



SUBMITTAL DATA

EQUIPMENT: LG Split System Heat Pump

TAGS: DS-1 & 2

PROJECT: Goodwill Retail Center
Chenal Parkway at Kirk Road
LOCATION: Little Rock, Arkansas

ENGINEER:  **EECI**
ENERGY ENGINEERING
CONSULTANTS, INC.

CONTRACTOR:  **COMFORT SYSTEMS USA**
A R K A N S A S

DATE: 1/28/2025

SUBMITTED BY: Forrest Moseley
forrest@airetechcorp.com

Job Name/Location:

Tag No.:

Date:

For:	File	Resubmit
	Approval	Other

PO No.:

Architect: GC:

Engr: Mech:

Rep: (Company) (Project Manager)



KSSAE121A

R32 Single Zone Standard Efficiency Wall Mounted

Outdoor Unit (ODU) - KUSAE121A, Indoor Unit (IDU) - KNSAE121A



Performance:

Cooling:

Cooling Capacity (Min~Rated~Max) (Btu/h)	3,070 ~ 11,000 ~ 13,780
SEER2	18
EER2	12

SEER - Seasonal Energy Efficiency Ratio EER - Energy Efficiency Ratio

Heating:

Heating Capacity (Min~Rated~Max) (Btu/h)	3,070 ~ 12,000 ~ 13,780
HSPF2	8.5
Max. Heating @ Indoor 70°F DB	
Outdoor 19°F DB / 17°F WB	10,560
Outdoor 6°F DB / 5°F WB	8,400

HSPF - Heating Seasonal Performance Factor

Cooling Nominal Test Conditions:
Indoor: 80°F DB / 67°F WB
Outdoor: 95°F DB / 75°F WB

Heating Nominal Test Conditions:
Indoor: 70°F DB / 60°F WB
Outdoor: 47°F DB / 43°F WB

Electrical:

Power Supply (V/Hz/Ø)	208-230/60/1
MOP (A)	15
MCA (A)	10
Cooling Rated Amps (A)	5.2
Heating Rated Amps (A)	7.3
Compressor (A)	6.7
Fan Motor (IDU + ODU) (A)	0.4 + 0.6
Cooling Power Input (kW)	
(Min~Rated~Max @95°F) (kW)	0.2 ~ 0.917 ~ 1.54
Heating Power Input (kW)	
(Min~Rated~Max @47°F) (kW)	0.195 ~ 1.02 ~ 1.64

MOP - Maximum Overcurrent Protection

MCA - Minimum Circuit Ampacity

Piping:

Liquid Line (in., O.D.)	1/4
Vapor Line (in., O.D.)	3/8
Additional Refrigerant (oz./ft.)	0.16
Min. / Max. Pipe Length (ft.) ²	9.8 / 49.2
Piping Length (no add'l refriger., ft.)	24.6
Max. Elevation (ft.)	23

Features:

- 24-Hour on/off timer
- Two-way (up / down) auto swing
- Auto changeover
- Auto restart
- Jet cool/Jet heat
- Smart Care
- Smart Diagnosis
- Built-in Wi-Fi via ThinQ™ app
- Inverter (variable speed compressor)
- Self-cleaning indoor coil
- Sleep mode
- Ultra-quiet operation

Included Accessories:

- Wireless Remote Controller — AKB76044207

Controller Options:

- MultiSITE™ CRC* Controllers
- Simple Remote Controllers
- Standard III Remote Controllers
- Deluxe Remote Controller
- Dry Contacts

Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR® criteria. Ask your contractor for details or visit www.energystar.gov. (ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency.)

Operating Range:

Outdoor Unit:

Cooling (°F DB)	14 ~ 118
Heating (°F WB)	5 ~ 65

Indoor Unit:

Cooling (°F WB)	53 ~ 75
Heating (°F DB)	60 ~ 86

System Data:

Refrigerant Type	R32
Refrigerant Control	EEV
Refrigerant Charge (lbs.)	1.54
ODU Sound Pressure (Cooling / Heating) (±1 dB[A]) ³	50 / 50
IDU Sound Pressure	
Cooling (H/M/L/Sleep) (±1 dB[A]) ³	42 / 36 / 28 / 21
Heating (H/M/L) (±1 dB[A]) ³	42 / 36 / 28
ODU Net / Shipping Weight (lbs.)	55.3 / 60
IDU Net / Shipping Weight (lbs.)	19.2 / 22
Heat Exchanger Coating	GoldFin™

Fan:

ODU Type	Propeller
IDU Type	Cross Flow
Fan Speeds (Fan/Cool/Heat)	6 / 6 / 6
Quantity (ODU + IDU)	1 + 1
Motor/Drive	Brushless Digitally Controlled/Direct
ODU Max. Air Flow Rate (CFM)	953
IDU Air Flow	
Cooling, Max/H/M/L (CFM)	459 / 353 / 264 / 148
Heating, Max/H/M/L (CFM)	459 / 353 / 254 / 198
Dehumidification (pts./hr.)	2.75

