

Quality People. Building Solutions.

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Date: 10/6/2022

Return Request: 10/16/2022

Project: ATU – Jones Hall

Supplier: Sanders Supply

Manufacturer: Various

Submittal: Plumbing Fixtures

Submittal Number: 22 40 00-01

Drawing # and Installation: Plumbing Drawings

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Notes:

CSUSA PROJECT NO.

22-620

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ALESSI KEYES CONSTRUCTION
REVIEWED FOR GENERAL COMPLIANCE
WITH CONTRACT DOCUMENTS
Charley Dawson 10/17/2022

9924 Landers Rd.
No. Little Rock, AR 72117

ATU Jones Hall

Little Rock, AR

Comfort Systems USA

North Little Rock, AR

Operation & Maintenance

Sanders Supply



Hot Springs, AR

December 14, 2023

ATU Jones Hall O&M

Plumbing Fixture Schedule Index

<u>TAB</u>	<u>Description</u>
P-1	Electric Water Cooler/Bottle Filler
P-2	UM Lavatory
P-3	WH Lavatory
P-4	Sink
P-5	Shower Valve
P-6	Shower Valve ADA
P-7	Service Sink
P-8	Water Closet
P-9	Sump Pump
P-10	Reduced Pressure Zone Backflow
P-11	Watts Drainage Warranty

P-1

OASIS® Water Coolers

VERSAFILLER®

Model PWEBF Fountains/VersaFiller combo. Installation Instructions



The Hands-Free VersaFiller is an extension of the Aqua Pointe® product line that mounts directly above Versacooler® I and II products. If the cooler outlet does not have two useable plugs, an outlet splitter will need to be used.

If installed onto a refrigerated cooler, chilled water can be dispensed through the VersaFiller. Otherwise, room temperature water will be dispensed.

The VersaFiller is shipped partially assembled.

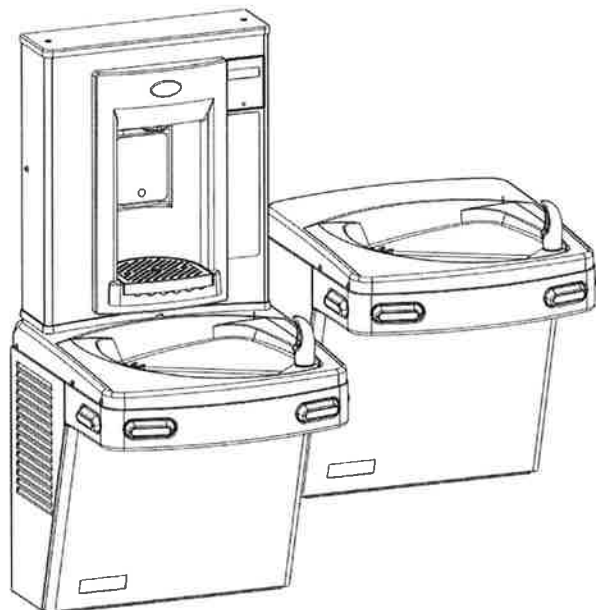
On the combo units, the cooler is plumbed and ready to attach to the VersaFiller.

VersaFiller alcove, drip tray and gasket contain Freshield®, which utilizes a silver-base antimicrobial compound to protect the surfaces from discoloration, odors and degradation caused by growth of micro-organisms and mildew.

When completed, the finished assembly will look like this:

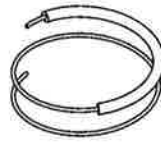
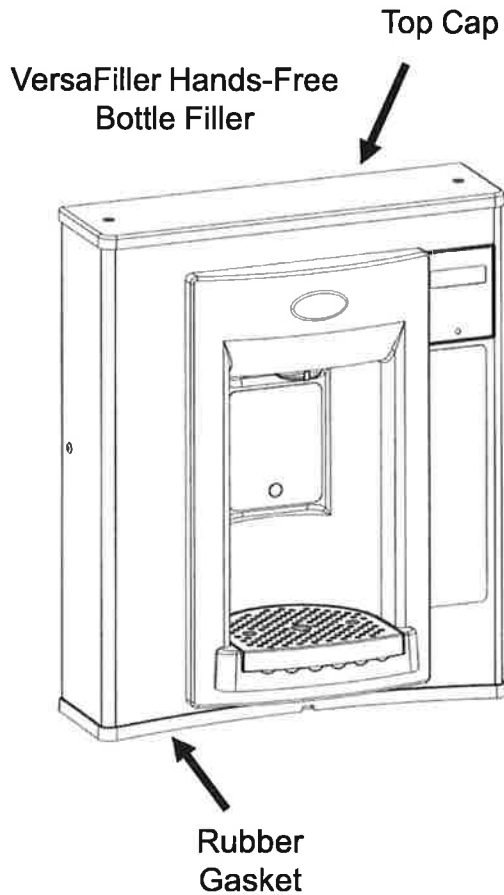


OR

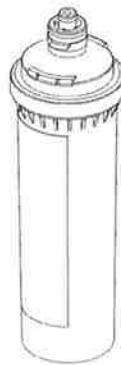


Section 1: Getting Started

What's Included:



38" of ¼ OD plastic tubing with 19" of sponge tubing insulation (*included with "Versafiller ready" coolers*)



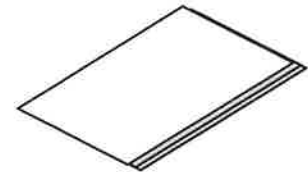
Versafilter II
Versafilter II is optional



Snap bushings 7/8" and 1½"



Quick connect tee fitting



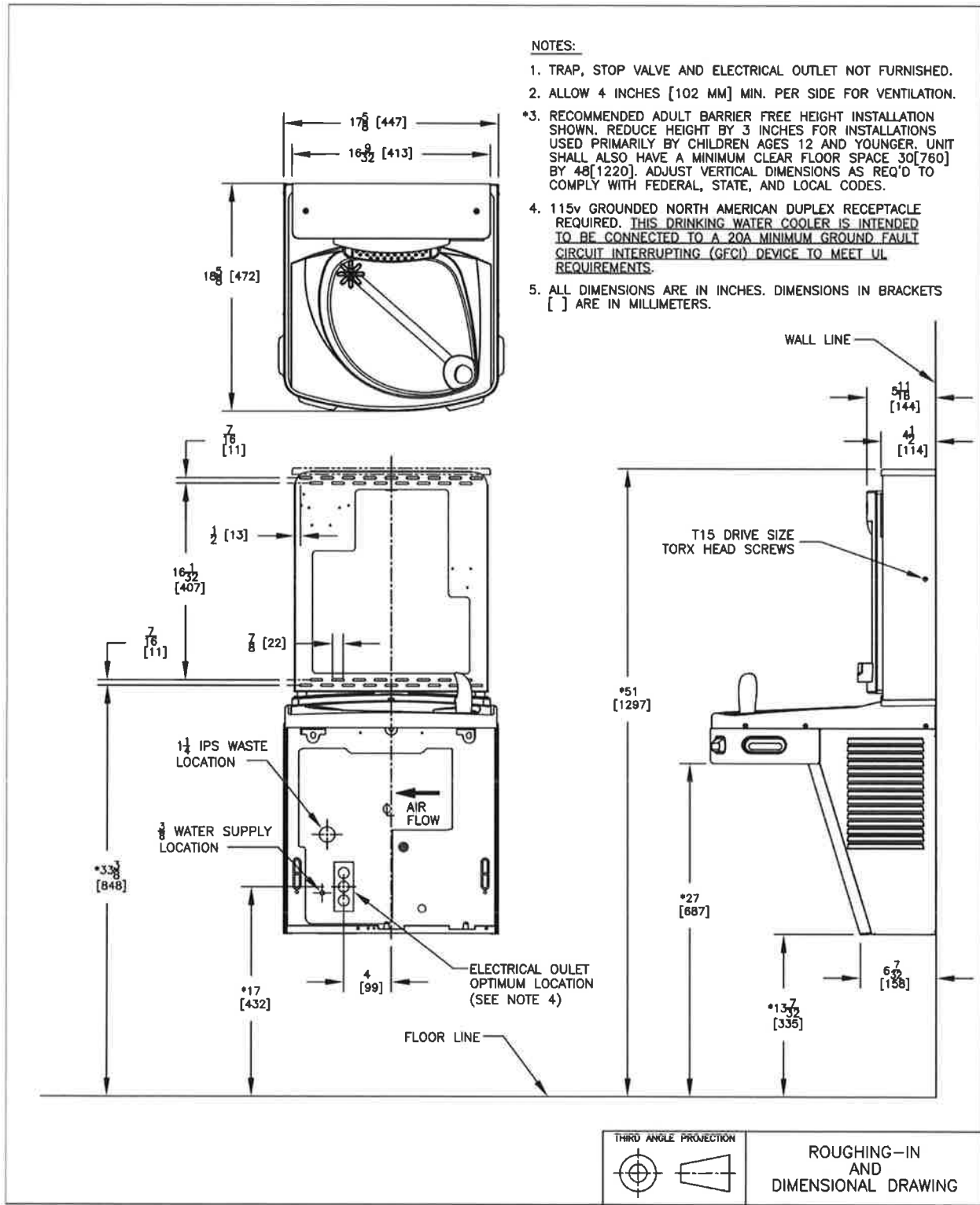
Installation instructions

Tools required:

- 3/8" pilot drill and either a step drill bit up to 7/8" diameter that will drill through SS top or 7/8" diameter punch die (retrofit version only)
- Electric drill; wrench for punch die
- Small tubing cutter for copper tube
- 1/4" nut driver
- # 2 Phillips screw driver
- #15 torx bit driver

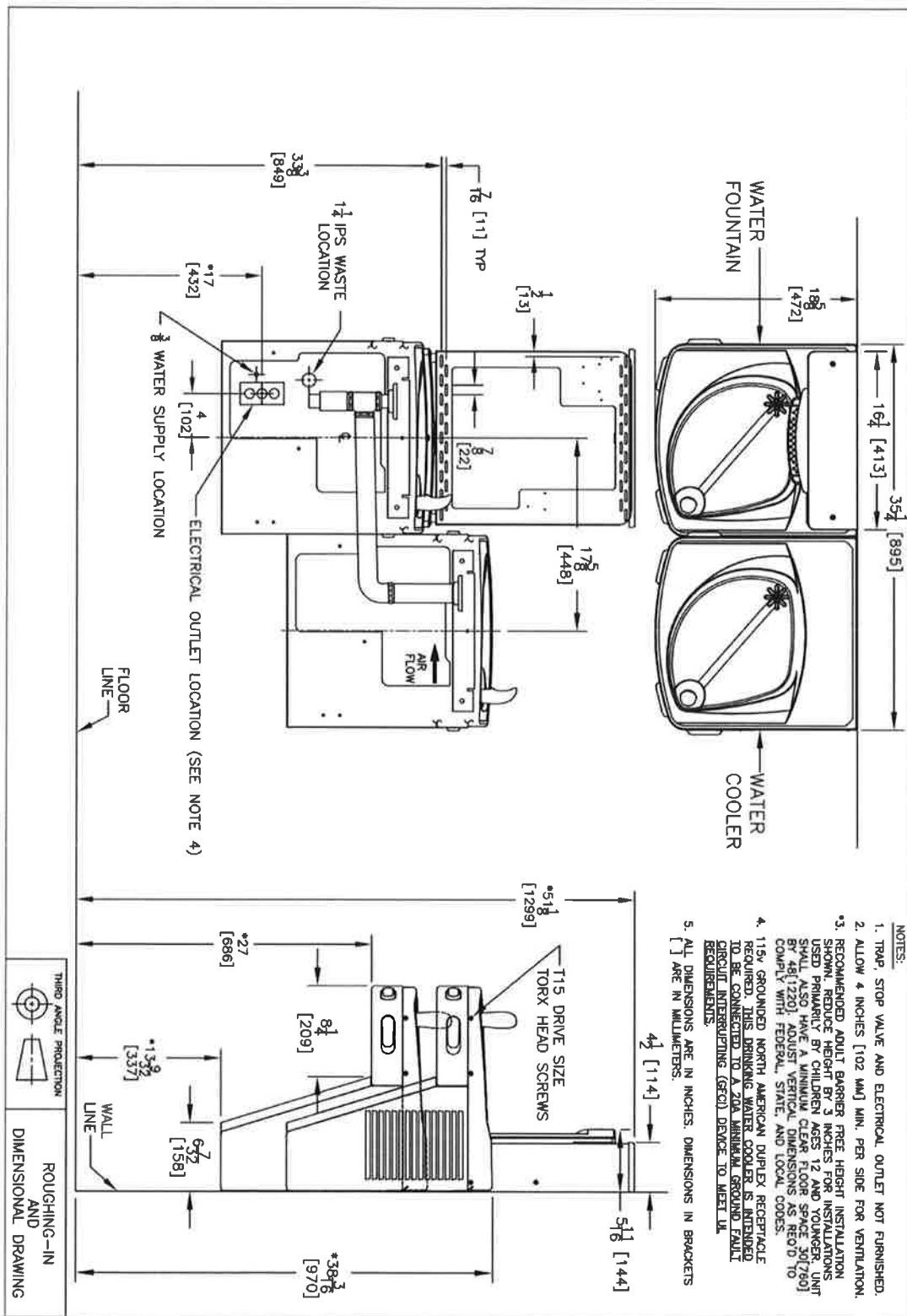
Section 2: Rough In Drawing

Oasis PWEBF: Versacooler® II Models PGAC, PG8AC with Hands-Free VersaFiller



Section 2: Rough In Drawing

Oasis PWEBF: Versacooler® II Split Level Models with Hands-Free VersaFiller



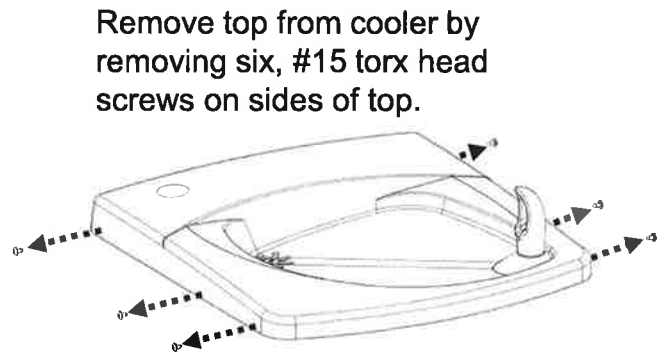
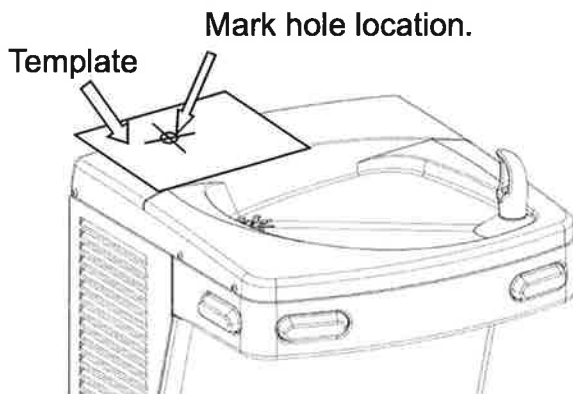
* On split level models, the VersaFiller must be mounted on the low unit in order to meet ADA guidelines.

Section 3A: Installation

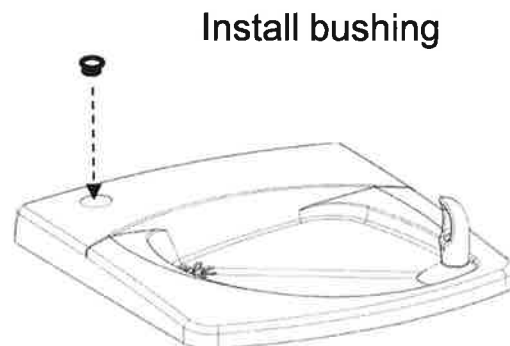
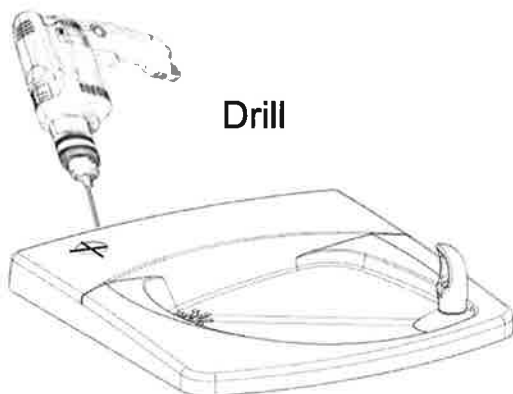
Note: Proceed to Sect 3B Step 5 “Final steps for both product families” if the cooler is purchased “VersaFiller ready”.

A: Drilling hole in the top for water line connection.

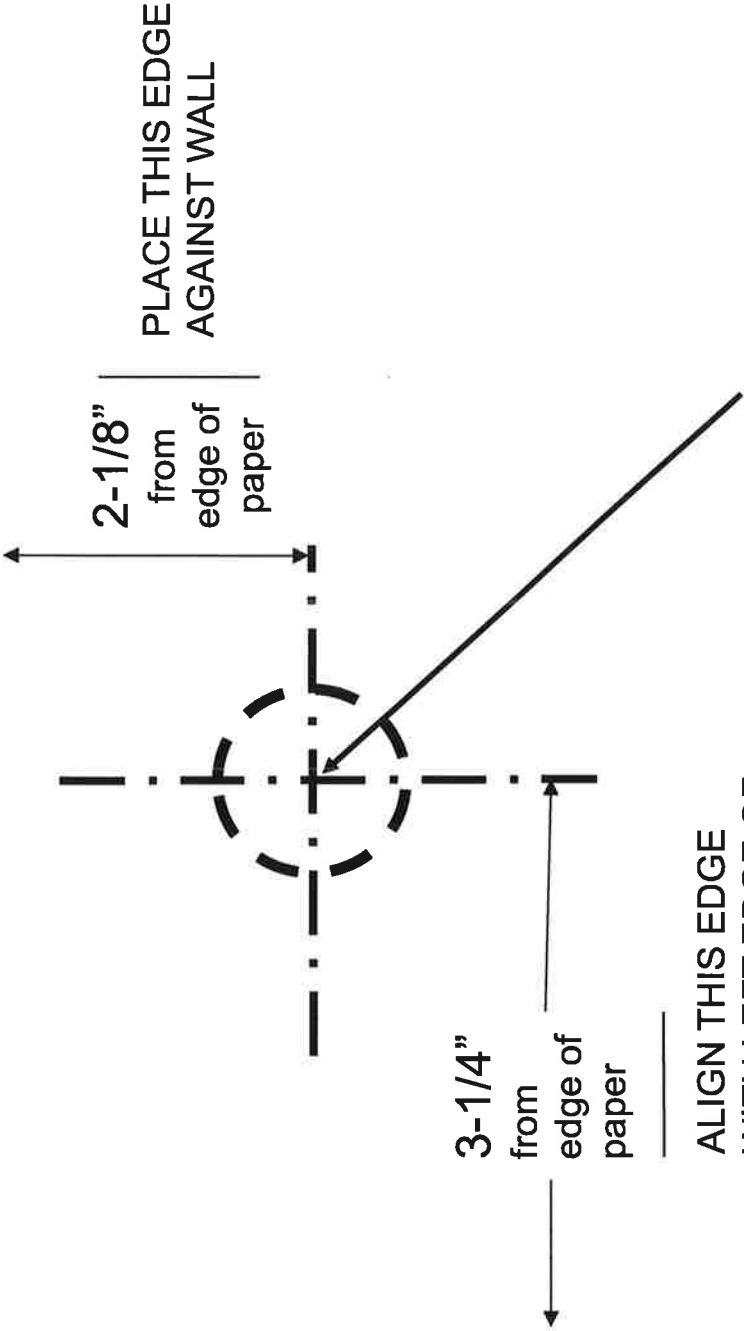
1. Disconnect power by UNPLUGGING unit. It might be necessary to remove the front panel to get access to the power.
2. Turn OFF water supply to the unit. It might be necessary to remove the front panel to access the water stop valve.
3. Place hole template onto cooler top so it is aligned with the left side of unit and wall. SEE NEXT PAGE FOR TEMPLATE
4. Mark hole location
5. Remove top from unit.



6. Using a step drill bit or 7/8" punch die, make a 7/8" hole through top. You may want to drill a pilot hole to get these started.
7. Install snap bushing into hole to protect tubing from being cut.



USE THIS TEMPLATE TO MARK THE HOLE LOCATION ON COOLER TOP

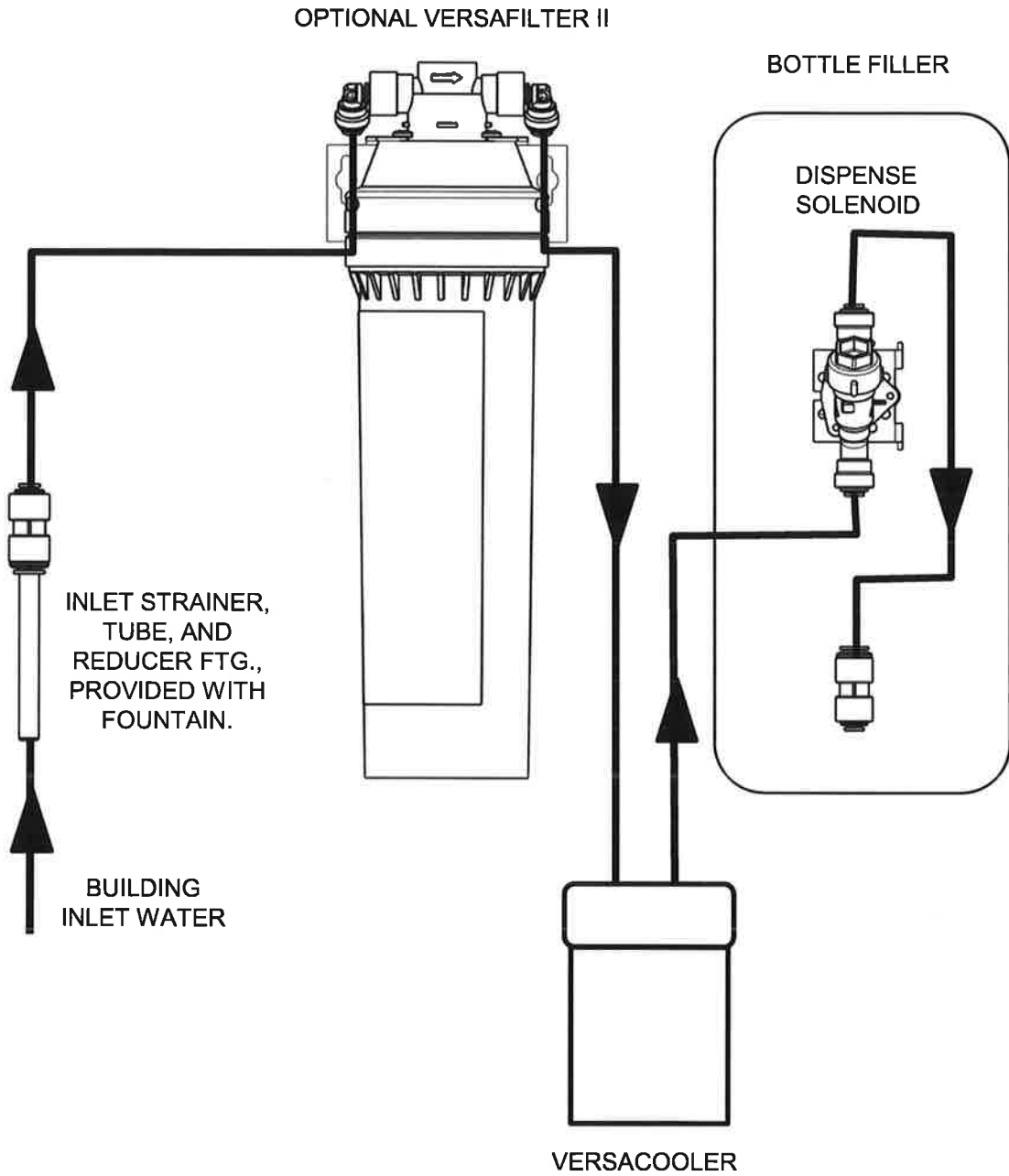


Mark this center point on the top. Remove the top from the cooler. Then create a 7/8" diameter hole through the top at the marked center point (step drill bit or punch die).

ALIGN THIS EDGE WITH LEFT EDGE OF COOLER TOP

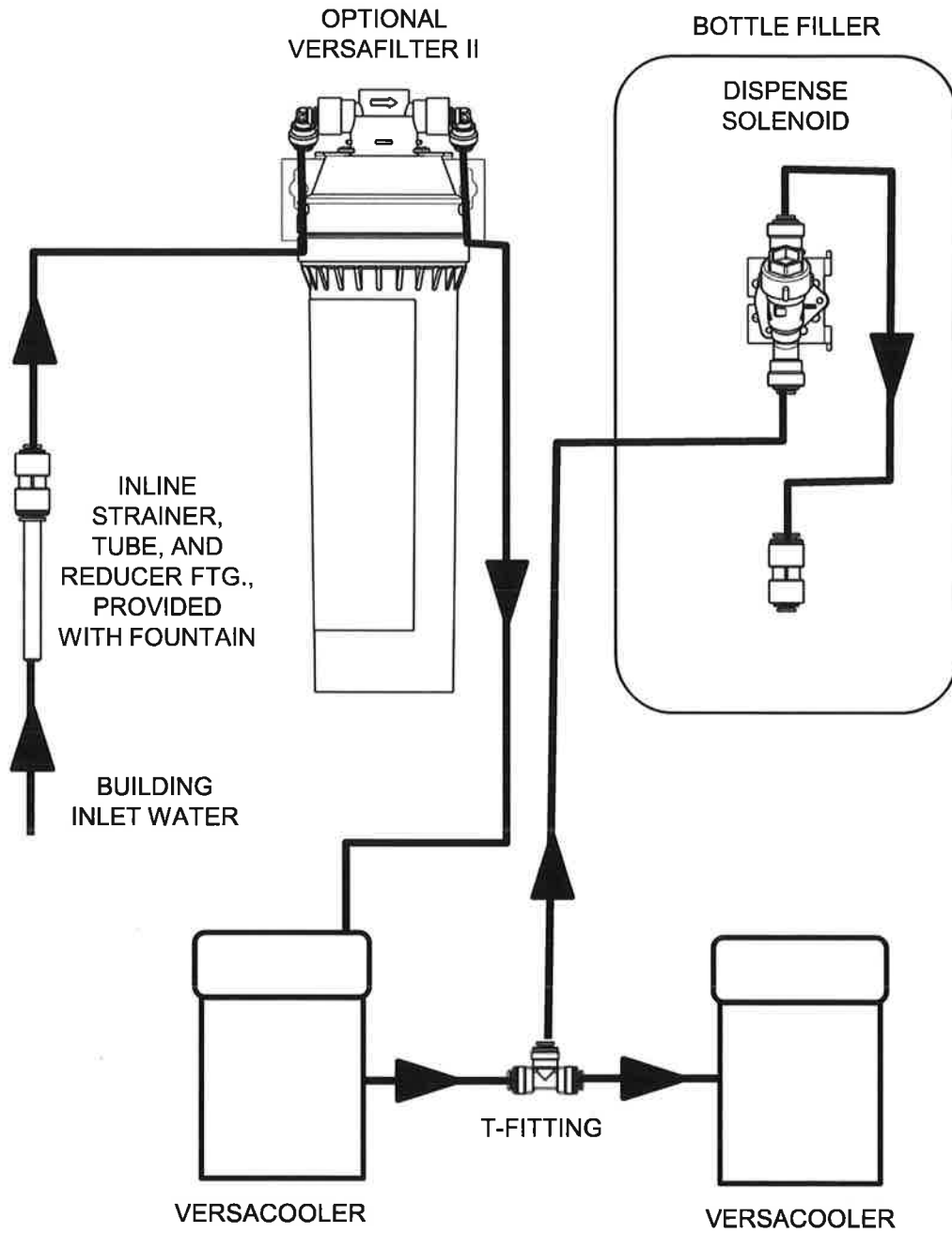
Section 3A: Installation

Versacooler to Bottle Filler Plumbing Diagram



Section 3A: Installation

Two Versacoolers to Bottle Filler Plumbing Diagram



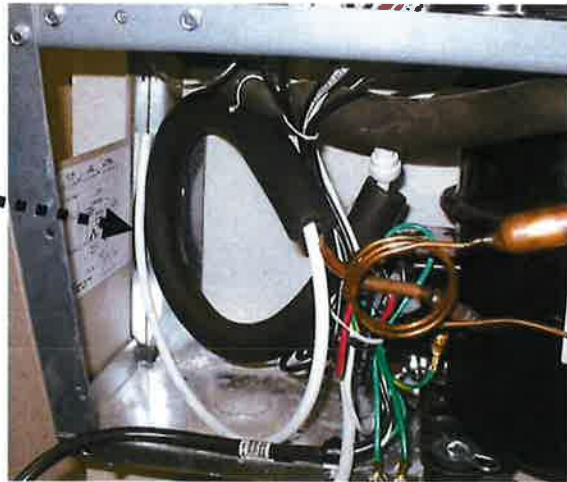
Section 3B: Installation

B: Connecting the water line

Note: If you are retrofitting the Versafiller to an existing cooler, follow the instructions starting on page 11.

For the single “Versafiller ready” cooler, the tube to connect to the Versafiller is found inside the access panel (the compressor compartment). This tube supplies cold water from the cooling tank to the Versafiller.

1/4" OD tube to connect
to Versafiller

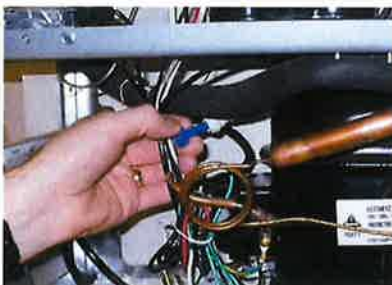


For split level “Versafiller ready” coolers, the tube to plumb in the Versafiller is packaged in the dummy unit.

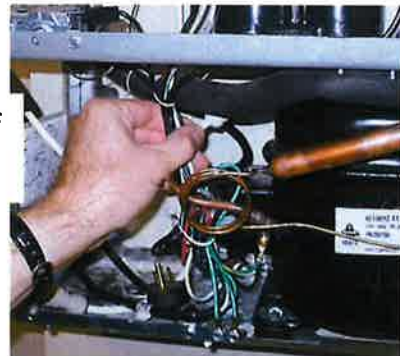
Remove tube from bag.



First, remove plug from
fitting on tank drain



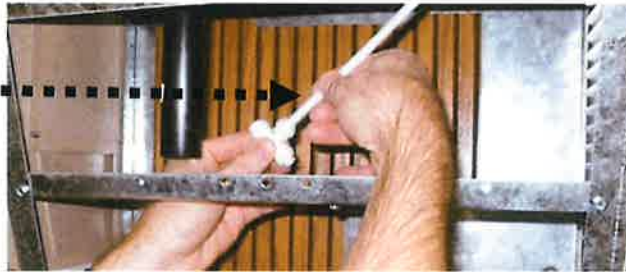
Next, insert end of
tube into fitting.



The tee and tube to the Versafiller are packaged with the PWEBF unit. One branch of the tee will supply the valve on the dummy unit, the other branch of the tee will connect to the Versafiller.

If a filter is being installed, cut a piece of tubing about 3" long to insert (optional) flow switch right after filter and before tee. This allows Versafiller counter to accurately calculate amount of water passing through filter.

Tube to connect valve
on dummy unit



Tube to connect
Versafiller



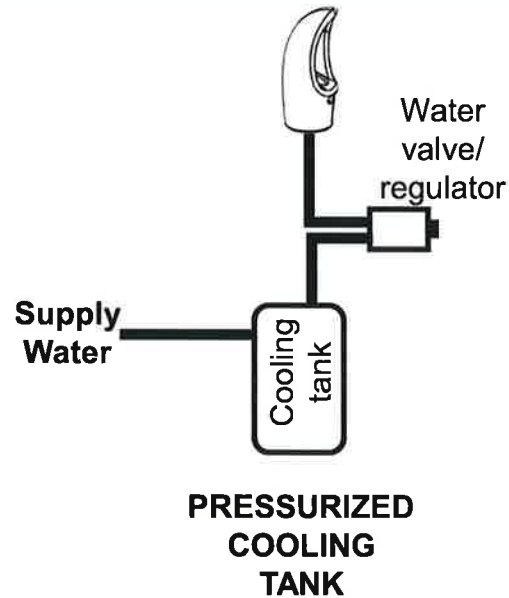
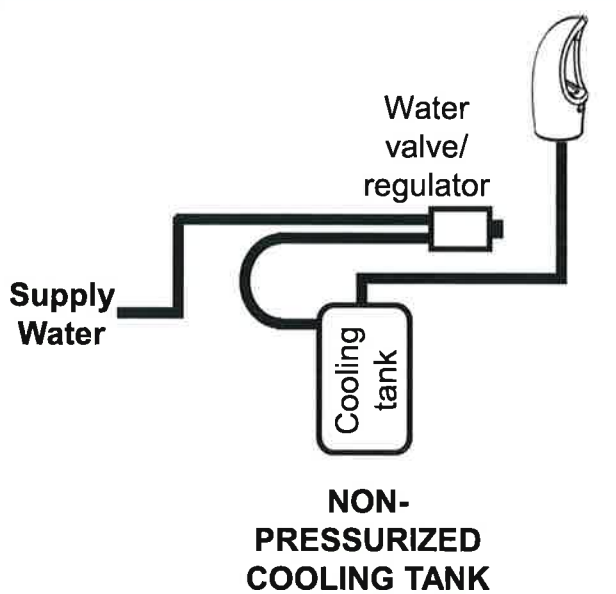
Tube to connect chilled
water to dummy unit
and Versafiller



Go to Step 5 "Final steps for both product families:"

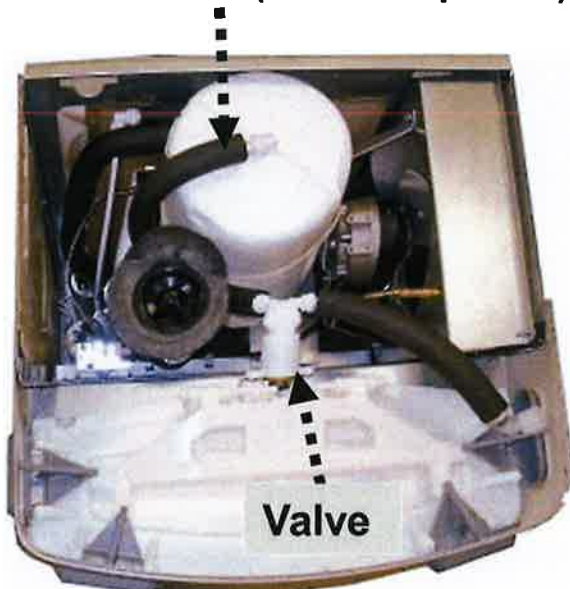
To retrofit the Versafiller to an existing unit, follow the instructions below:

If the cooling tank is non-pressurized, then go to the “Pressurizing the cooling tank” addendum section. Otherwise, proceed to step 1 below. Non-pressurized units are single units made since December of 2009. Refer to the schematic below to identify the system that you have.



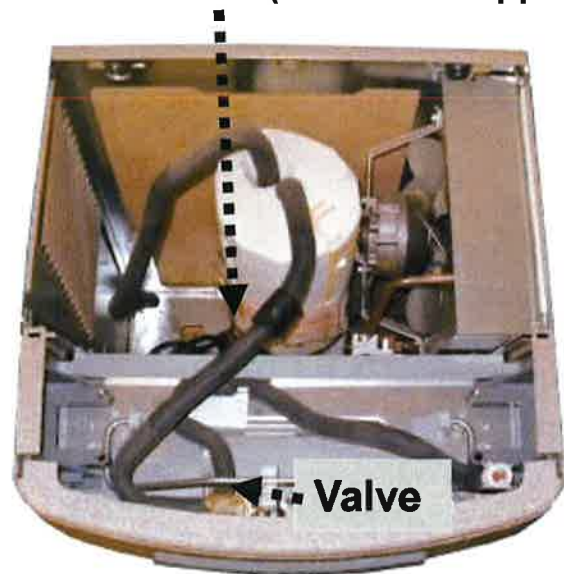
1. With the cooler top removed, find the tube going from the cooling tank outlet to the valve. The TEE fitting (supplied) will need to connect between the cooling tank and valve.

Outlet Tube (insulated plastic)



P8AC family

Outlet Tube (insulated copper)



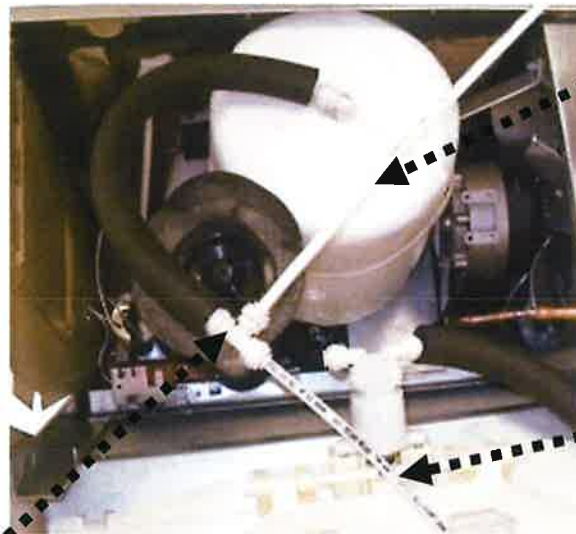
P8AM family

Section 3B: Installation: For the P8AC Version: Versacooler II

2. Disconnect tubing from the elbow on the valve.



3. Using the 38" piece of tubing provided, cut 6" and install it on the end of the TEE. Install the remaining tubing onto the branch of the TEE. Connect the other end of the TEE to the tank outlet tubing (tube that was disconnected from the elbow).



TEE

32" tubing

6" tubing

4. Route the TEE and tubing under the waste drain and connect the 6" length to the water valve elbow.



**Water
valve
elbow**

Go to Step 5 "Final steps for both product families:"

Section 3B: Installation: For the P8AM Version: Versacooler I

2. Remove tar tape from the insulation on the outlet tube.



3. Pull back insulation and cut the copper tube with a tubing cutter. Cut where there is at least 1 inch of *straight* tubing on each side of the cut.



4. Install TEE fitting by connecting the copper tubing to each end. Then install the 32" piece of plastic tubing to the TEE branch.

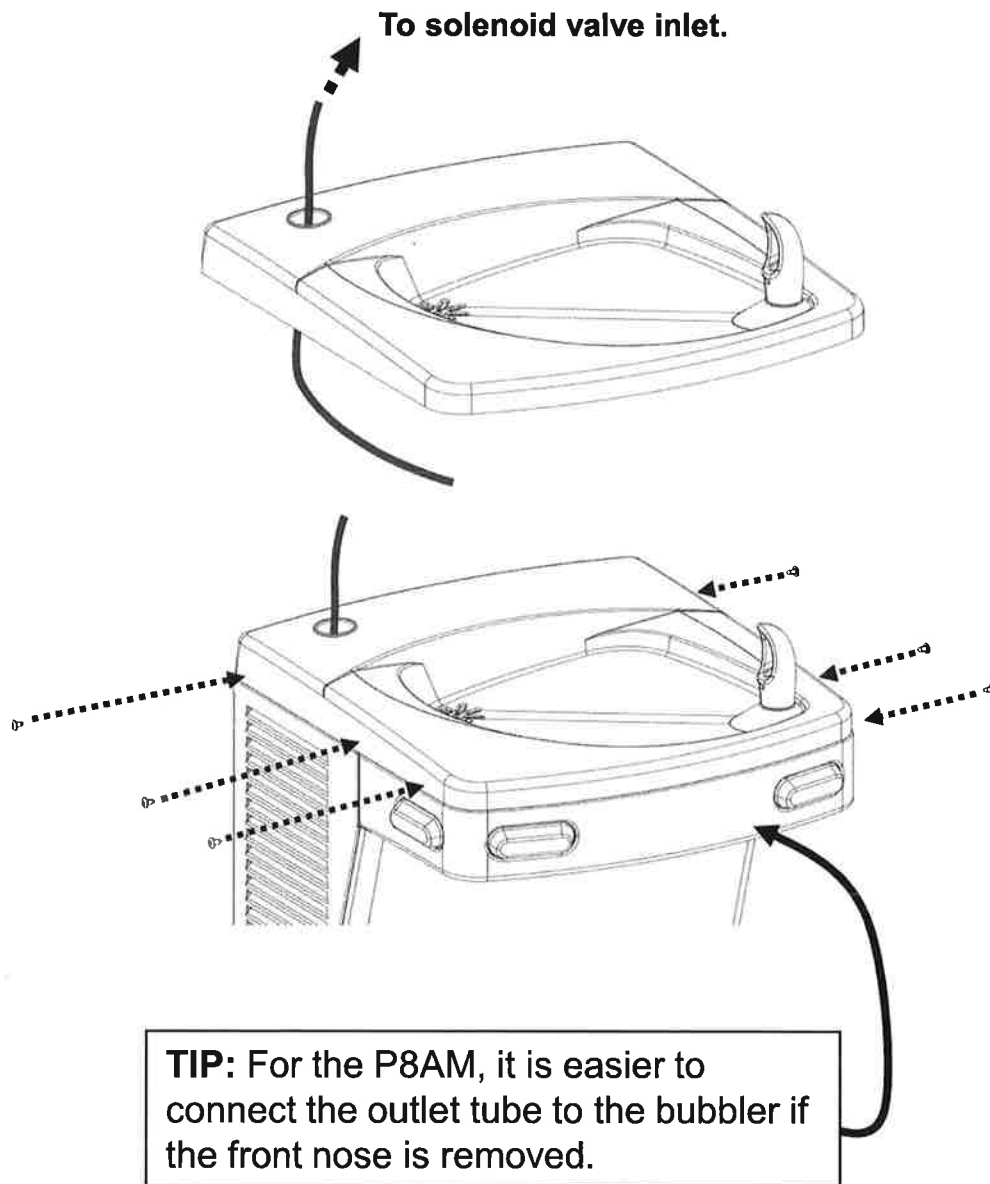


32" plastic tubing (supplied)

Section 3B: Installation: **Final steps for both product families:**

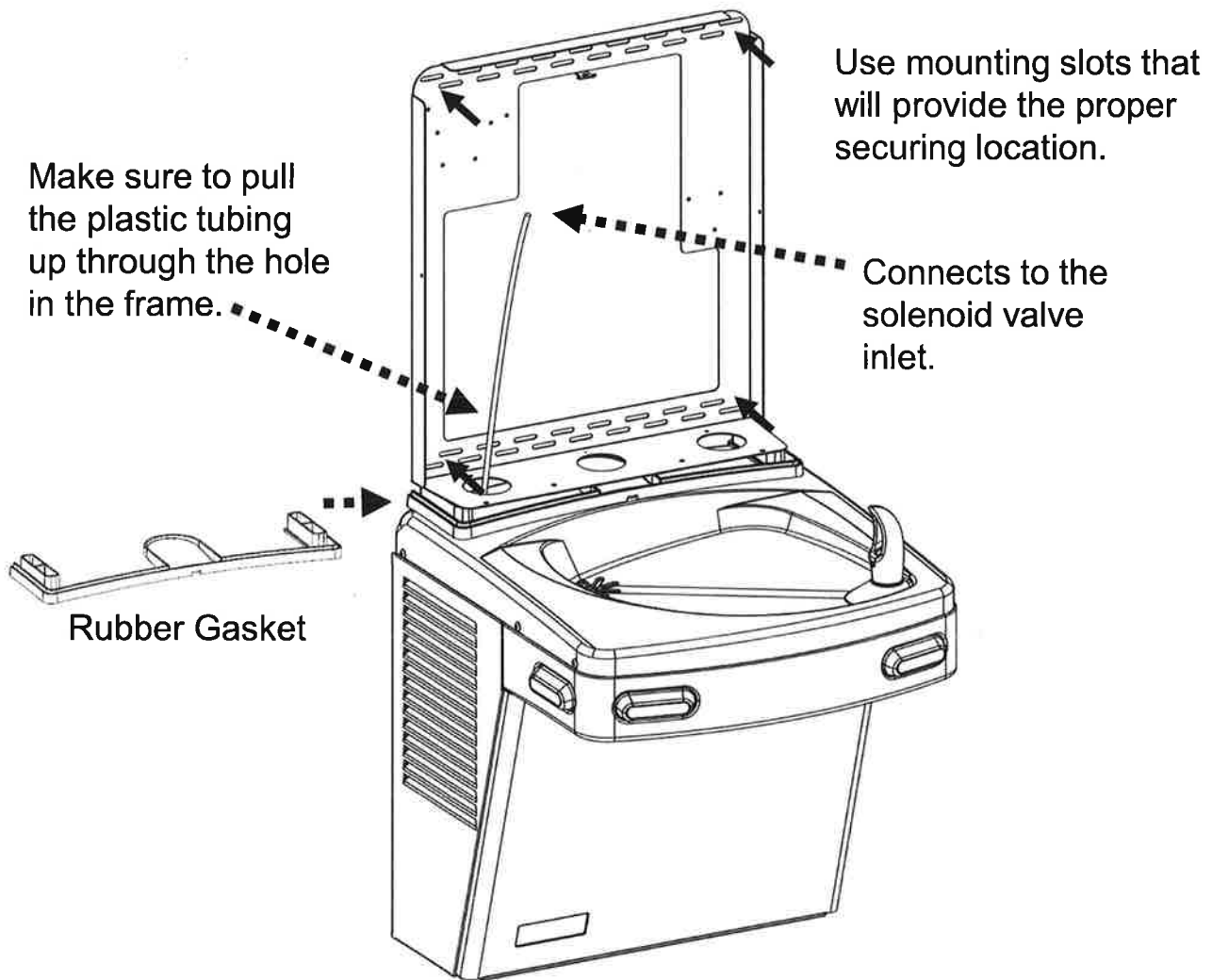
5. Feed black and blue tubing up through bushing in top.
 - For single unit, also feed white tube attached to tee through bushing.
 - For split level, connect tee and white tube packed with bottle filler per schematic below.

Attach top to cooler. If flow switch was installed, cord from flow switch must also pass through this bushing.



C: Mounting the frame to the wall

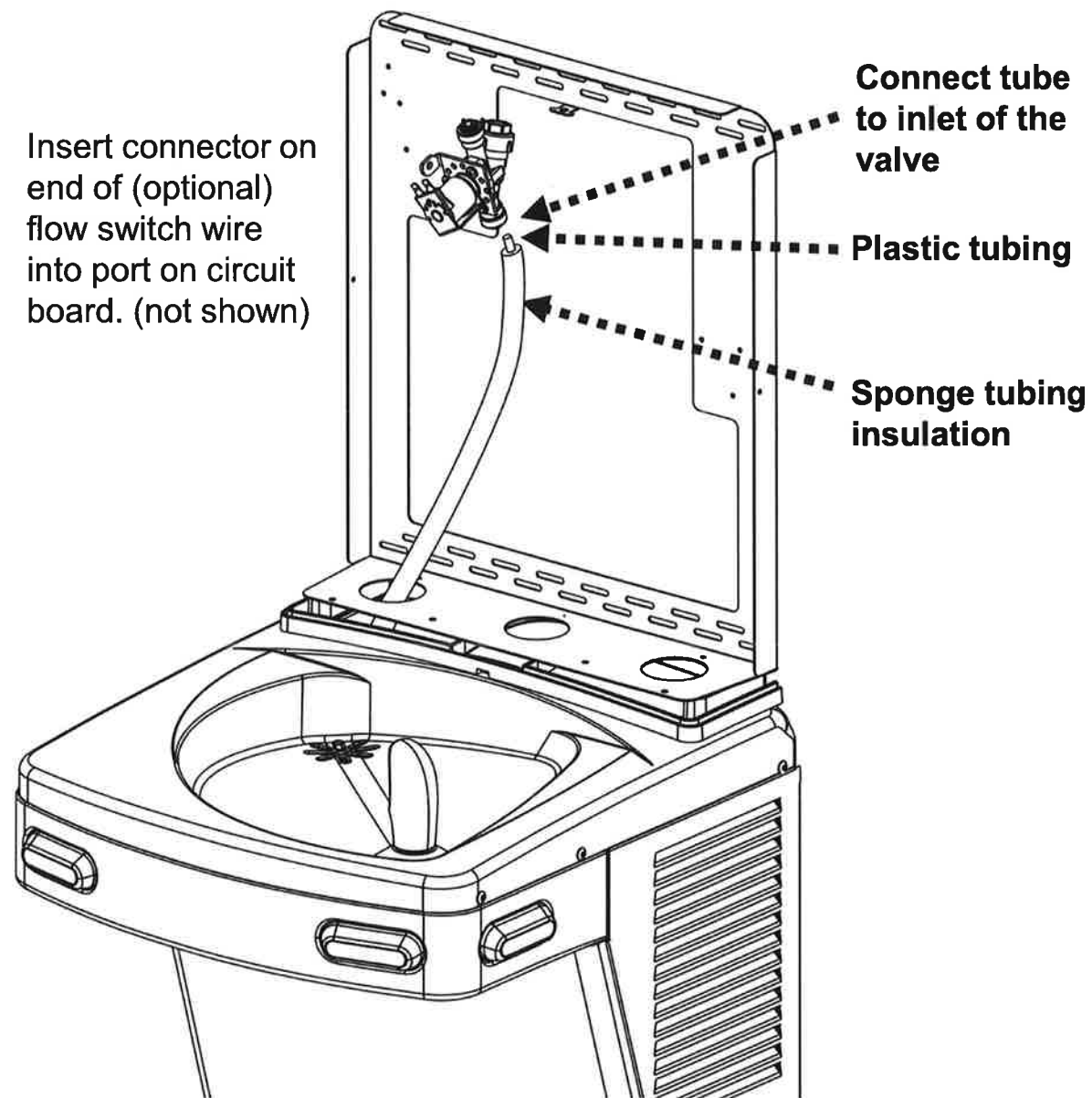
1. Place rubber gasket on top of the cooler so it is centered left/right and against the wall.
2. Set the wall frame onto the gasket. Center it left/right and push it against the wall and mark hole locations for wall fasteners. The gasket will set the frame at the proper height.



3. Secure frame to the wall with fasteners (not provided). Pull plastic tubing up through the hole in the frame.

Section 3C: Installation

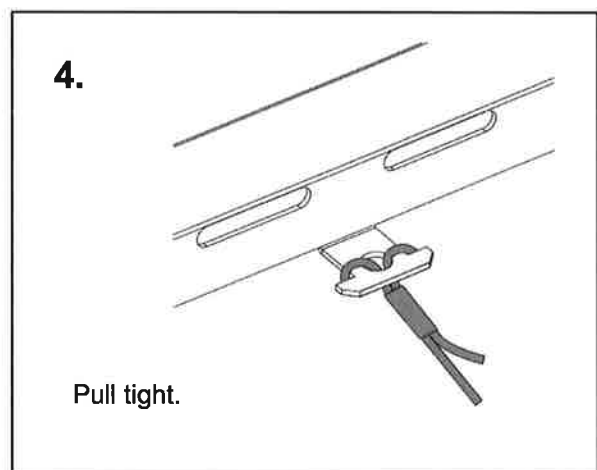
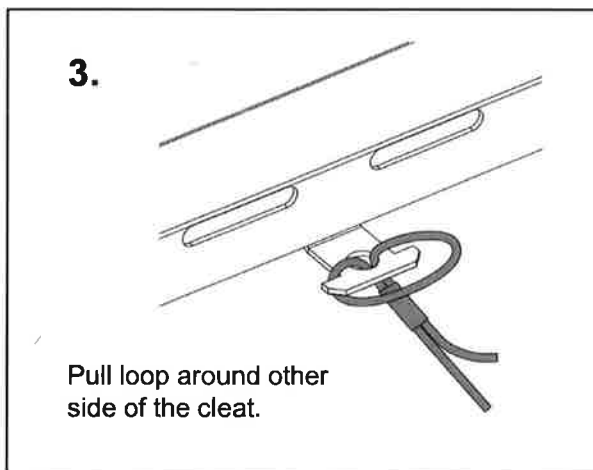
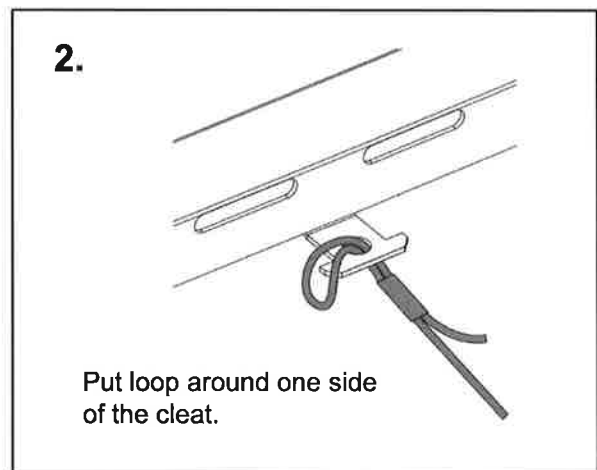
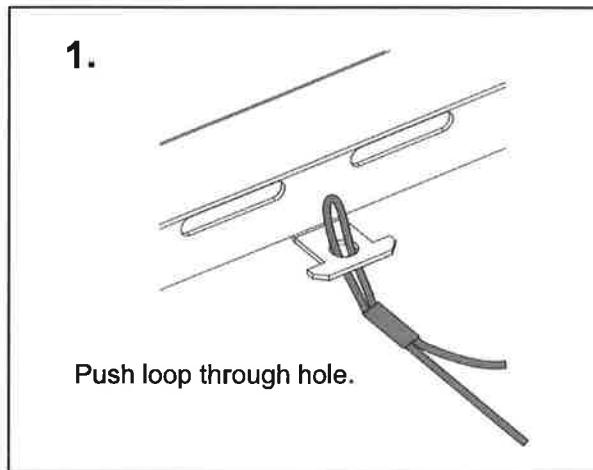
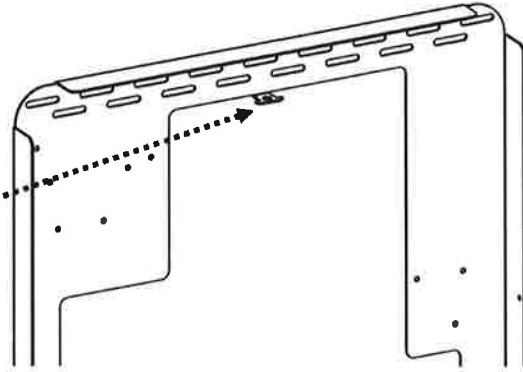
- Slide sponge tubing insulation over water line. Connect the tubing to the INLET of the solenoid on the back of the Hands-free VersaFiller assembly and (optional) flow switch connector into port on circuit board.



D: Attaching the Tether

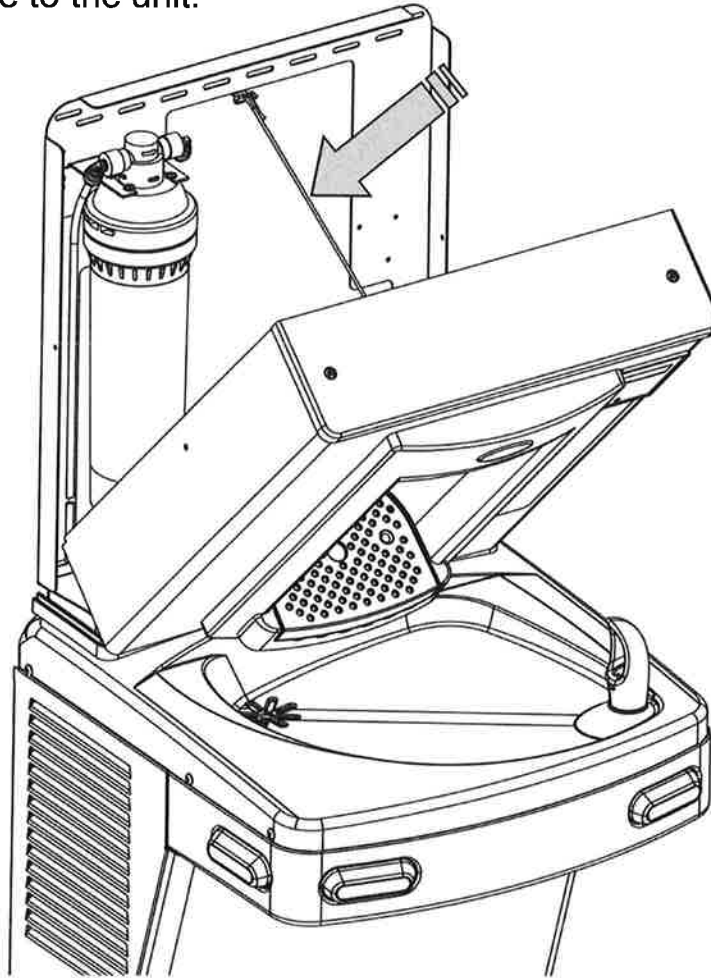
5. Install bottle filler tether with the steps below.

Attach the tether line assembled to the bottle filler dispense bracket to the cleat on the mounting frame.



Section 3D: Installation

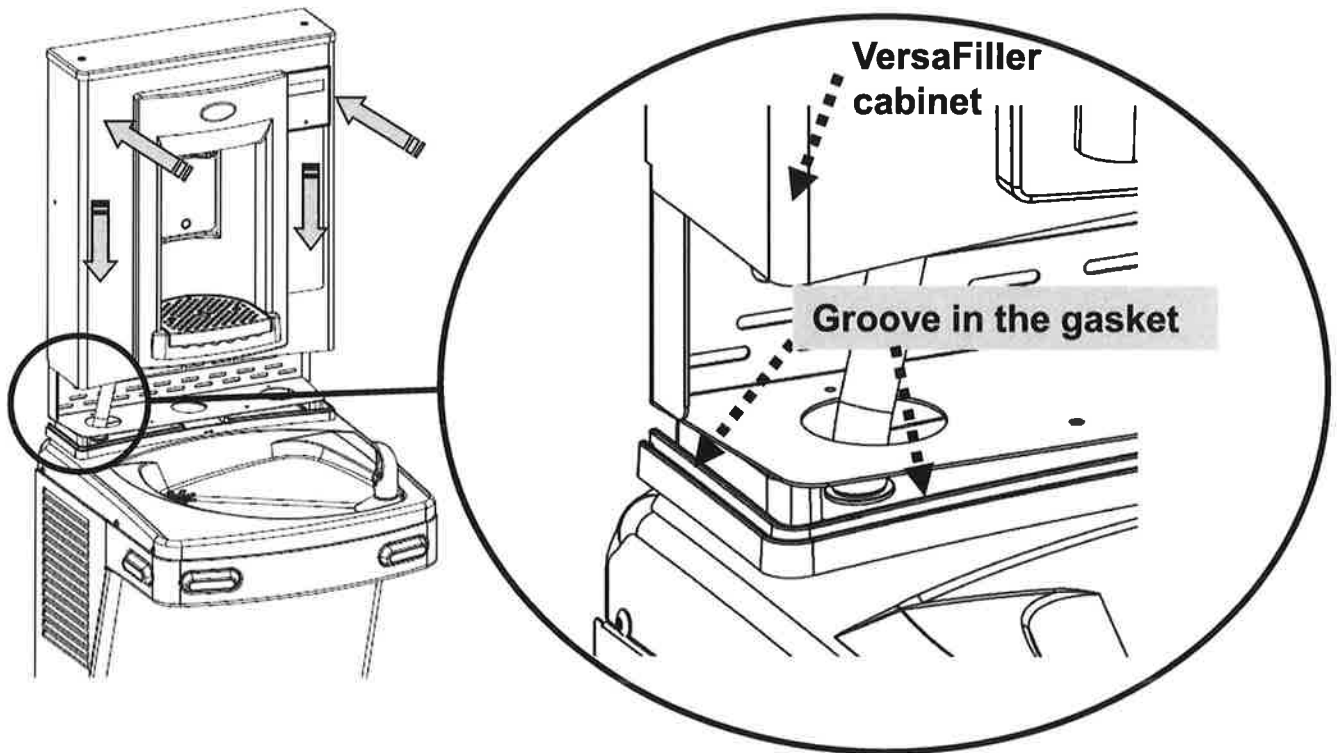
The tether keeps the bottle filler secured to the frame when changing the filter, if installed. Make sure the tether is installed properly to avoid accidental damage to the unit.



