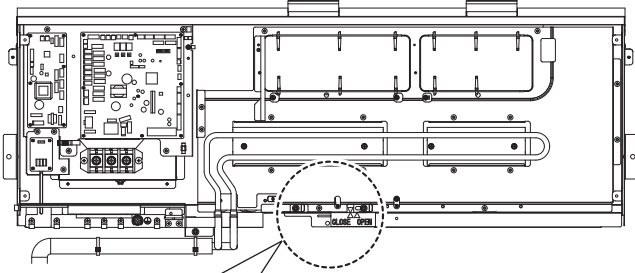
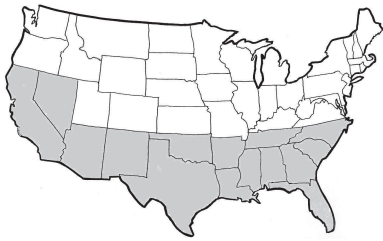
- Remove bolts (2 pcs) for fixing shipping plate.
- Remove all shipping plates (3 pcs).
- Be sure to tighten the removed bolts back again.



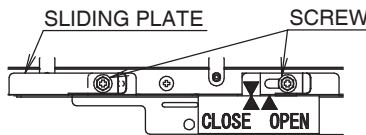
If the unit is operated with the shipping plates still attached, abnormal vibration or noise may be generated.

6.6. Method for opening the sliding plate

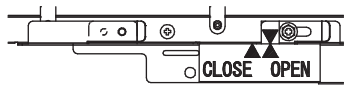
The sliding plate should be moved to the open position in the following regions to minimize temperature rise in the main control box: CA, NV, AZ, NM, OK, TX, AR, LA, MS, AL, TN, GA, NC, SC, FL and Latin America.



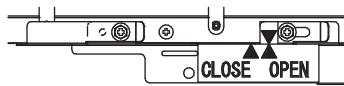
- 1 Remove the left screw (1 pc.) and loosen the right screw (1 pc.).



- 2 Move the sliding plate to the right and set the arrow to "OPEN".



- 3 Reinstall the left screw and tighten both the left and right screws.



NOTE

Failure to follow the above instructions could lead to premature component failure.

7. Refrigerant pipe size and allowable pipe length

NOTE

When the VRV outdoor unit is installed with Low-temperature hydrobox or EEV Kit For DOAS in the system, refer to those installation manuals and Engineering Data Book. Regarding the items not mentioned there refer to this manual.

7.1. General information

NOTE

The refrigerant R410A requires strict cautions for keeping the system clean, dry and tight.

- Clean and dry: foreign materials (including mineral oils or moisture) should be prevented from getting mixed into the system.
- Tight: R410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce earth's protection against harmful ultraviolet radiation. R410A can contribute slightly to the greenhouse effect if it is released. Therefore we should take special attention to check the tightness of the installation.

7.2. Selection of piping material

NOTE

Piping and other pressure containing parts shall comply with the applicable legislation and shall be suitable for refrigerant. Use phosphoric acid deoxidized seamless copper for refrigerant.

NOTE

- All field piping must be installed by a licensed refrigeration technician and must comply with relevant local and national regulations.
- After piping work is complete, do not under any circumstances open the stop valve until 9. Field wiring on page 18 and 12. Checking of device and installation conditions on page 24 are complete.
- Do not use flux when brazing the refrigerant piping. Use the phosphor copper brazing filler metal (B-Cu93P-710/795 : ISO 3677) which does not require flux. Flux has extremely negative effect on refrigerant piping systems. For instance, if the chlorine based flux is used, it will cause pipe corrosion or, in particular, if the flux contains fluorine, it will damage the refrigerant oil.

- Use only pipes which are clean inside and outside and which do not accumulate harmful sulfur, oxidants, dirt, cutting oils, moisture, or other contamination. (Foreign materials inside pipes including oils for fabrication must be 0.14 gr/10 ft. (30 mg/10 m) or less.)

- Use the following items for the refrigerant piping.

Material : Jointless phosphor-deoxidized copper pipe.

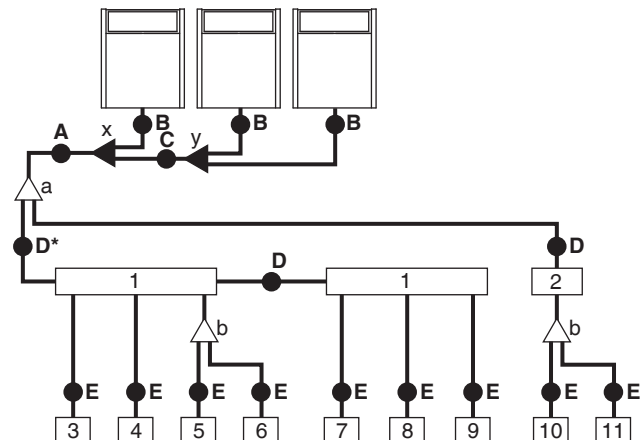
Size : See 7.3. Selection of piping size to determine the correct size.

Thickness : Select a thickness for the refrigerant piping which complies with national and local laws.

- For piping work, follow the maximum tolerated length, difference in height, and length after a branch indicated in the 7.5. System piping (length) limitations on page 11.
- Outdoor unit multi connection piping kit and refrigerant branch kit (sold separately) are needed for connection of piping between outdoor units (in case of multi system) and piping branches.
- Use only separately sold items selected specifically according to the outdoor unit multi connection piping kit, the refrigerant branch kit selection in the 7.4. Selection of refrigerant branch kits on page 10.

7.3. Selection of piping size

Determine the proper size referring to following tables and reference figure (only for indication).



1 Multi Branch Selector units

2 Single Branch Selector unit

3-11 VRV indoor units

a, b Refrigerant branch kits

x, y Outdoor unit multi connection piping kit

7.3.1. Piping between outdoor units and (first) refrigerant branch kit: A, B, C

Choose from the following table in accordance with the outdoor unit total capacity type, connected downstream.

Outdoor unit capacity type	Piping outer diameter size		
	Suction gas pipe	High/low pressure gas pipe	Liquid pipe
REYQ72X type	3/4 in. (19.1 mm)	5/8 in. (15.9 mm)	3/8 in. (9.5 mm)
REYQ96X type	7/8 in. (22.2 mm)	3/4 in. (19.1 mm)	
REYQ120X type	1-1/8 in. (28.6 mm)	7/8 in. (22.2 mm)	1/2 in. (12.7 mm)
REYQ144X type			5/8 in. (15.9 mm)
REYQ168X type			
REYQ192, 216X type	1-3/8 in. (34.9 mm)	1-1/8 in. (28.6 mm)	3/4 in. (19.1 mm)
REYQ240X type			
REYQ264-336X type	1-5/8 in. (41.3 mm)	1-3/8 in. (34.9 mm)	3/4 in. (19.1 mm)
REYQ360-456X type			

7.3.2. Piping between refrigerant branch kits, Branch Selector units, or refrigerant branch kits and Branch Selector units: D

Choose from the following table in accordance with the indoor unit total capacity, connected downstream. Do not let the connection piping exceed the refrigerant piping size chosen by the general system model name.

Indoor unit capacity index	Piping outer diameter size		
	Suction gas pipe	High/low pressure gas pipe	Liquid pipe
<54	5/8 in. (15.9 mm)	1/2 in. (12.7 mm)	3/8 in. (9.5 mm)
54 ≤ x < 72	3/4 in. (19.1 mm)	5/8 in. (15.9 mm)	
72 ≤ x < 111	7/8 in. (22.2 mm)	3/4 in. (19.1 mm)	1/2 in. (12.7 mm)
111 ≤ x < 162	1-1/8 in. (28.6 mm)		
162 ≤ x < 230		1-1/8 in. (28.6 mm)	3/4 in. (19.1 mm)
230 ≤ x < 300	1-5/8 in. (41.3 mm)		
≥300			

Example:

Downstream capacity for D* = capacity index of (unit 3 + unit 4 + unit 5 + unit 6 + unit 7 + unit 8 + unit 9)

7.3.3. Piping between refrigerant branch kits or Branch Selector units and indoor units: E

Pipe size for direct connection to indoor units must be the same as the connection size of the VRV indoor units.

Indoor unit capacity index	Piping outer diameter size	
	Gas pipe	Liquid pipe
05, 07, 09, 12, 15, 18	1/2 in. (12.7 mm)	1/4 in. (6.4 mm)
24, 30, 36, 42, 48, 54	5/8 in. (15.9 mm)	3/8 in. (9.5 mm)
72	3/4 in. (19.1 mm)	
96	7/8 in. (22.2 mm)	

7.4. Selection of refrigerant branch kits

For piping example, refer to 7.3. Selection of piping size on page 9.

- When using REFNET joints at the first branch from the outdoor units, choose from the following table in accordance with the capacity of the outdoor unit (example: REFNET joint a - see 7.3. Selection of piping size).

Outdoor unit capacity type	Kit name
REYQ72, 96X type	KHRP25A33T9 KHRP25A33TA
REYQ120-216X type	KHRP25M72TU9 KHRP25M72TUA
REYQ240-456X type	KHRP25M73TU9 KHRP25M73TUA

- For REFNET joints other than the first branch (example REFNET joint b - see 7.3. Selection of piping size), select the proper branch kit model based on the total capacity of all indoor units connected after the refrigerant branch.

Indoor unit capacity index	Kit name	
	(for 3 pipes)	(for 2 pipes)
<72	KHRP25A22T9 KHRP25A22TA	KHRP26A22T9 KHRP26A22TA
72 ≤ x < 111	KHRP25A33T9 KHRP25A33TA	KHRP26A33T9 KHRP26A33TA
111 ≤ x < 246	KHRP25M72TU9 KHRP25M72TUA	KHRP26M72TU9 KHRP26M72TUA
≥246	KHRP25M73TU9 KHRP25M73TUA	KHRP26M73TU9 KHRP26M73TUA

- Concerning REFNET headers, choose from the following table in accordance with the total capacity of all the indoor units connected after the REFNET header.

Indoor unit capacity index	Kit name	
	(for 3 pipes)	(for 2 pipes)
<72	KHRP25M33H9 KHRP25M33HA	KHRP26M22H9/ KHRP26M22HA: maximum 4 indoor units or KHRP26M33H9/ KHRP26M33HA: maximum 8 indoor units
72 ≤ x < 111		KHRP26M33H9 KHRP26M33HA
111 ≤ x < 230	KHRP25M72H9 KHRP25M72HA	KHRP26M72H9 KHRP26M72HA
≥230	KHRP25M73HU9 KHRP25M73HUA	KHRP26M73HU9 KHRP26M73HUA

INFORMATION

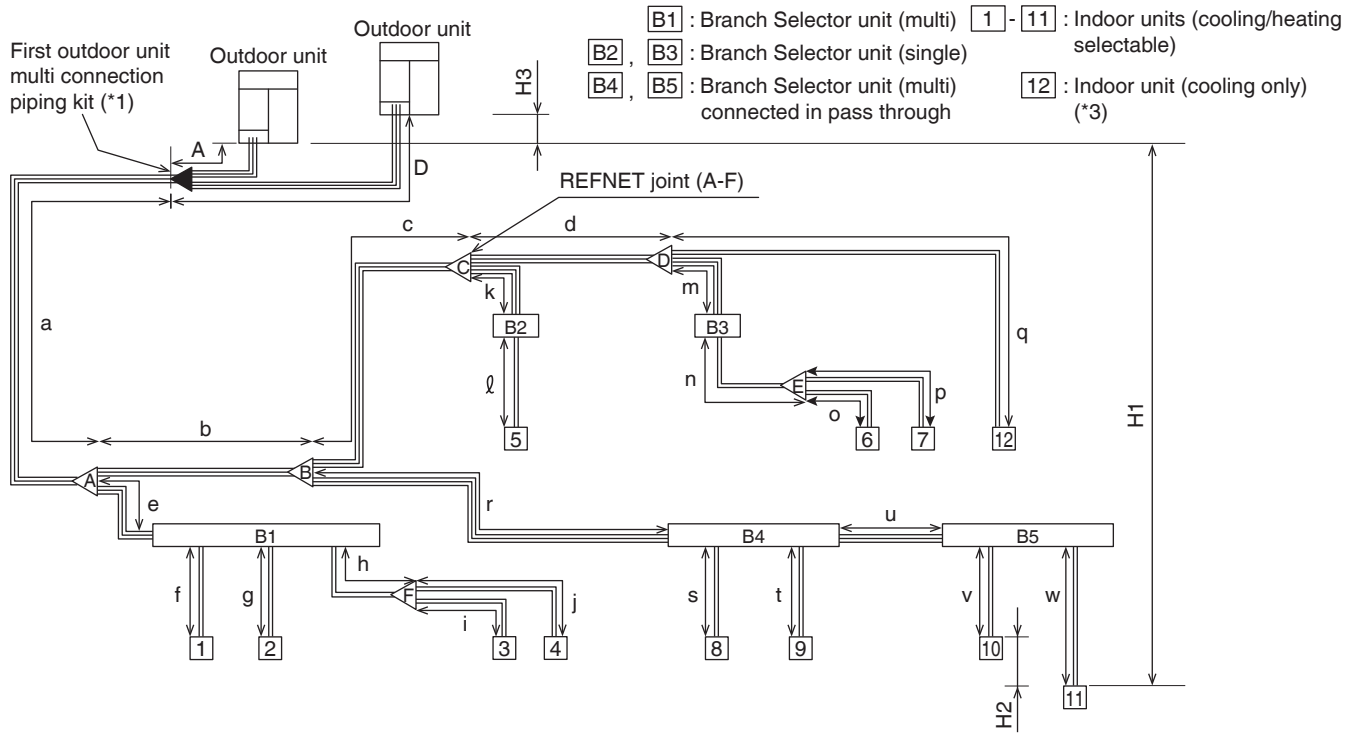
Maximum 8 branches can be connected to a header.

- How to choose an outdoor multi connection piping kit (needed if the outdoor unit capacity type is 192 or more). Choose from the following table in accordance with the number of outdoor units.

Number of outdoor units	Branch kit name
2	BHFP26P100U BHFP26P100UA
	BHFP26P151U BHFP26P151UA

7.5. System piping (length) limitations

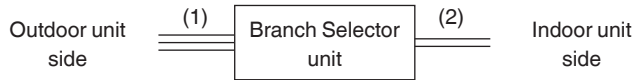
<Example of refrigerant piping (12 indoor units are connected)>



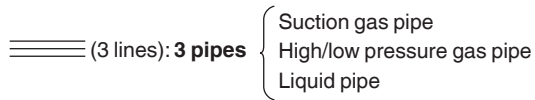
(*1) “” represents an outdoor unit multi connection piping kit.

The outdoor unit multi connection piping kit must always be installed horizontally, paying attention to the installation restrictions indicated in **8. Precautions on refrigerant piping** on page 14.

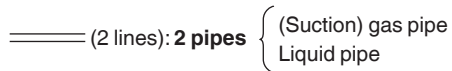
<Example of connection>



(1) Piping from outdoor units to Branch Selector units, and between Branch Selector units

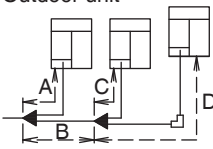


(2) Piping from Branch Selector units to the indoor units, and from refrigerant branch kits to the cooling-only indoor units (*2)



(*2) The 2-line gas pipe that is branched from the 3-line pipe and goes to the cooling-only indoor units should be connected to the suction gas pipe.

(*3) Cooling-only units should make up ≤50% of the total capacity of indoor units.

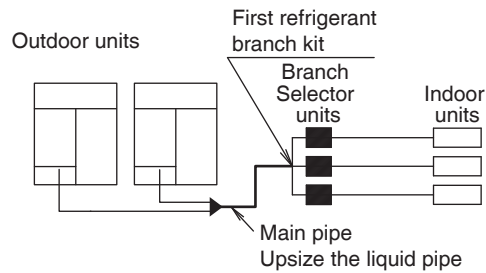
Maximum allowable length	From outdoor unit (*4) to indoor unit	Actual piping length	Actual piping length from the outdoor unit (*4) to the indoor unit: ≤540 ft. (165 m) (Example) [4]: a+e+h+j≤540 ft. (165 m), [7]: a+b+c+d+m+n+p≤540 ft. (165 m), [11]: a+b+r+u+w≤540 ft. (165 m), [12]: a+b+c+d+q≤540 ft. (165 m)																															
		Equivalent length	Equivalent piping length from the outdoor unit (*4) to the indoor unit: ≤623 ft. (190 m) (*6) (Calculate the equivalent piping length for the REFNET joint as 1.6 ft. (0.5 m), REFNET header as 3.3 ft. (1 m), BS4*6Q54T* as 19 ft. (6 m), BS8 to 12Q54T* as 33 ft. (10 m), BSQ36*60T* as 13 ft. (4 m), and BSQ96T* as 19 ft. (6 m).) For the equivalent length of BSF-Q54T*, refer to the table below based on the total capacity of the indoor units to be connected downstream. Also add 14 ft. (4.3 m) to the below length when calculating an equivalent length to each indoor unit connected to BSF-Q54T*.																															
			<table border="1"> <thead> <tr> <th rowspan="2">Total capacity of the indoor units to be connected downstream</th> <th colspan="3">Equivalent length</th> </tr> <tr> <th>BSF4Q54T*</th> <th>BSF6Q54T*</th> <th>BSF8Q54T*</th> </tr> </thead> <tbody> <tr> <td>< 54</td> <td>1 ft. (0.4 m)</td> <td>1 ft. (0.4 m)</td> <td>1 ft. (0.4 m)</td> </tr> <tr> <td>54 ≤ x < 72</td> <td>1 ft. (0.4 m)</td> <td>1 ft. (0.4 m)</td> <td>1 ft. (0.4 m)</td> </tr> <tr> <td>72 ≤ x < 111</td> <td>2 ft. (0.7 m)</td> <td>2 ft. (0.7 m)</td> <td>2 ft. (0.7 m)</td> </tr> <tr> <td>111 ≤ x < 162</td> <td>5 ft. (1.6 m)</td> <td>7 ft. (2.2 m)</td> <td>7 ft. (2.2 m)</td> </tr> <tr> <td>162 ≤ x < 230</td> <td>7 ft. (2.2 m)</td> <td>11 ft. (3.4 m)</td> <td>11 ft. (3.4 m)</td> </tr> <tr> <td>230 ≤ x ≤ 290</td> <td>14 ft. (4.3 m)</td> <td>19 ft. (5.8 m)</td> <td>19 ft. (5.8 m)</td> </tr> </tbody> </table>		Total capacity of the indoor units to be connected downstream	Equivalent length			BSF4Q54T*	BSF6Q54T*	BSF8Q54T*	< 54	1 ft. (0.4 m)	1 ft. (0.4 m)	1 ft. (0.4 m)	54 ≤ x < 72	1 ft. (0.4 m)	1 ft. (0.4 m)	1 ft. (0.4 m)	72 ≤ x < 111	2 ft. (0.7 m)	2 ft. (0.7 m)	2 ft. (0.7 m)	111 ≤ x < 162	5 ft. (1.6 m)	7 ft. (2.2 m)	7 ft. (2.2 m)	162 ≤ x < 230	7 ft. (2.2 m)	11 ft. (3.4 m)	11 ft. (3.4 m)	230 ≤ x ≤ 290	14 ft. (4.3 m)	19 ft. (5.8 m)
	Total capacity of the indoor units to be connected downstream	Equivalent length																																
BSF4Q54T*		BSF6Q54T*	BSF8Q54T*																															
< 54	1 ft. (0.4 m)	1 ft. (0.4 m)	1 ft. (0.4 m)																															
54 ≤ x < 72	1 ft. (0.4 m)	1 ft. (0.4 m)	1 ft. (0.4 m)																															
72 ≤ x < 111	2 ft. (0.7 m)	2 ft. (0.7 m)	2 ft. (0.7 m)																															
111 ≤ x < 162	5 ft. (1.6 m)	7 ft. (2.2 m)	7 ft. (2.2 m)																															
162 ≤ x < 230	7 ft. (2.2 m)	11 ft. (3.4 m)	11 ft. (3.4 m)																															
230 ≤ x ≤ 290	14 ft. (4.3 m)	19 ft. (5.8 m)	19 ft. (5.8 m)																															
Total extension	Total actual piping length from the outdoor unit (*4) to all indoor units: ≤3280 ft. (1000 m)																																	
From first outdoor unit multi connection piping kit to outdoor unit (in a multi system)	Actual piping length	Actual piping length from the first outdoor unit multi connection piping kit to the outdoor unit: ≤33 ft. (10 m)																																
	Equivalent length	Equivalent piping length from the first outdoor unit multi connection piping kit to the outdoor unit: ≤43 ft. (13 m)																																
		Outdoor unit	 <p> $A \leq 33 \text{ ft. (10 m)}$ (equivalent length ≤43 ft. (13 m)) $B+C \leq 33 \text{ ft. (10 m)}$ (equivalent length ≤43 ft. (13 m)) $B+D \leq 33 \text{ ft. (10 m)}$ (equivalent length ≤43 ft. (13 m)) </p>																															
Allowable height difference	From outdoor unit to indoor unit	Height difference	Height difference between outdoor unit and indoor unit (H1): ≤164 ft. (50 m) (if outdoor unit is lower than indoor unit, ≤130 ft. (40 m)) (*7)																															
	From indoor unit to indoor unit	Height difference	<table border="1"> <thead> <tr> <th>Actual piping length X</th> <th>Height difference between indoor units (H2)</th> </tr> </thead> <tbody> <tr> <td>X≤540 ft. (165 m)</td> <td>≤49 ft. (15 m)</td> </tr> <tr> <td>X≤390 ft. (120 m)</td> <td>≤98 ft. (30 m)</td> </tr> </tbody> </table>		Actual piping length X	Height difference between indoor units (H2)	X≤540 ft. (165 m)	≤49 ft. (15 m)	X≤390 ft. (120 m)	≤98 ft. (30 m)																								
	Actual piping length X	Height difference between indoor units (H2)																																
X≤540 ft. (165 m)	≤49 ft. (15 m)																																	
X≤390 ft. (120 m)	≤98 ft. (30 m)																																	
From outdoor unit to outdoor unit	Height difference	Height difference between outdoor units (H3): ≤16 ft. (5 m)																																
Allowable length after branch (*5)	From branch to indoor unit via 1 Branch Selector unit	Actual piping length	Actual piping length from the first REFNET joint or REFNET header to indoor unit: ≤130 ft. (40 m) (*9) (Example) [4]: e+h+j≤130 ft. (40 m), [7]: b+c+d+m+n+p≤130 ft. (40 m)																															
	From branch to indoor unit via Branch Selector units connected in pass through		Actual piping length from the first REFNET joint or REFNET header to indoor unit: ≤130 ft. (40 m) (*8) (*9) (Example) [11]: b+r+u+w≤130 ft. (40 m)																															

(*4) In the case of an outdoor units multi system, "outdoor unit" should be read as the "first outdoor unit multi connection piping kit", seen from the indoor units side.

(*5) A multi Branch Selector unit is to be considered as a branch (a single Branch Selector unit is not), so in the case where only 1 multi Branch Selector unit is included in the system, the actual piping length from each branch port of the multi Branch Selector unit to each indoor units should be ≤130 ft. (40 m).

(*6) In the case where the equivalent piping length from outdoor units to indoor units ≥295 ft. (90 m), make sure to upsize the liquid pipe of the main pipe (see the figure below), referring to the table below. (Do not upsize the high/low pressure gas pipe and the suction gas pipe.)

Outdoor unit capacity type	Liquid pipe
REYQ72, 96X type	φ3/8 in. (9.5 mm) → φ1/2 in. (12.7 mm)
REYQ120, 144X type	φ1/2 in. (12.7 mm) → φ5/8 in. (15.9 mm)
REYQ168-240X type	φ5/8 in. (15.9 mm) → φ3/4 in. (19.1 mm)
REYQ264-456X type	φ3/4 in. (19.1 mm) → φ7/8 in. (22.2 mm)



(*7) It can be extended to ≤295 ft. (90 m) with liquid piping of main pipe size up (see table size up for equivalent length from outdoor to indoor units over 295 ft. (90 m) in this page) (if outdoor unit is lower than indoor unit, ≤195 ft. (60 m) by field setting [2-35] on page 33). See [2-49]=Height difference setting on page 34.

(*8) For Branch Selector unit connected in pass through installation, all three conditions below must be satisfied.

1. Maximum capacity index of connectable indoor units for BSF6, 8Q54T* is ≤162 per Branch Selector unit.
2. Maximum capacity index of connectable indoor units under Branch Selector units connected in pass through is ≤230.
3. Total number of ports of Branch Selector units connected in pass through is ≤12.

(*9) When conditions listed in the table below are all satisfied, the allowable length restrictions after branch is ≤295 ft. (90 m). For Branch Selector unit connected in pass through installation, also (*8) must be satisfied.

Necessary conditions	Example: Only the allowable length after branch for the indoor unit [9] exceeds 130 ft. (40 m) in the figure in the lower right	
1. Upsize the liquid pipe from the first refrigerant branch kit to the final refrigerant branch kit for the indoor unit beyond 130 ft. (40 m). • If upsizing is impossible, the conditions are not satisfied. • If the upsized line would become larger than the main pipe, then the main pipe should also be upsized.	Upsize the liquid pipes b, c, d, e, f and g in the figure in the right. The upsizing specifications should be as follows: φ3/8 in. (9.5 mm) → φ1/2 in. (12.7 mm) φ1/2 in. (12.7 mm) → φ5/8 in. (15.9 mm) φ5/8 in. (15.9 mm) → φ3/4 in. (19.1 mm) φ3/4 in. (19.1 mm) → φ7/8 in. (22.2 mm)	<p>b+c+d+e+f+g+p > 130 ft. (40 m)</p> <p>From outdoor unit to the farthest indoor unit [9] From outdoor unit to the nearest indoor unit [1]</p>
2. The total piping length, calculated by doubling the piping length as upsized in 1 above, is ≤3280 ft. (1000 m). (The main pipe, and lines that are not upsized, should not be doubled.)	$a + b \times 2 + c \times 2 + d \times 2 + e \times 2 + f \times 2 + g \times 2 + h + i + j + k + l + m + n + p + q + r + s \leq 3280 \text{ ft. (1000 m)}$	
3. The actual piping length from each indoor unit to the nearest refrigerant branch kit are all ≤130 ft. (40 m).	<ul style="list-style-type: none"> • i, j, ..., p ≤ 130 ft. (40 m) • h + q + r ≤ 130 ft. (40 m) • h + q + s ≤ 130 ft. (40 m) 	
4. The difference between the actual piping length from the outdoor unit to the farthest indoor unit, and the actual piping length from the outdoor unit to the nearest indoor unit, is ≤130 ft. (40 m).	Actual piping length of [9] Actual piping length of [1] $(a + b + c + d + e + f + g + p) - (a + h + q + r) \leq 130 \text{ ft. (40 m)}$	

In the case of a multi Branch Selector unit, if a junction pipe kit (separately sold) is used for combining 2 lines, the actual piping length between the multi Branch Selector unit and the indoor units should be ≤65 ft. (20 m).

This limitation can be extended beyond 65 ft. (20 m), if all of the three conditions below are satisfied.



1. Upsize the liquid line between the joined 2 branches and the indoor unit.
2. Actual pipe length between the multi branch selector box and the indoor unit needs to be ≤130 ft. (40 m).
3. Double the pipe length of upsized line between joined 2 branches and the indoor unit, when calculating the overall total piping length.

8. Precautions on refrigerant piping

- Do not allow anything other than the designated refrigerant to get mixed into the refrigerant cycle, such as air, nitrogen, etc. If any refrigerant gas leaks while working on the unit, ventilate the room thoroughly right away.
- Use R410A only when adding refrigerant.
- Installation tools:
Make sure to use installation tools (gauge manifold, charge hose, etc.) that are exclusively used for R410A installations to withstand the pressure and to prevent foreign materials (e.g., mineral oils and moisture) from mixing into the system.
- Vacuum pump:
 - Use a 2-stage vacuum pump with a non-return valve.
 - Make sure the pump oil does not flow oppositely into the system while the pump is not working.
 - Use a vacuum pump which can evacuate to 500 microns.

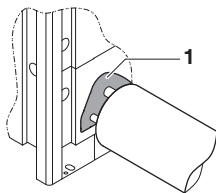
Protection against contamination when installing pipes


Take measures to prevent foreign materials like moisture and contamination from mixing into the system.

	Installation	Protection method
	More than a month	Pinch the pipe
	Less than a month	Pinch or tape pipe
	Regardless of the period	

Block all gaps in the holes for passing out piping and wiring using sealing material (field supply) (the capacity of the unit will drop and small animals may enter the machine).

Example: passing piping out through the front.



- Close the areas marked with . (When the piping is routed from the front panel.)

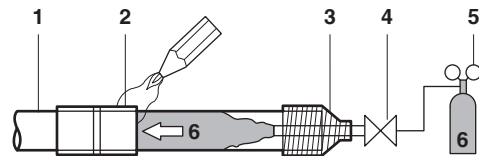
- Use clean pipes only.
- Hold the pipe end downwards when removing burrs.
- Cover the pipe end when inserting it through a wall so that no dust or dirt enters the pipe.

NOTE

- After all the piping has been connected, make sure there is no gas leak. Use Dry Nitrogen to perform a gas leak detection.
- After knocking out the holes, we recommend you remove burrs in the knock holes and paint the edges and areas around the edges using the repair paint.

8.1. Caution for brazing

- Make sure to blow through with Dry Nitrogen when brazing. Blowing through with Dry Nitrogen prevents the creation of large quantities of oxidized film on the inside of the piping. An oxidized film adversely affects valves and compressors in the refrigerating system and prevents proper operation.
- The Dry Nitrogen pressure should be set to 2.9 psi (0.02 MPa (i.e., just enough so it can be felt on the skin)) with a pressure-reducing valve.



- Refrigerant piping
- Part to be brazed
- Taping
- Hand valve
- Pressure-reducing valve
- Dry Nitrogen

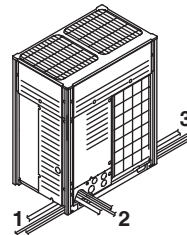
Do not use anti-oxidants when brazing the pipe joints. Residue can clog pipes and break equipment:

- Do not use flux when brazing copper-to-copper refrigerant piping. Use phosphor copper brazing filler alloy (BCuP) which does not require flux.
- Flux has an extremely harmful influence on refrigerant piping systems. For instance, if chlorine based flux is used, it will cause pipe corrosion or, in particular, if the flux contains fluorine, it will deteriorate the refrigerant oil.

8.2. Connecting the refrigerant piping

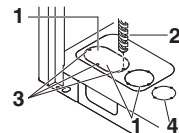
8.2.1. Decide front or side (bottom) connection

Installation of refrigerant piping is possible as front connection or side connection (when taken out from the bottom) as shown in the figure below.



- Left-side connection
- Front connection
- Right-side connection

- For side connections, the knockout hole on the bottom plate should be removed:



- Knockout hole (Piping)
- Drill
- Points for drilling
- Knockout hole (Power supply wiring)

NOTE

Precautions when knocking out knockout holes:

- Be sure to avoid damaging the casing.
- After knocking out the knockout holes, we recommend you remove the burrs and paint the edges and areas around the edges using repair paint to prevent rusting.
- When passing electrical wiring through the knock holes, protect the wiring with a conduit or bushings, making sure not to damage the wiring.

8.2.2. Remove the pinched pipes

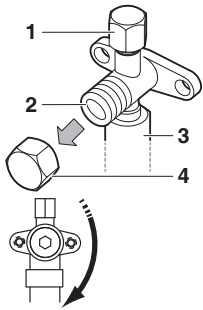
WARNING

Any gas or oil remaining inside the stop valve may blow off the pinched piping.

Failure to observe the instructions in procedure below properly may result in property damage or personal injury, which may be serious depending on the circumstances.

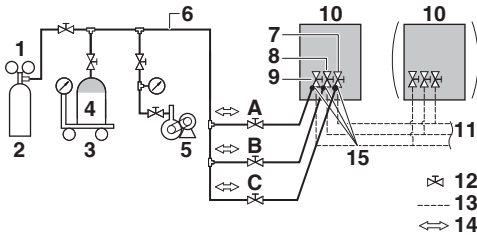
Use the following procedure to remove the pinched piping:

- 1 Remove the valve cover and make sure that the stop valves are fully closed.



- 1 Service port and service port cover
- 2 Stop valve
- 3 Field piping connection
- 4 Stop valve cover

- 2 Connect the vacuuming/recovery unit to service ports of all stop valves.



- 1 Pressure reducing valve
- 2 Nitrogen
- 3 Measuring instrument
- 4 Refrigerant R410A tank (siphon system)
- 5 Vacuum pump
- 6 Charge hose
- 7 High/low pressure gas pipe stop valve
- 8 Suction gas pipe stop valve
- 9 Liquid pipe stop valve
- 10 Outdoor unit
- 11 To Branch Selector unit (indoor unit)
- 12 Stop valve
- 13 Field piping
- 14 Gas flow
- 15 Stop valve service port
- A Valve A
- B Valve B
- C Valve C

- 3 Recover gas and oil from the pinched piping by using a recovery unit.

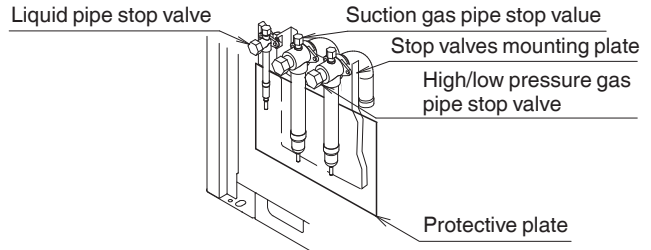
CAUTION

Do not vent gases into the atmosphere.

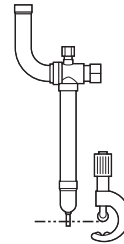
- 4 When all gas and oil is recovered from the pinched piping, disconnect the charge hose and close the service ports.

WARNING

When brazing at the proximity of the stop valves, be sure to protect the stop valves mounting plate with a protective plate to prevent from contacting with the burner flame.



- 5 Cut off the lower part of the smaller pinched piping with an appropriate tool such as pipe cutters. Let the remaining oil drip out in case the recovery was not complete.



Wait until all oil is dripped out.

- 6 Cut the pinched piping off with a pipe cutter just above the brazing point or marking if there is no brazing point.

WARNING

Never remove the pinched piping by brazing. Any gas or oil remaining inside the stop valve may blow off the pinched piping. Failure to observe the instructions in procedure below properly may result in property damage or personal injury, which may be serious depending on the circumstances.

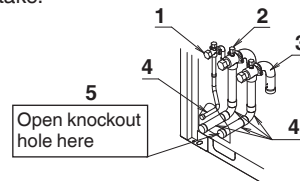
- 7 Wait until all oil is dripped out before continuing with the connection of the field piping in case the recovery was not complete.

8.2.3. Connecting refrigerant piping to the outdoor unit

- All pipings for gas and liquid over from the field connection piping kit are field supplied.

Front connection

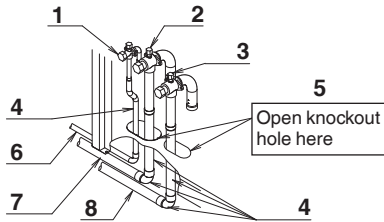
Remove the knockout hole of the piping intake and connect piping to the piping intake.



- 1 Liquid pipe stop valve
- 2 Suction gas pipe stop valve
- 3 High/low pressure gas pipe stop valve
- 4 Filed connection piping kit (accessory)
- 5 Knockout hole

Side (bottom) connection

Remove the knockout hole on the bottom frame and lead out the piping from the bottom frame.



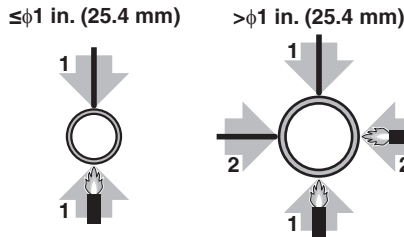
- 1 Liquid pipe stop valve
- 2 Suction gas pipe stop valve
- 3 High/low pressure gas pipe stop valve
- 4 Filed connection piping kit (accessory)
- 5 Knockout hole
- 6 Liquid side piping (field supply)
- 7 Suction gas side piping (field supply)
- 8 High/low pressure gas side piping (field supply)

INFORMATION

All local inter unit piping are field supplied except the accessory pipes.

NOTE

Precautions when connecting field piping. Add brazing material as shown in the figure.



NOTE

- Be sure to use the supplied accessory pipes when carrying out piping work in the field.
- Be sure that the field installed piping does not touch other pipes, the bottom panel or side panel. Especially for the bottom and side connection, be sure to protect the piping with suitable insulation, to prevent it from coming into contact with the casing generated.

Connection from the stop valves to the field piping can be done by using accessory pipes supplied as accessory.

NOTE

Make sure that the onsite piping does not come in contact with other piping, the bottom frame or side panels of the unit.

The connections to the branch kits are the responsibility of the installer (field piping).

8.2.4. Precautions when connecting piping between outdoor units (multiple outdoor units system)

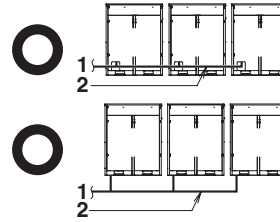
- To connect the piping between outdoor units, an optional multi connection piping kit BHFP26P100U/BHFP26P100UA and BHFP26P151U/BHFP26P151UA are always required. When installing the piping, follow the instructions in the installation manual that comes with the kit.

- Only proceed with piping work after considering the limitations on installing listed here and in the chapter 8.2. Connecting the refrigerant piping on page 14 always referring to the installation manual delivered with the kit.

8.2.5. Possible installation patterns and configurations

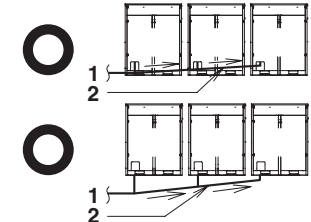
- The piping between the outdoor units must be routed level or slightly upward to avoid the risk of oil retention into the piping.

Pattern 1

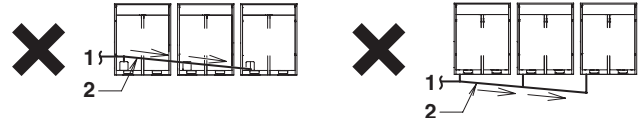


- 1 To indoor units
- 2 Piping between outdoor units

Pattern 2

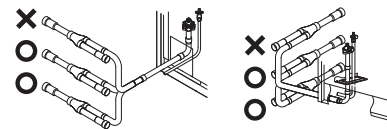


Prohibited patterns: change to pattern 1 or 2

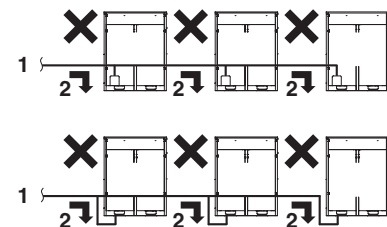


- 1 To indoor units
- 2 Piping between outdoor units

- To avoid the risk of oil retention to the outmost outdoor unit, always connect the stop valve and the piping between outdoor units as shown in the 4 correct possibilities of the figure below.

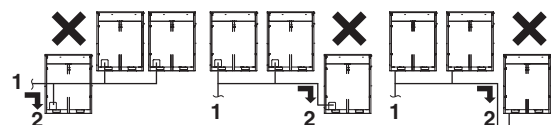


Prohibited patterns: change to pattern 1 or 2



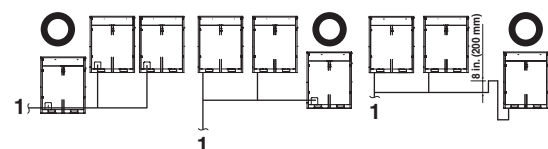
- 1 To indoor units
- 2 Oil collects to the outmost outdoor units

Change to configuration as in figure below



- 1 To indoor units
- 2 Oil collects to the outmost outdoor units

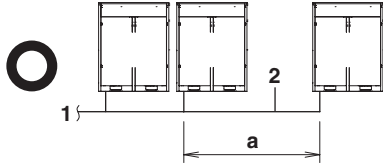
Correct configuration



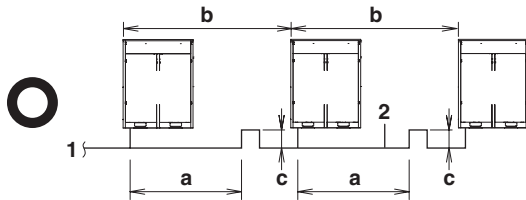
- 1 To indoor units

- If the piping length between the outdoor units exceeds 6.5 ft. (2 m), create a rise of 8 in. (200 mm) or more in the suction gas and high/low pressure gas line within a length of 6.5 ft. (2 m) from the kit.

If ≤ 6.5 ft. (2 m)



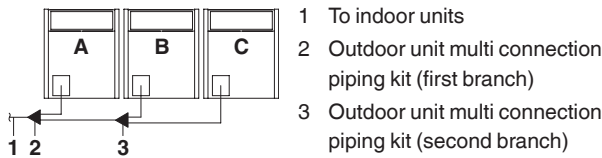
If > 6.5 ft. (2 m)



- 1 To indoor units
- 2 Piping between outdoor units
- a ≤ 6.5 ft. (2 m)
- b > 6.5 ft. (2 m)
- c ≥ 8 in. (200 mm)

NOTE

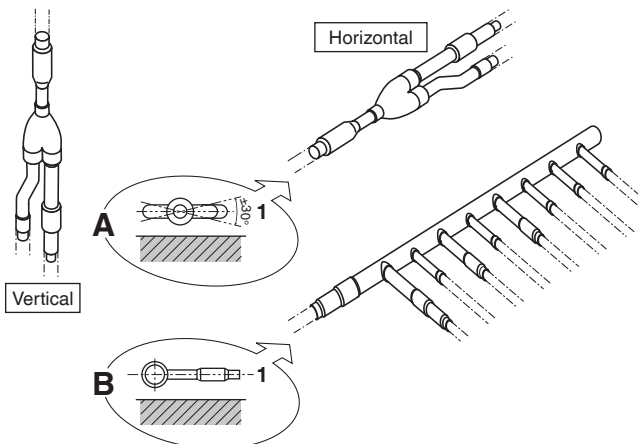
There are restrictions on the refrigerant pipe connection order between outdoor units during installation in case of a multiple outdoor unit system. Install according to following restrictions. The capacities of outdoor units A, B and C must fulfill the following restriction conditions: $A \geq B \geq C$.