Notes:

1. Acceptable operating voltage: 187V-253V.
2. Piping lengths are equivalent.
3. Sound Pressure levels are tested in an anechoic chamber under ISO Standard 3745.
4. All communication / connection (power) cable from the outdoor unit to the indoor unit is field supplied and must be a minimum of four-conductor, 14 AWG, stranded, shielded or unshielded (if shielded, it must be grounded to the chassis of the outdoor unit only), and must comply with applicable local and national codes.
5. See Engineering Manual for sensible and latent capacities.
6. Power wiring cable size must comply with the applicable local and national code.
7. The indoor unit comes with a dry helium charge.
8. This data is rated 0 ft. above sea level, with 24.6 ft. of refrigerant line and a 0 ft. level difference between outdoor and indoor units.
9. Must follow installation instructions in the applicable LG installation manual.



For a complete list of available accessories, contact your LG representative.

For continual product development, LG reserves the right to change specifications without notice.

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Job Name/Location: _____

KSSAE121A

R32 Single Zone Standard Efficiency Wall Mounted

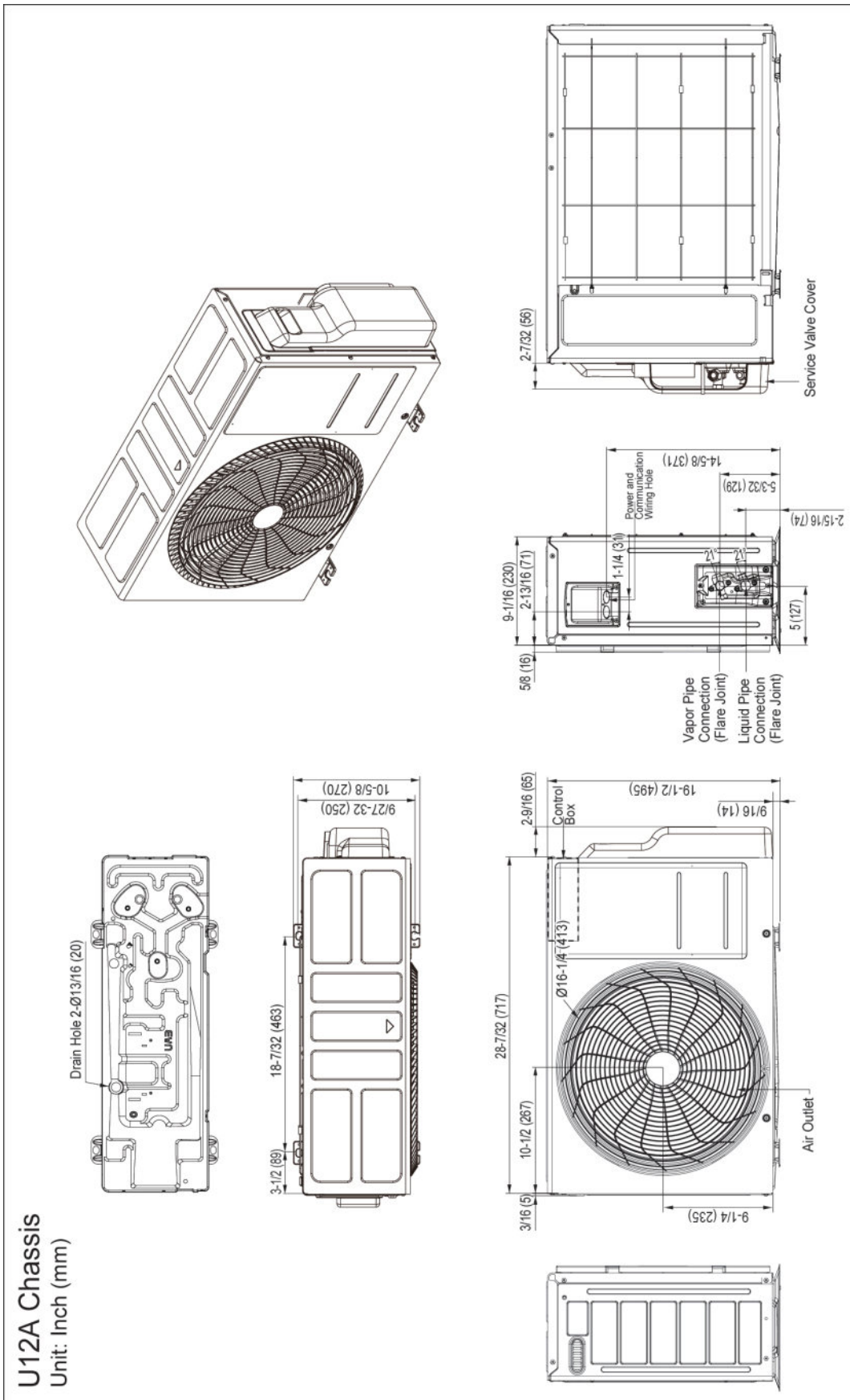
Outdoor Unit (ODU) - KUSAE121A, Indoor Unit (IDU) - KNSAE121A