6. Before the Bottle Filler cabinet is set into place, feed the terminals on the power supply power cord and the long green ground wire through the bushing on the cooler top.
7. Connect male terminals on the bottle filler power supply to female terminals on power cord. Make sure that the power cord is firmly connected to the power supply.
8. Attach the long green ground wire to cooler power cord ground located on cooler frame or to electrical box ground.

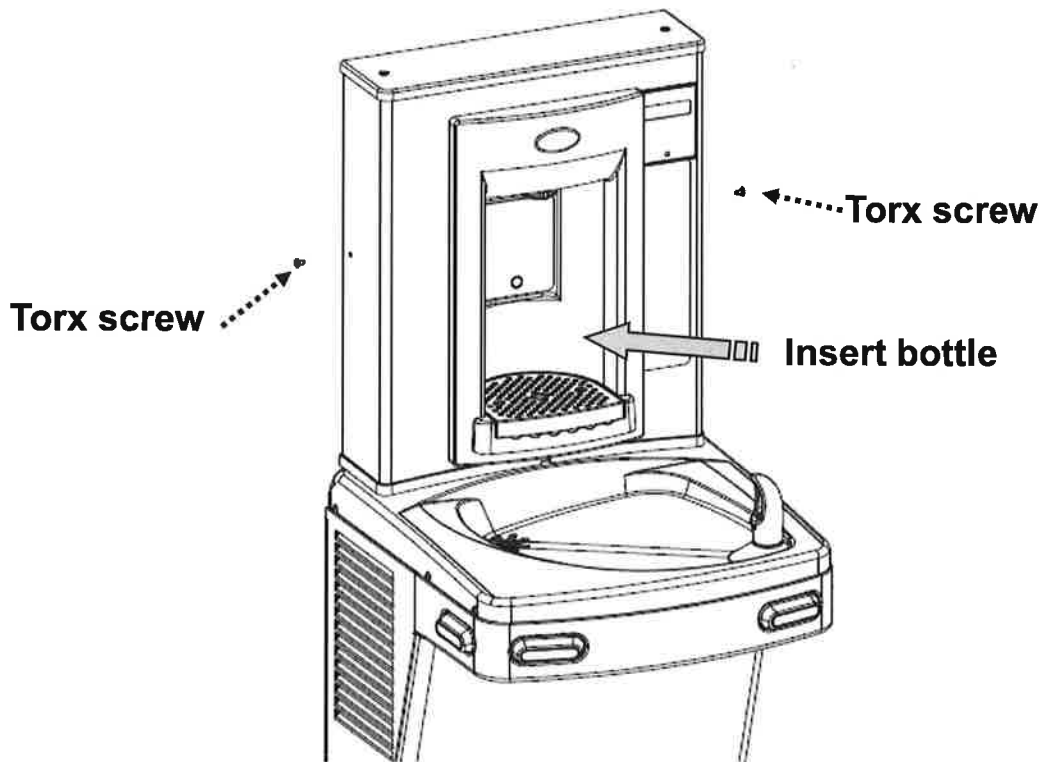
Section 3D: Installation

9. **MAKE SURE** the cabinet fits into the *groove* in the rubber gasket on both sides and front of the wrapper.



See next page to secure Bottle Filler assembly to frame
with torx screws.

Section 3D: Installation



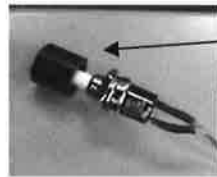
10. Attach Bottle Filler assembly to the frame using two (2) torx screws. If you are going to change the electronics default settings, remove the Top Cap and two (2) torx screws.
11. Plug bottle filler cord into the electrical outlet. The program should be set up specific for that installation. See the program guide on next page. Access programing Pushbutton through top of Bottle Filler.
12. Turn ON water supply and check for leaks. Place a container in the alcove to release any trapped air from the system. Plug in the power cord and replace the front panel.
13. If everything works correctly, place the Top Cap back on the Bottle Filler and the two (2) torx screws to fasten it in place. Otherwise, calibrate the sensor per the instructions on the next page.

INSTALLATION COMPLETE

Section 4: Set-up guide for bottle filler electronics

Factory default program settings are:

- Units - Gallons
- Unfiltered unit
- Flow Meter = Rate Selected
- Filter Capacity = 1250 gallons [4731 liters] for a VersaFilter
- Bottle Count = 0.5L (1 Bottle)
- Flow Rate = 1.2 GPM
- 20 second maximum dispense time



Pushbutton

To change the program settings, follow these steps:

<i>Display</i>	<i>Action</i>
00000000 BOTTLES REUSED (Home Screen)	Depress button for 3 seconds to enter into the following menu settings and make changes. Note: at anytime it will exit menu and save settings when idle for 10 seconds (no button press) and revert back to Home Screen.
LTR/GAL GAL	Depress button 3 seconds to change from Gallons to Liters, or momentary press to advance to next menu.
UNFILT/FILT? UNFILT UNIT	Depress button 3 seconds to change from Unfiltered to Filtered unit, or momentary press to advance to next menu.
FLOW METER? RATE SELECTED	Depress button 3 seconds to change from Rate Selected to (Flow) Meter Enabled, or momentary press to advance to next menu. Not included on all models.
SELECT RATE 1.2 GPM UNIT	To change flow rate, momentarily depress button to change whole gallon digit. Hold button 3 seconds to advance to TENTHS of gallon digit. Depress momentarily to change the digit. Hold button 3 seconds to advance to the next menu.
RESET 00000000 GALLON CNT [LTR COUNT]	Depress button for 3 seconds to reset Gallon or Liter count, or momentary press to advance to next menu.
FILT CAPAC OF 1250 GAL [4731 LTR]	Depress button for 3 seconds to change filter capacity to 3000 GAL [11355 liters] for Versafilter II or Galaxi green filter, or momentary press to advance to next menu.
3 sec rule? 0.5L	Depress button for 3 seconds to switch from 0.5L bottle to 3 sec rule, or momentary press to advance to next menu. (The 3 Sec rule increases the bottle count based on a 3 second dispense.)
Reset 00000000 BOT COUNT?	Depress button for 3 seconds to reset (Home Screen) BOTTLES REUSED count, or momentary press to advance to next menu.
Bot Filler Set_time: 20 s	Depress button for 3 seconds to change maximum dispense time to 10, 20 or 30 seconds, or momentary press to advance to next menu.
RUN CAL AGAIN?	Depress button 3 seconds to run calibration again, or momentary press to advance to next menu.

Addendum Section: Pressurizing Cooling Tank



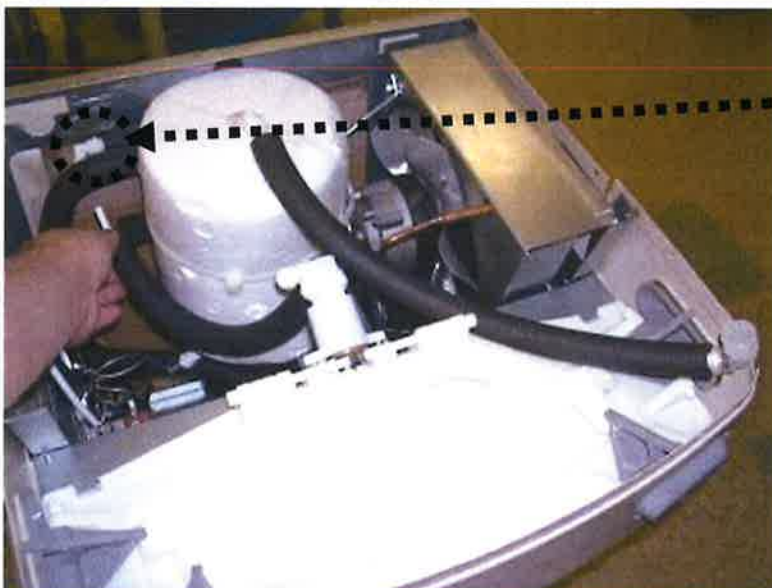
The water should already be turned OFF and the power disconnected.

Unit as it appears with top removed



STEP 1

Unplug un-insulated water line from water valve inlet (quick-connect elbow located left side of water valve facing the front of the cooler). Set tubing aside (careful to not contaminate water contact end).



STEP 2

Unplug tubing from quick-connect elbow leading to cooling tank inlet.



STEP 3

Plug un-insulated tubing that was removed in step 1 into quick-connect elbow leading to the cooling tank from step 2.



STEP 4

Unplug tubing that is connected to the water valve outlet (quick-connect elbow located on the right side of valve facing the cooler).



STEP 5

Connect tubing from step 4 to quick-connect elbow on the left side of the valve.



Step 6

Unplug quick-connect tubing from the cooling tank outlet. Do not set it down.



Step 7

Using tubing removed in step 6, plug into quick-connect elbow on the right side of the valve. (be sure to route the tubing under existing tubing installed in step 4 as shown)

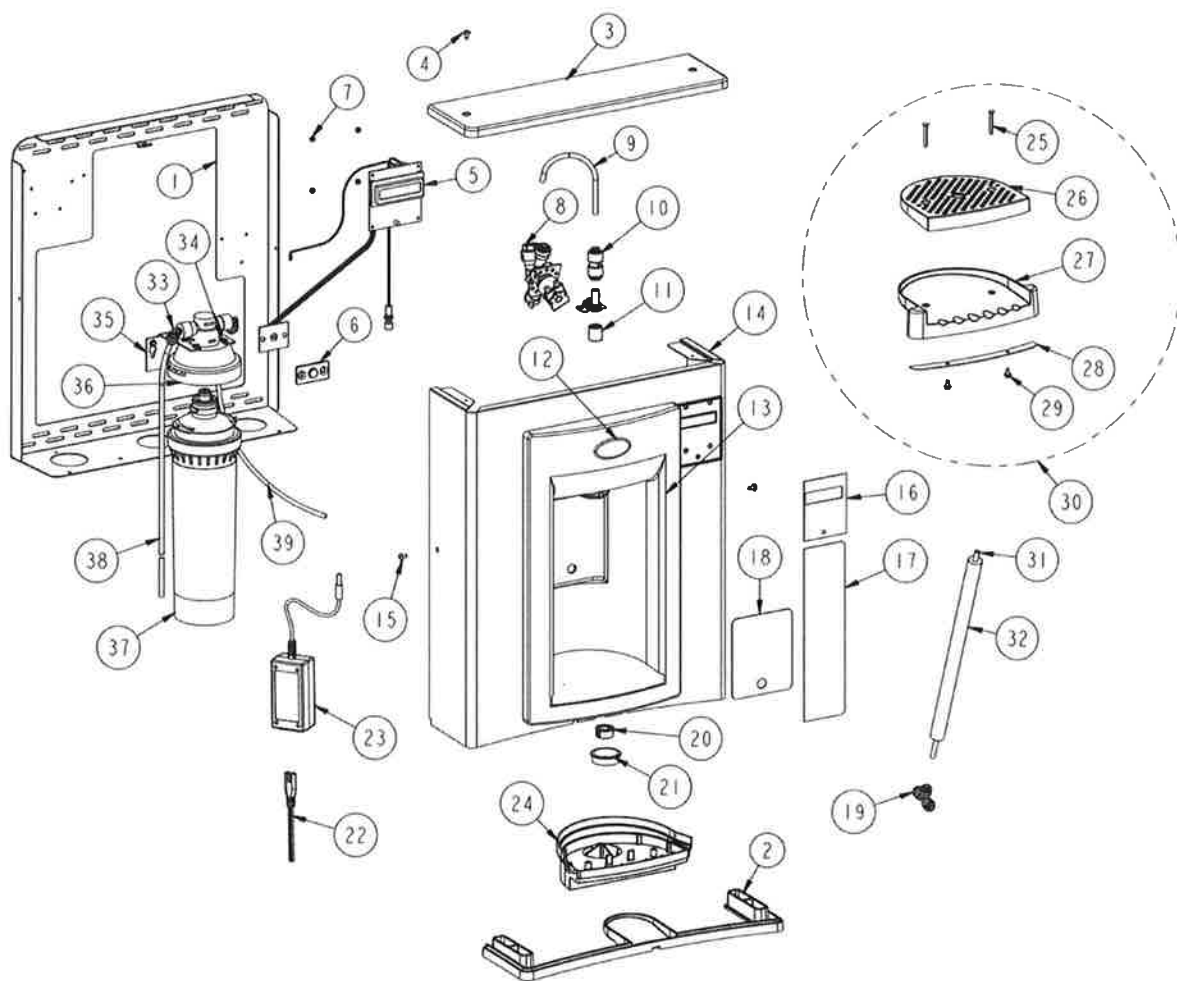


Step 8

Using tubing that is connected to the quick-connect elbow left side of valve (done in step 4), and plug the other end into the quick-connect fitting at the top of the cooling tank.

Return to Section 3 B 24
“Connecting the water line”

Section 5: Parts Breakdown



ITEM	QTY	P/N	Description
1	1	036687-003	FRAME, PWFSBF-K12
2	1	036689-001	GASKET, PWSBF
3	1	036686-001	CAP, PWSBF
4	2	031875-003	SCREW, TRUSS HD TAPPING TORX
5	1	038026-002	ELECTRONICS ASSY, IR/LCD
6	1	038027-001	LENS, IR BOTTLE FILLER
7	4	026824-026	NUT, HEX NYLON
8	1	038030-002	SOLENOID VALVE 12VDC
9	1	030152-009	TUBE, PE WHITE 7.5"
10	1	028668-101	FTG, PP REDUCING UNION
11	1	038032-001	FLOW NOZZLE
12	1	031434-014	NAMEPLATE, OASIS
13	1	036190-003	ALCOVE, EBF
14	1	036691-007	WRAPPER, PWEBF
15	2	031875-003	SCREW, TRUSS HD TAPPING TORX
16	1	038031-005	LABEL, LCD BEZEL
17	1	038031-007	LABEL, PANEL EBF
18	1	038031-006	LABEL, ALCOVE SENSOR
19	1	029199-103	FTG, PP UNION TEE WHITE
20	1	027189-008	BUSHING, SNAP

ITEM	QTY	P/N	Description
21	1	027189-001	BUSHING, SNAP
22	1	038168-001	CORD ASSY, DC POWER SUPPLY
23	1	038036-003	POWER SUPPLY, 100-240VAC/12VDC
24	1	036191-002	DRAIN, MSBF, SHORT
25	2	036049-002	SCREW, OVAL HD PLASTITE
26	1	036695-001	TRAY, GRILLE DRIP
27	1	036688-001	TRAY, DRIP PWSBF
28	1	036697-001	CAP, DRIP TRAY BOTTOM
29	2	026642-023	SCREW, HEX HD TAPPING #8
30	1	036701-001	DRIP TRAY ASSEMBLY
31	1	030152-046-SP	TUBE, PE WHITE 38"
32	1	017681-008-SP	INSULATION, SPONGE TUBE 19"
33	1	029994-103	FTG, PP ELBOW, PLUG IN
34	4	026630-022	SCREW, PAN HD TAPPING
35	1	041073-001	BRKT, VERSAFILTER II
36	1	041072-001	FILTER HEAD, VERSAFILTER II
37	1	041071-001	FILTER CARTRIDGE, VERSAFILTER II
38	1	030152-046-SP	TUBE, PE WHITE 38.0"
39	1	030152-014	TUBE, PE WHITE 48.0"

Section 5: Parts Breakdown

Accessories:

Vandal resistant screw kit: P/N 036704-001, includes torx bits and replacement screws.

Gasket, Sunroc/Haws : P/N 036689-101: (replaces item 2) KIT P/N 036752-001

Gasket Adapter Elkay/Halsey Taylor P/N 041114-001

P/N 0300999-570 REV E Date: 01/2021

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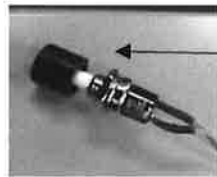
SET-UP GUIDE FOR OASIS® HANDS-FREE BOTTLE FILLER ELECTRONICS

Factory default program settings are:

- Units - Gallons
- Unfiltered unit
- Flow Meter = Rate Selected
- Filter Capacity = 1250 gallons [4731 liters] for a VersaFilter
- Bottle Count = 0.5L (1 Bottle)
- Flow Rate = 1.2 GPM
- 20 second maximum dispense time

For Hands-free VersaFiller models, top cap will need to be set aside until programming is complete. Remove top cap by unscrewing two (2) T15 torx screws if needed. Remove wire tie bundling pushbutton inside bottle filler and feed it through hole in cooler top. You can then adjust program using pushbutton through access panel of cooler.

For Hands-free Aqua Pointe models, remove lower front panel (if applicable) or lift out lower edge of upper panel to reach remote push button.



Pushbutton

To change the program settings, follow these steps:

<i>Display</i>	<i>Action</i>
00000000 BOTTLES REUSED (Home Screen)	Depress button for 3 seconds to enter into the following menu settings and make changes. Note: at anytime it will exit menu and save settings when idle for 10 seconds (no button press) and revert back to Home Screen.
LTR/GAL GAL	Depress button 3 seconds to change from Gallons to Liters, or momentary press to advance to next menu.
UNFILT/FILT? UNFILT UNIT	Depress button 3 seconds to change from Unfiltered to Filtered unit, or momentary press to advance to next menu.
FLOW METER? RATE SELECTED	Depress button 3 seconds to change from Rate Selected to (Flow) Meter Enabled, or momentary press to advance to next menu.
SELECT RATE 1.2 GPM UNIT	To change flow rate, momentarily depress button to change whole gallon digit. Hold button 3 seconds to advance to TENTHS of gallon digit. Depress momentarily to change the digit. Hold button 3 seconds to advance to the next menu.
RESET 00000000 GALLON CNT [LTR COUNT]	Depress button for 3 seconds to reset Gallon or Liter count, or momentary press to advance to next menu.
FILT CAPAC OF 1250 GAL [4731 LTR]	Depress button for 3 seconds to change filter capacity to 3000 GAL [11355 liters] for Galaxi green filter, or momentary press to advance to next menu.
3 sec rule? 0.5L	Depress button for 3 seconds to switch from 0.5L bottle to 3 sec rule, or momentary press to advance to next menu. (The 3 Sec rule increases the bottle count based on a 3 second dispense.)
Reset 00000000 BOT COUNT?	Depress button for 3 seconds to reset (Home Screen) BOTTLES REUSED count, or momentary press to advance to next menu.
Bot Filler Set_time: 20 s	Depress button for 3 seconds to change maximum dispense time to 10, 20 or 30 seconds, or momentary press to advance to next menu.
RUN CAL AGAIN?	Depress button 3 seconds to run calibration again, or momentary press to advance to next menu.

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Illustrated Parts Breakdown

**Models: P8AC, PG8AC
P8ACSL, PG8ACSL**



SPECIFICATIONS:

Models: P8AC, PG8AC

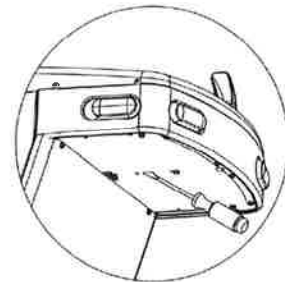
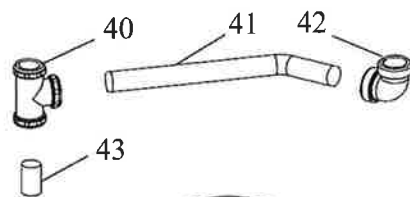
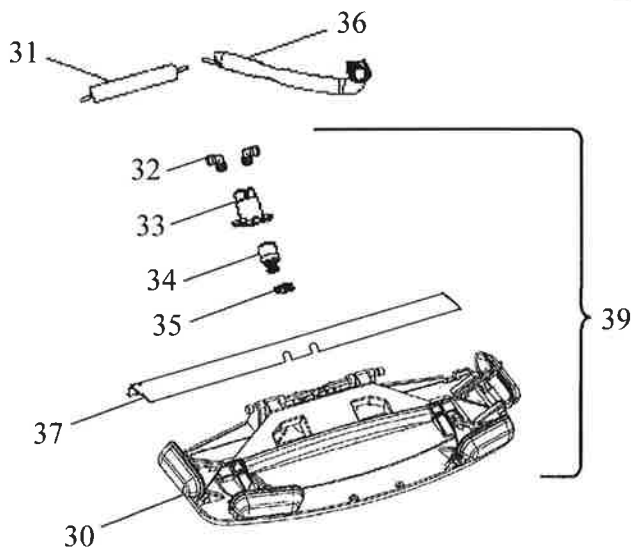
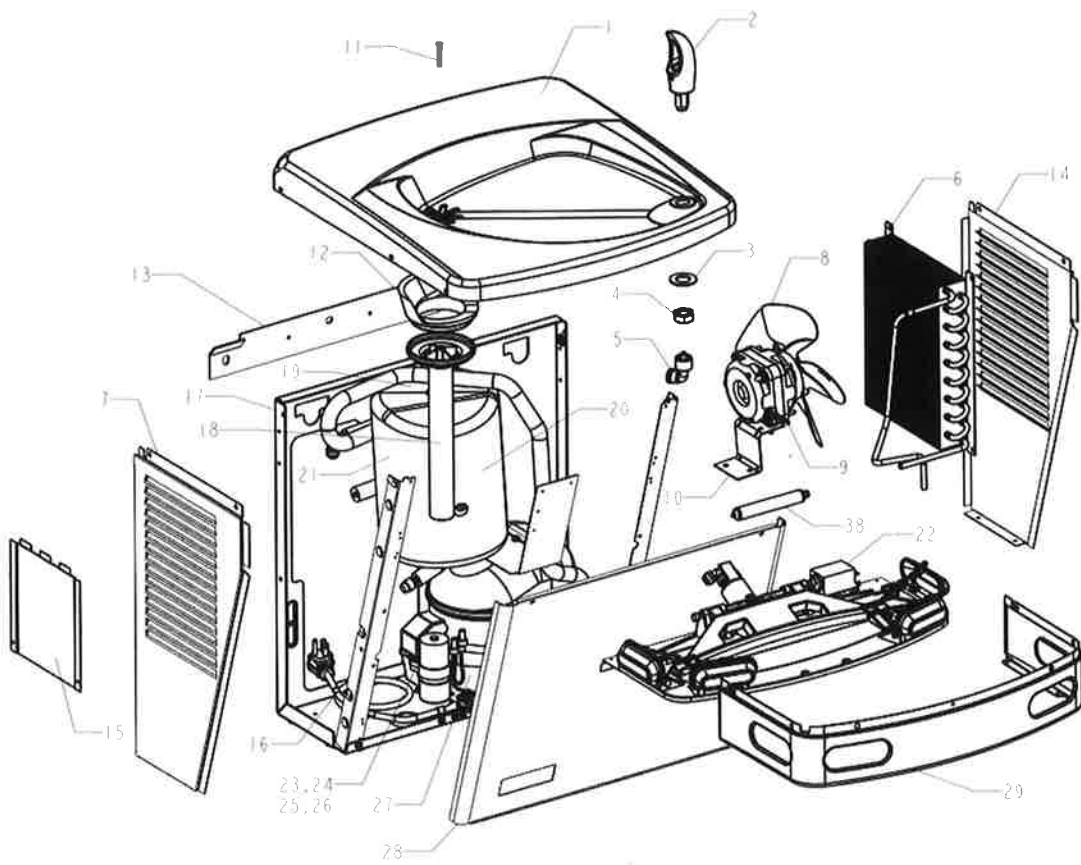
Voltage	115VAC±10%/1 PH/60 Hertz
Size	17 5/8" W, 18 5/8" D, 18 29/32" H
Shipping Weight (Approx)	59 lbs.
Cold Water Capacity*	8 GPH
Compressor	1/4 hp
Refrigerant	134a
Compressor (Full Load) - Huayi	4.4 amps
Refrigerant Charge - Huayi	3.95 OZ
Compressor (Full Load) - Danfoss	4.8 amps
Refrigerant Charge - Danfoss	4.75 OZ

Models: P8ACSL, PG8ACSL

Voltage	115VAC±10%/1 PH/60 Hertz
Size	35 1/4" W, 18 5/8" D, 24 29/32" H
Shipping Weight (Approx)	84 lbs.
Cold Water Capacity*	8 GPH
Compressor	1/4 hp
Refrigerant	134a
Compressor (Full Load) - Huayi	4.4 amps
Refrigerant Charge - Huayi	3.95 OZ
Compressor (Full Load) - Danfoss	4.8 amps
Refrigerant Charge - Danfoss	4.75 OZ

*Room Temperature 90°F; Supply Water Temperature 80°F; Drinking Water Temperature 50°F.

Specifications subject to change without notice.



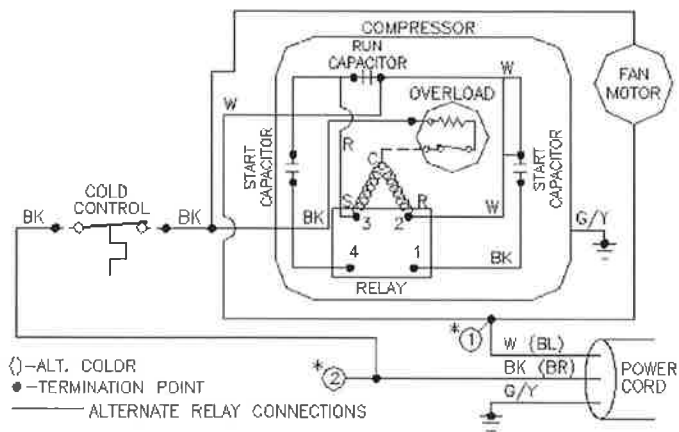
To adjust stream height, insert a 1/8" Flat blade screwdriver into the slotted hole as shown. The screwdriver will engage the stream height adjuster in the cartridge plunger. Turn clockwise to increase stream height, or ccw to reduce stream height.

Parts List

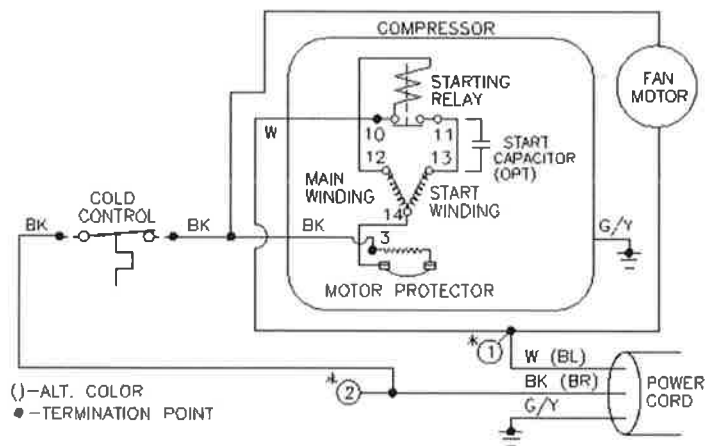
Item #	Description	PG8AC	PG8ACS	PGACS
1	Top, New Design - Requires 031756-003 Waste Drain Gasket	038934-101	038934-101	038934-101
2	Bubbler, Antimicrobial	035607-111	035607-111	035607-111
3	Washer, Undertop	028706-030	028706-030	028706-030
4	Locknut	026824-019	026824-019	026824-019
5	Bubbler Nut W/JG	036026-001	036026-001	036026-001
6	Condenser	031766-201	031766-201	N/A
7	Side Panel, Left Sandstone	035080-009	035080-309	035080-009
	Side Panel, Left Greystone	035080-001	035080-301	035080-001
	Side Panel, Left Stainless Steel	035080-010	035080-310	035080-010
8	Blade, Fan - (H3XX & D3X1 series)	024033	024033	N/A
	Blade, Fan - (D3X3 & D3X4 Series) Included with 038813-001 Fan Motor	038773-002	038773-002	N/A
9	Motor, Fan - (H3XX & D3X1 series)	027354-036	027354-036	N/A
	Motor, Fan - (D3X3 & D3X4 Series) Includes 038773-002 Fan Blade	038813-001	038813-001	N/A
10	Bracket, Fan Motor	036478-001	036478-001	N/A
11	Drain Screw	036049-002	036049-002	036049-002
12	Waste Gasket - (H3XX & D3X1 series)	031756-002	031756-002	031756-002
	Waste Gasket - (D3X3 & D3X4 Series) for new top design 038934-101	031756-003	031756-003	031756-003
13	Hanger Bracket	031363-002	031363-002	031363-002
14	Side Panel, Right Sandstone	035081-009	035081-009	035081-309
	Side Panel, Right Greystone	035081-001	035081-001	035081-301
	Side Panel, Right Stainless Steel	035081-010	035081-010	035081-310
15	Patch Plate, Sandstone	N/A	036142-009	036142-009
	Patch Plate, Greystone	N/A	036142-001	036142-001
	Patch Plate, Stainless Steel	N/A	036142-010	036142-010
16	Service Cord	036820-001	036820-001	N/A
17	Frame	035089-001	035089-001	035089-001
18	Waste Assy	036011-001	036011-002	036009-002
19	Insulation Right Cooling Tank	035088-001	035088-001	N/A
20	Insulation Left Cooling Tank	035088-002	035088-002	N/A
21	Cooling Tank, Insulated - Huayi	033469-055-SP	033469-055-SP	N/A
	Cooling Tank, Insulated - (D300, D3X1 & D3X3 Series)	033469-001	033469-001	N/A
	Cooling Tank, Insulated - (D3X4 Series)	033469-060	033469-060	N/A
22	Cold Control	027040-039	027040-039	N/A
23	Relay - Huayi	036056-003	036056-003	N/A
	Relay/Overload Combo - Danfoss	032836-007	032836-007	N/A
24	Overload - Huayi	036055-003	036055-003	N/A
25	Start Capacitor - 60 MFD - Huayi	027956-008	027956-008	N/A
	Start Capacitor - Danfoss	027956-004	027956-004	N/A
26	Run Capacitor - 25 MFD - Huayi	027956-009	027956-009	N/A
27	Compressor Assy. - Huayi	036115-001	036115-001	N/A
	Compressor Assy. - Danfoss	033425-006	033425-006	N/A
28	Front Panel, Sandstone	035079-009	035079-009	035079-009
	Front Panel, Greystone	035079-001	035079-001	035079-001
	Front Panel, Stainless Steel	035079-010	035079-010	035079-010
29	Front Nosepiece, Sandstone	035077-009	035077-009	035077-009
	Front Nosepiece, Greystone	035077-001	035077-001	035077-001
	Front Nosepiece, Stainless Steel	035077-010	035077-010	035077-010
30	Activation Assy.	035412-005-SP	035412-005-SP	035412-005-SP
31	Waterline, Tank to Valve	035504-011-SP	035504-011-SP	N/A
	Waterline, Inlet to Valve or Tank	035504-010-SP	035504-010-SP	035504-010-SP
32	Union Elbow Fitting JG	028481-101	028481-101	028481-101
33	Cartridge Holder	035990-001	035990-001	035990-001
34	Cartridge	029967-005	029967-005	029967-005
	Cartridge	029967-002	029967-002	029967-002
35	Retaining Nut, Cartridge	A020957	A020957	A020957
36	Waterline, Valve to Bubbler	035504-013-SP	035504-013-SP	035504-013-SP
37	Shelf	035078-002	035078-002	035078-002
38	Drier	034343-003	034343-003	N/A
39	Activation Shelf	035092-110	035092-110	035092-110
40	Waste Tee	N/A	N/A	A020968
41	Waste Arm Assy.	N/A	N/A	026980-004
42	Waste Elbow	N/A	N/A	A020967
43	Waste Extension Tube	N/A	N/A	036010-016
Parts Not Shown				
	Strainer, In-Line	033264-003	033264-003	033264-003
	Supply Tube Extension	N/A	N/A	032312-001
	Screw, T15	031875-003	031875-003	031875-003
	Insert, Nameplate OASIS	020850	020850	020850

Wiring Diagram: P8AC, PG8AC P8ACSL, PG8ACSL

- H3 Series



- D3 Series



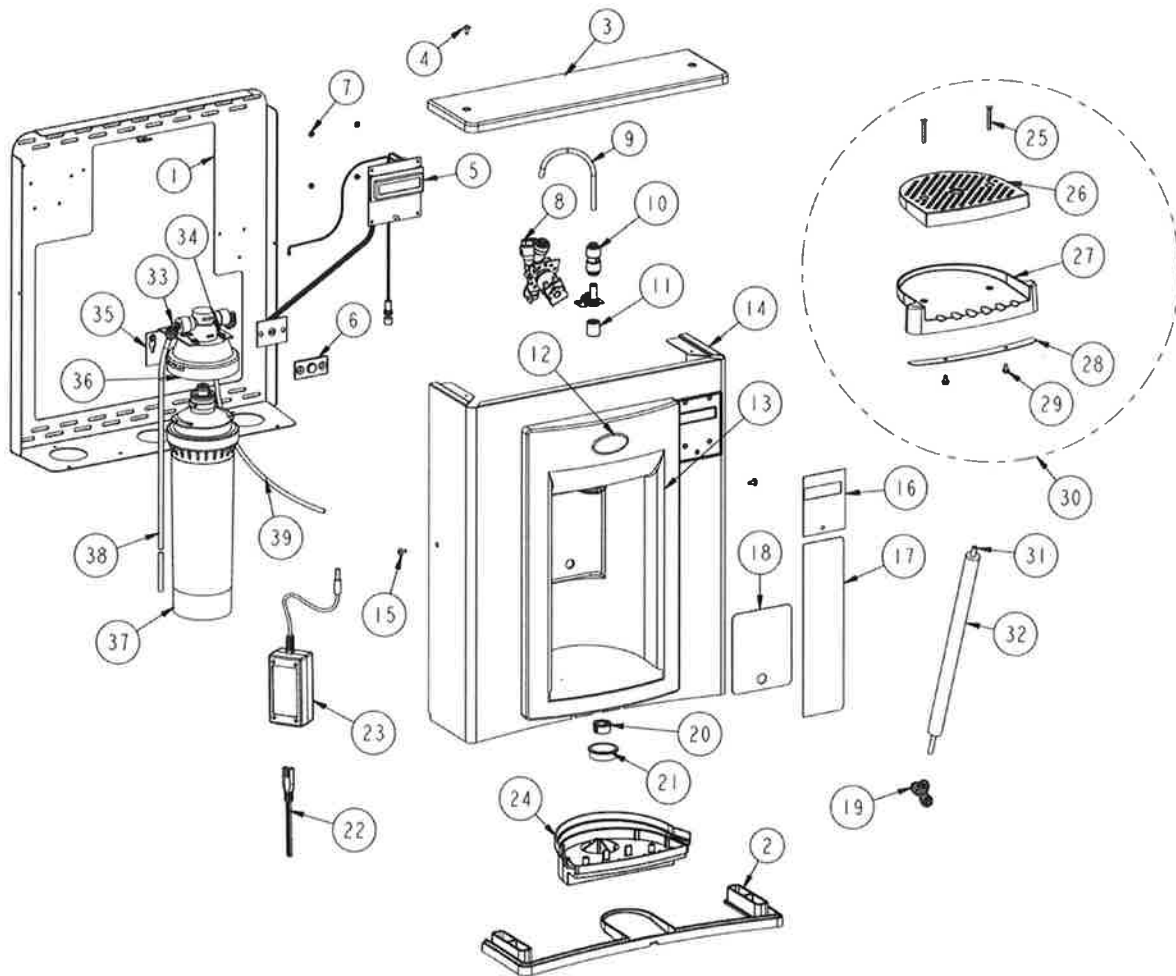
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Section 5: Parts Breakdown



ITEM	QTY	P/N	Description
1	1	036687-003	FRAME, PWFSBF-K12
2	1	036689-001	GASKET, PWSBF
3	1	036686-001	CAP, PWSBF
4	2	031875-003	SCREW, TRUSS HD TAPPING TORX
5	1	038026-002	ELECTRONICS ASSY, IR/LCD
6	1	038027-001	LENS, IR BOTTLE FILLER
7	4	026824-026	NUT, HEX NYLON
8	1	038030-002	SOLENOID VALVE 12VDC
9	1	030152-009	TUBE, PE WHITE 7.5"
10	1	028668-101	FTG, PP REDUCING UNION
11	1	038032-001	FLOW NOZZLE
12	1	031434-014	NAMEPLATE, OASIS
13	1	036190-003	ALCOVE, EBF
14	1	036691-007	WRAPPER, PWEBF
15	2	031875-003	SCREW, TRUSS HD TAPPING TORX
16	1	038031-005	LABEL, LCD BEZEL
17	1	038031-007	LABEL, PANEL EBF
18	1	038031-006	LABEL, ALCOVE SENSOR
19	1	029199-103	FTG, PP UNION TEE WHITE
20	1	027189-008	BUSHING, SNAP

ITEM	QTY	P/N	Description
21	1	027189-001	BUSHING, SNAP
22	1	038168-001	CORD ASSY, DC POWER SUPPLY
23	1	038036-003	POWER SUPPLY, 100-240VAC/12VDC
24	1	036191-002	DRAIN, MSBF, SHORT
25	2	036049-002	SCREW, OVAL HD PLASTITE
26	1	036695-001	TRAY, GRILLE DRIP
27	1	036688-001	TRAY, DRIP PWSBF
28	1	036697-001	CAP, DRIP TRAY BOTTOM
29	2	026642-023	SCREW, HEX HD TAPPING #8
30	1	036701-001	DRIP TRAY ASSEMBLY
31	1	030152-046-SP	TUBE, PE WHITE 38"
32	1	017681-008-SP	INSULATION, SPONGE TUBE 19"
33	1	029994-103	FTG, PP ELBOW, PLUG IN
34	4	026630-022	SCREW, PAN HD TAPPING
35	1	041073-001	BRKT, VERSAFILTER II
36	1	041072-001	FILTER HEAD, VERSAFILTER II
37	1	041071-001	FILTER CARTRIDGE, VERSAFILTER II
38	1	030152-046-SP	TUBE, PE WHITE 38.0"
39	1	030152-014	TUBE, PE WHITE 48.0"

Section 5: Parts Breakdown

Accessories:

Vandal resistant screw kit: P/N 036704-001, includes torx bits and replacement screws.

Gasket, Sunroc/Haws : P/N 036689-101: (replaces item 2) KIT P/N 036752-001

Gasket Adapter Elkay/Halsey Taylor P/N 041114-001

P/N 0300999-570 REV E Date: 01/2021

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OASIS® VERSACOOLER® II MODELS

SPLIT LEVEL INSTRUCTIONS

A. INSPECTION

Inspect the water cooler, water fountain and cartons for evidence of rough handling and concealed damage. Damage claims should be filed with the carrier.

B. TO PUT WATER COOLER AND FOUNTAIN INTO SERVICE

1. **NOTE:** The following states require a licensed plumber to install cooler; AG, GA, MA, MI, OK, RI, SC, SD, TX, VT and WI. CA, KS, MN, NM and OR allow for a state-registered installer or contractor as well. State and local plumbing codes may prohibit use of saddle tapping valves for water line connection in some applications. All connections must conform to applicable plumbing codes.
2. The P8ACSL is composed of a water cooler and a water fountain. The water cooler contains the refrigeration system and is always mounted on the right side. This unit can be configured with the water cooler high or low. Refer to proper roughing in drawing for location of plumbing and electrical service. Filter units have additional instructions on a label inside fountain side access panel. Read these before installing unit. This drinking water cooler is designed to be operated at a water supply line pressure of up to 100 psi (690 kPa). A pressure regulator must be installed in front of the unit's water inlet if the water pressure (including any possible pressure spikes) could exceed 100 psi (690 kPa).
3. FLUSH BUILDING WATER SUPPLY BEFORE INSTALLING UNIT.
4. Install wall hangers as shown on the desired roughing in drawing. Wall hangers are shipped fastened to the backs of each unit.
5. **To configure this cooler for right side high or right side low installation, refer to details below. Bottom screws of the appropriate side panel may be temporarily removed to install patch plate. Assemble drains as shown below, matching the position of the gaskets to the contour of the cooler tops.**
6. Mount the water cooler on the right hanger.
7. Mount water fountain on left side hanger while routing "Water In" tube through access hole to stop valve as required. Remove cap from "Drain/Remote Cold Water" connection and insert "Water In" tube.
8. **All provided waste drain parts for field installation are packed in the water fountain. Assemble drain per appropriate roughing in drawing. The short leg of the crossover piece will be on the water cooler side. When unit has an internal waste trap, it should be wrapped with insulating tape to prevent sweating. Use of 1-3/4" knockout for a waste line is not recommended because of potential conflict with ADA* toe space requirements. Check with your local building code inspector for approval.**
9. Install a shut off valve in water supply line. An in-line strainer is furnished in "Water Supply" tube. Connect "Water Supply" tube to shut off valve. This connection should not be a solder joint or flare connection to allow access to the strainer service. To ease removal of the strainer, a sheet metal screw may be lightly threaded into the open end.
10. Rotate fan blade by hand to see that it is free of obstructions.
11. Check available power supply against water cooler data plate to assure correct electrical service. This drinking water cooler is intended to be connected to a 20A minimum ground fault circuit interrupting (GFCI) device to meet UL requirements. Plug power supply cord into wall outlet. The rear most 1-3/8 diameter knockout in frame bottom is for an externally located electrical supply. Make sure knockout hole edge is smooth and free of any burrs. Use of Heyco bushing #2184 in knocked out hole is recommended to prevent damage to service cord and to close up excess opening around cord. Route cord so it does not interfere with ADA* space requirements.
12. To fill cold water tank on water cooler, open water supply line shut-off and push any one of front push pads to allow water to flow to bubbler. On TM and TT models, actuate solenoid by holding one hand approximately 1" from infrared sensor (under front edge of shelf). Run water until stream is free of bubbles. After approximately 30 seconds run time, solenoid valve will automatically shut off. To reactivate, move hand away for an instant and then again place it in front of sensor.
13. To Adjust Bubbler stream:
All models are equipped with a cartridge regulator. The standard push pad and electric eye models have a slot at back of underside of shelf. Insert a screwdriver in this slot to adjust regulator. Turn adjustment clockwise to increase stream height. To access P8V8ACSL and P8VF8ACSL adjustment, remove the Bezel and Button from front of cooler.
14. To adjust beam range of sensor (TM and TT models only):
 - a) Shut off water. Actuate sensor to relieve water pressure. **NOTE:** Unplug cooler or avoid touching fan blade and electrically live components when adjusting sensor.
 - b) Remove six screws holding top on. Lift up front to access sensor.
 - c) To adjust sensing distance, use a mini-screwdriver (2.5mm flat tip or smaller) and rotate adjustment potentiometer screw on side of sensor. Turn clockwise to sense objects further away. This is represented by thicker end of curve on sensor label. The screw can be turned a maximum of 3/4 turns. Sensor has a maximum range of approximately 14", it is factory set at 4".
 - d) **NOTE: Do not turn adjustment as high as it can go. If you do, sensor will lock on until you turn sensing distance back down.**
 - e) There is an adjustable on-time delay if desired. It is factory set for immediate response upon activation. To adjust on-time delay, rotate blue knob on timer clockwise. The maximum on-time delay is 1 second. Water will shut off immediately once object is removed from under shelf. Maximum on-time is 30 seconds should someone tamper with sensor. **NOTE:** Floors with a reflective finish, i.e., ceramic tile, may cause false actuation no matter what sensor adjustment is for distance. Therefore, do not install unit in such an area or dull surface of floor so it will not reflect light.
 - f) Replace top, starting at back of unit, snug up screws, but do not overtighten.



C. MAINTENANCE

The only maintenance operation required is the removal of dirt and lint from the condenser of the water cooler. Inspection should be made at 3-month intervals. Disconnect the power supply cord, then clean the condenser with a small stiff non-wire brush when required. Observance of this procedure will ensure adequate air circulation through the condenser so operation is efficient and economical.

D. OVERLOAD PROTECTION (water cooler)

The compressor motor, where used, is equipped with an automatic reset protector which will disconnect the motor from the line in case of an overload.

E. LUBRICATION (water cooler)

This unit is equipped with a hermetically sealed compressor and requires no additional lubrication. The fan motor on this unit seldom needs oiling, but if required, a few drops of SAE 10 oil should be used.

F. TO DISCONTINUE USE OF WATER COOLER AND WATER FOUNTAIN

1. Close water shut off valve.
2. Provide container to catch water to be drained.
3. On push button model, disconnect power supply cord then disconnect water supply line at shut off valve. Route water supply line to container and actuate push button. If this drains too slowly for you, prepare 3/8" ID tube or 3/8" OD tube with quick-connect fitting and remove screw plug in tank drain. Slide tube over drain and route to container. Replace screw plug when draining is complete. Do not over-tighten. O-ring only needs to be snug to seal.
4. On TM and TT models, disconnect water supply line at shut off valve. Place water supply line in container and actuate solenoid as explained in Step B12. If this drains too slowly for you, disconnect power supply cord and prepare 3/8" ID tube or 3/8" OD tube with quick-connect fitting and remove screw plug in tank drain. Slide tube over drain and route to container. Replace screw plug when draining is complete. Do not over-tighten. O-ring only needs to be snug to seal.
5. ALWAYS DRAIN ALL WATER WHEN FREEZING TEMPERATURES ARE ANTICIPATED AND BEFORE SHIPPING THE WATER COOLER.

*American With Disabilities Act

WARNING

The warranty and the Underwriters' Laboratory listing for this machine are automatically voided if this machine is altered, modified, or combined with any other machine or device. Alteration or modification of this machine may cause serious flooding and/or hazardous electrical shock or fire.

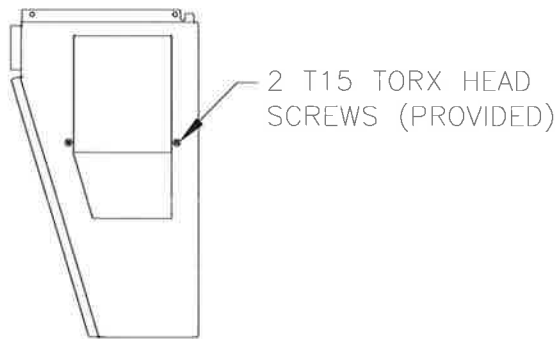
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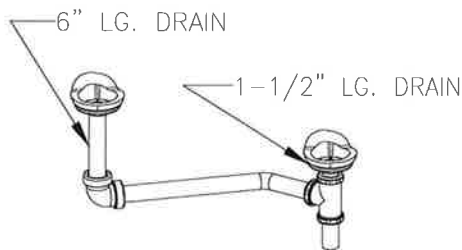
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 030099-350 Rev. E, Date 4/2020

WATER FOUNTAIN
 RIGHT SIDE PANEL



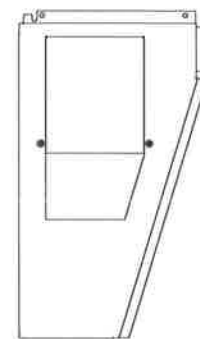
PATCH PLATE LOCATION
 FOR COOLER CONFIGURED
 FOR RIGHT SIDE LOW



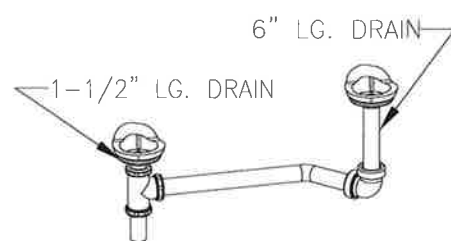
DRAIN CONFIGURATION
RIGHT SIDE LOW

MOUNT DRAINS WITH PROVIDED
 1-1/4" LONG SCREWS

WATER COOLER
 LEFT SIDE PANEL



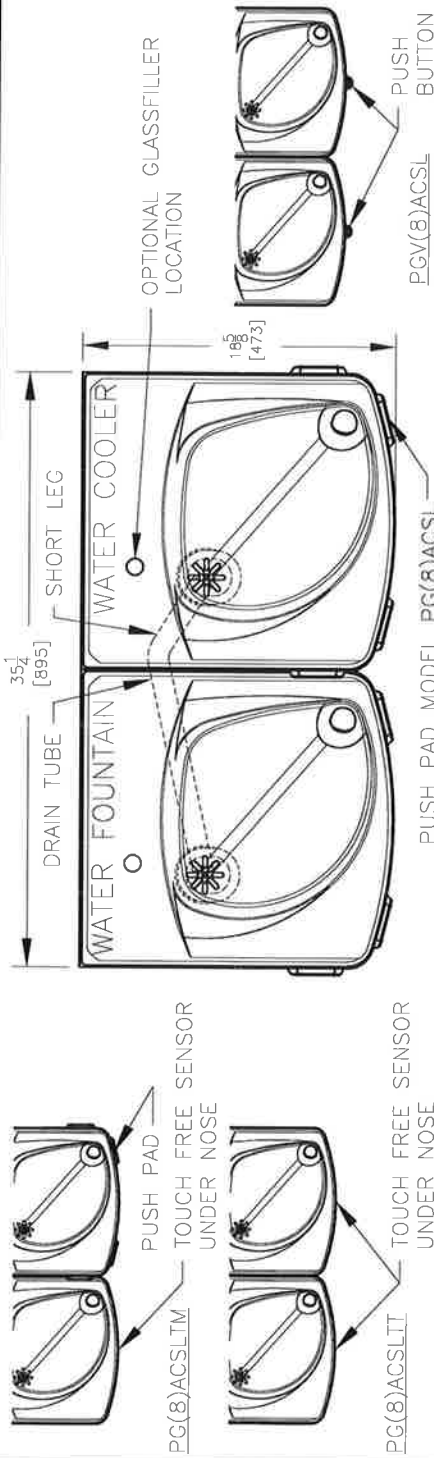
PATCH PLATE LOCATION
 FOR COOLER CONFIGURED
 FOR RIGHT SIDE HIGH



DRAIN CONFIGURATION
RIGHT SIDE HIGH

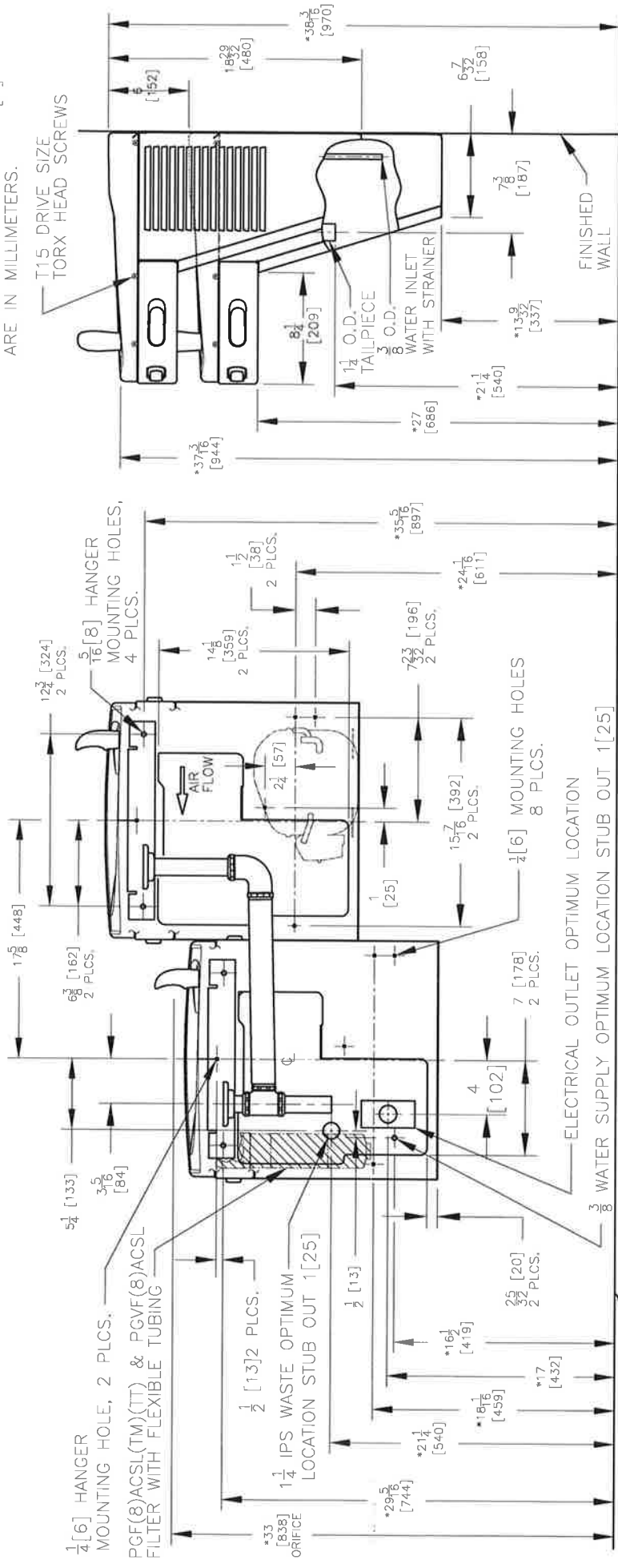
MOUNT DRAINS WITH PROVIDED
 1-1/4" LONG SCREWS

OASIS® VERSACOOLER® II MODELS

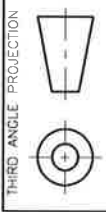


NOTES:

1. TRAP, STOP VALVE AND ELECTRICAL OUTLET NOT FURNISHED.
2. ALLOW 4 INCHES [102 MM] MIN. PER SIDE FOR VENTILATION.
- *3. RECOMMENDED ADULT BARRIER FREE HEIGHT INSTALLATION SHOWN. REDUCE HEIGHT BY 3 INCHES FOR INSTALLATIONS USED PRIMARILY BY CHILDREN AGES 12 AND YOUNGER. UNIT SHALL ALSO HAVE A MINIMUM CLEAR FLOOR SPACE 30[760] BY 48[1220]. ADJUST VERTICAL DIMENSIONS AS REQ'D TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES.
4. ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS.



RIGHT SIDE HIGH CONFIGURATION

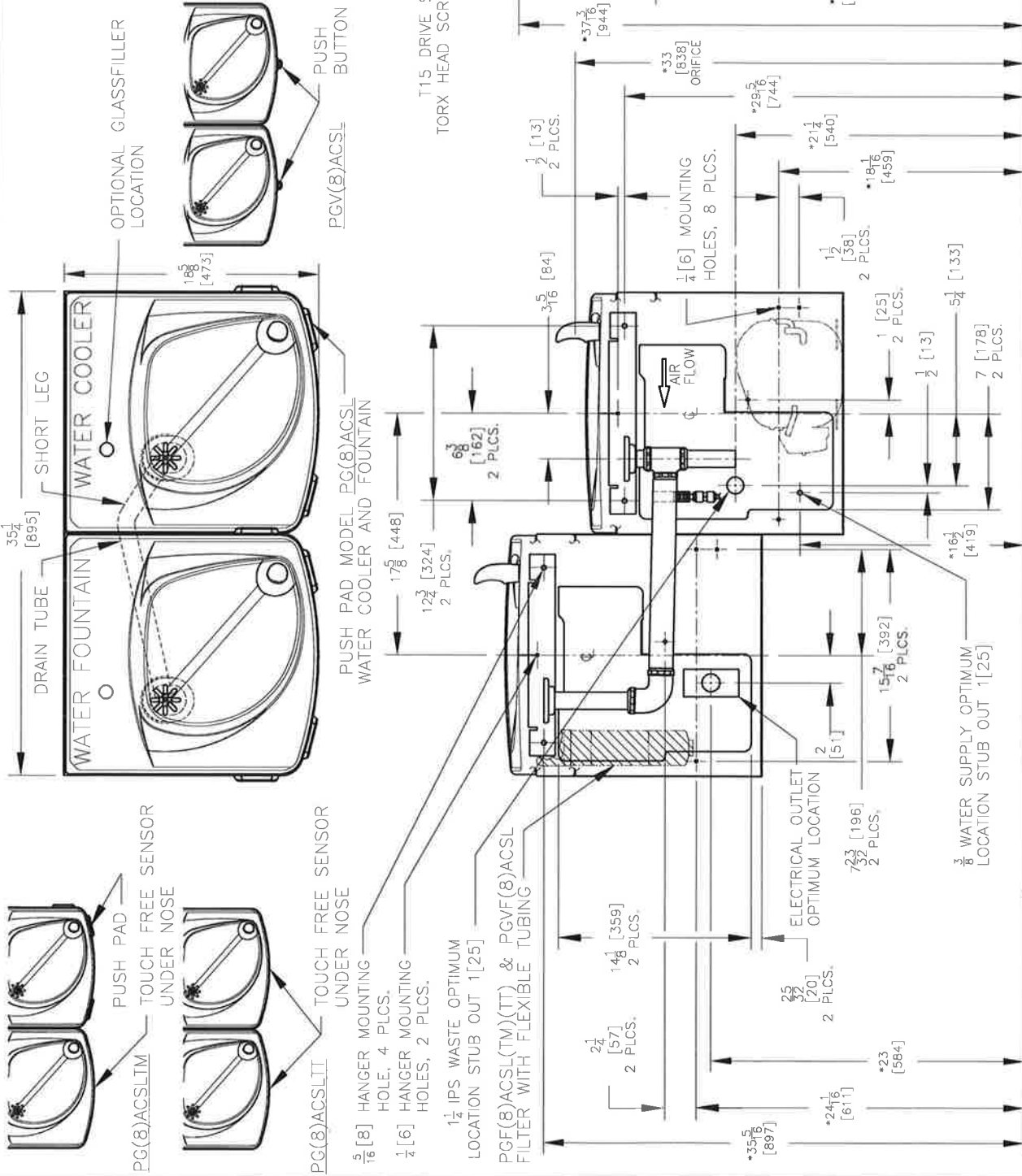


ROUGHING-IN AND DIMENSIONAL DRAWING

OASIS® VERSACOOLER® II MODELS

NOTES:

1. TRAP, STOP VALVE AND ELECTRICAL OUTLET NOT FURNISHED.
2. ALLOW 4 INCHES [102 MM] MIN. PER SIDE FOR VENTILATION.
- *3. RECOMMENDED ADULT BARRIER FREE HEIGHT INSTALLATION SHOWN. REDUCE HEIGHT BY 3 INCHES FOR INSTALLATIONS USED PRIMARILY BY CHILDREN AGES 12 AND YOUNGER. UNIT SHALL ALSO HAVE A MINIMUM CLEAR FLOOR SPACE 30[760] BY 48[1220]. ADJUST VERTICAL DIMENSIONS AS REQ'D TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES.
4. ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS.