- 1 To indoor units
- 2 Outdoor unit multi connection piping kit (first branch)
- 3 Outdoor unit multi connection piping kit (second branch)

8.2.6. Branching the refrigerant piping

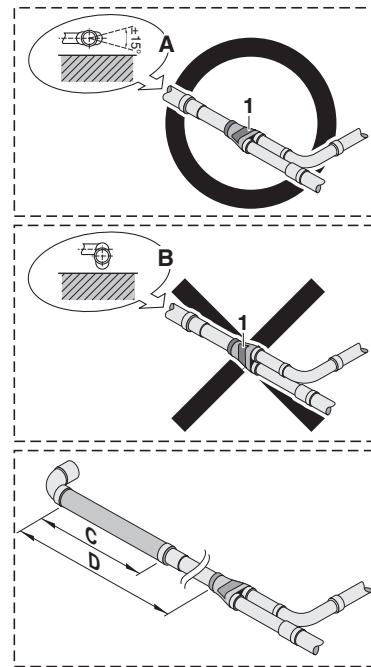
- For installation of the refrigerant branch kit, refer to the installation manual delivered with the kit.



- 1 Horizontal surface

- Mount the REFNET joint so that it branches either horizontally or vertically.
- Mount the REFNET header so that it branches horizontally.

2 Installation of the multi connection piping kit.



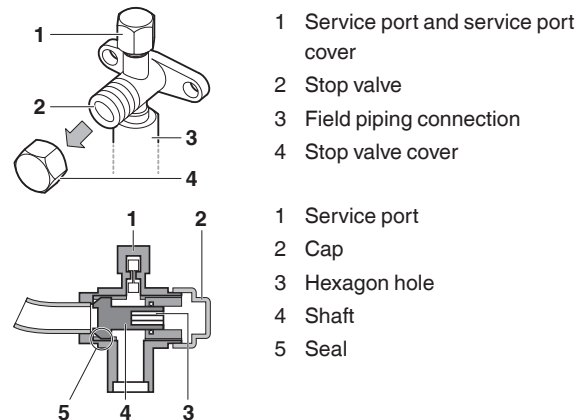
- C $> 4-3/4$ in. (120 mm)
- D $> 19-11/16$ in. (500 mm)

- Install the joints horizontally, so that the caution label (1) attached to the joint comes to the top.
 - Do not tilt the joint more than 15° (see view A).
 - Do not install the joint vertically (see view B).
- Make sure that the total length of the piping connected to the joint is absolute straight for more than 19-11/16 in. (500 mm). Only if a straight field piping of more than 4-3/4 in. (120 mm) is connected, more than 19-11/16 in. (500 mm) of straight section can be ensured.
- Improper installation may lead to malfunction of the outdoor unit.

8.3. Guidelines for handling stop valve

8.3.1. Cautions on handling the stop valve

- Make sure to keep all stop valves open during operation.
- The figure below shows the name of each part required in handling the stop valve.
- The stop valves are factory closed.
- When handle the stop valves, be careful not to damage the port pipes around (refer to P22).



- 1 Service port and service port cover
- 2 Stop valve
- 3 Field piping connection
- 4 Stop valve cover
- 1 Service port
- 2 Cap
- 3 Hexagon hole
- 4 Shaft
- 5 Seal

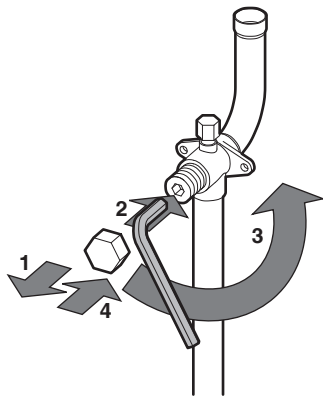
8.3.2. How to use the stop valve

Tightening torques

Stop valve size	Tightening torque (Turn clockwise to close)			Service port
	Shaft (valve body)		Cap (valve cover)	
$\phi 1/2$	5.97-7.30 ft·lbf (8.1-9.9 N·m)	Hexagonal wrench 4 mm	13.3-16.2 ft·lbf (18.0-22.0 N·m)	8.48-10.3 ft·lbf (11.5-13.9 N·m)
$\phi 3/4$	19.9-24.3 ft·lbf (27.0-33.0 N·m)	Hexagonal wrench 8 mm	16.6-20.3 ft·lbf (22.5-27.5 N·m)	
$\phi 1$		Hexagonal wrench 10 mm		
$\phi 1-1/8$				

Opening the stop valve

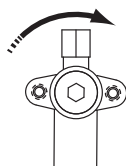
- 1 Remove the stop valve cover.
- 2 Insert a hexagon wrench into the stop valve and turn the stop valve counterclockwise.
- 3 When the stop valve cannot be turned any further, stop turning. The valve is now open.
 - Turn the stop valve ($\phi 3/8$, $\phi 1/2$) until the shaft stops. (Opening the valve with excessive force may damage it.)
 - Turn the stop valve ($\phi 3/4$ - $\phi 1-1/8$) until the shaft stops and the designated torque is achieved.
- 4 Tighten the stop valve cover securely by applying the designated torque.



Closing the stop valve

- 1 Remove the stop valve cover.
- 2 Insert a hexagon wrench into the stop valve and turn the stop valve clockwise.
- 3 Turn until the shaft stops by applying the designated torque. The valve is now closed.
- 4 Tighten the stop valve cover securely by applying the designated torque.

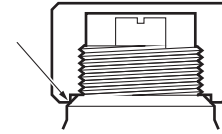
Closing direction



8.3.3. Cautions on handling the stop valve cover

- The stop valve cover is sealed where indicated by the arrow. Take care not to damage it.

- After handling the stop valve, make sure to tighten the stop valve cover securely. For the tightening torque, refer to 8.3.2. How to use the stop valve.
- Check for refrigerant leaks after tightening the stop valve cover.



8.3.4. Cautions on handling the service port

- Always use a charge hose equipped with a valve depressor pin, since the service port is a Schrader type valve.
- After handling the service port, make sure to tighten the service port cover securely. For the tightening torque, refer to 8.3.2. How to use the stop valve.
- Check for refrigerant leaks after tightening the service port cover.

9. Field wiring

NOTE

- All field wiring and components must be installed by a licensed electrician and must comply with relevant local and national regulations.
- Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.
- Never install a phase-advancing capacitor. As this unit is equipped with an inverter, installing a phase-advancing capacitor will not only deteriorate power factor improvement effect, but also may cause capacitor abnormal heating accident due to high-frequency waves.
- Only proceed with wiring work after blocking off all power.
- Always ground wires in accordance with relevant local and national regulations.
- This machine includes an inverter device. Connect ground and leave charge to eliminate the impact on other devices by reducing noise generated from the inverter device and to prevent leaked current from being charged in the outer shell of the product.
- Do not connect the ground wire to gas pipes, sewage pipes, lightning rods, or telephone ground wires.
 - Gas pipes** can explode or catch fire if there is a gas leak.
 - Sewage pipes:** no grounding effect is possible if hard plastic piping is used.
 - Telephone ground wires and lightning rods** are dangerous when struck by lightning due to abnormal rise in electrical potential in the grounding.
- This equipment can be installed with a Ground-Fault Circuit Interrupter (GFCI). Although this is a recognized measure for additional protection, with the grounding system in North America, a dedicated GFCI is not necessary.
- Electrical wiring must be done in accordance with the wiring diagrams and the description herein.
- Do not operate until refrigerant piping work is completed. Operating the unit before completing piping work could cause the compressor to break.
- Never remove a thermistor, sensor or similar parts when connecting power wiring and transmission wiring. (If operated with a thermistor, sensor or similar parts removed, the compressor may be broken down.)
- Never connect the power supply in reverse-phase.

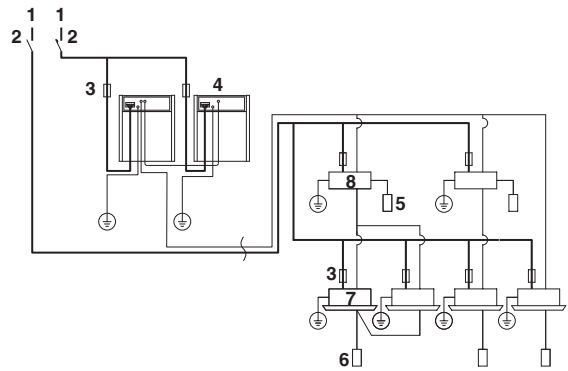
- Make sure the electrical imbalance ratio is no greater than 2%. If it is larger than this, the unit's lifespan will be reduced. If the ratio exceeds 4%, the unit will shut down and an malfunction code will be displayed on the indoor remote controller.
- Connect the wire securely using designated wire and fix it with attached clamp without applying external pressure on the terminal parts (terminal for power wiring, terminal for transmission wiring and ground terminal).
- If there exists the possibility of reverse-phase, lose phase, momentary blackout or the power goes on and off while the product is operating, attach a reverse-phase protection circuit locally. Running the product in reverse-phase may break the compressor and other parts.

9.1. Power circuit, safety device and cable requirements

- Make sure to apply the rated voltage of 208/230V, 460V or 575V for the unit.
- A power circuit (see the following table) must be provided for connection of the unit. This circuit must be protected with the required safety devices, i.e. a main switch, a slow blow fuse on each phase.
- When using residual current operated circuit breakers, be sure to use a high-speed type (0.1 seconds or less) 200 mA rated residual operating current.
- Use copper conductors only.
- Use insulated wire for the power cord.
- Select the power supply cable type and size in accordance with relevant local and national regulations.

Model name	Phase and frequency	Voltage	Minimum circuit amp.	Maximum overcurrent protective device	Transmission line selection
REYQ72XATJ*	φ3, 60Hz	208/230V	38.1	45	AWG18-16
REYQ96XATJ*	φ3, 60Hz	208/230V	38.1	45	AWG18-16
REYQ120XATJ*	φ3, 60Hz	208/230V	43.0	50	AWG18-16
REYQ144XATJ*	φ3, 60Hz	208/230V	58.3	70	AWG18-16
REYQ168XATJ*	φ3, 60Hz	208/230V	61.9	70	AWG18-16
REYQ192XATJ*	φ3, 60Hz	208/230V	38.1+38.1	45+45	AWG18-16
REYQ216XATJ*	φ3, 60Hz	208/230V	38.1+43.0	45+50	AWG18-16
REYQ240XATJ*	φ3, 60Hz	208/230V	43.0+43.0	50+50	AWG18-16
REYQ264XATJ*	φ3, 60Hz	208/230V	43.0+58.3	50+70	AWG18-16
REYQ288XATJ*	φ3, 60Hz	208/230V	58.3+58.3	70+70	AWG18-16
REYQ312XATJ*	φ3, 60Hz	208/230V	58.3+61.9	70+70	AWG18-16
REYQ336XATJ*	φ3, 60Hz	208/230V	61.9+61.9	70+70	AWG18-16
REYQ360XATJ*	φ3, 60Hz	208/230V	43.0+43.0+43.0	50+50+50	AWG18-16
REYQ384XATJ*	φ3, 60Hz	208/230V	43.0+43.0+58.3	50+50+70	AWG18-16
REYQ408XATJ*	φ3, 60Hz	208/230V	43.0+58.3+58.3	50+70+70	AWG18-16
REYQ432XATJ*	φ3, 60Hz	208/230V	58.3+58.3+58.3	70+70+70	AWG18-16
REYQ456XATJ*	φ3, 60Hz	208/230V	58.3+58.3+61.9	70+70+70	AWG18-16
REYQ72XAYD*	φ3, 60Hz	460V	18.9	25	AWG18-16
REYQ96XAYD*	φ3, 60Hz	460V	21.1	25	AWG18-16
REYQ120XAYD*	φ3, 60Hz	460V	21.1	25	AWG18-16
REYQ144XAYD*	φ3, 60Hz	460V	27.9	40	AWG18-16
REYQ168XAYD*	φ3, 60Hz	460V	31.1	40	AWG18-16
REYQ192XAYD*	φ3, 60Hz	460V	21.1+21.1	25+25	AWG18-16
REYQ216XAYD*	φ3, 60Hz	460V	21.1+21.1	25+25	AWG18-16
REYQ240XAYD*	φ3, 60Hz	460V	21.1+21.1	25+25	AWG18-16
REYQ264XAYD*	φ3, 60Hz	460V	21.1+27.9	25+40	AWG18-16
REYQ288XAYD*	φ3, 60Hz	460V	27.9+27.9	40+40	AWG18-16
REYQ312XAYD*	φ3, 60Hz	460V	27.9+31.1	40+40	AWG18-16
REYQ336XAYD*	φ3, 60Hz	460V	31.1+31.1	40+40	AWG18-16
REYQ360XAYD*	φ3, 60Hz	460V	21.1+21.1+21.1	25+25+25	AWG18-16
REYQ384XAYD*	φ3, 60Hz	460V	21.1+21.1+27.9	25+25+40	AWG18-16
REYQ408XAYD*	φ3, 60Hz	460V	21.1+27.9+27.9	25+40+40	AWG18-16
REYQ432XAYD*	φ3, 60Hz	460V	27.9+27.9+27.9	40+40+40	AWG18-16
REYQ456XAYD*	φ3, 60Hz	460V	27.9+27.9+31.1	40+40+40	AWG18-16
REYQ72XAYC*	φ3, 60Hz	575V	15.1	20	AWG18-16
REYQ96XAYC*	φ3, 60Hz	575V	16.8	20	AWG18-16
REYQ120XAYC*	φ3, 60Hz	575V	18.2	25	AWG18-16
REYQ144XAYC*	φ3, 60Hz	575V	22.3	30	AWG18-16
REYQ168XAYC*	φ3, 60Hz	575V	24.9	30	AWG18-16
REYQ192XAYC*	φ3, 60Hz	575V	16.8+16.8	20+20	AWG18-16
REYQ216XAYC*	φ3, 60Hz	575V	16.8+18.2	20+25	AWG18-16
REYQ240XAYC*	φ3, 60Hz	575V	18.2+18.2	25+25	AWG18-16
REYQ264XAYC*	φ3, 60Hz	575V	18.2+22.3	25+30	AWG18-16
REYQ288XAYC*	φ3, 60Hz	575V	22.3+22.3	30+30	AWG18-16
REYQ312XAYC*	φ3, 60Hz	575V	22.3+24.9	30+30	AWG18-16
REYQ336XAYC*	φ3, 60Hz	575V	24.9+24.9	30+30	AWG18-16
REYQ360XAYC*	φ3, 60Hz	575V	18.2+18.2+18.2	25+25+25	AWG18-16
REYQ384XAYC*	φ3, 60Hz	575V	18.2+18.2+22.3	25+25+30	AWG18-16
REYQ408XAYC*	φ3, 60Hz	575V	18.2+22.3+22.3	25+30+30	AWG18-16
REYQ432XAYC*	φ3, 60Hz	575V	22.3+22.3+22.3	30+30+30	AWG18-16

9.2. Wiring connection example for whole system



- 1 Power supply
- 2 Main switch
- 3 Fuse or circuit breaker
- 4 Outdoor unit
- 5 COOL/HEAT selector
- 6 Remote controller
- 7 Indoor unit
- 8 Branch Selector unit

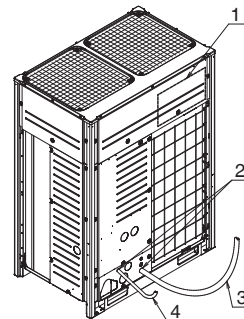
This image is intended as an example only. Please follow local and national electrical code.

NOTE

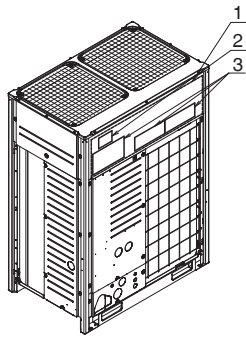
- Make sure the low voltage wiring (i.e. for the remote controller, between units) and the power wiring do not pass near each other, keeping them at least 2 in. (51 mm) apart. Proximity may cause electrical interference, malfunctions, and breakage.
- Be sure to connect the power wiring to the power wiring terminal block and secure it as described in 9.5. Power wiring connection procedure.
- Transmission wiring should be secured as described in 9.4. Transmission wiring connection procedure.
- Secure wiring with clamp such as insulation lock ties to avoid contact with piping.
- Shape the wires to prevent the structure such as the control box cover deforming. And close the cover firmly.
- All field wiring is to be procured on site.

9.3. Leading wire procedure

- The power wiring and ground wiring are passed out from the power wiring hole on the front (knock hole).
- The transmission wiring is passed out from the wiring hole (knock hole) on the front of the unit.



- 1 Wiring diagram printed on the back of the control box cover.
- 2 Knockout hole
- 3 Power line
- 4 Transmission line



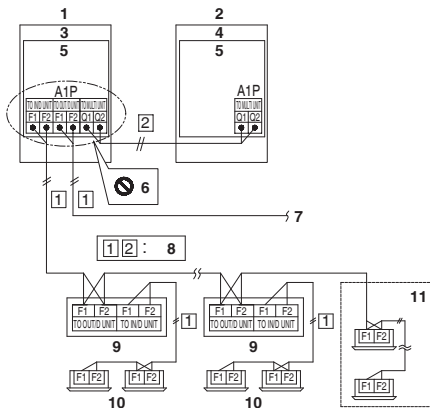
- 1 Control box cover
- 2 Inspection door
- 3 [Service precautions] Label location

NOTE

- Open the knock holes with a hammer or similar tool.
- After knocking out the holes, we recommend you remove any burrs and paint the holes with repair paint to prevent rusting. (Refer to the figure on page 19.)
- When passing wiring through the knock holes, remove burrs around the knock holes and protect the wiring with protective tape. (Refer to the figure on page 19.)
- If small animals might enter the unit, block off any gaps (hatching parts in the figure on page 19) with material (field supply).

9.4. Transmission wiring connection procedure

- Referring to the figure below, connect the transmission wiring between outdoor unit and indoor unit, outdoor unit and outdoor unit of other system, outdoor unit and outdoor unit of same system.



- 1 Master unit (*)
- 2 Sub unit (*)
- 3 Outdoor unit A
- 4 Outdoor unit B
- 5 Control box
- 6 Never connect the power wire.
- 7 To outdoor unit of other system
- 8 Use duplex wires (No polarity)
- 9 Branch Selector unit
- 10 Indoor unit
- 11 Indoor unit (Cooling only)

(*) : The outdoor unit that connect the transmission wiring to Branch Selector unit is Master unit of the multi system. And the other units are Sub unit. (In this figure, outdoor unit A is the Master unit.)
 Check operation in installation work, onsite settings and so on are done by operating the printed circuit board (A1P) of Master unit.

NOTE

- Do not connect the power wiring to terminals for the transmission wiring. Doing so would destroy the entire system.
 - Wiring to the indoor unit by way of Branch Selector unit should be wired to F1 and F2 on the outdoor unit's terminal block (A1P_X1M).
 - The above wiring should be wired using AWG18-16 stranded, non-shielded wiring.
 - All transmission wiring is to be procured onsite.
 - When connecting wires to the terminal block on the printed circuit board, too much heat or tightening could damage the printed circuit board. Attach with care.
- See the table below for the tightening torque of the transmission wiring terminals.

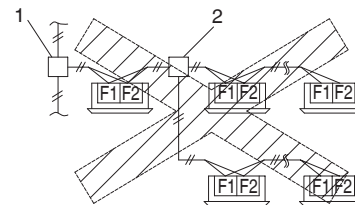
Screw size	Tightening torque
M3.5 (A1P)	0.59-0.71 ft·lbf (0.8-0.97 N·m)

- Transmission wiring (about the symbol [1]-[2], see the foregoing figure) should be done within the following limitations. If they are exceeded, transmission problems may occur.

- [1] Between outdoor unit and Branch Selector (indoor) unit
 Between outdoor unit and outdoor unit of other systems
 Max. wiring length : 3280 ft. (1000 m)
 Max. total wiring length : 6560 ft. (2000 m)
 Max. no. of branches : 16

[Note] No branch is allowed after a branch. See the following figure.

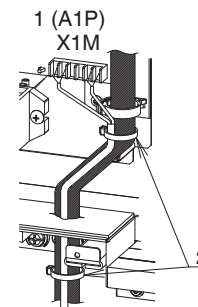
Max. no. of outdoor units of other system that can be connected : 10



- 1 Branch
 - 2 Branch after branch
- [2] Between outdoor unit and outdoor unit of same system
 Max. wiring length : 98 ft. (30 m)

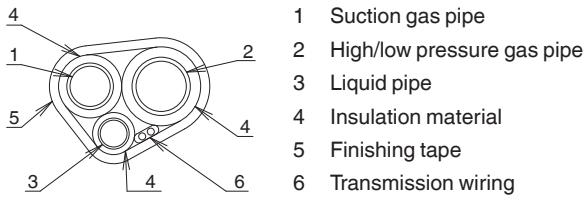
- The transmission wiring inside the control box should be secured using the clamp (1) as shown in the figure below.

REYQ72-168X type



- 1 In the control box
- 2 Clamp (1) (accessory)

- Outside the units, the transmission wiring must be finished simultaneously with the local refrigerant piping, and wound with tape (field supply) as shown in the figure below.

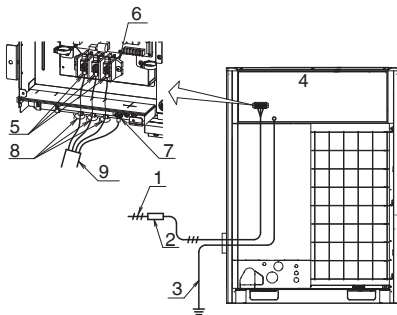


- For multi system:

- 1 Transmission wiring between outdoor units in the same piping system must be connected to terminals Q1 and Q2 (TO MULTI UNIT).
Connecting the wires to the F1, F2 (TO OUT/D UNIT) terminals results in system malfunction.
- 2 Wiring to other systems should be connected to terminals F1 and F2 (TO OUT/D UNIT) on the printed circuit board of the master unit. The outdoor unit that connects transmission wiring to indoor unit is the master unit. The others are sub unit.

9.5. Power wiring connection procedure

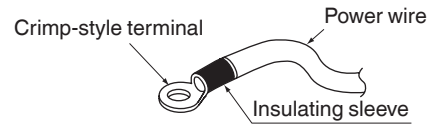
- Be sure to connect the power supply wiring to the power supply terminal block and hold it in place using the included clamp as shown in the figure below.
- The L1, L2 and L3 phases of the power wiring should be secured separately to the hook using the included clamp (1).
- The ground wiring should be bound to the power wiring using the included clamp (1) to prevent outside force from being applied to the terminal area.



- 1 Power supply
(MODEL XATJ* : 3-208/230V 60 Hz)
(MODEL XAYD* : 3-460V 60 Hz)
(MODEL XAYC* : 3-575V 60 Hz)
- 2 Branch switch, Overcurrent breaker
- 3 Ground wire
- 4 Control box
- 5 Attach insulation sleeves
- 6 Power supply terminal block
- 7 Ground terminal
- 8 Clamp (1) (accessory)
- 9 Vinyl tube (accessory)

CAUTION

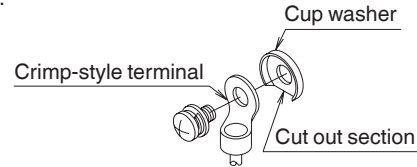
- Be sure to use crimp-style terminal with insulating sleeves for connections. (See the figure below.)



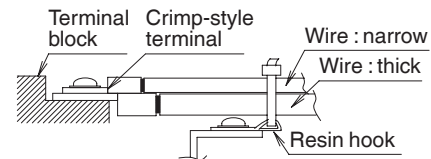
- For wiring, use the designated power wire and connect firmly, then secure to prevent outside pressure being exerted on the terminal board.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them. See the following table for the tightening torque of the terminal screws.

Screw size	Tightening torque
M8 Power terminal	4.20-5.09 ft·lbf (5.7-6.9 N·m)
M8 Ground terminal	7.15-8.63 ft·lbf (9.7-8.63 N·m)

- When pulling the ground wire out, wire it so that it comes through the cut out section of the cup washer. (See the figure below.) An improper ground connection may prevent a good ground from being achieved.

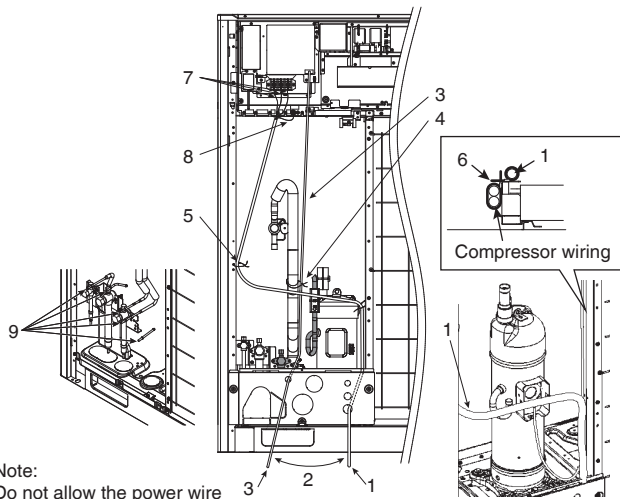


- When 2 wires are connected to a single terminal, connect them so that the rear sides of the crimp contacts face each other. Also, make sure the thinner wire is on top, securing the 2 wires simultaneously to the resin hook using the included clamp (1).



9.6. Procedure for Wiring Inside Units

- Referring to the figure below, secure and wire the power and transmission wiring using the included clamp (1), (2) and (3).
- Wire so that the ground wiring does not come into contact with the compressor lead wiring. If they touch, this may have an adverse effect on other devices.
- The transmission wiring must be at least 2 in. (51 mm) away from the power wiring.
- Route wiring so that it does not come into contact with the high-temperature pipes (indicated by the hatching in the figure below) or the port pipes (see figure below).



Note:
Do not allow the power wire to come into contact with the port pipe.

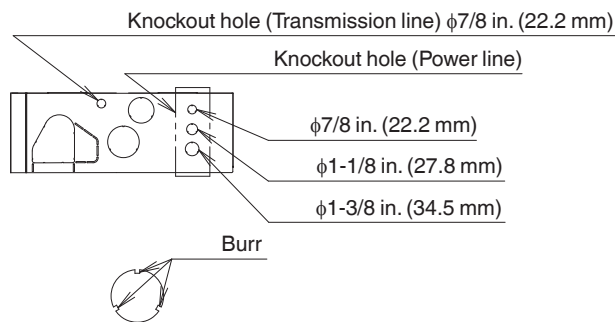
- | | | | |
|---|--------------------------|---|-----------------------|
| 1 | Power/ground wires | 6 | Clamp (3) (accessory) |
| 2 | Clear over 2 in. (50 mm) | 7 | Power wiring |
| 3 | Transmission wiring | 8 | Ground wire |
| 4 | Clamp (1) (accessory) | 9 | Port pipes |
| 5 | Clamp (2) (accessory) | | |

NOTE

Do not touch the port pipes during wiring work. Damages of pipes may cause refrigerant leak.

Precautions when knocking out knockout holes

- To punch out a knockout hole, hit it with a hammer.
 - Open an appropriate hole as needed.
 - After knocking out the holes, trim off the burr, then we recommend you to paint the edges and areas around the edges using the repair paint to prevent rusting.
 - Power line: Open a knockout hole as shown at right and connect it using a conduit.
- Choose an appropriate knockout hole for conduit size suitable for the power and ground line to be used.
- Transmission line: Connect it using a conduit in the knockout hole on the left.



NOTE

After wiring work is completed, check to make sure there are no loose connections among the electrical parts in the control box.

10. Air tight test and vacuum drying

- After finished piping work, carry out air tight test and vacuum drying.

NOTE

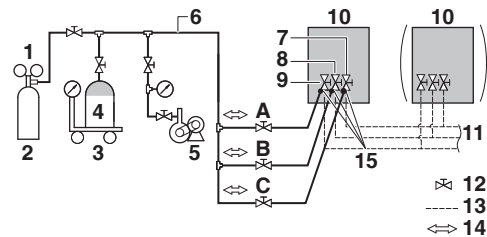
- Always use nitrogen gas for the air tightness test.
- Absolutely do not open the stop valve until the main power circuit insulation measurement has been completed. (Measuring after the stop valve is opened will cause the insulation value to drop.)

<Needed tools>

Gauge manifold Charge hose valve	<ul style="list-style-type: none"> To prevent entry of any impurities and insure sufficient pressure resistance, always use the special tools dedicated for R410A. Use charge hose that have pushing stick for connecting to service port of stop valves.
Vacuum pump	<ul style="list-style-type: none"> The vacuum pump for vacuum drying should be able to lower the pressure to 500 microns. Take care the pump oil never flow backward into the refrigerant pipe during the pump stops.

<The system for airtight test and vacuum drying>

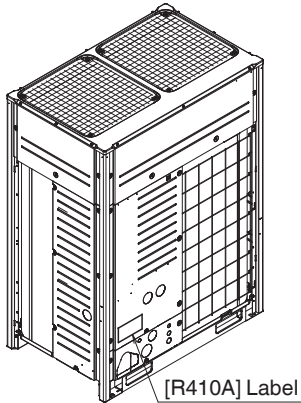
- Referring to the figure below, connect a nitrogen tank, refrigerant tank, and a vacuum pump to the outdoor unit.
- The refrigerant tank and the charge hose connection to service port of all valves in the figure below are needed in 14. Charging refrigerant on page 26.



- 1 Pressure reducing valve
- 2 Nitrogen
- 3 Measuring instrument
- 4 Refrigerant R410A tank (siphon system)
- 5 Vacuum pump
- 6 Charge hose
- 7 High/low pressure gas pipe stop valve
- 8 Suction gas pipe stop valve
- 9 Liquid pipe stop valve
- 10 Outdoor unit
- 11 To Branch Selector unit (indoor unit)
- 12 Stop valve
- 13 Field piping
- 14 Gas flow
- 15 Stop valve service port
- A Valve A
- B Valve B
- C Valve C

NOTE

- The air-tightness test and vacuum drying should be done using the service ports of suction gas pipe, high/low pressure gas pipe and liquid pipe stop valve. See the [R410A] Label attached to the front panel of the outdoor unit for details on the location of the service port (see the figure below).



- See 14.3. Method for adding refrigerant on page 28 for details on handling the stop valve.
- The refrigerant charge port is connected to unit pipe. When shipped, the unit contains the refrigerant, so use caution when attaching the charge hose.

<Air tight test>

Pressurize the suction gas pipe, high/low pressure gas pipe and liquid pipe from the service ports of each stop valve to 550 psi (3.8 MPa) (do not pressurize more than 550 psi (3.8 MPa)). If the pressure does not drop within 24 hours, the system passes the test. If there is a pressure drop, check for leaks, make repairs and perform the air tight test again.

<Vacuum drying>

Evacuate the system from the suction gas pipe, high/low pressure gas pipe and liquid pipe stop valve service ports by using a vacuum pump for more than 2 hours and bring the system to 500 microns or less. After keeping the system under that condition for more than 1 hour, check if the vacuum gauge rises or not. If it rises, the system may either contain moisture inside or have leaks.

NOTE

During the rainy season, moisture might enter the piping. If working during a rainy season and the work takes long enough for condensation to form inside the pipes, take the following precautions:

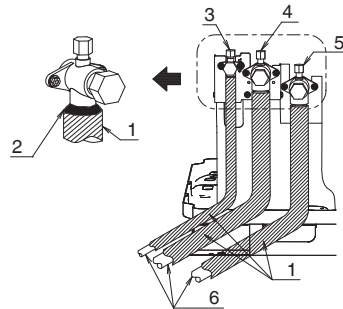
After evacuating the system for 2 hours, pressurize the system to 375,000 microns (vacuum break) with nitrogen gas and evacuate the system again using the vacuum pump for 1 hour to 500 microns or less (vacuum drying). If the system cannot be evacuated to 500 microns within 2 hours, repeat the operation of vacuum break and vacuum drying. Then, after leaving the system in a vacuum for 1 hour, confirm that the vacuum gauge does not rise.

11. Pipe insulation

NOTE

Pipe insulation thickness provided below are guidelines only. Pipes must be insulated with the appropriate thickness of insulation per applicable local/state or national codes.

- Insulation of pipes should be done after performing 10. Air tight test and vacuum drying on page 22.
- Always insulate the suction gas pipe, high/low pressure gas pipe, liquid pipe and pipe connections.
- Failing to insulate the pipes may cause leaking or burns. Be sure to use insulation designed for HVAC equipment.
- Reinforce the insulation on the refrigerant piping according to the installation environment. Condensation might form on the surface of the insulation. Refer to the below.
 - Ambient temperature : 86°F (30°C), humidity : 75% to 80% RH : minimum thickness : 9/16 in. (15 mm).
 - If the ambient temperature exceeds 86°F (30°C) and the humidity 80% RH, then the minimum thickness is 3/4 in. (20 mm). See the Engineering Data Book for detail.
- If there is a possibility that condensation on the stop valve might drip down into the indoor unit through gaps in the insulation and piping because the outdoor unit is located higher than the indoor unit, this must be prevented by caulking the connections. (Refer to the following figure.)



12. Checking of device and installation conditions

Be sure to check the followings.

For those doing electrical work

- 1 Make sure there is no faulty transmission wiring or loosening of a nut.
See 9.4. Transmission wiring connection procedure on page 20.
- 2 Make sure there is no faulty power wiring or loosening of a nut.
See 9.5. Power wiring connection procedure on page 21.
- 3 Has the insulation of the main power circuit deteriorated?
Measure the insulation and check the insulation is above regular value in accordance with relevant local and national regulations.

For those doing pipe work

- 1 Make sure piping size is correct.
See 7.2. Selection of piping material on page 9 and 7.4. Selection of refrigerant branch kits on page 10.
- 2 Make sure insulation work is done.
See 11. Pipe insulation.
- 3 Make sure there is no faulty refrigerant piping.
See 8. Precautions on refrigerant piping on page 14.

13. Making field settings

To continue the configuration of the outdoor units, it is required to give some input to the printed circuit board of the unit. This chapter will describe how manual input is possible by operating the push buttons/DIP switches on the printed circuit board and reading the feedback from the 7 segment displays.

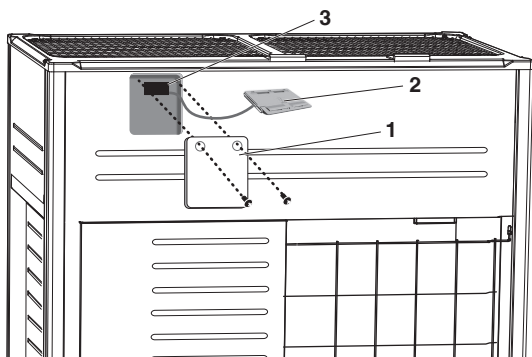
For VRV REYQ-X series it is alternatively possible to make several commissioning field settings through a personal computer interface (for this, option 999482P3 is required). The installer can prepare the configuration (off-site) on PC and afterwards upload the configuration to the system. How to connect the cable is described in 13.3. Connecting the PC configurator to the outdoor unit on page 26.

The contents of the actual settings is discussed and explained in 15.2. Monitoring function and field settings on page 31.

13.1. Accessing the push buttons on the printed circuit board

It is not required to open the complete control box to access the push buttons on the printed circuit board and read out the 7 segment display (s).

To access you can remove the service window cover (see figure). Now you can open the inspection door of the control box cover (see figure). You can see 3 push buttons and 3 seven-segment displays and DIP switches.

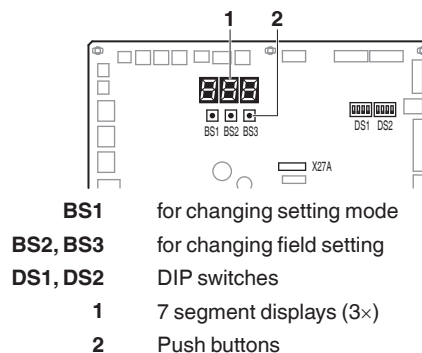


- 1 Service window cover
- 2 Inspection door
- 3 Main printed circuit board with 3 seven-segment display and 3 push buttons

Operate the switches and push buttons with an insulated stick (such as a closed ballpoint pen) to avoid touching of live parts.



Location of the segment displays, buttons and DIP switches:



Segment display indications:



13.2. Operating the push buttons and DIP switches on the printed circuit board

13.2.1. Operating the push buttons

By operating the push buttons it is possible to:

- Perform special actions (test run, etc).
- Perform field settings (demand operation, low noise, etc).

Below procedure explains how to operate the push buttons to reach the required mode in the menu, select the correct setting and modify the value of the setting. This procedure can be used any time special settings and regular field setting are discussed in this manual (see 15.2. Monitoring function and field settings on page 31).

Setting definition: [A-B]=C; A=mode; B=setting; C=setting value. A, B and C are numerical values for field settings. Parameter C has to be defined. It can be a chosen from a set (0, 1, 2, 3, 4, 5, ...) or regarded as an ON/OFF (1 or 0) depending on the contents. This is informed when the field setting is explained (see 15.2. Monitoring function and field settings on page 31).

I INFORMATION

During special operation (e.g., test run, etc.) or when a malfunction happened, information will contain letters and numerical values.

Functions of the push button switches which are located on the main printed circuit board (A1P)

Turn on the power supply of the outdoor unit and all indoor units. When the communication between indoor units and outdoor unit (s) is established and normal, the segment indication state will be as follows (default situation when shipped from factory):

When turning on the power supply, the display flashes on and off. First checks of the power supply are executed (1-2 minutes).



When no trouble occurs: lighted as indicated (8-10 minutes).



Ready for operation: blank display indication as indicated.



When above situation cannot be confirmed after 12 minutes, the malfunction code can be checked on the indoor unit user interface and the outdoor unit segment display. Solve the malfunction code accordingly. The communication wiring should be checked at first.



INFORMATION

Be sure to turn the power on at least 6 hours before operation in order to have power running to the crank case heater.

Accessing modes

BS1 is used to change the mode you want to access.

- Access mode 1

Push BS1 one time. Segment indication changes to:



- Access mode 2

Push BS1 for at least 5 seconds. Segment indication changes to:



INFORMATION

If you get confused in the middle of the process, push BS1. Then it returns to idle situation (no indication on segment displays: blank, refer to Functions of the push button switches which are located on the main printed circuit board (A1P) on page 24).

Mode 1

Mode 1 is used to set basic settings and to monitor the status of the unit (15.2. Monitoring function and field settings on page 31).

- Changing and access the setting in mode 1:
Once mode 1 is selected (push BS1 one time), you can select the wanted setting. It is done by pushing BS2. Accessing the selected setting's value is done by pushing BS3 one time.
- To quit and return to the initial status, press BS1.

Example:

Checking the content of parameter [1-10] (to know how many indoor units are connected to the system).

[A-B]=C in this case defined as: A=1; B=10; C=the value we want to know/monitor:

- Make sure the segment indication is displayed in operational default mode as shipped from factory.
- Push BS1 one time; result segment display:



Result: mode 1 is accessed.

- Push BS2 10 times; result segment display:



Result: mode 1 setting 10 is addressed.

- Push BS3 one time; the value which is returned (depending on the actual field situation), is the amount of indoor units which are connected to the system.
Result: mode 1 setting 10 is addressed and selected, return value is monitored information.
- To leave the monitoring function, push BS1 one time, you will return to the default situation when shipped from factory.

Mode 2

Mode 2 is used to set field settings of the outdoor unit and system.

- Changing and access the setting in mode 2:
Once mode 2 is selected (push BS1 for more than 5 seconds), you can select the wanted setting. It is done by pushing BS2. Accessing the selected setting's value is done by pushing BS3 one time.
- To quit and return to the initial status, press BS1.
- Changing the value of the selected setting in mode 2:
 - Once mode 2 is selected (push BS1 for more than 5 seconds) you can select the wanted setting. It is done by pushing BS2.
 - Accessing the selected setting's value is done by pushing BS3 one time.
 - Now BS2 is used to select the required value of the selected setting.
 - When the required value is selected, you can define the change of value by pushing BS3 one time.
 - Press BS3 again to start operation according to the chosen value.

Example:

Checking the content of parameter [2-18] (to define the high static pressure setting of the outdoor unit's fan).

[A-B]=C in this case defined as: A=2; B=10; C=the value we want to know/change

Make sure the segment indication is as during normal operation (default situation when shipped from factory).

- Push BS1 for over 5 seconds; result segment display:



Result: mode 2 is accessed.

- Push BS2 18 times; result segment display:



Result: mode 2 setting 18 is addressed.

- Push BS3 one time; the value which is returned (depending on the actual field situation), is the status of the setting. In the case of [2-18], default value is 0, which means the function is not active.
Result: mode 2 setting 18 is addressed and selected, return value is the current setting situation.
- To change the value of the setting, push BS2 till the required value appears on the segment indication. When achieved, define the setting value by pushing BS3 one time. To start operation according to the chosen setting, confirm again by pushing BS3.
- To leave the monitoring function, push BS1 two times, you will return to the default situation when shipped from factory.

13.2.2. Operating the DIP switches

By operating the DIP switches it is possible to:

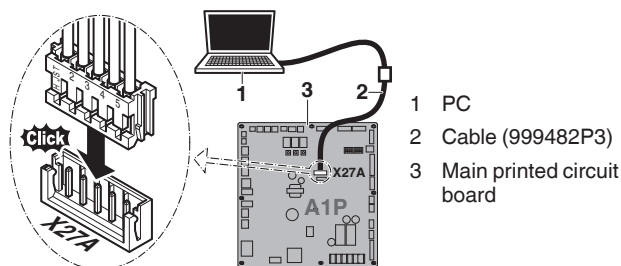
What to do with DIP switch DS1	
1	Cool/Heat selector (refer to the manual of the Cool/Heat selector switch) OFF=not installed=factory setting
2-4	NOT USED DO NOT CHANGE THE FACTORY SETTING
What to do with DIP switch DS2	
1-4	NOT USED DO NOT CHANGE THE FACTORY SETTING

13.3. Connecting the PC configurator to the outdoor unit

Connection of the optional PC configurator cable to the outdoor unit has to be done on A1P. Connect the 999482P3 cable to the 5-pin blue connector X27A.

CAUTION

Works executed on the outdoor unit are best done under dry weather conditions to avoid water ingress.