Tag No.: _____

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KSSAE121A

R32 Single Zone Standard Efficiency Wall Mounted

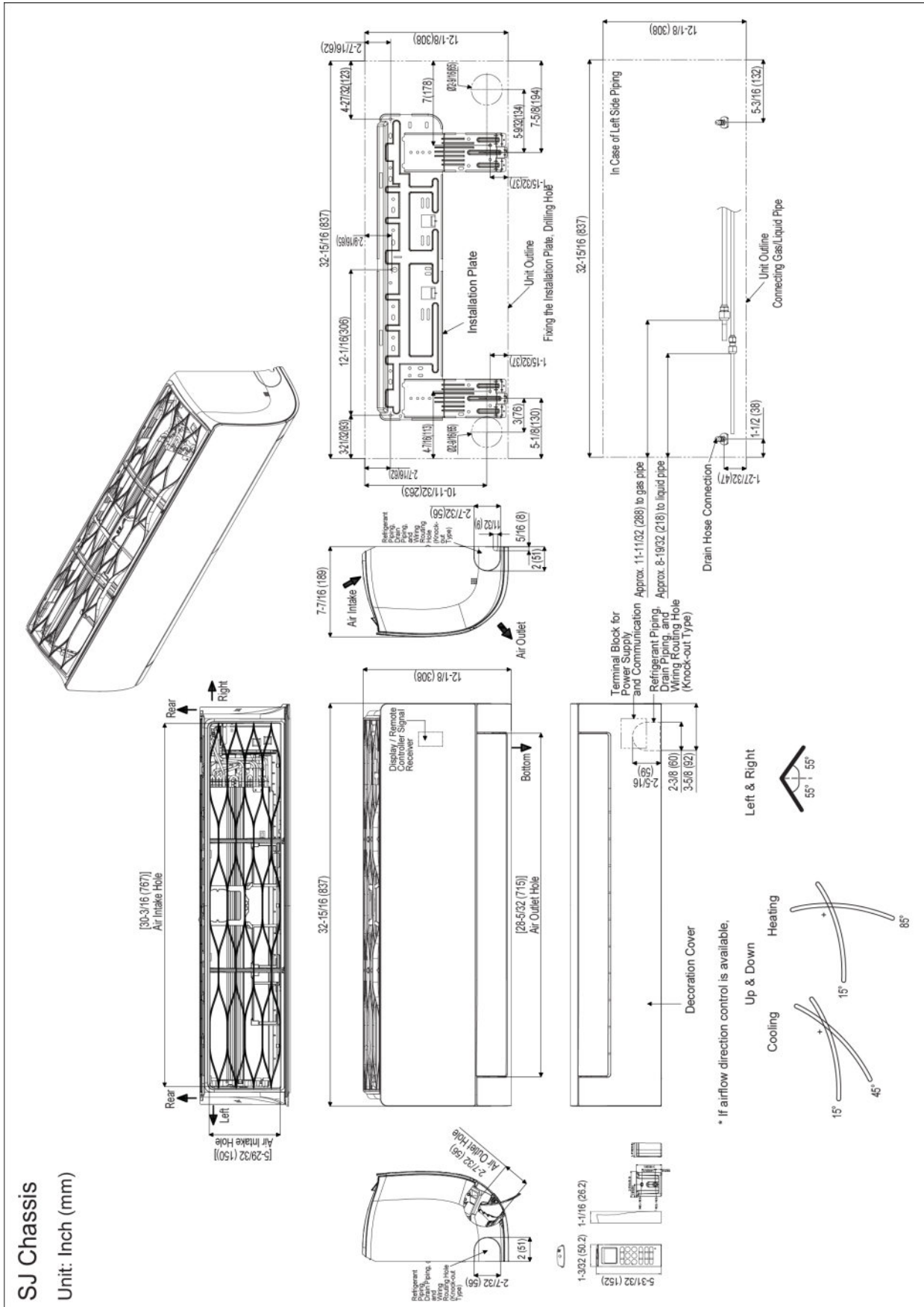
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Engr: Mech:

Rep: (Company) (Project Manager)



KSUDA181A
R32 Single-Zone 2x2 Four-Way Ceiling Cassette with LGRED®
Outdoor Unit (ODU) - KUSXA181A, Indoor Unit (IDU) - KNUDB181A



Performance:

Cooling:

Cooling Capacity (Min~Rated~Max, Btu/h)	7,200~18,000~23,000
SEER2	20.5
EER2	13.2

SEER - Seasonal Energy Efficiency Ratio EER - Energy Efficiency Ratio

Heating:

Heating Capacity (Min~Rated~Max, Btu/h)	6,500~20,000~24,000
HSPF2	9.5
Max. Heating @ Indoor 70°F DB (Btu/h)	
Outdoor 17°F WB	22,500
Outdoor 5°F WB	20,000
Outdoor -4°F WB	17,900
Outdoor -13°F WB	15,500