RIGHT SIDE LOW CONFIGURATION

ROUGHING-IN AND DIMENSIONAL DRAWING

OWNER'S COPY

OASIS Water Cooler 5-Year Limited Warranty

Effective for Serial Numbers beginning with 0940 and Higher

FIRST YEAR:

The Manufacturer promises the original purchaser (user) to repair, replace, credit or, at the Manufacturer's option, to replace any part of this water cooler which proves to be inoperative due to a defect in material or workmanship under normal use, for a period of one year from the date of original installation or for a period of eighteen (18) months after date of shipment from the factory, whichever occurs first. During the one year warranty, the Manufacturer will either replace, credit, or repair, through its approved service center or factory repair department, provide labor and parts necessary to correct such inoperative condition at no charge, if the water cooler has been installed and operated in accordance with the written instructions furnished with the water cooler. If it becomes necessary to ship the inoperative water cooler to the approved service center or factory repair department, the Manufacturer will pay the transportation charges both ways via common carrier. Local delivery charges are not covered.

The cost of labor required to disconnect and reconnect plumbing and electrical connections will be the responsibility of the user (owner).

SECOND THRU FIFTH YEARS:

The Manufacturer promises in the Second thru Fifth years to repair, credit (Pro-rated Value Based on the Remaining Warranty Period), or at its option, to replace any part of the sealed refrigeration system (compressor, condenser, evaporator, and interconnecting refrigerant lines) which prove to be inoperative due to a defect in material or workmanship. The Manufacturer will provide the labor at no charge through its approved service center or the factory repair department to install such parts of the sealed refrigeration system.

If it becomes necessary to ship the inoperative water cooler to the approved service center, the Manufacturer will pay the transportation charge both ways via common carrier. Local delivery charges are not covered.

The cost of labor to diagnose a sealed refrigeration system failure or the cost of labor required to disconnect and reconnect plumbing and electrical connections, will be the responsibility of the user (owner).

GENERAL PROVISIONS AND EXCLUSIONS:

This warranty applies only within the Continental Limits of the United States of America and Canada.

This warranty does not apply and no agreement, either expressed or implied, shall be applicable if the affixed serial number is removed, defaced or obliterated.

This warranty does not apply if service of the sealed refrigeration system or parts furnished as original equipment by the Manufacturer are not obtained from an approved service center or the factory.

This warranty does not apply to any water components that become inoperative due to liming conditions. This warranty does not apply to any water cooler or components that become inoperable because of a failure to satisfy standards or regulations adopted by any government or agency thereof subsequent to the date of shipment from the factory.

This warranty does not cover performance, failure or damages of any part resulting from external causes such as alterations, abuse, misuse, misapplication, corrosion or acts of God. This warranty does not apply to non-refrigerated water fountains, cuspidors, dispensers and accessories, nor the following models: VP13FSN; ER2-RR; TPK; ER2; R1P. These products and models have individual warranties.

WARNING

The warranty and the Underwriters' Laboratory listing for this machine are automatically voided if this machine is altered, modified, or combined with any other machine or device. Alteration or modification of this machine may cause serious flooding and/or hazardous electrical shock or fire.

Except as set forth herein, the Manufacturer makes no other warranty, guarantee or agreement expressed, implied or statutory, including any implied warranty of merchantability or fitness for a particular purpose.

The foregoing is in lieu of all other agreements expressed, implied or statutory and all other obligations or liabilities of the Manufacturer. The Manufacturer does not assume or authorize any person to assume any obligations of liability in connection with this product. In no event will the Manufacturer be liable for special or consequential damages or for any delay in the performance of this agreement due to causes



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For Customer Service and Technical Helpline call:
800.646.2747

Or visit us online at:
oasiscoolers.com | oasis-parts.com

P-2

Installation Instructions for Undercounter Sink

Las Instrucciones Para La Instalación Del Lavabo Bajo Cubierta





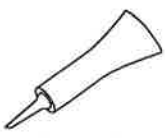


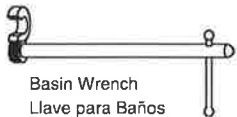



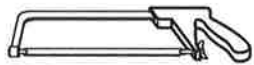


Mode d'installation avec un lavabo à montage sous le comptoir

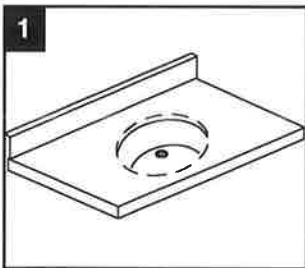
Introduction: Thank you for selecting our products...products which have been the benchmarks of fine quality for years. To help insure that the installation process will proceed smoothly, please read these instructions carefully before you begin. Also, review the recommended tools and materials list; carefully unpack and examine your new plumbing fixture.

Introducción: Gracias por seleccionar nuestros productos...productos que han sido el símbolo de calidad por muchos años. Para evitar problemas con la instalación, favor de leer estas instrucciones cuidadosamente antes de empezar. También, revise la lista de herramientas y materiales recomendados; desempaque y examine cuidadosamente su producto nuevo.

Introduction: Merci d'avoir choisi nos produits... des produits qui sont synonymes de grande qualité depuis des années. Pour vous assurer d'une installation sans problème, veuillez lire ces instructions avant de commencer. Prenez également connaissance de la liste des outils et matériaux recommandés; déballez et examinez soigneusement votre nouvel appareil de plomberie.

Recommended Tools & Materials/Herramientas y Materiales Recomendados/Outils et matériaux recommandés

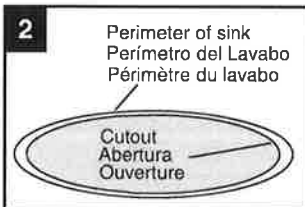
 Putty Knife Espátula Spatule de vitrier	 Adjustable Wrench Llave Ajustable Clef universelle	 Plumbers' Putty pasta Mastic de plombier	 Channel Lock Pliers Pinza con Ajustes Pince de sûreté	 Silicone Adhesive Adhesivo de Silicón Adhésif au silicone	 Tape Measure Flexómetro Ruban à mesurer
 Pipe Wrench Llave Aprietatubos Clef à pipes	 Basin Wrench Llave para Baños Clef à lavabo	 Tubing Cutter Cortador de tubos Coupoir à tuyau	 Phillips Screwdriver Desarmador de cruz Tournevis cruciforme	 Regular Screwdriver Desarmador plano Tournevis plat	 Hacksaw Arco con segueta Scie à métaux
 Drill Taladro Perceuse	 Saber Saw Caladora Scie sauteuse:	NOTE: More specialized tools may be necessary to install this sink to countertop materials other than wood or wood composites.	NOTA: Es posible que se necesiten herramientas especiales para instalar este lavabo a los materiales de la cubierta que no sean madera o compuestos de madera.	NOTE: Il peut être nécessaire d'utiliser des outils plus spécialisés pour installer ce lavabo sur de comptoir autres que le bois ou les composites de bois.	



NOTE: To avoid damage to countertop, install sink such that future removal from underneath the countertop is possible. First, make sure the clearance between the backsplash, faucet, fixtures and cabinets are acceptable for the new sink.

NOTA: Para evitar danos al cubierta de lavabo, instale el lavabo de tal manera que retirandolo en el futuro sea posible. Primero, cheque que las distancias entre el repisa posterior, la llave, los herrajes y los gabinetes son aceptables para el nuevo lavabo.

NOTE: Pour éviter de casser le lavabo, s'assurer d'installer le lavabo d'une manière qui permet de le remplacer dans le future. D'abord, vérifiez qu'il y a assez d'espace dessous le comptoir, pour le robinet, le mur posterior du lavabo et la structure du cabinet.



Carefully cut out the enclosed template, then position and trace the template on the countertop as shown on the template. Make a mark of the faucet hole centerline on the countertop. Drill a 1/2" pilot hole on the inside of the cut line. Use a saber saw or a keyhole saw to cut out the countertop opening.

Corte cuidadosamente la plantilla suministrada, luego coloque y marque la plantilla sobre la cubierta como se muestra en la plantilla. Haga una a marca en la línea central del hueco de la llave sobre la cubierta. Realice un agujero piloto de 1/2" en la parte interior de la línea de corte. Utilice una caladora o un serrucho de calar para cortar la apertura de la cubierta del lavabo.

Coupez soigneusement le dessin graphique inclus dans les présentes puis positionnez-le sur le comptoir pour en tracer le contour selon ce qui est indiqué. Faites une marque sur le comptoir pour le trou du robinet. Percez un avant-trou de 1,27 cm (1/2 po) à l'intérieur du trait de coupe. Servez-vous d'une scie sauteuse ou d'une scie à guichet pour couper l'ouverture au niveau du comptoir.

Observe Local Plumbing and Building Codes/Observe los códigos locales de plomería y construcción/Observez les Codes de la plomberie et du bâtiment locaux.

Product names listed herein are trademarks of American Standard Inc. unless otherwise noted.

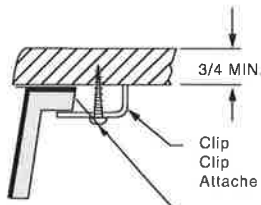
Los nombres de los productos en este manual son marcas registradas de American Standard, Inc., excepto los casos en que se mencione el nombre de otra empresa.

Les noms des produits indiqués dans ce document sont des marques de commerce d'American-Standard inc, sauf avis contraire.

Corian® Dupont registered trademark / Corian® Dupont es una marca registrada / CorianMD marque déposée de Dupont

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**FOR WOOD COUNTERTOP
PARA CUBIERTAS DE LAVABO DE MADERA
POUR LES COMPTOIRS DE BOIS**



Drill 1/8 dia. X 3/8 deep
#10 Wood Screw
Taladre un perforación con un diámetro
de 1/8" y una profundidad de 3/8"
Vis a bois #10

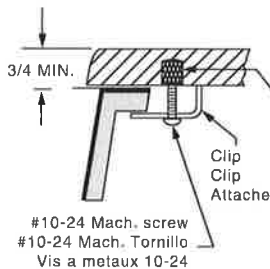
Mark and pre-drill the wood screw holes as located on the enclosed template. Waterproof any exposed areas of wood.

Marca y perfore los huecos para los tornillos localizados en la plantilla. Haga a prueba de agua partes de madera que estén expuestas.

Sous le comptoir, positionner et percer les trous marqués au dessin graphique inclu. S'assurer de protéger des surfaces exposées en bois contre l'eau.

4

**FOR MARBLE OR SOLID SURFACE COUNTERTOP
PARA CUBIERTAS DE LABABO DE MÁRMOL O
SUPERFICIES DURAS
POUR LES COMPTOIRS DE MARBRE OU TOUTE
AUTRE SURFACE SOLIDE**



Brass insert, epoxy in place with threaded end exposed. (Epoxy not supplied).

Inserto de latón, use plastilina epóxica para sellarlo a su lugar con la parte roscada expuesta.

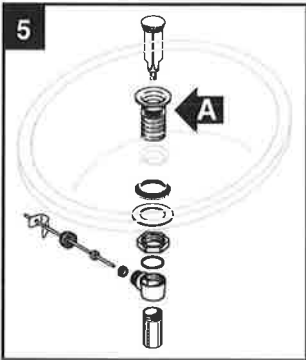
Insertion en laiton, coller en place avec l'epoxyde, le bout fileté apparent. (Colle à l'epoxyde non incluse).

To protect countertop, place it on a foam padding and drill 3/8 Dia. X 1/2 deep hole as per location shown on template.

Para proteger la cubierta, colóquelo sobre un acolchado de espuma y realice un agujero de 3/8 de diámetro X 1/2 de profundidad para determinar la ubicación que se muestra en la plantilla.

Afin de protéger le comptoir, placez-le sur un coussin de caoutchouc-mousse et percez un trou de 3/8 (diamètre) X 1/2 po de profondeur (emplacement indiqué sur le dessin graphique).

5

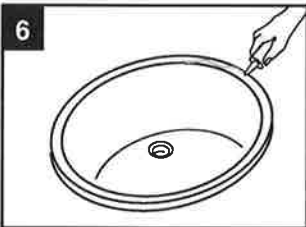


Mount the drain assembly (not included) on the sink, following faucet manufacturer's instructions. Be certain to apply a bead of sealing putty on the underside of the drain (Part "A") in order to ensure a watertight seal between the sink and drain. Remove excess putty after installing drain on sink.

Instale el sistema del desagüe (no se incluye con el producto) en el lavabo según las instrucciones del fabricante de la llave. Es necesario aplicar un poco de pasta a la parte inferior del desagüe (Parte A) para crear un sello hermético entre el lavabo y el desagüe. Remueva el excedente de pasta después de instalar el desagüe en el lavabo.

Installer l'assemblage du vidage (non inclus) dans le lavabo, en suivant les instructions du manufacturier du robinet. S'assurer d'appliquer un trait de mastic scellant sous le rebord du vidage (pièce "A") afin d'assurer l'étanchéité entre le lavabo et le vidage. Enlever le surplus de mastic après l'installation du vidage dans le lavabo.

6

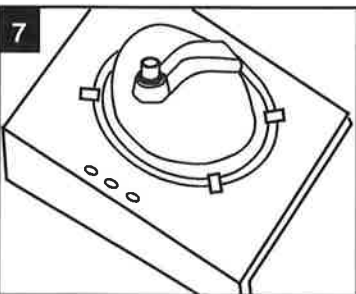


NOTE: Do not use adhesives or adhesive sealants. After checking fit and alignment of sink to cut out, apply a bead of silicone adhesive to rim of sink.

NOTA: No usen pegamento o sellantes. Después de verificar bien la posición del lavabo en la abertura de la cubierta, aplique un poco de pasta al rim del lavabo.

NOTE: Ne utilisez pas des adhésifs ou des collants. Après vérification de l'ajustement et du centrage du lavabo sur l'ouverture, appliquer un trait d'adhésif au silicone sur le rebord du lavabo.

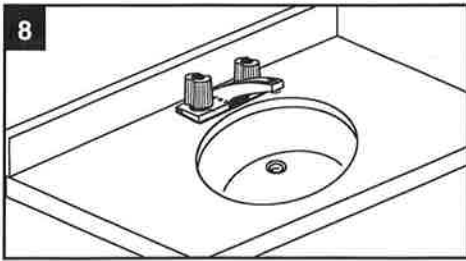
7



Center bowl over cutout and tighten screws (see 4) to secure bowl to countertop. Remove excess sealant from inside lip
NOTE: The screws provided should be used on countertops with a minimum 1" thickness. For thinner countertops, use appropriate anchors and fasteners.

Cuando el lavabo esté colocado firmemente sobre la abertura de la cubierta apriete las tuercas de mariposa (según se ilustra) para ajustar el lavabo a la cubierta. Remueva el excedente del adhesivo del rim.
NOTA: Los tornillos incluidos deberían ser usados con cubierta de lavabos con un mínimo de 1" de espesor. Para cubierta de lavabos que sean más delgados, usen las anclas y los sujetadores apropiados.

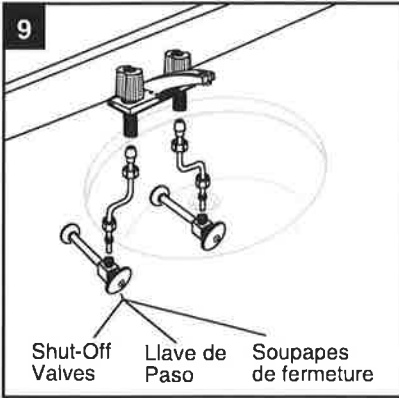
Centrer la cuvette sur l'ouverture en vous guidant sur les marques d'alignement et serrer les écrous à oreilles (voir 4) pour fixer la cuvette sur le dessus du comptoir. Enlever le surplus de scellant sur le rebord intérieur.
NOTE: Les vis incluses devront être utilisées avec des comptoir qui sont 1" (25.4 mm) en épaisseur. Pour des comptoirs plus minces, utiliser des ancras et attaches appropriés.



Install faucet (not included) and countertop (not included) following manufacturers instructions.

Instale la llave y la cubierta del lavabo (no se incluyen) según las instrucciones del fabricante.

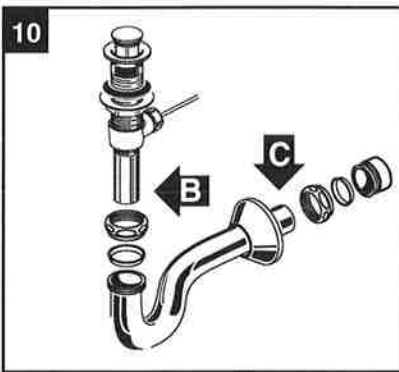
Installer le robinet (non inclus) en suivant les instructions du manufacturier.



Connect supply line to faucet (finger tight) and carefully bend tubes to engage with the supply shut-off valves. Tighten connections at faucet and shut-off valves for water tight seal.

Instale la línea de suministro a la llave (apriete con la mano) y doble cuidadosamente los tubos para conectar las válvulas de cierre y tener un sello hermético.

Raccorder le conduit d'alimentation au robinet (serrer à la main) et plier soigneusement les tuyaux pour les engager dans les soupapes de fermeture d'eau. Resserrer les raccords au robinet et aux soupapes de fermeture pour assujettir un joint étanche à l'eau.



Connect trap to drain assembly hand tight to check alignment. It may be necessary to cut off part of the tailpiece (area "B") or part of the horizontal leg of the trap (area "C"). Secure joints for watertight assembly.

Conecte la trampa (contracespol) al sistema de desagüe y apriete con la mano para verificar la alineación. Puede ser necesario cortar la pieza posterior (el área B) o parte de la sección de la trampa. Apriete las conexiones para tener conexiones herméticas.

Raccorder le siphon au vidage et serrer à la main pour vérifier l'alignement. Il pourrait être nécessaire de couper un bout de la crépine d'aspiration (partie "B") ou un bout du bras horizontal du siphon (partie "C"). Resserrer les raccords pour rendre l'assemblage étanche.

AMERICAN STANDARD ONE-YEAR LIMITED WARRANTY

If inspection of this American Standard plumbing product, within one year after its initial installation, confirms that it is defective in materials or workmanship, American Standard will repair or, at its option, exchange the product for a similar model.

This limited warranty **does not apply** to local building code compliance; since local building codes vary considerably, the purchaser of this product should check with a local building or plumbing contractor to insure local code compliance before installation.

This warranty **shall be void** if the product has been moved from its initial place of installation; if it has been subjected to faulty maintenance, abuse, misuse, accident or other damage; if it was not installed in accordance with American Standard's instructions; or if it has been modified in a manner inconsistent with the product as shipped by American Standard.

American Standard's option to repair or exchange the product under this warranty does not cover any labor or other costs of removal or installation, **nor shall American Standard be responsible for any other incidental or consequential damages attributable to a product defect or to the repair or exchange of a defective product, all of which are expressly excluded from this warranty.** (Some states or provinces do not allow the exclusion or limitation of implied warranties, so this exclusion may not apply to you.)

This warranty gives you specific legal rights. You may have other statutory rights that vary from state to state or from province to province, in which case this warranty does not affect such statutory rights.

For service under this warranty, it is suggested that a claim be made through the contractor or dealer from or through whom the product was purchased, or that a service request (including a description of the product model and of the defect) be sent to the following address:

In the United States:
American Standard Inc.
P.O. Box 6820
Piscataway, New Jersey 08855
Attention: Director of Consumer Affairs

In Canada:
American Standard
2480 Stanfield Rd.
Mississauga, Ontario
Canada L4Y 1S2

In Mexico:
Customer Service Manager
Ideal Standard, S.A. de C.V.
Via Morelos #330
Col. Santa Clara
Ecatepec 55540 Edo. Mexico

For residents of the United States, warranty information may also be obtained by calling the following toll free number: (800) 442-1902

Toll Free: (800) 387-0369
www.americanstandard.ca

www.americanstandard.com.mx

www.americanstandard-us.com



Limited One Year Warranty

T&S warrants to the original purchaser (other than for purposes of resale) that such product is free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this one-year warranty period, if the product is found to be defective, T&S shall, at its option, repair and/or replace it. To obtain warranty service, products must be returned to...

*T&S Brass and Bronze Works, Inc.
Attn: Warranty Repair Department
2 Saddleback Cove
Travelers Rest, SC 29690*

Shipping, freight, insurance, and other transportation charges of the product to T&S and the return of repaired or replaced product to the purchaser are the responsibility of the purchaser. Repair and/or replacement shall be made within a reasonable time after receipt by T&S of the returned product. This warranty does not cover items which have received secondary finishing or have been altered or modified after purchase, or for defects caused by physical abuse to or misuse of the product, or shipment of the products.

Any express warranty not provided herein, and any remedy for Breach of Contract which might arise, is hereby excluded and disclaimed. Any implied warranties of merchantability or fitness for a particular purpose are limited to one year in duration. Under no circumstances shall T&S be liable for loss of use or any special consequential costs, expenses or damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Specific rights under this warranty and other rights vary from state to state.

P/N: 098-006106-45 Rev.2
Date: 980724
Drawn: CW
Checked: MAB 9-8-98
Approved: MW 9-3-98

Installation and Maintenance Instructions



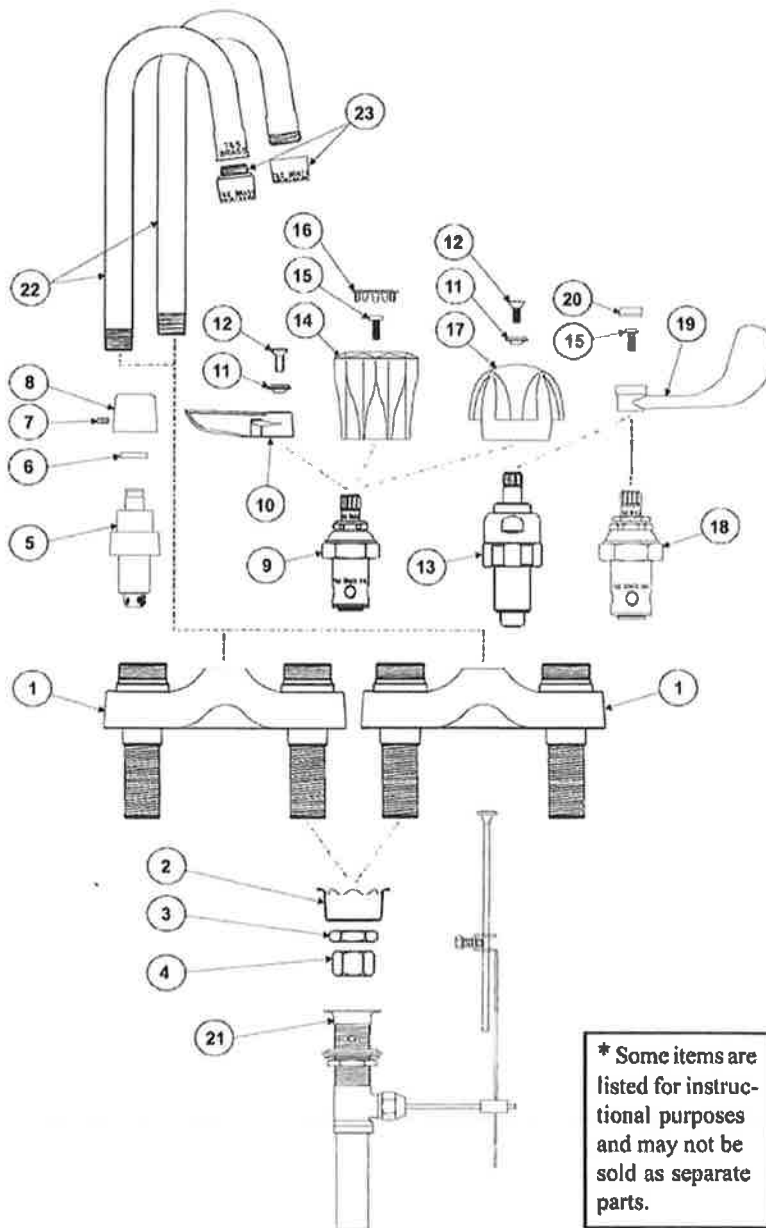
B-0873, B-0874, B-1873, B-1874 and B-2973 CENTERSET LAVATORY FAUCETS (with or with- out Pop-Up)

**Deutsch: Installations- und
Wartungsanleitungen**

**Español: la Instalación y las
Instrucciones de
Mantenimiento**

**Français: les Instructions
d'Installation et
d'Entretien**

Exploded View



Part Number Guide

Base Faucet Assemblies

1	Body Faucet for Pop-up B-0873	*
	Body Faucet w/o Pop-up B-0874	*
2	Washer, Rosette	001000-45
3	Locknut	002954-45
4	Nut, Nipple Coupling	000958-20
5	Asm, Metering Valve - Hot	002879-40
	Asm, Metering Valve - Cold	002880-40
6	Insulator, Cap	000535-20
7	Set Screw	000938-45
8	Cap - Cold	000628-40
	Cap - Hot	000627-40
9	Asm, Eterna Spindle - LH	005959-40
	Asm, Eterna Spindle - RH	005960-40
10	Handle, Lever - Cold	001636-45
	Handle, Lever - Hot	001637-45
11	Index Button, Blue - Cold	001660-45
	Index Button, Red - Hot	001661-45
12	Screw, Lever Handle	000922-45
13	Asm, Meter Valve - Hot	002879-40
	Asm, Meter Valve - Cold	002880-40
14	Handle, Alpine Lexan	001144-45
15	Screw, Lever Handle	000925-45
16	Index, Button - Blue, Cold	001327-40
	Index, Button - Red, Hot	001328-40
17	Handle, Lavatory - 3 Wing - Cold	001784-40
	Handle, Lavatory - 3 Wing - Hot	001783-40
18	Asm, Eterna Spindle - Cold	006009-40
	Asm, Eterna Spindle - Hot	006010-40
19	Handle, Wrist Action 4" Cold	B-WH4C
	Handle, Wrist Action 4" Hot	B-WH4H
20	Index, Snapin - Red, Hot	*
	Index, Snapin - Blue, Cold	*
21	Asm, Drain Pop-up	B-0898

Nozzle Assemblies

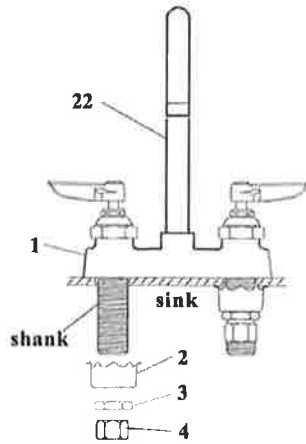
22	Nozzle, Gooseneck BL-5570-01	005028-40
	Nozzle, Gooseneck B-0892	000393-40
23	Aerator 3/8-18 Male Thread	B-0199-02
	Aerator 55/64-27 Female Thread	B-0199-01

General Instructions

Nozzle Installation: B-0873

Note: Nozzle should be installed first.

1. Apply teflon tape or pipe joint compound to threaded end of no.22. Screw no.22 into no.1, rotate no.22 to face front of sink.

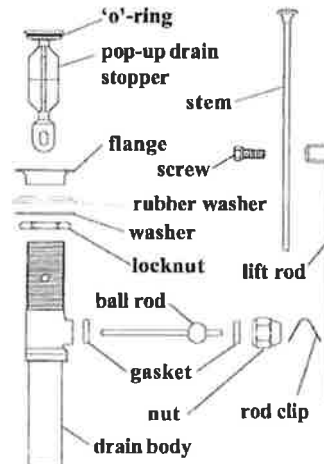


Faucet Installation: B-0873

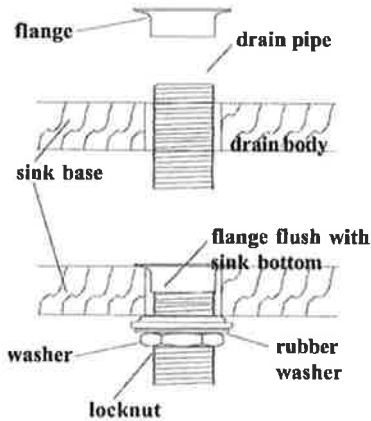
2. Shut off water supply and drain lines. Drill (2) two holes into sink or countertop.
3. Remove no.4, 3, and 2 from no.1 shank, then install no.1 thru holes in sink, replace no.2, 3, and 4. Tighten no.3 with a wrench.
4. Connect water supply lines and check for leaks.

Installation: (Pop-Up Valve)

1. Remove **pop-up drain stopper**, with **'o'-ring** and **flange** from **pop-up assembly**.
2. Remove **rod clip**, **lift rod**, **rod guide nut**, **rubber washer** and **rod ball assembly** from **drain body**.



3. Insert **drain body** from bottom of sink drain hole, reassemble **flange** to **drain body**, tightening as far possible.



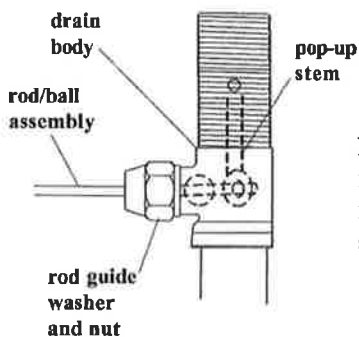
4. Slide **rubber washer** on **drain pipe** up against bottom of sink. Tighten **washer** and **locknut** firmly against base for a tight seal.

General Instructions

5. Replace **pop-up drain stopper** in **drain body**, with 'o'-ring in place, and align stopper hole with guide and opening.

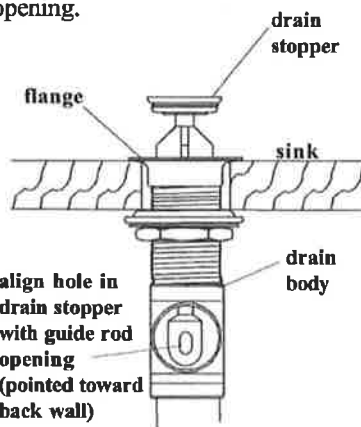
6. Reinsert **rod ball assembly** back into **drain body** and through hole in **drain stopper**.

7. Insert **pop-up stem** through hole in faucet body. Attach **lift rod** to **pop-up stem** by inserting **stem** through hole in **lift rod**. Reassemble **rod guide, washer and nut**, and tighten firmly.

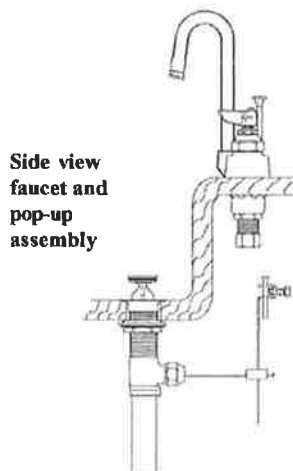


9. Make connection to supply lines.

10. Turn on water supply and check for leaks.



8. Adjust **pop-up stem** to correct height by opening drain, and sliding **lift rod** and **rod clip** at the same time onto **rod/ball assembly**. Readjust **lift rod screw** if necessary, hand-tighten.



RELATED T&S BRASS PRODUCT LINE



**B-0870
CENTER SET LAVATORY
FAUCET
with POP-UP**

**B-0830
SLOW SELF-CLOSING
CENTER SET LAVATORY
FAUCET with POP-UP**



T&S BRASS AND BRONZE WORKS, INC.

A firm commitment to application-engineered plumbing products

2 Saddleback Cove, P.O. Box 1088,
Travelers Rest, SC 29690

Phone: (864) 834-4102

Fax: (864) 834-3518

E-mail: tsbrass@tsbrass.com

T & S Brass-Europe

'De Veenhoeve'

Oude Nieuwveenseweg 84

2441 CW Nieuwveen

The Netherlands



170A-LF 3/8" COMPRESSION

ASSE 1070 CERTIFIED

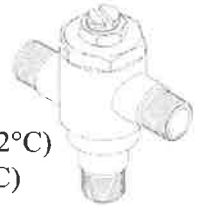


WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.p66.ca.gov

NOTE: DO NOT USE THREAD SEALANT ON COMPRESSION CONNECTIONS

PERFORMANCE:

- Maximum Pressure: 125 PSI (8.6 BAR)
- Maximum Hot water temperature: 180°F (82°C)
- Hot water inlet temperature range: 120-180°F (49-82°C)
- Cold water inlet temperature range: 33-80°F (1-27°C)
- Outlet temperature range: 95-120°F (35-49°C)
- Minimum flow certified to ASSE 1070: 0.25 GPM
- Maximum flow: 4 GPM



⚠ WARNING!! ⚠

WATER TEMPERATURES IN EXCESS OF 110°F (43°C) MAY CAUSE SCALDING, SEVERE INJURY, OR DEATH!! IMPORTANT!

This thermostatic water mixing valves is NOT pre-set and can be adjusted to deliver water at temperatures exceeding 110°F (43°C). After installation, the installer must check the outlet water temperature and adjust the temperature setting to ensure delivery of a safe water temperature not exceeding 110°F (43°C).

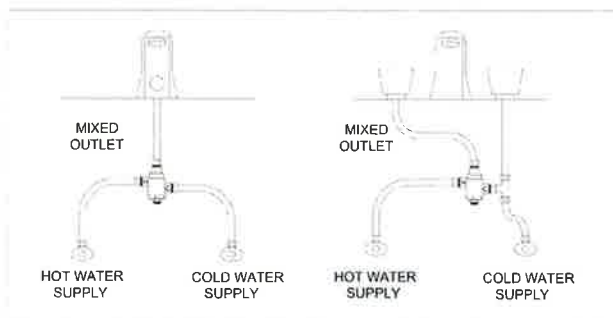
Periodic inspection and maintenance is required
Regular inspection of the valve and the outlet temperature are required. Cleaning at a minimum of annually will help assure proper function of the mixing valve. Frequency of cleaning and inspection of the outlet temperature depends upon local water quality conditions.

1. Valve should be installed where it can be easily cleaned, adjusted or repaired. Leonard recommends that shutoffs are installed on the inlets to the mixing valve.
2. Inlets are furnished with 3/8" compression connections. If using copper tubing, do NOT extend tubing more than 3/16" beyond the compression ferrule. **DO NOT use thread sealant.**
3. Tighten compression nuts by hand, then tighten only 1/4 turn, overtightening will cause leaks and possibly crush checks.
4. Flush the hot and cold water lines before installing mixing valve.
5. "H" and "C" are clearly marked on the inlets, install hot water line to inlet marked "H" and cold water line to the inlet marked "C". Valve can be installed in any position.
6. Valve is NOT pre-set and must be set after installation. Run water for at least 1-2 minutes to allow water to stabilize.
7. Loosen locknut on stem, turn stem (screwdriver adjustment) counter-clockwise (stem coming out of valve) for hotter and clockwise (stem going into valve) for colder outlet temperature. Do not force the valve to below 90° F.
8. Tighten down the locknut to prevent unauthorized adjustment.
9. Verify the outlet temperature is set to the correct temperature.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Cannot reach desired outlet temperature	Valve is full of debris or Inlets supplies are reversed	Flush valve with water Pipe hot to hot inlet, cold to cold inlet
Flow rate reduced or fluctuating	Inlet screen filled with debris	Check inlet screens for debris
No flow from outlet	Hot or Cold water supply failure	Restore Hot and Cold water inlet supplies
No flow from outlet	Inlet supply tube extending more than 3/16" beyond ferrule	Shorten tube and replace inlet checks
Hot water flows into Cold water supply or vice versa	Check valve has debris, inlets were not properly flushed	Replace inlet check valves and screens
Outlet temperature not warm enough	Hot water supply not 10° F above required outlet temperature (5° F with equal pressures)	Increase Hot water inlet temperature

INSTALLATION



170A - BP ONLY



**PACKING
PART # 7539**



**CHECK KIT - KIT 4/108
INCLUDES CHECKS
AND SCREENS**

LIMITED WARRANTY

Leonard Valve Company warrants the original purchaser that products manufactured by them (not by others) will be free from defects in materials and workmanship under normal conditions of use, when properly installed and maintained in accordance with Leonard Valve Company's instructions, for a period of one year from date of shipment. During this period the Leonard Valve Company will at its option repair or replace any product, or part thereof, which shall be returned, freight prepaid, to the Leonard factory and determined by Leonard to be defective in materials or workmanship. There are no warranties, express or implied, which extend beyond the description contained herein. There are no implied warranties of merchantability or of fitness for a particular purpose. In no event will Leonard be liable for labor or incidental or consequential damages. Any alteration or improper installation or use of the product will void this limited warranty.



a Bead Industries, Inc. company

Warranty, Terms and Return Policies

TERMS: All sales are subject to credit approval. Terms are 2% ten days – net 30.

RETURNED GOODS: Requests for returning purchased items are subject to factory approval.

A Returned Goods Authorization (RGA) must be obtained from the factory prior to any return. Returned merchandise must be in their original cartons, listed in our current List Price Sheet and in clean saleable condition.

Restocking charge:

- Material that was shipped within 18 months of the return request is subject to a 25% restocking charge.
- Material that was shipped more than 18 months of the return request but less than 3 years is subject to a 50% restocking charge.
- Material returned more than 18 months after it was shipped is not subject to any stock rotation agreement.
- Material that was shipped more than 3 years before the return request is not returnable.
- Invoice dates as well as dates on packaging will control.

The restocking charge may be reduced if a new order of equal value is placed at the time the RGA is requested:

- 25% may be reduced to 15%
- 50% may be reduced to 35%

MINIMUM RETURN POLICY:

Return requests less than \$200 net will be charged \$50 processing fee in lieu of any restocking charge.

INVOICE:

We reserve the right to invoice all merchandise at prices in effect at time of shipment.

NO MINIMUM ORDER:

Orders less than \$200 list will be invoiced at list price less 35% (.65 multiplier).

McGuire Manufacturing Co., Inc.

60 grandview court • cheshire • ct • 06410

tel 203-699-1801 • fax 203-699-1813

mcguiremfg.com

customerservice@mcguiremfg.com

FREIGHT:

We will pay freight on shipments within the continental United States when the order (pre-tax) totals more than \$2200 net. We select the method of shipment and carrier when we pay the freight.

Limited Warranty Information

McGuire Manufacturing Co., Inc. (McGuire) warrants its product to be free from defects in material and workmanship for the period indicated below by product type measure from the date of purchase:

ITEM	WARRANTY PERIOD
Brass products	15 years
ProWrap	5 years
Eco P-Traps, Eco Strainers and Valve Strainers	1 year
Stainless Steel products	1 year
Lite Commercial P-Traps	1 year

McGuire's sole responsibility will be to replace, at no additional charge, any product which proves to be defective within the applicable warranty period. Shipping costs for product located outside the continental United States will be the sole responsibility of the customer. Duties and taxes, if levied, shall be the sole responsibility of the customer.

The above Limited Warranty shall not apply if the product has been damaged due to abuse, misuse, improper installation, accident, or other cause not within McGuire's control.

THE ABOVE LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY. ALL OTHER WARRANTIES ARE DISCLAIMED, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MCGUIRE BE RESPONSIBLE OR LIABLE FOR ANY SPECIAL INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSSES ARISING FROM THE USE OF THIS PRODUCT.

McGuire may, at its option, alter the contents of this LIMITED WARRANTY at anytime. These changes will affect products manufactured after the effective date of this policy.

McGuire Manufacturing Co., Inc.

60 grandview court • cheshire • ct • 06410

tel. 203-699-1801 • fax 203-699-1813

mcguiremfg.com

customerservice@mcguiremfg.com

P-3



Wall Hung Bathroom Sink

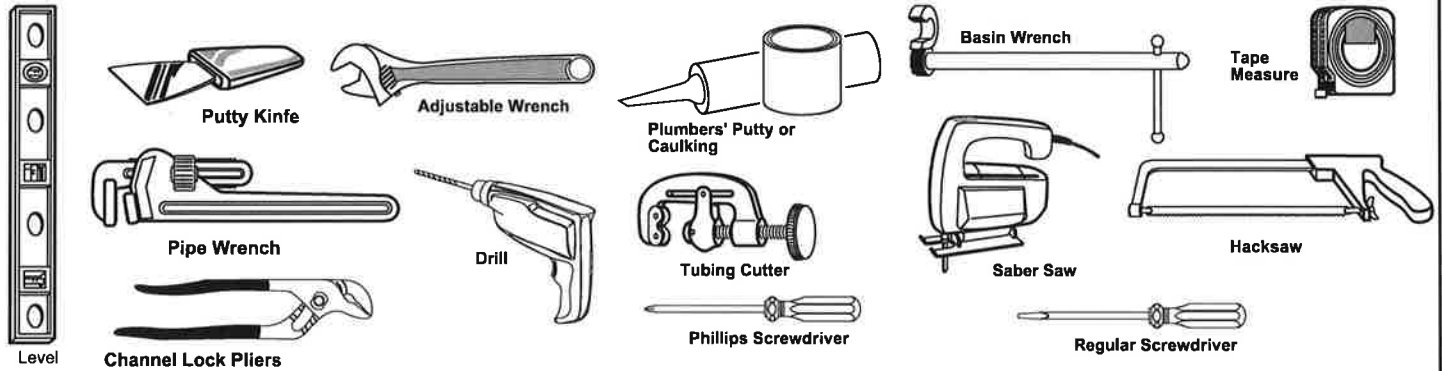
***NOTE:** For installation of models using concealed or exposed arms, follow instruction provided by arms manufacturer.

Introduction: Thank you for selecting our products...products which have been the benchmarks of fine quality for years. To help insure that the installation process will proceed smoothly, please read these instructions carefully before you begin. Also, review the recommended tools and materials list; carefully unpack and examine your new plumbing fixture.

⚠ CAUTION: PRODUCT IS FRAGILE. TO AVOID BREAKAGE AND POSSIBLE INJURY HANDLE WITH CARE!

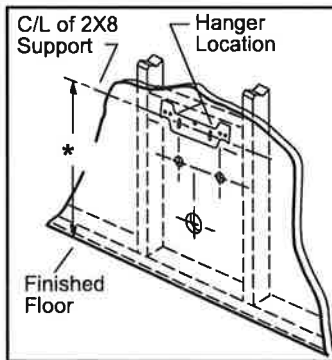
NOTE: Pictures may not exactly define contour of china and components.

Recommended Tools & Materials



1 Provide suitable reinforcement behind finished wall for lavatory hanger mounting screws. *Determine horizontal center line location of support from the table listed in Step 2. (Make sure support bottom extends to lavatory back wall bottom.)

NOTE: If replacing an existing sink be certain to shut off water supply before removing old sink.



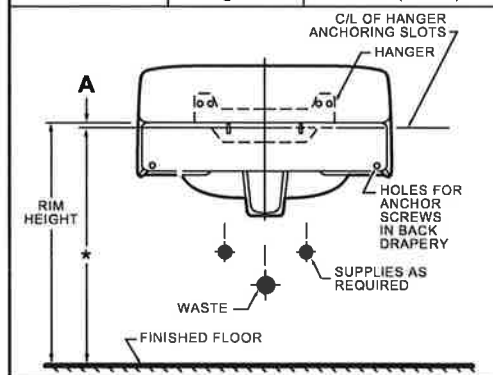
3 Position hanger according to Step 2, making sure its center is aligned with the waste hole centerline. Mark the hanger screw locations through its mounting holes.

2 Determine the desired rim height (for example 32") then select from the Table at right the height of the hanger mounting bolts centerline

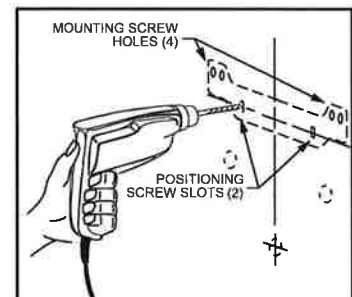
Part #	Model	Distance "A"
0124	Comrade	- 2-1/2" (64mm)
0321	Declyn	- 2-3/4" (70mm)
0355/0356	Lucerne	- 1" (25mm)
0372/0373	Penlyn	- 1/8" (3mm)
4300	Ledgewood	+ 2-7/8" (73mm)
4867/4869	Regalyn	+ 2-3/4" (70mm)
5300	Ledgemere	+ 2-1/2" (64mm)

EXAMPLE:

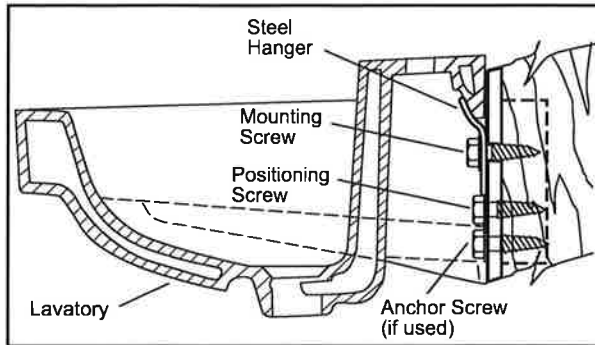
For Lucerne:
32"-1"=31"
For Ledgewood:
32"+2-7/8"=34-7/8"



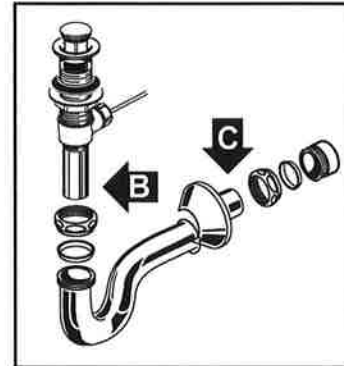
4 Drill pilot holes in positioning screw slots of hanger. (Note: Some models are supplied with anchor screws, or steel hangers for lavatory installations. Other models are not provided with mounting hardware which can be purchased at local hardware outlets. Lavator-ies with bottom anchor screw holes should be secured with anchor screws in addition to hangers.



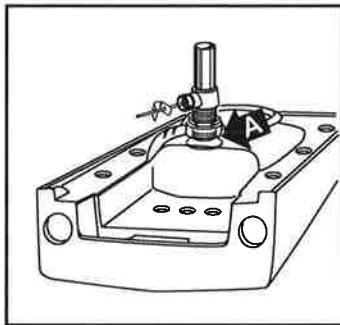
5 Affix hanger to wall (hand tighten only). Mount lavatory for positioning, level the deck, and mark bottom anchor screw holes (if applicable). Remove lavatory, tighten the hanger positioning screws and drill pilot holes for anchor screws and 4 mounting screws. Install and tighten the mounting screws.



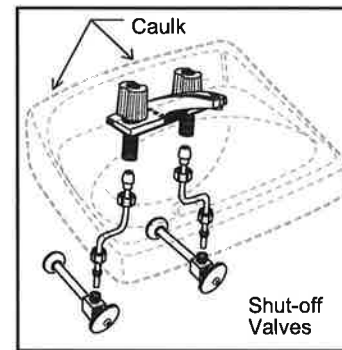
7 Return the fitted lavatory to the installed position. Connect trap to drain assembly hand tight to check alignment. It may be necessary to cut off part of the tailpiece (area "B") or part of the horizontal leg of the trap (area "C").



6 Following manufacturers instructions, install faucet and drain assembly. (Not included). Be certain to apply a bead of sealing putty on the underside of the drain (Part "A") in order to ensure a watertight seal between the lavatory and drain. Remove excess putty after installing drain on lavatory.



8 Secure lavatory on hanger as shown in 5. Insert and tighten anchor screws if applicable. Connect hot and cold supply lines to the shut-off valves. Tighten trap joints for watertight assembly. Apply a bead of caulk around the edge which contacts the wall as shown.



American Standard

Ideal Standard

Inesa Standard

Sadana Standard

Cedexa

Saniwares

AMERICAN STANDARD ONE-YEAR LIMITED WARRANTY

If inspection of this American Standard plumbing product, within one year after its initial installation, confirms that it is defective in materials or workmanship, American Standard will repair or, at its option, exchange the product for a similar model.

This limited warranty **does not apply** to local building code compliance; since local building codes vary considerably, the purchaser of this product should check with a local building or plumbing contractor to insure local code compliance before installation.

This warranty **shall be void** if the product has been moved from its initial place of installation; if it has been subjected to faulty maintenance, abuse, misuse, accident or other damage; if it was not installed in accordance with American Standard's instructions; or if it has been modified in a manner inconsistent with the product as shipped by American Standard.

American Standard's option to repair or exchange the product under this warranty does not cover any labor or other costs of removal or installation, **nor shall American Standard be responsible for any other incidental or consequential damages attributable to a product defect or to the repair or exchange of a defective product, all of which are expressly excluded from this warranty.** (Some states or provinces do not allow the exclusion or limitation of implied warranties, so this exclusion may not apply to you.)

This warranty gives you specific legal rights. You may have other statutory rights that vary from state to state or from province to province, in which case this warranty does not affect such statutory rights.

For service under this warranty, it is suggested that a claim be made through the contractor or dealer from or through whom the product was purchased, or that a service request (including a description of the product model and of the defect) be sent to the following address:

In the United States:
American Standard, Inc.
One Centennial Ave.
Piscataway, New Jersey 08855
Attention: Director of Consumer Affairs

Toll Free: (800) 442-1902

In Canada:
American Standard, Inc.
2480 Stanfield Rd.,
Mississauga, Ontario
Canada L4Y 1S2
Toll Free: (800) 387-0369

In Mexico:
Customer Service Manager
American Standard, Inc.
Via Morelos #330
Col. Santa Clara
Ecatepec 55540 Edo. Mexico



Limited One Year Warranty

T&S warrants to the original purchaser (other than for purposes of resale) that such product is free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this one-year warranty period, if the product is found to be defective, T&S shall, at its option, repair and/or replace it. To obtain warranty service, products must be returned to...

*T&S Brass and Bronze Works, Inc.
Attn: Warranty Repair Department
2 Saddleback Cove
Travelers Rest, SC 29690*

Shipping, freight, insurance, and other transportation charges of the product to T&S and the return of repaired or replaced product to the purchaser are the responsibility of the purchaser. Repair and/or replacement shall be made within a reasonable time after receipt by T&S of the returned product. This warranty does not cover items which have received secondary finishing or have been altered or modified after purchase, or for defects caused by physical abuse to or misuse of the product, or shipment of the products.

Any express warranty not provided herein, and any remedy for Breach of Contract which might arise, is hereby excluded and disclaimed. Any implied warranties of merchantability or fitness for a particular purpose are limited to one year in duration. Under no circumstances shall T&S be liable for loss of use or any special consequential costs, expenses or damages.

Some states do not allow limitations on how long and implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Specific rights under this warranty and other rights vary from state to state.

P/N: 098-005911-45 Rev.3
Date: 980507
Drawn: CW
Checked: MAB 7-23-98
Approved: MVW 7-23-98

Installation and Maintenance Instructions



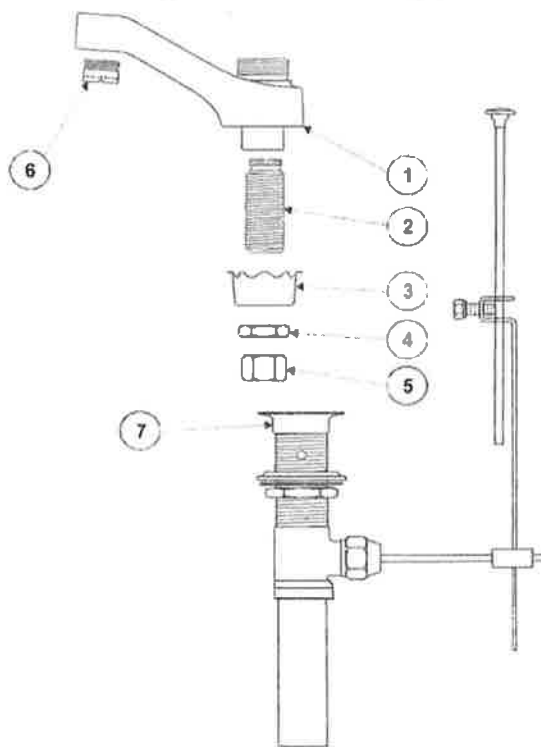
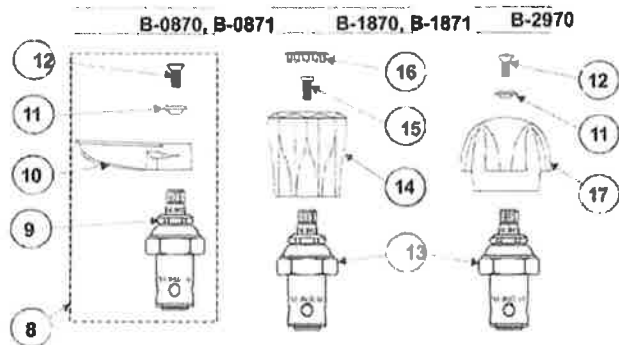
B-0870 Series Lavatory Faucets with or without Pop-Up

**Deutsch: Installations- und
Wartungsanleitungen**

**Español: la Instalación y las
Instrucciones de
Mantenimiento**

**Français: les Instructions
d'Installation et
d'Entretien**

Exploded View



* Some items are listed for instructional purposes and may not be sold as separate parts.

Part Number Guide

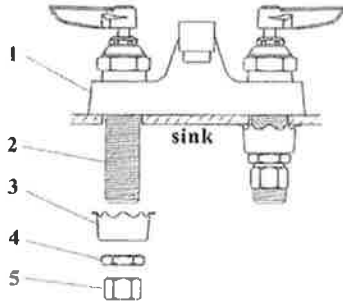
Faucet Assemblies

1	Base Faucet	*
2	Shank, Faucet	*
3	Washer, Rosette	001000-45
4	Locknut	002954-45
5	Nut, Coupling	000958-20
6	Aerator, 13/16" MA	B-0199-03
7	Asm, Drain w/Pop-Up	B-0898
8	Asm, Spindle - Eterna LH	002713-40
	Asm, Spindle - Eterna RH	002714-40
9	Spindle - Cold	005959-40
	Spindle - Hot	005960-40
10	Handle - Cold	001636-45
	Handle - Hot	001635-45
11	Index, Button - Blue (Cold)	001660-45
	Index, Button - Blue (Hot)	001661-45
12	Screw, Handle	000922-45
13	Asm, Eterna Spindle - Hot	005960-40
14	Handle, Alpine - Lexan	001144-45
15	Screw, Lab Handle	000925-45
16	Index Button, Handle (Cold)	001327-40
	Index Button, Handle (Hot)	001328-40
17	Handle, Lavatory, 3 Wing (Cold)	001784-40
	Handle, Lavatory, 3 Wing (Hot)	001783-40

General Instructions

Installation: (Faucet)

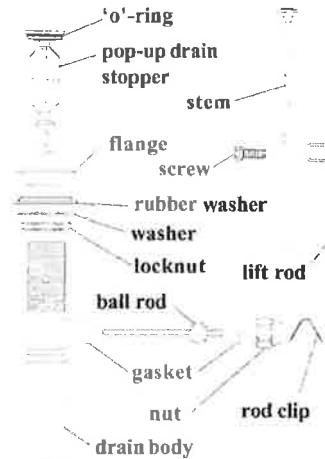
1. Turn off water supply and drain lines. Drill (2) two 1" diameter holes, 4" center-to-center in sink top where you will be installing no.1.
2. After unpacking, remove no.5, no.4 and no.3 from each no.2.



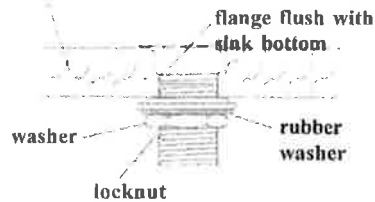
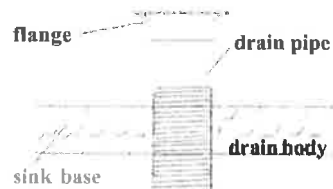
3. Place no.1 into holes in sink top and replace no.3, no.4 and no.5 onto no.2. Tighten no.5 with a wrench.
4. Connect water supply lines and check for leaks.

Installation: (Pop-Up Valve)

1. Remove **pop-up drain stopper**, with 'o'-ring and **flange** from **pop-up assembly**.
2. Remove **rod clip**, **lift rod**, **rod guide nut**, **rubber washer** and **rod ball assembly** from **drain body**.



3. Insert **drain body** from bottom of sink drain hole, reassemble **flange** to **drain body**, tightening as far possible.



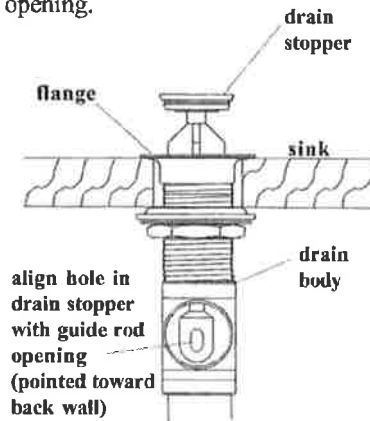
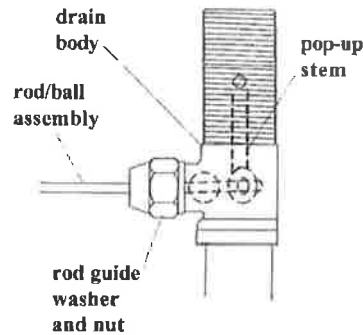
4. Slide **rubber washer** on **drain pipe** up against bottom of sink. Tighten **washer** and **locknut** firmly against base for a tight seal.

General Instructions

5. Replace **pop-up drain stopper** in **drain body**, with 'o'-ring in place, and align stopper hole with guide and opening.

6. Reinsert **rod ball assembly** back into **drain body** and through hole in **drain stopper**.

7. Insert **pop-up stem** through hole in faucet body. Attach **lift rod** to **pop-up stem** by inserting **stem** through hole in **lift rod**. Reassemble **rod guide, washer and nut**, and tighten firmly.

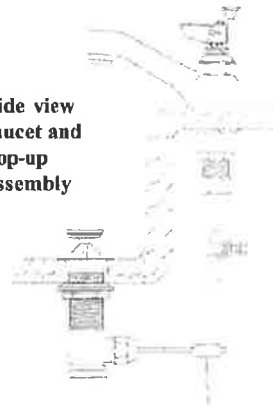


8. Adjust **pop-up stem** to correct height by opening drain, and sliding **lift rod** and **rod clip** at the same time onto **rod/ball assembly**. Readjust **lift rod screw** if necessary, hand-tighten.