14. Charging refrigerant

14.1. Precautions

NOTE

- Refrigerant cannot be charged until field wiring has been completed.
- Refrigerant may only be charged after performing the leak test and the vacuum drying.
- When charging a system, care shall be taken that its maximum permissible charge is never exceeded, in view of the danger of liquid hammer.
- Charging a system with an unsuitable substance as refrigerant may cause explosions and accidents, so always ensure that the appropriate refrigerant R410A is charged.
- Refrigerant containers shall be opened slowly.
- Always use protective gloves and protect your eyes when charging refrigerant.
- When the refrigerant system is to be opened, refrigerant must be treated according to the applicable legislation.
- Additional refrigerant charge calculation parameters are required when installing the outdoor unit connected to EEV Kit For DOAS units. Refer to the EEV Kit For DOAS installation manual for the refrigerant charge calculation procedures.

DANGER

See Safety considerations on page i.

- To avoid compressor breakdown, do not charge the refrigerant more than the specified amount.
- This outdoor unit is factory charged with refrigerant and depending on pipe sizes and pipe lengths systems require additional charging of refrigerant. See 14.2. Calculating the additional refrigerant charge.

ing of refrigerant. See 14.2. Calculating the additional refrigerant charge.

- In case recharge is required, refer to the nameplate of the unit. It states the type of refrigerant and necessary amount.

14.2. Calculating the additional refrigerant charge

NOTE

The refrigerant charge of the system must be less than 210 lbs. (100 kg). This means that in case the calculated total refrigerant charge is equal to or more than 209 lbs. (95 kg) you must divide your multiple outdoor system into smaller independent systems, each containing less than 209 lbs. (95 kg) refrigerant charge. For factory charge, refer to the unit nameplate.

14.2.1. How to calculate the additional refrigerant to be charged

Additional refrigerant to be charged=R (lbs.). R should be rounded off in units of 0.1 lbs.

$$R=[(X_1 \times \phi 7/8) \times 0.249 + (X_2 \times \phi 3/4) \times 0.175 + (X_3 \times \phi 5/8) \times 0.121 + (X_4 \times \phi 1/2) \times 0.081 + (X_5 \times \phi 3/8) \times 0.040 + (X_6 \times \phi 1/4) \times 0.015] \times 1.04 + [A] + [B] + [C]$$

X1...6 = Total length (ft. (m)) of liquid piping size at ϕa

* In units of 0.1 kg, additional refrigerant to be charged=R (kg).

$$R=[(X_1 \times \phi 22.2) \times 0.37 + (X_2 \times \phi 19.1) \times 0.26 + (X_3 \times \phi 15.9) \times 0.18 + (X_4 \times \phi 12.7) \times 0.12 + (X_5 \times \phi 9.5) \times 0.059 + (X_6 \times \phi 6.4) \times 0.022] \times 1.04 + [A] + [B] + [C]$$

Parameter [A] Refrigerant amount for Branch Selector units	
Branch Selector unit model	Refrigerant amount
BS4Q54T*	0.7 lbs./unit (0.3 kg/unit)
BS6Q54T*	0.9 lbs./unit (0.4 kg/unit)
BS8Q54T*	1.1 lbs./unit (0.5 kg/unit)
BS10Q54T*	1.5 lbs./unit (0.7 kg/unit)
BS12Q54T*	1.8 lbs./unit (0.8 kg/unit)
BSF4Q54T*	1.4 lbs./unit (0.65 kg/unit)
BSF6Q54T*	1.9 lbs./unit (0.85 kg/unit)
BSF8Q54T*	2.2 lbs./unit (1.0 kg/unit)
BSQ36T*	0.1 lbs./unit (0.05 kg/unit)
BSQ60T*	0.2 lbs./unit (0.1 kg/unit)
BSQ96T*	0.4 lbs./unit (0.2 kg/unit)

Parameter [B]	
Outdoor unit	Refrigerant amount
REYQ72X*	9.7 lbs./unit (4.4 kg/unit)
REYQ96X*	8.2 lbs./unit (3.7 kg/unit)
REYQ120X*	8.6 lbs./unit (3.9 kg/unit)
REYQ144X*	9.0 lbs./unit (4.1 kg/unit)
REYQ168X*	9.5 lbs./unit (4.3 kg/unit)

Parameter [C]				
Refrigerant amount by field piping length and indoor units capacity				
Field piping length	Total indoor unit capacity connection ratio	Refrigerant amount		
		Total outdoor unit capacity type		
		REYQ72-144X	REYQ168-288X	REYQ312-456X
<295.3 ft. (90 m)	≤85%	0.0 lbs. (0.0 kg)		
	>85%	The smaller of [D] or 5.51 lbs. (2.5 kg)	The smaller of [D] or 6.61 lbs. (3.0 kg)	The smaller of [D] or 7.50 lbs. (3.4 kg)
≥295.3 ft. (90 m)	≤85%	0.0 lbs. (0.0 kg)		
	>85%	2.20 lbs. (1.0 kg)		

i INFORMATION

Piping length is considered by the distance from the outdoor unit to the farthest indoor unit.

Parameter [D]										
Indoor unit capacity type	FXMQ type									
	07	09	12	15	18	24	30	36	48	54
Refrigerant amount (lbs. (kg)/unit)	0.06 (0.03)	0.03 (0.014)	0.14 (0.06)	0.29 (0.13)	0.25 (0.11)	0.16 (0.07)	0.33 (0.15)	0.25 (0.11)	0.08 (0.04)	0.00 (0.00)
Indoor unit capacity type	FXFQ type									Others
	07	09	12	15	18	24	30	36	48	
Refrigerant amount (lbs. (kg)/unit)	0.36 (0.16)	0.33 (0.15)	0.30 (0.14)	0.26 (0.12)	0.61 (0.28)	0.53 (0.24)	0.61 (0.28)	0.53 (0.24)	0.36 (0.16)	0.00 (0.00)

Example for refrigerant branch using REFNET joint and REFNET header for systems and each pipe length is shown below. (Example 7.5. System piping (length) limitations on page 11.)

Outdoor system: REYQ240XAYC* (REYQ120XAYC*+REYQ120XAYC*)

Branch Selector units

BSQ454T* × 1, BSQ60T* × 1, BSQ96T* × 1, BSF4Q54T* × 2

Indoor units

FXMQ type: 12 × 2, 15 × 2, 18 × 5

FXFQ type: 36 × 2

Other: 48 × 1

Liquid piping

a: φ3/4 × 60 ft.	f: φ1/4 × 5 ft.	k: φ3/8 × 10 ft.	p: φ3/8 × 15 ft.	u: φ3/8 × 10 ft.
b: φ3/4 × 10 ft.	g: φ1/4 × 5 ft.	ℓ: φ3/8 × 10 ft.	q: φ1/4 × 10 ft.	v: φ1/4 × 5 ft.
c: φ5/8 × 10 ft.	h: φ3/8 × 5 ft.	m: φ3/8 × 15 ft.	r: φ3/8 × 10 ft.	w: φ1/4 × 5 ft.
d: φ1/2 × 10 ft.	i: φ1/4 × 5 ft.	n: φ3/8 × 15 ft.	s: φ1/4 × 10 ft.	A: φ1/2 × 10 ft.
e: φ3/8 × 10 ft.	j: φ1/4 × 5 ft.	o: φ3/8 × 15 ft.	t: φ1/4 × 5 ft.	D: φ1/2 × 15 ft.

Total length of liquid piping: 285 ft.

Total capacity of indoor unit: 110.0%

$$[D] = \boxed{0.14 \times 2} + \boxed{0.29 \times 2} + \boxed{0.25 \times 5} + \boxed{0.53 \times 2} + \boxed{0.00 \times 1} = 3.17 \text{ lbs.}$$

↑ ↑ ↑ ↑ ↑
 FXMQ12×2 FXMQ15×2 FXMQ18×5 FXFQ36×2 Others48×1

[C]: The smaller of [D] or 6.61 lbs. = 3.17 lbs.

$$R = \boxed{70 \times 0.175} + \boxed{10 \times 0.121} + \boxed{35 \times 0.081} + \boxed{115 \times 0.040} + \boxed{55 \times 0.015} \times 1.04 + \boxed{4.1} + \boxed{17.2} + \boxed{3.17}$$

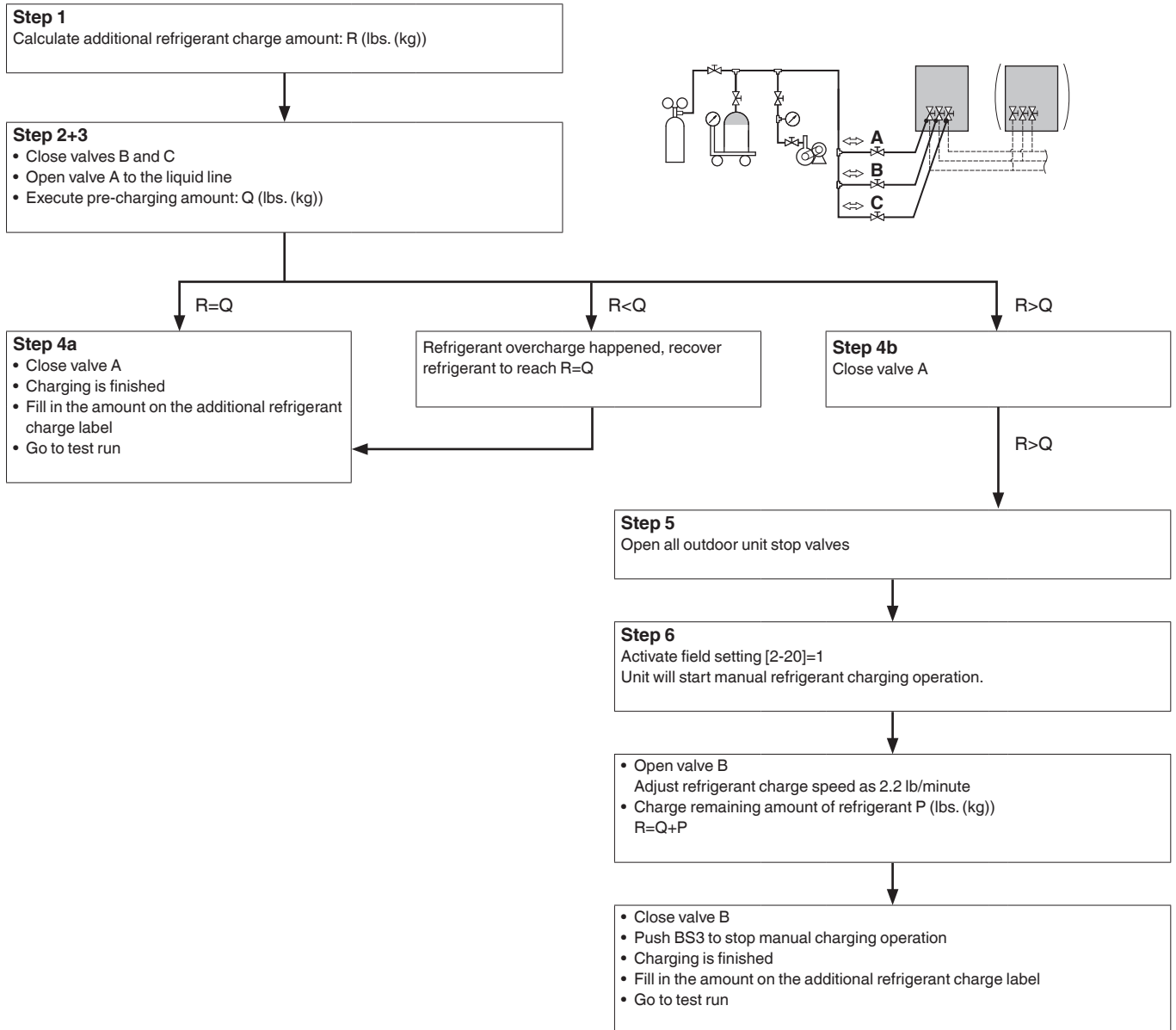
↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
 a, b c d, A, D e, h, k, ℓ, m, n, o, p, r, u f, g, i, j, q, s, t, v, w [A] [B] [C]

$$= 47.058 \Rightarrow \boxed{47.1 \text{ lbs.}}$$

Round off in units of 0.1 lbs.

14.3. Method for adding refrigerant

14.3.1. Flow chart

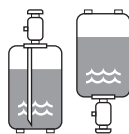


See figure location of valves next page for more information refer to the text in this chapter.

Be sure to charge the specified amount of refrigerant in liquid state. Since this refrigerant is a mixed refrigerant, adding it in gas form may cause the refrigerant composition to change, preventing normal operation.

- Before charging, check whether the refrigerant cylinder is equipped with a siphon tube or not.

If a siphon tube is equipped, change the liquid refrigerant with the cylinder in upright position.



If a siphon tube is not equipped, change the liquid refrigerant with the cylinder in upside-down position.

- Be sure to use tools exclusively for R410A to ensure required pressure resistance and to prevent foreign materials from mixing into the system.

NOTE

- Charging with an unsuitable substance may cause explosions and accidents, so always make sure that the appropriate refrigerant (R410A) is charged.
- Refrigerant containers must be opened slowly.

CAUTION

- When charging a system, charging over the permissible quantity may cause liquid hammer.
- Always use protective gloves and protect your eyes when charging refrigerant.
- When the refrigerant charging procedure is done or when pausing, close the valve of the refrigerant tank immediately. If the tank is left with the valve open, the amount of refrigerant which was properly charged may get off point. More refrigerant may be charged by any remaining pressure after the unit has stopped.

NOTE

- If the power of some units is turned off, the charging procedure cannot be finished properly.
- In case of a multiple outdoor system, turn on the power of all outdoor units.
- Make sure to turn ON the power 6 hours before starting the operation. This is necessary to warm the crankcase by the electric heater.
- If operation is performed within 12 minutes after the indoor and outdoor units are turned on, the compressor will not operate before the communication is established in a correct way between outdoor unit(s) and indoor units.
- Before starting charging procedures, check if the segment display indication of the main printed circuit board (A1P) is as normal (see functions of the push button switches which are located on the main printed circuit board (A1P) on page 24). If a malfunction code is present, see 15.5. Malfunction code list on page 40.
- Make sure all connected indoor units are recognized (see 15.2. Monitoring function and field settings on page 31).
- Close the front panel before any refrigerant charge operation is executed. Without the front panel attached the unit cannot judge correctly whether it is operating properly or not.

14.3.2. Charging method

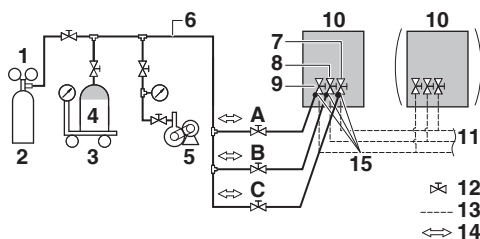
As explained during vacuum drying method, once vacuum drying is finished, additional refrigerant charging can start.

A flow chart is available which gives an overview of the possibilities and actions to be taken (see 14.3.1. Flow chart on page 28).

To speed up the process of pre-charging refrigerant for large systems, it is recommended to first charge a portion of the refrigerant before performing refrigerant charging operation of outdoor unit. This step is included in below procedure. This step can be skipped, but charging will take longer in such a case.

Follow the steps as described below.

- 1 Calculate the additional amount of refrigerant to be added using the formula mentioned in 14.2. Calculating the additional refrigerant charge on page 26.
- 2 The first 22 lbs. (10 kg) of additional refrigerant can be charged without outdoor unit operation.
If the additional refrigerant amount is smaller than 22 lbs. (10 kg), perform the pre-charging procedure as explained in step 3 and 4a below.
If the additional refrigerant charge is larger than 22 lbs. (10 kg), perform step 3 till the end of the procedure.
- 3 Pre-charging can be done without compressor running by connecting the refrigerant tank only to the liquid stop valve service port (open valve A). Make sure that all outdoor unit stop valves, as well as valves B and C are closed.



- 1 Pressure reducing valve
- 2 Nitrogen

- 3 Measuring instrument
- 4 Refrigerant R410A tank (siphon system)
- 5 Vacuum pump
- 6 Charge hose
- 7 High/low pressure gas pipe stop valve
- 8 Suction gas pipe stop valve
- 9 Liquid pipe stop valve
- 10 Outdoor unit
- 11 To Branch Selector unit (indoor unit)
- 12 Stop valve
- 13 Field piping
- 14 Gas flow
- 15 Stop valve service port
- A Valve A
- B Valve B
- C Valve C

- 4 a) If the calculated additional refrigerant amount is reached by above pre-charging procedure, close valve A.
b) If the total amount of refrigerant could not be charged by pre-charging, then close valve A and go to step 5.

INFORMATION

If the total additional refrigerant amount was reached in step 4 (by pre-charging only), record the amount of refrigerant that was added on the additional refrigerant charge label provided with the unit and attach it on the back side of the front panel. Perform the test procedure as described in 15.4. Test operation on page 39.

- 5 After pre-charging, perform the refrigerant charge operation as shown below and charge the remaining refrigerant of the additional charging amount through valve B.
Open all outdoor units stop valves. Valves A, B and C must remain closed!

NOTE

In order to ensure uniform refrigerant distribution, it may take the compressor ± 10 minutes to start up after the unit has started operation. This is not a malfunction.

- 6 The remaining additional refrigerant charge can be charged by operating the outdoor unit by means of the refrigerant charge operation mode:
 - Turn on the power of the indoor units and outdoor unit.
 - Take all the precautions mentioned in **start-up and configuration** into account.
 - Activate outdoor unit setting [2-20]=1 to start refrigerant charge mode. Refer to page 32 for details.

Result: The unit will start operation. Valve B can be opened. Charging of remaining additional refrigerant can be done. When the remaining calculated additional refrigerant amount is added, close valve B and push BS3 to stop the refrigerant charging procedure.

i INFORMATION

The refrigerant charge operation will automatically stop within 30 minutes. If charging is not completed after 30 minutes, perform the additional refrigerant charging operation again.

Perform the test procedure as described in 15.4.2. Test operation on page 40.

i INFORMATION

- When a malfunction is detected during the procedure (e.g., in case of closed stop valve), a malfunction code will be displayed. In that case, refer to 15.5. Malfunction code list on page 40 and solve the malfunction accordingly. Resetting the malfunction can be done by pushing BS3. The procedure can be restarted from 6).
- Aborting the refrigerant charge is possible by pushing BS3. The unit will stop and return to idle condition.

If any malfunction code is displayed, close valve B immediately. Confirm the malfunction code and take corresponding action, 15.5. Malfunction code list on page 40.

14.3.3. Final charge adjustment

It is not necessary to do this final adjustment normally, but perform the following operation only when if the most adequate refrigerant for the best performance is required.

The outdoor temperature must be between 60°F (16°C) and 97°F (36 °C).

Purge gauge lines. Connect service gauge manifold to the service port between the compressor and the reversing valve in each outdoor unit. Run the system for 30 minutes in cooling by the forced operation using the field setting mode [2-6] (value 0: OFF, 1:ON) (Refer to 15.2. Monitoring function and field settings.) to allow pressures to stabilize, then check subcooling as detailed in the following sections.

Subcooling = Sat. Liquid Temp. – Liquid Line Temp.

- 1 Temporarily install a thermometer on the liquid line between the coil and the EV in each outdoor unit. Ensure the thermometer makes adequate contact and is insulated for best possible readings. Use liquid line temperature to determine sub cooling.
- 2 Check subcooling for each outdoor unit and calculate the average subcooling of the outdoor unit. Systems should have a subcooling of 11±3°F (6±2°C).
 - a. If average subcooling is low, add charge to raise subcooling to 11±3°F (6±2°C) (The maximum additional charge is 4.4 lbs. (2kg))
 - b. If average subcooling is high, remove charge to lower the subcooling to 11±3°F (6±2°C)

14.3.4. Checks after adding refrigerant

- Are all stop valves open?
- Is the amount of refrigerant, that has been added, recorded on the refrigerant charge label?

! NOTE

- Make sure to open all stop valves after (pre-) charging the refrigerant. Operating with the stop valves closed will damage the compressor.
- After adding the refrigerant, do not forget to close the cover of the service port. The tightening torque for the cover is 8.48 to 10.3 ft·lbf (11.5 to 13.9 N·m).

15. Start-up and configuration

i INFORMATION

It is important that all information in this chapter is read sequentially by the installer and that the system is configured as applicable. When the VRV outdoor unit is connected with Low-temperature hydrobox or EEV Kit For DOAS system, ensure that all information in those installation manual is read by installers and that the system is configured as applicable per those installation manual.

! DANGER: ELECTRICAL SHOCK

See Safety considerations on page i.

! NOTE

Additional start-up procedures are required when the VRV outdoor unit is installed with Low-temperature hydrobox or EEV Kit for DOAS units connected. Refer to those installation manuals for the start-up procedures before proceeding with VRV system start-up.

15.1. Checks before initial start up

After the installation of the unit, first check the following items. Once all below checks are fulfilled, the unit must be closed, only then can the unit be powered up.

- 1 Installation
Check that the unit is properly installed, to avoid abnormal noises and vibrations when starting up the unit.
- 2 Field wiring
Be sure that the field wiring has been carried out according to the instructions described in 9. Field wiring on page 18, according to the wiring diagrams and according to the applicable legislation.
- 3 Power supply voltage
Check the power supply voltage on the local supply panel. The voltage must correspond to the voltage on the identification label of the unit.
- 4 Ground wiring
Be sure that the ground wires have been connected properly and that the ground terminals are tightened.
- 5 Insulation test of the main power circuit
Using a megatester for 500 V, check that the insulation resistance of 1 MΩ or more is attained by applying a voltage of 500 V DC between power terminals and ground. Never use the megatester for the transmission wiring.
- 6 Fuses, circuit breakers, or protection devices
Check that the fuses, circuit breakers, or the locally installed protection devices are of the size and type specified in 9. Field wiring on page 18. Be sure that neither a fuse nor a protection device has been bypassed.
- 7 Internal wiring
Visually check the control box and the inside of the unit on loose connections or damaged electrical components.
- 8 Pipe size and pipe insulation
Be sure that correct pipe sizes are installed and that the insulation work is properly executed.
- 9 Stop valves
Be sure that all stop valves are open.
- 10 Damaged equipment
Check inside of the unit on damaged components or squeezed pipes.

11 Refrigerant leak

Check inside of the unit on refrigerant leakage. If there is a refrigerant leak, try to repair the leak. If the repair is unsuccessful, call your local dealer. Do not touch any refrigerant which has leaked out from refrigerant piping connections. This may result in frostbite.

12 Oil leak

Check the compressor for oil leakage. If there is an oil leak, try to repair the leak. If the repairing is unsuccessful, call your local dealer.

13 Air inlet/outlet

Check that the air inlet and outlet of the unit is not obstructed by paper sheets, cardboard, or any other material.

14 Record the contents of field setting.

Record them on the accessory **REQUEST FOR THE INDICATION** label.

And attach the label on the back side of the front panel.

15 Record the installation date.

Record the installation date on the accessory **REQUEST FOR THE INDICATION** label.

And attach the label on the back side of the front panel.

15.2. Monitoring function and field settings

The operation of the outdoor unit can further be defined by changing some field settings. Next to making field settings it is also possible to confirm the current operation parameters of the unit.

The setting can also be performed via the PC configuration software.

Below relevant Monitoring mode (mode 1) and Field setting mode (mode 2) settings are explained in detail. How to access them, how to change the value of the settings and how to confirm them is explained in 13. Making field settings on page 24. In that chapter, an example is given on how to make a setting. It is advised to check this procedure before accessing, checking and changing below settings.

Once the default situation of the segment indication is confirmed (see 13. Making field settings on page 24), the mode 1 and mode 2 can be accessed.

Making settings is done via the master outdoor unit.

15.2.1. Mode 1

Mode 1 can be used to monitor the current situation of the outdoor unit. Some field setting contents can be monitored as well.

Below the settings in mode 1 are explained.

[1-0]= shows whether the unit you are checking is a master, sub 1 or sub 2 unit

- No indication=undefined situation
- 0=outdoor unit is master unit
- 1=outdoor unit is sub 1 unit
- 2=outdoor unit is sub 2 unit

Master, sub 1 and sub 2 indications are relevant in multiple outdoor unit system configurations. The allocation of which outdoor unit is master, sub 1 or sub 2 are decided by the unit's logic.

The master unit must be used to input field settings in mode 2.

[1-1]= shows the status of low noise operation.

- 1=unit is currently operating under low noise restrictions
- 0=unit is currently not operating under low noise restrictions

Low noise operation reduces the sound generated by the unit compared to nominal operating conditions.

Low noise operation can be set in mode 2. There are two

methods to activate low noise operation of the outdoor unit system.

The first method is to enable an automatic low noise operation during night time by field setting. The unit will operate at the selected low noise level during the selected time frames. The second method is to enable low noise operation based on an external input. For this operation an optional accessory is required.

[1-2]= shows the status of power consumption limitation operation.

- 1=unit is currently operating under power consumption limitation
- 0=unit is currently not operating under power consumption limitations

Power consumption limitation reduces the power consumption of the unit compared to nominal operating conditions. Power consumption limitation can be set in mode 2. There are two methods to activate power consumption limitation of the outdoor unit system.

The first method is to enable a forced power consumption limitation by field setting. The unit will always operate at the selected power consumption limitation.

The second method is to enable power consumption limitation based on an external input. For this operation an optional accessory is required.

[1-5]= shows the current T_e target parameter position.

Refer to 15.3. Energy saving and optimum operation on page 37 for more details about the contents of this value.

[1-6]= shows the current T_c target parameter position.

Refer to 15.3. Energy saving and optimum operation on page 37 for more details about the contents of this value.

[1-10]= shows the total number of connected indoor units.

It can be convenient to check if the total number of indoor units which are installed match the total number of indoor units which are recognized by the system. In case there is a mismatch, it is advised to check the communication wiring path between outdoor and indoor units (F1/F2 communication line).

[1-13]= shows the total number of connected outdoor units.

It can be convenient to check if the total number of outdoor units which are installed matches the total number of outdoor units which are recognized by the system. In case there is a mismatch, it is advised to check the communication wiring path between outdoor and outdoor units.

[1-17]= shows the latest malfunction code.

[1-18]= shows the 2nd last malfunction code.

[1-19]= shows the 3rd last malfunction code.

When the latest malfunction codes were reset by accident on an indoor unit user interface, they can be checked again through this monitoring settings. For the content or reason behind the malfunction code see 15.5. Malfunction code list on page 40, where most relevant malfunction codes are explained. Detailed information about malfunction codes can be consulted in the service manual of this unit.

[1-40]= shows the current cooling comfort setting. See 15.3. Energy saving and optimum operation on page 37 for more details about this setting.

[1-41]= shows the current heating comfort setting. See 15.3. Energy saving and optimum operation on page 37 for more details about this setting.

15.2.2. Mode 2

Mode 2 is used to change the field settings of the system. Consulting the current field setting value and changing the current field setting value is possible.

In general, normal operation can be resumed without special intervention after changing field settings.

Some field settings are used for special operation (e.g., 1 time operation, recovery/vacuumping setting, adding refrigerant setting, etc.). In such a case, it is required to abort the special operation before normal operation can restart. It will be indicated in below explanations.

[2-0]= Cool/Heat selection setting

Cool/Heat selection setting is used in case the optional Cool/Heat selector (KRC19-26A) is used. Depending on the outdoor unit setup (single outdoor unit setup or multi outdoor unit setup), the correct setting should be chosen. More details on how to use the Cool/Heat selector option can be found in the manual of the Cool/Heat selector.

Default value=0.

- 0=Each individual outdoor unit can select Cool/Heat operation (by Cool/Heat selector if installed).
- 1=Master unit decides Cool/Heat operation when outdoor units are connected in multiple system combination (a)
- 2=Sub unit for Cool/Heat operation when outdoor units are connected in multiple system combination (a)

Change [2-0]=0, 1 or 2 in function of required functionality.

[2-8]= T_e target temperature during cooling operation

Default value=0.

Value [2-8]	T_e target
0	Auto (default)
2	43°F (6°C)
3	45°F (7°C)
4	46°F (8°C)
5	48°F (9°C)
6	50°F (10°C)
7	52°F (11°C)

Change [2-8]=0, 2-7 in function of required operation method during cooling.

For more information and advice about the effect of these settings, see 15.3. Energy saving and optimum operation on page 37.

[2-9]= T_c target temperature during heating operation

Default value=0.

Value [2-9]	T_c target
0	Auto (default)
1	106°F (41°C)
3	109°F (43°C)
6	115°F (46°C)

Change [2-9]=0, 1, 3 or 6 in function of required operation method during heating.

For more information and advice about the effect of these settings, see 15.3. Energy saving and optimum operation on page 37.

[2-12]= Enable the low noise function and/or power consumption limitation via external control adaptor (DTA104A61/62)

If the system needs to run under low noise operation or under power consumption limitation conditions when an external signal is sent to the unit, this setting should be changed. This setting will only be effective when the optional external control adaptor (DTA104A61/62) is installed. Default value=0.

To activate this function change [2-12]=1.

[2-18]= Fan high static pressure setting

In order to increase the static pressure the outdoor unit fan is delivering, this setting should be activated. For details about this setting, see technical specifications. Default value=0.

To activate this function change [2-18]=1.

[2-20]= Additional refrigerant charge

In order to add the additional refrigerant charge amount following setting should be applied. Further instructions can be found in chapter 14.3. Method for adding refrigerant on page 28. Default value=0.

To activate this function change [2-20]=1.

To stop the additional refrigerant charge operation (when the required additional refrigerant amount is charged), push BS3. If this function was not aborted by pushing BS3, the unit will stop its operation after 30 minutes. If 30 minutes was not sufficient to add the needed refrigerant amount, the function can be reactivated by changing the field setting again.

[2-21]= Refrigerant recovery/vacuumping mode

In order to achieve a free pathway to recovering refrigerant out of the system or to remove residual substances or to vacuum the system it is necessary to apply a setting which will open required valves in the refrigerant circuit so the recovering of refrigerant or vacuumping process can be done properly.

Default value=0.

To activate function change [2-21]=1.

To stop the refrigerant recovery/vacuumping mode, push BS3. If BS3 is not pushed, the system will remain in refrigerant recovery/vacuumping mode.

[2-22]= Automatic low noise setting and level during night time

By changing this setting, you can activate the automatic low noise operation function of the unit and define the level of operation. Depending on the chosen level, the noise level will be lowered (3: Level 3<2: Level2<1: Level1).

The start and stop moments for this function are defined under setting [2-26] and [2-27].

Default value=0.

Change [2-22]=1, 2 or 3 in function of required level.

[2-25]= Low noise operation level via the external control adaptor

If the system needs to run under low noise operation conditions when an external signal is sent to the unit, this setting defines the level of low noise that will be applied (3: Level 3<2: Level 2<1: Level 1).

This setting will only be effective when the optional external control adaptor (DTA104A61/62) is installed and the setting [2-12] is activated.

Default value=2.

Change [2-25]=1, 2 or 3. in function of required level.

[2-26]= Low noise operation start time
Change [2-26]=1, 2 or 3 in function of required timing.
Default value=2.

Value [2-26]	Start time automatic low noise operation (approximately)
1	8:00 p.m.
2	10:00 p.m. (default)
3	12:00 a.m.

This setting is used in conjunction with setting [2-22].

[2-27]= Low noise operation stop time
Default value=3.

Value [2-27]	Start time automatic low noise operation (approximately)
1	6:00 a.m.
2	7:00 a.m.
3	8:00 a.m. (default)

This setting is used in conjunction with setting [2-22].

[2-30]= Power consumption limitation level (step 1) via the external control adaptor (DTA104A61/62)

If the system needs to run under power consumption limitation conditions when an external signal is sent to the unit, this setting defines the level power consumption limitation that will be applied for step 1. The level is according to the table.

Default value=3.

Change [2-30]=1, 2, 3, 4, 5, 6, 7 or 8 in function of required limitation.

Value [2-30]	Power consumption limitation (approximately)
1	60%
2	65%
3	70% (default)
4	75%
5	80%
6	85%
7	90%
8	95%

[2-31]= Power consumption limitation level (step 2) via the external control adaptor (DTA104A61/62)

If the system needs to run under power consumption limitation conditions when an external signal is sent to the unit, this setting defines the level power consumption limitation that will be applied for step 2. The level is according to the table.

Default value=1.

Change [2-31]=1, 2 or 3 in function of required limitation.

Value [2-31]	Power consumption limitation (approximately)
1	40% (default)
2	50%
3	55%

[2-32]= Forced, all time, power consumption limitation operation (no external control adaptor is required to perform power consumption limitation)

If the system always needs to run under power consumption limitation conditions, this setting activates and defines the level power consumption limitation that will be applied continuously. The level is according to the table.
Default value=0 (OFF).

Value [2-32]	Restriction reference
0	Function not active (default)
1	Follows [2-30] setting
2	Follows [2-31] setting

Change [2-32]=0, 1 or 2 in function of required limitation.

[2-34]= Indoor unit fan tap setting

Indoor units fan speed limitation related to connection capacity and outdoor air temperature for energy saving.

Default value=0.

Value [2-34]	Indoor unit fan tap setting
0	Fan speed is limited to L tap when indoor units capacity $\geq 130\%$.
1	In heating mode, fan speed is limited to L tap when indoor units capacity $\geq 130\%$.
2	Fan speed follows the setting of remote controllers (not limited by indoor units connection capacity).

See the service manual for other indoor unit fan tap settings.

[2-35]= Height difference setting

Default value=1.

In case the outdoor unit is installed in the lowest position (indoor units are installed on a higher position than outdoor units) and the height difference between the highest indoor unit and the outdoor unit exceeds 130 ft. (40 m), the setting [2-35] should be changed to 0.

Other changes/limitations to the circuit apply, for more information see 7.5. System piping (length) limitations on page 11.

[2-45]= Low ambient cooling

Default value=0.

Value [2-45]	Description
0	No low ambient cooling available. (default)
1	Low ambient cooling available.

This setting is not applicable to multi Branch Selector unit (BS4-12Q54T type).

For more information about this setting, refer to the service manual.

[2-47]= T_e target temperature during heat recovery operation

Default value=0.

Value [2-47]	T _e target
0	Auto (default)
2	43°F (6°C)
3	45°F (7°C)
4	46°F (8°C)
5	48°F (9°C)
6	50°F (10°C)
7	52°F (11°C)

Change [2-47]=0, 2-7 in function of required operation method during heat recovery operation.

For more information and advice about the effect of these settings, see 15.3. Energy saving and optimum operation.

[2-49]= Height difference setting

Default value=0.

In case the outdoor unit is installed in the highest position (indoor units are installed on a lower position than outdoor units) and the height difference between the lowest indoor unit and the outdoor unit exceeds 164 ft. (50 m), the setting [2-49] has to be changed to 1.

Other changes/limitations to the circuit apply, for more information see 7.5. System piping (length) limitations on page 11.

[2-60]= Gas furnace setting

Default value=0.

When a gas furnace is connected, the setting [2-60] has to be changed to 1.

[2-62]= Cooling and heating capacity learning control

Default value=0.

Value [2-62]	Description
0	OFF
1	Cooling adjustment
2	Heating adjustment
3	Cooling and heating adjustment

Adjust cooling and heating system operation to achieve stable capacity.

Note: This setting may result in a longer reaction time to large load variations.

[2-64]= Phased installation setting

Default value=0.

Value [2-64]	Description
0 (default)	OFF
1	Single module to dual module installation
2	Dual module to triple module installation

Conditions/rules apply for this setting. Refer to selection software or contact your Daikin sales representative for further details.

[2-81]= Cooling comfort setting

Default value=1.

Value [2-81]	Cooling comfort setting
0	Eco
1	Mild (default)
2	Quick
3	Powerful

Change [2-81]=0, 1, 2 or 3 in function of required limitation. This setting is used in conjunction with setting [2-8] and [2-47].

For more information and advice about the effect of these settings, see 15.3. Energy saving and optimum operation.

[2-82]= Heating comfort setting

Default value=1.

Value [2-82]	Heating comfort setting
0	Eco
1	Mild (default)
2	Quick
3	Powerful

Change [2-82]=0, 1, 2 or 3 in function of required limitation. This setting is used in conjunction with setting [2-9].

For more information and advice about the effect of these settings, see 15.3. Energy saving and optimum operation.

[2-89]= Intermittent fan operation

Default value=0.

Value [2-89]	Intermittent fan operation
0	OFF
1	30 minutes OFF, 1 minute ON with medium fan speed
2	30 minutes OFF, 1 minute ON with high fan speed

Outdoor fan speed would be increased for assisting to discharge snow on outdoor fan when outdoor fan is stop or low speed.

[2-92]= Te target temperature upper limit

Default value=1.

Value [2-92]	Te target temperature upper limit
0	L
1	M
2	H

If Auto Te, then use this setting to address different load profiles. If the frequent operation is at lower system load, then use a higher setting under [2-92].

Note: In high humid areas, it is recommended to keep this setting to 0 or 1.

15.2.3. Auxiliary heat control

To improve efficiency the aux heat can be lockout based on outdoor temperature.

Item	Description	Min	Max	Increments
AUX Heater Allowable Temp	Below this temperature, AUX heater can be energized based on the indoor temperature condition.	0F	65F (35F default)	5F
AUX Heater Allowable temp Release differential	When the outdoor temp recovered by this temp, AUX heater cannot be allowed.	5F, 10F (default), 15F		

[2-97]= Aux heater max allowable temp

AUX Heater is allowed to energize when the ambient temp is smaller than the AUX Heater Max Allowable Temp.

AUX Heater Max Allowable Temp	Fahrenheit	Celsius
0	0	- 17.7
1	5	- 15
2	10	- 12.2
3	15	- 9.4
4	20	- 6.6
5	25	- 3.8
6	30	- 1.1
7	35 (default)	1.6 (default)
8	40	4.4
9	45	7.2
10	50	10
11	55	12.7
12	60	15.5
13	65	18.3
14	AUX Heater always NOT allowed	
15	AUX Heater always allowed	

[2-98]= Aux heater max allowable temp release differential
AUX Heater is not allowed to energize when the outdoor ambient temp is recovered by differential (below) above the AUX Heater Max Allowable Temp.

AUX Heater Max Allowable temp Release differential	Fahrenheit	Celsius
0	5	2.8°C
1	10 (default)	5.6°C (default)
2	15	8.3°C

15.2.4. Heat pump lockout

- New control logic to provide more application options for cold climates.
- Outside temperature can now be measured directly from the outdoor unit coil sensor.
- VRV REYQ-X series can also be programmed to automatically switch to emergency heat is there is a system fault.

Item	Description	Min	Max	Increments
Heat Pump Lockout Temp	Below this temperature, heat pump is locked out.	- 15F (default)	50F	5F
Heat Pump Lockout Release differential	When the outdoor temp is recovered by this temp, heat pump is resumed.	5F, 10F (default), 15F		

[2-16]= Aux heater setting (Type I)

Value [2-16]	Aux heater
0	OFF
1	ON

[2-37]= Aux heater setting (Type II)

Value [2-37]	Controlling mode
1	Mode 1
2	Mode 2
3	Mode 3
4	Mode 4
5	Mode 5
6	Mode 6

Type	Description	Actions							
		Field setting	Shorted between	Heating Thermo-on		Heating Thermo-off			
				Aux heater	Indoor fan	Aux heater	Indoor fan		
I	--	Heat-pump heating is always locked out	2-16 = ON	--	ON	ON (H/L)	OFF	LL	
II	Mode 1	Lockout is controlled by ABC terminals	2-37 = Mode 1	A-C	ON	ON (H/L)	OFF	LL	
	B-C			OFF					
	Mode 2 (for a heater which doesn't need airflow)		2-37 = Mode 2	A-C				LL	LL
				B-C				LL	OFF
	Mode 3	Lockout is controlled by the outdoor ambient temperature and setpoint which is configured by the field setting 2-78 and 2-79	2-37 = Mode 3	Same as 2-37 = Mode 1 & A-C shorted					
	Mode 4		2-37 = Mode 4	Same as 2-37 = Mode 1 & B-C shorted					
	Mode 5		2-37 = Mode 5	Same as 2-37 = Mode 2 & A-C shorted					
	Mode 6		2-37 = Mode 6	Same as 2-37 = Mode 2 & B-C shorted					

[2-78]= Heat pump lockout temp

Heat pump would be locked out when the outdoor ambient temp is smaller than the Heat Pump Lockout Temp below – this setting is only affective when heat pump lockout mode has been set. Unit will switch to heat pump lock out.

Heat Pump Lockout Temp	Fahrenheit	Celsius
0	- 15 (default)	- 26.1 (default)
1	- 10	- 23.3
2	- 5	- 20.5
3	0	- 17.7
4	5	- 15
5	10	- 12.2
6	15	- 9.4
7	20	- 6.6
8	25	- 3.8
9	30	- 1.1
10	35	1.6
11	40	4.4
12	45	7.2
13	50	10
14	Forced Heat pump Lock out	

[2-79]= Heat pump lockout release differential

Heat pump would be resumed when the outdoor ambient temp is recovered by differential (below) above the Heat Pump Lockout Temp.

Heat Pump Lockout Release differential	Fahrenheit	Celsius
0	5	2.8°C
1	10 (default)	5.6°C (default)
2	15	8.3°C

When HP lockout mode has been set the auto backup function will automatically be set. This will allow the auxiliary or secondary heat source to be automatically energized in the event of a system failure.

Error codes capable of auto backup are listed in the table below. Please be aware that the error codes that are not listed do not auto backup in order to protect the unit.

Error contents	Error code (Auto backup possible)
Branch Selector unit abnormality	A3
Actuation of high pressure switch	E3
Actuation of low pressure sensor	E4
Inv. compressor motor lock	E5
Compressor damage alarm	E6
Outdoor unit fan motor abnormality	E7
Electronic expansion valve coil abnormality	E9
Position signal abnormality of outdoor unit fan motor	H3
	H7
Outdoor air thermistor (R1T) abnormality	H9
Discharge pipe temperature abnormality	F3
Wet alarm	F4
Branch Selector unit electronic expansion valve abnormality	F9
Discharge pipe thermistor (R21T, R22T) and compressor surface temperature thermistor (R14T) abnormality	J3
Accumulator inlet thermistor (R10T) abnormality	J5
Heat exchanging deicer thermistor (R11T) and heat exchanger gas pipe thermistor (R8T,R9T) abnormality	J6
Receiver inlet thermistor (R3T) and sub cooling heat exchanger liquid pipe thermistor (R7T) abnormality	J7
Heat exchanger liquid pipe thermistor (R15T, R4T, R5T) abnormality	J8
Subcooling heat exchanger gas pipe thermistor (R6T) and receiver gas purge thermistor (R13T) abnormality	J9
High pressure sensor abnormality	JA
Low pressure sensor abnormality	JC
Inverter PCB abnormality	L1
Reactor temperature rise abnormality	L3
Inverter radiation fin temperature rise abnormality	L4
Inv. compressor instantaneous overcurrent	L5
Inv. compressor overcurrent	L8
Inv. compressor startup abnormality	L9
Transmission error between inverter and control PCB	LC

15.3. Energy saving and optimum operation

REYQ-X units are equipped with advanced energy saving functionality. Depending on the priority, emphasizes can be put on energy saving or comfort level. Several parameters can be selected, resulting in the optimal balance between energy consumption and comfort for the particular application.