HSPF - Heating Seasonal Performance Factor Heating Nominal Test Conditions:
Cooling Nominal Test Conditions: Indoor: 80°F DB / 67°F WB Indoor: 70°F DB / 60°F WB
Outdoor: 95°F DB / 75°F WB Outdoor: 47°F DB / 43°F WB

Electrical:

Power Supply (V/Hz/Ø)	208-230/60/1
MOP (A)	30
MCA (A)	19.1
Cooling / Heating Rated Amps (A)	15.85 / 15.85
Compressor (A)	14.0
Fan Motor (IDU + ODU) (A)	0.25 + 1.6
Cooling Power Input (Min~Rated~Max, kW)	0.50~1.37~2.80
Heating Power Input (Min~Rated~Max, kW)	0.46~1.73~2.6
Locked Rotor Amps (A)	11.5

MOP - Maximum Overcurrent Protection MCA - Minimum Circuit Ampacity

Piping:

Installed Liquid Pipe (in., O.D.)	3/8 Flare
Installed Vapor Pipe (in., O.D.)	5/8 Flare
IDU Liquid Connection (in., O.D.)	3/8 Flare
IDU Vapor Connection (in., O.D.)	5/8 Flare
Additional Refrigerant (oz./ft.)	0.38
Min. / Max. Pipe Length (ft.) ²	16.4 / 164
Piping Length (no add'l refrig., ft.)	24.6
Max. Elevation (ft.)	98.4

Features:

- Inverter (Variable Speed Compressor)
- Internal Condensate Pump
- Swirl Wind
- Jet Cool
- Auto Restart
- Auto Changeover
- Drain pan heater
- Ultra-quiet Turbo Fan
- Night Quiet Function
- Optional Wi-Fi Control
- IDU compatible with Multi F ODUs

Included Accessories:

- Wireless Remote Controller - PQWRHQ0FDB

Required Accessories:

- Grille Kit - PT-QAGW0

Optional Accessories:

- Ventilation Flange - PTVK430
- Auxiliary Heater Kit
- Wi-Fi Module - PWFMD200
- Drain Pan Heater - PQSH1200
- Low Ambient Wind Baffle (Cooling operation to -4°F) - ZLABGP04A¹¹

Controller Options:

- MultiSITE™ CRC* Controllers
- Simple Remote Controller
- Standard III Remote Controllers
- Remote Temperature Button Sensor
- Deluxe Remote Controller
- Dry Contacts
- AHU Communication Kit

Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR® criteria. Ask your contractor for details or visit www.energystar.gov. (ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency.)

For a complete list of available accessories, contact your LG representative.

For continual product development, LG reserves the right to change specifications without notice. SB_SZ_LGRED_2x2_CeilingCassette_R32_KSUDA181A_2024_11_15_135741

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Operating Range:

Outdoor Unit:

Cooling (°F DB)	5 ~ 118
Heating (°F WB)	-13 ~ +64

Indoor Unit:

Cooling (°F WB)	57 ~ 77
Heating (°F DB)	59 ~ 81

System Data:

Refrigerant Type	R32
Refrigerant Control	EEV
Refrigerant Charge (lbs.)	4.19
ODU Sound Pressure (Cooling / Heating) (±1 dB[A]) ³	51 / 52
IDU Sound Pressure (H/M/L/SL) (±1 dB[A]) ³	41 / 39 / 36
ODU Net / Shipping Weight (lbs.)	141.8 / 160.1
IDU Net / Shipping Weight (lbs.)	30.9 / 37
Grille Net Weight (lbs.)	6.6 / 8.8
Heat Exchanger Coating	GoldFin™

Fan:

ODU Type	Propeller
IDU Type	Turbo
Fan Speeds (Fan/Cool/Heat)	4 / 5 / 4
Quantity (ODU + IDU)	1 + 1
Motor/Drive	Brushless Digitally Controlled/Direct
Maximum ODU Air Volume (CFM)	2,048
IDU Air Flow (CFM Max./H/M/L)	459 / 424 / 388
Dehumidification (pts./hr.)	3.1

Notes:

- Acceptable operating voltage: 187V-253V.
- Piping lengths are equivalent.
- Sound Pressure levels are tested in an anechoic chamber under ISO Standard 3745.
- All power supply wiring to the outdoor unit is field supplied, solid or stranded. The power wiring and the communication wiring from the outdoor unit to the indoor unit is field supplied and must be stranded, shielded or unshielded (if shielded, it must be grounded to the chassis of the outdoor unit only). All wiring must comply with applicable local and national codes.
 - Power Supply Wiring to Outdoor Unit (No. x AWG): 3 x 12 for 9k, 12k, 18k, and 24k; 3 x 10 for 30k, 36k, 42k, and 48k.
 - Power Wiring and Communication Wiring from Outdoor Unit to Indoor Unit (No. x AWG): 3 x 14 / 2 x 18.
- See Engineering Manual for sensible and latent capacities.
- This unit comes with a dry helium charge.
- This data is rated 0 ft. above sea level, with 24.6 ft. of refrigerant line and a 0 ft. level difference between outdoor and indoor units.
- Must follow installation instructions in the applicable LG installation manual.
- Multi compatible 18k IDUs include socket adapters for refrigerant pipe connections with Single Zone systems.