9. Make connection to supply lines.

10. Turn on water supply and check for leaks.

Side view faucet and pop-up assembly



RELATED T&S BRASS PRODUCT LINE



B-0830
Slow Self-Closing Centerset
Lavatory Faucet with Pop-Up



B-0833
Slow Self-Closing Centerset
Lavatory Faucet with Pop-Up

T&S BRASS AND BRONZE WORKS, INC.

A firm commitment to application-engineered plumbing products

2 Saddleback Cove, P.O. Box 1088,
Travelers Rest, SC 29690

Phone: (864) 834-4102

Fax: (864) 834-3518

E-mail: tsbrass@tsbrass.com

T & S Brass-Europe

'De Veenhoeve'

Oude Nieuwveenseweg 84

2441 CW Nieuwveen

The Netherlands



170A-LF 3/8" COMPRESSION

ASSE 1070 CERTIFIED

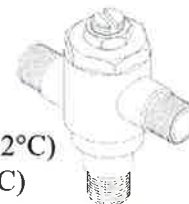


WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.p66.ca.gov

NOTE: DO NOT USE THREAD SEALANT ON COMPRESSION CONNECTIONS

PERFORMANCE:

- Maximum Pressure: 125 PSI (8.6 BAR)
- Maximum Hot water temperature: 180°F (82°C)
- Hot water inlet temperature range: 120-180°F (49-82°C)
- Cold water inlet temperature range: 33-80°F (1-27°C)
- Outlet temperature range: 95-120°F (35-49°C)
- Minimum flow certified to ASSE 1070: 0.25 GPM
- Maximum flow: 4 GPM



⚠ WARNING!! ⚠

WATER TEMPERATURES IN EXCESS OF 110°F (43°C) MAY CAUSE SCALDING, SEVERE INJURY, OR DEATH!! IMPORTANT!

This thermostatic water mixing valves is NOT pre-set and can be adjusted to deliver water at temperatures exceeding 110°F (43°C). After installation, the installer must check the outlet water temperature and adjust the temperature setting to ensure delivery of a safe water temperature not exceeding 110°F (43°C).

Periodic inspection and maintenance is required

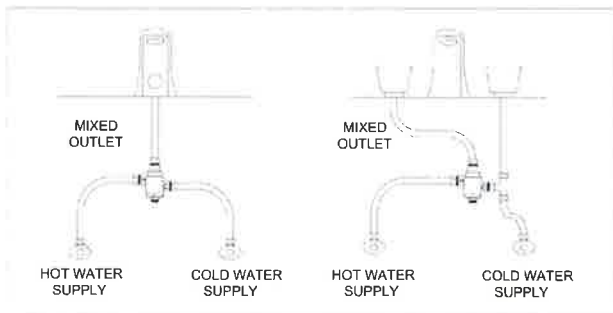
Regular inspection of the valve and the outlet temperature are required. Cleaning at a minimum of annually will help assure proper function of the mixing valve. Frequency of cleaning and inspection of the outlet temperature depends upon local water quality conditions.

1. Valve should be installed where it can be easily cleaned, adjusted or repaired. Leonard recommends that shutoffs are installed on the inlets to the mixing valve.
2. Inlets are furnished with 3/8" compression connections. If using copper tubing, do NOT extend tubing more than 3/16" beyond the compression ferrule. **DO NOT use thread sealant.**
3. Tighten compression nuts by hand, then tighten only 1/4 turn, overtightening will cause leaks and possibly crush checks.
4. Flush the hot and cold water lines before installing mixing valve.
5. "H" and "C" are clearly marked on the inlets, install hot water line to inlet marked "H" and cold water line to the inlet marked "C". Valve can be installed in any position.
6. Valve is NOT pre-set and must be set after installation. Run water for at least 1-2 minutes to allow water to stabilize.
7. Loosen locknut on stem, turn stem (screwdriver adjustment) counter-clockwise (stem coming out of valve) for hotter and clockwise (stem going into valve) for colder outlet temperature. Do not force the valve to below 90° F.
8. Tighten down the locknut to prevent unauthorized adjustment.
9. Verify the outlet temperature is set to the correct temperature.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Cannot reach desired outlet temperature	Valve is full of debris or Inlets supplies are reversed	Flush valve with water Pipe hot to hot inlet, cold to cold inlet
Flow rate reduced or fluctuating	Inlet screen filled with debris	Check inlet screens for debris
No flow from outlet	Hot or Cold water supply failure	Restore Hot and Cold water inlet supplies
No flow from outlet	Inlet supply tube extending more than 3/16" beyond ferrule	Shorten tube and replace inlet checks
Hot water flows into Cold water supply or vice versa	Check valve has debris, inlets were not properly flushed	Replace inlet check valves and screens
Outlet temperature not warm enough	Hot water supply not 10° F above required outlet temperature (5° F with equal pressures)	Increase Hot water inlet temperature

INSTALLATION



170A - BP ONLY



**PACKING
PART # 7539**



**CHECK KIT - KIT 4/108
INCLUDES CHECKS
AND SCREENS**

LIMITED WARRANTY

Leonard Valve Company warrants the original purchaser that products manufactured by them (not by others) will be free from defects in materials and workmanship under normal conditions of use, when properly installed and maintained in accordance with Leonard Valve Company's instructions, for a period of one year from date of shipment. During this period the Leonard Valve Company will at its option repair or replace any product, or part thereof, which shall be returned, freight prepaid, to the Leonard factory and determined by Leonard to be defective in materials or workmanship. There are no warranties, express or implied, which extend beyond the description contained herein. There are no implied warranties of merchantability or of fitness for a particular purpose. In no event will Leonard be liable for labor or incidental or consequential damages. Any alteration or improper installation or use of the product will void this limited warranty.



a Bead Industries, Inc. company

Warranty, Terms and Return Policies

TERMS: All sales are subject to credit approval. Terms are 2% ten days – net 30.

RETURNED GOODS: Requests for returning purchased items are subject to factory approval.

A Returned Goods Authorization (RGA) must be obtained from the factory prior to any return. Returned merchandise must be in their original cartons, listed in our current List Price Sheet and in clean saleable condition.

Restocking charge:

- Material that was shipped within 18 months of the return request is subject to a 25% restocking charge.
- Material that was shipped more than 18 months of the return request but less than 3 years is subject to a 50% restocking charge.
- Material returned more than 18 months after it was shipped is not subject to any stock rotation agreement.
- Material that was shipped more than 3 years before the return request is not returnable.
- Invoice dates as well as dates on packaging will control.

The restocking charge may be reduced if a new order of equal value is placed at the time the RGA is requested:

- 25% may be reduced to 15%
- 50% may be reduced to 35%

MINIMUM RETURN POLICY:

Return requests less than \$200 net will be charged \$50 processing fee in lieu of any restocking charge.

INVOICE:

We reserve the right to invoice all merchandise at prices in effect at time of shipment.

NO MINIMUM ORDER:

Orders less than \$200 list will be invoiced at list price less 35% (.65 multiplier).

McGuire Manufacturing Co., Inc.

60 grandview court • cheshire • ct • 06410

tel 203-699-1801 • fax 203-699-1813

mcguiremfg.com

customerservice@mcguiremfg.com

FREIGHT:

We will pay freight on shipments within the continental United States when the order (pre-tax) totals more than \$2200 net. We select the method of shipment and carrier when we pay the freight.

Limited Warranty Information

McGuire Manufacturing Co., Inc. (McGuire) warrants its product to be free from defects in material and workmanship for the period indicated below by product type measure from the date of purchase:

ITEM	WARRANTY PERIOD
Brass products	15 years
ProWrap	5 years
Eco P-Traps, Eco Strainers and Valve Strainers	1 year
Stainless Steel products	1 year
Lite Commercial P-Traps	1 year

McGuire's sole responsibility will be to replace, at no additional charge, any product which proves to be defective within the applicable warranty period. Shipping costs for product located outside the continental United States will be the sole responsibility of the customer. Duties and taxes, if levied, shall be the sole responsibility of the customer.

The above Limited Warranty shall not apply if the product has been damaged due to abuse, misuse, improper installation, accident, or other cause not within McGuire's control.

THE ABOVE LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY. ALL OTHER WARRANTIES ARE DISCLAIMED, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MCGUIRE BE RESPONSIBLE OR LIABLE FOR ANY SPECIAL INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSSES ARISING FROM THE USE OF THIS PRODUCT.

McGuire may, at its option, alter the contents of this LIMITED WARRANTY at anytime. These changes will affect products manufactured after the effective date of this policy.

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mcguiremfg.com

customerservice@mcguiremfg.com

P-4

Attention Installer:

- Elkay recommends that drop-in sinks be installed by a professional, experienced installer.
- Elkay is not responsible for the sink or countertop if damaged during installation.
- Metal edges may be sharp. Use caution when handling.
- Follow all local plumbing and building codes.
- Inspect sink for damage prior to beginning installation.

Required Tools (not included)



Cut Resistant

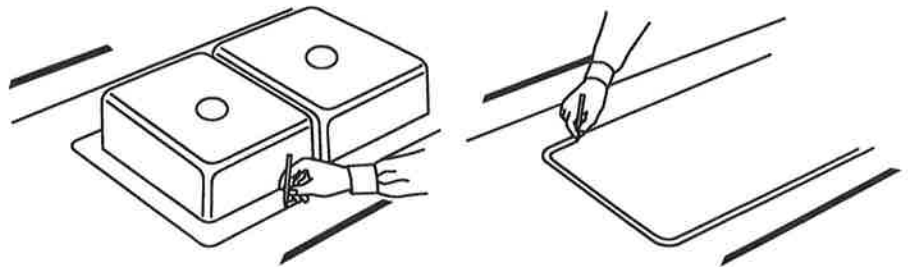
Installation



WARNING: Always wear safety goggles and gloves when using power tools or handling the sink to prevent personal injury.

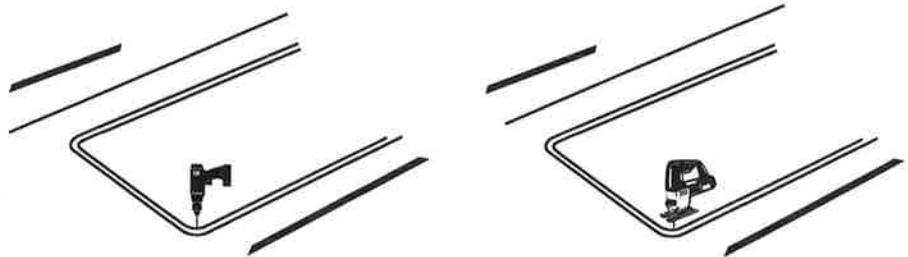
- 1** Position the sink upside down on the countertop.

Trace a line around the edge of the sink.
Draw a line 5/16" inside of the outline of the sink.



- 2** Drill a pilot hole in all four corners of the inside line.

Use a saber or jig saw to cut on the inside line.
Place a support underneath the cutout portion of the countertop to prevent it from falling during cutting.



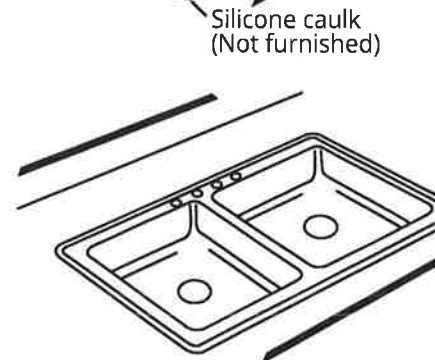
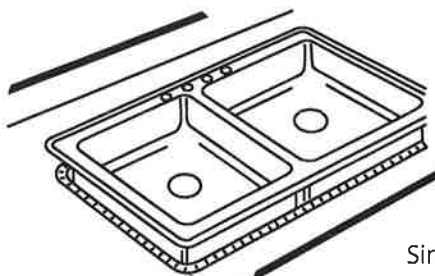
- 3** Apply silicone caulk (not included) around the cutout in the countertop surface.

Carefully lower the sink into the cutout.
Assemble the clips and screws.

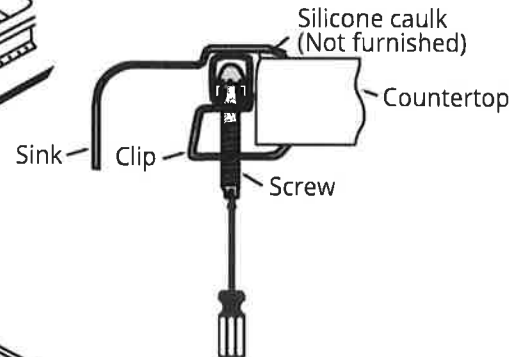
From the underside, place a clip in the center along each side and hand tighten to hold sink in place. Fasten the remaining clips along the edges and space them approximately 3" from each end, and equally along the front, back, and sides. For countertops thicker than 3/4", clips can be spaced as close as 1-1/2".

From the top, check the seal between the sink edge and countertop. Lightly tighten clips evenly with a screwdriver until the sink is tight to the countertop. Do not over tighten.

Wipe away any excess caulk with a rag.



Installation Profile





Elkay Stainless Steel Sink Care and Cleaning

With proper care and maintenance, your Elkay stainless steel sink will give you a lifetime of service. Below are the suggestions for the care and cleaning of your Elkay sink.

General Cleaning

It is recommended to clean Elkay sinks daily to avoid build-up of soap or mineral deposits, as these tend to have an adverse effect on the appearance of the product. For daily cleaning use an ordinary mild detergent and soft cloth to rinse and dry the sink. Allowing water or cleaners to evaporate on metal will negatively impact the look of the sink. To avoid this, it is important to dry the sink after each use.

- To avoid unwanted build-up, it is recommended to dry your sink after each use.
- Soft abrasive cleaners may be used when necessary (Blue Scotch-Brite Pads). Strong abrasive cleaners will scratch and dull the surface (Green Scotch-Brite Pads).

Do's

- It is recommended the use of an Elkay bottom grid or rinsing basket to protect your sink.
- Run cold water when pouring boiling water into sink.
- It is recommended that you clean your sink prior to first use.

Do Not's

- Avoid storing open containers of household cleaners and chemicals containing chloride such as bleach, acid, and drain cleaners or toilet bowl cleaner beneath the sink. Vapor emission from the chlorides can cause corrosion and pitting to the exposed stainless steel and other metals including faucet water supply lines.
- Do not use dish mats as these can trap soap and dirt making sink maintenance more time-consuming and cultivate harmful bacteria.
- Do not leave standing water in your sink, especially if the water contains anything that could stain the sink (i.e. coffee or tea).

Stainless Steel

Light scratches are normal for stainless steel sinks; over time they will blend into the uniform finish pattern.

- Steel soap pads, steel wool, or wire brushes should never be used; particles can adhere to a stainless steel sink surface and will eventually rust. If an abrasive pad must be used Elkay recommends Scotch-Brite Non-Scratch (blue Scotch-Brite pad).
- Do not use cleaners containing ammonia, bleach, or other harsh chemicals. Chemicals containing chlorides (bleach) are particularly damaging to stainless. If used, rinse the surface immediately to prevent corrosion.

Recommended Cleaning Products:

- Bar Keeper's Friend Soft Cleanser
- Stainless steel cleaner & polish
- Or any mild detergent



Elkay Stainless Steel Sink Care and Cleaning

Success with cleaners are dependent on the quality of the water being used. Failure to follow care and cleaning will void your warranty. For additional information, please visit elkay.com.

Home Remedies

- For major stains or grime on your sink, a mixture of a half a cup of white vinegar and a half cup of water will help. Dip a cloth into the solution and rub away the grime or stain. The solution should then be rinsed off and dried to prevent damage to your sink's finish.
- Another solution for major grime or stains, is a small amount of baking soda and water on a toothbrush. This should remove any nasty stains. Again the solution should then be rinsed off and dried to prevent damage to the finish of your sink.

DO NOT allow any part of your Elkay sink to soak in either of the above mixtures. It is also recommended to test the above mixtures on an unseen part of your faucet to see what affect it has to the finish of your sink.



Elkay Residential Stainless Sinks Limited Warranty

Elkay warrants to the original purchaser of an Elkay stainless steel sink that Elkay will, at its option, replace or repair, without charge, such product if it fails due to a manufacturing defect during normal residential use during the first year from the date of purchase. Product replacement does not include transportation cost or labor installation cost. This warranty covers only stainless steel self-rimming drop-in sinks installed in a conventional countertop surface and stainless steel undermount sinks installed in a conventional solid surface countertop and applies to residential installations only. Elkay reserves the right to examine product in question and its installation prior to replacement.

Waste fittings and accessories are warranted for 1 year from the date of purchase.

Other Warranty Conditions on Sinks

Our warranty does not cover product failure or damage caused by the use of optional accessories, abusive treatment, misuse, environmental factors, normal wear including dents and scratches, improper care and cleaning, use of aggressive and abrasive cleaners, damage due to handling or failure to follow the recommended procedures for installation, care and maintenance as detailed in the installation and care guide provided with every sink. This warranty is extended only to the original consumer purchaser of the product.

This warranty does not cover shipping costs, labor costs, or any other charges for such items as installation or replacement of the sink, diagnosis or replacement of any faucet or component part, or any other expense or loss. This warranty does not cover obsolete, discontinued nor display products, whether such items are purchased at discount outlets and/or online or sold on clearance or close out.

All incidental or consequential damages are specifically excluded. No additional warranties, express or implied are given, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

The above protection will continue for 1 year.

To Obtain Service Under Warranty

1. Write to: Elkay Manufacturing Company
Attention: Consumer Care
1333 Butterfield Road, Suite 200
Downers Grove, Illinois 60515
2. Include a letter containing the following information:
 - a. Date of purchase and installation.
 - b. Proof of Purchase (copy of original dated invoice)
 - c. Description of nature of defect.
 - d. Model number or description of model and/or component part if possible.



Installation and Maintenance Instructions

Limited One Year Warranty

T&S warrants to the original purchaser (other than for purposes of resale) that such product is free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this one-year warranty period, if the product is found to be defective, T&S shall, at its options, repair and/or replace it. To obtain warranty service, products must be returned to...

*T&S Brass and Bronze Works, Inc.
Attn: Warranty Repair Department
2 Saddleback Cove
Travelers Rest, SC 29690*

Shipping, freight, insurance, and other transportation charges of the product to T&S and the return of repaired or replaced product to the purchaser are the responsibility of the purchaser. Repair and/or replacement shall be made within a reasonable time after receipt by T&S of the returned product. This warranty does not cover items which have received secondary finishing or have been altered or modified after purchase, or for defects caused by physical abuse to or misuse of the product, or shipment of the products.

Any express warranty not provided herein, and any remedy for Breach of Contract which might arise, is hereby excluded and disclaimed. Any implied warranties of merchantability or fitness for a particular purpose are limited to one year in duration. Under no circumstances shall T&S be liable for loss of use or any special consequential costs, expenses or damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Specific rights under this warranty and other rights vary from state to state.

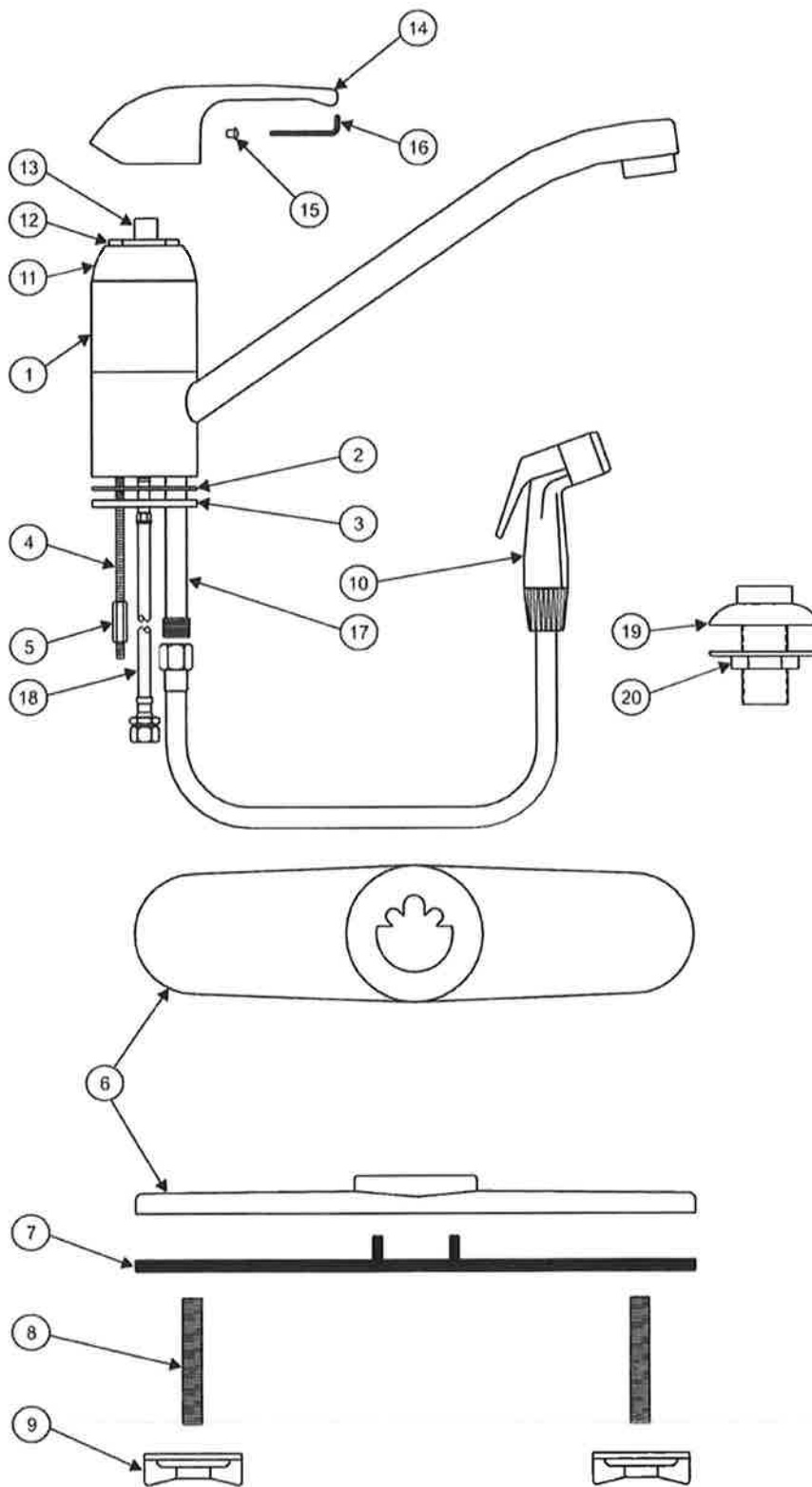


B-2730 & B-2731 SERIES SINGLE LEVER FAUCETS (with or without Sidespray)

**Español: la Instalación y las
Instrucciones de
Mantenimiento**

P/N: 098-013123-45 Rev.4
Date: 03-09-11
Drawn: TEH
Checked: DMH 03-11-11
Approved: JHB 03-16-11

Exploded View



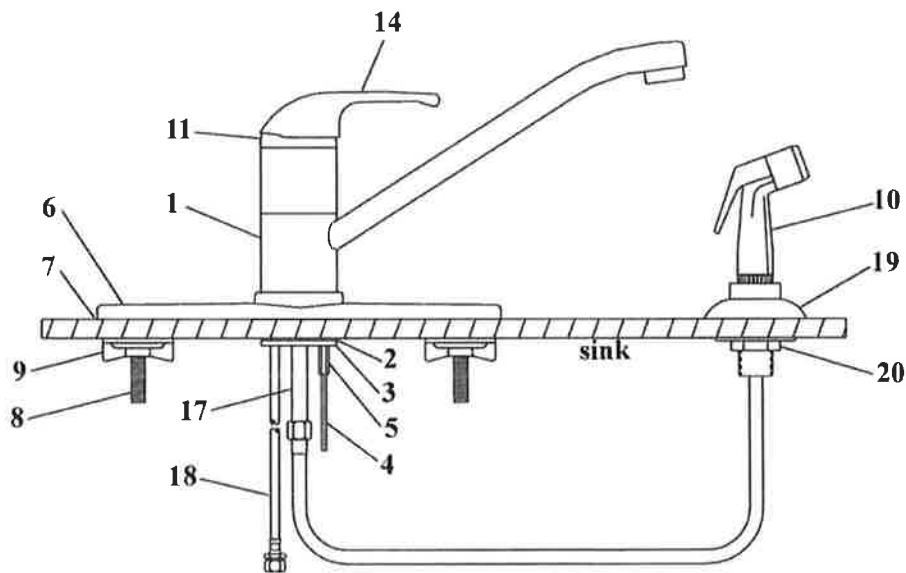
Part Number Guide

	Asm, Single Lever Faucet w/ Sidespray	B-2730
	Asm, Single Lever Faucet	B-2731
1	Body, Faucet	N/A
	Center Mounting Kit	014163-45
2	Spacer, Foam	N/A
3	Washer, Lock	N/A
4	Post, Center Mounting	N/A
5	Locknut, Center Mounting Post	N/A
6	Deckplate	N/A
7	Gasket, Mounting	N/A
	Plastic	014160-45
	Zinc	014161-45
	Kit, Side Mounting Post & Locknut	014162-45
8	Post	N/A
9	Locknut	N/A
10	Sidespray	N/A
	4ft. Hose	013842-45
	7ft. Hose (B-2730-07)	013675-45
11	Retaining Ring	N/A
12	Retaining Nut	N/A
13	Cartridge, Metal Stem w/ Temperature Limit Stop	013080-45
14	Handle	N/A
	Standard	013113-45
	Long	013429-45
15	Plug	014173-45
16	Hex Key, 3/32" or 2.5mm (not included)	017267-45
17	Post, Sidespray Connection	N/A
18	Flexible Stainless Steel Supplies	N/A
19	Hose, Guide	001496-45
20	Locknut, Hose Guide	N/A

General Instructions

Faucet Installation

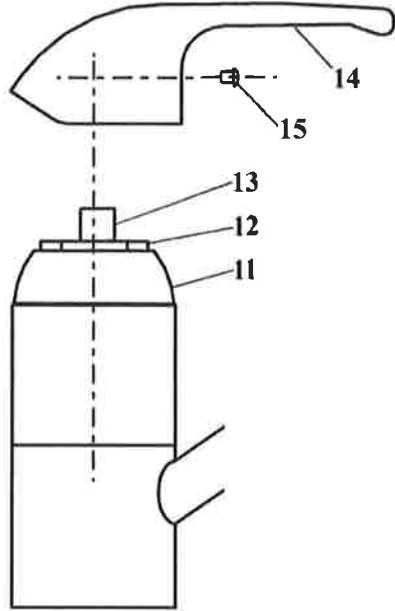
1. Shut off water supply and drain lines. Clean sink surface thoroughly.
2. Place no.6 with no.7 on deck in line with mounting holes.
3. Hand tighten no.18 into no.1. Carefully slide no.18 through center sink hole.
4. Insert no.8 under deck and thread tightly into no.6. Thread no.9 onto no.8 and tighten fully against underside of countertop.
5. Insert no.4 into no.1 tightly. Slide no.2 and no.3 onto no.4. Thread no.5 onto no.4. Tighten fully against underside of countertop.
6. Place no.19 into hole in countertop. Thread no.20 onto no.19 and tighten fully against underside of countertop.
7. Slide no.10 through no.19. Connect no.10 to outlet no.17.
8. Connect water supply lines and check for leaks.



Maintenance:

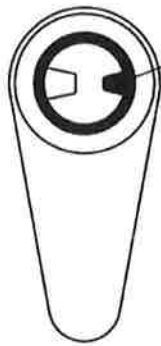
1. To change no.13, remove no.15 by hand.
2. Insert no.16 into hole of no.14 and loosen set screw of no.14. Remove no.14.
3. Unscrew no.11 by hand and remove.
4. Unscrew no.12 by hand and remove.
5. Remove no.13 and replace with new no.13.
6. Replace no.12, no.11 and no.14 and tighten set screw.
7. Replace no.15.

General Instructions



1. Remove no.15, then using no.16, loosen set screw and lift off no.14
2. Adjust no.13 to desired position per below.

Figure 1



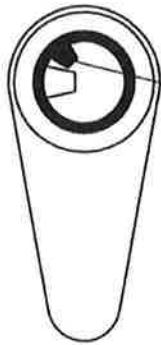
Normal factory set position allows full mixing of hot and cold water.

Figure 2



Using needle nose pliers, carefully lift off the temperature limit stop ring from the cartridge body. Re-set the ring onto the body per Figure 4 or 5.

Figure 3



Place ring into this position to reduce the amount of hot water available. Result: cold to warm water only.

Figure 4



Place ring into this position to reduce the amount of cold water available. Result: warm to hot water only.

Figure 5



a Bead Industries, Inc. company

Warranty, Terms and Return Policies

TERMS: All sales are subject to credit approval. Terms are 2% ten days – net 30.

RETURNED GOODS: Requests for returning purchased items are subject to factory approval.

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Restocking charge:

- Material that was shipped within 18 months of the return request is subject to a 25% restocking charge.
- Material that was shipped more than 18 months of the return request but less than 3 years is subject to a 50% restocking charge.
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- Material that was shipped more than 3 years before the return request is not returnable.
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MINIMUM RETURN POLICY:

Return requests less than \$200 net will be charged \$50 processing fee in lieu of any restocking charge.

INVOICE:

We reserve the right to invoice all merchandise at prices in effect at time of shipment.

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Orders less than \$200 list will be invoiced at list price less 35% (.65 multiplier).

McGuire Manufacturing Co., Inc.

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tel 203-699-1801 • fax 203-699-1813

mcguiremfg.com

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FREIGHT:

We will pay freight on shipments within the continental United States when the order (pre-tax) totals more than \$2200 net. We select the method of shipment and carrier when we pay the freight.

Limited Warranty Information

McGuire Manufacturing Co., Inc. (McGuire) warrants its product to be free from defects in material and workmanship for the period indicated below by product type measure from the date of purchase:

ITEM	WARRANTY PERIOD
Brass products	15 years
ProWrap	5 years
Eco P-Traps, Eco Strainers and Valve Strainers	1 year
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Lite Commercial P-Traps	1 year

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The above Limited Warranty shall not apply if the product has been damaged due to abuse, misuse, improper installation, accident, or other cause not within McGuire's control.

THE ABOVE LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY. ALL OTHER WARRANTIES ARE DISCLAIMED, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MCGUIRE BE RESPONSIBLE OR LIABLE FOR ANY SPECIAL INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSSES ARISING FROM THE USE OF THIS PRODUCT.

McGuire may, at its option, alter the contents of this LIMITED WARRANTY at anytime. These changes will affect products manufactured after the effective date of this policy.

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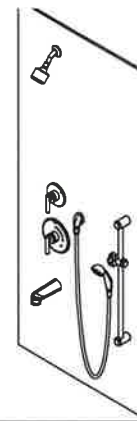
mcguiremfg.com

customerservice@mcguiremfg.com

P-5



Shower Trim Operation and Maintenance Manual



Warranty

Limited Lifetime - to the original end purchaser in consumer/residential installations.
10 Years - for commercial/industrial installations. Refer to www.symmons.com/warranty for complete warranty information.

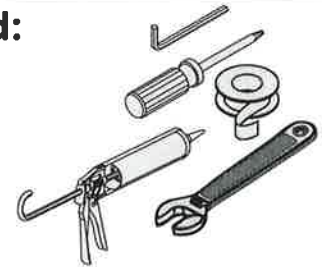


Product Care

Clean finished trim area with a soft cloth using mild soap and water or a non-abrasive cleaner and then quickly rinse with water.

Installation Instructions

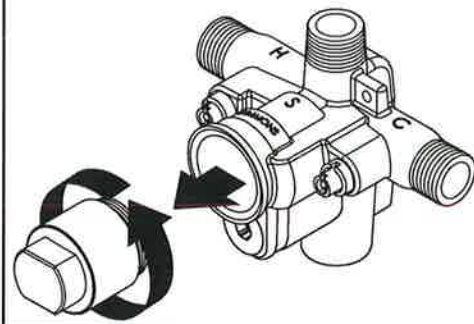
Tools Required:



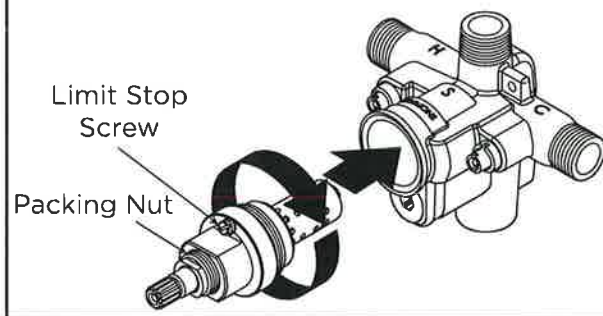
Valve Setup

For rough-in dimensions refer to submittal

1 Remove Test Cap



2 Install Spindle and Cap



Installation - Adjust Rotation Resistance

- 1) Turn hot and cold supplies on. Valve will not operate unless both hot and cold water supply pressures are on.
- 2) Place handle over flow control spindle.
- 3) Tighten packing nut for positive frictional resistance as handle is rotated from shut-off position across adjustment range.

Installation - Setting Limit Stop Screw

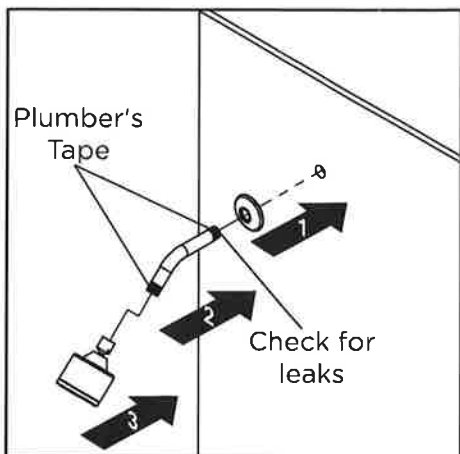
WARNING: Failure to adjust limit stop screw properly may result in serious scalding.

- 1) Turn hot and cold supplies on. Valve will not operate unless both hot and cold water supply pressures are on.
- 2) Place handle on flow control spindle and open valve to maximum desired temperature.
- 3) Turn limit stop screw clockwise until it seats.

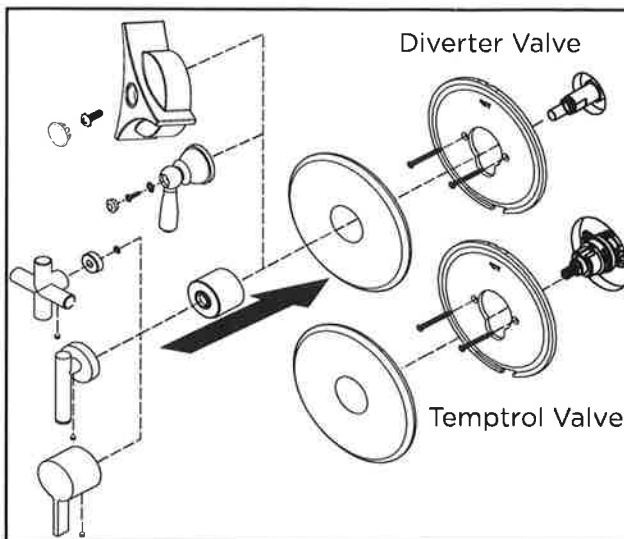
Warnings:

1. Test cap for pressure testing up to 200 psi maximum (for water). DO NOT exceed 200 psi while pressure testing valve body.
2. Do not expose valve with test cap to heat for longer than 2 minutes when soldering copper tubing. Doing so may damage the internal components of the valve and will void the product warranty.
3. Ensure test cap is re-torqued to 30 lb-ft after soldering valve body.

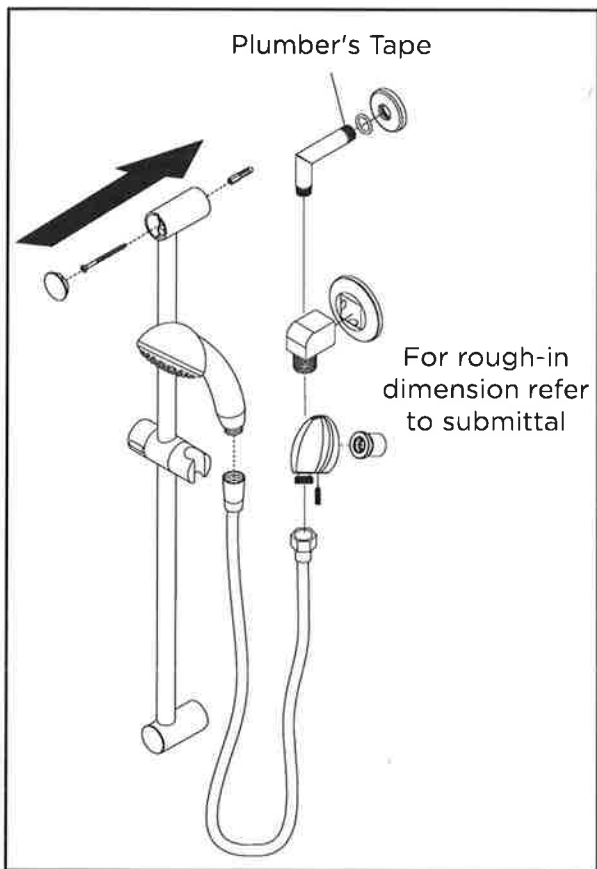
Showerhead Installation



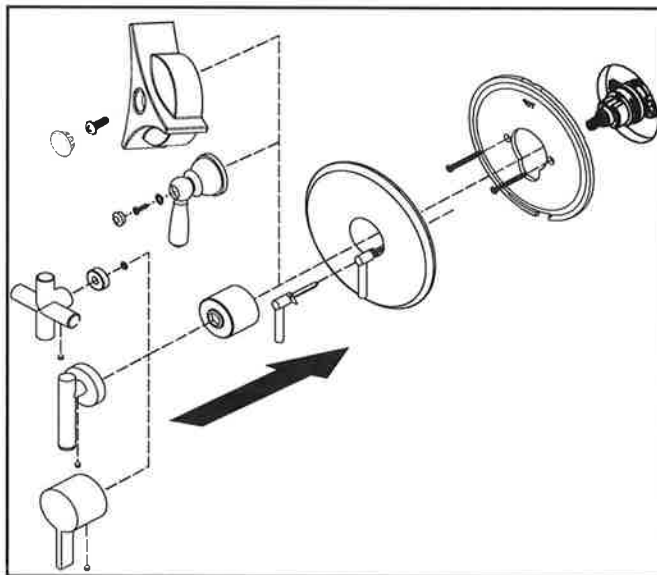
Shower/Diverter Valve Trim Installation



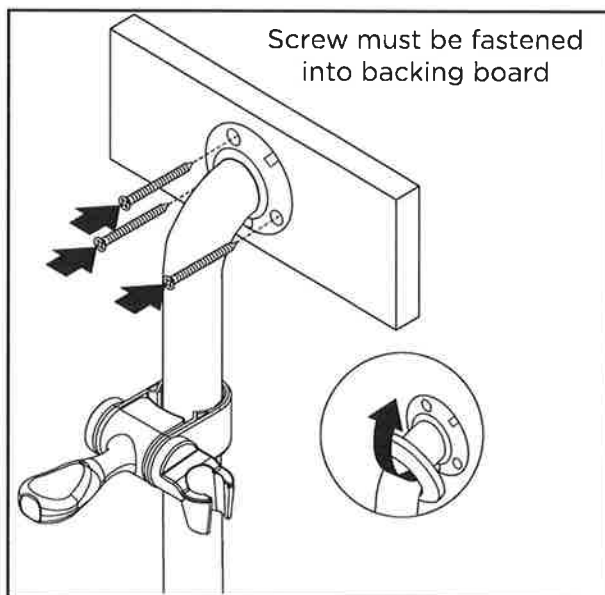
Hand Shower and Slide Bar Installation



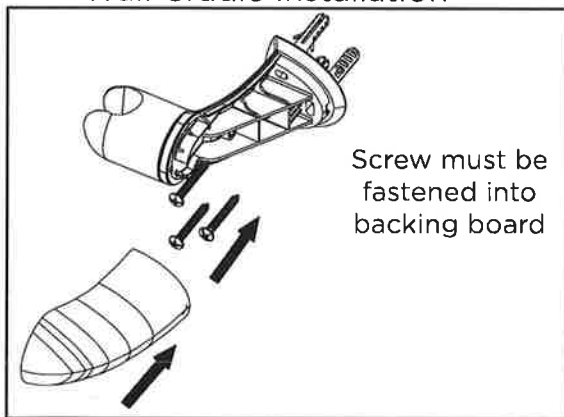
VersaFlex Trim Installation



Grab Bar Installation

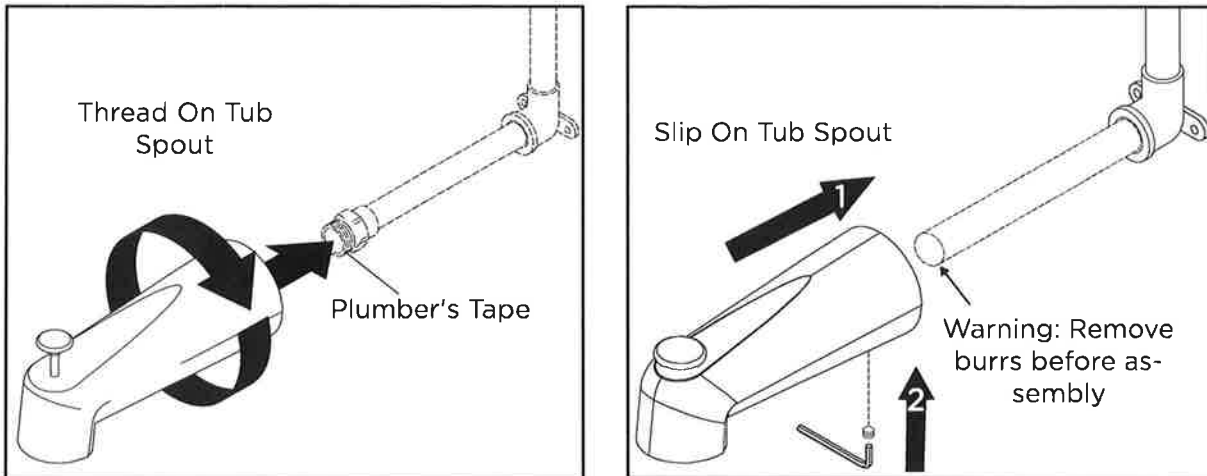


Wall Cradle Installation

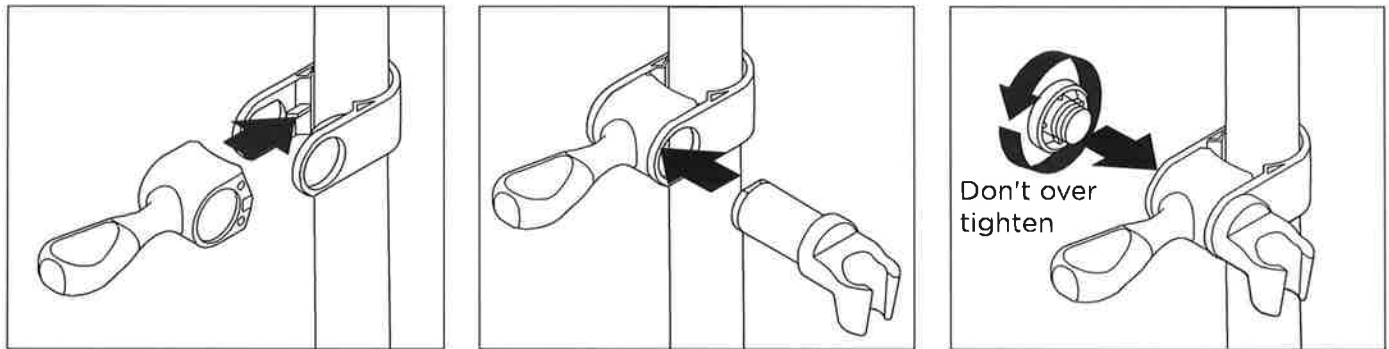


Tub Spout Installation

For tub spout rough-in dimensions refer to submittal



Hand Shower Holder Installation

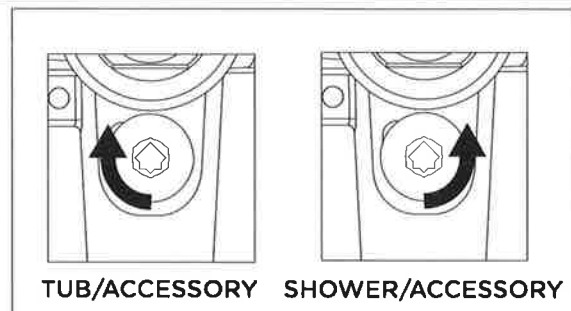


Operation Guide

Operation (Versaflex™ Diverter Control)

Turn diverter control handle clockwise to divert to tub spout or other Symmons accessory.

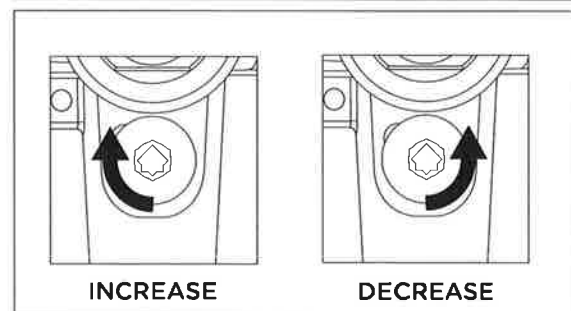
Turn diverter control handle counterclockwise to divert to shower or other Symmons accessory.



Operation (Volume Control)

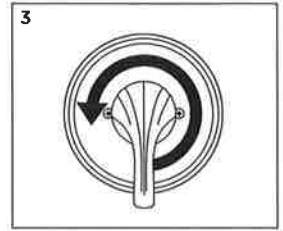
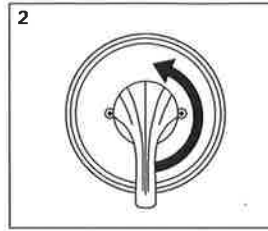
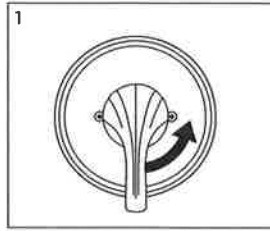
Turn volume control handle clockwise to increase volume.

Turn volume control handle counterclockwise to decrease volume.



Operation (Temperature Control)

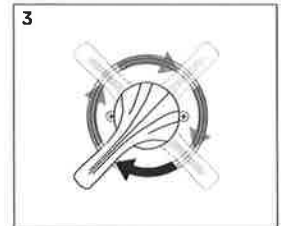
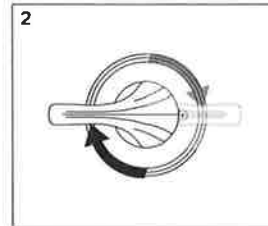
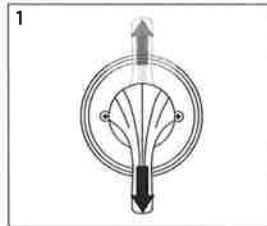
1. Turn shower handle counterclockwise approximately 1/4 turn to put valve in cold position
2. Turn shower handle counter-clockwise approximately 1/2 turn to put valve in warm position
3. Turn shower handle counter-clockwise approximately 3/4 turn to put valve in hot position



Operation (Dual Outlet Diverter Control)

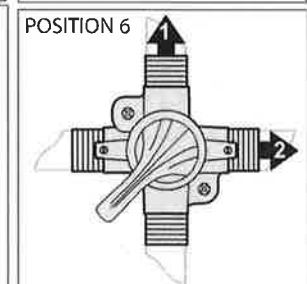
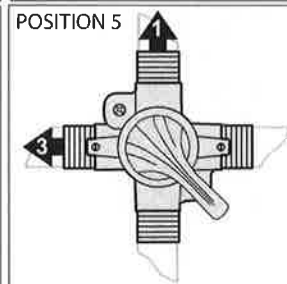
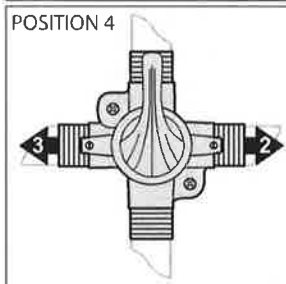
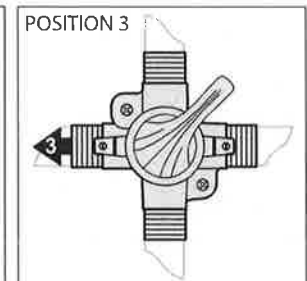
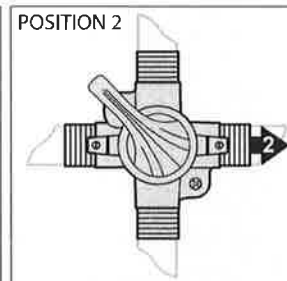
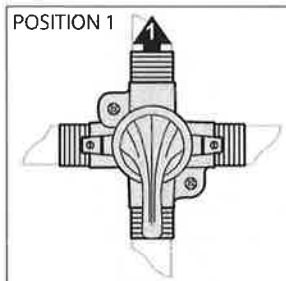
Note: Additional handle positions for same output are illustrated.

1. Cartridge is factory set to divert to function 1
2. Turn handle to position 2 to diverter to function 2
3. Turn handle to position 3 to share functions 1 and 2

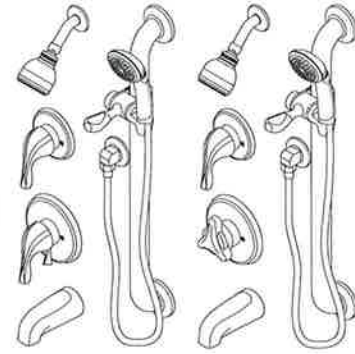


Triple Outlet Diverter Operation

1. Cartridge is factory set to divert to function 1.
2. Turn handle to position to divert to function 2.
3. Turn handle to position 3 to divert to function 3.
4. Turn handle to position 4 to share functions 2 and 3.
5. Turn handle to position 5 to share functions 1 and 3.
6. Turn handle to position 6 to share functions 1 and 2.



⚠ WARNING: This product can expose you to chemicals including lead, which is known to the state of California to cause cancer, birth defects, or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



Origins PLR

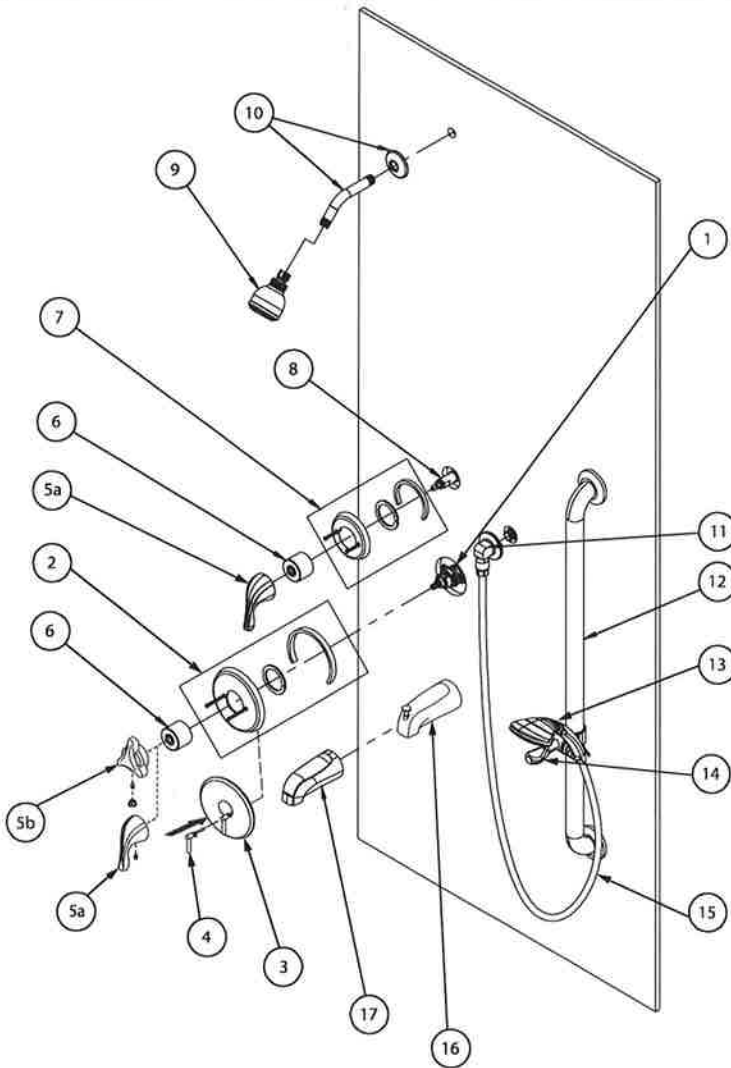
Origins P

Parts Breakdown Document

Model Numbers

- 9600P: Origins Shower Valve Trim, Valve only
- 9601P: Origins Shower Valve Trim, with showerhead
- 9602P: Origins Tub/Shower Trim
- 9603P: Origins Shower Trim, hand shower system
- 9604P: Origins Tub/Shower Trim, hand shower system and tub spout
- 9605P: Origins Shower Trim, Diverter Trim, Showerhead, hand shower system
- 9606P: Origins Tub/Shower Trim, Diverter Trim, with tub spout, showerhead, and hand shower system
- 9600PLR: Origins Shower Valve Trim, Valve only
- 9601PLR: Origins Shower Valve Trim, with showerhead
- 9602PLR: Origins Tub/Shower Trim
- 9603PLR: Origins Shower Trim, hand shower system
- 9604PLR: Origins Tub/Shower Trim, hand shower system and tub spout
- 9605PLR: Origins Shower Trim, Diverter Trim, Showerhead, hand shower system
- 9606PLR: Origins Tub/Shower Trim, Diverter Trim, with tub spout, showerhead, and hand shower system
- S9600P: Origins Shower Valve Trim, Valve only with Diverter Lever
- S9601P: Origins Shower Trim, with Showerhead and Diverter Lever
- S9602P: Origins Tub/Shower Trim, with Showerhead and Diverter Lever
- S9603P: Origins Shower Trim, Hand shower system with Diverter Lever
- S9604P: Origins Tub/Shower Trim, with hand shower and Diverter Lever
- S9605P: Origins Shower Trim, Showerhead, diverter lever, hand shower system
- S9606P: Origins Tub/Shower Trim with diverter lever, and hand shower system
- S9608P: Origins Shower Trim with Diverter Lever
- S9600PLR: Origins Shower Valve Trim, Valve only with Diverter Lever
- S9601PLR: Origins Shower Trim, with Showerhead and Diverter Lever
- S9602PLR: Origins Tub/Shower Trim, with Showerhead and Diverter Lever
- S9603PLR: Origins Shower Trim, Hand shower system with Diverter Lever
- S9604PLR: Origins Tub/Shower Trim, with hand shower and Diverter Lever
- S9605PLR: Origins Shower Trim, Showerhead, diverter lever, hand shower system
- S9606PLR: Origins Tub/Shower Trim with diverter lever, and hand shower system
- S9608PLR: Origins Shower Trim with Diverter Lever

Parts Breakdown



#	Description	Part Number
1	Temptrol shower valve	TA-10
2	Circle escutcheon kit	P: 9600-P-ESC* PLR: 9600-PLR-ESC*
3	Diverter Lever Escutcheon Kit	P: S-9600-P-ESC PLR: S-9600-PLR-ESC
4	Diverter Lever	RTS-062*
5a	Origins Handle, lever	RTS-063*
5b	Origins Handle, tristar	RTS-061*
6	Dome, cover	T-19*
7	Diverter escutcheon kit	96-66-DIV-ESC*
8	Diverter Assembly, 4 port	3DIVBODYSRT (3DIVBODYSRTNS for California)
	Diverter Assembly, 3 port	2DIVBODYSRT (2DIVBODYSRTNS for California)
9	Showerhead, single mode, Origins	4-141*
10	Shower arm	300S*
11	Elbow	FP-40*
12	Assembly, slide bar, 30"	BA0380936*
13	Hand shower	ADACHS*
14	Slide Mechanism	FP-SM6*
15	60" Hose	RTS-045*
16	Diverter Tub Spout	054*
17	Tub spout (thread on)	060*

*If finish is OTHER than chrome, part requires finish modifier

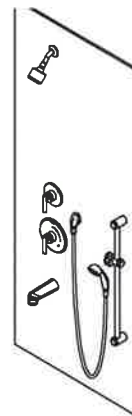
Finish Modifiers:

- STN - Satin Nickel finish

P-6



Shower Trim Operation and Maintenance Manual



Warranty

Limited Lifetime - to the original end purchaser in consumer/residential installations.

10 Years - for commercial/industrial installations. Refer to www.symmons.com/warranty for complete warranty information.

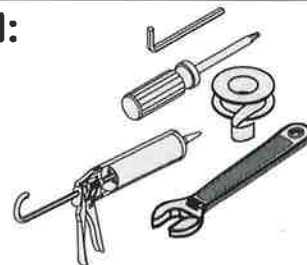


Product Care

Clean finished trim area with a soft cloth using mild soap and water or a non-abrasive cleaner and then quickly rinse with water.

Installation Instructions

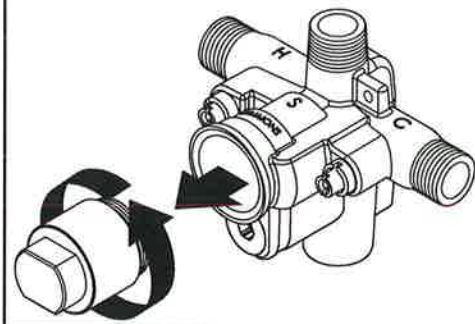
Tools Required:



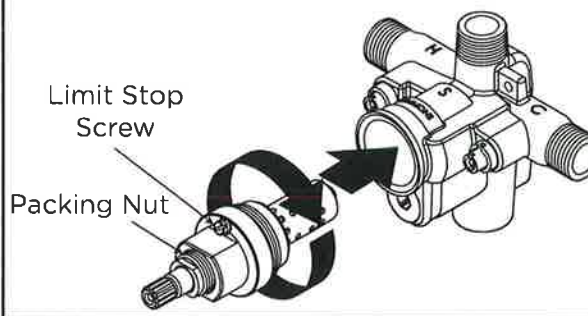
Valve Setup

For rough-in dimensions refer to submittal

1 Remove Test Cap



2 Install Spindle and Cap



Installation - Adjust Rotation Resistance

- 1) Turn hot and cold supplies on. Valve will not operate unless both hot and cold water supply pressures are on.
- 2) Place handle over flow control spindle.
- 3) Tighten packing nut for positive frictional resistance as handle is rotated from shut-off position across adjustment range.