Several patterns are available and explained below. Modify the parameters to the needs of your building and to realize the best balance between energy consumption and comfort.

15.3.1. Three main operation methods are available:

• Basic

The refrigerant temperature is fixed independent from the situation. It corresponds to the standard operation which is known and can be expected from/under previous VRV systems:

- To activate this operation method under cooling operation: change field setting [2-8]=2 and [2-47]=2.
- To activate this operation method under heating operation: change field setting [2-9]=6.

• Automatic

The refrigerant temperature is set depending on the outdoor ambient conditions. As such adjusting the refrigerant temperature to match the required load (which is also related to the outdoor ambient conditions).

E.g., when your system is operating in cooling, you do not need as much cooling under low outdoor ambient temperatures (e.g., 77°F (25°C)) as under high outdoor ambient temperatures (e.g., 95°F (35°C)).

Using this idea, the system automatically starts increasing its refrigerant temperature, automatically reducing the delivered capacity and increasing the system's efficiency.

- To activate this operation method under cooling operation: change field setting [2-8]=0 (default) and [2-47]=0 (default).

E.g., when your system is operating in heating, you do not need as much heating under high outdoor ambient temperatures (e.g., 59°F (15°C)) as under low outdoor ambient temperatures (e.g., 23°F (-5°C)).

Using this idea, the system automatically starts decreasing its refrigerant temperature, automatically reducing the delivered capacity and increasing the system's efficiency.

- To activate this operation method under heating operation: change field setting [2-9]=0 (default).

• Hi-sensible/economic (cooling/heating)

The refrigerant temperature is set higher/lower (cooling/heating) compared to basic operation. The focus under high sensible mode is comfort feeling for the customer.

The selection method of indoor units is important and has to be considered as the available capacity is not the same as under basic operation. For details concerning to Hi-sensible applications, please contact your dealer.

- To activate this setting under cooling operation: change field setting [2-8] and [2-47] to the appropriate value, matching the requirements of the pre-designed system containing a high sensible solution.

Value [2-8] and [2-47]	T _e target
3	45°F (7°C)
4	46°F (8°C)
5	48°F (9°C)
6	50°F (10°C)
7	52°F (11°C)

- To activate this setting under heating operation: change field setting [2-9] to the appropriate value, matching the requirements of the pre-designed system containing a high sensible solution.

Value [2-9]	T _c target
1	106°F (41°C)
3	109°F (43°C)

15.3.2. Several comfort settings are available

For each of above modes a comfort level can be selected. The comfort level is related to the timing and the effort (energy consumption) which is put in achieving a certain room temperature by temporarily changing the refrigerant temperature to different values in order to achieve requested conditions more quickly.

• Powerful

Overshoot (during heating operation) or undershoot (during cooling operation) is allowed compared to the requested refrigerant temperature, in order to achieve the required room temperature very fast. The overshoot is allowed from the start up moment.

In case of cooling operation the evaporating temperature is allowed to go down to 37°F (3°C) on temporary base depending on the situation.

In case of heating operation the condense temperature is allowed to go up to 120°F (49°C) on temporary base depending on the situation.

When the request from the indoor units becomes more moderate, the system will eventually go to the steady state condition which is defined by the operation method above.

- To activate the powerful comfort setting under cooling operation, change field setting [2-81]=3.

This setting is used in conjunction with setting [2-8] and [2-47].

- To activate the powerful comfort setting under heating operation, change field setting [2-82]=3.

This setting is used in conjunction with setting [2-9].

• Quick

Overshoot (during heating operation) or undershoot (during cooling operation) is allowed compared to the requested refrigerant temperature, in order to achieve the required room temperature very fast. The overshoot is allowed from the start up moment.

In case of cooling operation the evaporating temperature is allowed to go down to 43°F (6°C) on temporary base depending on the situation.

In case of heating operation the condense temperature is allowed to go up to 115°F (46°C) on temporary base depending on the situation.

When the request from the indoor units becomes more moderate, the system will eventually go to the steady state condition which is defined by the operation method above.

- To activate the quick comfort setting under cooling operation, change field setting [2-81]=2.

This setting is used in conjunction with setting [2-8] and [2-47].

- To activate the quick comfort setting under heating operation, change field setting [2-82]=2.

This setting is used in conjunction with setting [2-9].

• Mild

Overshoot (during heating operation) or undershoot (during cooling operation) is allowed compared to the requested refrigerant temperature, in order to achieve the required room temperature very fast. The overshoot is not allowed from the start up moment. The start up occurs under the condition which is defined by the operation mode above.

In case of cooling operation the evaporating temperature is allowed to go down to 43°F (6°C) on temporary base depending on the situation.

In case of heating operation the condense temperature is allowed to go up to 115°F (46°C) on temporary base depending on the situation.

When the request from the indoor units becomes more moderate, the system will eventually go to the steady state condition which is defined by the operation method above.

The start up condition is different from the powerful and quick comfort setting.

- To activate the mild comfort setting under cooling operation, change field setting [2-81]=1.

This setting is used in conjunction with setting [2-8] and [2-47].

- To activate the mild comfort setting under heating operation, change field setting [2-82]=1.

This setting is used in conjunction with setting [2-9].

• Eco

The original refrigerant temperature target, which is defined by the operation method (see above) is kept without any correction, unless for protection control.

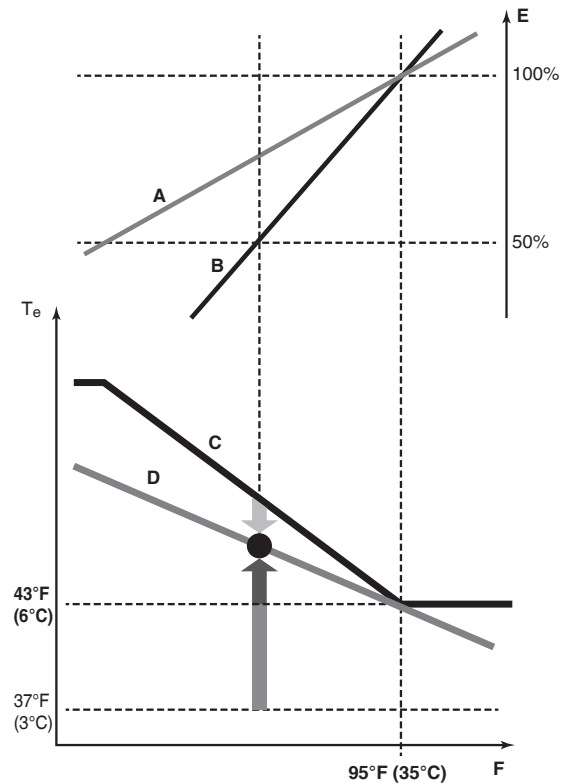
- To activate the mild comfort setting under cooling operation, change field setting [2-81]=0.

This setting is used in conjunction with setting [2-8] and [2-47].

- To activate the mild comfort setting under heating operation, change field setting [2-82]=0.

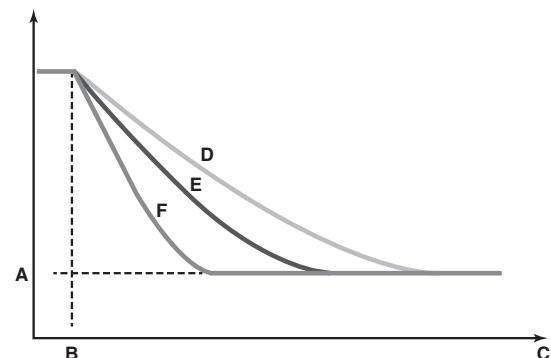
This setting is used in conjunction with setting [2-9].

Example: Automatic mode during cooling



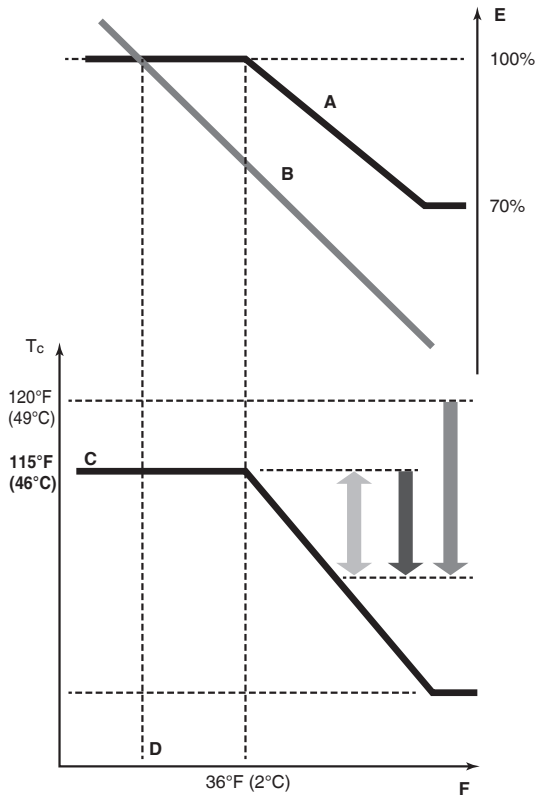
- A Actual load curve
- B Virtual load curve (initial capacity automatic mode)
- C Virtual target value (initial evaporation temperature value automatic mode)
- D Required evaporation temperature value
- E Load factor
- F Outside air temperature
- Te Evaporating temperature
- Quick
- Powerful
- Mild

Room temperature evolution:



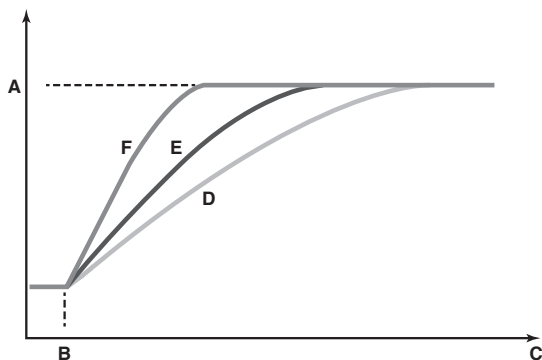
- A Indoor unit set temperature
- B Operation start
- C Operating time
- D Mild
- E Quick
- F Powerful

Example: Automatic mode during cooling



- A** Virtual load curve (default automatic mode peak capacity)
- B** Load curve
- C** Virtual target value (initial condensation temperature value automatic mode)
- D** Design temperature
- E** Load factor
- F** Outside air temperature
- T_c** Condensing temperature
- Quick
- Powerful
- Mild

Room temperature evolution:



- A** Indoor unit set temperature
- B** Operation start
- C** Operating time
- D** Mild
- E** Quick
- F** Powerful

No matter which control is selected, variations on the behavior of the system are still possible due to protection controls to keep the unit operating under reliable conditions. The intentional target, however, is fixed and will be used to obtain the best balance between energy consumption and comfort, depending on the application type.

15.4. Test operation

After installation and once the field settings are defined, the installer is obliged to verify correct operation. Therefore a test run must be performed according to the procedures described below.

15.4.1. Precautions before starting test operation

During test operation, the outdoor units, the Branch Selector units and the indoor units will start up:

- Make sure that the preparations of all Branch Selector units and all indoor units are finished (field piping, electrical wiring, air purge, etc.). See installation manual of the Branch Selector units and the indoor units for details.

⚠ CAUTION

Do not insert fingers, rods or other objects into the air inlet or outlet. When the fan is rotating at high speed, it will cause injury.

⚠ CAUTION

Do not perform the test operation while working on the Branch Selector units and the indoor units. When performing the test operation, not only the outdoor units, but the connected indoor units will operate as well. Working on indoor units or Branch Selector units while performing a test operation is dangerous.

⚠ CAUTION

- During tests never pressurize the appliances with a pressure higher than the maximum allowable pressure (as indicated on the nameplate of the unit).
- If refrigerant gas leaks, ventilate the area immediately. Toxic gas may be produced if refrigerant gas comes into contact with fire.
- Never directly touch any accidental leaking refrigerant. This could result in severe wounds caused by frostbite.
- Test run is possible for ambient temperatures between -4°F and 95°F (-20°C and 35°C).

⚠ DANGER: DO NOT TOUCH PIPING AND INTERNAL PARTS

See Safety considerations on page i.

⚠ DANGER: ELECTRICAL SHOCK

See Safety considerations on page i.

- Provide a logbook and machine card.
In accordance with the applicable legislation, it may be necessary to provide a logbook with the equipment containing at least: information on maintenance, repair work, results of tests, stand-by periods, etc.

INFORMATION

Note that during the first running period of the unit, required power input may be higher. This phenomenon originates from the compressor that requires a 50 hour run elapse before reaching smooth operation and stable power consumption. Reason is that the scroll is made out of iron and that it takes some time to smooth the surfaces that make contact.

NOTE

To protect the compressor, be sure to turn on the power supply 6 hours before starting operation.

15.4.2. Test operation

The procedure below describes the test operation of the complete system. This operation checks and judges following items:

- Check of wrong wiring (communication check with indoor units).
- Check of the stop valves opening.
- Judgment of piping length.

On top of this system test operation, Branch Selector units and indoor units operation should also be checked separately.

- Make sure to carry out the system test operation after the first installation. Otherwise, the malfunction code U3 will be displayed on the user interface and normal operation or individual Branch Selector unit and indoor unit test run cannot be carried out.
- Abnormalities on Branch Selector units and indoor units cannot be checked for each unit separately. After the test operation is finished, check the Branch Selector units and the indoor units one by one by performing a normal operation using the user interface. Refer to the Branch Selector units and the indoor units installation manual for more details concerning the individual test run.

INFORMATION

- It may take 10 minutes to achieve a uniform refrigerant state before the compressor starts.
- During the test operation, the refrigerant running sound or the magnetic sound of a solenoid valve may become loud and the display indication may change.
These are not malfunctions.

Procedure

- 1 Close all front panels in order to not let it be the cause of misjudgment.
- 2 Make sure all field settings you want are set; see 15.2. Monitoring function and field settings on page 31.
- 3 Turn ON the power to the outdoor units, the connected Branch Selector units and the connected indoor units.

NOTE

Be sure to turn on the power 6 hours before operation in order to have power running to the crankcase heater and to protect the compressor.

- 4 Make sure the default (idle) situation is existing; see 13.2. Operating the push buttons and DIP switches on the printed circuit board on page 24. Push BS2 for 5 seconds or more. The unit will start test operation.

- The test operation is automatically carried out, the outdoor unit display will indicate **E3** and the indication **Test operation** and **Under centralized control** will display on the user interface of indoor units.

Steps during the automatic system test run procedure:

- **E01**: control before start up (pressure equalization)
- **E02**: cooling start up control
- **E03**: cooling stable condition
- **E04**: communication check
- **E05**: stop valve check
- **E06**: pipe length check
- **E07**: refrigerant amount check
- **E08**: detailed refrigerant situation check
- **E09**: pump down operation
- **E10**: unit stop

- During the test operation, it is not possible to stop the unit operation from a user interface. To abort the operation, press BS3. The unit will stop after ±30 seconds.

- 5 Check the test operation results on the outdoor unit segment display.

- Normal completion: no indication on the segment display (idle).
- Abnormal completion: indication of malfunction code on the segment display.
Refer to 15.4.3. Correcting after abnormal completion of the test operation to take actions for correcting the abnormality. When the test operation is fully completed, normal operation will be possible after 5 minutes.

15.4.3. Correcting after abnormal completion of the test operation

The test operation is only completed if there is no malfunction code displayed on the user interface or outdoor unit segment display. In case a malfunction code is displayed, perform correcting actions as explained in the malfunction code table. Carry out the test operation again and confirm that the abnormality is properly corrected.

INFORMATION

Refer to the installation manual of the indoor unit for other detailed malfunction codes related to indoor units.

15.5. Malfunction code list

In case of a displayed malfunction code, perform correcting actions as explained in the malfunction code table.

After correcting the abnormality, press BS3 to reset the malfunction code and retry operation.

The malfunction code which is displayed on the outdoor unit will indicate a main malfunction code and a sub code. The sub code indicates more detailed information about the malfunction code. The malfunction code will be displayed intermittent.

Example:

Main code	Sub code
E3	01

With an interval of 1 second, the display will switch between main code and sub code.

Malfunction code		Contents	Solution
Main code	Sub code Master/sub 1/sub 2		
E3	01/03/05	<ul style="list-style-type: none"> High pressure switch is activated. (S1PH)-A1P (X2A) High pressure switch connectors are detached. -A1P (X2A, X3A, X4A) 	<ul style="list-style-type: none"> Check stop valves situation or abnormalities in (field) piping or airflow over air cooled coil. Securely connect each connector. Refer to the wiring diagram attached to the back of the control box cover.
	02/04/06	<ul style="list-style-type: none"> Stop valves are closed. Refrigerant overcharge. 	<ul style="list-style-type: none"> Open stop valves. Check refrigerant amount and recharge.
	13/14/15	Liquid pipe stop valve is closed.	Open liquid pipe stop valve.
	18	<ul style="list-style-type: none"> Stop valves are closed. Refrigerant overcharge. 	<ul style="list-style-type: none"> Open stop valves. Check refrigerant amount and recharge.
E4	01/02/03	Low pressure malfunction: <ul style="list-style-type: none"> Stop valves are closed. Refrigerant shortage. Reverse connection of high/low pressure gas pipe and suction gas pipe of Branch Selector unit. 	<ul style="list-style-type: none"> Open stop valves. Check refrigerant amount and recharge.
E9	01/05/08	Electronic expansion valve malfunction (Y1E)-A1P (X21A)	Check connection on printed circuit board or actuator.
	03/06/09	Electronic expansion valve malfunction (Y2E)-A1P (X22A)	Check connection on printed circuit board or actuator.
	04/07/10	Electronic expansion valve malfunction (Y3E)-A1P (X23A)	Check connection on printed circuit board or actuator.
	26/27/28	Electronic expansion valve malfunction (Y4E)-A1P (X25A)	Check connection on printed circuit board or actuator.
	29/34/39	Electronic expansion valve malfunction (Y5E)-A7P (X8A)	Check connection on printed circuit board or actuator.
	31/36/41	Electronic expansion valve malfunction (Y6E)-A7P (X10A)	Check connection on printed circuit board or actuator.
	32/37/42	Electronic expansion valve malfunction (Y7E)-A7P (X11A)	Check connection on printed circuit board or actuator.
F3	01/03/05	Discharge temperature too high (R2T/R21T/R22T): <ul style="list-style-type: none"> Stop valves are closed. Reverse connection of high/low pressure gas pipe and suction gas pipe of Branch Selector unit. Refrigerant shortage. 	<ul style="list-style-type: none"> Open stop valves. Check refrigerant amount and recharge. Check connection of high/low pressure gas pipe and suction gas pipe.
	20/21/22	Compressor casing temperature too high (R14T): <ul style="list-style-type: none"> Stop valves are closed. Refrigerant shortage. 	<ul style="list-style-type: none"> Open stop valves. Check refrigerant amount and recharge.
F6	02	<ul style="list-style-type: none"> Stop valves are closed. Refrigerant overcharge. 	<ul style="list-style-type: none"> Open stop valves. Check refrigerant amount and recharge.
F9	01	Electronic expansion valve malfunction (Branch Selector units).	Check connection on printed circuit board or actuator.
	02		
	05		
H9	01/02/03	Temperature sensor malfunction (R1T)-A1P (X18A)	Check connection on printed circuit board or actuator.
J3	16/22/28	Temperature sensor malfunction (R21T)-A1P (X19A)	Check connection on printed circuit board or actuator.
	17/23/29	Temperature sensor malfunction (R21T)-A1P (X19A)	Check connection on printed circuit board or actuator.
	18/24/30	Temperature sensor malfunction (R22T)-A1P (X19A)	Check connection on printed circuit board or actuator.
	19/25/31	Temperature sensor malfunction (R22T)-A1P (X19A)	Check connection on printed circuit board or actuator.
	47/49/51 48/50/52	Temperature sensor malfunction (R14T)-A1P (X19A)	Check connection on printed circuit board or actuator.
J5	01/03/05	Temperature sensor malfunction (R12T)-A7P (X15A)	Check connection on printed circuit board or actuator.
	18/19/20	Temperature sensor malfunction (R10T)-A1P (X29A)	Check connection on printed circuit board or actuator.

Malfunction code		Contents	Solution
Main code	Sub code Master/sub 1/sub 2		
U5	01/02/03	Temperature sensor malfunction (R11T)-A7P (X15A)	Check connection on printed circuit board or actuator.
	08/09/10	Temperature sensor malfunction (R8T)-A1P (X29A)	Check connection on printed circuit board or actuator.
	11/12/13	Temperature sensor malfunction (R9T)-A1P (X29A)	Check connection on printed circuit board or actuator.
U7	01/02/03	Temperature sensor malfunction (R3T)-A1P (X30A)	Check connection on printed circuit board or actuator.
	06/07/08	Temperature sensor malfunction (R7T)-A1P (X30A)	Check connection on printed circuit board or actuator.
U8	01/02/03	Temperature sensor malfunction (R4T)-A1P (X30A)	Check connection on printed circuit board or actuator.
	08/09/10	Temperature sensor malfunction (R5T)-A1P (X30A)	Check connection on printed circuit board or actuator.
	11/12/13	Temperature sensor malfunction (R15T)-A7P (X15A)	Check connection on printed circuit board or actuator.
U9	01/02/03	Temperature sensor malfunction (R6T)-A1P (X30A)	Check connection on printed circuit board or actuator.
	11/12/13	Temperature sensor malfunction (R13T)-A7P (X17A)	Check connection on printed circuit board or actuator.
U8	06/08/10	High pressure sensor malfunction: open circuit (S1NPH)-A1P (X32A)	Check connection on printed circuit board or actuator.
	07/09/11	High pressure sensor malfunction: short circuit (S1NPH)-A1P (X32A)	Check connection on printed circuit board or actuator.
U7	06/08/10	Low pressure sensor malfunction: open circuit (S1NPL)-A1P (X31A)	Check connection on printed circuit board or actuator.
	07/09/11	Low pressure sensor malfunction: short circuit (S1NPL)-A1P (X31A)	Check connection on printed circuit board or actuator.
U7	14/15/16	Transmission trouble. A4P (X6A)-A1P (X25A)	Check connection.
	19/20/21	Transmission trouble. A5P (X3A)-A4P (X41A)	Check connection.
	24/25/26	Transmission trouble. A5P (X4A)-A6P (X3A)	Check connection.
	33/34/35	Transmission trouble. A7P (X2A)-A1P (X20A)	Check connection.
P1	01/02/03	Unbalanced power supply voltage.	Check if power supply is within the range.
U2	01/08/11	Voltage power shortage or open power supply phase.	<ul style="list-style-type: none"> • Check if power supply is within the range. • Correct phase order.
	02/09/12	Reversed or open power supply phase.	<ul style="list-style-type: none"> • Check if power supply is within the range. • Correct phase order.
U3	03	System test run not yet executed (system operation not possible).	Execute system test run.
	04	An error occurred during the test run.	Check the piping and re-execute the test run.
	05	Test run aborted.	Re-execute the test run.
	06		
	07	Test run aborted due to communication issues.	Check the communication wires and re-execute the test run.
	08		
U4	01	Faulty wiring to Q1/Q2 or indoor- outdoor.	Connect transmission wiring of Branch Selector units and indoor units to "TO IN/D UNIT (F1, F2)" and transmission wiring of other outdoor units to "TO OUT/D UNIT (F1, F2)".
	03	Malfunction of connected indoor unit.	Check the malfunction code of indoor unit and resolve it.

Malfunction code		Contents	Solution
Main code	Sub code Master/sub 1/sub 2		
U7	01	Faulty wiring to Q1/Q2 or indoor- outdoor.	Connect transmission wiring of Branch Selector units and indoor units to "TO IN/D UNIT (F1, F2)" and transmission wiring of other outdoor units to "TO OUT/D UNIT (F1, F2)".
	02		
	11	<ul style="list-style-type: none"> Too many indoor units are connected to F1/F2 line. Faulty wiring between units. 	<ul style="list-style-type: none"> Check indoor unit amount and total capacity connected. Check connection.
U3	01	<ul style="list-style-type: none"> System mismatch. Wrong type of indoor units combined (R407C, Mini-split, etc). Indoor unit malfunction. 	Check if other indoor units have malfunction and confirm indoor unit mix is allowed.
U8	03	Connection malfunction over indoor units or type mismatch (R407C, Mini-split, etc).	Check if other indoor units have malfunction and confirm indoor unit mix is allowed.
	18		
	20	Wrong combination (different series (e.g. RXYQ and REYQ), or different type (e.g. P type and T type)).	Correct the units combination.
	27	Assembly defect of indoor, Branch Selector and outdoor units (e.g. different models, number of units or part numbers, or different series are mixed).	<ul style="list-style-type: none"> Check and modify the number of indoor units that are connected. Check the type of refrigerant for indoor and outdoor units, and replace them with adaptable indoor/outdoor units in the case of inconsistency.
	28	Different type of Branch Selector units are combined in the system. Combination of T type (BSQ-T*, BS-Q54T*, BSF-Q54T*) and P type (BSVQ-PVJU, BSV-Q36PVJU) cause error.	Configure the system with only T type Branch Selector units.
	31	Wrong combination of outdoor units.	Correct the units combination.
	49		
53	<ul style="list-style-type: none"> Defect of Branch Selector units connecting position or abnormality due to wiring error. Abnormality of Branch Selector units DIP switches settings. 	<ul style="list-style-type: none"> Check that the wiring connection are correct, referring to the wiring diagram for Branch Selector units, and correct if there are any errors. Check that the DIP switches settings are correct, referring to the installation manual enclosed in Branch Selector units package, or to the "Service precautions" plate attached to the control box cover, and correct if there are any errors. 	
U4	01	Auto address malfunction (inconsistency)	Check if transmission wired unit amount matches with powered unit amount (by monitor mode) or wait till initialization is finished.
U5	01	Auto address malfunction (inconsistency)	Check if transmission wired unit amount matches with powered unit amount (by monitor mode) or wait till initialization is finished.
	05	Stop valves closed.	Open stop valves.

16. Operation of the unit

Once the units are installed and test operation of outdoor units, Branch Selector units and indoor units are finished, the operation of the system can start.

For operating the indoor units, the user interface of the indoor units should be switched ON. Refer to the indoor unit operation manual for more details.

17. Maintenance and service

17.1. Maintenance introduction

In order to ensure optimal operation of the unit, a number of checks and inspections should be carried out on the unit at regular intervals, preferably yearly.

This maintenance shall be carried out by the installer or service agent.

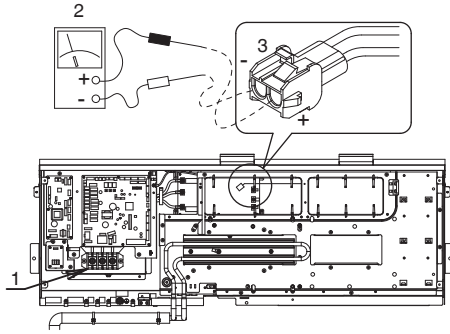
17.2. Service precautions

⚠ DANGER: DO NOT TOUCH PIPING AND INTERNAL PARTS —
See Safety considerations on page i.

⚠ CAUTION —
When performing service to inverter equipment:

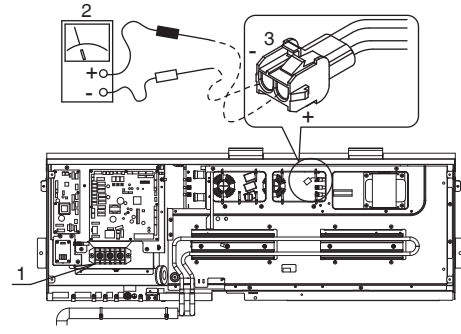
- Do not open the control box cover for 10 minutes after the power supply is turned off.
- Measure the voltage between terminals on the terminal block for power supply with a tester and confirm that the power supply is turned off. In addition, measure points as shown in the figure below, with a tester and confirm that the voltage of the capacitor in the main circuit is less than 50 V DC.

REYQ72-120XATJ* type



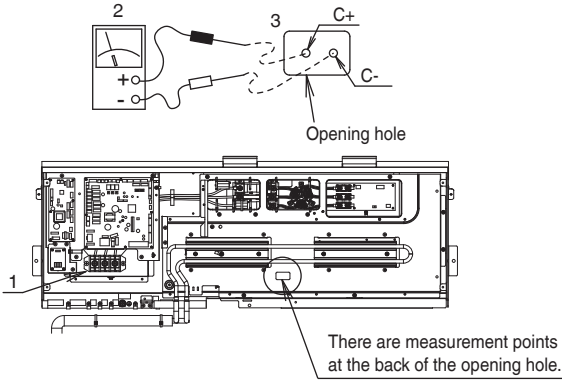
- 1 Terminal block for power supply
- 2 Tester
- 3 White connector

REYQ144,168XAYD* type



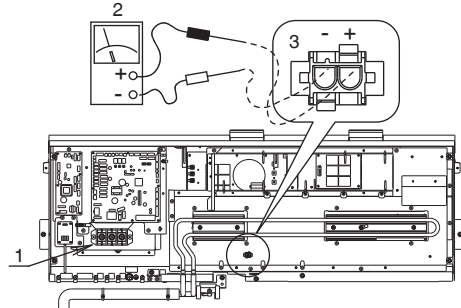
- 1 Terminal block for power supply
- 2 Tester
- 3 White connector

REYQ144,168XATJ* type



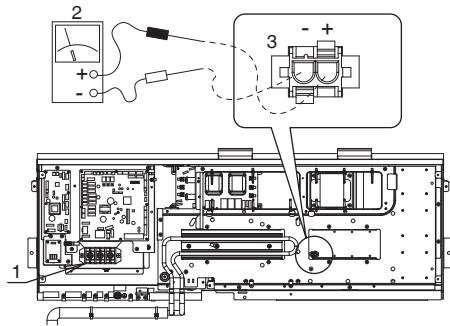
- 1 Terminal block for power supply
- 2 Tester
- 3 Opening hole

REYQ72-168XAYC* type



- 1 Terminal block for power supply
- 2 Tester
- 3 White connector

REYQ72-120XAYD* type



- 1 Terminal block for power supply
- 2 Tester
- 3 White connector

- 3 To prevent damaging the printed circuit board, touch a noncoated metal part to eliminate static electricity before pulling out or plugging in connectors.
- 4 Pull out junction connectors X1A, X2A (X3A, X4A) for the fan motors in the outdoor unit before starting service operation on the inverter equipment. Be careful not to touch the live parts. (If a fan rotates due to strong wind, it may store electricity in the capacitor or in the main circuit and cause electric shock.)
- 5 After the service is finished, plug the junction connector back in. Otherwise the malfunction code E7 will be displayed on the user interface or on the outdoor unit segment display and normal operation will not be performed.

For details refer to the wiring diagram labelled on the back of the control box cover.

Pay attention to the fan. It is dangerous to inspect the unit while the fan is running. Make sure to turn off the main switch and to remove the fuses from the control circuit located in the outdoor unit.

NOTE



Play it safe. For protection of the printed circuit board, touch the control box casing by hand in order to eliminate static electricity from your body before performing service.

17.3. Service mode operation

Refrigerant recovery operation/vacuumping operation is possible by applying setting [2-21]. Refer to 13.2. Operating the push buttons and DIP switches on the printed circuit board on page 24 for details how to set mode 2.

When vacuuming/recovery mode is used, check very carefully what should be vacuumed/recovered before starting. See installation manual of the indoor unit for more information about vacuuming and recovery.

17.3.1. Vacuuming method

- 1 When the unit is at standstill, set the unit in [2-21]=1.
- 2 When confirmed, the indoor units, the Branch Selector units and outdoor unit expansion valves will fully open. At that moment the segment display indication=  and the user interface of all indoor units indicate "Test Operation" and  and the operation will be prohibited.
- 3 Evacuate the system with a vacuum pump.
- 4 Press BS3 to stop vacuuming mode.

17.3.2. Refrigerant recovery operation method

This should be done by a refrigerant recovery equipment. Follow the same procedure as for vacuuming method.

18. Caution for refrigerant leaks

18.1. Introduction

The installer and system specialist shall secure safety against leakage according to local regulations or standards. The following standards may be applicable if local regulations are not available.

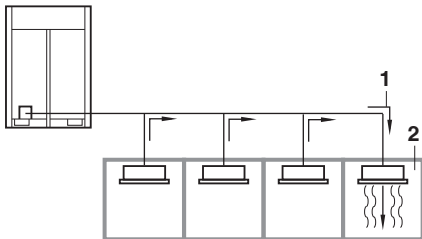
The VRV System, like other air conditioning systems, uses R410A as refrigerant. R410A itself is an entirely safe non-toxic, non-combustible refrigerant. Nevertheless care must be taken to ensure that air conditioning facilities are installed in a room that is sufficiently large. This assures that the maximum concentration level of refrigerant gas is not exceeded, in the unlikely event of major leak in the system and this in accordance to the local applicable regulations and standards.

Maximum concentration level

The maximum charge of refrigerant and the calculation of the maximum concentration of refrigerant is directly related to the humanly occupied space in to which it could leak.

The unit of measurement of the concentration is lbs./ft.³ (kg/m³) (the weight in lbs. (kg) of the refrigerant gas in 1 ft.³ (1 m³) volume of the occupied space).

Compliance to the local applicable regulations and standards for the maximum allowable concentration level is required.



- 1 Direction of the refrigerant flow.
- 2 Room where refrigerant leak has occurred (outflow of all the refrigerant from the system).

Pay special attention to places, such as basements etc., where refrigerant could stay, since refrigerant is heavier than air.

Procedure for checking maximum concentration

Check the maximum concentration level in accordance with steps 1 to 2 below and take whatever action necessary to comply.

- 1 Calculate the amount of refrigerant (lbs. (kg)) charged to each system separately.

Amount of refrigerant in a single unit system (amount of refrigerant with which the system is charged before leav- ing the factory)	+	Additional charging amount (amount of re- frigerant added locally in accordance with the length or diameter of the refrigerant piping)	=	Total amount of refrigerant (lbs. (kg)) in the system
--	---	---	---	--

NOTE

Where a single refrigerant facility is divided into 2 entirely independent refrigerant systems then use the amount of refrigerant with which each separate system is charged.

- 2 Follow local code requirements.

19. Disposal requirements

Dismantling of the unit, treatment of the refrigerant, of oil and of other parts must be done in accordance with relevant local and national legislation.

DAIKIN MANUFACTURING COMPANY, L.P

Daikin Texas Technology Park,
19001 Kermier Road,
Waller, TX, 77484, U.S.A.



DAIKIN

INSTALLATION MANUAL

VRV SYSTEM INVERTER AIR CONDITIONERS

MODELS Air Handling Unit

FXTQ09TAVJUA	FXTQ09TAVJUD
FXTQ12TAVJUA	FXTQ12TAVJUD
FXTQ18TAVJUA	FXTQ18TAVJUD
FXTQ24TAVJUA	FXTQ24TAVJUD
FXTQ30TAVJUA	FXTQ30TAVJUD
FXTQ36TAVJUA	FXTQ36TAVJUD
FXTQ42TAVJUA	FXTQ42TAVJUD
FXTQ48TAVJUA	FXTQ48TAVJUD
FXTQ54TAVJUA	FXTQ54TAVJUD
FXTQ60TAVJUA	FXTQ60TAVJUD

English

Français

Español

Read these instructions carefully before installation. Keep this manual in a handy place for future reference. This manual should be left with the equipment owner.

Lire soigneusement ces instructions avant l'installation.

Conserver ce manuel à portée de main pour référence ultérieure. Ce manuel doit être donné au propriétaire de l'équipement.

Lea cuidadosamente estas instrucciones antes de instalar.

Guarde este manual en un lugar a mano para leer en caso de tener alguna duda. Este manual debe permanecer con el propietario del equipo.

Our continuing commitment to quality products may mean a change in specifications without notice.

IOD-4023B
04/2021

©2016, 2019, 2021 **DAIKIN MANUFACTURING COMPANY, L.P.**

19001 Kermier Rd., Waller, TX 77484

www.daikincomfort.com



CONTENTS

1. SAFETY INSTRUCTIONS.....	2
2. BEFORE INSTALLATION.....	4
3. SELECTING INSTALLATION SITE.....	5
4. INSTALLATION LOCATION.....	5
5. REFRIGERANT PIPING WORK.....	9
6. DRAIN PIPING WORK.....	11
7. DUCT WORK.....	12
8. ELECTRICAL WIRING WORK.....	12
9. FIELD SETTING.....	18
10. ACCESSORIES.....	21
11. TEST RUN.....	22
AIR HANDLER HOMEOWNER'S ROUTINE MAINTENANCE RECOMMENDATIONS.....	23


1. SAFETY INSTRUCTIONS


Read these "SAFETY INSTRUCTIONS for Installation" carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the startup operation.


Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.


Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION** and **NOTE** Symbols:

 **DANGER**...Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**...Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**...Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE**...Indicates situations that may result in equipment or property-damage accidents only.



DANGER

- **REFRIGERANT GAS IS HEAVIER THAN AIR AND REPLACES OXYGEN. A MASSIVE LEAK CAN LEAD TO OXYGEN DEPLETION, ESPECIALLY IN BASEMENTS, AND AN ASPHYXIATION HAZARD COULD OCCUR LEADING TO SERIOUS INJURY OR DEATH.**
- **DO NOT GROUND UNITS TO WATER PIPES, GAS PIPES, TELEPHONE WIRES, OR LIGHTNING RODS AS INCOMPLETE GROUNDING CAN CAUSE A SEVERE SHOCK HAZARD RESULTING IN SEVERE INJURY OR DEATH. ADDITIONALLY, GROUNDING TO GAS PIPES COULD CAUSE A GAS LEAK AND POTENTIAL EXPLOSION CAUSING SEVERE INJURY OR DEATH.**
- **IF REFRIGERANT GAS LEAKS DURING INSTALLATION, VENTILATE THE AREA IMMEDIATELY. REFRIGERANT GAS MAY PRODUCE TOXIC GAS IF IT COMES IN CONTACT WITH FIRE. EXPOSURE TO THIS GAS COULD CAUSE SEVERE INJURY OR DEATH.**
- **AFTER COMPLETING THE INSTALLATION WORK, CHECK THAT THE REFRIGERANT GAS DOES NOT LEAK THROUGHOUT THE SYSTEM.**
- **DO NOT INSTALL UNIT IN AN AREA WHERE FLAMMABLE MATERIALS ARE PRESENT DUE TO RISK OF EXPLOSIONS THAT CAN CAUSE SERIOUS INJURY OR DEATH.**
- **SAFELY DISPOSE ALL PACKING AND TRANSPORTATION MATERIALS IN ACCORDANCE WITH FEDERAL/STATE/LOCAL LAWS OR ORDINANCES. PACKING MATERIALS SUCH AS NAILS AND OTHER METAL OR WOOD PARTS, INCLUDING PLASTIC PACKING MATERIALS USED FOR TRANSPORTATION MAY CAUSE INJURIES OR DEATH BY SUFFOCATION.**



WARNING

- ALL PHASES OF THE FIELD-INSTALLATION, INCLUDING, BUT NOT LIMITED TO, ELECTRICAL, PIPING, SAFETY, ETC. MUST BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND MUST COMPLY WITH NATIONAL, STATE, PROVINCIAL AND LOCAL CODES.
- ONLY QUALIFIED PERSONNEL MUST CARRY OUT THE INSTALLATION WORK. INSTALLATION MUST BE DONE IN ACCORDANCE WITH THIS INSTALLATION MANUAL. IMPROPER INSTALLATION MAY RESULT IN WATER LEAKAGE, ELECTRIC SHOCK, OR FIRE.
- WHEN INSTALLING THE UNIT IN A SMALL ROOM, TAKE MEASURES TO KEEP THE REFRIGERANT CONCENTRATION FROM EXCEEDING ALLOWABLE SAFETY LIMITS. EXCESSIVE REFRIGERANT LEAKS, IN THE EVENT OF AN ACCIDENT IN A CLOSED AMBIENT SPACE, CAN LEAD TO OXYGEN DEFICIENCY.
- USE ONLY SPECIFIED ACCESSORIES AND PARTS FOR INSTALLATION WORK. FAILURE TO USE SPECIFIED PARTS MAY RESULT IN WATER LEAKAGE, ELECTRIC SHOCKS, FIRE, OR THE UNIT FALLING.
- INSTALL THE AIR CONDITIONER OR HEAT PUMP ON A FOUNDATION STRONG ENOUGH THAT IT CAN WITHSTAND THE WEIGHT OF THE UNIT. A FOUNDATION OF INSUFFICIENT STRENGTH MAY RESULT IN THE UNIT FALLING AND CAUSING INJURIES.
- TAKE INTO ACCOUNT STRONG WINDS, TYPHOONS, OR EARTHQUAKES WHEN INSTALLING. IMPROPER INSTALLATION MAY RESULT IN THE UNIT FALLING AND CAUSING ACCIDENTS.
- MAKE SURE THAT A SEPARATE POWER SUPPLY CIRCUIT IS PROVIDED FOR THIS UNIT AND THAT ALL ELECTRICAL WORK IS CARRIED OUT BY QUALIFIED PERSONNEL ACCORDING TO LOCAL, STATE, AND NATIONAL REGULATIONS. AN INSUFFICIENT POWER SUPPLY CAPACITY OR IMPROPER ELECTRICAL CONSTRUCTION MAY LEAD TO ELECTRIC SHOCKS OR FIRE.
- MAKE SURE THAT ALL WIRING IS SECURED, THAT SPECIFIED WIRES ARE USED, AND THAT NO EXTERNAL FORCES ACT ON THE TERMINAL CONNECTIONS OR WIRES. IMPROPER CONNECTIONS OR INSTALLATION MAY RESULT IN FIRE.
- WHEN WIRING, POSITION THE WIRES SO THAT THE ACCESS PANEL CAN BE SECURELY FASTENED. IMPROPER POSITIONING OF THE ACCESS PANEL MAY RESULT IN ELECTRIC SHOCKS, FIRE, OR THE TERMINALS OVERHEATING.
- BEFORE TOUCHING ELECTRICAL PARTS, TURN OFF THE UNIT.
- THIS EQUIPMENT CAN BE INSTALLED WITH A GROUND-FAULT CIRCUIT BREAKER (GFCI). ALTHOUGH THIS IS A RECOGNIZED MEASURE FOR ADDITIONAL PROTECTION, WITH THE GROUNDING SYSTEM IN NORTH AMERICA, A DEDICATED GFCI IS NOT REQUIRED.
- SECURELY FASTEN THE OUTSIDE UNIT TERMINAL COVER (PANEL). IF THE TERMINAL COVER/PANEL IS NOT INSTALLED PROPERLY, DUST OR WATER MAY ENTER THE OUTSIDE UNIT CAUSING FIRE OR ELECTRIC SHOCK.
- WHEN INSTALLING OR RELOCATING THE SYSTEM, KEEP THE REFRIGERANT CIRCUIT FREE FROM SUBSTANCES OTHER THAN THE SPECIFIED REFRIGERANT (R-410A) SUCH AS AIR. ANY PRESENCE OF AIR OR OTHER FOREIGN SUBSTANCE IN THE REFRIGERANT CIRCUIT CAN CAUSE AN ABNORMAL PRESSURE RISE OR RUPTURE, RESULTING IN INJURY.
- DO NOT CHANGE THE SETTING OF THE PROTECTION DEVICES. IF THE PRESSURE SWITCH, THERMAL SWITCH, OR OTHER PROTECTION DEVICE IS SHORTED AND OPERATED FORCIBLY, OR PARTS OTHER THAN THOSE SPECIFIED BY DAIKIN ARE USED, FIRE OR EXPLOSION MAY OCCUR.