KSUDA181A

R32 Single-Zone 2x2 Four-Way Ceiling Cassette with LGRED*

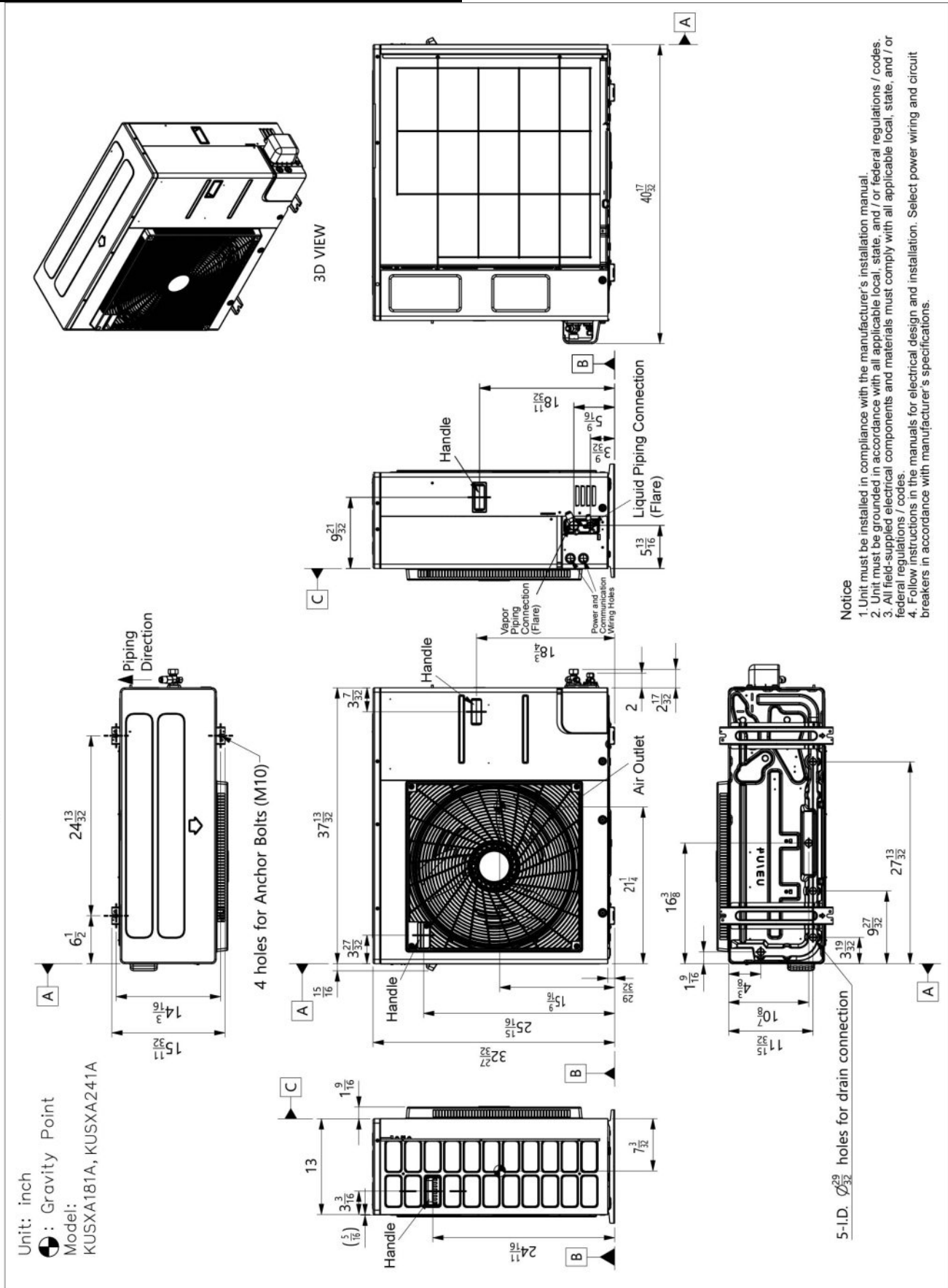
Outdoor Unit (ODU) - KUSXA181A, Indoor Unit (IDU) -KNUDB181A



Tag No.: _____

Date: _____

PO No.: _____



Notice

1. Unit must be installed in compliance with the manufacturer's installation manual.
2. Unit must be grounded in accordance with all applicable local, state, and / or federal regulations / codes.
3. All field-supplied electrical components and materials must comply with all applicable local, state, and / or federal regulations / codes.
4. Follow instructions in the manuals for electrical design and installation. Select power wiring and circuit breakers in accordance with manufacturer's specifications.