Installation - Setting Limit Stop Screw

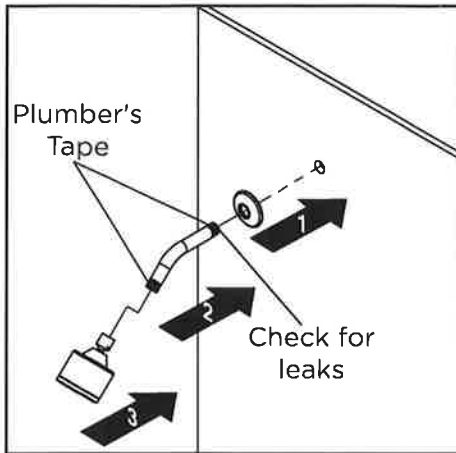
WARNING: Failure to adjust limit stop screw properly may result in serious scalding.

- 1) Turn hot and cold supplies on. Valve will not operate unless both hot and cold water supply pressures are on.
- 2) Place handle on flow control spindle and open valve to maximum desired temperature.
- 3) Turn limit stop screw clockwise until it seats.

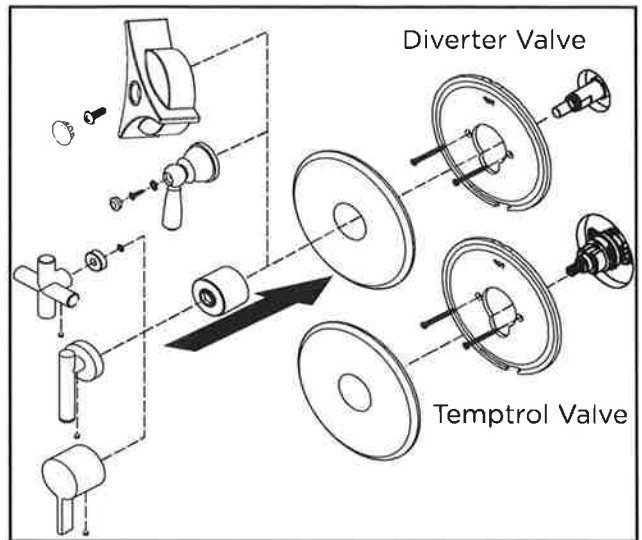
Warnings:

1. Test cap for pressure testing up to 200 psi maximum (for water). DO NOT exceed 200 psi while pressure testing valve body.
2. Do not expose valve with test cap to heat for longer than 2 minutes when soldering copper tubing. Doing so may damage the internal components of the valve and will void the product warranty.
3. Ensure test cap is re-torqued to 30 lb-ft after soldering valve body.

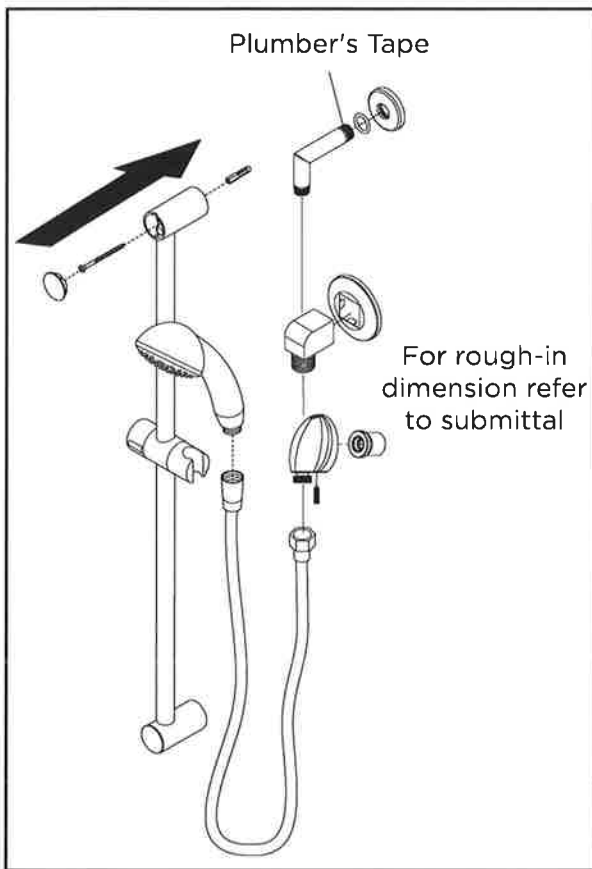
Showerhead Installation



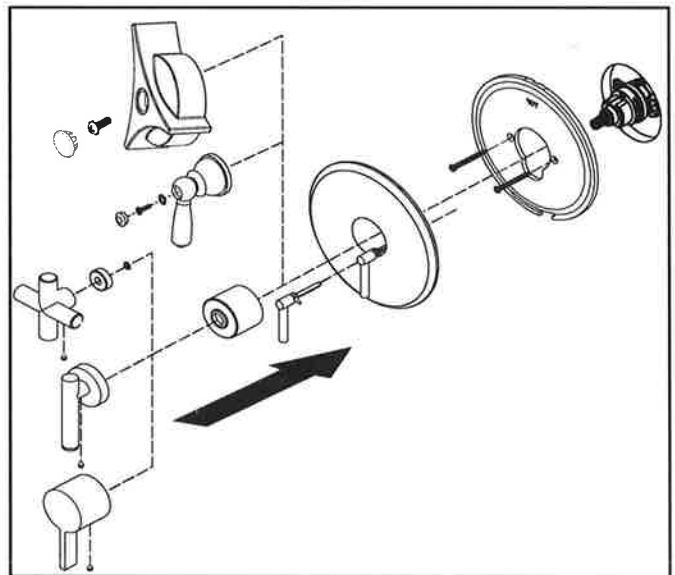
Shower/Diverter Valve Trim Installation



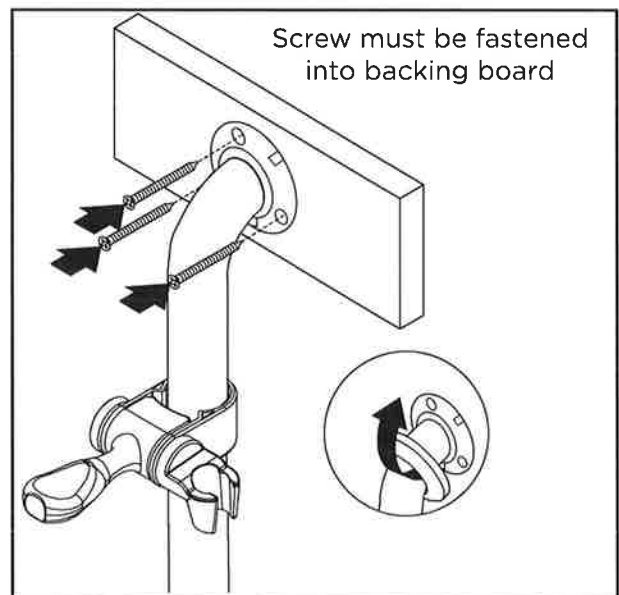
Hand Shower and Slide Bar Installation



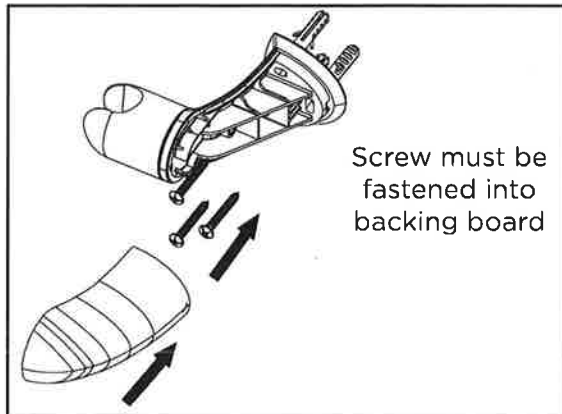
VersaFlex Trim Installation



Grab Bar Installation

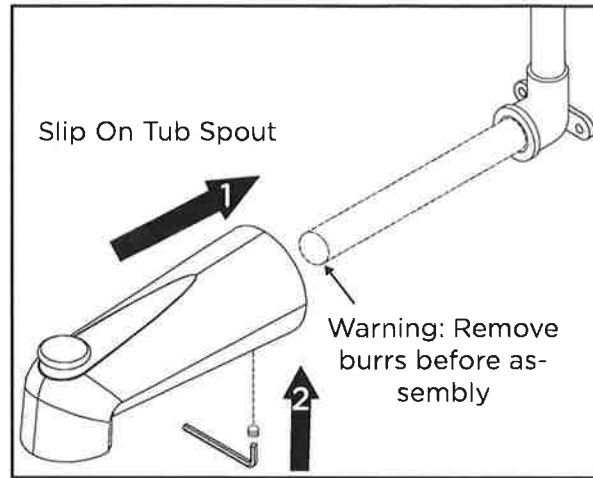
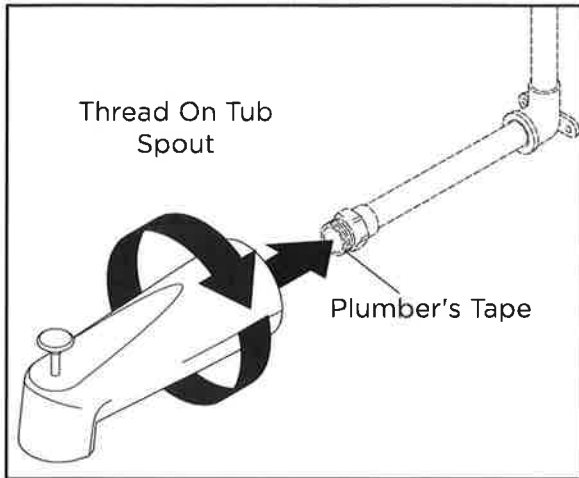


Wall Cradle Installation

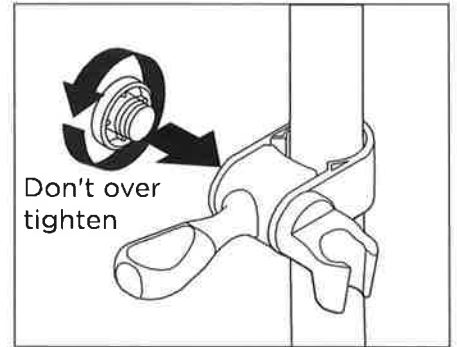
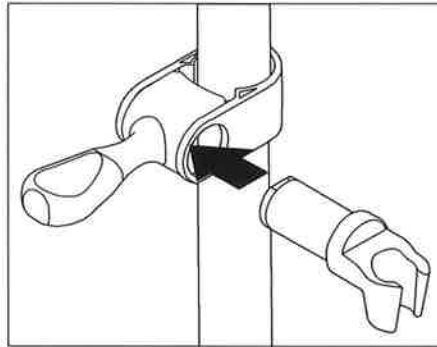
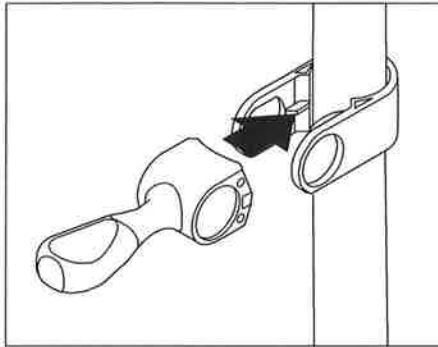


Tub Spout Installation

For tub spout rough-in dimensions refer to submittal



Hand Shower Holder Installation

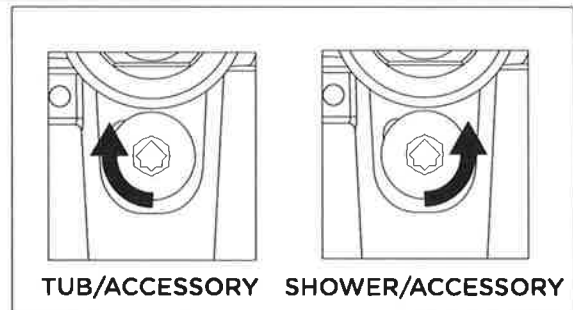


Operation Guide

Operation (Versaflex™ Diverter Control)

Turn diverter control handle clockwise to divert to tub spout or other Symmons accessory.

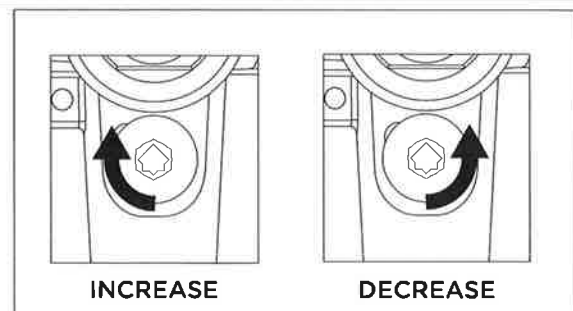
Turn diverter control handle counterclockwise to divert to shower or other Symmons accessory.



Operation (Volume Control)

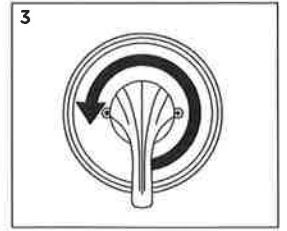
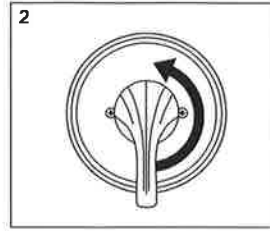
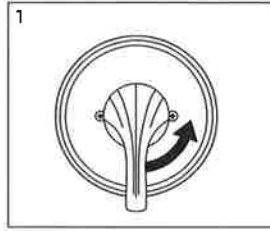
Turn volume control handle clockwise to increase volume.

Turn volume control handle counterclockwise to decrease volume.



Operation (Temperature Control)

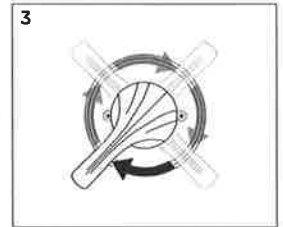
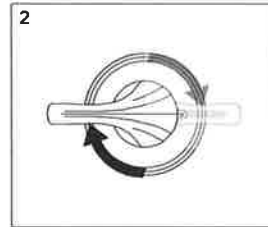
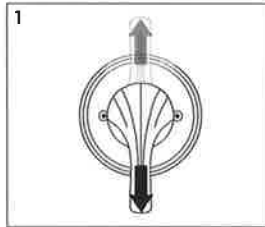
1. Turn shower handle counterclockwise approximately 1/4 turn to put valve in cold position
2. Turn shower handle counter-clockwise approximately 1/2 turn to put valve in warm position
3. Turn shower handle counter-clockwise approximately 3/4 turn to put valve in hot position



Operation (Dual Outlet Diverter Control)

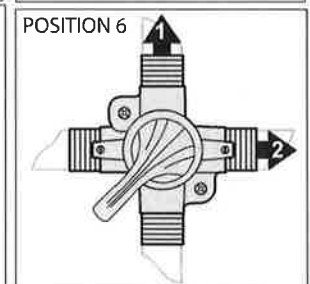
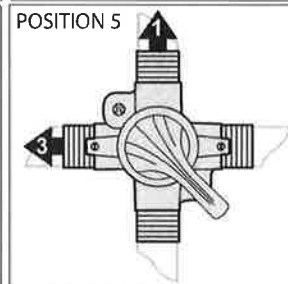
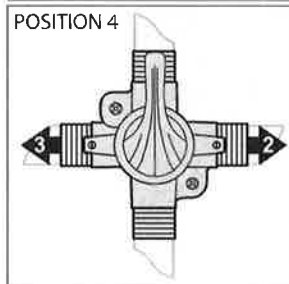
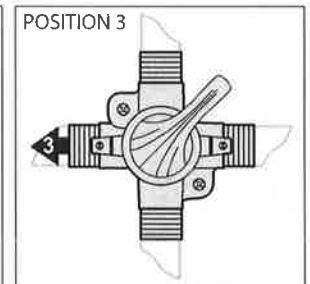
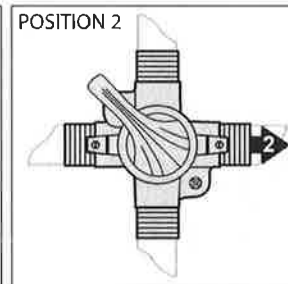
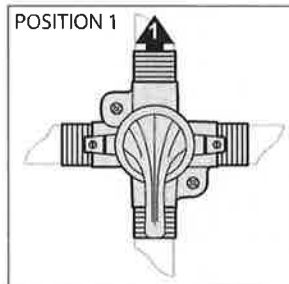
Note: Additional handle positions for same output are illustrated.

1. Cartridge is factory set to divert to function 1
2. Turn handle to position 2 to diverter to function 2
3. Turn handle to position 3 to share functions 1 and 2

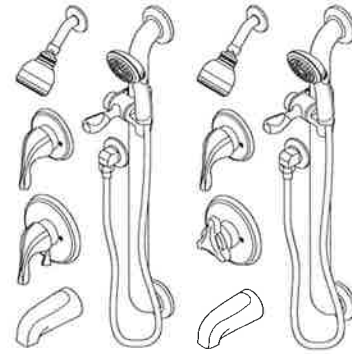


Triple Outlet Diverter Operation

1. Cartridge is factory set to divert to function 1.
2. Turn handle to position to divert to function 2.
3. Turn handle to position 3 to divert to function 3.
4. Turn handle to position 4 to share functions 2 and 3.
5. Turn handle to position 5 to share functions 1 and 3.
6. Turn handle to position 6 to share functions 1 and 2.



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Origins PLR

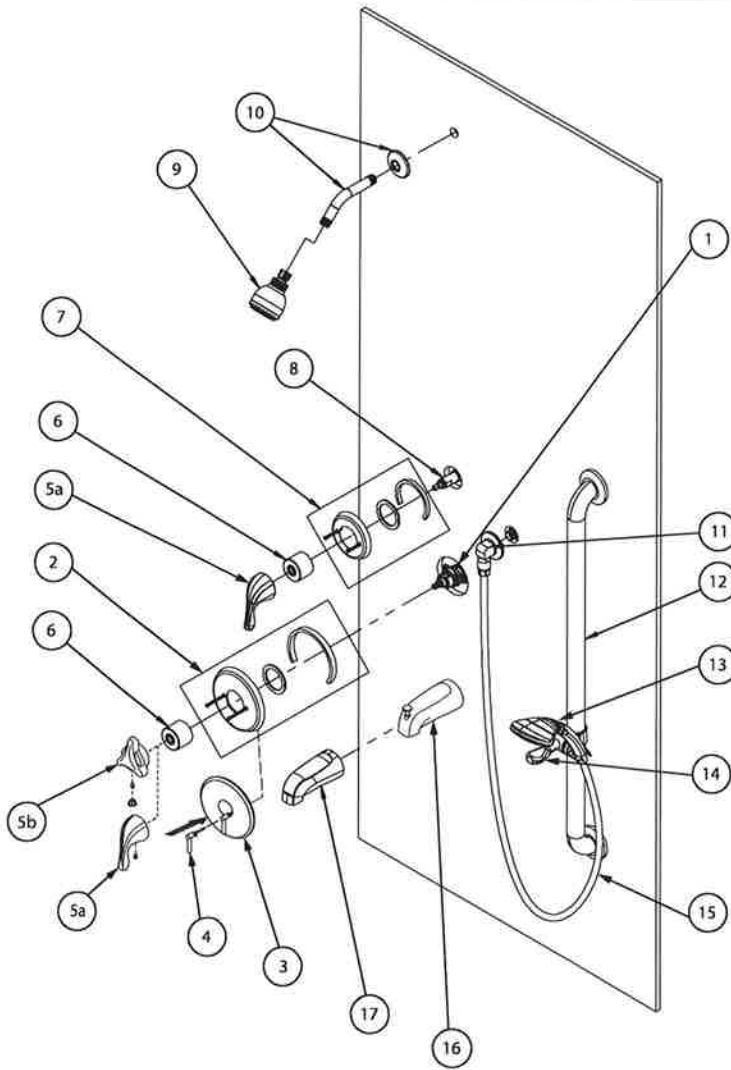
Origins P

Parts Breakdown Document

Model Numbers

- 9600P: Origins Shower Valve Trim, Valve only
- 9601P: Origins Shower Valve Trim, with showerhead
- 9602P: Origins Tub/Shower Trim
- 9603P: Origins Shower Trim, hand shower system
- 9604P: Origins Tub/Shower Trim, hand shower system and tub spout
- 9605P: Origins Shower Trim, Diverter Trim, Showerhead, hand shower system
- 9606P: Origins Tub/Shower Trim, Diverter Trim, with tub spout, showerhead, and hand shower system
- 9600PLR: Origins Shower Valve Trim, Valve only
- 9601PLR: Origins Shower Valve Trim, with showerhead
- 9602PLR: Origins Tub/Shower Trim
- 9603PLR: Origins Shower Trim, hand shower system
- 9604PLR: Origins Tub/Shower Trim, hand shower system and tub spout
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- 9606PLR: Origins Tub/Shower Trim, Diverter Trim, with tub spout, showerhead, and hand shower system
- S9600P: Origins Shower Valve Trim, Valve only with Diverter Lever
- S9601P: Origins Shower Trim, with Showerhead and Diverter Lever
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- S9606PLR: Origins Tub/Shower Trim with diverter lever, and hand shower system
- S9608PLR: Origins Shower Trim with Diverter Lever

Parts Breakdown



#	Description	Part Number
1	Temptrol shower valve	TA-10
2	Circle escutcheon kit	P: 9600-P-ESC* PLR: 9600-PLR-ESC*
3	Diverter Lever Escutcheon Kit	P: S-9600-P-ESC PLR: S-9600-PLR-ESC
4	Diverter Lever	RTS-062*
5a	Origins Handle, lever	RTS-063*
5b	Origins Handle, tristar	RTS-061*
6	Dome, cover	T-19*
7	Diverter escutcheon kit	96-66-DIV-ESC*
8	Diverter Assembly, 4 port	3DIVBODYSRT (3DIVBODYSRTNS for California)
	Diverter Assembly, 3 port	2DIVBODYSRT (2DIVBODYSRTNS for California)
9	Showerhead, single mode, Origins	4-141*
10	Shower arm	300S*
11	Elbow	FP-40*
12	Assembly, slide bar, 30"	BA0380936*
13	Hand shower	ADACHS*
14	Slide Mechanism	FP-SM6*
15	60" Hose	RTS-045*
16	Diverter Tub Spout	054*
17	Tub spout (thread on)	060*

*If finish is OTHER than chrome, part requires finish modifier

Finish Modifiers:

- STN - Satin Nickel finish

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PRODUCT SPECIFICATIONS

Elkay® Stainless Steel 24" x 20" x 11-1/4" 16 Gauge Mop Sink. Sink is manufactured from 16 gauge 304 Stainless Steel with a #4 Finish, Center drain placement.

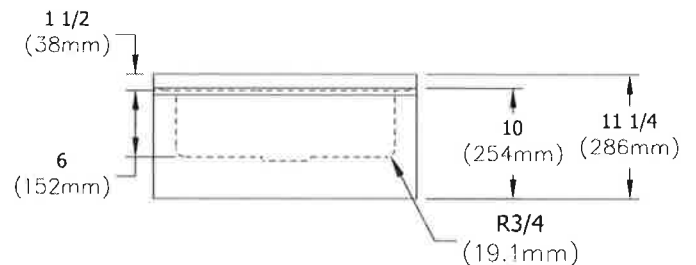
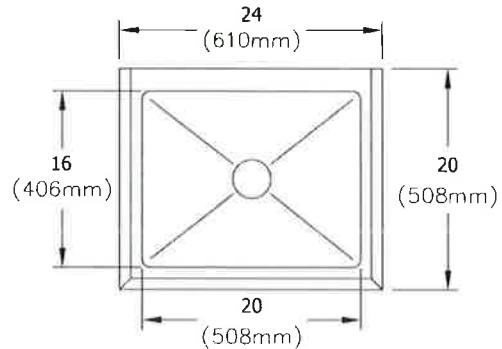
Material:	304 Stainless Steel
Finish:	#4 Finish
Gauge:	16
Weight Without Packaging:	28
Number of Bowls:	1
Sink Dimensions:	24" x 20" x 11-1/4"
Bowl 1 Dimensions:	20" x 16" x 6"
Drain Size:	3-1/2" (89mm)
Drain Location:	Center



Included with Product: Stainless Steel Skirt,
2" Brass No-Caulk Drain

A Century of Tradition and Quality.
For more than 100 years, Elkay has been making innovative products and providing exceptional customer care. We take pride in offering plumbing products that make life easier, inspire change and leave the world a better place.

Product Compliance: ASME A112.19.3/CSA B45.4
NSF 2
Accessory: ASME A112.18.2/CSA B125.2



PART: _____ QTY: _____
 PROJECT: _____
 CONTACT: _____
 DATE: _____
 NOTES: _____
 APPROVAL: _____

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.



Elkay Commercial Sinks Limited Warranty

Elkay warrants to the original purchaser of an Elkay commercial sink that Elkay will, at its option, replace or repair, without charge, such product if it fails due to a manufacturing defect during normal industrial, commercial and business use for a period of 5 years from the date of purchase. Product replacement does not include transportation cost or labor installation cost. Elkay reserves the right to examine product in question and its installation prior to replacement.

Waste fittings and accessories are warranted for 1 year from the date of purchase.

Other Warranty Conditions on Sinks

Our warranty does not cover product failure or damage caused by the use of optional accessories, abusive treatment, misuse, environmental factors, normal wear including dents and scratches, improper care and cleaning, use of aggressive and abrasive cleaners, damage due to handling or failure to follow the recommended procedures for installation, care and maintenance as detailed in the installation and care guide provided with every sink. This warranty is extended only to the original consumer purchaser of the product.

This warranty does not cover shipping costs, labor costs, or any other charges for such items as installation or replacement of the sink, diagnosis or replacement of any faucet or component part, or any other expense or loss. This warranty does not cover obsolete, discontinued nor display products, whether such items are purchased at discount outlets and/or online or sold on clearance or close out.

All incidental or consequential damages are specifically excluded. No additional warranties, express or implied are given, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

The above protection will continue for 5 year.

To Obtain Service Under Warranty

1. Write to: Elkay Manufacturing Company
Attention: Consumer Care
1333 Butterfield Road, Suite 200
Downers Grove, Illinois 60515
2. Include a letter containing the following information:
 - a. Date of purchase and installation.
 - b. Proof of Purchase (copy of original dated invoice)
 - c. Description of nature of defect.
 - d. Model number or description of model and/or component part if possible.



Limited One Year Warranty

T&S warrants to the original purchaser (other than for purposes of resale) that such product is free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this one-year warranty period, if the product is found to be defective, T&S shall, at its options, repair and/or replace it. To obtain warranty service, products must be returned to...

*T&S Brass and Bronze Works, Inc.
Attn: Warranty Repair Department
2 Saddleback Cove
Travelers Rest, SC 29690*

Shipping, freight, insurance, and other transportation charges of the product to T&S and the return of repaired or replaced product to the purchaser are the responsibility of the purchaser. Repair and/or replacement shall be made within a reasonable time after receipt by T&S of the returned product. This warranty does not cover items which have received secondary finishing or have been altered or modified after purchase, or for defects caused by physical abuse to or misuse of the product, or shipment of the products.

Any express warranty not provided herein, and any remedy for Breach of Contract which might arise, is hereby excluded and disclaimed. Any implied warranties of merchantability or fitness for a particular purpose are limited to one year in duration. Under no circumstances shall T&S be liable for loss of use or any special consequential costs, expenses or damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Specific rights under this warranty and other rights vary from state to state.

P/N: 098-009518-45 Rev.2
Date: 05-15-06
Drawn: TEH
Checked: DHL 07-13-06
Approved: JHB 07-13-06

Installation and Maintenance Instructions



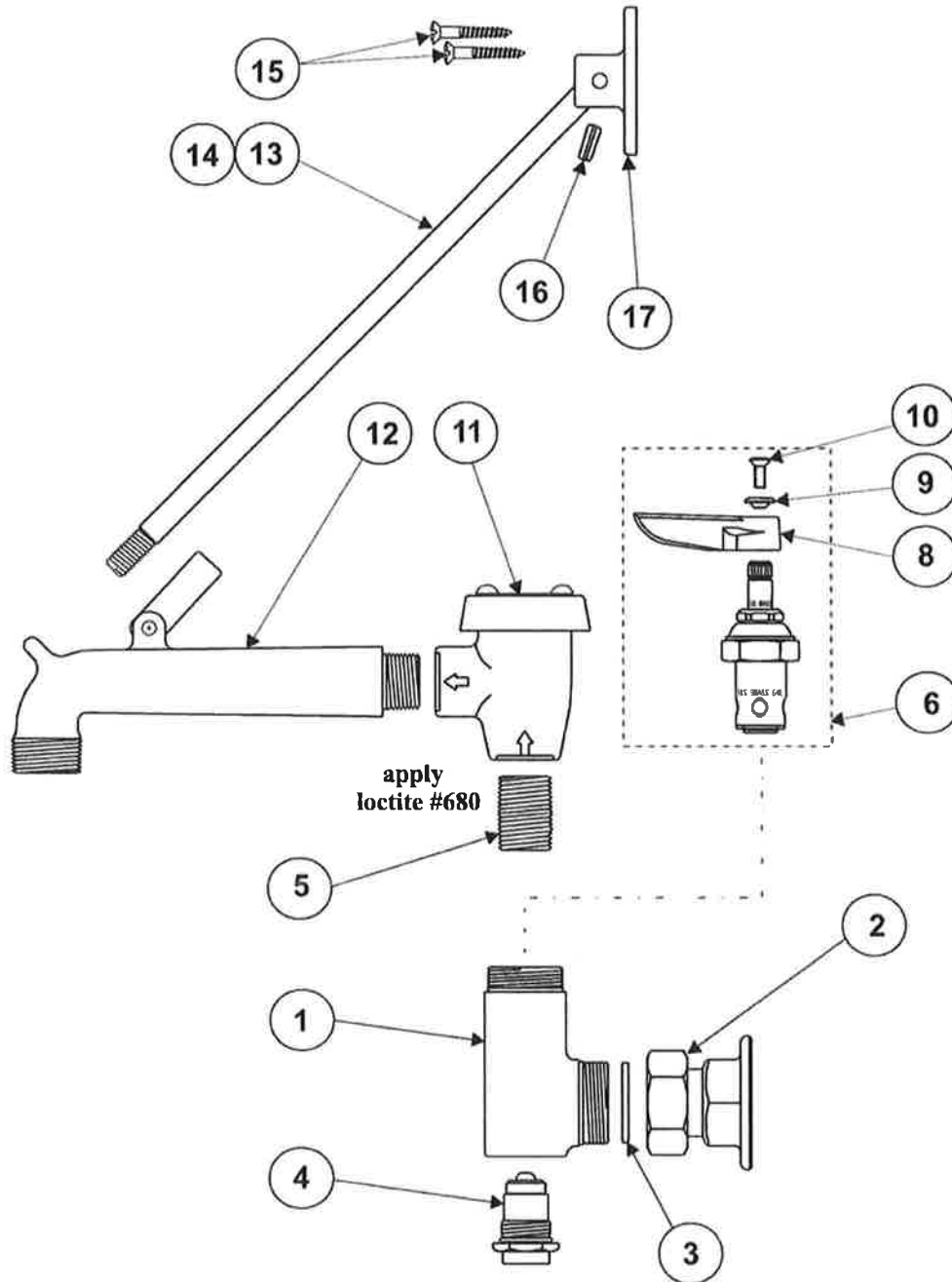
Surgical Sink and Service Sink Faucets with Built-In Stops B-0665-BST Series

**Deutsch: Installations- und
Wartungsanleitun-
gen**

**Español: la Instalación y las
Instrucciones de
Mantenimiento**

**Français: les Instructions
d'Installation et
d'Entretien**

Exploded View



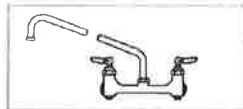
* Some items are listed for instructional purposes and may not be sold as separate parts.

Part Number Guide

Service Sink Faucet Assemblies

1	Asm, Base Faucet	B-0665-BSTP
	Body, Faucet	*
2	Asm, Flange Coupling	002893-40
3	Washer, Coupling Flange	001019-45
4	Asm, BST Spindle & Insert	163A
5	Nipple, Close 1/2 HWL	002534-25
6	Asm, Eterna w/ Spring Checks & Handle (Cold)	002711-40
	Asm, Eterna w/ Spring Checks & Handle (Hot)	002712-40
8	Handle, Lever (Blank)	001638-45
9	Index, Button (Red / Hot)	001661-45
	Index, Button (Blue / Cold)	001660-45
10	Screw, Handle	000922-45
11	Asm, Vacuum Breaker, 1/2"	B-0969
12	Spout	*
13	Asm, Upper Nozzle Support	009546-40
14	Rod, Support	005060-40
15	Screw, Wall Mount	000915-45
16	Pin, Coiled 3/16" x 1/2" S.S.	004713-25
17	Flange	003007-40

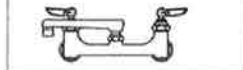
Models with Built-In Stops (-BST)



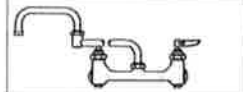
B-0230-BST Sink mixing faucet with 18" swing nozzle; lever handles

B-0231-BST Sink mixing faucet with 12" swing nozzle; lever handles

B-0232-BST Sink mixing faucet with 16" swing nozzle; lever handles



B-0234-BST Sink mixing faucet with 6" cast spout; lever handles



B-0265-BST Combo sink faucet w/ 18" double-joint swing nozzle

B-0266-BST Combo sink faucet w/ 15" double-joint swing nozzle

B-0267-BST Combo sink faucet w/ 12" double-joint swing nozzle



B-0330-BST Combo sink faucet w/ rigid gooseneck; lever handles



B-0331-BST Combo sink faucet w/ swivel gooseneck; lever handles

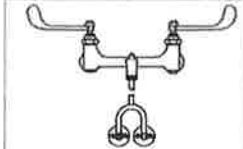


B-0350-BST Surgical sink fct w/rigid gooseneck; 6" WH; rosespray

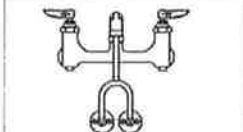
B-0351-BST Surgical sink fct w/rigid gooseneck; 6" WH; stream reg.

B-0352 & -04 Surgical sink fct w/rigid GN; 6" & 4" WH; rosespray

B-0353 & -04 Surgical sink fct w/rigid GN; 6" & 4" WH; stream reg.

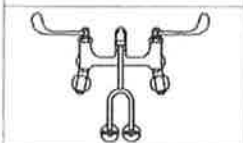


B-0363 Service sink fct w/VB nozzle; 6" WH; bottom brace

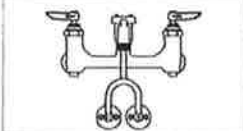


B-0650-BSTP Service sink fct w/pail hook nzl; btm brace; polished

B-0650-BSTR Service sink fct w/pail hook nzl; btm brace; rough



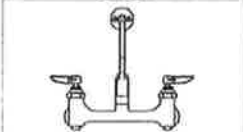
B-0652 Service sink fct; 6" wrist-action handles; bottom brace



B-0655-BSTP Service sink fct w/VB nozzle; bottom brace; polished

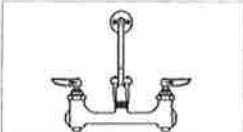
B-0655-BSTR Service sink fct w/VB nozzle; bottom brace; rough

B-0657-BST Service sink fct w/VB nozzle; 6" WH; bottom brace



B-0660-BSTP Service sink fct w/pail hook nozzle; top brace; polished

B-0660-BSTR Service sink fct w/pail hook nozzle; top brace; rough



B-0665-BSTP Service sink fct w/VB & pail hook; top brace; polished

B-0665-BSTR Service sink fct w/VB & pail hook; top brace; rough



B-0674-BSTP Service sink fct w/VB & pail hook nozzle; polished

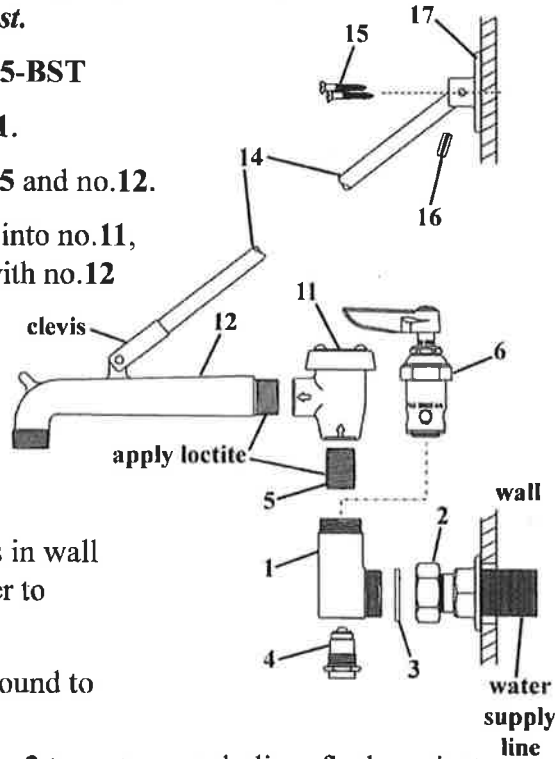
B-0674-BSTR Service sink fct w/VB & pail hook nozzle; rough

General Instructions

Note: This is a general instructional example of units using -BST. Nozzles should be installed on unit first.

Nozzle Installation: ex. model B-0665-BST

1. Remove no.6 from both sides of no.1.
2. Apply Loctite #680 to threads of no.5 and no.12.
3. Insert no.12 into no.11. Thread no.5 into no.11, then rotate no.11 into no.1 until tight with no.12 facing front of sink.
4. Replace no.6 into no.1 following nozzle installation.



Faucet Installation:

5. Shut off water supply and drain lines. Drill (2) two 7/8" [2.2 cm] holes in wall or backsplash of sink, 8" [20 cm] center to center, where you are installing no.1.
6. Apply teflon tape or pipe joint compound to threads of water supply lines.
7. Remove no.2 from no.1 and attach no.2 to water supply lines flush against wall. Tighten by hand. *Trim supply lines if necessary.*
8. Attach no.1 to no.2, adjusting center to center fit by turning no.2 if needed. *Make sure no.3 remains in place.* Tighten no.2 firmly with a wrench.
9. Turn on water supply and check for leaks.

Upper Nozzle Support Installation:

10. Attach no.14 to no.12 by screwing no.14 into *clevis* on no.12.
11. Position no.17 against wall. Mark holes and secure no.17 to wall using no.15.

Adjusting Built-in Stops:

Insert a screwdriver to adjust no.4 at the base of no.1 on each side. *Water should be turned on for this procedure.*

Close Stop
turn clockwise



Open Stop
turn counter-clockwise



Bottom view of faucet body and Built-in Stop

P-8

INSTALLATION INSTRUCTIONS



AFWALL® MILLENNIUM™ FLUSHOMETER WALL-MOUNTED TOILETS

Models 3351.101, 3352.101, 3353.101, 3354.101, 2257.101, 2257.101.NAF, 2633.101, 2634.101

Meets the American Disabilities Act Guidelines and ANSI A117.1 Requirements for the Physically Challenged

Thank you for selecting American Standard – the benchmark of fine quality for over 100 years. To ensure this product is installed properly, please read these instructions carefully before you begin. (Certain installations may require professional help.) Also be sure your installation conforms to local codes.

▲ CAUTION: PRODUCT IS FRAGILE. TWO PEOPLE ARE RECOMMENDED FOR HANDLING TO AVOID BREAKAGE AND POSSIBLE INJURY!

NOTE: For proper operation product requires a minimum of 30 psi working line pressure

RECOMMENDED TOOLS AND MATERIALS

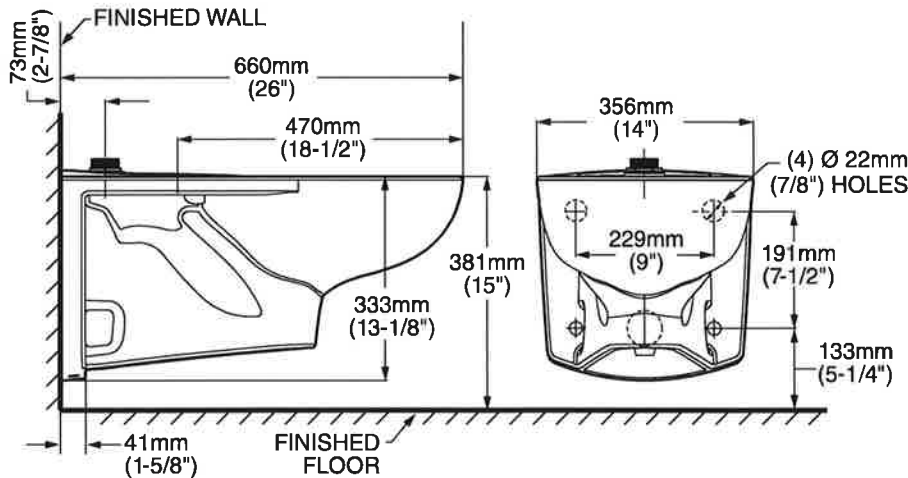
Closet Carrier Support
Putty Knife

Regular Screwdriver
Adjustable Wrench

Sealant
Tape Measure

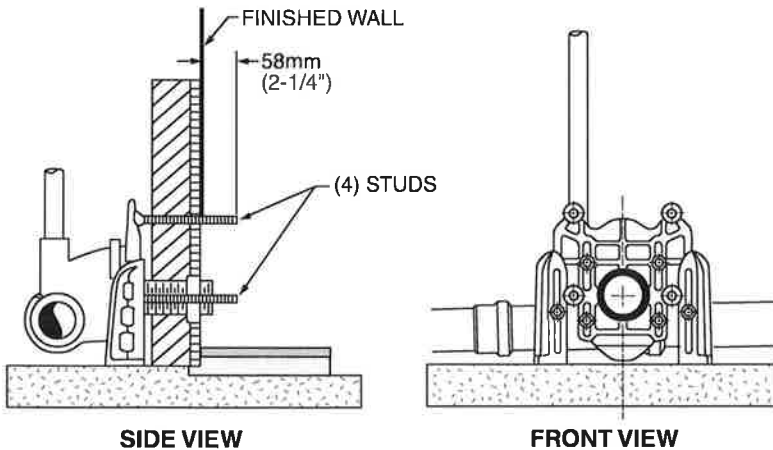
Carpenters Level
Flush Valve

1 Pictures may not exactly define contour of china



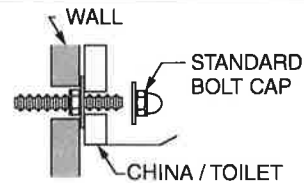
2 FIXTURE MOUNTING

Fixture studs should project 58mm (2-1/4") from face of finished wall.

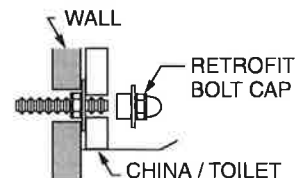


NOTE: If carrier bolt does not extend or is flush with china, use retrofit caps 7381285-200 (sold separately).

STANDARD BOLT CAP



RETROFIT BOLT CAP



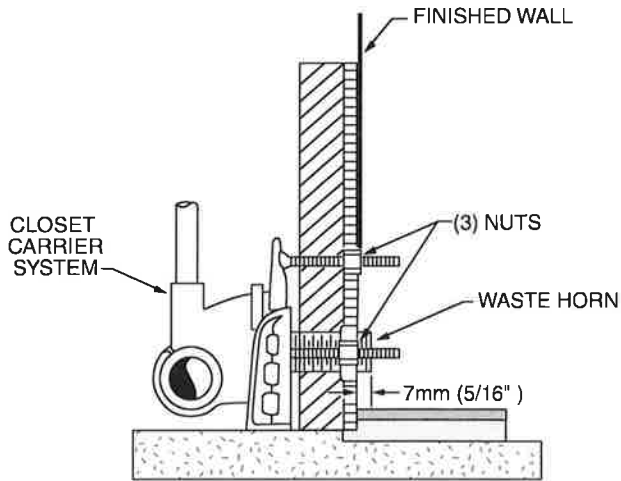
Product names listed herein are trademarks of AS America, Inc.
© AS America, Inc. 2013

7301962-100 Rev. C

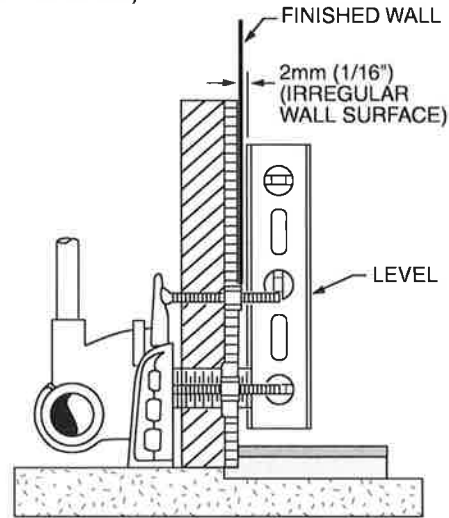
SAVE FOR FUTURE USE

3

- Place back-up nuts on both bottom bolts, and the top left-hand bolt only.
- Adjust the two lower back-up nuts so that front face of nuts is flush with finished wall.
- Adjust waste horn to project 7mm (5/16") from finished wall.

**4**

- Using a level, adjust the top left back-up nut so that it is in the same vertical plane as the lower left back-up nut. (If wall surface is irregular, the three back-up nuts must be positioned to allow a minimum 1/16" (2mm) gap between fixture and wall surface.)

**5**

- NOTE: Bearing nuts and washers must be set to take full loading from the fixture allowing 1/16" (2mm) clearance between fixture and wall.
- Follow support manufacturer's recommended setting of closet outlet connection.
- Place felt or neoprene gasket (wax ring not recommended) on closet outlet.
- When the fixture is installed, closet outlet gasket must be compressed sufficiently to assure a gas and watertight seal.

The following steps require a helper:

- Install bowl on support using cap nuts and fiber washers with the back-up nuts and washers.

DO NOT APPLY TOP RIGHT FIBER WASHER AND CAP NUT UNTIL OTHER CAP NUTS HAVE BEEN FIRMLY TIGHTENED USING A WRENCH.

- Install top right cap nut with fiber washer and run up hand tight. Wrench tighten approximately 1/4 turn.
- Apply sealant to gap between bowl and finished wall. Remove excess sealant.

In the United States:

American Standard Brands
P.O. Box 6820

Piscataway, New Jersey 08855
Attention: Director of Customer Care

For residents of the United States, warranty information may also be obtained by calling the following toll free number: (800) 442-1902
www.americanstandard.com

In Canada:

AS Canada, ULC
5900 Avebury Rd.
Mississauga, Ontario
Canada L5R 3M3

Toll Free: (800) 387-0369
www.americanstandard.ca

In Mexico:

American Standard B&K Mexico
S. de R.L. de C.V.
Via Morelos #330
Col. Santa Clara

Ecatepec 55540 Edo. Mexico
Toll Free: 01-800-839-1200
www.americanstandard.com.mx



Aquaflush®

Z6000 Series

Aquaflush Exposed Flushometer

Installation, Operation, Maintenance and Parts Manual

Patented and Patents Pending



Z6000



Z6003



Aquaflush Exposed Closet/Urinal Systems

Z6000	Z6014
Z6001	Z6017
Z6003	Z6096
Z6010	Z6099

NOTICE: READ ENTIRE MANUAL PRIOR TO INSTALLING PRODUCT.

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

⚠ ADVERTENCIA: Cáncer y daño reproductivo - www.P65Warnings.ca.gov

⚠ AVERTISSEMENT: Cancer et effets néfastes sur la reproduction - www.P65Warnings.ca.gov

LIMITED WARRANTY

All goods sold hereunder are warranted to be free from defects in material and factory workmanship for a period of three years from the date of purchase. Decorative finishes warranted for one year. We will replace at no costs goods that prove defective provided we are notified in writing of such defect and the goods are returned to us prepaid at Sanford, NC, with evidence that they have been properly maintained and used in accordance with instructions. We shall not be responsible for any labor charges or any loss, injury or damages whatsoever, including incidental or consequential damages. The sole and exclusive remedy shall be limited to the replacement of the defective goods. Before installation and use, the purchaser shall determine the suitability of the product for his intended use and the purchaser assume all risk and liability whatever in connection therewith. Where permitted by law, the implied warranty of merchantability is expressly excluded. If the products sold hereunder are "consumer products," the implied warranty of merchantability is limited to a period of three years and shall be limited solely to the replacement of the defective goods. All weights stated in our catalogs and listed are approximate and are not guaranteed.

NOTE: The information in this manual is subject to change at any time without notice. Installations may be performed at different times of construction by different individuals. For this reason, these instructions should be left on-site with the facility or maintenance manager.

Aquaflush® Rough-In, Product Specification, Models and Options

ENGINEERING SPECIFICATION: ZURN Aquaflush Exposed Closet Flush Valve – Exposed, quiet diaphragm-type, chrome-plated flushometer valve with a polished exterior. Complete with a chloramine resistant, dual seal diaphragm with a clog resistant by-pass. The valve is ADA compliant with a non-hold open and no leak handle feature, high back pressure vacuum breaker, one-piece hex coupling nut, adjustable tailpiece, spud coupling, and flange for top spud connection. Control stop has internal siphon-guard protection. Internal seals are made of chloramine resistant materials.

Z6000PL Aquaflush Plus is furnished as specified above and includes sweat solder kit, vandal-resistant stop cap, and cast wall flange with setscrew.

MODELS

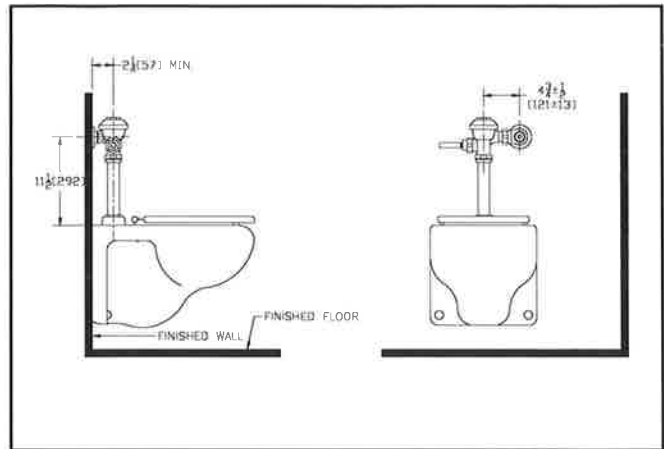
- Z6000 – 1-1/2" Water Closet Valve with top spud connection.
- Z6010 – 1-1/2" Water Closet Valve with back spud connection.
- Z6001 – 1-1/4" Urinal Valve with top spud connection.
- Z6003 – 3/4" Urinal Valve with top spud connection.

FLOWS

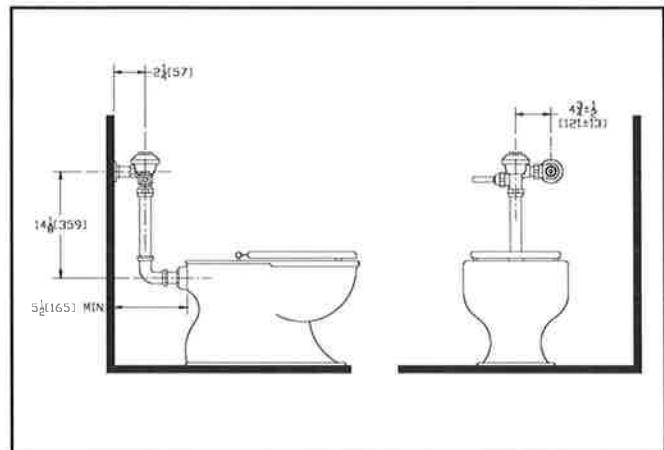
- FF Full Flow
3.0 Gal. for Urinal, 4.5 Gal. for Water Closet
- HET High Efficiency Toilet (PL Only)
1.28 Gal. for Water Closet
- WS1 Low Consumption
1.0 Gal. for Urinal, 1.6 Gal. for Water Closet
- WS 1.5 Gal. for Urinal, 3.5 Gal. for Water Closet
- ULF 0.125 Gal. for Urinal (PL Only)

OPTIONS

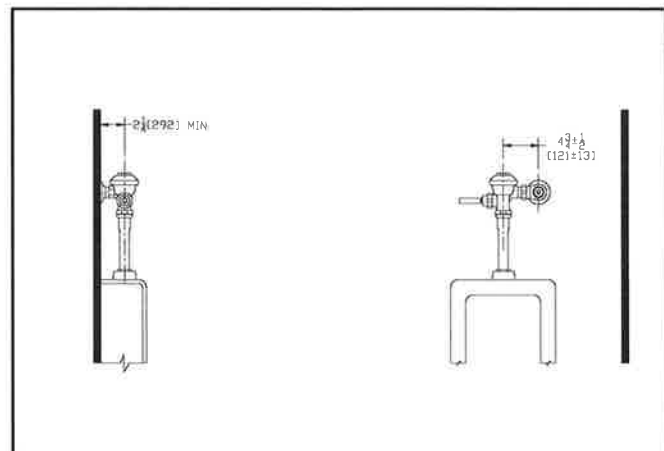
- ___-BG BioCare Handle
- ___-H Handle on Front of Flush Valve
- ___-L 1" [25] Metal Push Button
- ___-L3 3" [76] Metal Push Button
- ___-VC Vandal-Resistant Stop Cover
- ___-YB Sweat Solder Kit
- ___-YC Cast Wall Flange
- ___-YJ Split Ring Pipe Support
- ___-YK Solid Ring Pipe Support
- ___-YO Bumper on Stop Angle



Models: Z6000, Z6000-1, Z6000-2, Z6000-3,
-HET (High Efficiency) 1.28 Gal.
-WS1 (Water Saver) 1.6 Gal. Low Consumption



Models: Z6010, Z6010-1, Z6010-2,
-HET (High Efficiency) 1.28 Gal.
-WS1 (Water Saver) 1.6 Gal. Low Consumption



Models: Z6001 (1-1/4" urinal flush valve)
Z6003 (3/4" urinal flush valve)
-WS1 (Water Saver) 1.0 Gal. Low Consumption
-ULF (Ultra Low Flow) 0.125 Gal.

Sweat Solder Adaptor Installation Instructions

Important:

- All plumbing is to be installed according to state and local codes and regulations.
- Water supply lines need to allow proper water flow for each fixture.
- Flush all lines of any **debris** before making connections.
- Do not use pipe sealant or plumbing grease on any fitting other than the control stop inlet.

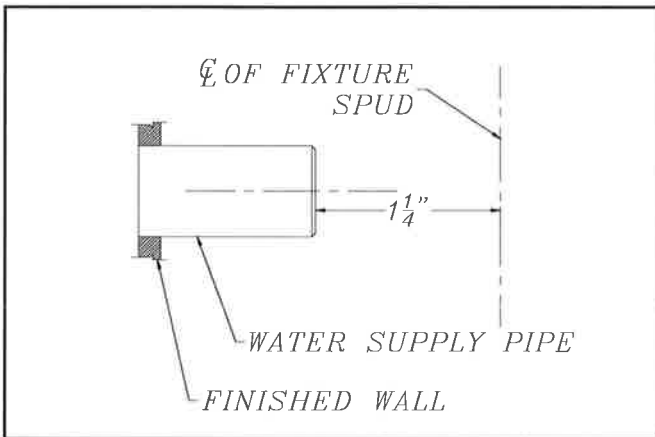
The Aquaflush valve is designed to operate under various water pressures with a recommended range between 10 and 100 psi (69 to 689 kPa). Each Zurn valve is tested for proper performance at the factory before being shipped. Consult the product pages of the catalog for available flow options.

Most low consumption fixtures (1.28 and 1.6 gallon) require a minimum of 25 psi running pressure through the valve to obtain proper evacuation. Please be sure to consult fixture manufacturer on minimum running water supply requirements for proper evacuation.

When installing your quality Zurn valve it is recommended that to protect the polished finish you do not use a toothed wrench. This will cause gouges and scratches on your valve.

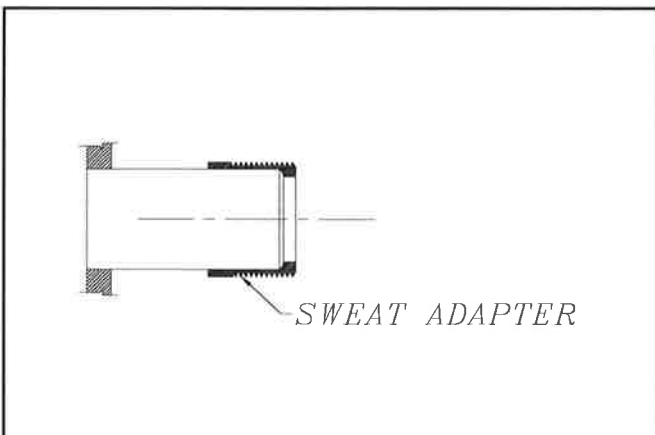
STEP NO. 1

Measure distance from finished wall to center line of fixture spud; cut water supply pipe 1-1/4" shorter than this measurement. Chamfer O.D. and I.D.



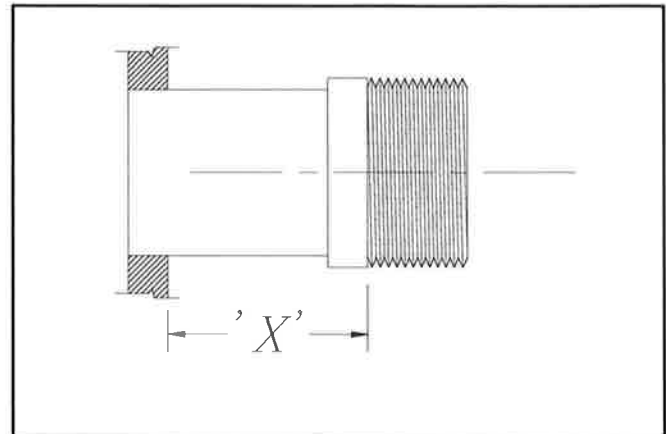
STEP NO. 2

Slide threaded adaptor onto supply pipe until shoulder stops on end of pipe. Then sweat-solder the adaptor to water supply pipe.



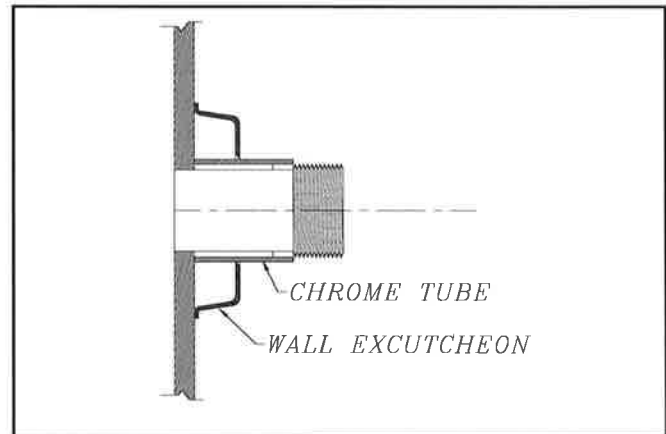
STEP NO. 3

Measure from finished wall to first thread of adaptor for length of chrome tube. Cut chrome tube this length 'x'.