CAUTION

- DO NOT TOUCH THE SWITCH WITH WET FINGERS. TOUCHING SWITCH WITH WET FINGERS CAN CAUSE ELECTRIC SHOCK.
- DO NOT ALLOW CHILDREN TO PLAY ON OR AROUND THE UNIT TO PREVENT INJURY.
- DO NOT TOUCH THE REFRIGERANT PIPES DURING AND IMMEDIATELY AFTER OPERATION AS THE REFRIGERANT PIPES MAY BE HOT OR COLD, DEPENDING ON THE CONDITION OF THE REFRIGERANT FLOWING THROUGH THE REFRIGERANT PIPING, COMPRESSOR, AND OTHER REFRIGERANT CYCLE PARTS. YOUR HANDS MAY SUFFER BURNS OR FROSTBITE IF YOU TOUCH THE REFRIGERANT PIPES. TO AVOID INJURY, GIVE THE PIPES TIME TO RETURN TO NORMAL TEMPERATURE OR, IF YOU MUST TOUCH THEM, BE SURE TO WEAR PROPER GLOVES.
- INSTALL DRAIN PIPING TO PROPER DRAINAGE. IMPROPER DRAIN PIPING MAY RESULT IN WATER LEAKAGE AND PROPERTY DAMAGE.
- INSULATE PIPING TO PREVENT CONDENSATION.
- BE CAREFUL WHEN TRANSPORTING THE PRODUCT.
- DO NOT USE A CHARGING CYLINDER. USING A CHARGING CYLINDER MAY CAUSE THE REFRIGERANT TO DETERIORATE.
- REFRIGERANT R-410A IN THE SYSTEM MUST BE KEPT CLEAN, DRY, AND TIGHT.
 - A. CLEAN AND DRY — FOREIGN MATERIALS (INCLUDING MINERAL OILS SUCH AS SUNISO OIL OR MOISTURE) SHOULD BE PREVENTED FROM GETTING INTO THE SYSTEM.
 - B. TIGHT — R-410A DOES NOT CONTAIN ANY CHLORINE, DOES NOT DESTROY THE OZONE LAYER, AND DOES NOT REDUCE THE EARTH'S PROTECTION AGAIN HARMFUL ULTRAVIOLET RADIATION. R-410A CAN CONTRIBUTE TO THE GREENHOUSE EFFECT IF IT IS RELEASED. THEREFORE TAKE PROPER MEASURES TO CHECK FOR THE TIGHTNESS OF THE REFRIGERANT PIPING INSTALLATION. READ THE CHAPTER REFRIGERANT PIPING AND FOLLOW THE PROCEDURES.
- SINCE R-410A IS A BLEND, THE REQUIRED ADDITIONAL REFRIGERANT MUST BE CHARGED IN ITS LIQUID STATE. IF THE REFRIGERANT IS CHARGED IN A STATE OF GAS, ITS COMPOSITION CAN CHANGE AND THE SYSTEM WILL NOT WORK PROPERLY.
- THE INDOOR UNIT IS FOR R-410A. SEE THE CATALOG FOR INDOOR MODELS THAT CAN BE CONNECTED. NORMAL OPERATION IS NOT POSSIBLE WHEN CONNECTED TO OTHER UNITS.
- REMOTE CONTROLLER (WIRELESS KIT) TRANSMITTING DISTANCE CAN BE SHORTER THAN EXPECTED IN ROOMS WITH ELECTRONIC FLUORESCENT LAMPS (INVERTER OR RAPID START TYPES). INSTALL THE INDOOR UNIT FAR AWAY FROM FLUORESCENT LAMPS AS MUCH AS POSSIBLE.
- INDOOR UNITS ARE FOR INDOOR INSTALLATION ONLY. OUTDOOR UNITS CAN BE INSTALLED EITHER OUTDOORS OR INDOORS. THIS UNIT IS FOR INDOOR USE.
- DO NOT INSTALL THE AIR CONDITIONER OR HEAT PUMP IN THE FOLLOWING LOCATIONS:
 - A. WHERE A MINERAL OIL MIST OR OIL SPRAY OR VAPOR IS PRODUCED, FOR EXAMPLE, IN A KITCHEN. PLASTIC PARTS MAY DETERIORATE AND FALL OFF OR RESULT IN WATER LEAKAGE.
 - B. WHERE CORROSIVE GAS, SUCH AS SULFUROUS ACID GAS, IS PRODUCED. CORRODING COPPER PIPES OR SOLDERED PARTS MAY RESULT IN REFRIGERANT LEAKAGE.
 - C. NEAR MACHINERY EMITTING ELECTROMAGNETIC WAVES. ELECTROMAGNETIC WAVES MAY DISTURB THE OPERATION OF THE CONTROL SYSTEM AND CAUSE THE UNIT TO MALFUNCTION.
 - D. WHERE FLAMMABLE GAS MAY LEAK, WHERE THERE IS CARBON FIBER, OR IGNITABLE DUST SUSPENSION IN THE AIR, OR WHERE VOLATILE FLAMMABLES SUCH AS THINNER OR GASOLINE ARE HANDLED. OPERATING THE UNIT IN SUCH CONDITIONS CAN CAUSE A FIRE.
- TAKE ADEQUATE MEASURES TO PREVENT THE OUTSIDE UNIT FROM BEING USED AS A SHELTER BY SMALL ANIMALS. SMALL ANIMALS MAKING CONTACT WITH ELECTRICAL PARTS CAN CAUSE MALFUNCTIONS, SMOKE, OR FIRE. INSTRUCT THE CUSTOMER TO KEEP THE AREA AROUND THE UNIT CLEAN.



NOTE

- INSTALL THE POWER SUPPLY AND CONTROL WIRES FOR THE INDOOR AND OUTDOOR UNITS AT LEAST 3.5 FEET AWAY FROM TELEVISIONS OR RADIOS TO PREVENT IMAGE INTERFERENCE OR NOISE. DEPENDING ON THE RADIO WAVES, A DISTANCE OF 3.5 FEET MAY NOT BE SUFFICIENT TO ELIMINATE THE NOISE.
- DISMANTLING THE UNIT, TREATMENT OF THE REFRIGERANT, OIL AND ADDITIONAL PARTS MUST BE DONE IN ACCORDANCE WITH THE RELEVANT LOCAL, STATE, AND NATIONAL REGULATIONS.
- DO NOT USE THE FOLLOWING TOOLS THAT ARE USED WITH CONVENTIONAL REFRIGERANTS: GAUGE MANIFOLD, CHARGE HOSE, GAS LEAK DETECTOR, REVERSE FLOW CHECK VALVE, REFRIGERANT CHARGE BASE, VACUUM GAUGE, OR REFRIGERANT RECOVERY EQUIPMENT.
- IF THE CONVENTIONAL REFRIGERANT AND REFRIGERATOR OIL ARE MIXED IN R-410A, THE REFRIGERANT MAY DETERIORATE.
- THIS AIR CONDITIONER OR HEAT PUMP IS AN APPLIANCE THAT SHOULD NOT BE ACCESSIBLE TO THE GENERAL PUBLIC.
- AS DESIGN PRESSURE IS 450 PSI, THE WALL THICKNESS OF FIELD-INSTALLED PIPES SHOULD BE SELECTED IN ACCORDANCE WITH THE RELEVANT LOCAL, STATE, AND NATIONAL REGULATIONS.

2. BEFORE INSTALLATION



WARNING

- ENTRUST INSTALLATION TO THE PLACE OF PURCHASE OR A QUALIFIED SERVICEMAN. IMPROPER INSTALLATION COULD LEAD TO LEAKS AND, IN WORSE CASES, ELECTRIC SHOCK OR FIRE.
- USE OF UNSPECIFIED PARTS COULD LEAD TO THE UNIT FAILING, LEAKS AND, IN WORSE CASES, ELECTRIC SHOCK OR FIRE.



NOTE

- BE SURE TO READ THIS MANUAL BEFORE INSTALLING THE INDOOR UNIT.
- BE SURE TO MOUNT AN AIR FILTER (PART TO BE PROCURED IN THE FIELD) IN THE SUCTION AIR PASSAGE IN ORDER TO PREVENT WATER LEAKING, ETC.

The accessories needed for installation must be retained in your custody until the installation work is completed. Do not discard them.

1. Decide upon a line of transport.
2. Leave the unit inside its packaging while moving, until reaching the installation site. Where unpacking is unavoidable, use a sling of soft material or protective plates together with a rope when lifting, to avoid damage or scratches to the unit.

Be sure to check the type of R-410A refrigerant to be used before installing the unit.

(Using an incorrect refrigerant will prevent normal operation of the unit.)

For the installation of an outdoor unit, refer to the installation manual attached to the outdoor unit.

2.1 PRECAUTIONS

- Be sure to instruct customers how to properly operate the unit (operating different functions, and adjusting the temperature) by having them carry out operations themselves while looking at the operation manual.
- Do not install in locations where the air contains high levels of salt such as that near the ocean and where voltage fluctuates greatly such as that in factories, or in vehicles or vessels.

2.2 OPTIONAL ACCESSORIES

This indoor unit requires one of the operation remote controls listed below.

Remote Controller	
Wired Type	BRC1E73, BRC2A71
Wireless Type	BRC4C82

FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED.

Items to be checked AFTER COMPLETION OF WORK


Items to be checked	If not properly done, what is likely to occur	Check
Are the indoor and outdoor units fixed firmly?	If units may drop, vibrate or make noise	
Is the refrigerant leak test finished?	It may result in insufficient cooling.	
Is the unit fully insulated?	Condensate may drip.	
Does the drainage flow smoothly?	Condensate may drip.	
Does the power supply voltage correspond to that shown on the name plate?	The unit may malfunction or the components burn out.	
Are the wiring and piping correct?	The unit may malfunction or the components burn out.	
Is the unit safely grounded?	Incomplete grounding may result in electric shocks.	
Is wiring size according to specifications?	The unit may malfunction or the components burn out.	
Is something blocking the air outlet or inlet of either the indoor or outdoor units?	It may result in insufficient cooling.	
Are the refrigerant piping length and additional refrigerant charge noted down?	The refrigerant charge in the system is not clear.	

Also review the SAFETY CONSIDERATIONS.

Items to be checked AT TIME OF DELIVERY

Items to be checked	Check
Did you hand the operation manual and warranty over to your customer?	
Did you explain about operations while showing the operation manual to your customer?	
Did you explain to your customer how to maintain and clean local procurements such as the air filter, suction grille, and air outlet grille?	
Did you hand manuals of local procurements (in case equipped) over to your customer?	

3. SELECTING INSTALLATION SITE

 CAUTION
<ul style="list-style-type: none"> IN CASES WHERE THE UNIT IS INSTALLED IN A SPACE WHERE THE HUMIDITY MIGHT EXCEED 86°F AND RH80%, REINFORCE THE INSULATION ON THE UNIT BODY. <p>USE GLASS WOOL OR POLYETHYLENE FOAM AS INSULATION SO THAT THE THICKNESS IS MORE THAN 2" AND FITS INSIDE THE INSTALLATION SPACE OPENING.</p>

- Select an installation site where the following conditions are fulfilled and meets with your customer’s approval.
 - Where optimum air distribution can be ensured.
 - Where nothing blocks air passage.
 - Where condensate can be properly drained.
 - Where the supports are strong enough to bear the indoor unit weight.
 - Where the false ceiling is not noticeably on an incline.
 - Where piping between indoor and outdoor units is possible within the allowable limit. (Refer to the installation manual for the outdoor unit.)
 - If a return-air duct is not installed, carefully select the place and method of product installation so that air flow into the product will not be blocked.
 - The unit clearance from a combustible surface may be 0". However, service clearance must take precedence. A minimum of 24" in front of the unit for service clearance is required. Additional clearance on one side or top will be required for electrical wiring connections. Consult all appropriate regulatory codes prior to determining final clearances. When installing this unit in an area that may become wet (such as crawl spaces), elevate the unit with a sturdy, non-porous material. In installations that may lead to physical damage (i.e. a garage) it is advised to install a protective barrier to prevent such damage. Always install units such that a positive slope in condensate line (1/4" per foot) is allowed.

If installed horizontally above a finished living space a secondary drain pan, as required by many building codes, must be installed under the entire unit and its condensate drain line must be routed to a location such that the user will see the condensate discharge.

4. INSTALLATION LOCATION

NOTE: THESE AIR HANDLERS ARE DESIGNED FOR INDOOR INSTALLATION ONLY.

Applications where the air handler is installed and the return air environment see humidity levels above 65% relative humidity coupled with total external static levels above 0.5"; it is recommended to reinforce the insulation on the unit body.

The FXTQ**T product line may be installed in one of the upflow, downflow, horizontal left or horizontal right orientations as shown in Figures 3, 4, 5 and 6. The unit may be installed in upflow or horizontal left orientation as shipped (refer to specific sections for more information). Minor field modifications are necessary to convert to downflow or horizontal right as indicated in below sections.

NOTE: CONDENSATION MAY FORM ON THE PRODUCT DURING COOL OPERATION. IT IS RECOMMENDED TO INSTALL SECONDARY DRAIN PAN (FIELD SUPPLIED).

4.1 UPFLOW INSTALLATION

No field modifications are mandatory however to obtain maximum efficiency, the horizontal drip shield, side drain pan and drain pan extension, can be removed.

Side Drain Pan and Extension Removal: Refer to Figure 1; remove the two (2) screws that secure the drip shield support brackets to the horizontal drip shield (front and back). Unsnap the side drain pan from the bottom drain pan using a screw driver or any small lever. The side drain pan, drip shield brackets and the drain pan extension may now be removed. From Figure 1, drain port labeled (A) is the primary drain for this application and condensate drain line must be attached to this drain port. Drain port (a) is for the secondary drain line (if used).

4.2 HORIZONTAL LEFT INSTALLATION

No field modifications are permissible for this application.

Refer to Figure 7 and 8 for the location of the components referenced in the following steps.

Drain port labeled (B) in Figure 1 is the primary drain for this application and condensate drain line must be attached to this drain port. Drain port (b) is for the secondary drain line (if used).

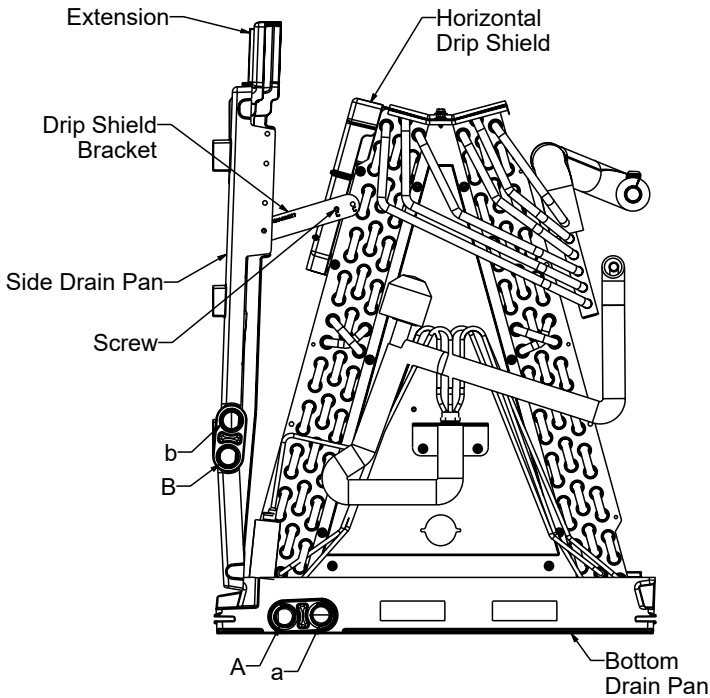


FIGURE 1

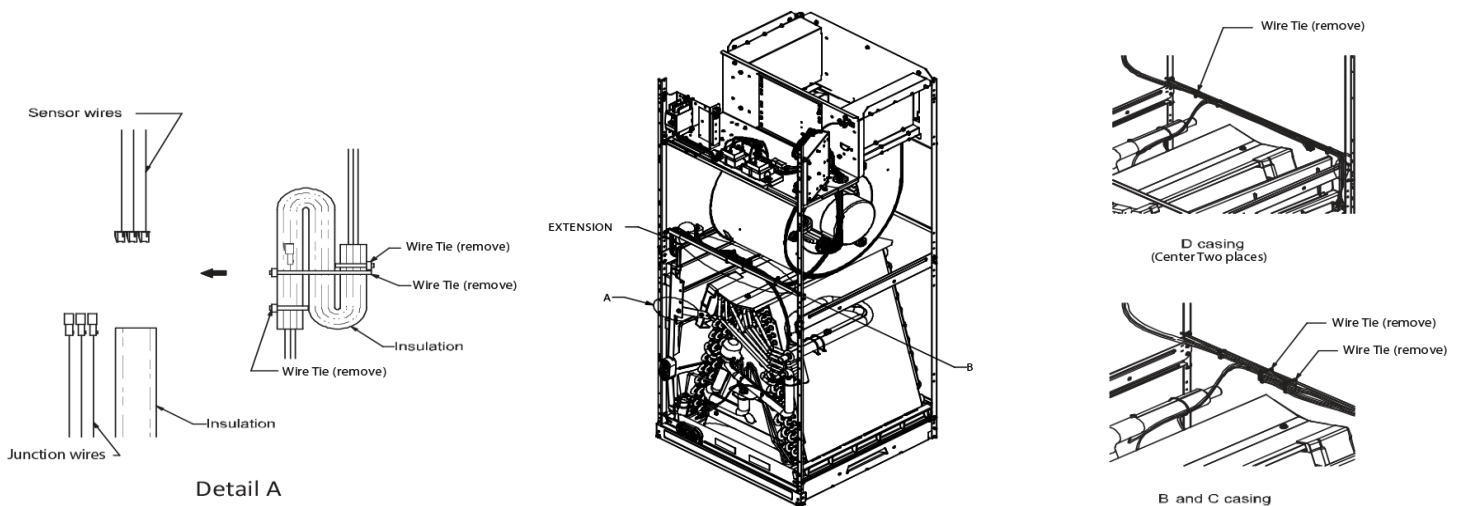
4.3 DOWNFLOW/HORIZONTAL RIGHT INSTALLATION

IMPORTANT NOTE: IN THE DOWNFLOW APPLICATION, TO PREVENT COIL PAN “SWEATING”, A DOWNFLOW KIT (DFK) IS AVAILABLE THROUGH YOUR LOCAL DAIKIN DISTRIBUTOR. THE DFK IS NOT SUPPLIED WITH THE AIR HANDLER AND IS REQUIRED TO MINIMIZE PAN SWEATING ON ALL DOWNFLOW INSTALLATIONS. SEE TABLE 1 FOR THE CORRECT DFK AND FOLLOW THE INSTRUCTIONS PROVIDED FOR INSTALLATION.

DKF-B Downflow Kit	DKF-C Downflow Kit	DKF-D Downflow Kit
FXTQ09TAVJUA	FXTQ42TAVJUA	FXTQ54TAVJUA
FXTQ09TAVJUD	FXTQ42TAVJUD	FXTQ54TAVJUD
FXTQ12TAVJUA	FXTQ48TAVJUA	FXTQ60TAVJUA
FXTQ12TAVJUD	FXTQ48TAVJUD	FXTQ60TAVJUD
FXTQ18TAVJUA		
FXTQ18TAVJUD		
FXTQ24TAVJUA		
FXTQ24TAVJUD		
FXTQ30TAVJUA		
FXTQ30TAVJUD		
FXTQ36TAVJUA		
FXTQ36TAVJUD		

**DOWNFLOW KIT
TABLE 1**

1. Before flipping the air handler, remove blower access panel and coil access panel. The coil access panel and tubing panel may remain screwed together during this procedure. Remove and retain the seven (7) screws securing the coil access panel to the cabinet and the six (6) screws securing the blower access panel to the cabinet.
2. Before removing the coil remove the wire ties holding the sensor wire harness to the center support. Remove the insulation covering the wire connectors and disconnect the wires. Do not cut or damage the insulation covering the junction connectors since it will be required to secure the wires once the change is complete. See Figures 2-1 and 2-2 for wire tie location.

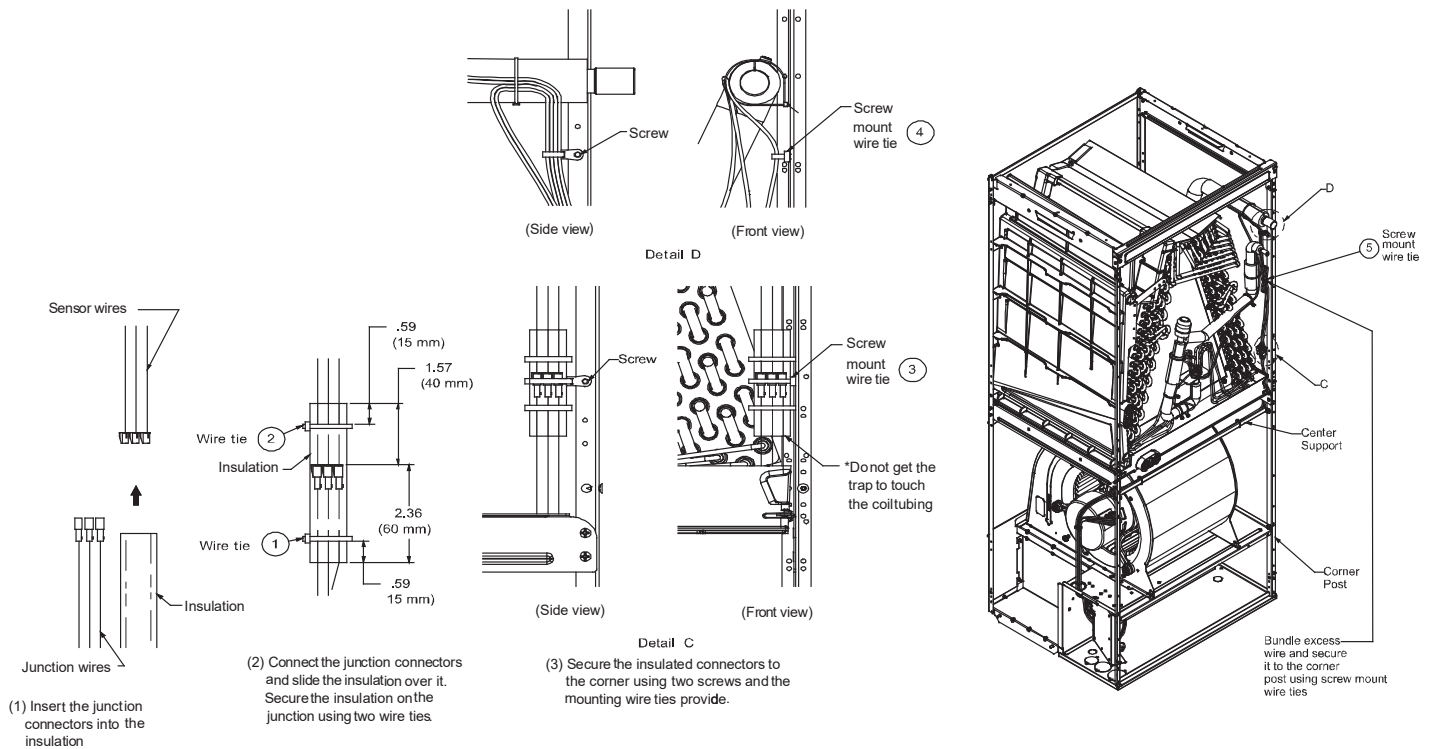


**WIRE TIE LOCATION TO BE REMOVED
FIGURE 2-1**

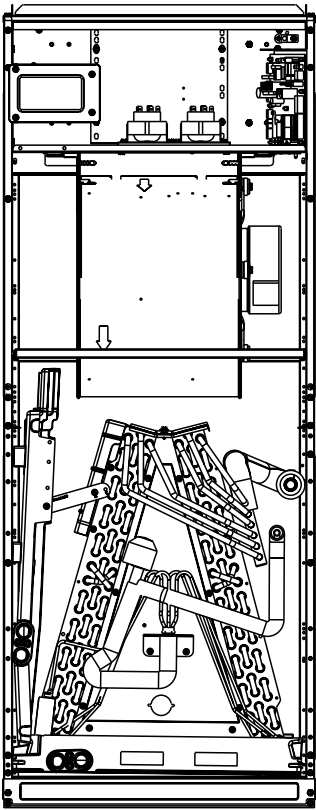
NOTE: DO NOT USE MANIFOLDS OR FLOWRATOR TO PULL THE COIL ASSEMBLY OUT. FAILURE TO DO SO MAY RESULT IN BRAZE JOINT DAMAGE AND LEAKS.

3. Slide the coil assembly out using the bottom drain pan to pull the assembly from the cabinet.
4. For flipping the coil, drain pan extension must be removed for all models. Center support should not be removed while removing the drain pan extension. Side drain pan and horizontal drip shield can be removed for downflow application. The side drain pan and horizontal drip shield cannot be removed for horizontal right.
5. Using the bottom drain pan to hold the coil assembly, slide the coil assembly back into the cabinet on the downflow brackets as shown in Figure 9.
6. Reconnect the sensor wires and replace the insulation securing it with wire ties on both sides as shown in Figure 2-2. Then, secure the wire harness to the corner post using the screw mount wire ties provided.

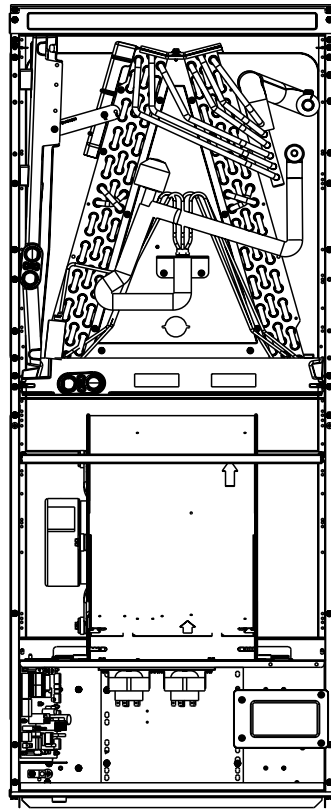
7. Re-install the access panels removed in Step 1.
8. Two drain ports located at the bottom drain pan (horizontally oriented) are to be used for upflow and downflow applications and the two on the side drain pan (vertically oriented) are to be used when the unit is in horizontal right or left configuration. When the unit is in upflow or downflow configuration, the drain ports located on bottom drain pan must be plugged and vice versa. Drain ports located at lower elevation (closer to the ground) in either configuration must be connected to the main drain line and the higher is for the secondary drain line.



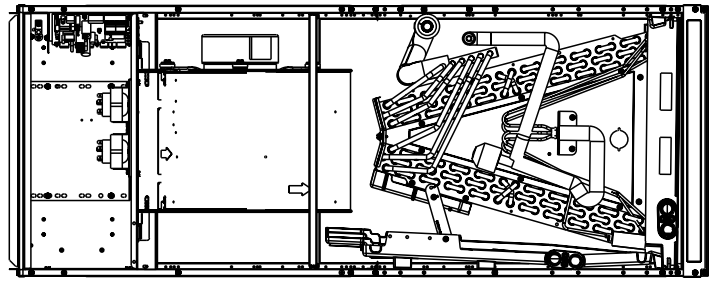
**WIRE TIE LOCATION TO BE SECURED
FIGURE 2-2**



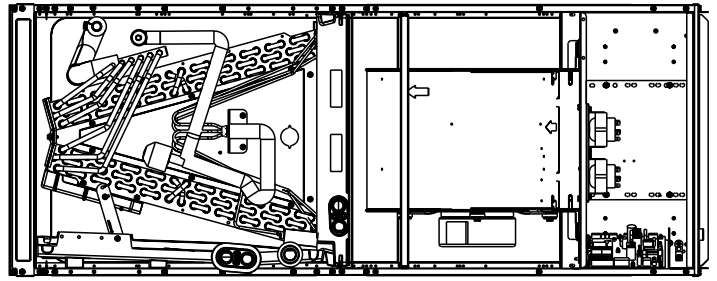
UPFLOW
FIGURE 3



DOWNFLOW
FIGURE 4



HORIZONTAL LEFT
FIGURE 5



HORIZONTAL RIGHT
FIGURE 6

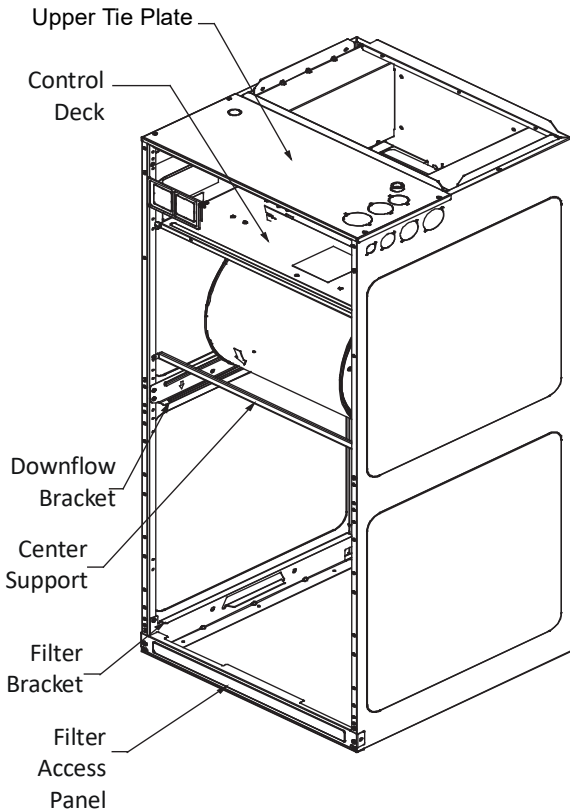


FIGURE 7

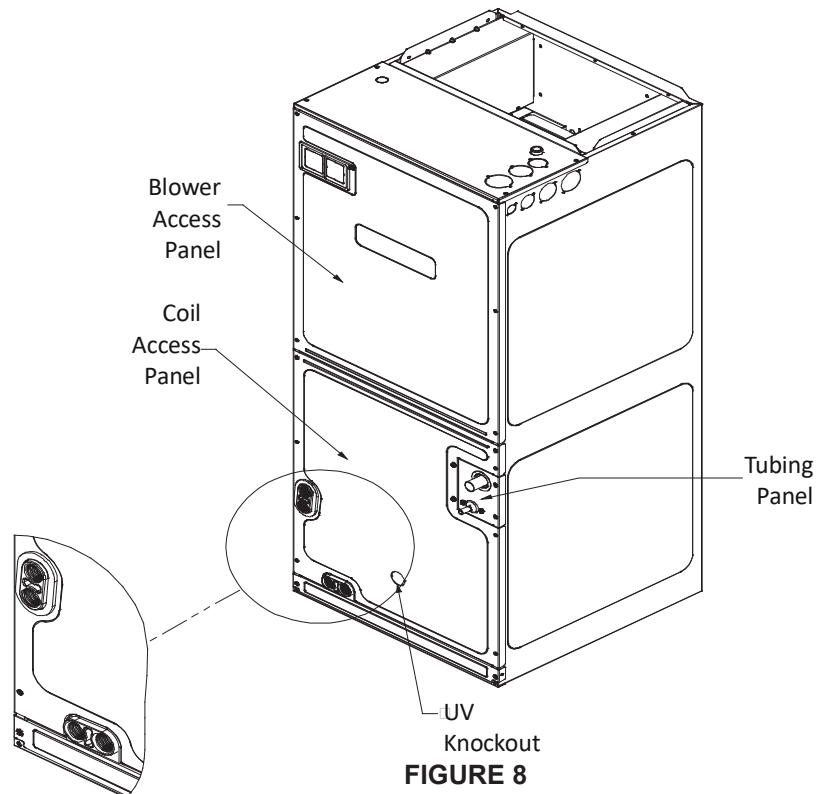


FIGURE 8

NOTE: If removing only the coil access panel from the unit, the filter cover must be removed first. Failure to do so may result in panel damage.

5. REFRIGERANT PIPING WORK

Observe the requirements listed below for refrigerant tubing sizes.

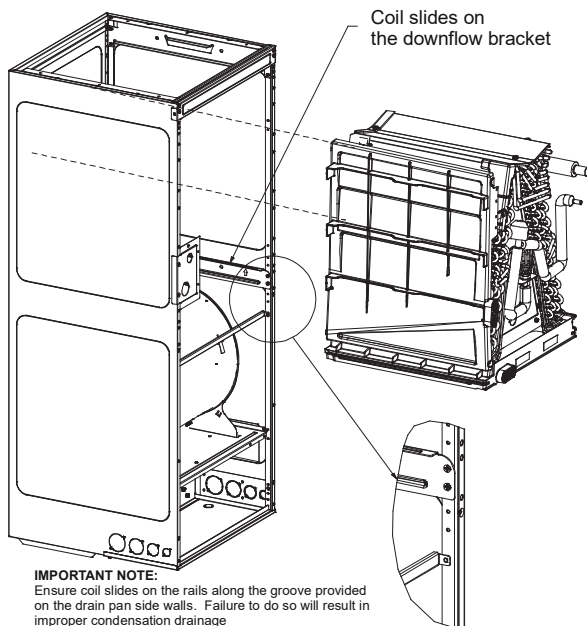
Refer to Figure 7 and 8 for the location of the components referenced in the following steps.

Drain port labeled (B) in Figure 1 is the primary drain for this application and condensate drain line must be attached to this drain port. Drain port (b) is for the secondary drain line (if used). In applications where the air handler is installed in the horizontal left position, and the return air environment see humidity levels above 65% relative humidity coupled with total external static levels above 0.5" e.s.p., installation may require a field fabricated or field supplied secondary drain pan under the coil cabinet enclosure.


Model	Tubing Size	
	Liquid	Gas
FXTQ09/12/18	1/4"	1/2"
FXTQ24/30/36/42/48/54/60	3/8"	5/8"

Execute heat insulation work completely on both sides of the gas piping and the liquid piping or else a water leakage might result.

Failing to insulate the pipes may cause leaking or burns. Be sure to use the insulation which can withstand such temperatures of 250°F (120°C) or more. Reinforce the insulation on the refrigerant piping according to the installation environment. If the temperature or humidity in the product installation location might reach 86°F or 80%, respectively. Condensation may form on the surface of the insulation.



COIL INSTALLATION FOR DOWNFLOW
FIGURE 9


CAUTION

FOLLOW THE POINTS AT BELOW.

- **USE A TUBE CUTTER AND FLARING BLOCK SUITABLE FOR THE TYPE OR REFRIGERANT.**
- **TO PREVENT DUST, MOISTURE OR OTHER FOREIGN MATTER FROM INFILTRATING THE PIPING, EITHER PINCH THE END OR COVER IT WITH TAPE.**
- **DO NOT ALLOW ANYTHING OTHER THAN THE DESIGNATED REFRIGERANT TO GET MIXED INTO THE REFRIGERANT CIRCUIT, SUCH AS AIR. IF ANY REFRIGERANT GAS LEAKS WHILE WORKING ON THE UNIT IMMEDIATELY VENTILATE THE ROOM.**

1. Cut off the spin closure.
 - The outdoor unit is charged with refrigerant.
 - This coil contains gas under 150 P.S.I.G.

Release pressure from the gas piping pressure-release device before initiating piping work.

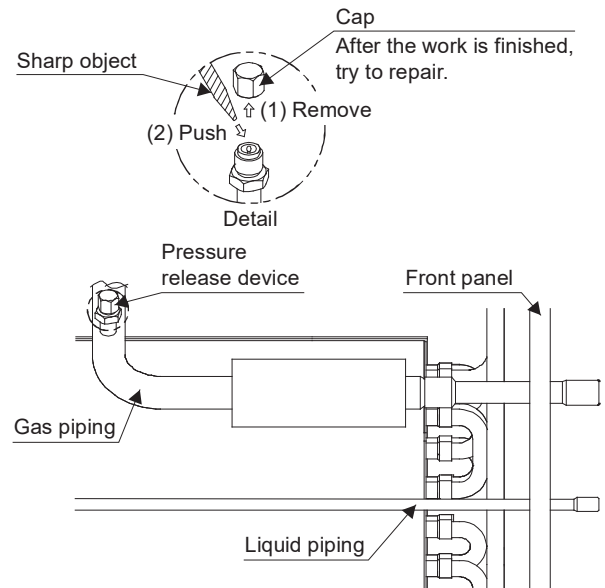


FIGURE 10

- Cut off the pipe end with a tube cutter. (Both liquid line and gas line.)

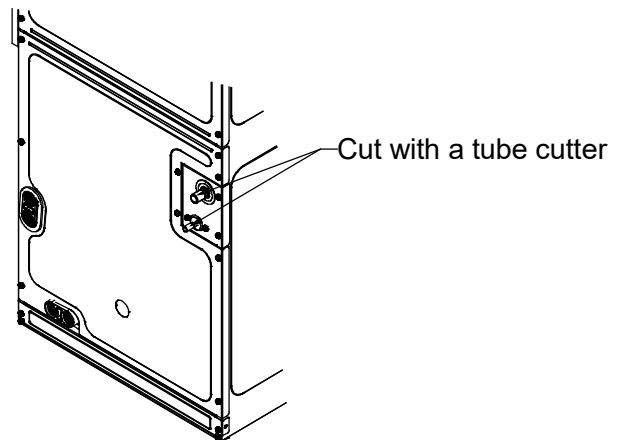


FIGURE 11

2. Connect the piping.
 - Remove the upper and lower front panels.
 - Slide the front panel (lower) along the field piping until it is far enough away that it will not be affected by heat from the brazing, as shown in Figure 12.
 - Braze up to the field piping fitting port while cooling the sensor and the thermal insulation.
 - Close the upper and lower front panels once heat from the brazed areas has dissipated.

NOTE

- **WHEN BRAZING THE FIELD PIPING, COVER THE PIPE INSULATION AND THE THERMAL SENSOR INSIDE THE INSULATION WITH A DAMP CLOTH TO PREVENT ANY DAMAGE TO THE SENSOR OR THE INSULATION.**

OTHERWISE, THE SENSOR MAY BE DAMAGED BY HEAT OF BRAZING, WHICH LEADS TO A FAILURE OF NORMAL OPERATION.

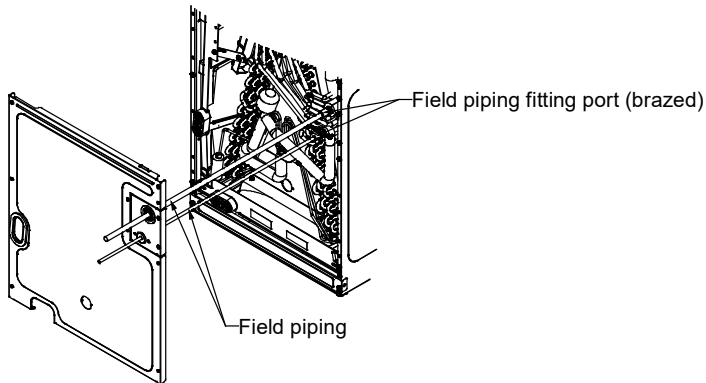


FIGURE 12

3. After the work is finished, make sure to check that there is no gas leak.
4. After checking for gas leaks, be sure to insulate the piping connections referring to Figure 13.