Job Name/Location:

Tag No.:

Date:

For:	File	Resubmit
	Approval	Other_____

PO No.:

Architect:

GC:

Engr:

Mech:

Rep:

(Company)

(Project Manager)

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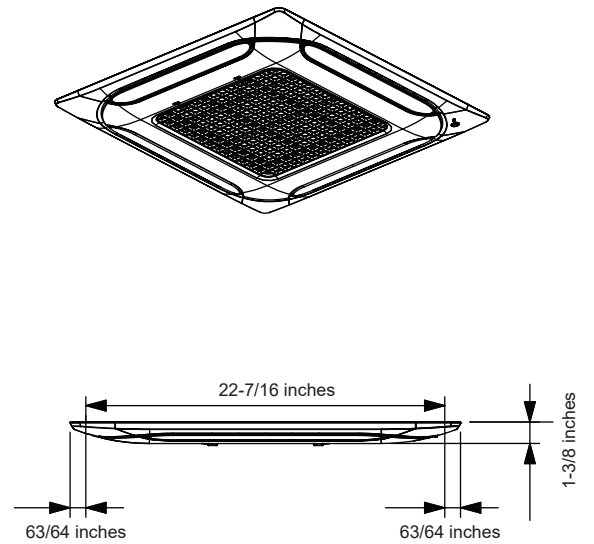
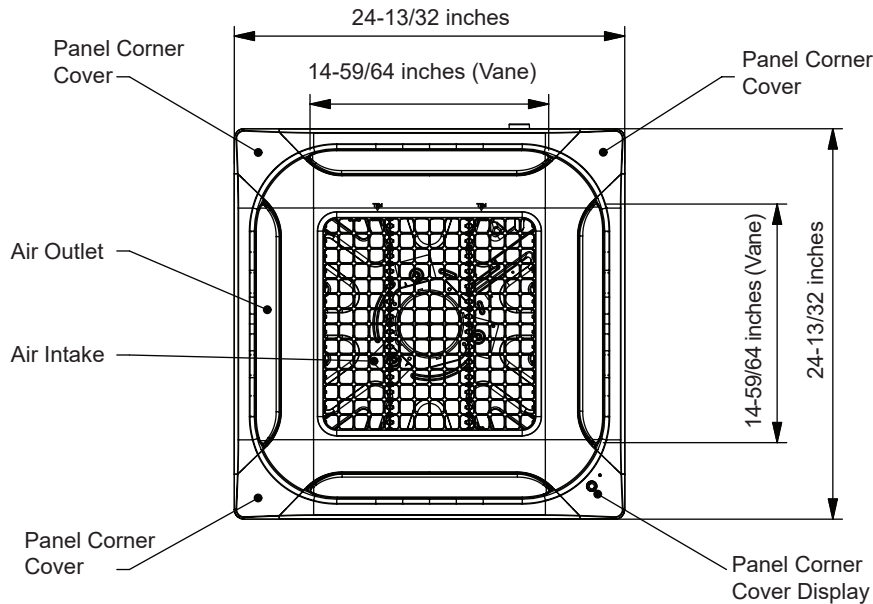
2' x 2' Cassette Panel

For Multi V™/Single-Zone /Multi F 4-Way Ceiling-Cassette Indoor Units



Unit Data:

Color	White
RAL Color Code	RAL 9003
RGB Color Code	236 - 236 - 231
Material	ABS XG571
Net Dimensions (W x H x D, in.)	24-13/32 x 1-3/8 x 24-13/32
Shipping Dimensions (W x H x D, in.)	27-3/32 x 5 x 26-1/2
Net Weight (lbs.)	6.3
Shipping Weight (lbs.)	8.6
Display LED Color	Green
Filter	Washable



Job Name/Location:

Tag #:

Date:

For: File Resubmit

PO No.:

Approval Other

Architect:

GC:

Engr:

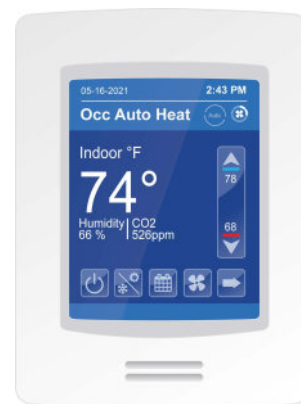
Mech:

Rep:

(Company)

(Project Manager)

PREMTBVC2 MultiSITE CRC2 Remote Controller



Electrical:

Power Supply 12VDC power from indoor unit

Surrounding Conditions:

Temperature	
Operating	32-122 °F
Storage	-22-122 °F
Humidity	
Operating	5-95% RH (non-condensing)
Storage	0-95% RH (non-condensing)

Features:

- Customizable color digital touch screen interface with Multilanguage support
- BACnet® Wireless IP (optional)
- ZigBee® Pro Wireless capability (optional)
- 2 universal inputs, 1 universal output, and 1 digital output
- Role based configuration (password protected)
- Lua scripting
- Function code settings
- Function code search tool
- Date and time display
- Room temperature display (-9 °F ~ +9 °F adjustable)
- Humidity display (-15% ~ +15% adjustable)
- Operation - On/Off
- Mode - Auto/Cool/Dry/Heat/Fan Only
- Occupied cooling and heating temperature setpoints
- Unoccupied cooling and heating temperature setpoints
- 7 day scheduling with mode
- Fan speed - Auto/Low/Med/High/Power
- Discharge vanes - Auto/Swing/Fixed
- Static pressure installer setting

Optional Accessories (sold separately):

- PZCWRCG3 - Group Control Cable Kit
- PZCWRC1 - Extension Cable (for IDUs without terminal blocks)
- ZVRCZPWC2 - ZigBee® Pro Wireless Module³
- ZVRCZDWC1 - Wireless Door Window Contact³
- ZVRCZMTH1 - Wireless Ceiling Mounted Occupancy, Temperature and Humidity Sensor³
- SEDCO2G5045 - Wireless CO2, Temperature & Humidity Sensor³
- ZVRCZTRH1 - Wireless Temperature & Humidity Sensor³
- ZVRCZWLS1- Wireless Water Leak Sensor³
- VCM8002V504 - Wi-Fi Module (BACnet Wireless IP)

Notes:

1. Available functions/features may differ based on connected system.
2. Communication cable can be extended to a maximum of 164 feet.
3. Up to 20 ZigBee® sensors can be connected to the MultiSITE CRC2 Remote Controller.
4. Must follow installation instructions in the applicable LG installation manual.

Connectivity:

LG Communications 1 Channel/RS-485 V-Net
 BACnet® MS/TP
 BACnet® wireless IP (optional)
 Zigbee® Pro wireless mesh network (P) (optional)

Communications Cabling Specifications (V-Net):

Type 3 conductor, stranded, twisted, unshielded
 Size AWG 22-3
 Length² up to 164 ft

AWG - American Wire Gage

Unit Data:

Dimensions 4.72" H x 3.39" W x 1.06" D
 Maximum Number of Indoor Units (per controller) 16

Input / Output Specifications:

Input (Universal inputs T16, T17)

- Temperature: Type 10K Thermistor
- Digital: Dry-contact closure
- Analog: Modulating 0-10Vdc.

Output (Universal output T9)

- Digital: Electric relay closure rated at 12Vac or 12Vdc +/- 15%, 1.0A, 3.0 A inrush
- Analog: 0-10 Vdc @ 5mA max into a 2KΩ resistive load
- Output (digital output T8)
- Digital: Electric relay closure rated at 12Vac or 12Vdc +/- 15%, 1.0A, 3.0 A inrush

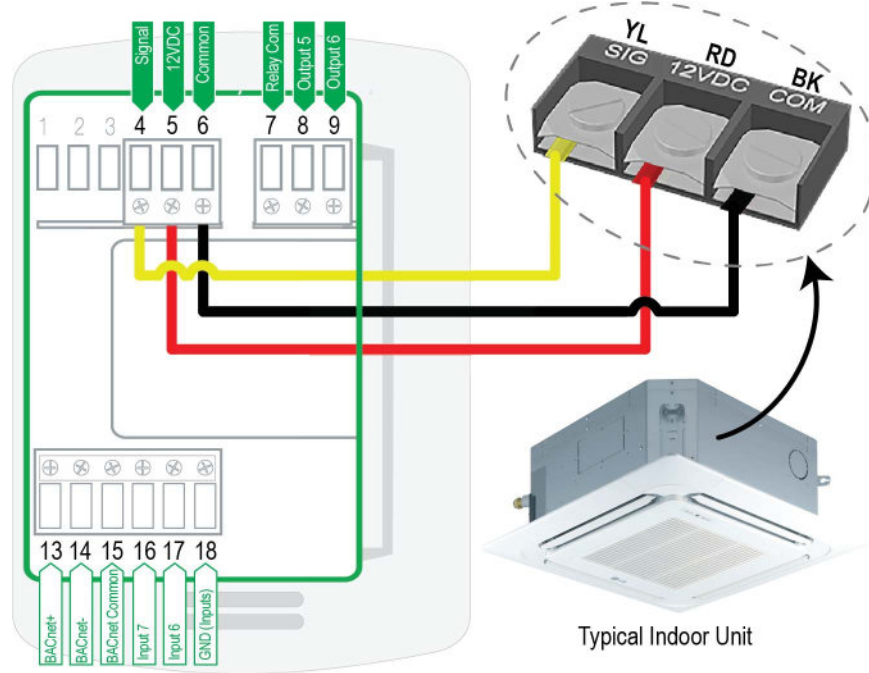
PREMTBVC2
MultiSITE CRC2 Remote Controller



Tag #:

Date:

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Terminal	Function
Terminal 1	Not used
Terminal 2	Not used
Terminal 3	Not used
Terminal 4	Signal Wire
Terminal 5	12VDC
Terminal 6	Common
Terminal 7	Relay Common Outputs 5 and 6
Terminal 8	Binary Output 5
Terminal 9	Universal Output
Terminal 13	BACnet +
Terminal 14	BACnet -
Terminal 15	BACnet MS/TP Common
Terminal 16	Universal Input 7
Terminal 17	Universal Input 6
Terminal 18	Input/Output Ground

Job Name/Location:

PREMTBVC2
MultiSITE CRC2 Remote Controller

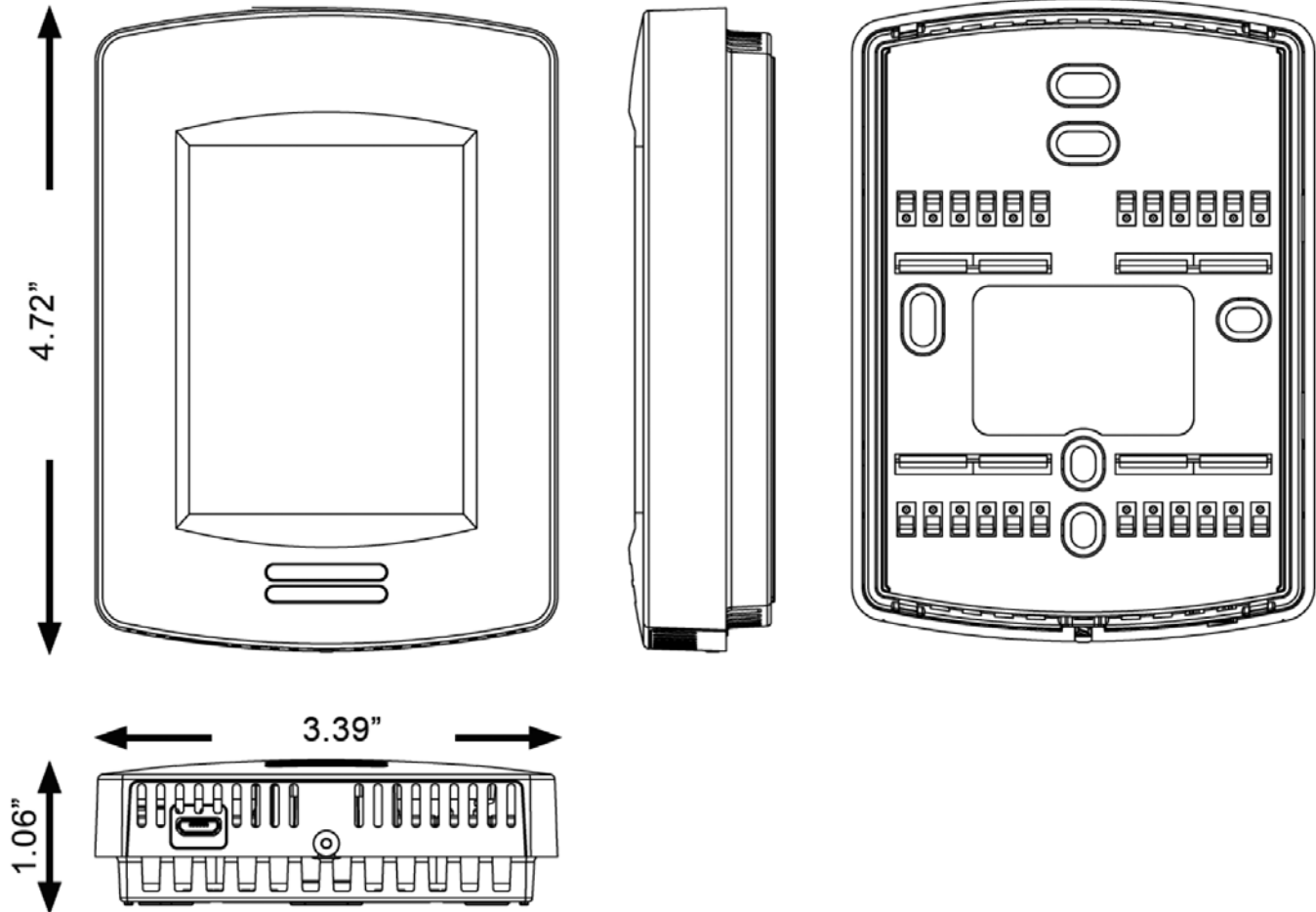


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Date:

PO No.:

Dimensions: 4.72"H x 3.39"W x 1.06"D



PREMTBVC2
MultiSITE CRC2 Remote Controller



Tag #: _____

Date: _____

PO No.: _____



Note: Long-press of the Fan Speed button when in cooling mode triggers Power Cooling mode. If in Power Cooling mode, segments surrounding fan icon turn purple and the text changes from “Fan” to “Power Cool.” This mode lasts for 30 minutes with a setpoint of 64°F and then reverts back to the previous fan speed and setpoint.