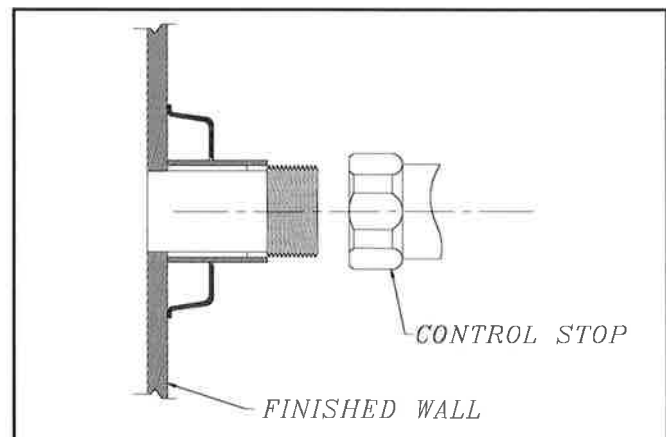
STEP NO. 4

Slide wall escutcheon over chrome tube and slide both chrome tube and wall escutcheon over supply pipe pushing the wall escutcheon all the way to the wall.



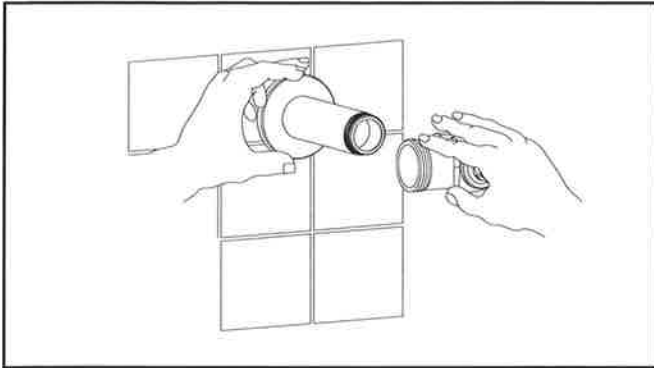
STEP NO. 5

Screw control stop onto water supply water adaptor.

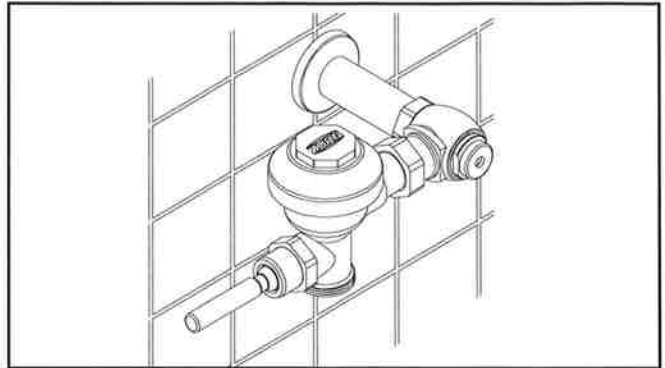


Aquaflush® Installation Instructions

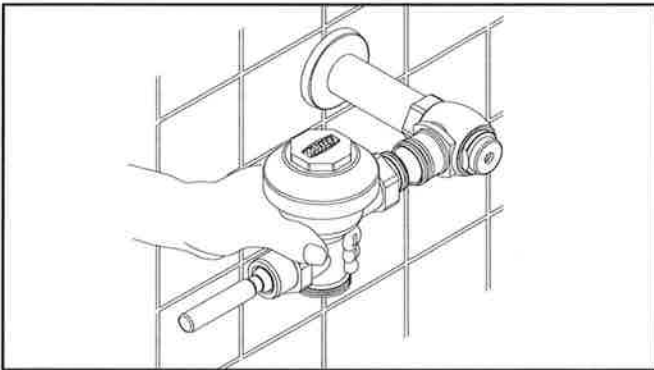
1. Install stop valve assembly using proper size supply escutcheon and sweat solder adapter kit if applicable (see 1). Thread sealing compounds should be used on male NPT threads only.



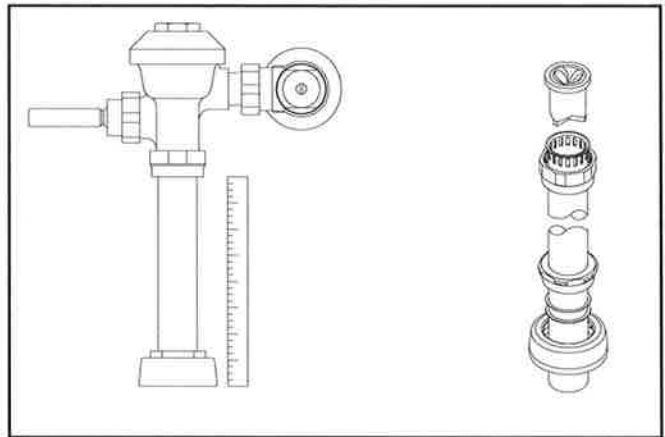
3. Insert the flush valve tailpiece into the stop valve and hand tighten the lock nut to the stop valve. Plumb the entire unit (see 3).



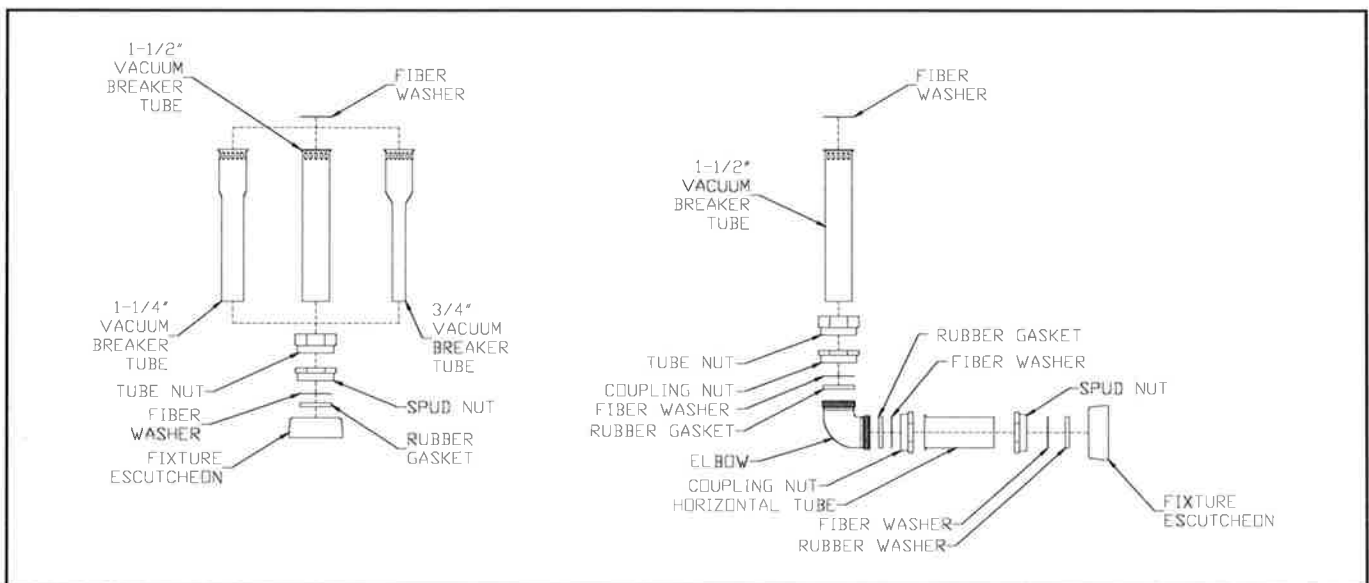
2. Prior to inserting the flush valve tailpiece into stop valve, be certain that the O-ring seal is located in O-ring seal groove at the end of the tailpiece and the locking nut and locking snap ring are located as shown below (see 2). Care should be taken not to damage the O-ring when inserting the tailpiece into the stop valve. If lubrication is needed, wetting the O-ring with water will be sufficient.



4. Determine the length of vacuum breaker tube required to join the flush valve and fixture spud. Cut the vacuum breaker tube, if required, to this length (see 4a). Assemble the vacuum breaker tube assembly and spud nut assembly to the flush valve and fixture spud (see 4b).

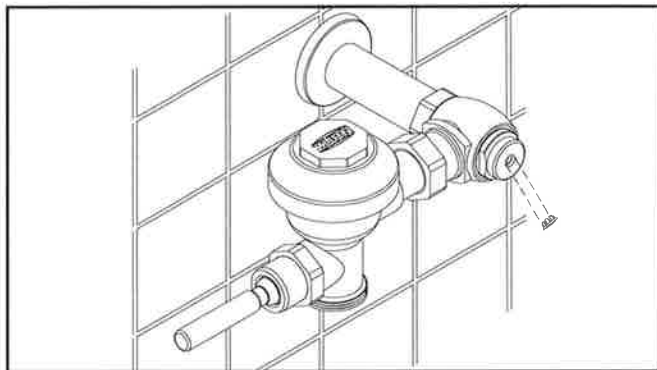


5. Hand tighten spud nut and vacuum breaker tube nut to fixture and flush valve. Adjust the valve assembly for plumb. Tighten fixture spud nut, vacuum breaker tube nut and lock nut with a wrench.



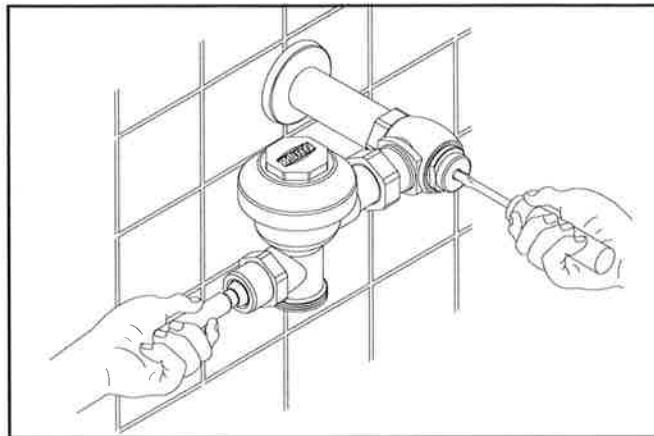
Aquaflush® Installation Instructions

6. When all flush valves are connected to the fixtures and water pressure is available, it is recommended that the supply piping be flushed to remove dirt, pipe chips, etc. from system. Before the water is turned on, be sure all stop valves to the flush valves are closed off tight. The stop valves can be opened and closed by using the adjusting screw located at the center of the stop valve cap, behind the stop snap cap screw cover if already installed (see 6a). Stop valve adjustments can only be made by using the adjusting screw. **It is not necessary to remove the stop valve cap when making adjustments. If for any reason it becomes necessary to remove the stop valve cap, be certain the water is shut off at the main supply valve.**



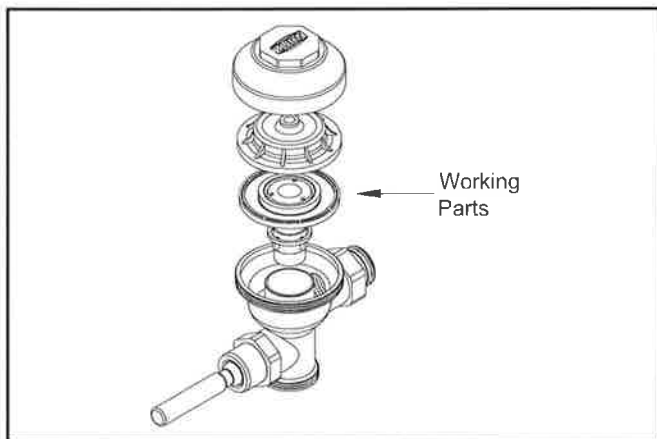
This procedure should also be followed when the system has been drained for some time, as occurs in athletic fields, recreation parks, etc.

7. The Aquaflush flush valves are preset for fixture volume as marked on the valve cartons. The valve does not require regulation for variation in water pressure within its operating range. To set the flush valve for proper operation, gradually adjust the stop valve open, using the adjusting screw, while actuating the valve until the rate of water flow into the fixture is not excessive, yet is sufficient enough to adequately evacuate the waste. The final setting for urinals should be such that the fixture will not overflow when the valve is actuated in succession. The stop snap cap screw cover should be secured after final adjustments have been made.



Use the following procedure to flush out the supply piping:

- A. Remove the main valve body cover.
- B. Remove the working parts from the flush valve (shown in 6b).
- C. Replace the main valve body cover and plastic cover without reinstalling the working parts.
- D. Open the stop valve by using the stop adjusting screw, and flush out all debris from pipe and connections.
- E. Shut stop, open cover, replace the working parts, replace plastic cover and main valve body cover and tighten.

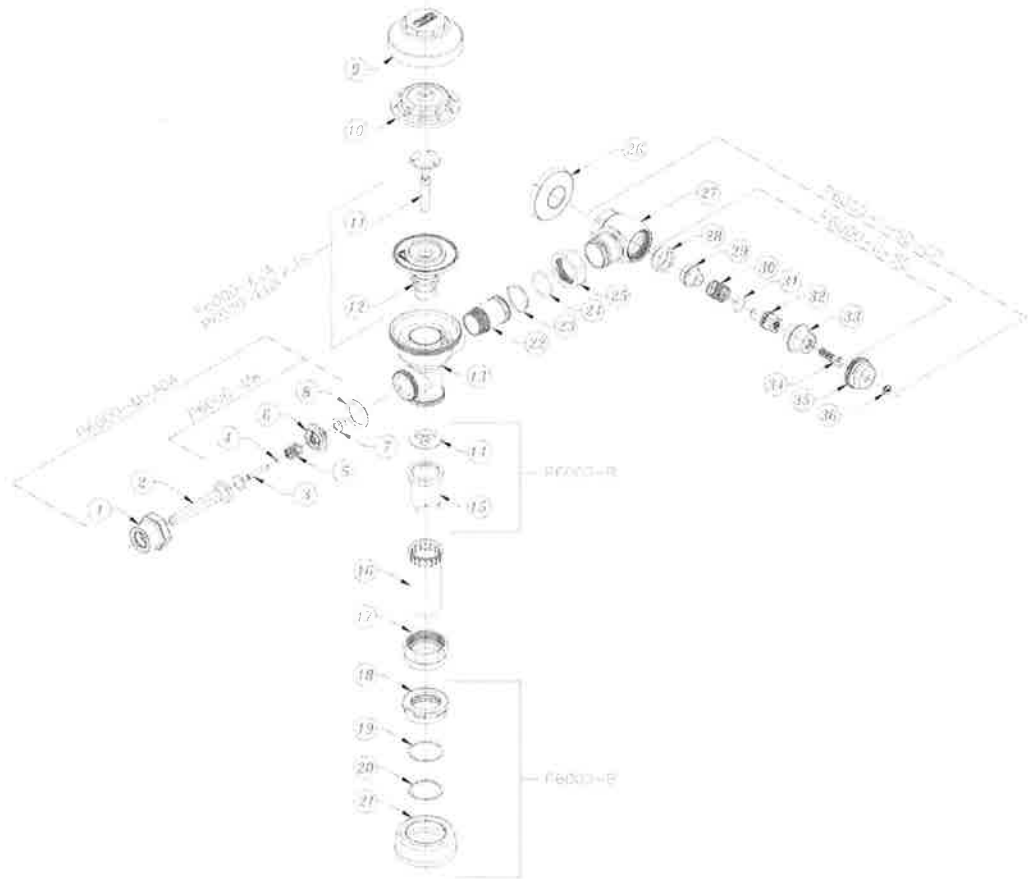




Aquaflush™ Exposed Repair Kits

Part Identification

1. Handle Nut
2. Handle
3. Actuator Rod
4. Handle O-Ring
5. Handle Spring
6. Handle Seal Retainer
7. Handle Seal
8. Handle Gasket
9. Valve Body Cover
10. Plastic Wrap
11. Trip Mechanism
12. Diaphragm Assembly
13. Valve Body
14. Vacuum Breaker Insert
15. Vacuum Breaker Duckbill
16. Vacuum Breaker Tube
17. Vacuum Breaker Tube Nut
18. Spud Nut
19. Spud Friction Washer
20. Spud Sleeve
21. Spud Escutcheon
22. Tailpiece
23. Snap Ring
24. Tailpiece O-Ring
25. Locking Nut
26. Wall Flange
27. Stop Body
28. Piston Seal
29. Piston Seal
30. Stop Spring
31. Guide O-Ring
32. Piston Guide
33. Guide Holder
34. Adjusting Screw
35. Stop Cap
36. Snap Cap Screw Cover



Covers and Repair Kits	Product No.
Outside Cover - CP - Item 9	P6000-LL-CP
Inside Cover - Item 10	P6000-L
HET Water Closet Kit - 1.28 gal. flush (PL Only)	P6000-ECA-HET
ULF Urinal Kit - 0.125 gal. flush (PL Only)	P6000-EUA-ULF
Low Consumption Closet Kit - 1.6 gal. flush	P6000-ECR-WS1
Water Saving Closet Kit - 3.5 gal. flush	P6000-ECR-WS
Full Flow Closet Kit - 4.5 gal. flush	P6000-ECR-FF
Low Consumption Urinal Kit - 1.0 gal. flush	P6000-EUR-WS1
Water Saving Urinal Kit - 1.5 gal. flush	P6000-EUR-WS
Full Flow Urinal Kit - 3.0 gal. flush	P6000-EUR-FF

Repair Parts - Inside Parts	Product No.
Urinal Relief Valve - Item 11	P6000-EU13
Closet Relief Valve - Item 11	P6000-EC13

Aquaflush Rebuild Kits	Product No.
Closet and Urinal Rebuild Kits Include Items 3-8, 11, 12, 24, 28-34	P6000-EC-WS-RK P6000-EC-WS1-RK P6000-EU-WS-RK P6000-EU-WS1-RK

Handle Assembly and Repair Kits	Product No.
ADA Handle Assembly (Side) Includes Items 1-8	P6000-M-ADA
Handle Repair Kit (Side) Includes Items 4-8	P6000-MK
Handle Seal Includes Item 8	P6000-M9
Handle Gasket Includes Item 9	P6000-M10
Repair Kit for Front Operation - Exposed Includes Items 4-9	P6000-MHK
Handle Assembly (Front) Includes Items 2-9	P6000-MH

Control Stop Repair Kit and Parts	Product No.
Control Stop Repair Kit for 1" and 3/4"	P6000-D-SD
Includes Items 28-34	
Seal Seat for 1" and 3/4", Includes Item 24	P6000-D42
VP Control Stop Repair Kit for 1" and 3/4"	P6000-D-VP
Sweat Solder Connection with Cast Wall Flange	P6000-YB

Adjustable Tailpieces	Product No.
Adjustable Tailpiece for Standard Flush Valve Includes Items 22-25	P6000-J1
Tailpiece Coupling Assembly Includes Items 23-25	P6000-K
Tailpiece Locking Ring Includes Item 23	P6000-C30
Tailpiece O-Ring Includes Item 24	P6000-C31
Coupling Nut Includes Item 25	P6000-C32

Flush Connections and Spud Coupling Kits	Product No.
Flush Tube Assembly for Flush Valves Includes Items 14-17. Specify diameter and length.	P6000-A
Vacuum Breaker Repair Kit Includes Items 14-15	P6000-B-HP
Spud Coupling Assembly Includes Items 18-21. Specify size.	P6000-H-CP

Aquaflush® Trouble Shooting Guide

Problem	Cause*	Corrective Action*
Valve will not operate.	1.) Stop valve is closed. 2.) Supply valve is closed.	1.) Open stop valve. 2.) Open supply valve.
Insufficient volume of water to adequately siphon fixture.	"1.) Stop valve is not open enough. 2.) Urinal trip mechanism installed in wrong kit, urinal for closet. 3.) Insufficient volume or pressure at supply.	1.) Open stop valve for desired volume of water. 2.) Replace urinal part with proper closet valve part. 3.) If gauges are not available to measure supply pressure or volume of water at the valve, completely remove the working parts and open the stop valve to allow water to pass through the empty valve. If the supply is adequate to siphon the fixture, the guide ring (#16) may be removed from the guide assembly to provide additional flow (see page 5). Should this prove unsatisfactory, steps should be taken to increase the pressure and/or supply.
Flush valve shuts off too quickly.	1.) Damaged or punctured diaphragm. 2.) Enlarged by-pass orifice. "	1.) Install new P6000-EUR or P6000-ECR replacement kit to remedy the problem. (#12 thru #17) 2.) Install new P6000-EUR or P6000-ECR replacement kit to remedy the problem. (#12 thru #17) "
Valve is short flushing.	1.) Diaphragm kit is not matched to the fixture. 2.) Urinal trip mechanism (black #12) is in the closet flush valve.	"1.) Install the proper P6000-EUR or P6000-ECR replacement kit to remedy the problem. (#12 thru #17) 2.) Install closet trip mechanism (white #12).
Valve is flushing too long or not shutting off.	1.) Trip mechanism not seating properly due to foreign material between trip mechanism and retainer disc. 2.) By-pass orifice is plugged or partially plugged. 3.) Line pressure is not adequate to force trip mechanism to seal. 4.) Cracked cover. (#11)	1.) Disassemble parts and rinse thoroughly. 2.) Examine by-pass orifice and clean if necessary being certain not to enlarge orifice opening. 3.) Pressure is inadequate or has dropped below minimum operating range. Steps should be taken to increase the line pressure. 4.) Replace cover with new one.
Water splashes out of fixture.	1.) Supply volume is more than is necessary. 2.) Lime accumulation on vortex or spreader holes of fixture.	1.) Adjust downward on control stop. 2.) Remove the lime build up.
Flush is not considered quiet.	1.) Control stop may not be adjusted for quiet operation. 2.) Fixture may be contributing to noise. 3.) Piping system may be source of noise.	1.) Adjust the control stop for quiet operation keeping in mind the fixture evacuation requirements. 2.) Check noise created by fixture by placing a cover over the bowl opening to separate valve noise from bowl noise. If it is determined the fixture is too noisy consult with fixture manufacturer. 3.) High pressure in the system can sometimes be controlled by the stop valve. Other sources of noise may be the absence of air chambers and shock arrestors, loose pipes, improper size pipes, etc. In these cases the building engineer should be consulted.
Handle assembly leaking.	1.) Handle assembly is not tight.	1.) Tighten handle assembly.

Care of Chrome Plated Surfaces

The suggested cleaning of chrome plated surfaces is simply to clean them with mild soap and water, then dry. Commercial cleaning compounds are never recommended.

Seasonal Use

Valves used in installations subject to shut down because of cold and freezing conditions should be maintained in the following manner. After the main supply has been shut off and the water drained from the system, remove the stop valve cap and stop valve internals to allow the water to drain from the flush valve itself.

*See previous page for numerical references.



ZURN INDUSTRIES, LLC COMMERCIAL BRASS OPERATION, 5900 ELWIN BUCHANAN DRIVE, SANFORD, NC, U.S.A. 27330
PHONE: 1-800-997-3876 FAX: 919/775-3541 www.zurn.com
ZURN INDUSTRIES LIMITED 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V 1L2 PHONE: 905/405-8272 FAX: 905/405-1292



Manual Handle Flush Valve Troubleshooting Guide

Problem	Cause	Corrective Action
Valve will not operate.	1.) Stop valve is closed. 2.) Supply valve is closed.	1.) Open stop valve. 2.) Open supply valve.
Insufficient volume of water to adequately siphon fixture.	1.) Stop valve is not open enough. 2.) Improper diaphragm kit installed. 3.) Insufficient volume or pressure at supply.	1.) Open stop valve for desired volume of water. 2.) Replace with proper gallons-per-flush diaphragm kit. 3.) Measure water pressure. If gauges are not available to measure supply pressure or volume of water at the valve, remove the trip component and reassemble the valve. Then, open the stop valve to allow water to pass through the empty valve. Should this prove unsatisfactory, steps should be taken to increase the pressure and/or supply.
Flush valve shuts off too quickly.	1.) Damaged or punctured diaphragm. 2.) Enlarged by-pass orifice. 3.) Improper diaphragm kit installed.	1.) Replace diaphragm kit. 2.) Replace diaphragm kit. 3.) Replace with proper gallons-per-flush diaphragm kit.
Valve is flushing too long or not shutting off.	1.) Trip mechanism not seating properly due to foreign material between trip mechanism and retainer disc. 2.) By-pass orifice is plugged or partially plugged. 3.) Line pressure is not adequate to force trip mechanism to seal. 4.) Cracked cover. 5.) Debris may be trapped on underside of diaphragm.	1.) Disassemble parts and rinse thoroughly. 2.) Examine by-pass orifice and clean if necessary being certain not to enlarge orifice opening. 3.) Pressure is inadequate or has dropped below minimum operating range. Steps should be taken to increase the line pressure. 4.) Replace cover with new one. 5.) Clean debris from diaphragm kit and be sure no damage has been done to diaphragm.
Water splashes out of fixture.	1.) Supply volume is more than is necessary. 2.) Lime buildup on vortex or spreader holes of fixture.	1.) Turn stop valve clockwise to reduce supply to desired volume. 2.) Remove the lime build up.
Flush is not considered quiet.	1.) Control stop may not be adjusted for quiet operation. 2.) Fixture may be contributing to noise. 3.) Piping system may be source of noise.	1.) Adjust the control stop for quiet operation keeping in mind the fixture evacuation requirements. 2.) Check noise created by fixture by placing a cover over the bowl opening to separate valve noise from bowl noise. If it is determined the fixture is too noisy consult with fixture manufacturer. 3.) High pressure in the system can sometimes be controlled by the stop valve. Other sources of noise may be the absence of air chambers and shock arrestors, loose pipes, improper size pipes, etc. In these cases the building engineer should be consulted.
Chattering noise in flush valve.	1.) The inside cover has been distorted by freezing or abuse.	1.) Replace both inside plastic cover and outside brass cover.
Handle assembly leaking.	1.) Handle assembly is not tight.	1.) Tighten handle assembly.

Care of Chrome Plated Surfaces

The suggested cleaning of chrome plated surfaces is simply to clean them with mild soap and water, then dry. Commercial cleaning compounds are never recommended.

Seasonal Use

Valves used in installations subject to shut down because of cold and freezing conditions should be maintained in the following manner. After the main supply has been shut off and the water drained from the system, remove the stop valve cap and stop valve internals to allow the water to drain from the flush valve itself.

Replacement Parts

Use Zurn replacement parts. Use of any other parts may result in a decline in performance and water savings.

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Warranty

Warranty Statement

All products are guaranteed against defects in material and workmanship for a period of one (1) year from date of purchase.

This guarantee does not apply to any compression molded wood, solid wood, decorator, or economy residential plastic toilet seats used in nonresidential installations, including hotels and motels.

This guarantee does not apply to any toilet seats which are modified in any way or used on any type of installation or unit other than conventional water closets. We assume no liability for toilet seats modified or installed on anything other than conventional water closets.

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P-9

Installation Manual

703500R

Submersible Dewatering/Effluent Pumps

Models

250-Series	1/3 hp
280-Series	1/2 hp
290-Series	3/4 hp
FL30-Series	1/3 hp
FL50-Series	1/2 hp
FL60-Series	6/10 hp
FLH60-Series	6/10 hp
FL70-Series	3/4 hp
FL100-Series	1 hp
FL150-Series	1-1/2 hp
FL200-Series	2 hp



NOTICE

Installer: Manual must remain with owner/operator.

Prior to installation, record information from pump nameplate for future reference:

7000 Apple Tree Avenue
Bergen, NY 14416
ph: 1-800-543-2550
fax: 1-585-494-1839
www.LibertyPumps.com









Keep this manual handy for future reference.
For replacement manual, visit LibertyPumps.com,
or contact Liberty Pumps at 1-800-543-2550.
Retain dated sales receipt for warranty.


Model: _____
Serial: _____
Mfg Date: _____
Install Date: _____

Contents

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Inspection and Storage	4 EN
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Installation	6 EN
Operation	9 EN
Maintenance and Troubleshooting	9 EN
Warranty	12 EN

Safety Guidelines

	This safety alert symbol is used in the manual and on the pump to alert of potential risk for serious injury or death.
	This safety alert symbol identifies risk of electric shock . It is accompanied with an instruction intended to minimize potential risk of electric shock.
	This safety alert symbol identifies risk of fire . It is accompanied with an instruction intended to minimize potential risk of fire.
	This safety alert symbol identifies risk of serious injury or death . It is accompanied with an instruction intended to minimize potential risk of injury or death.
	Warns of hazards which if not avoided will result in serious injury or death.
	Warns of hazards which if not avoided could result in serious injury or death.
	Warns of hazards which if not avoided could result in minor or moderate injury.
	Signals an important instruction related to the pump. Failure to follow these instructions could result in pump failure or property damage.

	Read every supplied manual before using pump system. Follow all the safety instructions in manual(s) and on the pump. Failure to do so could result in serious injury or death.
---	---

Safety Precautions

RISK OF ELECTRIC SHOCK

- Accidental contact with electrically live parts, items, fluid, or water can cause serious injury or death.
- Always disconnect pump(s) from power source(s) before handling or making any adjustments to either the pump(s), the pump system, or the control panel.
- All installation and maintenance of pumps, controls, protection devices, and general wiring shall be done by qualified personnel.
- All electrical and safety practices shall be in accordance with the National Electrical Code®, the Occupational Safety and Health Administration, or applicable local codes and ordinances.
- Do not remove cord and strain relief, and do not connect conduit to pump.
- Pump shall be properly grounded using its supplied grounding conductor. Do not bypass grounding wires or remove ground prong from attachment plugs. Failure to properly ground the pump system can cause all metal portions of the pump and its surroundings to become energized.
- Do not handle or unplug the pump with wet hands, when standing on damp surface, or in water unless wearing Personal Protective Equipment.
- Always wear dielectric rubber boots and other applicable Personal Protective Equipment (PPE) when water is on the floor and an energized pump system must be serviced, as submerged electrical connections can energize the water. Do not enter the water if the water level is higher than the PPE protection or if the PPE is not watertight.
- Do not lift or carry a pump or a float assembly by its power cord. This will damage the power cord, and could expose the electrically live wires inside the power cord.
- The electrical power supply shall be located within the length limitations of the pump power cord, and for below grade installations it shall be at least 4 ft (1.22 m) above floor level.
- Do not use this product in applications where human contact with the pumped fluid is common (such as swimming pools, fountains, marine areas, etc.).
- Protect the power and control cords from the environment. Unprotected power and control (switch) cords can allow water to wick through ends into pump or switch housings, causing surroundings to become energized.
- Single-phase 208/230V pumps shall only be operated without the float switch by using the circuit breaker or panel disconnect.
- Some products may have internal capacitors that could cause shock. Avoid contact with plug ends after removing from energy source.
- Do not use metal or any other electrical conducting material to raise the float or contact anything inside an electrically live sump pit.

WARNING**RISK OF FIRE**

- Do not use an extension cord to power the product. Extension cords can overload both the product and extension cord supply wires. Overloaded wires will get very hot and can catch on fire.
- This product requires a separate, properly fused and grounded branch circuit, sized for the voltage and amperage requirements of the pump, as noted on the nameplate. Overloaded branch circuit wires will get very hot and can catch on fire. When used, electrical outlets shall be simplex of the appropriate rating.
- For cord replacement: power cord must be of the same length and type as originally installed on the Liberty Pumps product. Use of incorrect cord may lead to exceeding the electrical rating of the cord and could result in death, serious injury, or other significant failure.
- Do not use this product with or near flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. If rotating elements inside pump strike any foreign object, sparks may occur. Sparks could ignite flammable liquids.
- Sewage and effluent systems produce and may contain flammable and explosive gases. Prevent introduction of foreign objects into basin as sparks could ignite these gases. Exercise caution using tools and do not use electronic devices or have live, exposed electrical circuits in or around basins, open covers and vents.
- Manual pumps that have been factory constructed with a power cord with no male attachment plug must use an approved motor control panel. Do not wire a switch in series with the pump power cord as this can overload the wires. Overloaded wires get very hot and can catch on fire.
- These pumps are not to be installed in locations classified as hazardous in accordance with the National Electric Code®, ANSI/NFPA 70.

WARNING**RISK OF SERIOUS INJURY OR DEATH**

- Energizing the control panel or breaker for the first time is potentially dangerous. Licensed electrical personnel should be present when the panel or breaker is energized for the first time. If faults caused by damage or poor installation practices have not been detected, serious damage, injury or death can result when power is applied.
- Do not modify the pump/pump system in any way. Modifications may affect seals, change the electrical loading of the pump, or damage the pump and its components.
- All pump/pump system installations shall be in compliance with all applicable Federal, State, and Local codes and ordinances.
- Do not allow children to play with the pump system.
- Do not allow any person who is unqualified to have contact with this pump system. Any person who is unaware of the dangers of this pump system, or has not read this manual, can easily be injured by the pump system.

- In 208/230V installations, one side of the line going to the pump is always “hot”, whether the float switch is on or off. To avoid hazards, install a double pole disconnect near the pump installation.
- Vent basin in accordance with local code. Proper venting of sewer and effluent gases alleviates poisonous gas buildup and reduces the risk of explosion and fire from these flammable gases.
- Wear adequate Personal Protective Equipment when working on pumps or piping that have been exposed to wastewater. Sump and sewage pumps often handle materials that can transmit illness or disease upon contact with skin and other tissues.
- Do not enter a pump basin after it has been used. Sewage and effluent can emit several gases that are poisonous.
- Do not remove any tags or labels from the pump or its cord.
- Keep clear of suction and discharge openings. To prevent injury, never insert fingers into pump while it is connected to a power source.
- Do not use this product with flammable, explosive, or corrosive fluids. Do not use in a flammable and/or explosive atmosphere as serious injury or death could result.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. www.p65warnings.ca.gov.

CAUTION

- ◆ This pump has been evaluated for use with water only.

NOTICE

- ◆ Verify 3-phase pumps for correct rotation prior to installing pump(s) in basin. To change rotation, reverse any two of the three power leads to the pump (not the ground). Code the wires for reconnection after installation.
- ◆ Do not dispose of materials such as paint thinner or other chemicals down drains. Doing so could chemically attack and damage pump system components and cause product malfunction or failure.
- ◆ Do not use pumps with fluid over 140°F (60°C). Operating the pump in fluid above this temperature can overheat the pump, resulting in pump failure.
- ◆ Do not use pump system with mud, sand, cement, hydrocarbons, grease, or chemicals. Pump and system components can be damaged from these items causing product malfunction or failure. Additionally, flooding can occur if these items jam the impeller or piping.
- ◆ Do not introduce any consumer item that is not toilet paper into a non-grinder (dewatering/effluent or sewage) pump/pump system. This includes, but is not limited to the following: feminine products, wipes, towels, towelettes, dental floss, swabs, pads, etc. Items such as these put the pump under undo strain and can result in pump/pump system failure. Additionally, it creates conditions for discharge line blockage.
- ◆ Submersible Pump—do not run dry
- ◆ Do not exert heavy pressure or run heavy equipment on the backfill material as this could cause the tank to collapse.

- ◆ Do not position the pump float directly under the inlet from drain tile or in the direct path of any incoming water.
- ◆ Keep pump upright.
- ◆ Do not allow pump to freeze.
- ◆ At no time shall the pump be stored within an incomplete wet basin. The pump shall not be placed into the basin until it can be fully operational.
- ◆ Effluent pumps need to be totally submerged below the water line to prevent pump corrosion.

General Information

Before installation, read these instructions carefully. Each pump is individually factory tested to ensure proper performance. Closely following these instructions will eliminate potential operating problems, assuring years of trouble-free service.

These pumps are to be used for handling septic tank effluent and drain (storm) water.

Provide pump serial number in all correspondence.

Pumps are certified to CSA® and UL® standards.

Pumps must be serviced at a qualified repair facility approved by Liberty Pumps. No repair work should be carried out during the warranty period without prior factory approval. Any unauthorized field repairs void warranty. Contact Liberty Pumps at 1-800-543-2550 to locate the closest authorized service center.

Operating Constraints

It is extremely important to verify that the pump has been sized correctly for the intended installation. The operating point of the pump must lie within the acceptable range as outlined by the applicable Liberty Pumps performance chart. Operating the pump outside of the recommended range can invalidate the CSA Certification of the pump and can also cause damage and premature failure. Operating outside of the recommended range can cause the pump to exceed its rated nameplate amp draw, which will void the pump certification. It can also cause motor overheating, cavitation, excessive vibration, clogging, and poor energy efficiency.

Model Specifications

For complete listing of models and their specifications, refer to <http://www.LibertyPumps.com/About/Engineering-Specs>. Pump nameplate provides a record of specific pump information.

Inspection and Storage

Initial Inspection

Inspect pump immediately for damage that may have occurred in shipment.

1. Visually check the pump and any spare parts for damage.
2. Check for damaged electrical wires, especially where they exit the motor housing.

Contact Liberty Pumps customer service to report any damage or shortage of parts.

Storage Before Use

WARNING **RISK OF ELECTRIC SHOCK**

- Protect the power and control cords from the environment. Unprotected power and control (switch) cords can allow water to wick through ends into pump or switch housings, causing surroundings to become energized.

NOTICE

- ◆ At no time shall the pump be stored within an incomplete wet basin. The pump shall not be placed into the basin until it can be fully operational.
- ◆ Do not allow the pump to freeze.

Pumps are shipped from the factory ready for installation and use. Hold the pump in storage if the pump station is not complete.

If storage is necessary, the pump should remain in its shipping container. It should be stored in a warehouse or storage shed that has a clean, dry temperature-stable environment where the pump and its container are covered to protect it from water, dirt, vibration, etc. The cord ends must be protected against moisture.

Uninstalled pumps that are idle for greater than three months should have impellers manually rotated once a month to lubricate the seals.

Installed pumps that are idle for greater than one month should have impellers manually operated through the breaker panel once a month to lubricate the seals. For **automatic models**, turn off the breaker, unplug the piggyback switch, and plug the pump directly into the wall socket. Turn the breaker on for 30 seconds, then turn the breaker off. Plug the piggyback switch back in. Refer to **Piggyback Switch Operation** on page 7.

Pumps that are idle in a wet basin must be removed.

Pump Design

All Liberty Pumps dewatering/effluent pumps come equipped with an air bleed hole in the base of the pump to help prevent airlock. A small spray of water from this hole is normal while pump is running.

For added protection, consider the addition of a back-up pump, as well as an alarm in applications where loss of pump function could result in property damage. If an alarm is used, it must be connected to a separate electrical circuit.

Pump System Components

Control Panel

Manual models ("M" suffix) and 3-phase models require a separate, approved pump control device or panel for automatic operation. Operation will be according to the control panel selected. Refer to separate manufacturer's instructions supplied with the unit. Verify the electrical specifications for the control panel properly match those of the pump. 3-phase models require overload elements selected or adjusted in accordance with the control or panel instructions.

Mounting, installation, and wiring connections are specific to the control panel used. Refer to the manufacturer's instructions supplied with the unit.

IMPORTANT: When connecting a new pump to an existing control panel, verify the panel is correctly sized and equipped for the pump.

Control panels designed for use with specific pumps available from Liberty Pumps can be found at http://www.LibertyPumps.com/Portals/0/Files/panel_selection_guide.pdf or contact Liberty Pumps.

Float Switches

⚠️ WARNING RISK OF ELECTRIC SHOCK

- Single-phase 208/230V pumps shall only be operated without the float switch by using the circuit breaker or panel disconnect.

Automatic Models

All FL-Series automatic models ("A" suffix) and Models 253, 283 and 293 come factory-equipped with a float switch mounted to the pump. These models come with two cords—one to the float switch and the other to the pump motor. The switch cord has a series (piggyback) plug enabling the pump motor cord to be plugged into the back of it. The purpose of this design is to allow temporary manual operation of the pump.

For manual operation, or in the event of float switch failure, the pump cord can be separated and plugged into the electrical outlet, directly bypassing the switch. Refer to **Piggyback Switch Operation** on page 7.

If using a differential other than the factory setting, verify that when the pump turns off, the minimum fluid level left in the basin is per Table 1 so the impeller remains submerged. A minimum cord length of 3-1/2" from the tether point to the top surface of the float is required for proper switch operation.

Models 251, 257, 281, 287, 291, and 297 have factory-preset float switches that are not adjustable. Other pumping differentials may be obtained by tethering the switch cord to the discharge pipe.

Switchless (Manual) Models

Manual pumps with no float switch are intended to be run using an approved liquid level control or approved motor control with correct rating that matches motor input in full load amperes. Regardless of the control type, verify that when the pump shuts off, the minimum fluid level left in the basin is per Table 1 so the impeller remains submerged.

IMPORTANT: Manual pumps factory constructed with a power cord with no male attachment plug must use an approved motor control panel. **Do not wire a switch in series with the pump power cord.**

Automatic operation with optional control devices: if the pump(s) are to be operated by either a simplex or duplex control panel or other optional control device, follow the manufacturer's instructions provided with the control panel for power connections.

Float Switch Settings

Table 1 includes factory set float levels for automatic models. The turn OFF level must be maintained as it is the **minimum** water depth to ensure proper cooling. Manual pumps have user-set turn ON levels.

Table 1. Factory Set Float Switch Settings

Model	Turn OFF Level	Turn ON Level
250	4"	user-set
251, 253	4"	11"
257	4"	7"
280	4"	user-set
281, 283	7"	13"
287	4"	9.5"
290	4"	user-set
291, 293	7"	13"
297	4"	9.5"
FL30	5"	12"
FL50	6"	13"
FL60	6"	13"
FL70	6"	13"
FLH60	6"	13"
FL100	8"	15"
FL150	8"	15"
FL200	8"	15"

Preparation

WARNING **RISK OF ELECTRIC SHOCK**

- Always disconnect pump(s) from power source(s) before handling or making any adjustments to either the pump(s), the pump system, or the control panel.

The basin required for effluent applications must be sealed and vented to meet health and plumbing code requirements. Proper basin size and materials for effluent applications vary depending on the type of effluent system and local codes. Check local codes prior to purchasing and installing the basin. Follow the manufacturer's recommended guidelines for installation of the basin. A minimum diameter of 18" and depth of 24" is required for proper pump operation, but larger basins are preferred for longer pump cycles and increased float switch life. Installation should be at a sufficient depth to ensure that all plumbing is below the frost line. If this is not feasible, size the basin and/or adjust the pump differential to accommodate the additional backflow.

For ordinary ground water pumping applications, it is recommended that the sump basin diameter be a *minimum* of 14". Vertical Magnetic Float (VMF) models 257, 287, and 297 may be used in a *minimum* 10" diameter sump; however, a larger diameter basin is preferred as it allows for a longer pump cycle and reduced float switch cycling. The depth of the basin should be a *minimum* of 18".

Prepare Existing Sump [Basin]

If replacing a previously installed pump, prepare the basin by removing the old pump and cleaning any debris from the basin. Inspect all remaining equipment in the basin including piping, valves, and electrical junction boxes (if present) and repair or replace as appropriate.

If the basin is not already enclosed on the bottom, provide a hard level bottom of bricks or concrete. Do not place the pump directly on earth, gravel, or debris since this can cause excessive wear of the impeller and possible jamming.

"The Brick" (Liberty Pumps #4445000) is a pre-molded stable platform designed to fit the 250, 280, and 290-Series submersible pumps. It raises the pump 2-1/2" off the bottom of the basin, reducing the potential for jamming from rocks and debris. Contact a local distributor to order.

Prepare New Sump [Basin]

Excavation

WARNING **RISK OF SERIOUS INJURY OR DEATH**

- Locate all overhead and underground utilities before excavating.

Excavate the hole as small as possible, with a minimum recommended 8" diametrical clearance around the tank. Never place the basin directly in contact with rocks or other sharp objects. Place only fine, 1/8" to 3/4" pea gravel or 1/8" to 1/2" washed, crushed stone as bedding between the basin and the hole walls.

Do not use sand or native soil as backfill. Properly compact underneath the basin to provide a solid, level base that can support the weight of the filled basin.

Inlet Connection & Initial Backfill

Use only fine, 1/8" to 3/4" pea gravel or 1/8" to 1/2" washed, crushed stone around the bottom of the basin to hold it in place. Do not use sand or native soil as backfill.

Make the inlet connection as required per basin.

Final Backfill

NOTICE

- ◆ Do not exert heavy pressure or run heavy equipment on the backfill material as this could cause the tank to collapse.

Keep large rocks, clods, and foreign objects out of the backfill material. Only fine, 1/4" to 3/4" pea gravel, or 1/8" to 1/2" washed, crushed stone is recommended. Do not use sand or native soil as backfill. Mound the backfill slightly and allow for natural settling. Provide access to the basin cover for maintenance and service.

Compaction of backfill materials must be adequate to ensure the support of the tank, and to prevent movement or settlement.

Installation

WARNING **RISK OF ELECTRIC SHOCK**

- All installation and maintenance of pumps, controls, protection devices, and general wiring shall be done by qualified personnel.
- All electrical and safety practices shall be in accordance with the National Electrical Code®, the Occupational Safety and Health Administration, or applicable local codes and ordinances.

Electrical Connections

With main power disconnected, complete pump and control wiring connections per manufacturer's wiring diagrams included with the control panel as applicable. Check all wires for unintentional grounds after the connections are made.

Guide Rail System

If guide rails are used, refer to the separate instructions supplied with the unit for proper installation and operation, making sure all gaskets and components are present. Liberty Pumps Guide Rail System features a self-aligning mounting bracket. Contact Liberty Pumps for available models, such as GR22 and GR30 for FL-Series models.

If guide rails are not used, complete all pump-mounted plumbing at this time, being sure all gaskets and components are present.

Pump

Record information from pump nameplate onto cover of these instructions. Complete a visual inspection before lowering into basin.

3-Phase Pump Rotation Verification

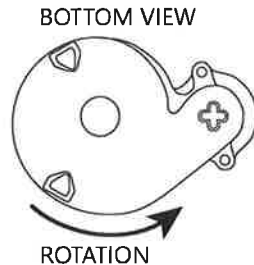
NOTICE

- Check 3-phase pumps for correct rotation prior to installing pump(s) in basin. To change rotation, reverse any two of the three power leads to the pump (not the ground). Code the wires for reconnection after installation.

3-phase power uses three separate alternating currents that peak at different integrals. With pumps that are powered by three phase electric, the phase sequence of the motor must match the phase sequence of the power source. When the phase sequences match, the pump operates properly.

However, when the phases are out of order, the pump runs backward (i.e., the impeller rotates in the wrong direction). This causes an extreme loss of performance and could raise the current draw, which could result in tripping an overload or circuit breaker.

To ensure that the power to the pump is installed correctly, always verify proper rotation **before** lowering it into the basin. If the pump is rotating in the wrong direction, turn off the power and reverse any two leads to the pump (not ground). This reverses the phase sequence and corrects the pump rotation. For 3-phase pumps, rotation must be counterclockwise when looking from the bottom of the pump. Label the wires for reconnection after installation.



Automatic Pump Direct Wiring

⚠️ RISK OF SERIOUS INJURY OR DEATH

- In 208/230V installations, one side of the line going to the pump is always "hot", whether the float switch is on or off. To avoid hazards, install a double pole disconnect near the pump installation.

If a 1-phase pump will be wired directly into a junction box, and it is necessary to remove the plug, a certified electrician shall complete the wiring in accordance with the National Electric Code and applicable local codes. A disconnecting means for the pump shall be located in sight from the pump/basin location. See Figure 1 for direct wire installation of 1-phase, automatic pumps.

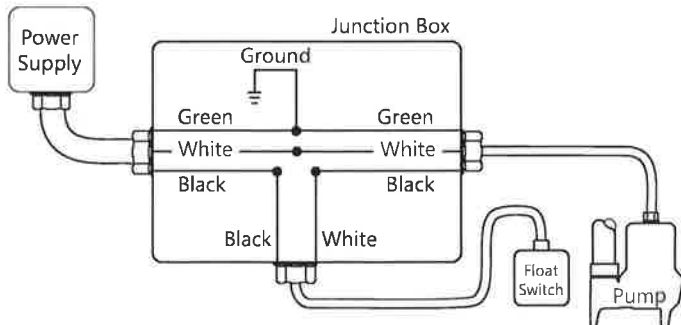
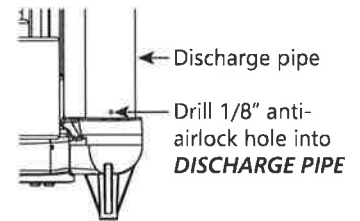


Figure 1. Direct Wiring of 115 V or 208/230 V, 1-Phase, Automatic

Discharge

A check valve is required to prevent the backflow of liquid after each pumping cycle. A gate valve should follow the check valve to allow periodic cleaning of the check valve or removal of the pump. The remainder of the discharge line should be as short as possible with a minimum number of turns to minimize friction head loss. **Do not reduce the discharge to below that which is provided on the pump.** Larger pipe sizes may be required to eliminate friction head loss over long runs. Contact Liberty Pumps or other qualified person if questions arise regarding proper pipe size and flow rates.

Check valve usage requires drilling an 1/8" anti-airlock hole in the discharge pipe just above the pump's discharge outlet to prevent pump airlock. Water spray from this hole is normal.



Vent

Vent basin in accordance with applicable plumbing codes.

Piggyback Switch Operation

⚠️ RISK OF ELECTRIC SHOCK

- Single-phase 208/230V pumps shall only be operated without the float switch by using the circuit breaker or panel disconnect.

IMPORTANT: Verify breaker is turned off before plugging in the switch.

Plug the piggyback switch into the receptacle. The receptacle must be wired to an appropriately sized breaker. Plug the pump into the piggyback receptacle. Install the cable clamp (if supplied) for strain relief.

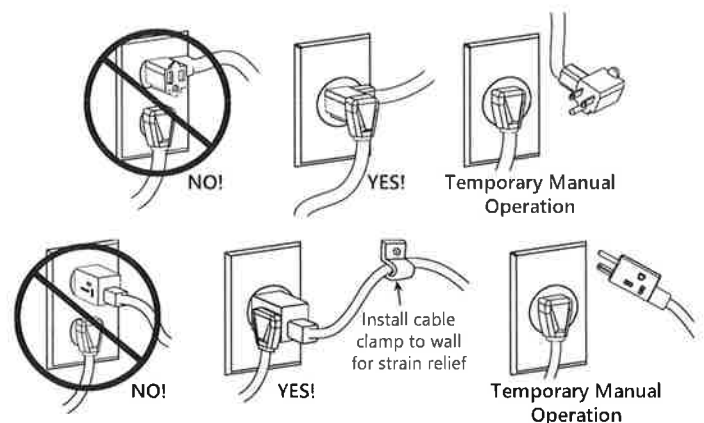


Figure 2. Piggyback Switch Operation

Dewatering/Sump System Application

A securable sump basin cover is required for safety and to prevent foreign objects from entering the basin.

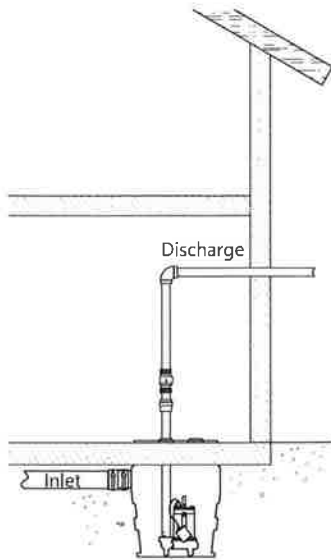


Figure 3. Typical Sump Installation (variations may apply)

1. Place pump in basin making certain the mounting interface (i.e., guide rail, torque stop) is engaged correctly. Float switch must have adequate clearance to side wall of basin and free, unobstructed movement throughout its complete travel and must not contact the pump, piping, or other objects. A 1-1/2" threaded discharge is provided for connection of the discharge pipe. **Do not restrict the discharge to below that which is provided on the pump.** Schedule 40 PVC pressure pipe is recommended.
2. Connect discharge pipe to the discharge of the pump. Hand-tighten only. Over-tightening may cause the pump housing to crack.
3. Install a union or other means of separating the discharge line just above the floor to facilitate removal of the pump when necessary. A check valve is **required** just above or in place of the union to prevent the backflow of water after each pump cycle.
4. Connect additional piping as needed to direct the discharge to the desired location. Discharge should be kept as short as possible with a minimum number of turns.
5. Check all connections.

Effluent System Application

VMF models (257, 287, and 297) are *not* recommended for effluent applications due to their short ON/OFF cycle. Wide-angle float models are better suited for effluent applications and are easily adjustable for different ON/OFF levels.

A securable basin cover is required for safety and to prevent foreign objects from entering the basin.

Simplex (One Pump) Systems

NOTICE

- ◆ Effluent pumps need to be totally submerged below the water line to prevent pump corrosion.

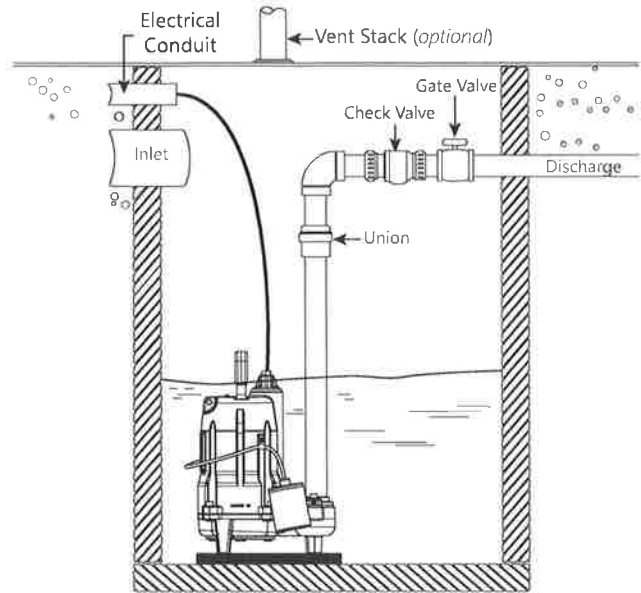


Figure 4. Typical Simplex System Installation (variations may apply)

1. Place pump in basin making certain the mounting interface (i.e., guide rail, torque stop) is engaged correctly. Float switch must have adequate clearance to side wall of basin and free, unobstructed movement throughout its complete travel and must not contact the pump, piping, or other objects.
2. If an optional control device or float is used, follow the separate manufacturer's directions for mounting. Minimum pump turn OFF level must not be set below Table 1 values.
3. Connect the discharge pipe to the pump's threaded discharge. **Do not reduce the discharge pipe size below that which is provided on the pump.**
4. Install the remaining discharge line.
5. Install a union to facilitate pump removal when necessary.
6. Install a check valve after the union to prevent the backflow of liquid after each pumping cycle.
7. Install a gate valve after the check valve to allow periodic cleaning of the check valve or removal of the pump.
8. Install the remainder of the discharge line as short as possible with a minimum number of turns to minimize friction head loss. Larger pipe sizes may be required to eliminate friction head loss over long runs. Contact Liberty Pumps or other qualified person if there are questions regarding proper pipe size and flow rates.
9. Mount and properly seal the basin cover.
10. Vent basin in accordance with applicable plumbing codes.

Duplex (Two Pump) Systems

NOTICE

- ◆ Effluent pumps need to be totally submerged below the water line to prevent pump corrosion.

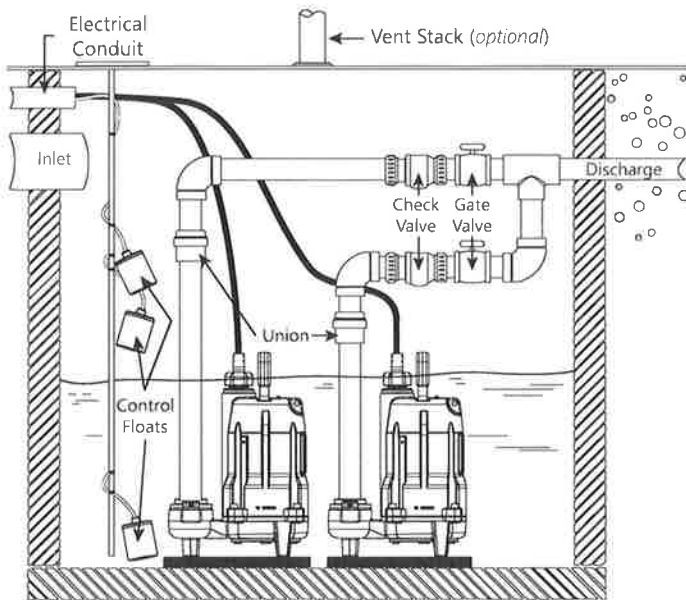


Figure 5. Typical Duplex System Installation (variations may apply)

1. Place both pumps in basin, making certain the mounting interface (i.e., guide rail, torque stop) is engaged correctly. The duplex control used will include 3 or 4 floats that will either be tethered to one of the discharge pipes or to an independent rod or bracket. Follow the duplex control manufacturer's instructions provided with the device. Each float switch must have adequate clearance to side wall of basin and free, unobstructed movement throughout its complete travel and must not contact the pump, piping, or other objects. Minimum pump turn OFF level must not be set below Table 1 values.
2. Connect an individual discharge pipe to each pump. **Do not reduce the discharge pipe size below that which is provided on the pump.** Larger pipe sizes may be required in some applications to reduce friction head loss over long runs. Contact Liberty Pumps or other qualified person if there are questions regarding proper pipe size and flow rates.
3. Install unions or flexible connectors to facilitate removal of the pump if necessary.
4. Install check valves on each discharge after the union and prior to the gate valve to prevent the back flow of liquid or gas. **A check valve on each discharge line, prior to tying into one common line, is necessary to prevent the recycling of fluid from one pump to the other.** A gate valve is recommended after the check valve to allow for periodic cleaning of the check valve or removal of the pump. Depending on the height of the basin, the check valves may either be installed inside the basin or outside the basin.

5. Install the remainder of the discharge line as short as possible with a minimum number of turns to minimize friction head loss. Larger pipe sizes may be required to eliminate friction head loss over long runs. Contact Liberty Pumps or other qualified person if there are questions regarding proper pipe size and flow rates.
6. Mount and properly seal the basin cover.
7. Vent basin in accordance with applicable plumbing codes.

Operation

⚠ WARNING RISK OF SERIOUS INJURY OR DEATH

- Energizing the control panel or breaker for the first time is potentially dangerous. Licensed electrical personnel should be present when the panel or breaker is energized for the first time. If faults caused by damage or poor installation practices have not been detected, serious damage, injury or death can result when power is applied.

Starting System

1. Verify all plumbing components are installed correctly and functional. Verify all valves are open and ready for pump use.
2. Double check all wire connections. Re-tighten all factory and field connections.
3. Ensure pump has no obstructions.
4. With all electrical and mechanical connections complete and secure, turn on power to pump and control panel, if applicable.
5. Verify operation of the pump, floats, and alarm circuits.
6. Run several cycles of water through the system to verify correct control operation for the installation.