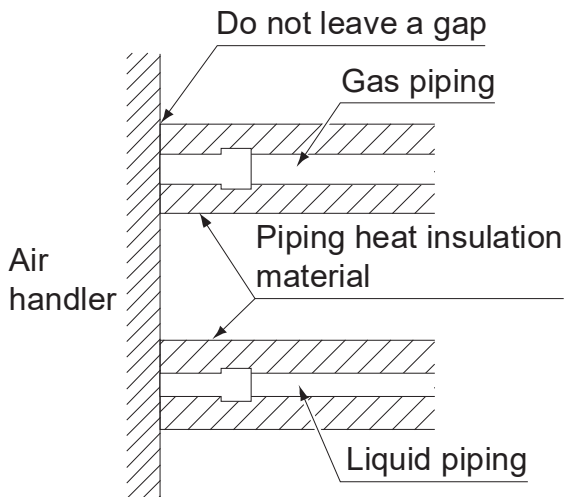


FIGURE 13

CAUTION

- **BE SURE TO INSULATE ANY FIELD PIPING ALL THE WAY TO THE PIPING CONNECTION INSIDE THE UNIT. ANY EXPOSED PIPING MAY CAUSE CONDENSATION OR BURNS IF TOUCHED.**
- **WHEN BRAZING THE REFRIGERANT PIPING, PERFORM NITROGEN REPLACEMENT FIRST OR PERFORM THE BRAZING WHILE FEEDING NITROGEN INTO THE REFRIGERANT PIPING. (REFER TO FIGURE 14.)**

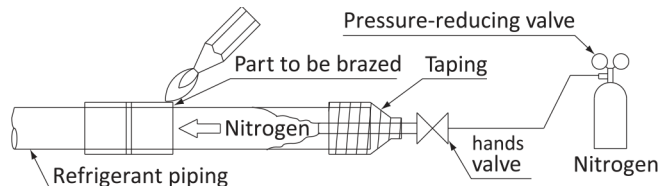


FIGURE 14

CAUTION

- **WHEN BRAZING PIPES WHILE FEEDING NITROGEN INSIDE THE PIPING, MAKE SURE TO SET THE NITROGEN PRESSURE TO 2.9 PSI OR LESS USING THE PRESSURE REDUCING VALVE. (THIS PRESSURE IS SUCH THAT A BREEZE IS BLOWN TO YOUR CHEEK.)**
- **WHEN BRAZING THE REFRIGERANT PIPING, PERFORM NITROGEN REPLACEMENT FIRST OR PERFORM THE BRAZING WHILE FEEDING NITROGEN INTO THE REFRIGERANT PIPING. (REFER TO FIGURE 14.)**

CAUTION

- **WHEN FOLLOWING THE VRV AIR TIGHT TEST PROCEDURE DURING INSTALLATION (REFER TO THE OUTDOOR UNIT INSTALLATION MANUAL FOR DETAILS), ONLY PRESSURIZE TO 450 PSIG (3.1MPa) WHEN USING FXTQ.**

DANGER

- **USE OF OXYGEN COULD RESULT IN AN EXPLOSION RESULTING IN SERIOUS INJURY OR DEATH. ONLY USE DRY NITROGEN GAS.**
- **REFRIGERANT GAS MAY PRODUCE TOXIC GAS IF IT COMES IN CONTACT WITH FIRE SUCH AS FROM A HEATER, STOVE OR COOKING DEVICE.**
- **EXPOSURE TO THIS GAS COULD CAUSE SEVERE INJURY OR DEATH.**



NOTE

- **DO NOT USE FLUX WHEN BRAZING REFRIGERANT PIPING. THEREFORE, USE THE PHOSPHOR COPPER BRAZING FILLER METAL (BCuP) WHICH DOES NOT REQUIRE FLUX.**

FLUX HAS AN EXTREMELY NEGATIVE EFFECT ON REFRIGERANT PIPING SYSTEMS. FOR INSTANCE, IF CHLORINE BASED FLUX IS USED, IT WILL CAUSE PIPING CORROSION. FLUX CONTAINING FLUORINE WILL DAMAGE REFRIGERANT OIL.

6. DRAIN PIPING WORK

The coil drain pan has a primary and a secondary drain with 3/4" NPT female connections. The connectors required are 3/4" NPT male, either PVC or metal pipe, and should be hand tightened to a torque of no more than 37 in-lbs. to prevent damage to the drain pan connection. An insertion depth of approximately 3/8" to 1/2" (3-5 turns) should be expected at this torque.

1. Ensure drain pan hole is not obstructed.
2. To prevent potential sweating and dripping on to finished space, it may be necessary to insulate the condensate drain line located inside the building. Use Armaflex® or similar material.

A secondary condensate drain connection has been provided for areas where the building codes require it. Pitch all drain lines a minimum of 1/4" per foot to provide free drainage, or as required by local code. Provide required support to the drain line to prevent bowing. If the secondary drain line is required, run the line separately from the primary drain and end it where condensate discharge can be easily seen.



NOTE

- **WATER COMING FROM SECONDARY LINE MEANS THE COIL PRIMARY DRAIN IS PLUGGED AND NEEDS IMMEDIATE ATTENTION.**
- **INSULATE DRAIN LINES LOCATED INSIDE THE BUILDING OR ABOVE A FINISHED LIVING SPACE TO PREVENT SWEATING. INSTALL A CONDENSATE TRAP TO ENSURE PROPER DRAINAGE.**
- **SOME INSTALLATION MAY REQUIRE A FIELD FABRICATED OR FIELD SUPPLIED SECONDARY DRAIN PAN UNDER THE COIL CABINET ENCLOSURE. THE INSTALLATION MUST INCLUDE A "P" STYLE TRAP THAT IS LOCATED AS CLOSE AS IS PRACTICAL TO THE EVAPORATOR COIL SEE FIGURE 15 FOR DETAILS OF A TYPICAL CONDENSATE LINE "P" TRAP.**
- **TRAPPED LINES ARE REQUIRED BY MANY LOCAL CODES. IN THE ABSENCE OF ANY PREVAILING LOCAL CODES, PLEASE REFER TO THE REQUIREMENTS LISTED IN THE UNIFORM MECHANICAL BUILDING CODE. A DRAIN TRAP IN A DRAW-THROUGH APPLICATION PREVENTS AIR FROM BEING DRAWN BACK THROUGH THE DRAIN LINE DURING FAN OPERATION THUS PREVENTING CONDENSATE FROM DRAINING, AND IF CONNECTED TO A SEWER LINE TO PREVENT SEWER GASES FROM BEING DRAWN INTO THE AIRSTREAM DURING BLOWER OPERATION.**

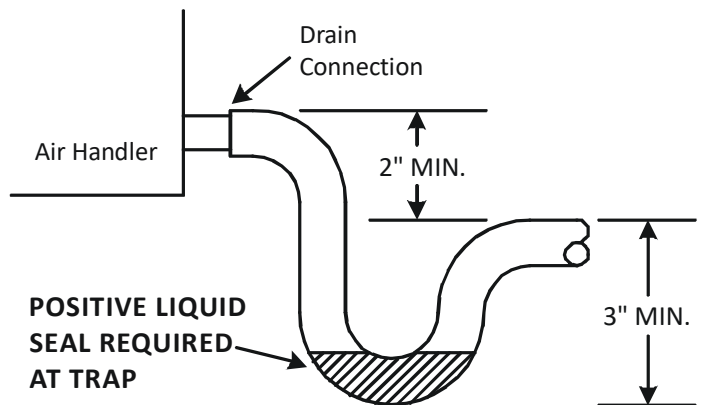


FIGURE 15

Observe the following guidelines when installing concentrated drain piping. Select the thickness of the concentrated drain piping to reflect the capacity of the machine to which it will be connected. (Install a drain trap for each indoor unit.) See Figure 16.

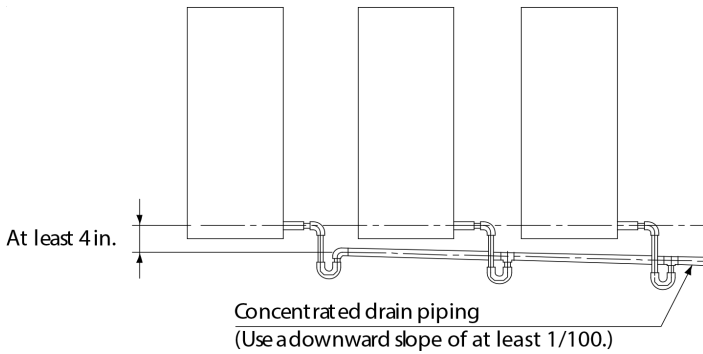


FIGURE 16

	CAUTION
<ul style="list-style-type: none"> • IF SECONDARY DRAIN IS NOT INSTALLED, THE SECONDARY ACCESS MUST BE PLUGGED. 	

Condensate drain traps with an open vertical Tee between the air handler and the condensate drain trap can improve condensate drainage in some applications, but may cause excessive air discharge out of the open Tee. Daikin does not prohibit this type of drain but we also do not recommend it due to the resulting air leakage. Regardless of the condensate drain design used, it is the installer’s responsibility to ensure the condensate drain system is of sufficient design to ensure proper condensate removal from the coil drain pan. Use of a condensate removal pump is permitted when necessary. This condensate pump should have provisions for shutting off the control voltage should a blocked drain occur. See Auxiliary Alarm Switch section for more details. A trap must be installed between the unit and the condensate pump.


DRAIN PIPING CONNECTION

Do not connect drain piping directly to sewage pipes where ammonia odor may be present. Ammonia in the sewage pipes may enter the indoor unit body through the drain piping and corrode the heat exchanger.

IMPORTANT NOTE: THE EVAPORATOR COIL IS FABRICATED WITH OILS THAT MAY DISSOLVE STYROFOAM AND CERTAIN TYPES OF PLASTICS. THEREFORE, A REMOVAL PUMP OR FLOAT SWITCH MUST NOT CONTAIN ANY OF THESE MATERIALS.

7. DUCT WORK

This air handler is designed for a complete supply and return ductwork system. To ensure correct system performance, the ductwork is to be sized to accommodate 350-450 CFM per ton of cooling with the static pressure not to exceed 0.9” in w.c. Refer to ACCA Manual D, Manual S and Manual RS for information on duct sizing and application. Flame retardant ductwork is to be used and sealed to the unit in a manner that will prevent leakage.

	NOTE
<ul style="list-style-type: none"> • A DOWNFLOW APPLICATION WITH ELECTRIC HEAT MUST HAVE AN L-SHAPED SHEET METAL SUPPLY DUCT WITHOUT ANY OUTLETS OR REGISTERS LOCATED DIRECTLY BELOW THE HEATER. 	

7.1 RETURN DUCTWORK


Do not locate the return ductwork in an area that can introduce toxic or objectionable fumes/odors into the ductwork. The return ductwork is to be connected to the air handler bottom (upflow configuration).

8. ELECTRICAL WIRING WORK

IMPORTANT: ALL ROUTING OF ELECTRICAL WIRING MUST BE MADE THROUGH PROVIDED ELECTRICAL KNOCKOUTS. WHEN REMOVING THE ELECTRICAL KNOCKOUTS, TAKE CARE NOT TO DAMAGE THE PCB. DO NOT CUT, PUNCTURE OR ALTER THE CABINET FOR ELECTRICAL WIRING.

8.1 GENERAL INSTRUCTIONS

- Shut off the power before doing any work.
- All field supplied parts and materials, electric works must conform to local codes.
- Use copper wire only.
- See also the “Wiring Diagram Label” located inside the unit’s fan housing.
- For details on hooking up the remote controller, refer to the “Remote Controller Installation Manual”.
- All wiring must be performed by an authorized electrician.
- This system consists of multiple indoor units. Mark each indoor unit as unit A, unit B . . . , and be sure the terminal board wiring to the outdoor unit and Branch Selector unit are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.
- Install a wiring interrupter or ground-fault circuit interrupter for the power wiring.
- To avoid short circuiting the power supply wire, be sure to use insulated terminals.
- Do not turn on the power supply (wiring interrupter or ground-fault circuit interrupter) until all other work is done.

	DANGER
<ul style="list-style-type: none"> • DO NOT GROUND UNITS TO WATER PIPING, TELEPHONE WIRES OR LIGHTNING RODS BECAUSE INCOMPLETE GROUNDING COULD CAUSE A SEVERE SHOCK HAZARD RESULTING IN SEVERE INJURY OR DEATH, NOT TO GAS PIPING BECAUSE A GAS LEAK COULD RESULT IN AN EXPLOSION WHICH COULD LEAD TO SEVERE INJURY OR DEATH. 	

8.2 WIRE SIZING

Wire size is important to the operation of your equipment. Use the following check list when selecting the appropriate wire size for your unit.

- Wire used must be sized to carry the Minimum Circuit Ampacity (MCA) listed on the equipment's Rating Plate.
- Refer to the NEC (USA) or CSA (Canada) for wire sizing. The unit MCA for the air handler and the optional electric heat kit can be found on the unit Series and Rating Plate.
- Wire must be sized to allow no more than a 2% voltage drop from the building breaker/fuse panel to the unit.
- Wires with different insulation temperature rating have varying ampacities - be sure to check the temperature rating used.

Power Supply Wiring (Including Ground Wire)		Transmission Wiring Remote Controller Wiring	
Field Fuses	Size	Wire	Size
15A	Must comply with local codes	2-conductor, stranded, non-shielded copper/PVC or vinyl jacket	AWG 18-16

Outdoor Unit To Be Connected	VRV-S Series	VRV Series
Outdoor Unit/ Indoor Unit	Maximum 984 ft. (300m) Total Wiring Length: 1968 ft. (600m)	Maximum 3280 ft. (1000m) Total Wiring Length: 6560 ft. (2000m)
Indoor Unit - Remote Controller	Maximum 984 ft. (300m)	Maximum 1640 ft. (500m)

LENGTH OF THE TRANSMISSION WIRING AND REMOTE CONTROLLER WIRING

8.3 SAFETY DEVICE

Every installation must include an NEC (USA) or CEC (Canada) approved overcurrent protection device. Also, check with local or state codes for any special regional requirements.

Protection can be in the form of fusing or HACR style circuit breakers. The Series and Rating Plate provides the maximum overcurrent device permissible.

When using residual current operated circuit breakers, be sure to use a high-speed type (0.1 second or less) 30mA rated residual operating current.

NOTE: FUSES OR CIRCUIT BREAKERS ARE TO BE SIZED LARGER THAN THE EQUIPMENT MCA BUT NOT TO EXCEED THE MOP.

8.4 ELECTRICAL CONNECTIONS

IMPORTANT NOTE: USE COPPER CONDUCTORS ONLY.

Knockouts are provided on the air handler top panel and sides of the cabinet to allow for the entry of the supply voltage conductors, as shown in Figure 17. If the knockouts on the cabinet sides are used for electrical conduit, an adapter ring must be used in order to meet UL1995 safety requirements. An NEC or CEC approved strain relief is to be used at this entry point. Some codes/municipalities require the supply wire to be enclosed in conduit. Consult your local codes.

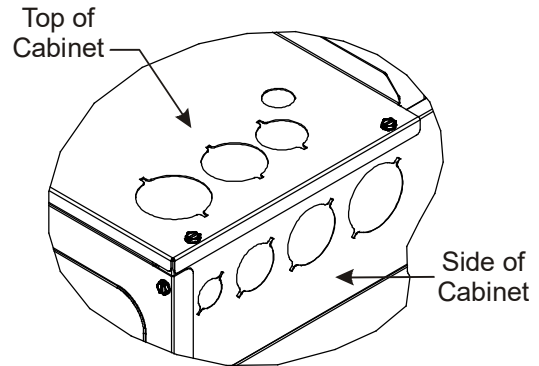


FIGURE 17



CAUTION

- **OUTSIDE THE AIR CONDITIONER, DO NOT ROUTE THE REMOTE CONTROLLER WIRING AND TRANSMISSION WIRING TOGETHER WITH OTHER ELECTRICAL WIRING. KEEP THE REMOTE CONTROLLER WIRING AND TRANSMISSION WIRING AT LEAST 2 IN. (50MM) AWAY FROM THE POWER WIRING AND OTHER ELECTRICAL WIRING. EFFECTS OF ELECTRICAL INTERFERENCE (EXTERNAL NOISE) MAY RESULT IN MALFUNCTION AND BREAKDOWN.**

IF THE POWER SUPPLY VOLTAGE IS 208V, CHANGE THE TRANSFORMER WIRE CONNECTION FROM THE 240V TERMINAL TO THE 208V TERMINAL ON BOTH TRANSFORMERS.

8.4.1 AIR HANDLER ONLY (NON-HEAT KIT MODELS)

The power supply connects to the stripped black and red wires contained in the air handler electrical compartment. Attach the supply wires to the air handler conductors as shown in the unit wiring diagram using appropriately sized solderless connectors or other NEC or CEC approved means. A ground lug is also provided in the electrical compartment. The ground wire from the power supply must be connected to this ground lug.

NOTE: AIR HANDLER WITH DISCONNECT SWITCH - ATTACH THE SUPPLY WIRES TO THE DISCONNECT SWITCH TERMINALS AS SHOWN IN THE UNIT WIRING DIAGRAM USING APPROPRIATELY SIZED SOLDERLESS CONNECTORS OR OTHER NEC OR CEC APPROVED MEANS. A GROUND LUG IS ALSO PROVIDED ON THE DISCONNECT SWITCH MOUNT BRACKET (FIGURE 18) IN THE ELECTRICAL COMPARTMENT. THE GROUND WIRE FROM THE POWER SUPPLY MUST BE CONNECTED TO THIS GROUND LUG.

8.4.2 AIR HANDLER / NON-CIRCUIT BREAKER HEAT KITS
 A terminal block is provided with the HKS kit to attach the power supply and air handler connections. Follow the HKS

Installation Manual and wiring diagram for complete wiring details.

NOTE: AIR HANDLER WITH DISCONNECT SWITCH - DO NOT USE DISCONNECT SWITCH ASSEMBLY INSIDE THE UNIT WHILE INSTALLING HEAT KIT. REFER FIGURE 18 TO KNOW HOW TO REMOVE DISCONNECT SWITCH ASSEMBLY FROM UNIT.

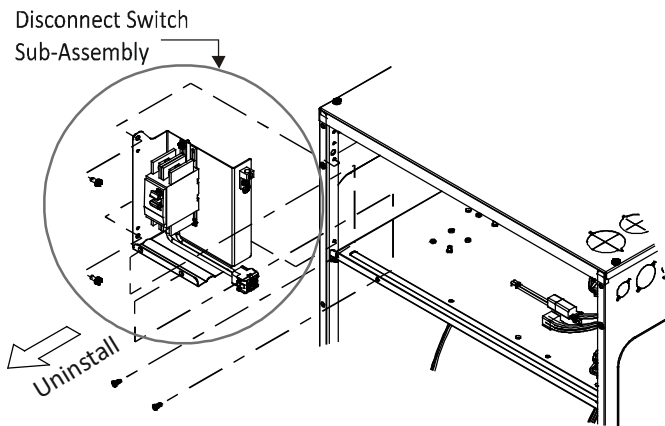


FIGURE 18

NOTE: TRANSFORMER SUB-ASSEMBLY –
 Before installing the Heat Kit, uninstall the transformer sub-assembly (Figure 19). Make sure to unplug 12 pin connector before uninstalling the transformer sub-assembly. Follow the Heat Kit Installation Manual to install the Heat Kit. Install transformer sub-assembly back to the unit (Figure 19). Plug in 12-Pin connectors and secure screws while installing transformer sub-assembly back to the unit after heater kit installation.

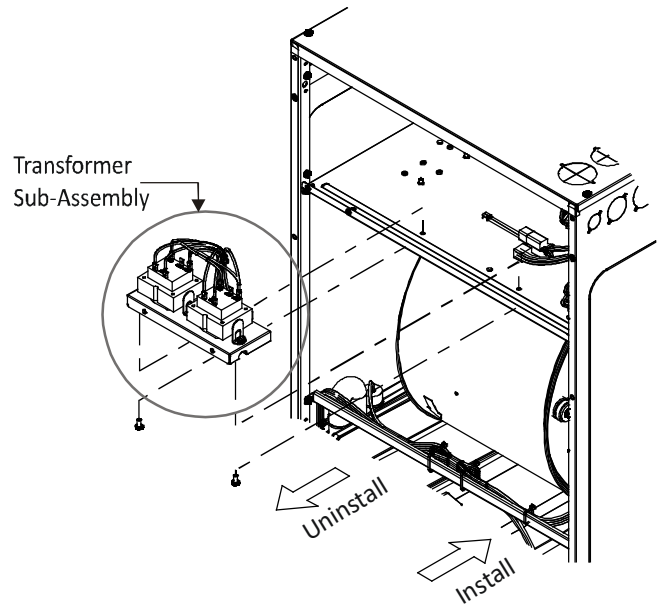


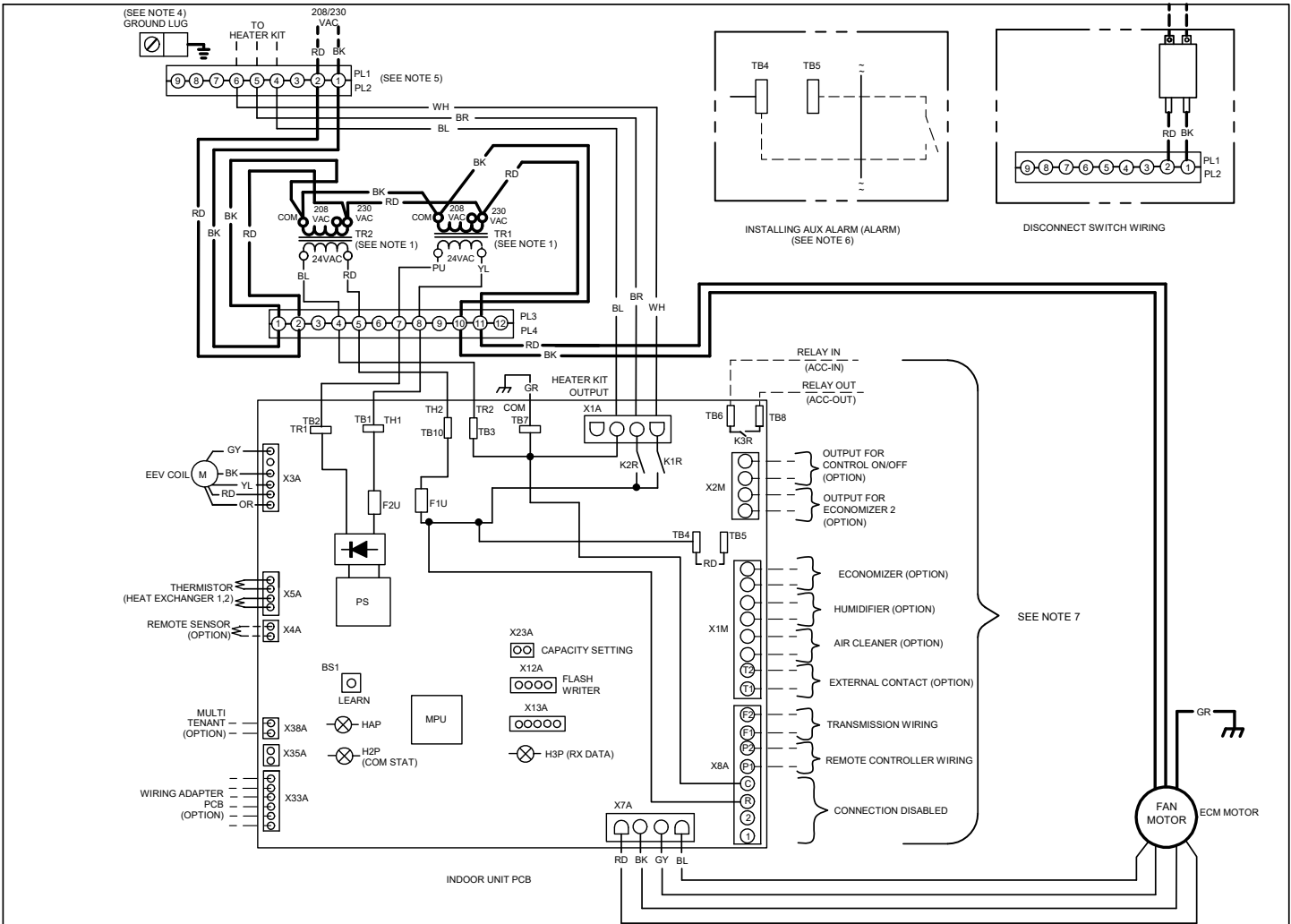
FIGURE 19

8.4.3 AIR HANDLER WITH CIRCUIT BREAKER HEAT KIT
 The circuit breakers have lugs for power supply connection. See the HKS Installation Instructions for further details.

	WARNING
<ul style="list-style-type: none"> • USE ONLY SPECIFIED WIRE AND CONNECTS TO TERMINALS TIGHTLY. BE CAREFUL THAT WIRES DO NOT PLACE EXTERNAL STRESS ON TERMINALS. KEEP WIRE IN NEAT ORDER; NOT TO OBSTRUCT OTHER EQUIPMENT. MAKE SURE THAT THE ACCESS PANEL CLOSED TIGHTLY. INCOMPLETE CONNECTIONS COULD RESULT IN OVERHEATING, AND IN WORSE CASES, ELECTRIC SHOCK OR FIRE. 	

	NOTE
<ul style="list-style-type: none"> • NEVER CONNECT POWER SUPPLY WIRING TO THE TERMINAL BLOCK FOR REMOTE CONTROLLER WIRING AS THIS COULD DAMAGE THE ENTIRE SYSTEM. 	

	WARNING
<ul style="list-style-type: none"> • WHEN DOING THE WIRING, MAKE SURE THE WIRING IS NEAT AND DOES NOT CAUSE THE ACCESS PANEL TO STICK UP, AND THEN CLOSE THE COVER FIRMLY. WHEN ATTACHING THE ELECTRIC COMPONENT BOX COVER, MAKE SURE YOU DO NOT PINCH ANY WIRES. 	



NOTES:

1. PLACE RED WIRES ON 208 V TERMINAL OF 2-TRANSFORMER (TR1/TR2) FOR 208 VAC OPERATION.
2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
3. IF ANY OF THE ORIGINAL WIRES AS SUPPLIED WITH THIS UNIT MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C. USE COPPER CONDUCTORS ONLY.
4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFIRM TO N.E.C AND LOCAL CODES.
5. DISCARD CONNECTOR PL1 WHEN INSTALLING OPTIONAL HEAT KIT.
6. REMOVE SHORT RED CIRCUITING WIRE AND PUT AUX ALARM SWITCH WHEN INSTALLING AUX. ALARM SWITCH.
7. USE N.E.C CLASS 2 WIRE.

INTEGRATED CONTROL:

- LOW VOLTAGE ———
- LOW VOLTAGE FIELD - - -
- HIGH VOLTAGE ———
- HIGH VOLTAGE FIELD - - -
- JUNCTION ●
- TERMINAL □
- PLUG CONNECTION □/□
- EQUIPMENT GND ⚡
- FIELD GROUND ⚡

COLOR CODES:

- BL - BLUE
- RD - RED
- YL - YELLOW
- OR - ORANGE
- BK - BLACK
- BR - BROWN
- GR - GREEN
- WH - WHITE
- PU - PURPLE

COMPONENT CODES:

- PL1, PL2 — POWER/HEATER KIT/ DISCONNECT SWITCH CONNECTOR
- TR1, TR2 — TRANSFORMER
- F1U, F2U — FUSE LINK
- PL3, PL4 — TRANSFORMER CONNECTOR

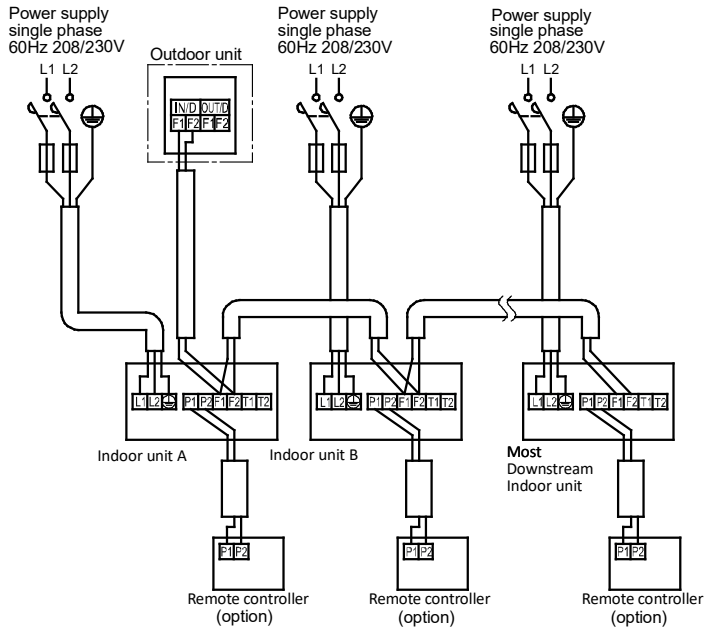


0140A00779-A

PRECAUTIONS

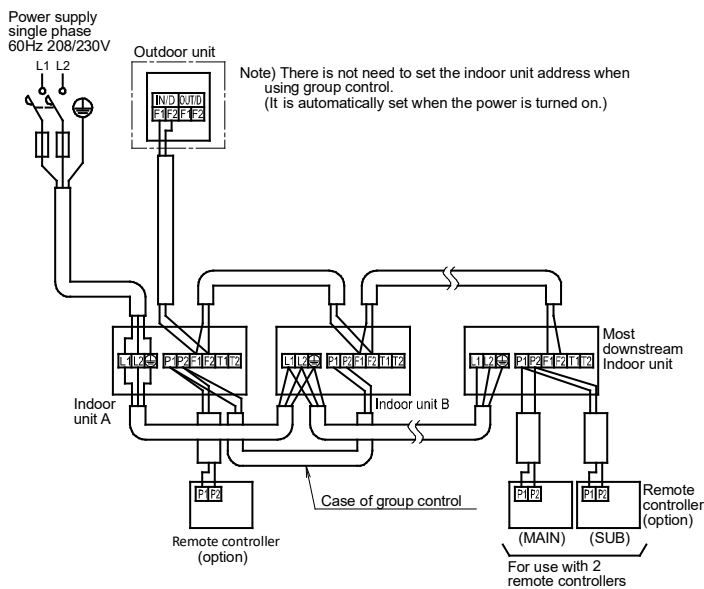
- Refer to the “REMOTE CONTROLLER INSTALLATION MANUAL” on how to install and lay the wiring for the remote controller.
- See also the “Wiring Diagram Label” located inside the unit’s fan housing.
- Connect the remote controller and transmission wiring their respective terminal blocks.

WIRING EXAMPLE



NO. 1 SYSTEM:

WHEN USING 1 REMOTE CONTROLLER FOR 1 INDOOR UNIT. FIGURE 20



NO. 2 SYSTEM:

FOR GROUP CONTROL OR USE WITH 2 REMOTE CONTROLLERS. FIGURE 21

When one remote controller is used with multiple indoor units which are different models from each other (for example FXTQ and FXFQ), some field setting menu may not display on remote controller. Follow steps below for such case.

1. Set up indoor unit A with appropriate field settings.

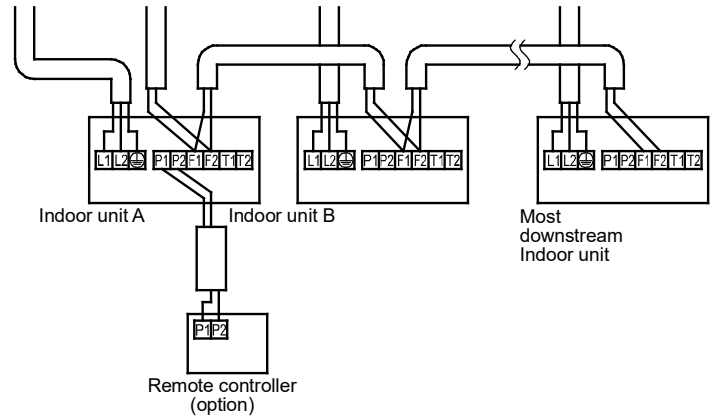


FIGURE 22

2. Turn power OFF.
3. Move the remote controller from indoor unit A to indoor unit B.

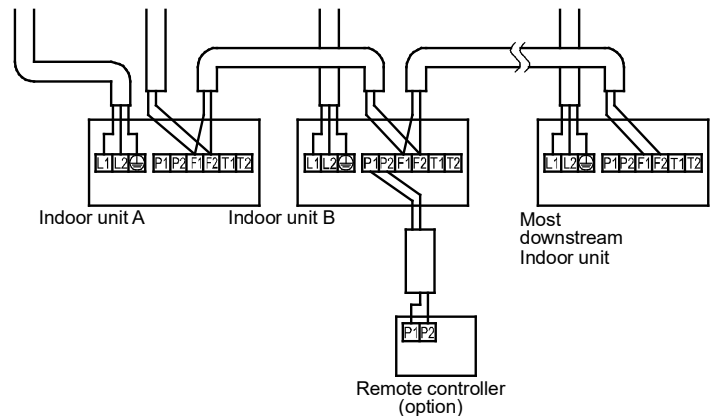


FIGURE 23

4. Turn power ON, set indoor unit B with appropriate settings.
5. Repeat Step 2 to Step 4 for the rest of the indoor units.
6. Complete the connections after all of the indoor unit settings are finished.

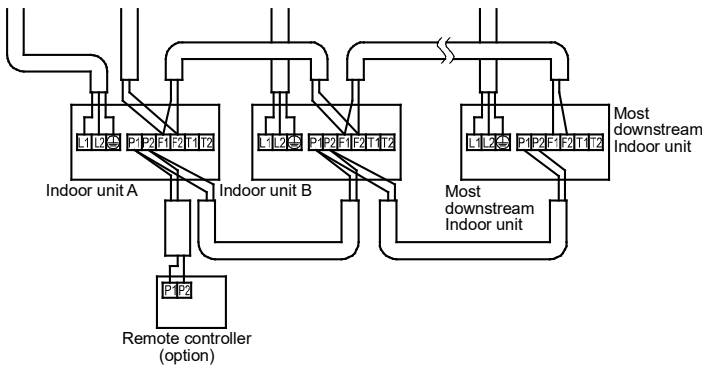
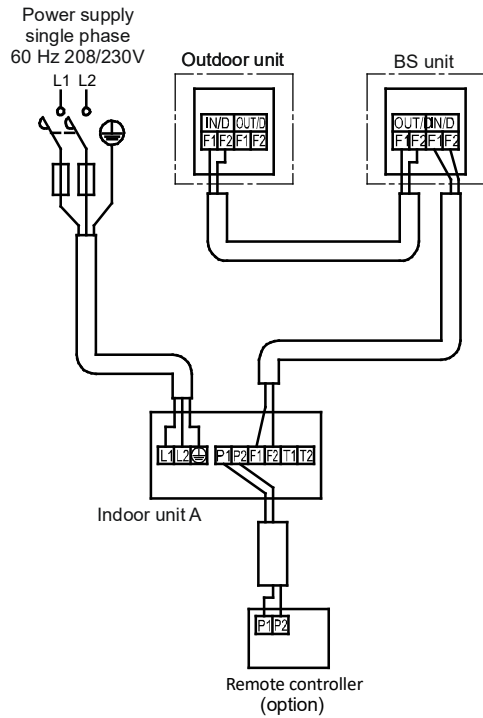


FIGURE 24



NO. 3 SYSTEM:
WHEN INCLUDING BS UNIT
FIGURE 25

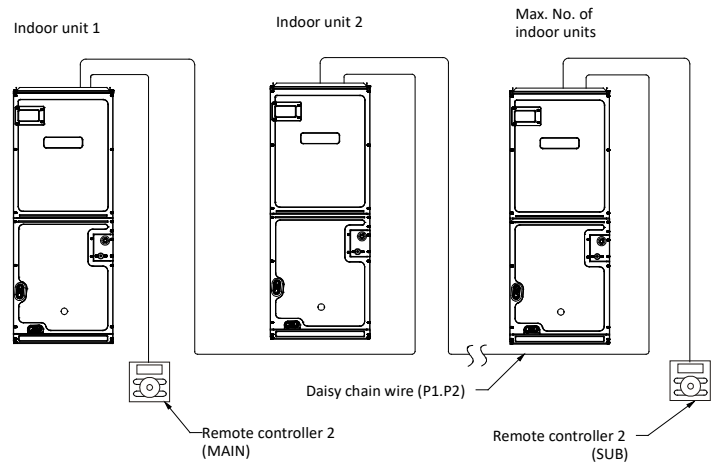


FIGURE 26

8.6 REMOTE CONTROL (FORCED OFF AND ON/OFF OPERATION)

- Connect input lines from the outside to the terminals T1 and T2 on the terminal block (8P) for remote controller to achieve remote control.
- See the “9. FIELD SETTING AND TEST RUN” for details on operation.

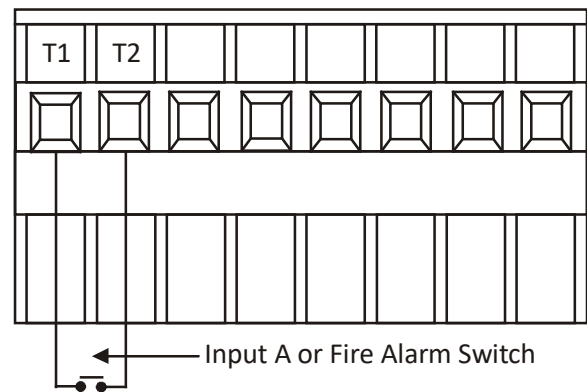


FIGURE 27

Wire Specification	Sheathed Vinyl Cord or Cable (2 wires)
Gauge	AWG18-16
Length	Max. 328 ft.
External Terminal	Contact that can ensure the minimum applicable load of 16V DC, 1mA.

8.7 FIRE ALARM SWITCH

The control is equipped with two Fire Alarm terminals, labeled T1 and T2 which are typically utilized in series. The fire alarm switch must be normally closed and open when the alarm occurs.

For example, a normally closed fire alarm switch will open when the CO2 reaches a particular level. The control will respond by turning off whole system (all indoor units and outdoor unit) and displaying the proper fault codes.

(The switch is closed as part of the default factory setting.) The error will be maintained in the equipment’s fault history. See picture (Figure 27) for the connection location.

8.5 CONTROL BY 2 REMOTE CONTROLLERS Controlling 1 indoor unit by 2 remote controllers

When using 2 remote controllers, one must be set to “MAIN” and the other to “SUB”.

Refer to the installation manual of the controller for setting the “MAIN” and “SUB” controller.

PRECAUTIONS

- Daisy chain wiring is needed when using group control and 2 remote controllers at the same time.
- Connect the indoor unit at the end of the crossover wire (P1, P2) to remote controller 2 (SUB).

Refer to Table 5 for fire alarm setting.

8.8 AUXILIARY ALARM SWITCH

The control is equipped with two Auxiliary Alarm terminals, labeled TB4 and TB5 (2VA or less) which are typically utilized in series with a condensate switch.

The auxiliary alarm switch must be normally closed and open when the alarm occurs. For example, a normally closed condensate switch will open when the base pan's water level reaches a particular level. The control will respond by turning off the blower motor and outdoor unit and displaying the proper fault codes.

If the switch is later detected closed for 30 seconds, normal operation resumes and the error message is removed. (The switch is closed as part of the default factory setting.) The error will be maintained in the equipment's fault history.

See Figure 28.

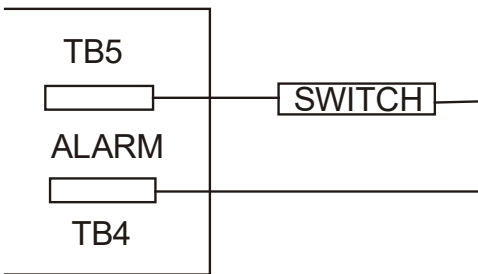


FIGURE 28

8.9 CENTRALIZED CONTROL

For centralized control, it is necessary to designate the group No. For details, refer to the manual of each optional controller for centralized control.

9. FIELD SETTING

Field settings may have to be performed using the remote controller, depending on the type of installation.

1. Make sure the electric component box covers are closed on the indoor and outdoor units.
2. Depending on the type of installation, make the field settings from the remote controller after the power is turned on, following the "Field Settings" manual which came with the remote controller.
 - The settings can select "Mode No.", "FIRST CODE NO." and "SECOND CODE NO."
 - Field settings are normally applied to the entire remote control group, however if individual indoor units in the remote control group require specific settings or for confirmation that settings have been established, utilize the "Mode No." in parenthesis.
 - The "Field Settings" included with the remote controller lists the order of the settings and method of operation.

- Make sure the customer keeps the "Field Settings" manual, along with the operating manual, in a safe place.

9.1 SETTINGS WHEN USING THE OPTIONAL REMOTE SENSOR

This product does not include an air inlet thermistor. It uses a remote controller thermistor for control purposes. For this reason, it is necessary to install an optional remote sensor in the following cases:

- When the remote controller will be installed at a location where it cannot accurately measure the indoor temperature.
- When using a remote controller without a built-in thermistor (simple remote controller, wireless remote controller, no remote controller).

When using an optional remote sensor, change the settings as described Table 3:

Room Temperature Sensor Selection	Mode No.	First Code No.	Second Code No.
To use only the remote sensor	10 (20)	2	02
To use only the remote controller thermistor			03*

*Factory Set

TABLE 3

Indoor units settings must be changed to Available as per Table 4 when group remote control is used.

Indoor units not using group remote control may remain on factory settings.

Remote Controller Thermistor (Group Control Only)	Mode No.	First Code No.	Second Code No.
Not available	10 (20)	6	01*
Available			02

*Factory Set

TABLE 4

9.2 REMOTE CONTROL SETTING (T1, T2)

Forced off and ON/OFF operation should be selected by selecting the SECOND CODE NO. as shown in Table 5.

External ON/OFF Input	Mode No.	First Code No.	Second Code No.
Forced Off	12/(22)	1	01*
ON/OFF Operation			02
System/Equipment Protection			03

*Factory Set

TABLE 5

Input A of forced off and ON/OFF operation work as shown in Table 6.

Forced Off	ON/OFF Operation	System/ Equipment Protection
Input A "on" to force a stop (remote controller reception prohibited)	Unit operated by changing input A from "off" to "on"	Input A "off" to stop system
Input A "off" to allow remote controller	Unit stopped by changing input A from "on" to "off"	

TABLE 6

9.3 SETTING THE FILTER SIGN DISPLAY INTERVAL

- Explain the following to the customer if the filter dirt settings have been changed.
- The filter sign display time is set to 2500 hours (equivalent to 1 year's use) when shipped.
- The settings can be changed to not display.
- When installing the unit in a dusty place, set the filter sign display time to shorter intervals (1,250 hours).
- Explain to the customer that the filter needs to be cleaned regularly to prevent clogging and also the time that is set.

Mode No.	First Code No.		Second Code No.	
			01	02
10(20)	0	Filter dirt	low	high
	1 (low/high)	Displayed time (units: hours)	2500/1250	10000/5000
	3	Filter sign display	ON	OFF

9.4 RETURN AIR FILTER

Each installation must include a return air filter. This filtering may be performed at the air handler using the factory filter rails or externally such as a return air filter grille. When using the factory filter rails, a nominal 16x20x1", 20x20x1" or 24x20x1" (actual dimension must be less than 23-1/2"x20") filter can be installed. Washable versions are available through your local Daikin distributor.

 CAUTION
<ul style="list-style-type: none"> • DO NOT OPERATE THIS PRODUCT WITHOUT ALL THE DUCTWORK ATTACHED.

9.5 ELECTRIC HEAT

Refer to the installation manual provided with the electric heat kit for the correct installation procedure. All electric heat must be field installed. If installing this option, the ONLY heat kits that are permitted to be used are the Daikin produced HKS series. Refer to the air handler unit's Serial and Rating plate or the HKS specification sheets to determine the heat kits compatible with a given air handler. No other accessory heat kit besides the HKS series may be installed in these air handlers. The heating mode temperature rise is dependent upon the system airflow, the supply voltage, and the heat kit size (kW) selected.