Be certain to complete adequate testing, especially on systems with multiple pumps or custom control configurations.

Maintenance and Troubleshooting

⚠ WARNING RISK OF ELECTRIC SHOCK

- Accidental contact with electrically live parts, items, fluid, or water can cause serious injury or death.
- Always disconnect pump(s) from power source(s) before handling or making any adjustments to either the pump(s), the pump system, or the control panel.

⚠ WARNING RISK OF SERIOUS INJURY OR DEATH

- Wear adequate Personal Protective Equipment when working on pumps or piping that have been exposed to wastewater. Sump and sewage pumps often handle materials that can transmit illness or disease upon contact with skin and other tissues.
- Do not enter a pump basin after it has been used. Sewage and effluent can emit several gases that are poisonous.

NOTICE

- ◆ Verify correct 3-phase pump rotation before retuning to service.

Maintenance

As the motor is oil-filled, no lubrication or other maintenance is required. Severe operating environments will require more frequent checks. For any issues that are not resolvable, contact Liberty Pumps for further assistance.

In the event the pump becomes clogged, the inlet screen can be removed to gain access to the pump impeller. Once the obstruction is removed, the anti-airlock hole should be cleaned.

To keep the pump/pump system operating smoothly, perform the following routine checks:

Monthly

1. Pumps that are idle for more than a month in a dry basin should have impellers manually operated through the breaker panel monthly to lubricate the seals.
2. ***Pumps that are idle in a wet basin must be removed.***

Quarterly

1. Check pumps for corrosion and wear.
2. Check for free and unobstructed float switch operation and float switch condition.
3. Inspect for proper check valve operation.
4. For multiple pumps, check for balanced operating times. Uneven times indicate a defective unit, float switch or control.
5. Inspect the control panel for any presence of moisture in enclosure, loose connections, and general component condition.

Annually

1. Inspect and clean basin. Replace any defective components.

Troubleshooting

No repair work shall be carried out during the warranty period without prior factory approval. To do so may void the warranty.

Liberty Pumps, Inc. assumes no responsibility for damage or injury due to disassembly in the field. Disassembly, other than an authorized repair facility approved by Liberty Pumps or its authorized service centers, automatically voids warranty.

Refer to Table 2 for troubleshooting guidance.

Table 2. Troubleshooting Matrix

Problem	Possible Cause	Corrective Action
Pump does not start.	Damaged power or control cord.	Replace as needed.
	Control panel selector switch in OFF position.	Set selector switch to Hand or Auto position.
	Blown control circuit transformer fuse.	Replace fuse.
	Tripped circuit breaker, tripped GFCI, blown fuse, or other interruption of power.	Reset tripped circuit breaker, reset GFCI, replace blown fuse with properly sized fuse, check that the unit is securely plugged in, investigate power interruption.
	Improper voltage.	Have an electrician check all wiring for proper connections and adequate voltage and capacity.
	Float switch unable to move to pump ON position due to interference in basin or other obstruction.	Position pump or float switch so that it has adequate clearance for free movement.
	Insufficient liquid level.	Verify liquid level is allowed to rise enough to activate float switch.
	Defective float switch.	Replace float switch.
	Obstructed impeller or volute.	Remove obstruction.
	Loose wiring connections.	Check and tighten all connections.
Pump cycles too frequently.	Improper float switch setting.	Adjust float switch setting.
	Check valve not installed, stuck open, or leaking.	Install check valve(s); remove check valve and examine for freedom of operation and proper installation.

Table 2. Troubleshooting Matrix (continued)

Problem	Possible Cause	Corrective Action
Pump runs, but does not turn off.	Pump is airlocked.	Turn pump off and let set for several minutes, then restart.
	Control panel selector switch in Hand position.	Set selector switch to Auto position.
	Float switch unable to move to pump OFF position due to interference with the side of basin or other obstruction.	Position pump or float switch so that it has adequate clearance for free movement.
	Control panel failure.	Check control panel.
	Defective float switch.	Replace float switch.
Pump runs or hums, but does not pump.	Discharge line blocked or restricted.	Check discharge line for foreign material, including ice if discharge line passes through or into cold areas.
	Check valve is stuck closed or installed backward.	Remove check valve(s) and examine for freedom of operation and proper installation.
	Gate or ball valve is closed.	Open gate or ball valve.
	Total head is beyond pump's capability.	Route piping to a lower level. If not possible, a larger pump may be required. Consult Liberty Pumps.
	Obstructed impeller or volute.	Remove obstruction.
	Pump is airlocked.	Turn pump off and let set for several minutes, then restart. Add baffle to reduce trapped air bubbles.
Pump runs periodically when fixtures are not in use.	Check valve not installed, stuck open, or leaking.	Install check valve(s); remove check valve and examine for freedom of operation and proper installation.
	Fixtures are leaking.	Repair fixtures as required to eliminate leakage.
Pump does not deliver proper capacity.	Discharge valve(s) partially closed or clogged.	Check the discharge line for foreign material, including ice if the discharge line passes through or into cold areas.
	Check valve partially clogged.	Raise liquid level up and down to clear; remove check valve to remove obstruction.
	Incorrect motor rotation.	1-Phase: Consult factory. 3-Phase: Correct 3-phase pump rotation direction. Refer to section 3-Phase Pump Rotation Verification .
	Total head is beyond pump's capability.	Route discharge piping to a lower level. If not possible, a larger pump may be required. Consult Liberty Pumps.
	Low liquid level.	Check liquid level.
	Obstruction in pump or piping.	Remove obstruction.
Pump operates noisily.	Piping attachments to building are too rigid.	Replace a portion of the discharge line with rubber hose or connector.
	Incorrect motor rotation.	1-Phase: Consult factory. 3-Phase: Correct 3-phase pump rotation direction. Refer to section 3-Phase Pump Rotation Verification .
	Foreign objects in the impeller cavity.	Clean the impeller cavity.
	Broken impeller.	Consult Liberty Pumps for information regarding impeller replacement.

Table 2. Troubleshooting Matrix (continued)

Problem	Possible Cause	Corrective Action
Repeated tripping.	Circuit protection underrated.	Check rating and replace with proper size.
	Other appliance on same circuit.	Pump requires separate circuit.
	Pump is connected to an extension cord or wiring is inadequate or compromised.	Have an electrician check for proper wiring.
	Improper voltage.	Have an electrician check all wiring for proper connections and adequate voltage and capacity.
	Obstruction in pump.	Remove obstruction.
	Incorrect motor rotation.	1-Phase: Consult factory. 3-Phase: Correct 3-phase pump rotation direction. Refer to section 3-Phase Pump Rotation Verification .
	Foreign matter buildup.	Clean motor housing.

Warranty

Liberty Pumps Wholesale Products Limited Warranty

Liberty Pumps, Inc. warrants that Liberty Pumps wholesale products are free from all factory defects in material and workmanship for a period of three (3) years from the date of purchase (excluding* batteries and "Commercial Series" models). The date of purchase shall be determined by a dated sales receipt noting the model and serial number of the pump. The dated sales receipt must accompany the returned pump if the date of return is more than three years from the date of manufacture noted on the pump nameplate.

The manufacturer's sole obligation under this Warranty shall be limited to the repair or replacement of any parts found by the manufacturer to be defective, provided the part or assembly is returned freight prepaid to the manufacturer or its authorized service center, and provided that none of the following warranty-voiding characteristics are evident:

The manufacturer shall not be liable under this Warranty if the product has not been properly installed, operated, or maintained per manufacturer instructions; if it has been disassembled, modified, abused, or tampered with; if the electrical cord has been cut, damaged, or spliced; if the pump discharge has been reduced in size; if the pump has been used in water temperatures above the advertised rating; if the pump has been used in water containing sand, lime, cement, gravel, or other abrasives; if the product has been used to pump chemicals, grease, or hydrocarbons; if a non-submersible motor has been subjected to moisture; or if the label bearing the model and serial number has been removed.

Liberty Pumps, Inc. shall not be liable for any loss, damage, or expenses resulting from installation or use of its products, or for indirect, incidental, and consequential damages, including costs of removal, reinstallation or transportation.

There is no other express warranty. All implied warranties, including those of merchantability and fitness for a particular purpose, are limited to three years from the date of purchase. This Warranty contains the exclusive remedy of the purchaser, and, where permitted, liability for consequential or incidental damages under any and all warranties are excluded.

*Liberty Pumps, Inc. warrants StormCell® batteries for 1 year from date of purchase, and warrants that pumps of its Commercial Series are free from all factory defects in material and workmanship for a period of 18 months from the date of installation or 24 months from the date of manufacture, whichever occurs first, and provided that such products are used in compliance with their intended applications as set forth in the technical specifications and manuals.



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www.LibertyPumps.com

Installation Manual 2138000H

ALM-Series Indoor Alarms

Features

- NEMA 1 enclosure - rated for indoor use only
- Automatic alarm and alarm silence reset
- 360° red alarm indicator beacon
- 4 ft (1.2 m) power cord
- 9V battery back-up with low battery indicator
- Multiple level sensing options available
- Auxiliary dry contacts for triggering external alarm
- Pre-installed connector on puddle sensor for ease of installation
- Internet connectivity available with NightEye® enabled devices



NightEye® enabled version shown

Models

Standard

- ALM-P1
- ALM-2
- ALM-2-1
- ALM-PK

NightEye® Wireless Enabled

- ALM-P1-EYE
- ALM-2-EYE
- ALM-2-1-EYE
- ALM-PK-EYE



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fax: 1-585-494-1839
www.LibertyPumps.com

NOTICE Installer: Manual must remain with owner/operator.

Keep this manual handy for future reference.
For replacement manual, visit LibertyPumps.com,
or contact Liberty Pumps at 1-800-543-2550.
Retain dated sales receipt for warranty.





Record information:

Model: _____
Serial: _____
Mfg Date: _____
Install Date: _____

Contents

Safety Precautions	2 / EN
General Information	2 / EN
Installation	3 / EN
Operation and Maintenance	4 / EN
Warranty	4 / EN

Safety Guidelines

	This safety alert symbol is used in the manual and on the pump to alert of potential risk for serious injury or death.
	This safety alert symbol identifies risk of electric shock . It is accompanied with an instruction intended to minimize potential risk of electric shock.
	This safety alert symbol identifies risk of fire . It is accompanied with an instruction intended to minimize potential risk of fire.
	This safety alert symbol identifies risk of serious injury or death . It is accompanied with an instruction intended to minimize potential risk of injury or death.
⚠ DANGER	Warns of hazards which if not avoided will result in serious injury or death.
⚠ WARNING	Warns of hazards which if not avoided could result in serious injury or death.
⚠ CAUTION	Warns of hazards which if not avoided could result in minor or moderate injury.
NOTICE	Signals an important instruction related to the pump. Failure to follow these instructions could result in pump failure or property damage.

⚠ WARNING Read every supplied manual before using pump system. Follow all the safety instructions in manual(s) and on the pump. Failure to do so could result in serious injury or death.

Safety Precautions

⚠ WARNING **RISK OF ELECTRIC SHOCK**

- Always disconnect power before installing or servicing this product. Qualified personnel must install and service this product according to applicable electrical and plumbing codes.
- Always wear dielectric rubber boots and other applicable Personal Protective Equipment (PPE) when water is on the floor and an energized pump or alarm system must be serviced as submerged electrical connections can energize the water. Do not enter the water if the water level is higher than the PPE protection or if the PPE is not watertight.
- Do not install this alarm system outdoors. The system is rated for indoor use only.

- All electrical and safety practices shall be in accordance with the National Electrical Code®, the Occupational Safety and Health Administration, or applicable local codes and ordinances.

⚠ WARNING **RISK OF FIRE**

- Do not use this product with or near flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc.
- This product is not to be installed in locations classified as hazardous in accordance with the National Electric Code®, ANSI/NFPA 70.

NOTICE

- ◆ Alarm float adapters cannot be used with puddle sensors.
- ◆ Do not cut the connector off a puddle sensor and wire it to the float adapter. The sensor uses three wires for communication and the float adapter has only two terminal blocks.

General Information

Each Liberty Pumps alarm system is tested individually in the factory to ensure proper performance and operation. Closely following these instructions will eliminate potential operating problems, providing years of trouble-free service.

This high water level alarm system is designed for applications such as monitoring sump pump basins, sewage pump basins, and water powered back-up pumps. The alarm system comes standard with a 9V battery backup to enable continuous water level monitoring, even when the power is out. A built-in battery monitor alerts the user when the 9V battery needs to be replaced. Replace product immediately if sensor or power cable becomes damaged or severed.

NightEye® enabled devices come equipped with wireless internet connectivity. These devices can connect to your wireless network, by means of an Android® or iOS® device, and send notifications about your system in real time. This system provides peace of mind about the status of your pump system even when you are not home.

All of the alarms come standard with Liberty Pumps 360° red alarm beacon powered by super-bright LEDs. In combination with the 86 dB (at 10 ft/3 m) alarm siren, the alarm is sure to alert occupants of any high-water condition.

i These devices are not for use outdoors, not even when placed in a secondary enclosure.

Each device is specifically designed for use in an *indoor* residential wastewater application. The system comes with liquid level sensor that conforms to the needs of the intended application. The sensor types are as follows:

- **Snap-on enclosed float for Sump Pump Applications:**
ALM-P1, ALM-P1-EYE, SJ10A, SJ10A-EYE
- **Tethered float for Sewage Pump Applications:**
ALM-2, ALM-2-1, ALM-2-EYE, ALM-2-1-EYE
- **Water puck for Puddle Sensing:**
ALM-PK, ALM-PK-EYE

To install up to three sensors, use Liberty Pumps alarm connector splitter (sold separately, kit #K001633). A maximum of 2 pucks can be used on a single alarm. **Acceptable configurations:** 3 floats; 2 floats and 1 puck; or 1 float and 2 pucks.

Installation

⚠️ WARNING RISK OF ELECTRIC SHOCK

- Do not install this alarm system outdoors. The system is rated for indoor use only.

Enclosure Installation

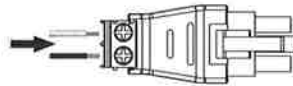
1. Select an indoor mounting location for the alarm unit. Liberty Pumps recommends a location between 48 in (1.2 m) and 66 in (1.7 m) above floor level.
2. Using the supplied template on the rear cover of this manual, mark screw locations on the mounting surface.
3. If the screw locations are *not* directly over a wall stud, or the alarm will be mounted to a masonry wall, the use of the supplied anchors is recommended. A 3/16" (5 mm) hole must be drilled before inserting the anchor into the wall.
4. Mount the alarm enclosure to the wall using the supplied anchors and screws as applicable.

Alarm Float Adapter

NOTICE

- ◆ Alarm float adapters cannot be used with puddle sensors.
- ◆ Do not cut the connector off a puddle sensor and wire it to the float adapter. The sensor uses three wires for communication and the float adapter has only two terminal blocks.

If your system already has an alarm float installed, and you do not want to replace it with the float included with your Liberty Pumps ALM-Series product, you can use the included terminal block adapter.

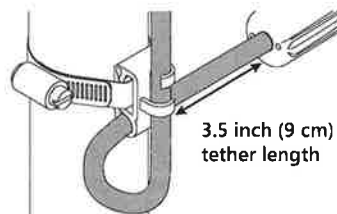


1. Turn both screws in the float adapter counterclockwise, until the conductor receptacles are fully open.
2. Insert the float conductors into the float adapter, one conductor per receptacle. Polarity does not matter.
3. Tighten the screws in the float adapter until they bottom out.
4. Insert the float adapter into the connector on your Liberty Pumps ALM-Series alarm.

Sensor Installation

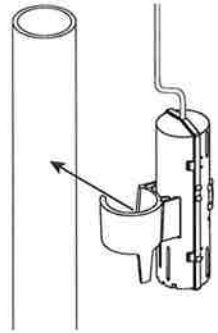
Sewage Pump Sensor

1. Place the float switch cord into the clamp as shown.
2. Locate the clamp at the desired activation level and secure the clamp to the pump discharge pipe.
Note: Do not install cord under hose clamp.
3. Tighten the hose clamp using a screwdriver. Over-tightening may result in damage to the plastic clamp. Make sure the float cable is not allowed to touch the excess hose clamp band during operation.
Note: All hose clamp components are made of 18-8 stainless steel. See your Liberty Pumps distributor for replacements.
4. Route the sensor cable out of the sewage pit and connect it to the bottom of the alarm enclosure ensuring it does not interfere with the operation of the primary pump's float.



Sump Pump Sensor

1. Remove sump pump sensor from packaging.
2. Apply a small amount of glue to the inside of the snap feature of the sensor. Note: Over-gluing the sensor will make future removal very difficult.
3. Snap sensor over the discharge pipe of your sump pump as shown.
4. Route the sensor cable out of the sump pit and connect it to the bottom of the alarm enclosure as shown in Figure 1.



Water Puddle Sensor

NOTICE

- ◆ Do not cut the connector off a puddle sensor and wire it to the float adapter. The sensor uses three wires for communication and the float adapter has only two terminal blocks.
1. Remove the puddle sensor from its packaging.
 2. Place sensor in the location susceptible to water intrusion or buildup (example: under hot water heater, near laundry sink, near problematic foundation wall, etc.).
 3. Route water puck cable such that it will not pose a tripping hazard.
 4. Plug water puck cable into the ALM sensor connector.
 5. Test water puck for operation by setting it in a small puddle or by holding a damp towel on its bottom surface.

Connect Power

1. Connect the supplied power adapter to the alarm unit as shown. Plug the power adapter into the wall receptacle and verify that the green "power" indicator illuminates.
2. Install the 9V battery as shown. Paying attention to polarity, the battery should gently push into place and latch on the ledge at the bottom of the battery chamber.
Note: A 9V battery must be installed in the device at all times to ensure proper operation.

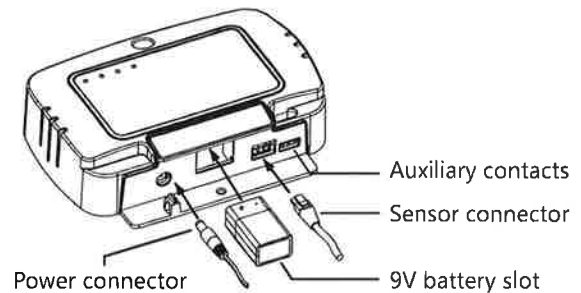


Figure 1. Connection Locations on Bottom of Alarm Unit



Mid-December 2020
manufacture date
and newer

Figure 2. 9V Battery Installation with Tray

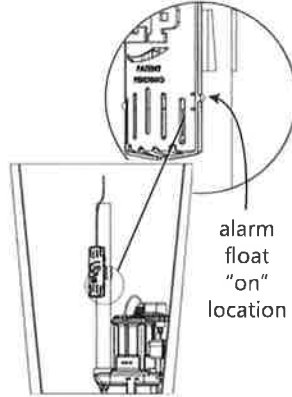
NightEye Configuration

If the device is NightEye enabled, download the NightEye app from the Apple® App or Google® Play store. Follow the directions provided in the NightEye app to configure the device.

Alarm Testing

Sump Pump Sensor

This switch is a self-contained unit. The internal float may not be visible from the outside of the switch housing. The switch should be placed such that the activation point (the bump on the right) is slightly higher than the pump activation point.



1. In order to test the proper operation of the float switch, we recommend raising the water level in your sump pit above its normal operating level. When the water level reaches the lowest mark on the side of the float housing, the alarm will activate. Alternately, a cup of water can be used to confirm float operation. Raise the cup of water up to the float, and submerge the float past the bump on the right. This will trigger the alarm.
2. Once alarm begins to sound, it will continue to sound until the water level is lowered. The audible alarm can be silenced using the **Silence** button on the front of the device. The alarm will stay silenced for 6 hours after the **Silence** button is pressed.
3. Once testing is complete, lower the water level in the pit back to its normal range.

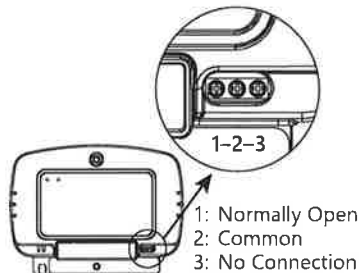
Sewage Pump Sensor

1. Manually tip the float up.
2. Once alarm begins to sound, it will continue to sound until the float is tipped down. The audible alarm can be silenced using the **Silence** button on the front of the device. The alarm will stay silenced for 6 hours after the **Silence** button is pressed.
3. Lower the float back to its resting position to reset the alarm.

Auxiliary Contacts

This device comes equipped with auxiliary contacts. These contacts can be used to integrate the output of this alarm with an existing home monitoring system.

Contact Rating: Class 2,
24 VDC/VAC (50/60 HZ)
500 mA maximum.



Operation and Maintenance

Once the alarm unit has been configured and tested, it is ready for operation.

In the event that an alarm condition is detected by the system, the audible and visual alarms will activate. The automatic reset feature of the alarm will turn the audible and visual alarms off once the condition has been corrected.

The following is a list of regular maintenance tasks:

1. Test the alarm system **every 6 months**. Follow the procedure outlined in **Alarm Testing**.
2. When the 9V battery is low, the alarm will emit a short chirp about twice per minute. The 9V battery should be replaced any time the yellow "low battery" indicator on the alarm unit is lit or every 12 months.

Warranty

Liberty Pumps Wholesale Products Limited Warranty

Liberty Pumps, Inc. warrants that Liberty Pumps wholesale products are free from all factory defects in material and workmanship for a period of three (3) years from the date of purchase (excluding* batteries and "Commercial Series" models). The date of purchase shall be determined by a dated sales receipt noting the model and serial number of the pump. The dated sales receipt must accompany the returned pump if the date of return is more than three years from the date of manufacture noted on the pump nameplate.

The manufacturer's sole obligation under this Warranty shall be limited to the repair or replacement of any parts found by the manufacturer to be defective, provided the part or assembly is returned freight prepaid to the manufacturer or its authorized service center, and provided that none of the following warranty-voiding characteristics are evident:

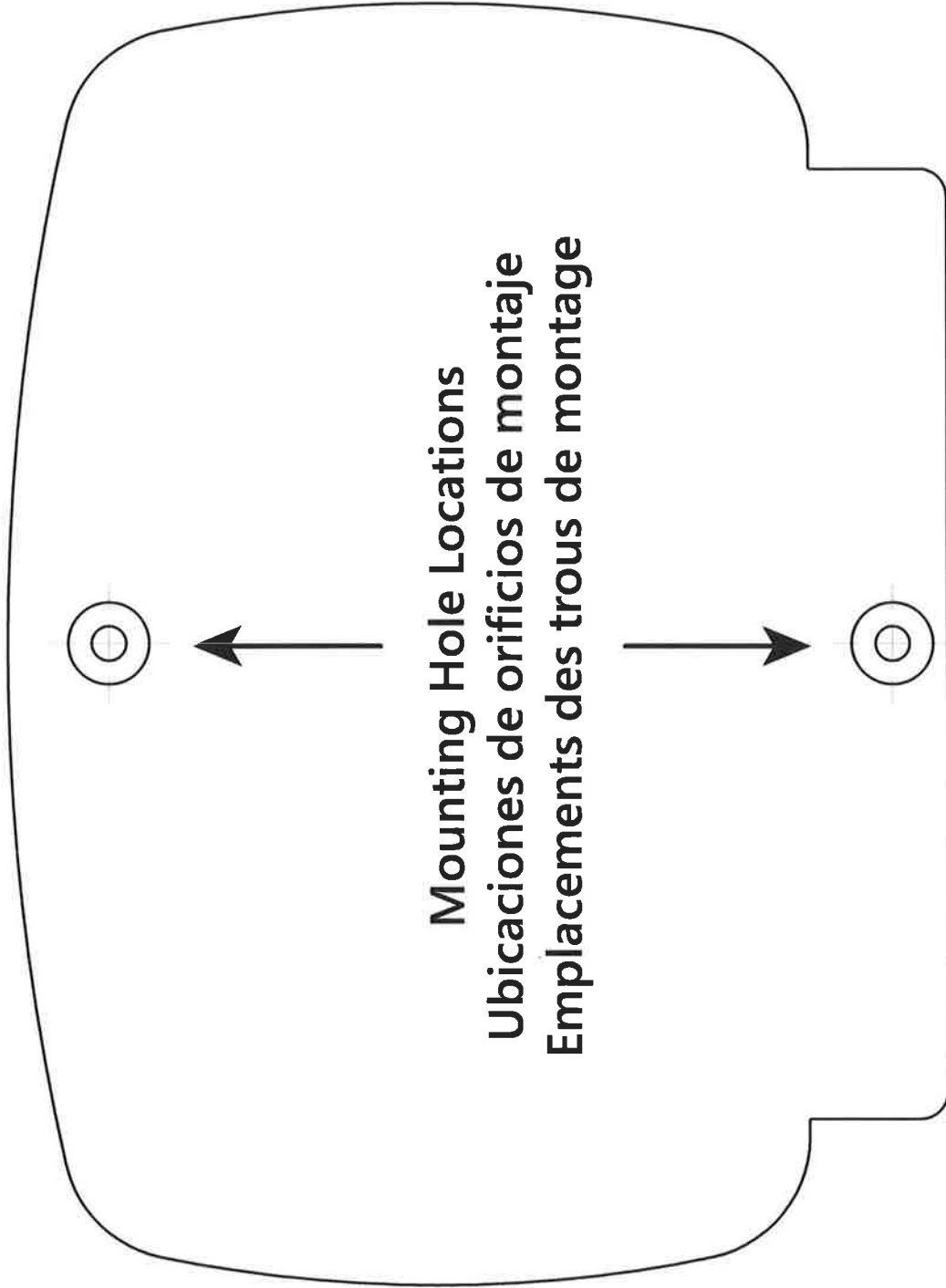
The manufacturer shall not be liable under this Warranty if the product has not been properly installed, operated, or maintained per manufacturer instructions; if it has been disassembled, modified, abused, or tampered with; if the electrical cord has been cut, damaged, or spliced; if the pump discharge has been reduced in size; if the pump has been used in water temperatures above the advertised rating; if the pump has been used in water containing sand, lime, cement, gravel, or other abrasives; if the product has been used to pump chemicals, grease, or hydrocarbons; if a non-submersible motor has been subjected to moisture; or if the label bearing the model and serial number has been removed.

Liberty Pumps, Inc. shall not be liable for any loss, damage, or expenses resulting from installation or use of its products, or for indirect, incidental, and consequential damages, including costs of removal, reinstallation or transportation.

There is no other express warranty. All implied warranties, including those of merchantability and fitness for a particular purpose, are limited to three years from the date of purchase. This Warranty contains the exclusive remedy of the purchaser, and, where permitted, liability for consequential or incidental damages under any and all warranties are excluded.

*Liberty Pumps, Inc. warrants StormCell® batteries for 1 year from date of purchase, and warrants that pumps of its Commercial Series are free from all factory defects in material and workmanship for a period of 18 months from the date of installation or 24 months from the date of manufacture, whichever occurs first, and provided that such products are used in compliance with their intended applications as set forth in the technical specifications and manuals.

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P-10


Installation, Maintenance, & Repair Series 957, 957RPDA, LF957RPDA

Reduced Pressure Zone Assemblies
Reduced Pressure Detector Assemblies

Sizes: 2½" – 10"



WARNING

 Read this Manual **BEFORE** using this equipment. Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment. Keep this Manual for future reference.

THINK SAFETY FIRST

WARNING

Local building or plumbing codes may require modifications to the information provided. You are required to consult the local building and plumbing codes prior to installation. If the information provided here is not consistent with local building or plumbing codes, the local codes should be followed. This product must be installed by a licensed contractor in accordance with local codes and ordinances.

WARNING

Need for Periodic Inspection/Maintenance: This product must be tested periodically in compliance with local codes, but at least once per year or more as service conditions warrant. All products must be retested once maintenance has been performed. Corrosive water conditions and/or unauthorized adjustments or repair could render the product ineffective for the service intended. Regular checking and cleaning of the product's internal and external components helps assure maximum life and proper product function.

NOTICE

For Australia and New Zealand: Pipeline strainers should be installed between the upstream shutoff valve and the inlet of the backflow preventer.

It's important that this device be tested periodically in compliance with local codes, but at least once per year or more as service conditions warrant. If installed on a fire sprinkler system, all mechanical checks, such as alarm checks and backflow preventers, should be flow tested and inspected internally in accordance with NFPA 13 and NFPA 25.

Testing

For field testing procedure, refer to Watts installation sheets IS-TK-DP/DL, IS-TK-9A, IS-TK-99E and IS-TK-99D found on www.watts.com.

For other repair kits and service parts, refer to our Backflow Prevention Products Repair Kits & Service Parts price list PL-RP-BPD found on www.watts.com.

For technical assistance, contact your local Watts representative.



957 OSY

Guidelines

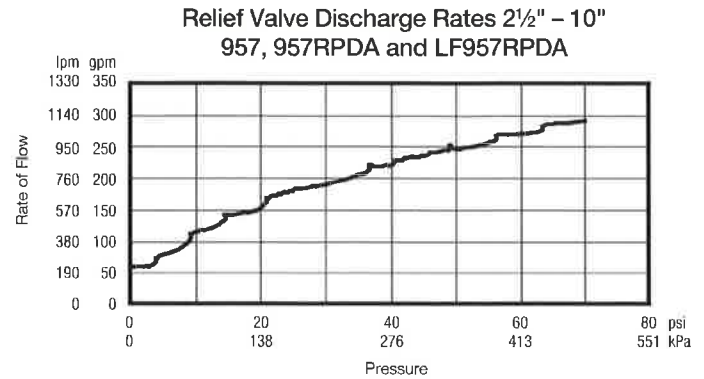
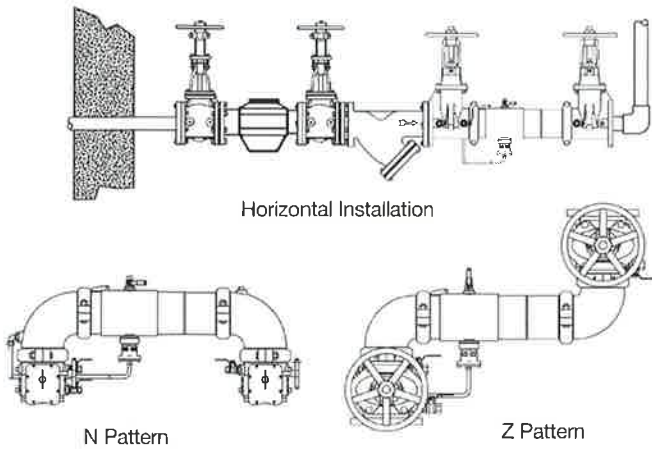
1. Most field problems occur because dirt and debris are present in the system at the time of installation and becomes trapped in the #1 check. The system should be flushed before the backflow valve is installed. If the system is not flushed until after the backflow valve is installed, remove both check modules from the valve and open the inlet shutoff to allow water to flow for a sufficient time to flush debris from the water line. If debris in the water system continues to cause fouling, a strainer can be installed upstream of the backflow assembly.
2. Watts Series 957, 957RPDA and LF957RPDA may be installed in either horizontal, "N" pattern, or "Z" pattern position as long as the backflow assembly is installed in accordance with the direction of the flow arrow on the assembly and the local water authority approves the installation.
3. The assembly should be installed with adequate clearance around the valve to allow for inspection, testing and servicing. 12" (305mm) should be the minimum clearance between the lower portion of the assembly and the floor or grade. The valve should be protected from freezing.
4. Installing a backflow preventer in a pit or vault is not recommended.
5. Normal discharge and nuisance spitting are accommodated by the use of a Watts air gap fitting and a fabricated indirect waste line. A floor drain appropriately sized for the discharge must be provided in case of excessive discharge. See Watts document ES-RVD for relief valve discharge rates.
6. The 957, 957RPDA and LF957RPDA backflow preventer should be tested by a certified tester at the time of installation.

NOTICE

Assembly body should not be painted.

Installation Instructions

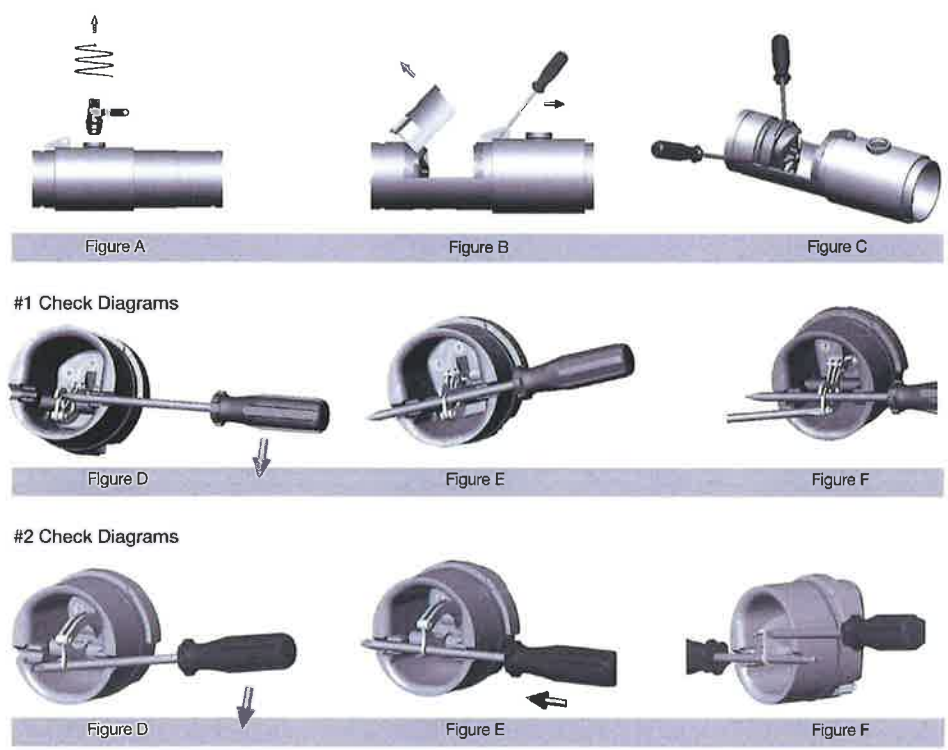
Series 957, 957RPDA, LF957RPDA



Maintenance Instructions

Series 957, 957RPDA, LF957RPDA

2½" – 6"



WARNING

Prior to servicing any Watts valve, it is mandatory to shut down the water system by closing both the inlet and outlet shutoff valves. After shutoff valves are closed, open test cock #2, #3 and #4 to relieve pressure within the backflow assembly.

1. After #3 test cock has been opened to relieve pressure, remove #3 test cock from housing. (Figure A)
2. Insert a #3 screwdriver through the hole on the top of the cover sleeve and using both hands rotate the cover sleeve approximately ¼-turn clockwise and ¼-turn counter-clockwise to break the sleeve O-ring seals. Using the screwdriver, slowly slide the cover sleeve to the downstream side of the housing. (Figure B)
3. Remove the stainless steel check retainer from the housing. (Figure C)
4. Remove the #1 check module (Figure C) by inserting two flat blade screwdrivers into the slots on either side of the check module and gently pry the check module toward the open zone.

5. Remove #2 check module with the same instructions as in #4 above. For servicing 6" checks see 8" – 10" instructions on p. 4.
6. To clean or inspect either check module, insert a #3 screwdriver through the downstream side of the check module as shown in Figure D and E. When the screwdriver is in place, remove the E-clip (Figure F) and pin connecting the structural members and the check clapper will open with no tension.
7. Thoroughly clean the seating area. The sealing disc may be removed, if necessary, by removing the screws connecting the keeper plate to the clapper. The sealing disc may be reversed and reinstalled if the elastomer is cut or damaged.
8. Wash check module and O-ring and inspect for any damage. If damaged, reinstall new parts.
9. After thorough cleaning, lubricate O-ring w/FDA approved lubricant, replace pin and E-clip in structural members, remove screw driver and reinstall check modules and assemble housing in reverse order of these instructions.

Maintenance Instructions

Series 957, 957RPDA, LF957RPDA

8" – 10"

Material-Tool Requirements:

- #3 Phillips screwdriver or $\frac{5}{16}$ " diameter rod, length sufficient to span diameter of check, see Figures A and B.
- $\frac{1}{2}$ – 13 x 5 fully threaded hex bolt (Service bolt).
- $\frac{3}{4}$ " open end or socket wrench.

Instructions

▲ WARNING

Prior to servicing any Watts valve, it is mandatory to shut down the water system by closing both the inlet and outlet shutoff valves. After shutoff valves are closed, open test cock #2, #3 & #4 to relieve pressure within the backflow assembly.

1. After #3 test cock has been opened to relieve pressure, remove #3 test cock from housing.
When repairing an 8" or 10" device, remove both Victaulic couplers from body. Slide the downstream Victaulic coupler gasket to the downstream side of the housing. The upstream Victaulic coupler gasket stays in place.
2. Remove checks that are to be serviced.
3. Locate the service hole and thread in the service bolt by hand until it contacts the linkage. (Figure A)
4. Continue to thread in service bolt with the wrench until the service hole in the linkage is aligned with the service notches on the spring arbors. (Figure A)
5. Insert the Phillips screwdriver through the arbors and service hole of the linkage making sure that the tip of the screwdriver extends past the ends of the arbors by a minimum of $\frac{1}{4}$ " (6mm). (Figure B)
6. Back out the service bolt until load is transferred to the screwdriver. Continue to back out the service bolt until sufficient clearance is achieved to remove the complete spring mechanism.
7. To disconnect linkage, remove retaining clip and pin (store in a safe location for reinstallation).
8. To remove spring mechanism, grasp the screwdriver at the center and pull complete assembly straight out and store in a safe place.
9. Reinstall in reverse order of these instructions.

▲ WARNING

While the spring mechanism is removed for check servicing; never pull the screwdriver out or off the support notches on the arbors. Doing so may cause bodily injuries.

Figure A



Figure B



Service Relief Valve

Series 957, 957RPDA, LF957RPDA

▲ WARNING

Prior to servicing the relief valve, it is mandatory to shut down water system by closing both the inlet and outlet shutoff valves and relieving pressure within the assembly by opening the #2, #3 and #4 test cocks.

DO NOT REMOVE SPIDER BUSHING FOR SERVICING

1. Disconnect the hose from the bottom cover plate to the relief valve.
2. An O-ring seals the relief valve body to the main housing. It is not necessary to tighten the connection beyond firm hand tightening. The relief valve should be able to be removed by unscrewing the relief valve from the housing.
3. Remove the cover plate of the relief valve by removing the four connecting screws.
4. Remove the rubber diaphragm from the relief valve. Be aware of how the diaphragm is configured so that it can be reinstalled in the same manner. The hard rubber tab in the diaphragm fits into a similar socket in the head of the piston. (Figure 1)
5. Hold the relief valve in both hands with the threaded end up and both thumbs on the head of the piston. Push up on the piston until the piston shaft with the attached E-clip is exposed. Remove the E-clip (Figure 2)
6. Remove the piston and spring from the relief valve housing and thoroughly clean all parts including the diaphragm. Inspect all rubber parts for damage and if damaged, replace them with new parts.
7. Reassemble the relief valve in the reverse order that it was disassembled.

Figure 1

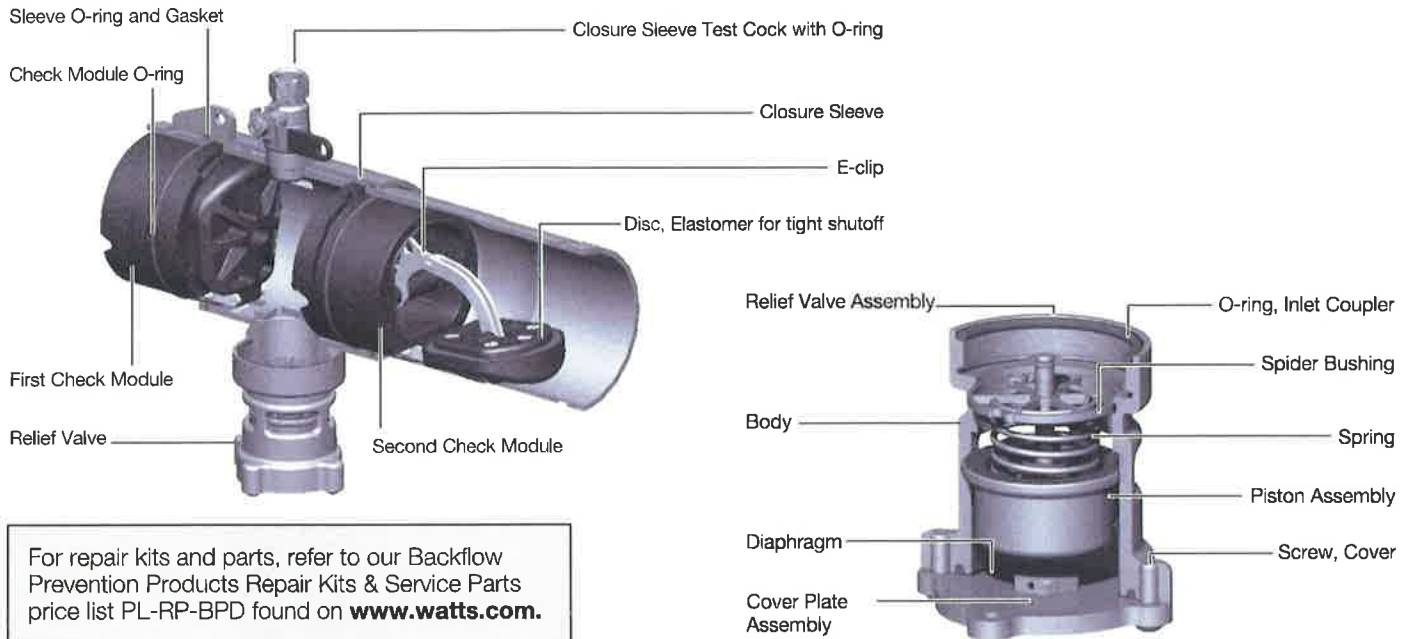


Figure 2



Service, Replacement Parts and Maintenance

Series 957, 957RPDA, LF957RPDA



For repair kits and parts, refer to our Backflow Prevention Products Repair Kits & Service Parts price list PL-RP-BPD found on www.watts.com.

Troubleshooting Guide

Series 957, 957RPDA, LF957RPDA

Symptom	Cause	Solution
1. Relief valve discharges water while system is not flowing	a. #1 check is fouled	Remove and Clean #1 check
	b. Relief valve does not properly close	Service relief valve
	c. Municipal water pressure is fluctuating	Install check valve upstream of backflow assembly
2. Relief valve does not shut off properly	a. Fouled relief valve seat	Service relief valve
	b. Incorrectly Installed diaphragm	Remove diaphragm and correctly install
	c. Damaged rubber surface on piston	Replace with new piston
	d. Damaged or plugged pressure hose	

Limited Warranty: Watts Regulator Co. (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. **THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product. Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**



USA: T: (978) 689-6066 • F: (978) 975-8350 • Watts.com
 Canada: T: (888) 208-8927 • F: (905) 332-7068 • Watts.ca
 Latin America: T: (52) 55-4122-0138 • Watts.com

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WATTS STANDARD LIMITED WARRANTY

Watts (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**

Effective: July 2, 2018

This warranty applies to all products purchased after this date



USA: T: (978) 689-6066 • F: (978) 975-8350 • Watts.com
Canada: T: (905) 332-4090 • F: (905) 332-7068 • Watts.ca
Latin America: T: (52) 55 4122 0138 • Watts.com/LatinAmerica



REVIEW
OF
PLUMBING
SUBMITTALS

Project: ATU – Jones Hall Remodel
Location: Russellville, Arkansas
P&P Job No. 21-108
Date of Receipt: 10-18-22
Date of Review: 10-22-22
Reviewed by: Mark Tistle
E-Mail: mtistle@pettitinc.com

Signed: Mark Tistle

This review is for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Item	Approval Status	Comments
EWC-1	Approved	
HB-1	Approved	
L-1	Revise and Resubmit	Bowl specified is an oval bowl.
L-2	Approved as Corrected	Provide Lever handles
S-1	Approved	
S-2	Approved	
SH-1, SH-3	Approved as Corrected	Provide round strainer
SH-2	Approved as Corrected	Provide round strainer
SS-1	Revise and Resubmit	Service sink size changed in Addendum #2
WB-1	Approved	
WC-1, WC-2	Approved	
FD-1	Approved	
SP-1	Approved	Coordinate work with electrical contractor
RPZ	Revise and Resubmit	Watts 957 not considered equal to Watts LF 909
ECO	Approved	

Note:

ATU Jones Hall

Russellville, AR

Comfort Systems USA

North Little Rock, AR

Plumbing Submittals

Sanders Supply



Hot Springs, AR

October 4, 2022

ATU Jones Hall

Plumbing Fixture Schedule Index

<u>TAB</u>	<u>Description</u>
EWC-1	Electric Water Cooler/Bottle Filler ADA
HB-1	Hose Bibb
L-1	Lavatory ADA
L-2	Lavatory ADA
S-1	Sink ADA
S-2	Sink ADA
SH-1,SH-3	Shower Valve
SH-2	Shower Valve ADA
SS-1	Service Sink
WB-1	Washer Box
WC-1,WC-2	Water Closet ADA/Water Closet
FD-1	Floor Drain
SP-1	Sump Pump
RPZ	Reduced Pressure Zone Backflow
ECO	Exterior Cleanout

EWC-1

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.
DATE 22 October 22 BY M. Tull



We Know Water.

UNIVERSAL BARRIER-FREE VERSACOOLER® II WITH CONTACTLESS VERSAFILLER® WITH VERSAFILTER™

- **PGF8EBFSL**
- **PGFEBFSL**

Suggested Specification

Model PGF8EBFSL shall deliver 8.0 gph of 50°F water at 90°F ambient and 80°F inlet water per ASHRAE 18 testing. Model PGFEBFSL is a non-refrigerated model and delivers ambient drinking water. Shall include the VersaFiller Sports Bottle Filler with contactless activation and laminar flow; fountains shall have four push pads to activate the manual flow of water for the cooler. VersaFiller components contain Freshield®, which utilizes a silver-based antimicrobial compound to protect the surfaces from discoloration, odors and degradation caused by the growth of micro-organisms and mildew. Basin shall be designed to eliminate splashing and standing water. Water saver bubbler to reduce waste water by 50% and shall have flexible guard and operate between 20 and 100 PSI. Shall use R-134a refrigerant. Shall comply with ANSI 117.1 and ADA. Shall be listed by Underwriters Laboratories to US and Canadian standards, and comply with NSF/ANSI 61 and NSF/ANSI 372.



	PGF8EBFSL	PGFEBFSL
Features:	<ul style="list-style-type: none"> Built-in 100 micron strainer stops particles before they enter the waterway Waterways are lead-free in materials & construction Flexible one-piece water saver bubbler infused with silver-based antimicrobial additive Stainless steel top and heavy duty galvanized steel frame Contactless activation on VersaFiller bottle filler External stream height adjustment on lower unit Built-in filter monitor and bottle counter 	
Filtration:	VersaFilter is Certified to NSF/ANSI 42 and 53 for lead, chlorine, taste and odor reduction to 1,250 gallons	
Power:	115 Volts, 60 Hz	
Activation By:	Contactless Sensor on Bottle Filler and Manual Activation on Fountains	
Mounting Type:	Wall Mounted	
Chilling Option:	8.0 gph	Non-refrigerated
Installation Location:	Indoor	

Installation

- Prior to rough-in consult with local, state and federal codes for proper mounting height
- Shipped with complete instructions and wall mounting bracket
- Removable side and front panels provide easy access for installation.

Finishes

- Standard: Greystone powder coat on galvanized steel
- Sandstone powder coat on galvanized steel; stainless steel (at additional cost)

Options

- One piece chrome plated brass bubbler (036700-001)

Limited 5-Year Warranty

(Continental limits of the United States and Canada) Five years on the sealed refrigeration system and most component parts. Detailed warranty certificate enclosed with each water cooler; sample available upon request.

Export Warranty

One year on components parts. Detailed warranty certificate enclosed with each drinking fountain; sample copy available upon request.

Certifications/Compliance

- Certified to UL 399 and CAN/CSA C22.2 No.120 (electric water coolers only)
- Product Certified to NSF/ANSI Standard 61-G & 372 and conforms with the lead content requirements for "Lead Free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act
- These water coolers comply with the requirements of ADA (Americans with Disabilities Act) when properly installed



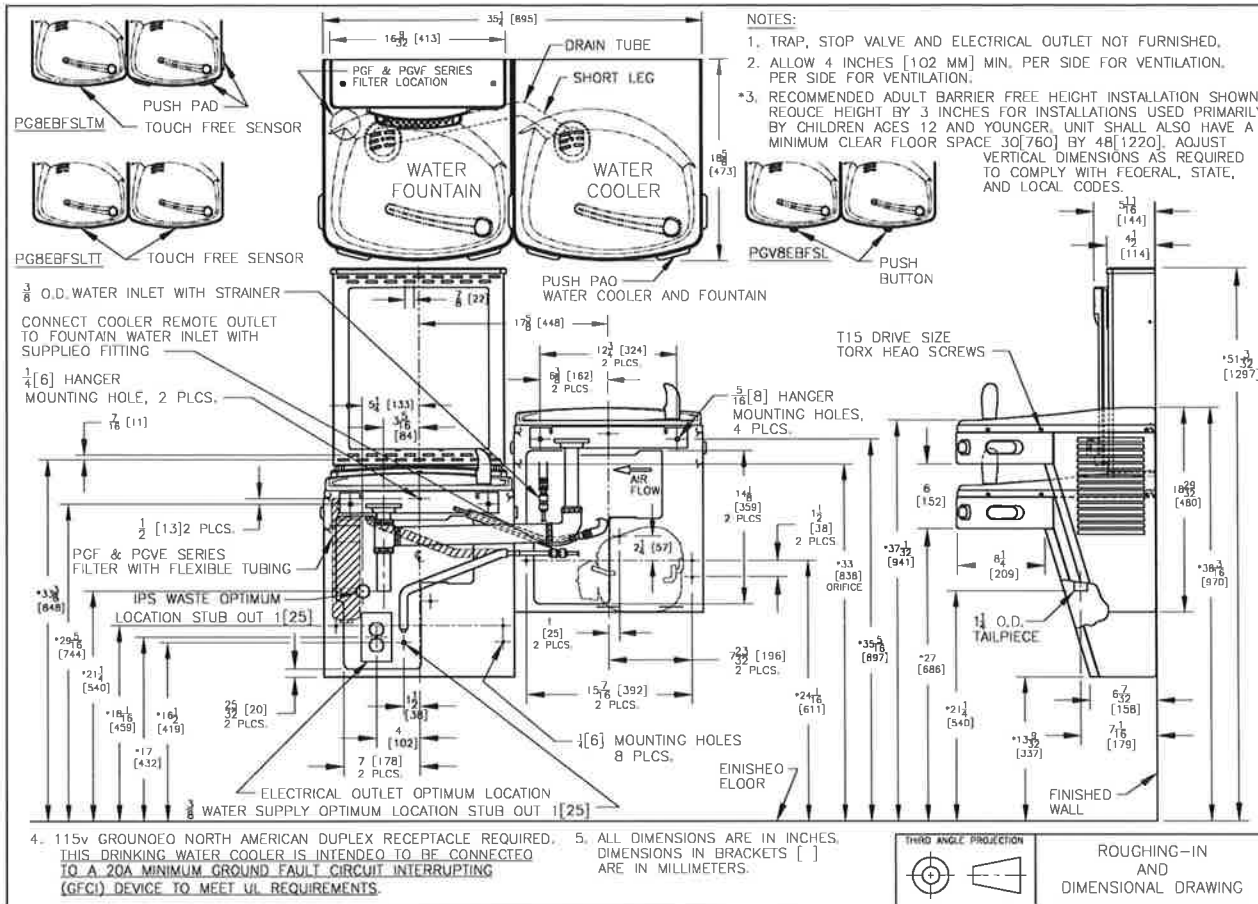
WARNING:
Cancer and Reproductive Harm
www.P65Warnings.ca.gov



*Industry standard rating condition at 90°F ambient, 80°F inlet water and 50°F drinking water temperature

Specifications subject to change without notice

UNIVERSAL BARRIER-FREE VERSACOOLER® II WITH CONTACTLESS VERSAFILLER® WITH VERSAFILTER™





McGuire Manufacturing Co., Inc.
 60 Grandview Court
 P.O. Box 746 • Cheshire, CT 06410
 203-699-1801 • Fax: 203-699-1813
 www.mcguiremfg.com

PRODUCT SPECIFICATION

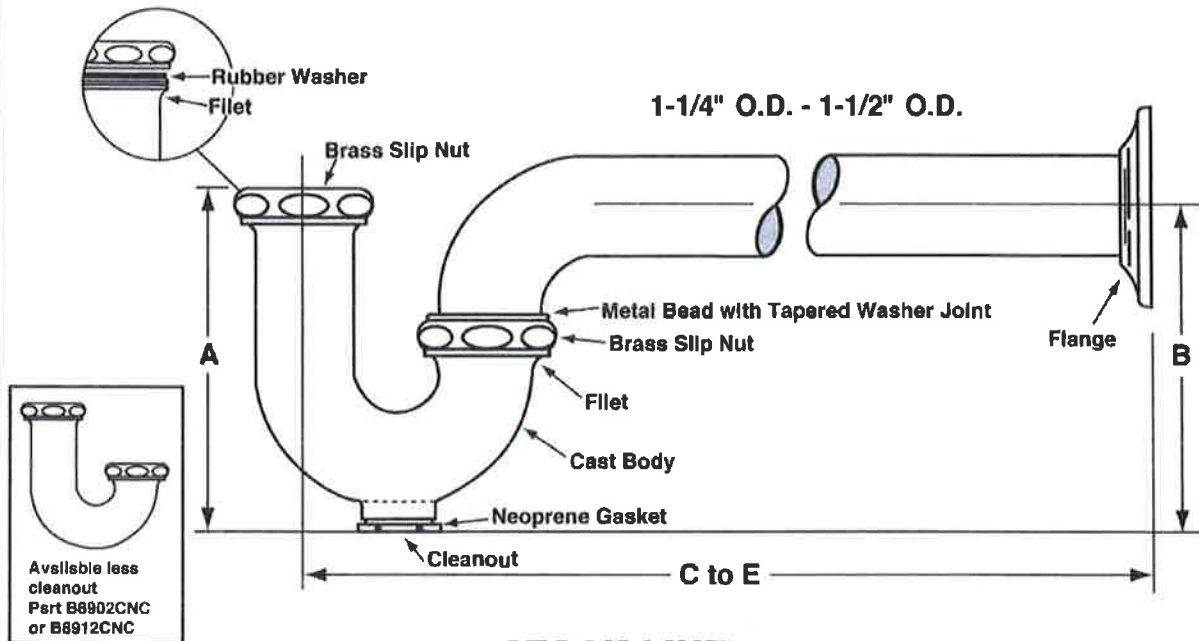
Part No.

B8872 B8902, B8902CNC,
 B8912, B8912CNC,
 C8872, C8902, C8912

**Cast Body P-Trap
 With or Without Cleanout**

Job Name:

Submittal Number:



STOCK LINE

ROUGHING MEASUREMENTS					
NO.	TRAP DIMENSIONS		A	B	C to E
	INLET	OUTLET			
B8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
C8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
B8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8902CNC	1-1/4"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"
B8912CNC	1-1/2"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"

**FED SPEC W.W.P. 541
 CAST BRASS P TRAP
 MINIMUM SEAL 2"**

Note: Prefix "C" Indicates die cast slip nuts.

See options and accessories section for details on product variations.

Specifications:

P-Trap shall be chrome plated cast brass body (with, without) cleanout, with 17 gauge seamless tubular wall bend, slip nuts. Reducing washers shall be used with reducing cast brass nut. With (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. P-Trap shall bear manufacturer and testing mark.



McGuire Manufacturing Co., Inc.

60 Grandview Court
P.O. Box 746 • Cheshire, CT 06410
203-699-1801 • Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

**Options for
P-Traps**

Job Name:

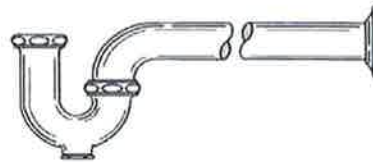
Submittal Number:

CAST BODY P-TRAP OPTIONS

WALL BEND OPTIONS -

Add suffix to part number.

- 15** - 15" C to E (1-1/4" and 1-1/2" only)
- 18** - 18" C to E (1-1/4" and 1-1/2" only)
- GJ** - Ground joint wallbend
Custom sizes available.



FLANGE OPTIONS -

Add suffix to part number.

- F** - Forged Brass, set screw, chrome plated
- DF** - Deep Flange, (bell type) chrome plated brass
- SDF** - Deep Flange, (bell type) chrome plated steel
- B** - Box Flange, chrome plated wrought steel
- BF** - Box Flange, chrome plated brass

STANDARD FINISH OPTIONS -

Add suffix to part number.

- C** - Polished Chrome
 - S** - Satin Chrome
- Custom finishes available.

Options available for McGuire "Classic" Professional Line only.



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 203-699-1801 • Fax: 203-699-1813
 www.mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

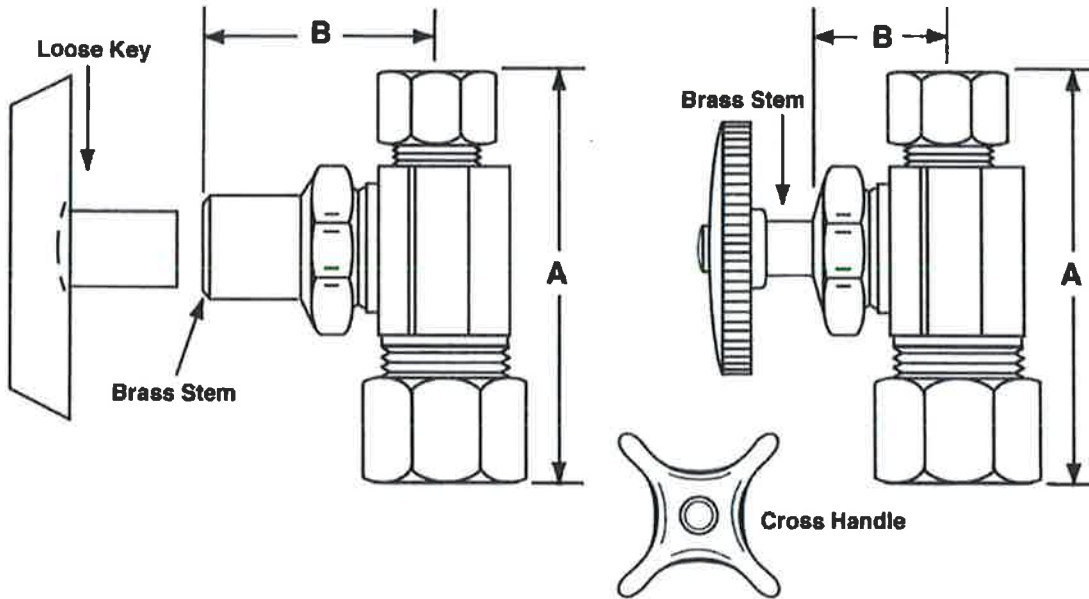
LFST17, **LFST17LK**, LFST17X,
 LFST18, LFST18LK, LFST18X

**Straight Supply Stop
 Nominal x O.D.**

Job Name: _____

Submittal Number: _____

Compression to Compression



NO.	DESCRIPTION	ROUGHING MEASUREMENTS	
		A	B
LFST17	1/2" Nominal x 3/8" O.D.	2-1/4"	7/8"
➤ LFST17LK	1/2" Nominal x 3/8" O.D.	2-1/4"	1-5/8"
LFST17X	1/2" Nominal x 3/8" O.D.	2-1/4"	7/8"
LFST18	1/2" Nominal x 1/2" O.D.	2-1/4"	7/8"
LFST18LK	1/2" Nominal x 1/2" O.D.	2-1/4"	1-3/4"
LFST18X	1/2" Nominal x 1/2" O.D.	2-1/4"	7/8"

LK designates *Loose Key*

X designates *Heavy Brass Cross Handle*

See options and accessories section for details on product variations.