For installations not indicated above the following formula is to be used:

$$TR = (kW \times 3412) \times (\text{Voltage Correction}) / (1.08 \times CFM)$$

Where:

- TR = Temperature Rise
- kW = Heater Kit Actual kW
- 3412 = Btu per kW
- VC* = .96 (230 Supply Volts)
- = .92 (220 Supply Volts)
- = .87 (208 Supply Volts)
- 1.08 = Constant
- CFM = Measured Airflow
- *VC (Voltage Correction)

NOTE: THE TEMPERATURE RISE CALCULATIONS CAN ALSO BE USED TO ESTIMATE THE AIR HANDLER AIRFLOW DELIVERY. WHEN USING THESE TABLES FOR THIS PURPOSE SET THE ROOM THERMOSTAT TO MAXIMUM HEAT AND ALLOW THE SYSTEM TO REACH STEADY STATE CONDITIONS. INSERT TWO THERMOMETERS, ONE IN THE RETURN AIR AND ONE IN THE SUPPLY AIR. THE TEMPERATURE RISE IS THE SUPPLY AIR TEMPERATURE MINUS THE RETURN AIR TEMPERATURE. USING THE TEMPERATURE RISE CALCULATED, CFM CAN BE ESTIMATED FROM THE TR FORMULA ABOVE. SEE SPECIFICATION SHEET AND/OR SERVICE MANUAL FOR MORE INFORMATION.

Model	Mode No.	First Code No.	HEATER (kW)										
			No Heat Kit	3	5	6	8	10	15	19	20	25	
			Second Code No.										
			01*	02	03	04	05	06	07	08	09	10	
FXTQ09TAVJUA	11(21)	5	X	X	X								
FXTQ09TAVJUD			X	X	X								
FXTQ12TAVJUA			X	X	X	X							
FXTQ12TAVJUD			X	X	X	X							
FXTQ18TAVJUA			X	X	X	X	X	X					
FXTQ18TAVJUD			X	X	X	X	X	X					
FXTQ24TAVJUA			X	X	X	X	X	X					
FXTQ24TAVJUD			X	X	X	X	X	X					
FXTQ30TAVJUA			X	X	X	X	X	X					
FXTQ30TAVJUD			X	X	X	X	X	X					
FXTQ36TAVJUA			X	X	X	X	X	X					
FXTQ36TAVJUD			X	X	X	X	X	X					
FXTQ42TAVJUA			X		X	X	X	X	X	X			
FXTQ42TAVJUD			X		X	X	X	X	X	X			
FXTQ48TAVJUA			X		X	X	X	X	X	X			
FXTQ48TAVJUD			X		X	X	X	X	X	X			
FXTQ54TAVJUA			X		X	X	X	X	X		X	X	
FXTQ54TAVJUD			X		X	X	X	X	X		X	X	
FXTQ60TAVJUA			X		X	X	X	X	X		X	X	
FXTQ60TAVJUD			X		X	X	X	X	X		X	X	

*	Factory Set
X	Available
	Not Available

ELECTRIC HEATER SETTING 11(21)-3-XX

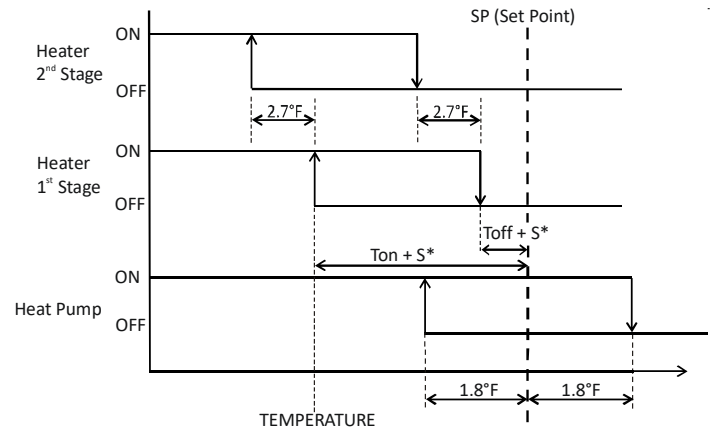
XX	01 (*)	02	07	08
Heater Operation	Electric Heater with Heat Pump not allowed	Electric Heater with Heat Pump allowed	Electric Heater with Heat Pump not allowed	Electric Heater with Heat Pump allowed
Electric Heater run for Defrost/oil return operation	Not Allowed	Not allowed	Allowed	Allowed

*Factory Set

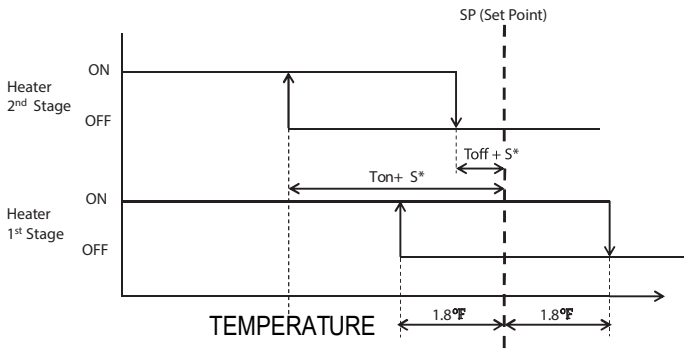
**ELECTRIC HEATER SETTING
MODE No. 11(21)
FIRST CODE No. 3
SECOND CODE No. XX**

9.5.1 ELECTRIC HEATER ON/OFF TEMPERATURE SETTING

When an auxiliary heater is installed and controlled by the indoor unit, the heater ON/OFF temperatures, Ton and Toff, can be selected individually by switching the 1st code and 2nd code according to the following table.



****“S” VALUE VARIES AUTOMATICALLY BASED ON THE ROOM TEMPERATURE TREND
ELECTRIC HEATER & HEAT PUMP OPERATION MODE
Figure 29**



** "S" Value arises automatically based on the room temperature trend

ELECTRIC HEATER OPERATION MODE

FIGURE 30

Perform on-site setting using the remote controller.

Temperature difference must be 3.6°F or more between "Ton" and "Toff" to activate setting(s).

SYMBOL	MODE NO.	FIRST CODE	SECON CODE NO.					
			01*	02	03	04	05	06
Ton	11(21)	1	-7.2 (-4.0)	-6.3 (-3.5)	-5.4 (-3.0)	-4.5 (-2.5)	-3.6 (-2.0)	-2.7 (-1.5)
Toff		2	-3.6 (-2.0)	-2.7 (-1.5)	-1.8 (-1.0)	-0.9 (-0.5)	0 (0)	0.9 (0.5)

°F (°C)

*Factory Set

9.6 DRY MODE 2.0

14(24)-5-XX

Choose dry mode settings as per following table:

XX	01 (*)	02
DRY mode	Set Point = Room Temperature	Set Point became same as cooling mode set point

**MODE No. 14(24)
FIRST CODE No. 5
SECOND CODE No. XX**

10. ACCESSORIES

1. Installation of the humidifier, economizer and air purifier (UV lamp)

Humidifier, economizer (11.5VA each terminal) and air purifier (UV lamp) are sold separately. For the method of installation, refer to the manual provided with each optional product.



WARNING

- **IF THE UNIT IS INSTALLED WITH AN ELECTRIC HEATER, INSTALL THE OPTIONAL PRODUCT AT A LOCATION WHERE IT IS NOT EXPOSED DIRECTLY TO THE HEAT FROM THE ELECTRIC HEATER. DIRECT EXPOSURE TO HEAT CAN RESULT IN AN EQUIPMENT MALFUNCTION OR FIRE.**

2. Connect the wires.
 - Run the wires through knockout hole.
 - Connect the wires to the terminal block of the product. Refer to wiring diagram inside the unit for wire connections.
3. On-site setting of air purifier/humidifier.

Terminal Name	Input/output signal
CONTROL ON/OFF	Outputs: indoor unit ON (AC 24V) 11.5VA or less
ECONOMIZER 2	Output: indoor unit cooling THERMO ON (AC 24V) 11.5VA or less
ECONOMIZER 1	Receives input: Economizer operation ON (Dry contact)
HUMIDIFIER	Receives input: Humidifier operation ON (Dry contact)
AIR CLEANER	Receives input: Air purifier operation ON (Dry contact)

14(24)-4-XX

XX	01	02	03	04	05
UV lamp + humidifier Fan	Refer to controller	High	Refer to controller	High	Refer to
Economizer setting for Mech standby duration (min)	10	10	20	20	30

XX	06	07	08	09	10
UV lamp + humidifier Fan	High	Refer to controller	High	Refer to	High
Economizer setting for Mech standby duration (min)	30	40	40	50	50

XX	11	12	13	14 (*)
UV lamp + humidifier Fan	Refer to controller	High	Refer to controller	High
Economizer setting for Mech standby duration (min)	60	60	Free cooling only	Free cooling only

(*) Factory Set

**UV LAMP + HUMIDIFIER + ECONOMIZER
 OPTIONAL KIT SETTING
 MODE No. 14(24)
 FIRST CODE No. 4
 SECOND CODE No. XX**

10.1 SETTING FOR SEPARATELY SOLD ACCESSORIES

- See the instruction manuals included with optional accessories for the necessary settings.


When using a wireless remote controller

- A wireless remote controller address needs to be set when using a wireless remote controller. See the installation manual included with the wireless remote controller for details on how to make the settings.

11. TEST RUN

- Perform a test run according to the outdoor unit's installation manual.
- The operation lamp of the remote controller will flash when a malfunction occurs. Check the malfunction code on the liquid crystal display to identify the point of trouble. An explanation of malfunction codes and the corresponding trouble is provided in "CAUTION FOR SERVICING" of the outdoor unit.

If the display shows any of the following, there is a possibility that the wiring was done incorrectly or that the power is not on, so check again.

Remote control display	Content
"  " display	There is a short circuit at the FORCED OFF terminals (T1 T2).
"U3" display	The test-run has not been performed.
"U4" display "UH" display	The power on the indoor unit is off. The outdoor unit has not been wired for power supply. Wiring is incorrect for the transmission wiring and/or FORCED OFF wiring. The transmission wiring is cut.
"UF" display	Reversed transmission wiring
No display	The power on the indoor unit is off. The indoor unit has not been wired for power supply. Wiring is incorrect for the remote controller wiring, transmission wiring and/or FORCED OFF wiring. The transmission wiring is cut.



CAUTION

- **ALWAYS STOP THE TEST RUN USING THE REMOTE CONTROLLER TO STOP OPERATION.**

AIR HANDLER

AIR HANDLER HOMEOWNER'S ROUTINE MAINTENANCE RECOMMENDATIONS

We strongly recommend a bi-annual maintenance checkup be performed before the heating and cooling seasons begin by a qualified servicer.

REPLACE OR CLEAN FILTER

IMPORTANT NOTE: Never operate unit without a filter installed as dust and lint will build up on internal parts resulting in loss of efficiency, equipment damage and possible fire.

An indoor air filter must be used with your comfort system. A properly maintained filter will keep the indoor coil of your comfort system clean. A dirty coil could cause poor operation and/or severe equipment damage.

Your air filter or filters could be located in your furnace, in a blower unit, or in "filter grilles" in your ceiling or walls. The installer of your air conditioner or heat pump can tell you where your filter(s) are, and how to clean or replace them.

Check your filter(s) at least once a month. When they are dirty, replace or clean as required. Disposable type filters should be replaced. Reusable type filters may be cleaned.

You may want to ask your dealer about high efficiency filters. High efficiency filters are available in both electronic and non-electronic types. These filters can do a better job of catching small airborne particles.

MOTORS

Indoor and outdoor fan motors are permanently lubricated and do not require additional oiling.

ALUMINUM INDOOR COIL CLEANING (QUALIFIED SERVICER ONLY)

This unit is equipped with an aluminum tube evaporator coil. The safest way to clean the evaporator coil is to simply flush the coil with water. This cleaning practice remains as the recommended cleaning method for both copper tube and aluminum tube residential evaporator coils.

It has been determined that many coil cleaners and drain pan tablets contain corrosive chemicals that can be harmful to aluminum tube and fin evaporator coils. Even a one-time application of these corrosive chemicals can cause premature aluminum evaporator coil failure. Any cleaners that contain corrosive chemicals including, but not limited to, chlorine and hydroxides, should not be used.

An alternate cleaning method is to use one of the products listed in TP-109* to clean the coils. The cleaners listed are the only agents deemed safe and approved for use to clean round tube aluminum coils. TP-109 is also available on the web site in Partner Link > Service Toolkit.

NOTE: ENSURE COILS ARE RINSED WELL AFTER USE OF ANY CHEMICAL CLEANERS.



WARNING

HIGH VOLTAGE!

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



CAUTION

TO AVOID THE RISK OF EQUIPMENT DAMAGE OR FIRE, INSTALL THE SAME AMPERAGE BREAKER OR FUSE AS YOU ARE REPLACING. IF THE CIRCUIT BREAKER OR FUSE SHOULD OPEN AGAIN WITHIN THIRTY DAYS, CONTACT A QUALIFIED SERVICER TO CORRECT THE PROBLEM. IF YOU REPEATEDLY RESET THE BREAKER OR REPLACE THE FUSE WITHOUT HAVING THE PROBLEM CORRECTED, YOU RUN THE RISK OF SEVERE EQUIPMENT DAMAGE.

BEFORE YOU CALL YOUR SERVICER

- Check the thermostat to confirm that it is properly set.
- Wait 15 minutes. Some devices in the outdoor unit or in programmable thermostats will prevent compressor operation for awhile, and then reset automatically. Also, some power companies will install devices which shut off air conditioners for several minutes on hot days. If you wait several minutes, the unit may begin operation on its own.
- Check the electrical panel for tripped circuit breakers or failed fuses. Reset the circuit breakers or replace fuses as necessary.
- Check the disconnect switch near the indoor furnace or blower to confirm that it is closed.
- Check for obstructions on the outdoor unit. Confirm that it has not been covered on the sides or the top. Remove any obstruction that can be safely removed. If the unit is covered with dirt or debris, call a qualified servicer to clean it.
- Check for blockage of the indoor air inlets and outlets. Confirm that they are open and have not been blocked by objects (rugs, curtains or furniture).
- Check the filter. If it is dirty, clean or replace it.
- Listen for any unusual noise(s), other than normal operating noise, that might be coming from the outdoor unit. If you hear unusual noise(s) coming from the unit, call a qualified servicer.

CUSTOMER FEEDBACK

Daikin is very interested in all product comments.

Please fill out the feedback form on the following link:

<https://daikincomfort.com/contact-us>

You can also scan the QR code on the right to be directed to the feedback page.



Our continuing commitment to quality products may mean a change in specifications without notice.

@2016, 2019, 2021 **DAIKIN MANUFACTURING COMPANY, L.P.**

19001 Kermier Rd, Waller, TX 77484

www.daikincomfort.com

Transmittal

PROJECT: New Dormitories - Phase 2, Bldg. 6
Booneville Human Development Center
Booneville, Arkansas

SMA PROJECT NO: 2002B

DATE: February 8, 2023

TO: Alessi Keyes Construction
10623 Maumelle Blvd.
North Little Rock, AR 72113

If enclosures are not as noted, please
inform us immediately.

If checked below, please:

ATTN: Charley Dawson

Acknowledge receipt of enclosures.

Return enclosures to us.

WE TRANSMIT:

Herewith Under separate cover

VIA:

Courier Mail E-mail
 Overnight delivery Fax Other

FOR YOUR:

Approval/Action Information Use as requested
 Review & comment Use Other

THE FOLLOWING:

Drawings Specifications Digital Files - PDF
 Submittals Proposal Request Digital Files - Other
 Change Order Samples Other

COPIES	DATE	REV. NO.	DESCRIPTION	ACTION CODE
1	2/8/2023		Split System Air Conditioners - resubmittal	E

ACTION CODE A. No action required B. Action indicated on item transmitted C. For signature and return to this office D. For signature and forwarding as noted below under REMARKS E. See REMARKS below

REMARKS

Revise and resubmit FCU 601 through FCU 607 per engineer notes.

COPIES TO: (with enclosures)

Rex Morris, Morris AE

By: Trey Tassin

Submittal Comment Sheet

To: Randy Stocks, Stocks-Mann Architects
From: Matthew Wendel, BTME
Date: February 8, 2023
Project: Booneville HDC Building #6
Project #: 01-20-0003
Ref: 23 81 26 -01 Split-System Air Conditioners Submittal
Submitted By: Alessi Keyes Construction

APPROVED	<input type="checkbox"/>
REJECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
REFER TO SUBMITTAL COMMENT SHEET	<input checked="" type="checkbox"/>

This review performed by Bernhard TME, LLC, is only for general conformance with the design concept of the project and general compliance with the information provided in the Contract Documents. Corrections or comments made on the submittal and/or shop drawings during this review do not relieve the Contractor from compliance with the requirements of the plans, specifications, and other contract documents. Approval of a specific item shall not indicate an approval of an assembly of which the item is a component. Contractor is responsible for the following: all quantities; configuration of components; dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication process or to the means, methods, techniques, sequences, and procedures of construction; coordination of the work with that of all other trades; and, for performing all work in a safe and satisfactory manner.

Bernhard TME
Engineering

DATE: 02/08/23 BY: M. Wendel

Below find our response for the submittal received on Friday, February 3, 2023.*

- | | |
|---|-----------------|
| 1. FCU-601 though FCU-607 | APPROVED |
| 2. FCU-608 | APPROVED |
| 3. HRU-601 and HRU-602 | APPROVED |
| 4. BS-601 and BS-602 | APPROVED |
| 5. Bipolar Ionization Units (Div 23 4300) | APPROVED |

- End of Submittal Comments -

THIS REVIEW PERFORMED BY BERNHARD TME, LLC, IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. CORRECTIONS OR COMMENTS MADE ON THE SUBMITTAL AND/OR SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS. APPROVAL OF A SPECIFIC ITEM SHALL NOT INDICATE AN APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING: ALL QUANTITIES; CONFIGURATION OF COMPONENTS; DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE JOBSITE; INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESS OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION; COORDINATION OF THE WORK WITH THAT OF ALL OTHER TRADES; AND, FOR PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.



SUBMITTAL SHEET

Alessi Keyes Construction Co.
AKC-505 - Booneville HDC New Dorm

Project: AKC-505
Booneville HDC New Dorm

Spec Section Num: 23 81 26
Submittal: 23.15A
Revision: 0
Package: HVAC
Date: 2/8/2023 UTC

Submittal Title: Split System Air Conditioners
Submittal Detail:
Response Due By: 2/16/2023 UTC

Contractor:
Charley Dawson
Alessi-Keyes Construction Co.

Contractor's Stamp

Architect:
Trey Tassin
Stocks-Mann Architects

Architect's Stamp

Response:
Comment:



Submittal

Prepared For:
Bernhard TME

Date:
January 30, 2023

Sold To:
Comfort Systems

Job Name:
Booneville HDC Building 6

Harrison Energy Partners is pleased to provide the enclosed submittal for your review and approval.

Qty. Product Summary

2 Heat Recovery Systems (HRU-1,2/FCU-601 Thru 608)

Jake Skinner | Account Manager
Harrison Energy Partners
1501 Westpark Dr, Ste 9
Little Rock, AR 72204
(501) 539-0301 cell
(501) 661-0621 office

The attached information describes the equipment we propose to furnish for this project, and is submitted for your approval.

Tag Data – Daikin VRV Systems

Tag(s)	Qty	Description	Model Number
HRU-1, 2	2	10 ton VRV heat recovery unit	REYQ120XATJB
BS-601, 602	2	4 port branch selector	BSQ454
FCU-601 thru 607	7	3 ton vertical air handler	FXTQ36
FCU-608	1	7 MBh wall mounted air handler	FXAQ07

Product Data – Daikin VRV Systems**Outdoor heat pump unit**

Nominal capacity as listed in tag data
208/3/60 Unit voltage

Indoor unit

Type as listed in tag data
Nominal capacity per schedule and as listed in tag data
208/1/60 Unit voltage
Wired programmable thermostat (Fld)
Remote temperature sensors for FCU-601, 602, 603, 605, 607 (Fld)
GPS Ionizer FC-24 for FCU-601-607 (Fld)
Ball valves downstream of branch selectors (Fld)
10 Year parts warranty
Factory startup and first year labor warranty (includes refrigerant charge)



Material list

Model	Quantity	Description
REYQ120XATJB	2	VRV-IV-X -B (208-230V)
BS4Q54TAVJ	2	Branch selector unit
FXAQ07PVJU	1	FXAQ - Wall Mounted Unit
FXTQ36TAVJUA	7	FXTQ_TA(A) - Multi Position Air Handler
BRC1E73	8	new Navigation Remote Controller
KRCS01-2UA	5	Remote Sensor Kit (FXTQ_TA)

Piping	Liquid ft	Suction ft	Discharge ft	Total ft
1/4"	125.0	0.0	0.0	125.0
3/8"	367.0	0.0	0.0	367.0
1/2"	55.0	125.0	0.0	180.0
5/8"	0.0	367.0	0.0	367.0
3/4"	0.0	0.0	55.0	55.0
1 1/8"	0.0	55.0	0.0	55.0



Indoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
FCU	Device model name
Tmp C	Indoor conditions in cooling
Rq TC	Required total cooling capacity
Max TC	Available total cooling capacity
Rq SC	Required sensible cooling capacity
Tevap	Evaporating temperature of indoor unit coil
Max SC	Available sensible cooling capacity
Tmp H	Indoor temperature in heating
Rq HC	Required heating capacity
Max HC	Available heating capacity
Sound	Sound pressure level low and high
PS	Power supply (voltage and phases)
MCA	Minimum Circuit Amps
MOP	Maximum Overcurrent Protection
WxHxD	WidthxHeightxD
Weight	Weight of the device



HRU-601 - REYQ120XATJB

Capacity data at conditions and connection ratio (120) as entered

Name	FCU	Cooling					
		Tmp C	Rq TC	Max TC	Rq SC	Tevap	Max SC
		°F (DBT/WBT)	BTU/h	BTU/h	BTU/h	°F	BTU/h
FCU-604	FXTQ36TAVJUA	75.0/63.0	n/a	30,931	n/a	42.8	21,024
FCU-601	FXTQ36TAVJUA	75.0/63.0	n/a	30,931	n/a	42.8	21,024
FCU-603	FXTQ36TAVJUA	75.0/63.0	n/a	30,931	n/a	42.8	21,024
FCU-602	FXTQ36TAVJUA	75.0/63.0	n/a	30,931	n/a	42.8	21,024
			0				

Name	FCU	Heating		
		Tmp H	Rq HC	Max HC
		°F	BTU/h	BTU/h
FCU-604	FXTQ36TAVJUA	70.0	n/a	39,998
FCU-601	FXTQ36TAVJUA	70.0	n/a	39,998
FCU-603	FXTQ36TAVJUA	70.0	n/a	39,998
FCU-602	FXTQ36TAVJUA	70.0	n/a	39,998
			n/a	

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBa		A		inch	
FCU-604		- 52	208-230V 1ph	4.9	15A	17.5 x 45.0 x 21.0	140.0
FCU-601		- 52	208-230V 1ph	4.9	15A	17.5 x 45.0 x 21.0	140.0
FCU-603		- 52	208-230V 1ph	4.9	15A	17.5 x 45.0 x 21.0	140.0
FCU-602		- 52	208-230V 1ph	4.9	15A	17.5 x 45.0 x 21.0	140.0

Remarks

Under capacity

The sum of the required indoor unit capacities is 79,997BTU/h for heating. However, the selected outdoor unit has a heating capacity of 78,100BTU/h (= -2.4%). Be aware that an undersized system may lead to reduced comfort levels, different noise levels or increased wear and tear.

Reduced operational load

The sum of the required indoor unit capacities is 123,723BTU/h for cooling and 159,994BTU/h for heating. However, the outdoor unit selection uses reduced load values for cooling of 105,165BTU/h (=85%) and for heating of 79,997BTU/h (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed 9.0ft below the indoor units.

HRU-602 - REYQ120XATJB

Capacity data at conditions and connection ratio (96) as entered



Name	FCU	Cooling					
		Tmp C	Rq TC	Max TC	Rq SC	Tevap	Max SC
		°F (DBT/WBT)	BTU/h	BTU/h	BTU/h	°F	BTU/h
FCU-606	FXTQ36TAVJUA	75.0/63.0	n/a	30,931	n/a	42.8	21,024
FCU-605	FXTQ36TAVJUA	75.0/63.0	n/a	30,931	n/a	42.8	21,024
FCU-607	FXTQ36TAVJUA	75.0/63.0	n/a	30,931	n/a	42.8	21,024
FCU-608	FXAQ07PVJU	75.0/63.0	n/a	6,433	n/a	42.8	5,441
			0				

Name	FCU	Heating		
		Tmp H	Rq HC	Max HC
		°F	BTU/h	BTU/h
FCU-606	FXTQ36TAVJUA	70.0	n/a	39,998
FCU-605	FXTQ36TAVJUA	70.0	n/a	39,998
FCU-607	FXTQ36TAVJUA	70.0	n/a	39,998
FCU-608	FXAQ07PVJU	70.0	n/a	8,500
			n/a	

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		inch	lbs
FCU-606		- 52	208-230V 1ph	4.9	15A	17.5 x 45.0 x 21.0	140.0
FCU-605		- 52	208-230V 1ph	4.9	15A	17.5 x 45.0 x 21.0	140.0
FCU-607		- 52	208-230V 1ph	4.9	15A	17.5 x 45.0 x 21.0	140.0
FCU-608		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 99,225BTU/h for cooling and 128,495BTU/h for heating. However, the outdoor unit selection uses reduced load values for cooling of 95,256BTU/h (=96%) and for heating of 64,248BTU/h (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.



Outdoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
Model	Device model name
▼	Optimized selection: Smaller outdoor model selected than standard proposed model
CR	Connection ratio
Tmp C	Outdoor conditions in cooling
WFR per module	Water flow per outdoor unit module
CC	Available cooling capacity
Rq CC	Required cooling capacity
PIC	Power input in cooling mode
InC	Water inlet temperature in cooling mode
OutC	Water outlet temperature in cooling mode
Tmp H	Outdoor conditions in heating (dry bulb temp. / RH)
HC	Available heating capacity (integrated heating capacity)
Rq HC	Required heating capacity
PIH	Power input in heating mode
InH	Water inlet temperature in heating mode
OutH	Water outlet temperature in heating mode
Piping	Largest distance from indoor unit to outdoor unit
Bse Refr	Standard factory refrigerant charge (16.4ft actual piping length) excluding extra refrigerant charge. For calculation of extra refrigerant charge refer to the databook
Ex Refr	Extra refrigerant charge
PS	Power supply (voltage and phases)
MCA	Minimum Circuit Amps
MOP	Maximum Overcurrent Protection
FLA	Fan Motor Input
RLA	Nominal Running Amps
WxHxD	WidthxHeightxDepth
Weight	Weight of the device
EER	EER value at nominal condition
IEER	IEER value at nominal condition
COP47	COP value at nominal condition and at ambient temperature of 47°F
COP17	COP value at nominal condition and at ambient temperature of 17°F



Outdoor details

Name	Model	CR	Cooling			Heating			Piping ft
			Tmp C	CC	Rq CC	Tmp H	HC	Rq HC	
			°F	BTU/h	BTU/h	°F (DBT/WBT)	BTU/h	BTU/h	
HRU-601	REYQ120XATJB	120.0	100.0	110,675	105,165	0.0/0.0	78,100	79,997	179.3
HRU-602	REYQ120XATJB	96.3	95.0	96,359	95,256	0.0/0.0	77,265	64,248	186.5

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD	Weight
			A	A	A	A	inch	lbs
HRU-601	REYQ120XATJB	208V - 230V 3ph	43.0	50.0	28.2		48.9 x 66.7 x 30.2	727.0
BS-601	BS4Q54TAVJ	208-230V 1ph	0.4	15.0			14.6 x 11.7 x 18.9	48.5
HRU-602	REYQ120XATJB	208V - 230V 3ph	43.0	50.0	28.2		48.9 x 66.7 x 30.2	727.0
BS-602	BS4Q54TAVJ	208-230V 1ph	0.4	15.0			14.6 x 11.7 x 18.9	48.5

Name	Efficiency Metrics																
	Combination			Ducted							Non-Ducted						
	EER	SEER	HSPF	EER	IEER	COP47	COP17	SCHE	SEER	HSPF	EER	IEER	COP47	COP17	SCHE	SEER	HSPF
HRU-601				12.3	22.6	3.48	2.28	22.2			13.2	25.5	3.81	2.54	26		
HRU-602				12.3	22.6	3.48	2.28	22.2			13.2	25.5	3.81	2.54	26		

Sound Data

Name	Model	Sound Power		Sound Pressure	
		Cooling	Heating	Cooling	Heating
		dBA	dBA	dBA	dBA
HRU-601	REYQ120XATJB	-	-	65	-
HRU-602	REYQ120XATJB	-	-	65	-

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge lbs	Extra charge lbs	TCO2 equivalent
HRU-601	REYQ120XATJB	R410A	2087.5	25.79	20.59	43.9
HRU-602	REYQ120XATJB	R410A	2087.5	25.79	19.59	43

The system(s) contain fluorinated greenhouse gases.



The extra charge is calculated based on the pipe lengths specified. This may differ from the actual pipe lengths on site and therefore also from the real extra charge and the real TCO2 equivalent.

HRU-601 - REYQ120XATJB

Model	Quantity	Description
REYQ120XATJB	1	VRV-IV-X -B (208-230V)
BS4Q54TAVJ	1	Branch selector unit
FXTQ36TAVJUA	4	FXTQ_TA(A) - Multi Position Air Handler
BRC1E73	4	new Navigation Remote Controller
KRCS01-2UA	3	Remote Sensor Kit (FXTQ_TA)

Piping	Liquid ft	Suction ft	Discharge ft	Total ft
3/8"	220.0	0.0	0.0	220.0
1/2"	27.0	0.0	0.0	27.0
5/8"	0.0	220.0	0.0	220.0
3/4"	0.0	0.0	27.0	27.0
1 1/8"	0.0	27.0	0.0	27.0

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	TCO2 equivalent
R410A	2087.5	25.79	20.59*)	43.9

The system(s) contain fluorinated greenhouse gases.

*) Extra refrigerant charge = $0.6614 (A) + 8.598 (B) + 1.04 \times [27.0 \text{ ft } (\varnothing 1/2 \text{ "}) \times 0.2646 + 220.0 \text{ ft } (\varnothing 3/8 \text{ "}) \times 0.1301] \times 0.3048 = 20.6 \text{ lbs}$

The extra charge is calculated based on the pipe lengths specified. This may differ from the actual pipe lengths on site and therefore also from the real extra charge and the real TCO2 equivalent.

Remarks

Chosen outdoor unit size differs from default proposed size. Be aware that this might lead to reduced comfort levels, increased noise levels, wear and tear. In case of doubt, contact your sales representative.

Pipe capacities

Maximum Connection Index	Diameters
53.9	3/8"x5/8"x1/2"
71.9	3/8"x3/4"x5/8"
110.9	3/8"x7/8"x3/4"
161.9	1/2"x1 1/8"x3/4"
229.9	5/8"x1 1/8"x1 1/8"



Maximum Connection Index	Diameters
299.9	3/4"x1 3/8"x1 1/8"
> 299.9	3/4"x1 5/8"x1 1/8"
Main pipe size up	5/8"x1 1/8"x3/4"



Piping limitations

Description	Value
Maximum total length	3,280.8ft
Maximum longest actual length	541.3ft
Maximum longest equivalent length	623.4ft
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	131.2ft
Maximum length first branch to indoor unit	295.3ft
Maximum length of indoor units to nearest branch	131.2ft
Maximum length difference between longest and shortest distance to indoor units	131.2ft
Maximum height difference, outdoor unit below indoor units	196.9ft
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	295.3ft
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	196.9ft
Maximum height difference in technical cooling, outdoor unit above indoor units	295.3ft
Maximum height difference between indoor units	98.4ft
Connection ratio range	50.0% - 200.0%
Refrigerant pipe diameters	5/8" (liquid) x 1 1/8" (gas) x 3/4" (discharge)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	295.3ft
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

HRU-602 - REYQ120XATJB

Model	Quantity	Description
REYQ120XATJB	1	VRV-IV-X -B (208-230V)
BS4Q54TAVJ	1	Branch selector unit
FXAQ07PVJU	1	FXAQ - Wall Mounted Unit
FXTQ36TAVJUA	3	FXTQ_TA(A) - Multi Position Air Handler
BRC1E73	4	new Navigation Remote Controller
KRCS01-2UA	2	Remote Sensor Kit (FXTQ_TA)

Piping	Liquid ft	Suction ft	Discharge ft	Total ft
1/4"	125.0	0.0	0.0	125.0
3/8"	147.0	0.0	0.0	147.0
1/2"	28.0	125.0	0.0	153.0
5/8"	0.0	147.0	0.0	147.0
3/4"	0.0	0.0	28.0	28.0
1 1/8"	0.0	28.0	0.0	28.0



Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	TCO2 equivalent
R410A	2087.5	25.79	19.59*)	43

The system(s) contain fluorinated greenhouse gases.

*) Extra refrigerant charge = 0.6614 (A) + 8.598 (B) + 1.04 × [28.0 ft (ø1/2 ") × 0.2646 + 147.0 ft (ø3/8 ") × 0.1301 + 125.0 ft (ø1/4 ") × 0.0485] × 0.3048 = 19.6lbs

The extra charge is calculated based on the pipe lengths specified. This may differ from the actual pipe lengths on site and therefore also from the real extra charge and the real TCO2 equivalent.

Pipe capacities

Maximum Connection Index	Diameters
53.9	3/8"x5/8"x1/2"
71.9	3/8"x3/4"x5/8"
110.9	3/8"x7/8"x3/4"
161.9	1/2"x1 1/8"x3/4"
229.9	5/8"x1 1/8"x1 1/8"
299.9	3/4"x1 3/8"x1 1/8"
> 299.9	3/4"x1 5/8"x1 1/8"
Main pipe size up	5/8"x1 1/8"x3/4"

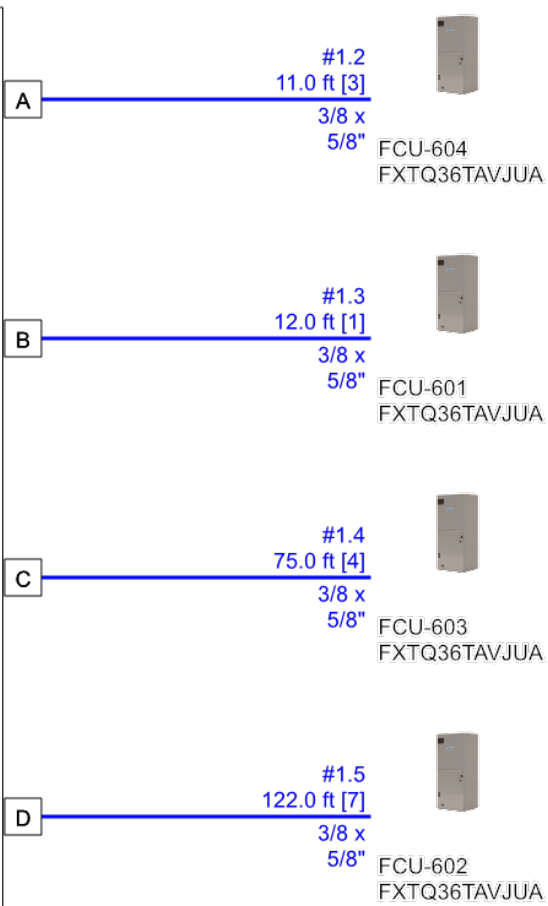
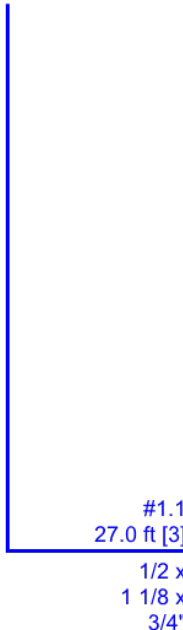
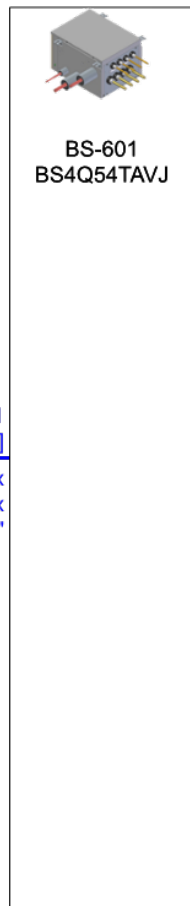
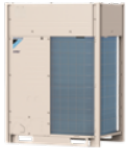
Piping limitations

Description	Value
Maximum total length	3,280.8ft
Maximum longest actual length	541.3ft
Maximum longest equivalent length	623.4ft
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	131.2ft
Maximum length first branch to indoor unit	295.3ft
Maximum length of indoor units to nearest branch	131.2ft
Maximum length difference between longest and shortest distance to indoor units	131.2ft
Maximum height difference, outdoor unit below indoor units	196.9ft
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	295.3ft
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	196.9ft
Maximum height difference in technical cooling, outdoor unit above indoor units	295.3ft
Maximum height difference between indoor units	98.4ft
Connection ratio range	50.0% - 200.0%
Refrigerant pipe diameters	5/8" (liquid) x 1 1/8" (gas) x 3/4" (discharge)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	295.3ft
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

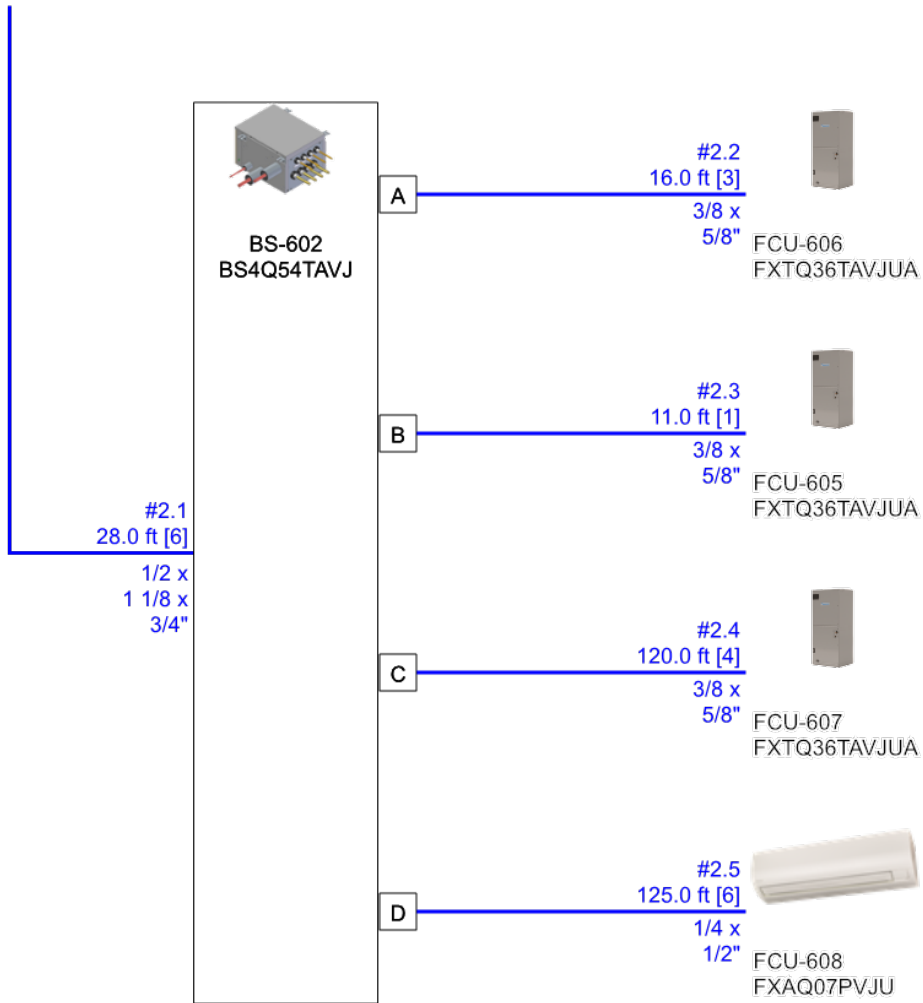
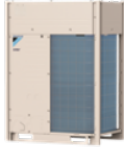
Piping diagrams

Piping HRU-601

HRU-601
REYQ120XATJB

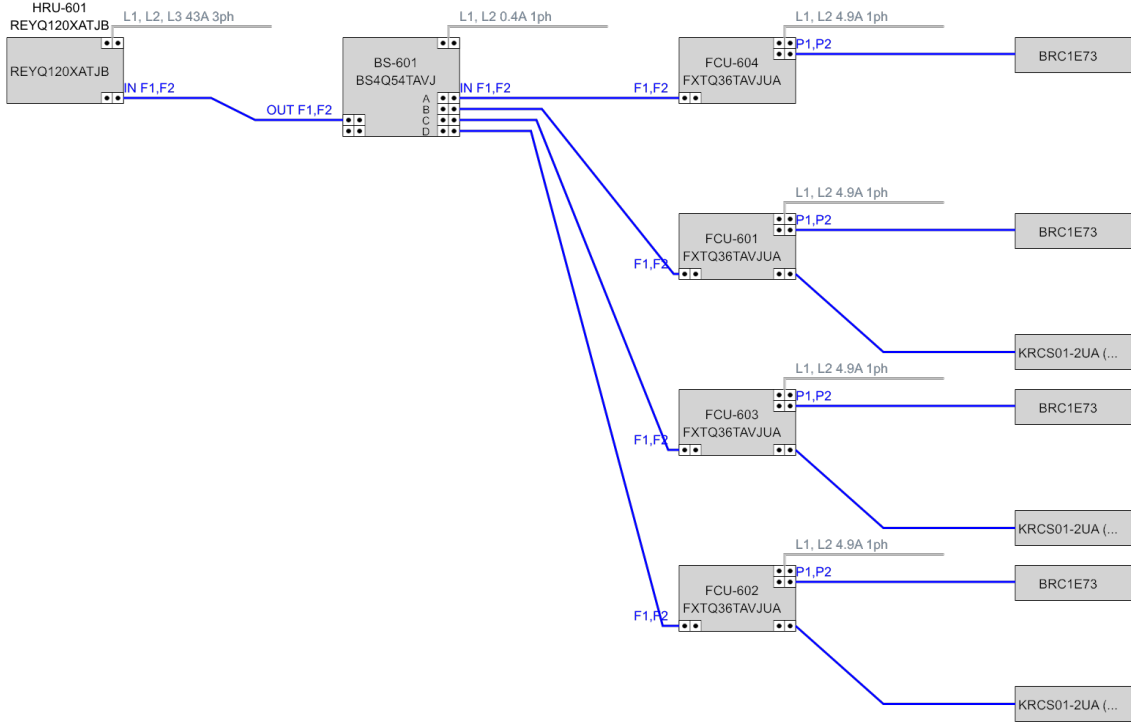


HRU-602
REYQ120XATJB



Wiring diagrams

Wiring HRU-601



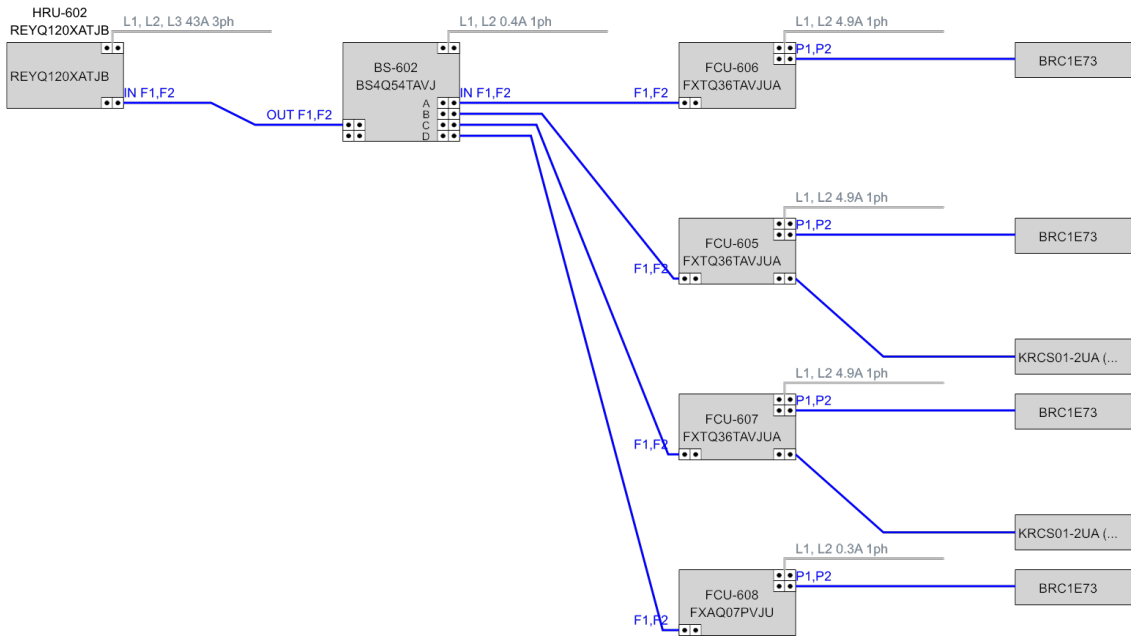
Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN/OUT = AWG 18-2 is required - however always refer to local code for further information

Note:

Wiring HRU-602



Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

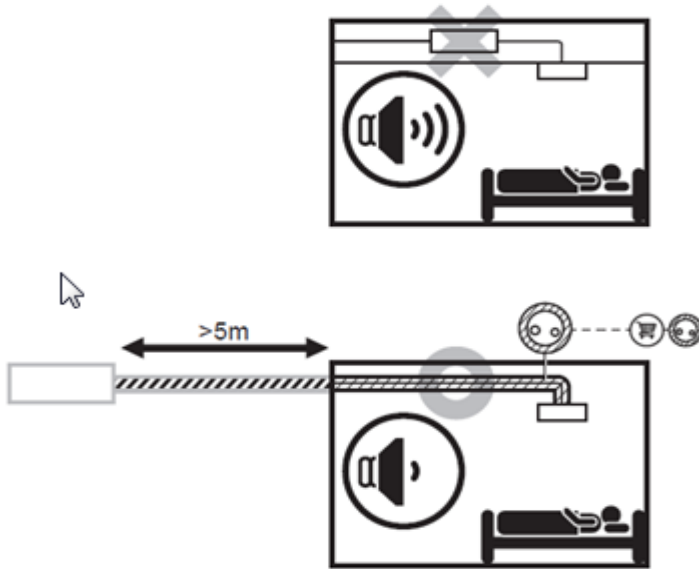
F1F2 IN/OUT = AWG 18-2 is required - however always refer to local code for further information

Note:

Best Practices

Multi BS-box

- Install the multi BS-box on a location where the refrigerant noise cannot disturb the room occupants
- To avoid that refrigerant noise disturbs the people in the room, keep at least 5m piping length between the occupied room and the multi BS unit (See figure)
- If there is no false ceiling in the occupied room, please add sound insulation around the piping between the multi BS-box and indoor unit, or keep much longer length between multi BS-box unit and occupied room (See figure)





Submittal Data Sheet

10 ton, 230V, VRV IV X HR - REYQ120XATJB

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: HRU-601, HRU-602

FEATURES

- Compatible with Low Temperature (LT) Hydrobox and EEV Kit for DOAS with hot gas reheat capability
- Industry's first 3 phase VRF system to integrate with communicating gas furnaces.
- Design flexibility to enlarge system from single to dual module or dual to triple module without changes to installed main pipe sizes.
- Engineered with Daikin vapor injection compressor for optimized part load efficiencies.
- Hot gas defrost circuit with improved control logic allows installation without base pan heater.
- New service window provides quick access to multi-functional display and configuration buttons.
- Multi-functional display provides refrigerant pressures and temperatures eliminating the need to connect gauges during regular maintenance check.
- Easy commissioning with ability to program settings off site using configurator tool.
- Assembled in the US to increase flexibility and reduce lead times.
- Standard Limited Warranty: 10-year limited parts warranty.



BENEFITS

- Choice of gas furnace or heat pump heating for optimizing operational costs based on utility cost.
- Engineered to optimize capital on phased & tenant fit out commercial buildings.
- Year round comfort and energy savings with Variable Refrigerant Temperature technology (VRT).
- Modular and lightweight - enables flexibility in system layout and installation
- Corrosion resistance 1000hr salt spray tested Daikin PE blue fin heat exchanger
- Refrigerant cooled inverter technology keeps PCB cool independent of ambient temperature
- Field performable Intermittent outdoor fan operation to help minimize snow accumulation on fan blades when the system is off.
- Backwards compatible with T-series Branch Selector boxes.





Submittal Data Sheet

10 ton, 230V, VRV IV X HR - REYQ120XATJB

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: HRU-601, HRU-602

PERFORMANCE

Outdoor Unit Model No.	REYQ120XATJB	Outdoor Unit Name:	10 ton, 230V, VRV IV X HR
Type:	Heat Recovery	Unit Combination:	
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	114,000	Rated Heating Capacity (Btu/hr):	129,000
Nom Cooling Capacity (Btu/hr):	120,000	Nom Heating Capacity (Btu/hr):	135,000
Cooling Input Power (kW):	9.01	Heating Input Power (kW):	10.50
EER (Non-Ducted/Ducted):	13.20 / 12.30	Heating COP (Non-Ducted/Ducted):	3.8 / 3.5
IEER (Non-Ducted/Ducted):	25.50 / 22.60	Heating COP 17F (Non-Ducted/Ducted):	2.5 / 2.3
		SCHE (Non-Ducted/Ducted):	26.00 / 22.00

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	11 - 100
Min. Circuit Amps MCA (A):	43.0	Capacity Index Limit:	60.0 - 156.0
Max Overcurrent Protection (MOP) (A):	50	Airflow Rate (H) (CFM):	7989
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-1/8
Rated Load Amps RLA(A):	28.2	Liquid Pipe Connection (inch):	1/2
Dimensions (Height) (in):	66-11/16	H/L Pressure Connection (inch)	3/4
Dimensions (Width) (in):	48-7/8	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-3/16	Sound Pressure (H) (dBA):	61
Net Weight (lb):		Sound Power Level (dBA):	
		Max. No. of Indoor Units:	20

Submittal Data Sheet

10 ton, 230V, VRV IV X HR - REYQ120XATJB

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

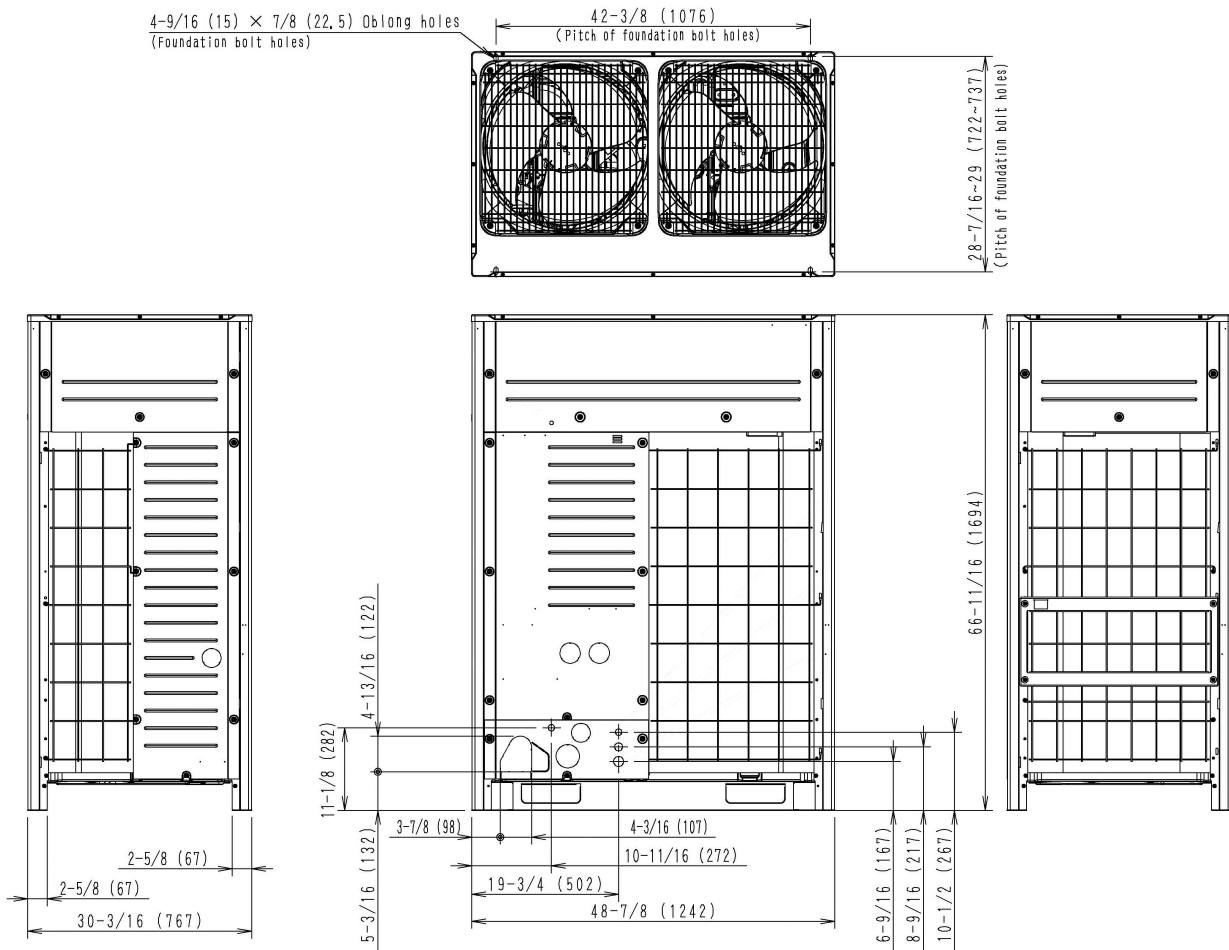
Submitted to: No Engineer Name Specified

Tags: HRU-601, HRU-602

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	25.8	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (lb/ft):		Max. Pipe Length (Vertical) (ft):	295
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):	540	Heating Range w/Baffle (°F WB):	-
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING





Submittal Data Sheet

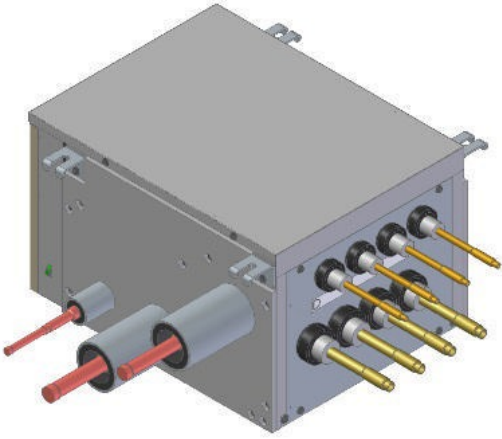
4 Port Branch Selector Unit - BS4Q54TAVJ

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: BS-601, BS-602





Submittal Data Sheet

4 Port Branch Selector Unit - BS4Q54TAVJ

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: BS-601, BS-602

PERFORMANCE

Indoor Unit Model No.	BS4Q54TAVJ	Indoor Unit Name:	4 Port Branch Selector Unit
Type:		Rated Cooling Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Rated Cooling Capacity (Btu/hr):	144,000	Rated Heating Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Sensible Capacity (Btu/hr):		Rated Piping Length(ft):	
Cooling Input Power (kW):	0.043	Rated Height Separation (ft):	

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H) (CFM):	
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.40	Gas Pipe Connection (inch):	7/8
Max Overcurrent Protection (MOP) (A):	15.00	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	11-3/4 x 14-9/16 x 18-15/16	Condensate Connection (inch):	
Net Weight (lb):	49	Sound Pressure (H) (dBA):	38
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet

4 Port Branch Selector Unit - BS4Q54TAVJ

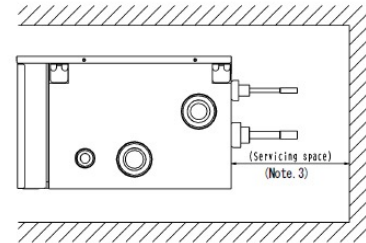
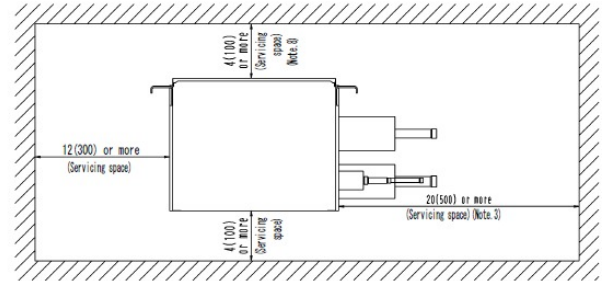
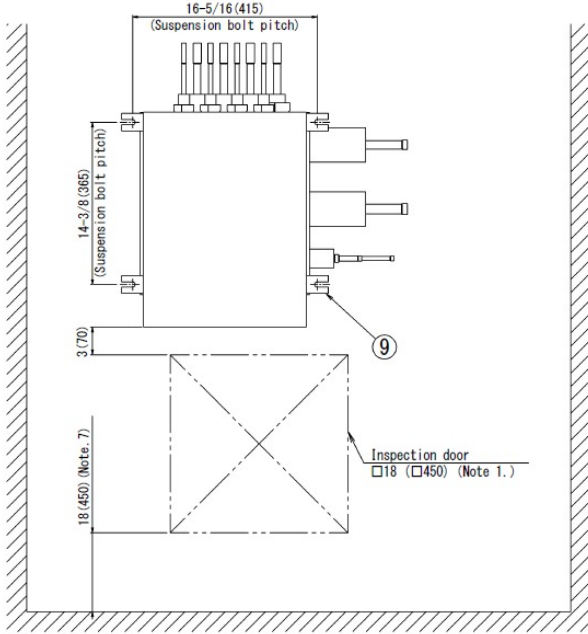
Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

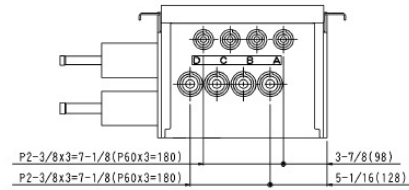
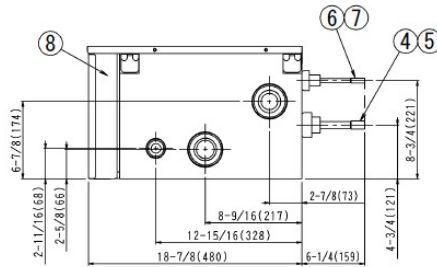
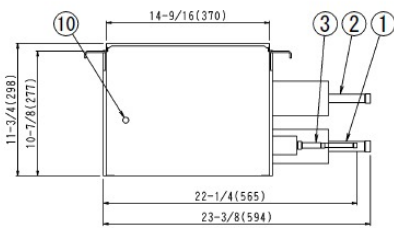
Submitted to: No Engineer Name Specified

Tags: BS-601, BS-602

DIMENSIONAL DRAWING



Servicing space





Submittal Data Sheet

3.0-Ton Multi Position Air Handling Unit - FXTQ36TAVJUA

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: FCU-604, FCU-601, FCU-603, FCU-602, FCU-606, FCU-605, FCU-607

FEATURES

- Capable of upflow, horizontal-right, horizontal-left, and downflow installation. Downflow installation requires the use of a field installed downflow accessory kit.
- Variable speed ECM motor produces nominal CFM up to 0.9â€³ external static pressure
- Improved auxiliary heat logic
- Designed with less than 2% air leakage when tested in accordance with ASHRAE 193
- All-aluminum coil
- Precise refrigerant modulation from a 2000 pulse electric expansion valve
- Cool, Dry, Auto, Heat, and Fan operation modes
- Auto Fan Speed automatically adjusts fan speed in relation to space temperature and set point
- Configurable Dry mode
- Optional slide-in electric heat available up to 10 kW
- Standard Limited Warranty: 10-year warranty on compressor and all parts



BENEFITS

- Optimized fan speed from Auto Fan Speed logic
- Reduced auxiliary heat dead band
- Configurable electric heat on/off temperature settings
- Compact footprint fits tight spaces





Submittal Data Sheet

3.0-Ton Multi Position Air Handling Unit - FXTQ36TAVJUA

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: FCU-604, FCU-601, FCU-603, FCU-602, FCU-606, FCU-605, FCU-607

PERFORMANCE

Indoor Unit Model No.	FXTQ36TAVJUA	Indoor Unit Name:	3.0-Ton Multi Position Air Handling Unit
Type:	Ducted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	36,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	24,400	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.440	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	40,000		
Heating Input Power (kW):	0.44		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L) (CFM):	1050/900/750
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	4.9/4.9	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	45 x 17.5 x 21	Condensate Connection (inch):	3/4
Net Weight (lb):	140	Sound Pressure () (dBA):	
Ext. Static Pressure (Rated/Max) (inWg):	/ 0.9"	Sound Power Level (dBA):	



Submittal Data Sheet

3.0-Ton Multi Position Air Handling Unit - FXTQ36TAVJUA

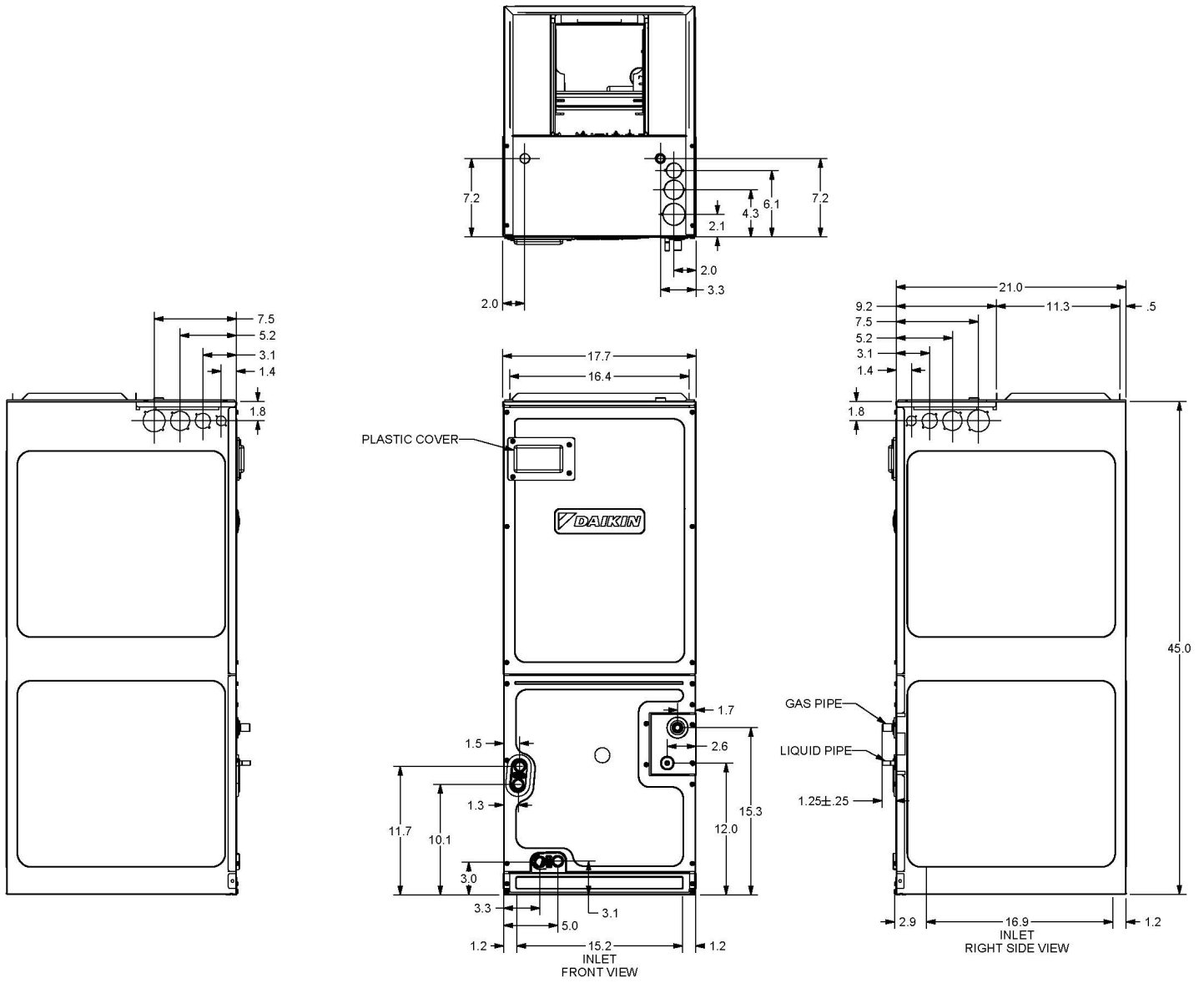
Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: FCU-604, FCU-601, FCU-603, FCU-602, FCU-606, FCU-605, FCU-607

DIMENSIONAL DRAWING



FXTQ09/12/18/24/30/36 TAVJU



Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: FCU-608

FEATURES

- Auto-swing mechanism ensures efficient air distribution via louvers that automatically close when the unit is turned off
- Easy to clean front panel with a flat smooth surface that can be removed for additional cleaning
- Five different airflow distribution angles programmable by the optional controller
- Condensate drain pipe can be installed on either the left or right side of the unit
- Wide air discharge outlet distributes a comfortable airflow throughout the entire space
- Standard Limited Warranty: 10-year warranty on compressor and all parts



VRV





Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: FCU-608

PERFORMANCE

Indoor Unit Model No.	FXAQ07PVJU	Indoor Unit Name:	0.5-Ton Wall Mounted Unit
Type:	Wall Mounted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	7,500	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	6,400	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.020	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	8,500		
Heating Input Power (kW):	0.03		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H/L) (CFM):	260/160
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.4	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-3/8 x 31-1/4 x 9-1/4	Condensate Connection (inch):	11/16
Net Weight (lb):	26	Sound Pressure (H/L) (dBA):	36/31
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

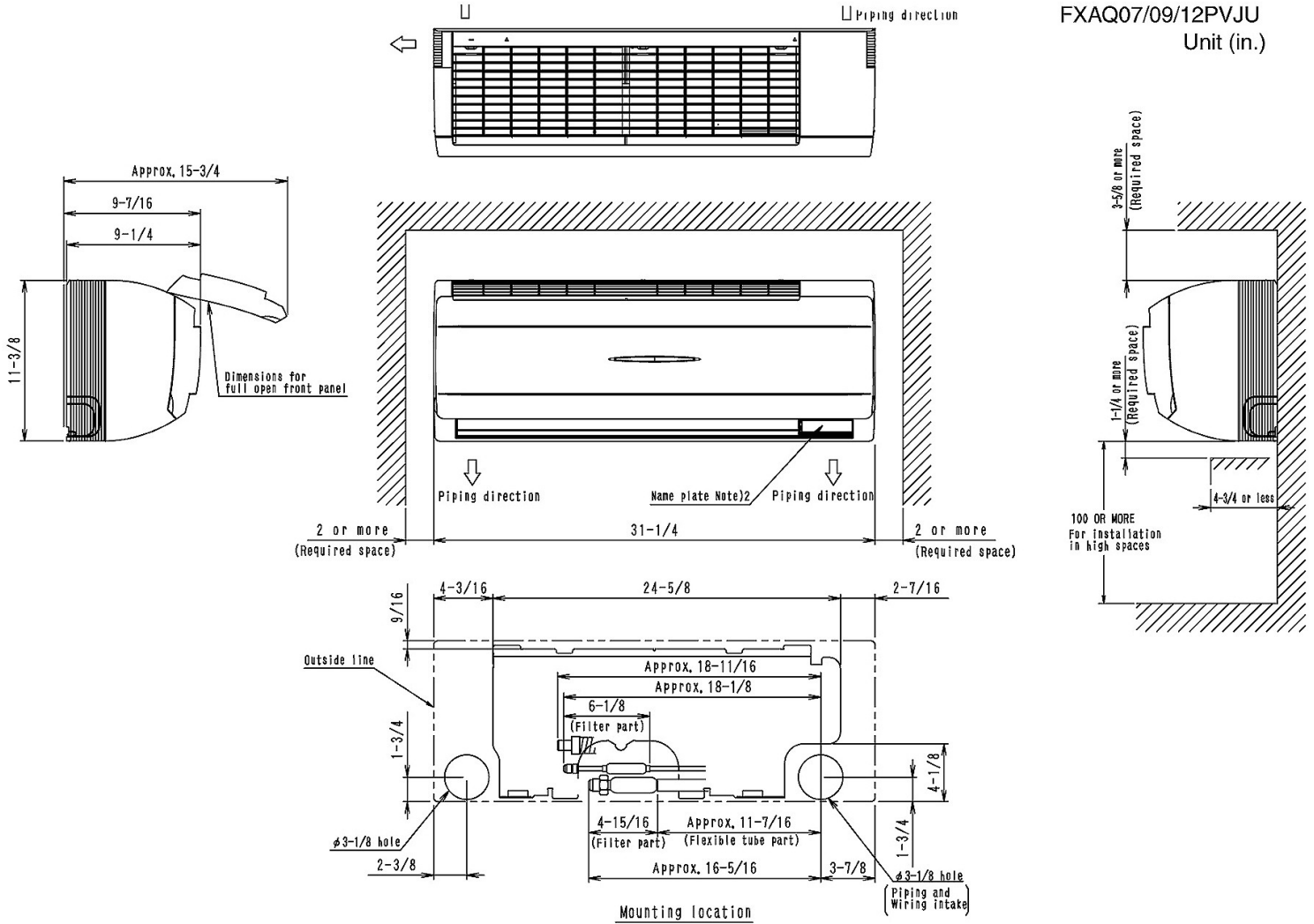
Project: Booneville HDC Building 6

Submitted by: Tufail Muhammad of HARRISON ENERGY PARTNERS on 11/21/2022

Submitted to: No Engineer Name Specified

Tags: FCU-608

DIMENSIONAL DRAWING



FXAQ07/09/12PVJU
Unit (in.)

MODEL COMPATIBILITY:

Compatible with VRV and VRV Life™ indoor unit models: FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXMQ_MF, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ, VAM, CXTQ

Compatible with SkyAir indoor unit models: FAQ, FBQ, FCQ, FHQ, FTQ

Compatible with Single and Multi-zone system indoor unit model: FFQ, FDMQ

SPECIFICATIONS:

Model	BRC1E73
Description	Navigation Remote Controller
Maximum Connections	16 indoor units
Communication Wire	18AWG-2, No polarity Stranded, Non-shielded
Total Wiring Length	1,640 ft. (500 m)
Communication Protocol	Daikin proprietary P1P2 protocol
Power	16VDC supplied by indoor unit (1.58VA maximum)
Comfort Setpoint Range	60 to 90 °F (16 to 32 °C)
Setback Setpoint Range	40 to 95 °F (5 to 35°C)
Operating Temp Range	14 to 122°F (-10 to 50°C)
Operating Humidity Range	75% or less (RH) (without condensation)
Dimensions (WxHxD)	4.72x4.72x0.75 inch (120x120x19 mm)
Weight (Mass)	0.42 lbs. (0.19 kg)

PRODUCT IMAGE:



- Notes:
- (1) 1 of 3 display options – Detailed display shown

FEATURES:

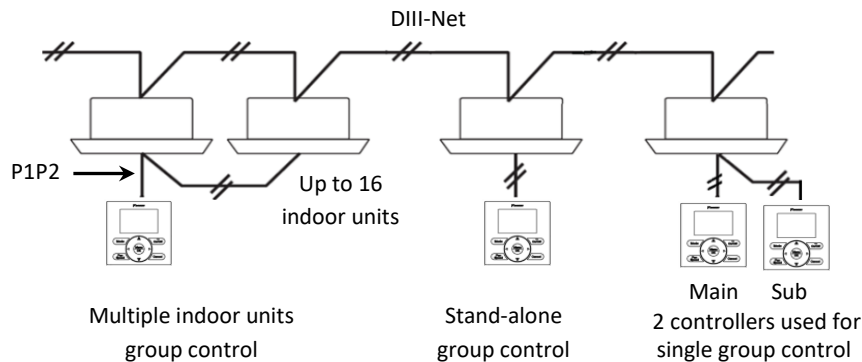
1. Up to 16 indoor units are controllable within one group
2. Within one group, up to 2 Navigation Remote Controllers can be used, one as a main and one as a sub
3. Backlit LCD displays in English, Spanish or French
4. Temperature sensor built-in with configurable offset
5. Display of Temperature and Setpoint in 1°F / °C increments
6. Three configurable display options: Detailed, Standard and Simple
7. Dual setpoints (independent cooling and heating setpoints) with configurable minimum setpoint differential or Single Setpoint (occupied period)
8. Setpoint range limit for cooling and heating modes

9. Independent cooling and heating setback setpoints (unoccupied period)
10. Auto changeover control with configurable primary and secondary changeover dead bands and guard timer
11. Airflow – Individual air flow direction, dual airflow and auto draft prevention (prevents air blowing directly on occupants)*
12. Built-in 7 days, weekdays+weekend, weekdays+Sat+Sun, and Everyday schedules with up to 5 actions per day with independent cooling and heating or setback setpoints
13. Automatic Setback by occupancy sensor*
14. Automatic Off by occupancy sensor*
15. Configuration for Self-cleaning filter panel**
16. Automatic adjustment for Daylight Savings Time (DST)
17. 48 hour clock/calendar battery backup (protects schedule timing in cases of short term power loss from indoor unit)
18. Real-time monitoring of system malfunctions with immediate display of unit in error and error code
19. The buttons on the remote controller are selectable by locking out the unwanted buttons
20. The operation modes can be restricted to provide only the desired mode(s) of operation
21. Display can be configured to show “Off” and room temperature only when indoor unit is turned off
22. To prevent unwanted changes, fan speed selection and display may be hidden
23. Auto off timer configurable in 10 minute increments (range 30-180 minutes)
24. Can be used to replace earlier versions of remote controllers

* Available for FXFQ_TVJU, FXUQ_PVJU, and FXZQ_TA indoor units

**Available for FXFQ_TVJU indoor units

SYSTEM DIAGRAM:



FACE DECAL OPTIONS:

Face decal options are used to hide unnecessary buttons:

1. The face decal is designed to adhere to the faceplate
2. Hidden buttons can be accessed by service personnel without removing the face decal due to its flexibility

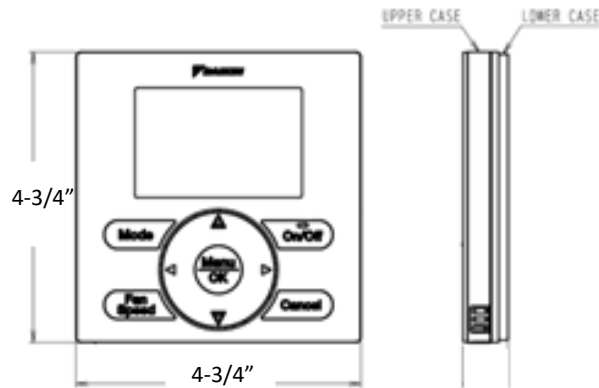
Submittal Data Sheet

BRC1E73 – Navigation Remote Controller



Used with	Single Setpoint mode			Dual Setpoint mode		
	BRC1E72RM	BRC1E72RF	BRC1E72RMF	BRC1E72RM2	BRC1E72RF2	BRC1E72RMF2
Model						
On/Off	X	X	X	X	X	X
Mode	X		X	X		X
Fan		X	X		X	X
Up, Down	X	X	X	X	X	X
Left, Right				X	X	X
Menu/Ok						
Cancel						

DIMENSIONS:



MODEL COMPATIBILITY:

Part Number	Compatible Indoor Unit Models
KRCS01-1B	FXAQ, FXDQ, FXHQ, FXLQ, FXMQ_MV, FXNQ, FAQ, FHQ
KRCS01-4B	FXEQ, FXFQ, FXMQ_PB, FXTQ_P, FXSQ, FXUQ, FXZQ, FCQ, FBQ, FFQ, FDMQ
KRCS01-2UA	FXTQ_TA, CXTQ, FTQ

Notes: The connectors to the indoor unit are different

SPECIFICATIONS:

Model	KRCS01-1B/ KRCS01-4B/ KRCS01-2UA
Description	Remote Sensor Kit
Length of wiring	40 ft (12m)
Dimensions	1.97in x 2.36in x 0.59 in (50mm x 60mm x 15mm)
Weight	0.66 lbs (0.3 kg)
Components	Remote sensor. 40ft (12m) Extension cord*. Screws. Clamps. Installation manual.

* Note: A 40ft non-plenum rated cable is include in the kit.

PRODUCT IMAGE:



OPTION:

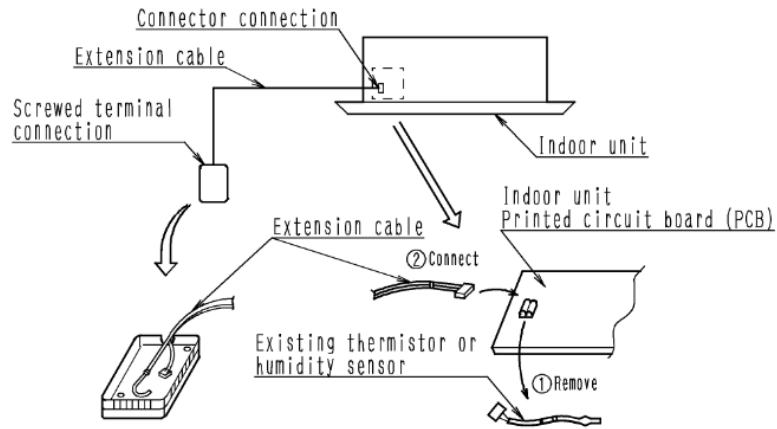
- DACA-KRCS-PW40: Remote Sensor Cable, Plenum Rated, 40ft (for KRCS01-1B)
- DACA-KRCS-PW80: Remote Sensor Cable, Plenum Rated, 80ft (for KRCS01-1B)
- DACA-KRCSPW404B: Remote Sensor Cable, Plenum Rated, 40ft (for KRCS01-4B/KRCS01-2UA)
- DACA-KRCSPW804B: Remote Sensor Cable, Plenum Rated, 80ft (for KRCS01-4B/KRCS01-2UA)

FEATURES:

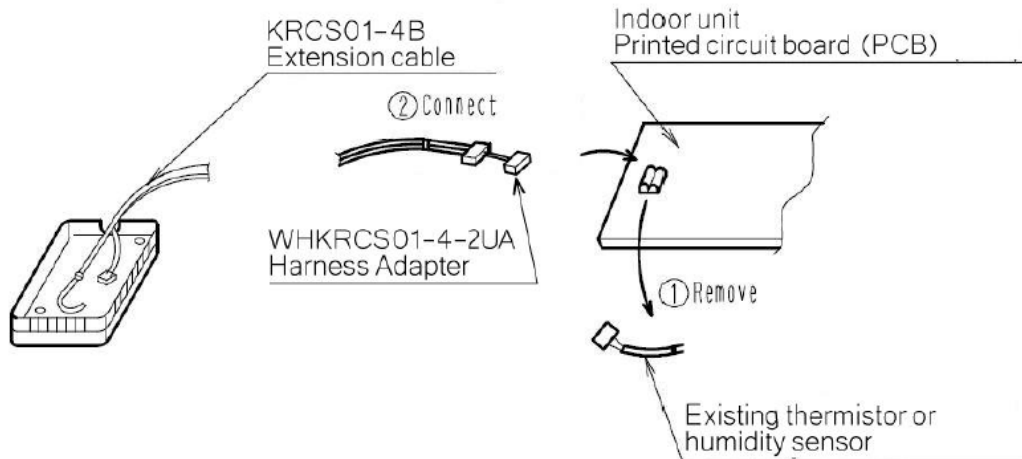
- Extend the sensing location by replacing the return air thermistor in the indoor unit
- Can be embedded inside the Simplified Remote Controller BRC2A71

WIRING DIAGRAM:

- KRCS01-1B/KRCS01-4B:



- KRCS01-2UA includes Wiring Harness Adaptor WHKRCS01-4-2A that connects Extension Cable KRCS01-4B to the X4A connector on the FXTQ_TA PCB:



Part #	Description
KRCS01-2UA ¹	New Remote Sensor Kit
KRCS01-4B	Existing Remote Sensor
WHKRCS01-4-2U4A	New Wiring Harness Adaptor

Split System Air Conditioners

Alessi Keyes Construction Co.

AKC-505 - Booneville HDC New Dorm



Comments

Split System Air Conditioners

Alessi Keyes Construction Co.

AKC-505 - Booneville HDC New Dorm



History

**FEBRUARY 8,
2023 UTC**

Trey Tassin (Stocks-Mann Architects) - VIEWED
8:42 PM UTC

Chay Slater (Bernhard TME) - VIEWED
7:48 PM UTC

Chay Slater (Bernhard TME) - VIEWED
7:32 PM UTC

**FEBRUARY 3,
2023 UTC**

Chay Slater (Bernhard TME) - VIEWED
4:26 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED
4:00 PM UTC

Updated On:

Old: 2/2/23 at 8:10:30 PM UTC

New: 2/3/23 at 4:00:42 PM UTC

**FEBRUARY 2,
2023 UTC**

Chay Slater (Bernhard TME) - VIEWED
11:16 PM UTC

Trey Tassin (Stocks-Mann Architects) - VIEWED
9:43 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - IN REVIEW
8:10 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED
8:10 PM UTC

Due from Approver:

Old:

New: 2/16/23 UTC

Due Date:

Old:

New: 2/16/23 UTC

In Review Date:

Old:

New: 2/2/23 UTC

Updated By:

Old: Matthew Aldridge (COMFORT SYSTEMS USA (ARKANSAS), INC)

New: Charley Dawson (Alessi-Keyes Construction Co.)

Updated On:

Old: 2/2/23 at 8:02:24 PM UTC

New: 2/2/23 at 8:10:30 PM UTC

CC Participants:

Old:

New: Randy Stocks

Additional Approvers:

Old:

New: Tommy Pauley, Chay Slater, Garrett Thompson

Assigned From:

Old: Matthew Aldridge

Split System Air Conditioners

Alessi Keyes Construction Co.

AKC-505 - Booneville HDC New Dorm



New: Charley Dawson

Assigned To:

Old: Charley Dawson

New: Trey Tassin

Approver:

Old:

New: Trey Tassin

Charley Dawson (Alessi-Keyes Construction Co.) - DELETED

FileName: 23 81 26-01 Split-System Air Conditioner Re-Submittal #1.pdf

8:10 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - UPLOADED

FileName: 23 81 26-1 - Split-System Air Conditioners.pdf

8:10 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - VIEWED

8:07 PM UTC

Matthew Aldridge (COMFORT SYSTEMS USA (ARKANSAS), INC) - SUBMITTED

8:02 PM UTC

Matthew Aldridge (COMFORT SYSTEMS USA (ARKANSAS), INC) - MODIFIED

8:02 PM UTC

Due Date:

Old: 1/27/23 UTC

New:

Submitted Date:

Old:

New: 2/2/23 UTC

Updated By:

Old: Charley Dawson (Alessi-Keyes Construction Co.)

New: Matthew Aldridge (COMFORT SYSTEMS USA (ARKANSAS), INC)

Updated On:

Old: 1/23/23 at 2:47:49 PM UTC

New: 2/2/23 at 8:02:24 PM UTC

Assigned From:

Old: Charley Dawson

New: Matthew Aldridge

Assigned To:

Old: Matthew Aldridge

New: Charley Dawson

Matthew Aldridge (COMFORT SYSTEMS USA (ARKANSAS), INC) - UPLOADED

FileName: 23 81 26-01 Split-System Air Conditioner Re-Submittal #1.pdf

8:02 PM UTC

Matthew Aldridge (COMFORT SYSTEMS USA (ARKANSAS), INC) - VIEWED

7:58 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED

Split System Air Conditioners

Alessi Keyes Construction Co.

AKC-505 - Booneville HDC New Dorm



**JANUARY 23,
2023 UTC**

2:47 PM UTC

Updated On:

Old: 1/20/23 at 4:40:09 PM UTC

New: 1/23/23 at 2:47:49 PM UTC

**JANUARY 20,
2023 UTC**

Charley Dawson (Alessi-Keyes Construction Co.) - MODIFIED

4:40 PM UTC

Public Visibility:

Old: False

New: True

Updated By:

Old:

New: Charley Dawson (Alessi-Keyes Construction Co.)

Updated On:

Old:

New: 1/20/23 at 4:40:09 PM UTC

Charley Dawson (Alessi-Keyes Construction Co.) - CREATED

3:56 PM UTC