ASME A112.18.1-2011/CSA B125.1-11



Specifications:

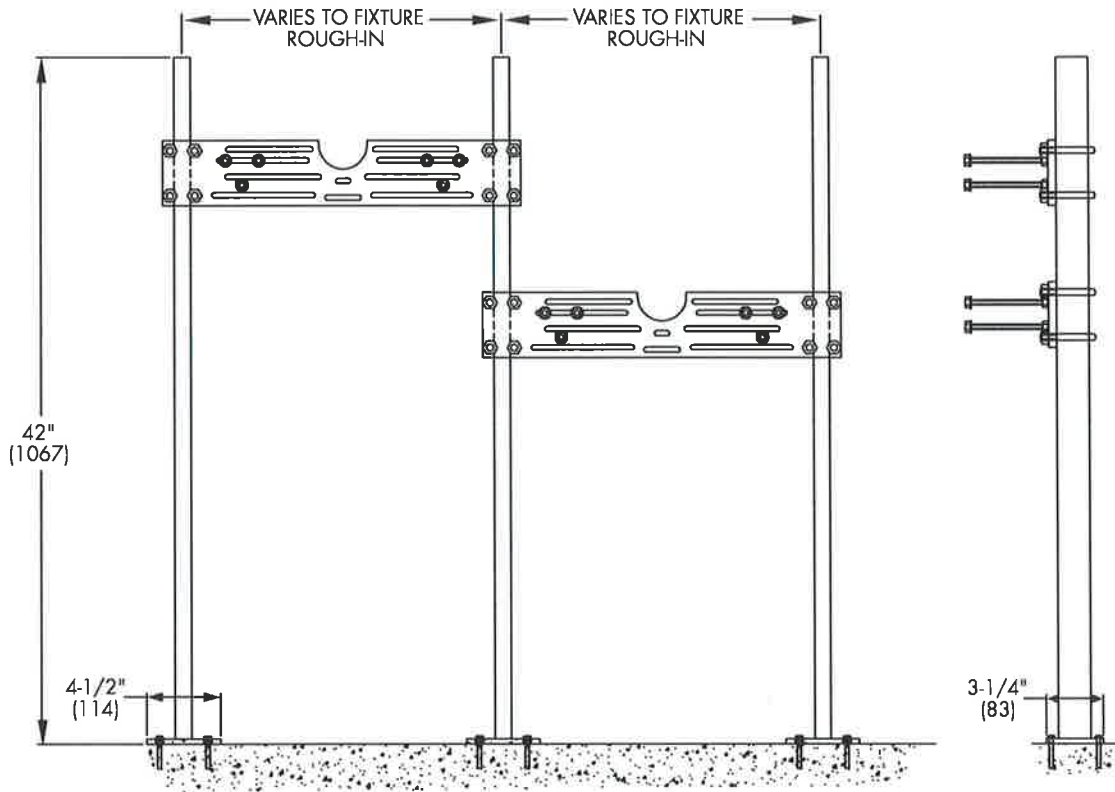
Chrome plated brass, supply stop valve with full turn brass stem. Inlet shall be (3/8, 1/2) inch (IPS, sweat, compression). Outlet shall be (3/8, 1/2) inch (IPS, compression). Supply stop valve shall be McGuire_____. Supply stop valve shall be certified by recognized testing authority and bear manufacturer and testing mark.



CA-431-1
Tag: EWC-1

Floor Mounted Plate Type
Lavatory/Water Cooler Carrier

SPECIFICATION: Watts Drainage CA-431-1 floor mounted bi-level water cooler carrier with heavy gauge steel uprights with integral welded feet, universal steel hanger support plate, and plated hardware.



Note: Anchor legs to concrete floor with minimum 1/2" (13) anchor bolts (by others).

Job Name ATU Jones Hall Contractor Comfort Systems USA
 Job location Russellville Contractor's P.O. No. _____
 Engineer Pettit and Pettit Representative Sanders Supply

WATTS Drainage reserves the right to modify or change product design or construction without prior notice and without incurring any obligation to make similar changes and modifications to products previously or subsequently sold. See your WATTS Drainage representative for any clarification. Dimensions are subject to manufacturing tolerances.



Specification Drainage Products

USA: 100 Watts Road, Spindale, NC, 28160-2298; TEL: 828-288-2179 TOLL-FREE: 1-800-338-2581 www.watts.com

HB-1

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.
DATE 22 October 22 BY M. Tull

Engineering Specification

Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____
 Tag HB-1

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

HY-330

Moderate Climate Wall Hydrant with NB Box, Integral Vacuum Breaker

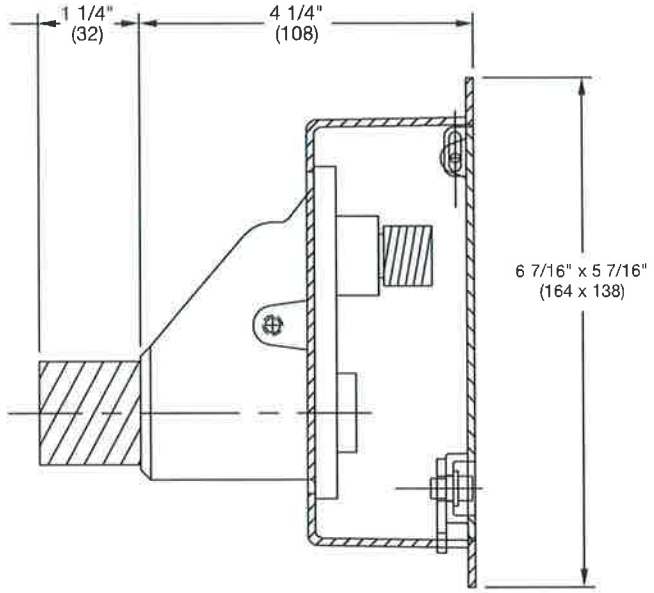
Specification:

Watts HY-330 concealed moderate climate key operated wall hydrant with nickel bronze box and door, chrome plated hydrant face, integral vacuum breaker, 3/4"(19) hose connection, 3/4"(19) female x 1"(25) male pipe connection, all bronze head, seat casting and internal working parts, and loose key. Complies with ASSE 1019-2004, UPC/IAMPO Listed. Max. operating pressure 125 psi.



Suffix	Depth of Bury Description	
-K	Cylinder Lock	<input type="checkbox"/>
-3	Stainless Steel Box	<input type="checkbox"/>
-CIA	Complete Internal Assembly (Repair Kit)	<input type="checkbox"/>
-R	Round Stainless Steel Box	<input type="checkbox"/>

Recommended Wall Opening:
 5-1/4" x 6-1/4" (133 x 158)



NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



USA: T: (800) 338-2581 • F: (828) 248-3929 • Watts.com
Canada: T: (888) 208-8927 • F: (905) 481-2316 • Watts.ca
Latin America: T: (52) 55-4122-0138 • Watts.com

L-1

APPROVED []
APPROVED AS CORRECTED []
REVISE AND RESUBMIT
NOT APPROVED []

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY M. Todd

BOULEVARD® UNDER COUNTER SINK

0610.000 Unglazed Rim

- Rectangular under mount sink with unique tapered interior bowl
- Made from vitreous china
- Unglazed rim
- Front overflow
- Supplied with mounting kit (047194-0070A) and template



Nominal Dimensions:

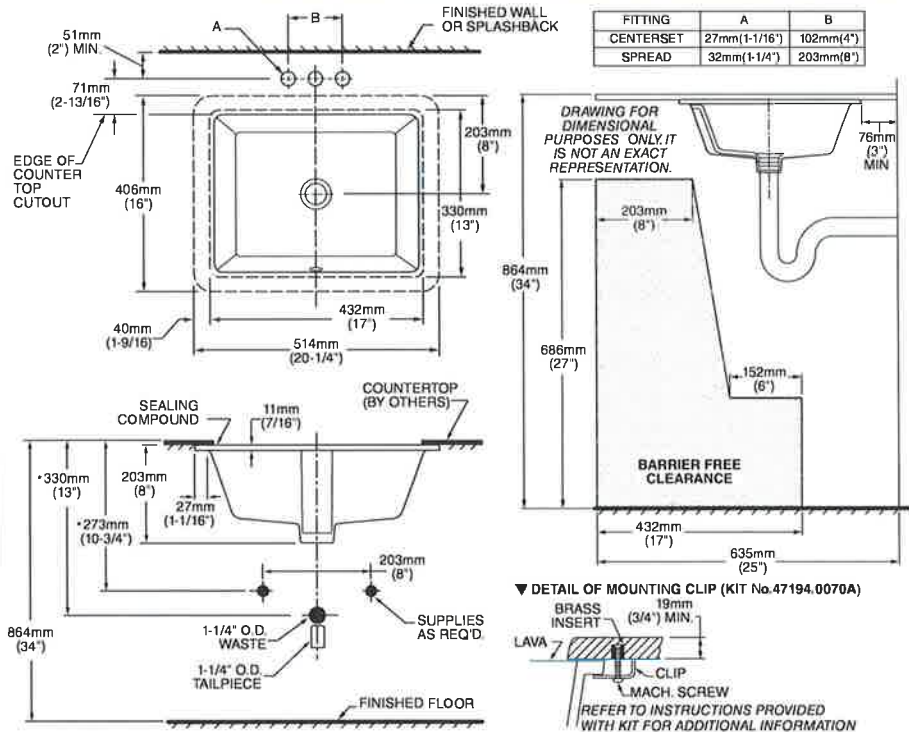
20-1/4" x 16"
(514 x 406 mm)

Bowl Size:

17" (432 mm) wide
13" (330 mm) front to back
6" (152 mm) deep

Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2/CSA B45.1



To Be Specified:

- Color: White Linen
- Faucet:
- Faucet Finish:
- Supplies:
- 1-1/4" Trap:

* See faucet section for additional models available



MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ICC ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.

Install lavatory 864mm (34") from finished floor.
Lavatory installed 51mm (2") minimum from front edge of countertop provides 686mm (27") knee clearance area.

NOTES:

WE RECOMMEND USING BASIN AS A TEMPLATE TO DETERMINE PROPER CONTOUR. CUT COUNTERTOP 38MM (1-1/2") INSIDE BASIN CONTOUR. * DIMENSIONS SHOWN FOR LOCATION OF SUPPLIED AND "P" TRAP ARE SUGGESTED.

▼ UNDERCOUNTER MOUNTING KIT SUPPLIED WITH SINK. FITTINGS NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. SEALING COMPOUND SUPPLIED BY OTHERS.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.



T&S BRASS AND BRONZE WORKS, INC.
 2 Saddleback Cove / P.O. Box 1088
 Travelers Rest, SC 29690

Model No.

B-2990-F05

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ADA Compliant

This Space for Architect/Engineer Approval

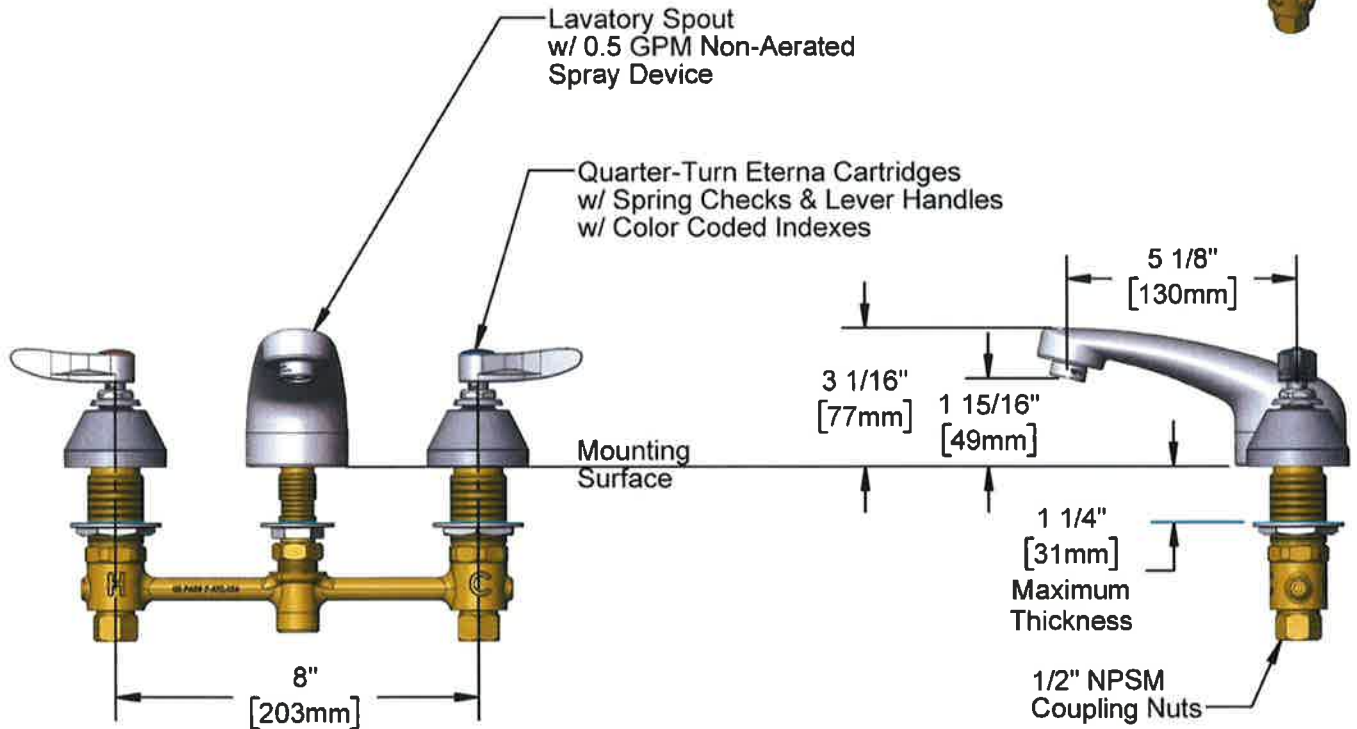
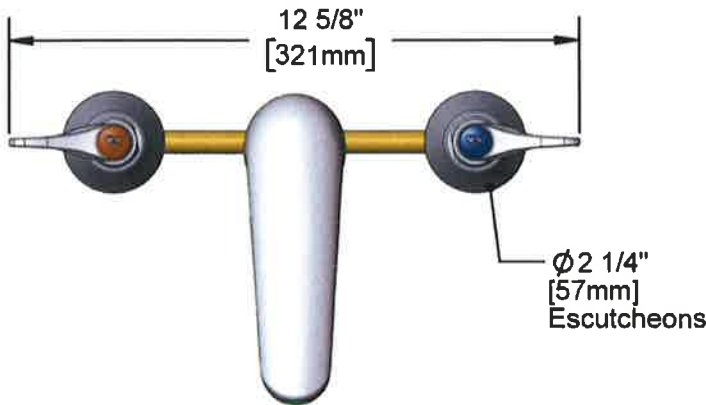
Job Name _____ Date _____

Model Specified _____ Quantity _____

Customer/Wholesaler _____

Contractor _____

Architect/Engineer _____



Rough-In Requirement:
 Center Shank ϕ 1" [25mm] Mounting Hole
 Hot/Cold Side ϕ 1 1/2" [38mm] Mounting Holes

Product Specifications:

8" Concealed Widespread EasyInstall Mixing Faucet, Quarter-Turn Eterna Cartridges w/ Spring Checks, Lever Handles, Lavatory Spout w/ 0.5 GPM Non-Aerated Spray Device & 1/2" NPT Male Inlets w/ Coupling Nuts

Product Compliance:

ASME A112.18.1 / CSA B125.1
 NSF 61 - Section 9
 NSF 372 (Low Lead Content)
 ANSI A117.1 (ADA)



T&S BRASS AND BRONZE WORKS, INC.

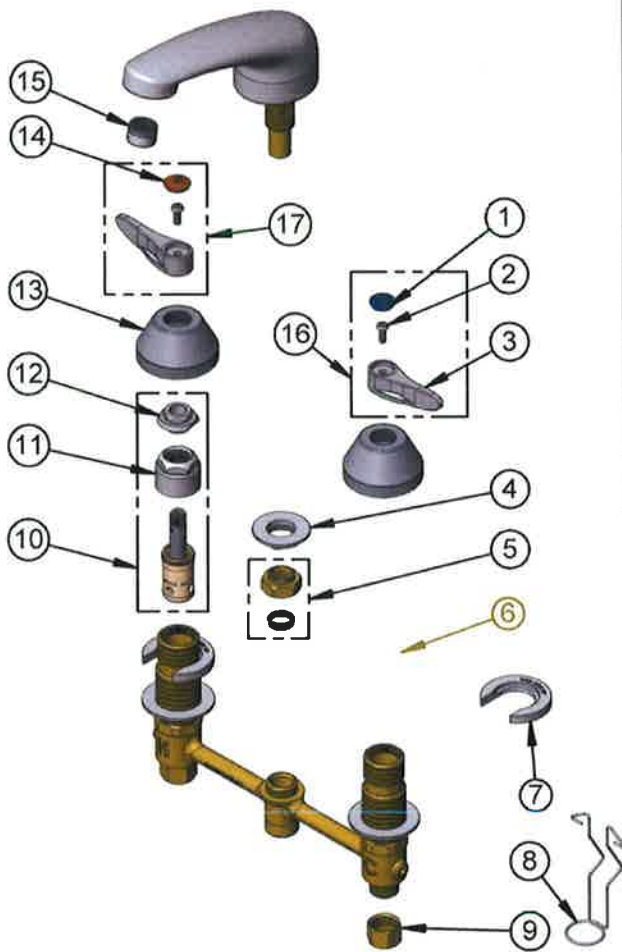
2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-2990-F05

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ITEM NO.	SALES NO.	DESCRIPTION
1	018506-19NS	Blue Button Index, Press-in
2	000925-45	Lab Handle Screw
3	001638-45NS	Lever Handle (New Style)
4	016742-45	Center Flange Nut
5	016745-45	Compression Nut & Fitting
6	016752-40NS	EasyInstall CWS LTC Quarter-Turn Eterna Cartridge w/ Spring Check
7	016749-45	Sidebody C-Washer
8	016777-45	CWS Hanger
9	000958-20	Coupling Nut
10	016753-40NS	EasyInstall CWS RTC Quarter-Turn Eterna Cartridge w/ Spring Check
11	016743-25	CWS Eterna Bonnet
12	009002-40NS	Packing Nut (New Style)
13	001257-40NS	Bell Escutcheon
14	001193-19NS	Red Button Index, Press-in
15	B-0199-03-N05	0.5 GPM Spray Device, 13/16-27 Male
16	001636-45NS	Lever Handle, Blue Index & Screw
17	001637-45NS	Lever Handle, Red Index & Screw



017245-40
Installation Repair Kit
Includes #4, (2)#7 & #8

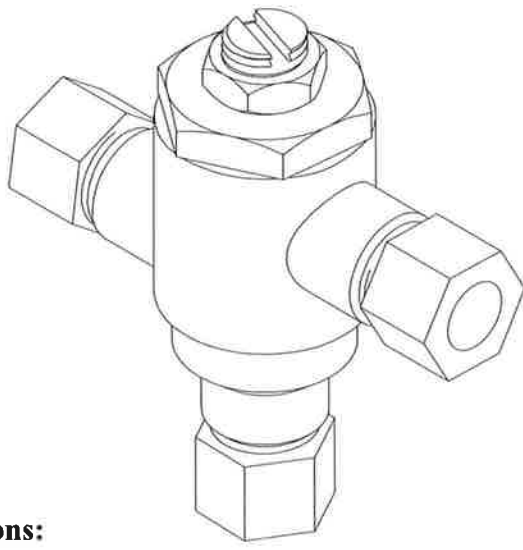
Product Specifications:

8" Concealed Widespread EasyInstall Mixing Faucet, Quarter-Turn Eterna Cartridges w/ Spring Checks, Lever Handles, Lavatory Spout w/ 0.5 GPM Non-Aerated Spray Device & 1/2" NPT Male Inlets w/ Coupling Nuts

Product Compliance:

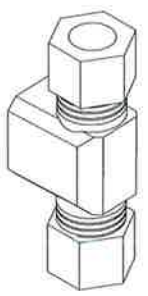
ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)

170A-LF

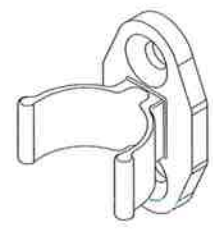


Options:

- ___ STSTL REC- Stainless steel cabinet, #4 finish, recessed
- ___ STSTL EXP- Stainless steel cabinet, #4 finish, exposed
- ___ BWE REC- Steel cabinet, baked white, recessed
- ___ BWE EXP- Steel cabinet, baked white, exposed
- ___ BP- Cold water By-Pass (shipped loose)
- ___ BRKT- mounting bracket (shipped loose)
- ___ CP- Chrome plated finish



BP option



BRKT option



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

* This product is certified to meet Low Lead requirements of wetted surface area containing less than 0.25% lead by weight

Application:

The Model 170A-LF is a high performance thermostatic temperature limiting device used to supply single outlets. Can be used to supply one sensor faucet or one two handle manual faucet.

Features:


- Certified to ASSE 1070 to control down to 0.25 GPM
- Eco-Mix Certified Lead-Free* construction
- Integral inlet checks and stainless steel screens
- Vandal resistant locknut to prevent accidental adjustment
- Easy 3/8" tubing or flex hose installation

Specifications:

- Minimum flow: 0.25 GPM (0.95 l/Min) Certified to ASSE
- Maximum flow: 4 GPM
- Maximum pressure: 125 PSI (8.6 BAR)
- Maximum hot water temperature: 180°F (82°C)
- Hot water inlet temperature range: 120-180°F (49-82°C)
- Cold water inlet temperature range: 33-80°F (1-27°C)
- Temperature adjustment range: 95-120°F (35-49°C)

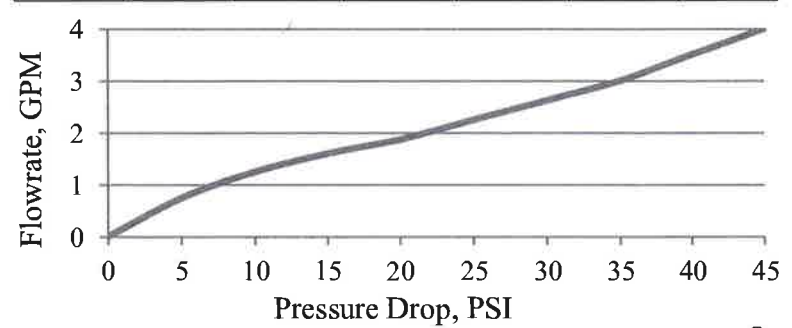
Certifications:

ASSE 1070-2015 

CSA B125.70-15 

Certified to NSF61 thru the ASSE 1070 testing process

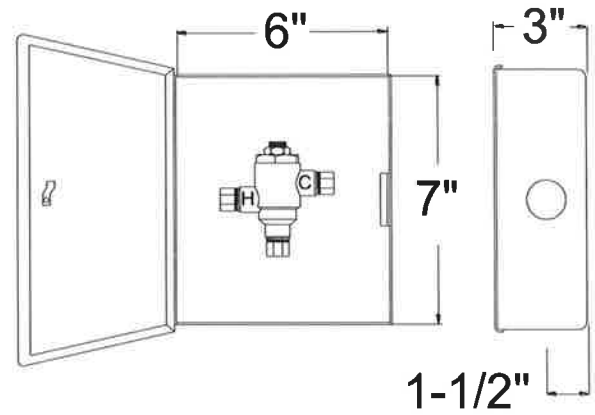
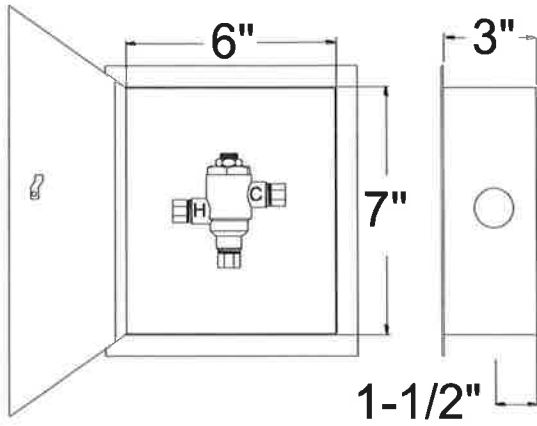
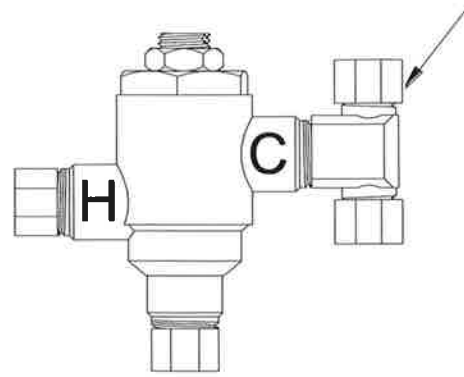
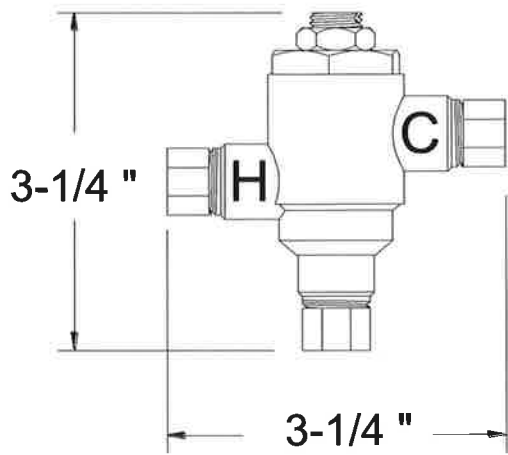
PRESSURE DROP							
5	10	15	20	30	45	PSI	
.35	.70	1.05	1.4	2.1	3.1	BAR	
0.75	1.25	1.6	1.88	2.63	4	GPM	
2.84	4.73	6.06	7.1	10	15	L/MIN	



1360 Elmwood Avenue, Cranston, RI 02910 USA
Phone: 401.461.1200 Fax: 401.941.5310
Email: info@leonardvalve.com
Web Site: <http://www.leonardvalve.com>

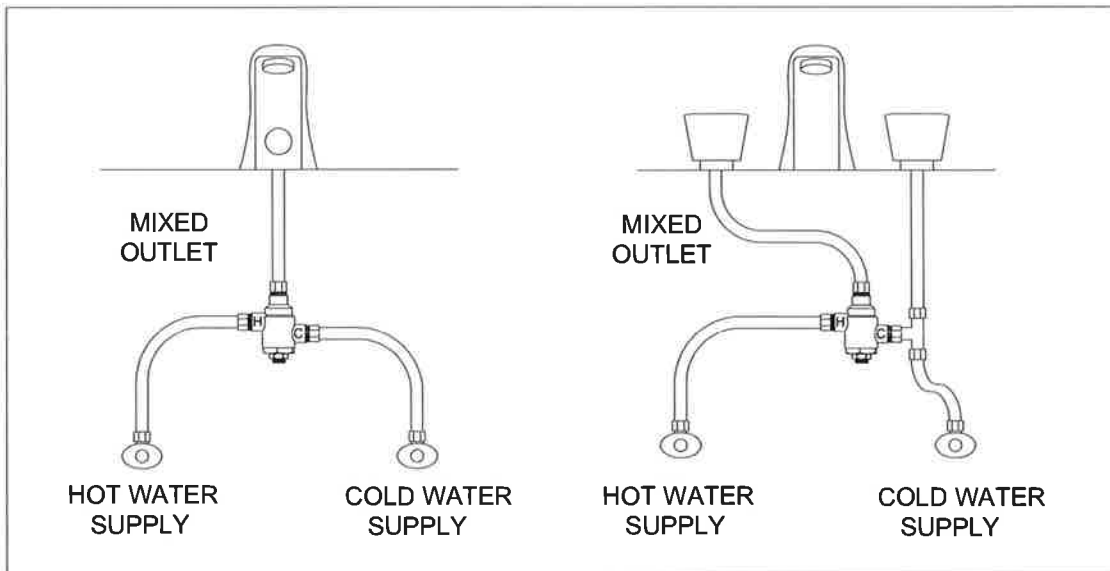
Engineer's Approval	Job # _____
	Arch/Eng. _____
	Contractor _____

BP-OPTION



170A-LF-REC

170A-LF-EXP



170A-LF

170A-LF-BP



1360 Elmwood Avenue, Cranston, RI 02910 USA

Phone: 401.461.1200 Fax: 401.941.5310

Email: info@leonardvalve.com

Web Site: <http://www.leonardvalve.com>

Note: Leonard Valve Company reserves the right of product, or design modifications without notice or obligation.

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Printed in USA



McGuire Manufacturing Co., Inc.

60 Grandview Court
P.O. Box 746 ♣ Cheshire, CT 06410
203-699-1801 ♣ Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

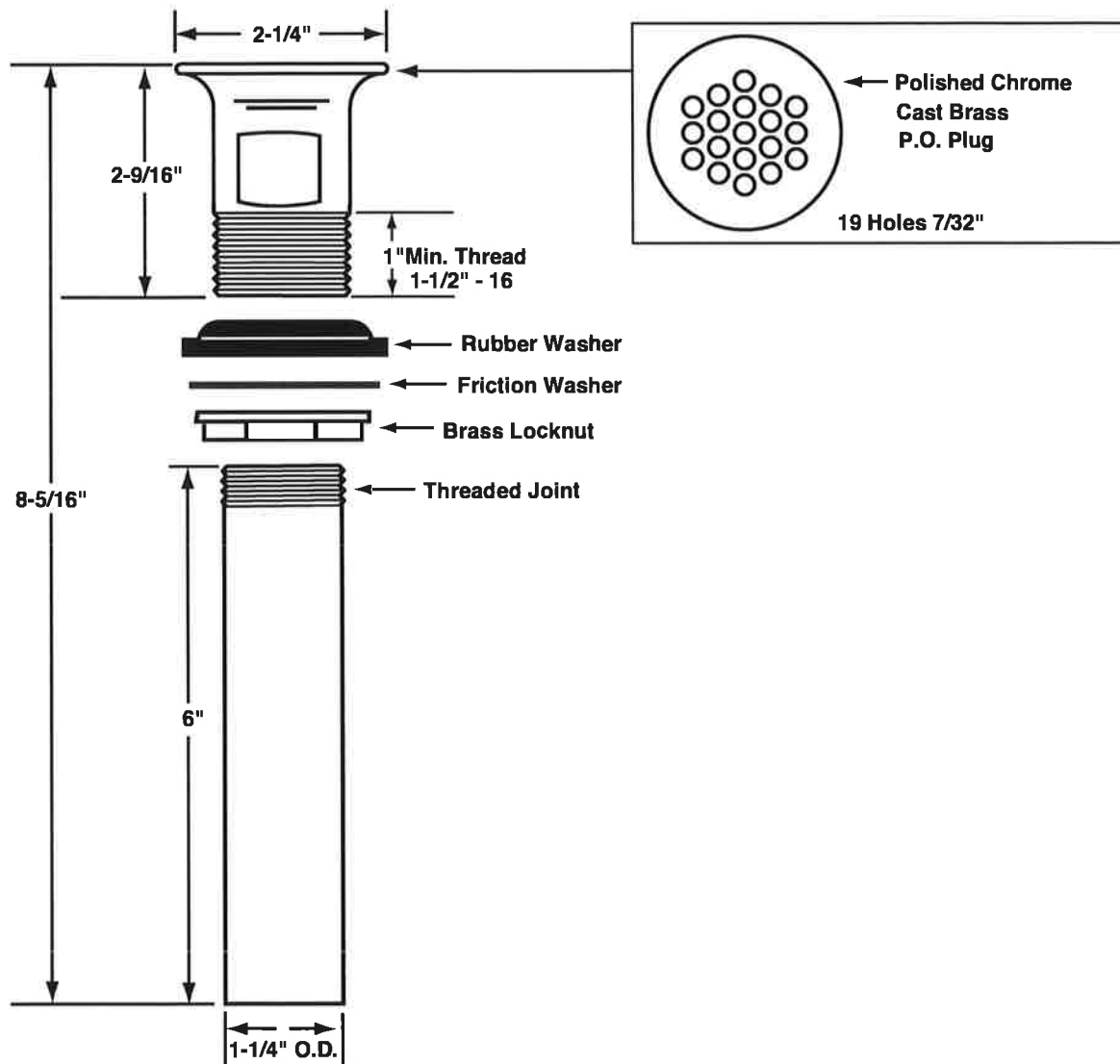
Part No.

155A

Open Grid P.O. Plug

Job Name:

Submittal Number:



*Available with 1-1/2" O.D. brass tailpiece, specify 155A2

See options and accessories section for details on product variations.



Specifications:

Cast Brass Chrome Plated Open Grid P.O. Plug with 17 gauge 1-1/4" x 6" seamless brass tailpiece, brass locknut, heavy rubber basin washer and fiber friction washer. P.O. Plug shall be in compliance with CSA or other recognized testing authority and bear both manufacturer and testing mark.



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 www.mcguiremfg.com

PRODUCT SPECIFICATION

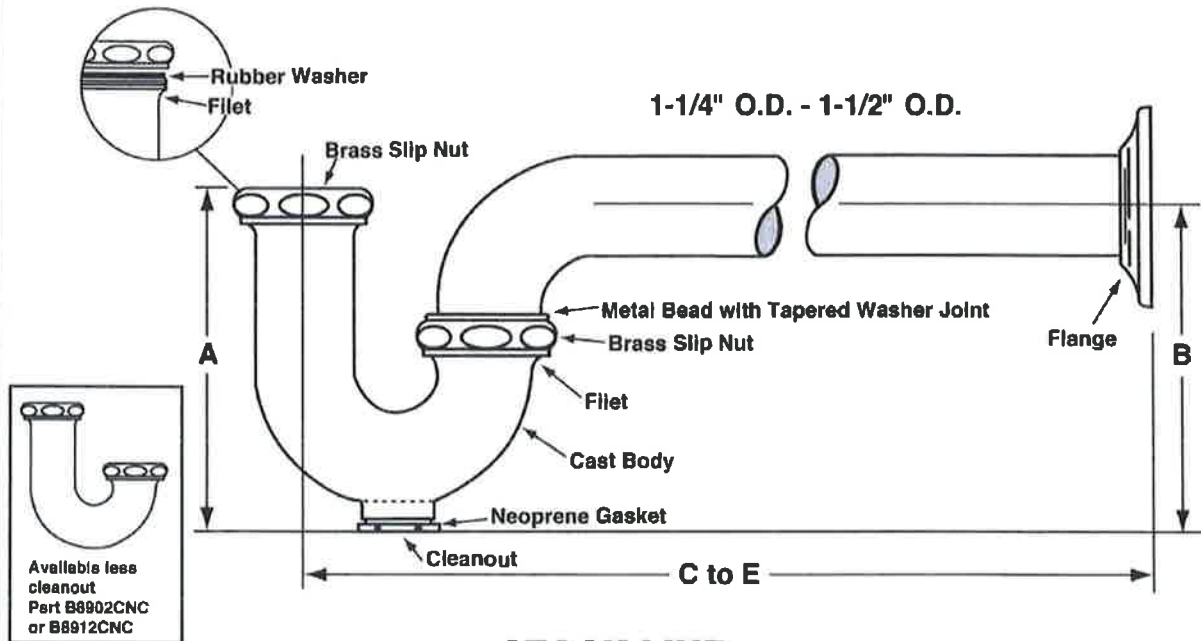
Part No.

B8872, B8902, B8902CNC,
 B8912, B8912CNC,
 C8872, C8902, C8912

**Cast Body P-Trap
 With or Without Cleanout**

Job Name: _____

Submittal Number: _____



Available less
 cleanout
 Part B8902CNC
 or B8912CNC

STOCK LINE

ROUGHING MEASUREMENTS					
NO.	TRAP DIMENSIONS		A	B	C to E
	INLET	OUTLET			
➔ B8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
C8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
B8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8902CNC	1-1/4"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"
B8912CNC	1-1/2"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"

**FED SPEC W.W.P. 541
 CAST BRASS P TRAP
 MINIMUM SEAL 2"**

Note: Prefix "C" indicates die cast slip nuts.

See options and accessories section for details on product variations.

Specifications:

P-Trap shall be chrome plated cast brass body (with, without) cleanout, with 17 gauge seamless tubular wall bend, slip nuts. Reducing washers shall be used with reducing cast brass nut. With (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. P-Trap shall bear manufacturer and testing mark.



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203-699-1801 • Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

Options for
P-Traps

Job Name:

Submittal Number:

CAST BODY P-TRAP OPTIONS

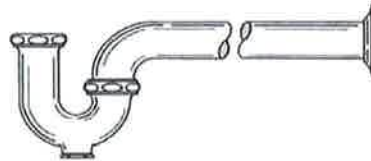
WALL BEND OPTIONS -

Add suffix to part number.

15 - 15" C to E (1-1/4" and 1-1/2" only)

18 - 18" C to E (1-1/4" and 1-1/2" only)

GJ - Ground joint wallbend
Custom sizes available.



FLANGE OPTIONS-

Add suffix to part number.

F - Forged Brass, set screw, chrome plated

DF - Deep Flange, (bell type) chrome plated brass

SDF - Deep Flange, (bell type) chrome plated steel

B - Box Flange, chrome plated wrought steel

BF - Box Flange, chrome plated brass

STANDARD FINISH OPTIONS-

Add suffix to part number.

C - Polished Chrome

S - Satin Chrome

Custom finishes available.

Options available for McGuire "Classic" Professional Line only.



McGuire Manufacturing Co., Inc.

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 203-699-1801 • Fax: 203-699-1813
 www.mcguiremfg.com

PRODUCT SPECIFICATION

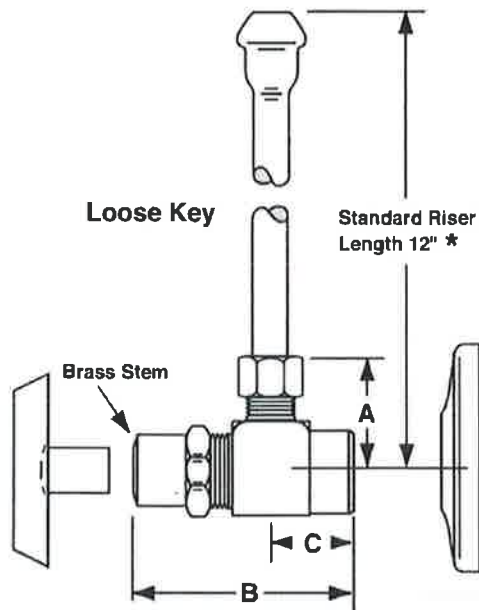
Part No.

LFH2165, **LFH2165LK**
 LFH2167, LFH2167LK,
 LFH2165CC, LFH2165CCLK

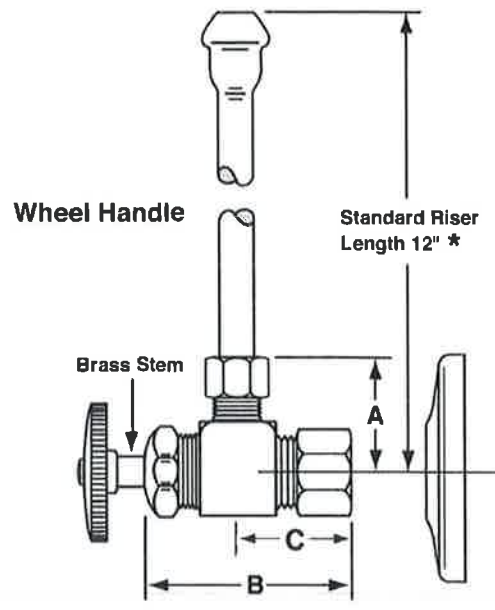
**AB1953 Compliant
 Heavy Lavatory Supply**

Job Name:

Submittal Number:



IPS x Compression



Nominal x Compression

NO.	DESCRIPTION	ROUGHING MEASUREMENTS		
		A	B	C
LFH2165	1/2" IPS x 3/8" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2165LK	1/2" IPS x 3/8" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2167	1/2" IPS x 1/2" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2167LK	1/2" IPS x 1/2" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2165CC	1/2" Nominal x 3/8" OD, Wheel Handle	1-3/8"	2-1/4"	1-3/8"
LFH2165CCLK	1/2" Nominal x 3/8" OD, Loose Key	1-3/8"	2-15/16"	1-3/8"

LK designates *Loose Key*

* See options and accessories section for details on product variations.



Specifications:

Supply kit shall include heavy pattern chrome plated AB1953 compliant supply stop valves with full turn brass stem, no plastic, (12, 15, 20) inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be 1/2 inch (IPS, compression). Outlet shall be (3/8, 1/2) inch compression. Supply kit shall be McGuire _____ Supply shall be AB1953 certified by recognized authority and bear manufacturer and testing mark.



McGuire Manufacturing Co., Inc.

60 Grandview Court
 Cheshire, Connecticut 06410
 (203) 699-1801 Fax (203) 699-1813
 customerservice@mcguiremfg.com mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

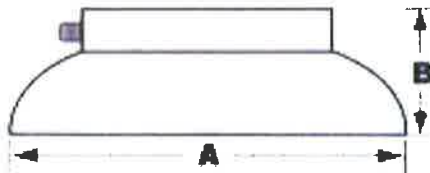
All Cast Brass Nipples and Set Screw Flanges

Job Name: _____

Submittal Number: _____



NO.	SIZE
1127	1-1/4" x 6"
2127	1-1/2" x 6"
3127	2" x 6"



NO.	SIZE	A	B
127038	3/8" I.P.S.	2.39"	.73"
127050	1/2" I.P.S.	2.25"	.7"
127058	5/8" O.D. (1/2" Copper)	2.39"	.73"
127069	11/16" O.D.	2.39"	.73"
127075	3/4" I.P.S.	2.25"	.7"
127078	7/8" O.D. (3/4" Copper)	2.25"	.7"
127100	1" I.P.S.	2.75"	.9"
1271251	1-1/4" I.P.S.	2.765"	.95"
1271250	1-1/4" O.D.	2.95"	1"
1271501	1-1/2" I.P.S.	2.95"	.9"
1271500	1-1/2" O.D.	2.95"	1"
1271580	1-5/8" O.D. (1-1/2" Copper)	2.8"	.9"
1271720	1-23/32" O.D.	Discontinued	
1272001	2" I.P.S.	3.675"	.9"
1272000	2" O.D.	3.3"	.95"

NO.	SIZE
N038015	3/8" x 1-1/2"
N038020	3/8" x 2"
N038030	3/8" x 3"
N038035	3/8" x 3-1/2"
N038040	3/8" x 4"
N038045	3/8" x 4-1/2"
N038050	3/8" x 5"
N038055	3/8" x 5-1/2"
N038060	3/8" x 6"
N038065	3/8" x 6-1/2"
N038100	3/8" x 10"
N038120	3/8" x 12"
N038150	3/8" x 15"
N038200	3/8" x 20"
N038240	3/8" x 24"
N050030	1/2" x 3"
N050040	1/2" x 4"
N050050	1/2" x 5"
N050055	1/2" x 5-1/2"
N050060	1/2" x 6"
N050080	1/2" x 8"
N125060	1-1/4" x 6"
N150060	1-1/2" x 6"
N200060	2" x 6"



Specifications:

All Cast Brass Nipples and Set Screw Flanges for use with P-Traps, supplies and shower arms. Highly polished and heavy chrome plated.



WARNING:

This product can be hazardous to children and animals. It is known to the State of California to cause cancer, and both children and other reproductive harm. For more information go to: www.P660Warning.com



LAV GUARD²

FAST FIT UNDERSINK PIPING COVERS



ADA-compliant undersink protection



Submittal Sheet

General Description:

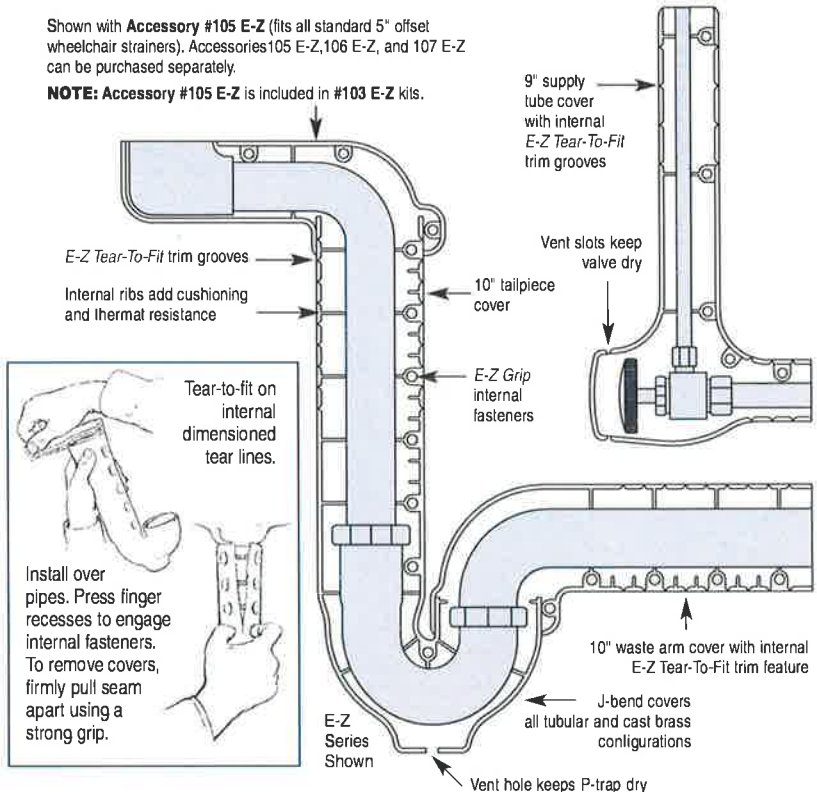
LAV GUARD² E-Z Series waste and supply piping covers satisfy ADA compliance requirements. Built-in E-Z Grip internal fasteners and internal, E-Z Tear-To-Fit trimming feature allow for fast installation without tools. Series #100 E-Z kits are designed to fit on all tubular and cast brass P-trap assemblies. Series #400 kits are the "original" LAV GUARD design and fit schedule 40 ABS and PVC P-trap assemblies — regardless of their geometry or rotational offset. Valve cover completely encloses angle valve and supply tube for both handled and keyed type water stops.

Material	Molded vinyl
Nominal Wall	1/8" constant
Durometer	70 - 80 - Shore A
UV Protection	Will not fade or discolor
Durability	Virtually indestructible
Trimming (E-Z Series)	Internal, E-Z Tear-To-Fit trim feature
Fasteners (E-Z Series)	Internal E-Z Grip fasteners (reusable)
Color	China white
Paintability	Apply Latex paint
Burning Characteristics ASTM D-635	Self extinguished 0 sec (ATB) 0 mm (AEB)
Bacteria/Fungus Resistance	ASTM G21 and G22/ Result: 0 growth
Maintenance	Use common detergents

Manufactured under one or more of the following U.S. or Canadian patents. Other patents pending.
 5,303,730 5,360,031 5,524,669 5,564,463 5,678,598 5,699,828 5,915,412
 5,915,413 5,901,739 5,960,820 2,075,324 2,119,427 2,136,027 2,158,083



IPS Corporation, 202 Industrial Park Lane, Collierville, TN 38017
 (901) 853-5001 (800) 340-5969 FAX: (901) 853-5008
 e-mail: info@truebro.com Internet: http://www.truebro.com



#100 E-Z Series (shown above right) for tubular and cast brass P-trap assemblies.
 #400W* Series (original design) for schedule 40 P-trap assemblies.

- | | | |
|---|---|--|
| <input type="checkbox"/> Model #99 E-Z
One angle valve and supply cover | <input checked="" type="checkbox"/> Model #102 E-Z
One P-trap cover, two angle valves and covers | <input type="checkbox"/> Accessory #105-K
Kohler 6" offset |
| <input type="checkbox"/> Model #100 E-Z
One P-trap cover | <input type="checkbox"/> Model #402W*
One P-trap cover, two angle valves and covers | <input type="checkbox"/> Accessory #106 E-Z
One basket strainer cover and offset waste cover (adjustable to 18") |
| <input type="checkbox"/> Model #400W*
One P-trap cover | <input type="checkbox"/> Model #103 E-Z
One P-trap cover, two angle valves and supply covers, one 5" offset tailpiece wheelchair strainer cover | <input type="checkbox"/> Accessory #107 E-Z
Two basket strainer covers and center or end outlet waste cover (adjustable) |
| <input type="checkbox"/> Model #101 E-Z
One P-trap cover, one angle valve cover | <input type="checkbox"/> Accessory #105 E-Z
One 5" offset tailpiece wheelchair strainer assembly | <input type="checkbox"/> Accessory #Ex99 E-Z
One 16" extension for water supply |
| <input type="checkbox"/> Model #401W*
One P-trap cover, one angle valve cover | | <input type="checkbox"/> Accessory #Ex100 E-Z
One 16" extension for drain waste arm or tailpiece |

*All #400W series items are the "original" LAV GUARD² design and construction. Specifications may change without notice.



Job/Location _____
 Designer _____

L-2

APPROVED	[]
APPROVED AS CORRECTED	<input checked="" type="checkbox"/>
REVISE AND RESUBMIT	[]
NOT APPROVED	[]

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.
DATE 22 October 22 BY M. Tall

Lucerne™ Wall-Hung Lavatory

- Wall-hung sink
- Vitreous china
- Front overflow
- D-shaped bowl
- Self-draining deck area with contoured back and side splash shields
- Faucet ledge
- Compliant with Texas Accessibility Standard (TAS) for children age group 13 and up

Faucet holes on 203 mm (8") centers:

- 0356.028** For exposed bracket support (by others)
- 0356.015** For wall hanger (included) or concealed arms support (by others)
- 0356.915** For wall hanger (included) or concealed arms support (by others) less overflow
- 0356.037** For wall hanger (included) or concealed arms support (by others) with extra 35 mm (1-3/8") hole for soap/lotion dispenser (by others) on right-hand side

Faucet holes on 102 mm (4") centers:

- 0355.027** For exposed bracket support (by others)
- 0355.012** For wall hanger (included) or concealed arms support (by others)
- 0355.912** For wall hanger (included) or concealed arms support (by others) less overflow
- 0355.056** For wall hanger (included) or concealed arms support (by others) with extra 35 mm (1-3/8") hole for soap/lotion dispenser (by others) on left-hand side
- 0355.034** For wall hanger (included) or concealed arms support (by others) with extra 35 mm (1-3/8") hole for soap/lotion dispenser (by others) on right-hand side
- 0355.041** With two holes spaced 343 mm (13-1/2") in back splash for 10 mm (3/8") bolts (by others)

Single center faucet hole:

- 0356.041** For exposed bracket support (by others)
- 0356.421** For wall hanger (included) or concealed arms support (by others)
- 0356.921** For wall hanger (included) or concealed arms support (by others) less overflow
- 0356.439** For wall hanger (included) or concealed arms support (by others) with single faucet hole on right
- 0356.066** For exposed bracket support (by others) with single faucet hole on right
- 0356.115** For wall hanger (included) or concealed arms support (by others) with extra 35 mm (1-3/8") hole for soap/lotion dispenser (by others) on left-hand side
- 0356.137** For wall hanger (included) or concealed arms support (by others) with extra 35 mm (1-3/8") hole for soap/lotion dispenser (by others) on right-hand side



0355.012



0356.041

SEE FOLLOWING PAGES FOR ROUGHING-IN DIMENSIONS

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2 / CSA B45.1 for Vitreous China Fixtures

Nominal Dimensions:

540 x 464 mm
 (21-1/4" x 18-1/4")

Bowl sizes:

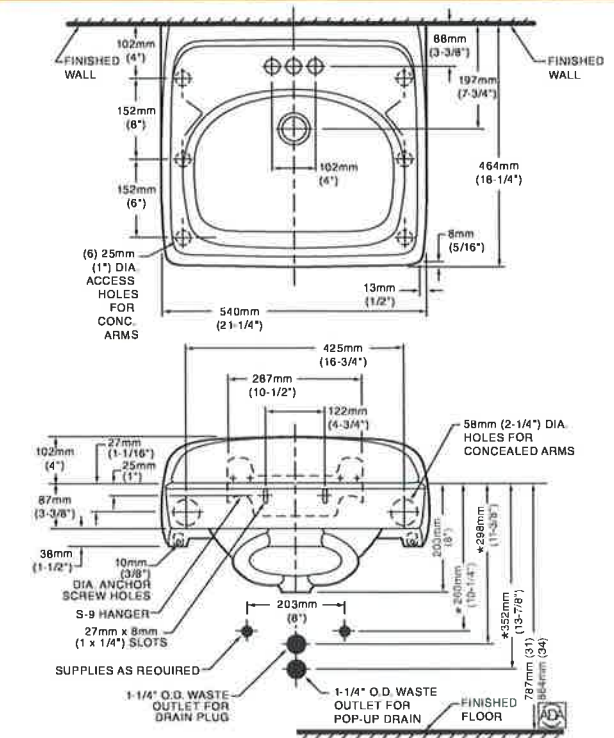
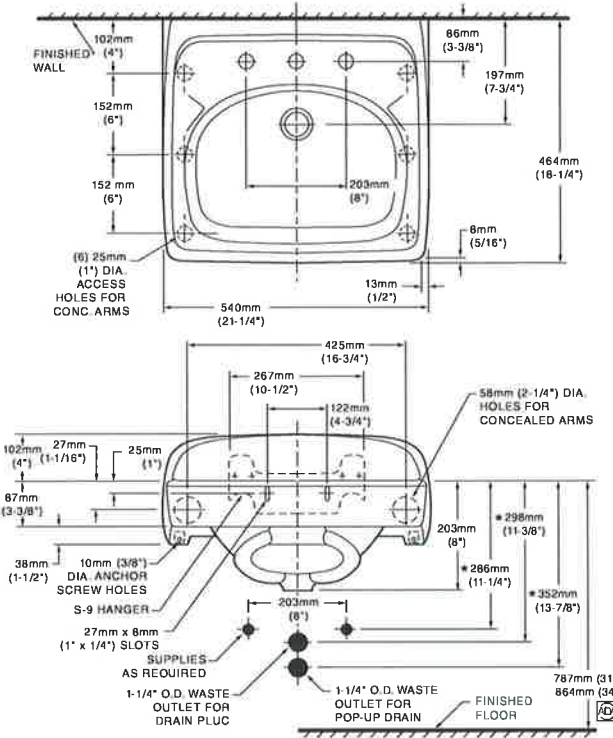
379 mm (14-7/8") wide
 254 mm (10") front to back
 165 mm (6-1/2") deep

To Be Specified:

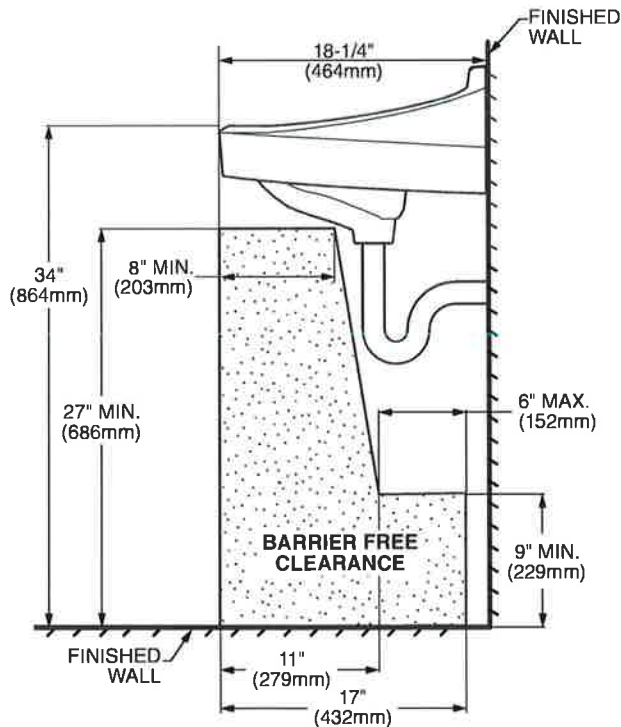
- Color: **White**
- Faucet:
- Faucet Finish:
- Supplies:
- 1-1/4" Trap:
- Bracket Support (by others):
- Concealed Arms Support (by others):

8" CENTER CONFIGURATIONS
All Wall Hanger (included) or Concealed Arm Configurations

4" CENTER CONFIGURATIONS
All Wall Hanger (included) or Concealed Arm Configurations



SIDE VIEW - ALL CONFIGURATIONS



NOTES:
* DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED. PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS. FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY. CONCEALED ARM SUPPORT AS REQUIRED TO BE FURNISHED BY OTHERS.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

ADA MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.
Top of front rim mounted 864mm (34") from finished floor.



T&S BRASS AND BRONZE WORKS, INC.

2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-0890-VF05

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ADA Compliant

This Space for Architect/Engineer Approval

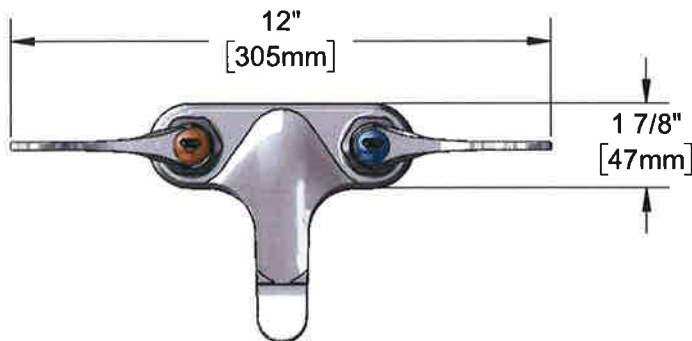
Job Name _____ Date _____

Model Specified _____ Quantity _____

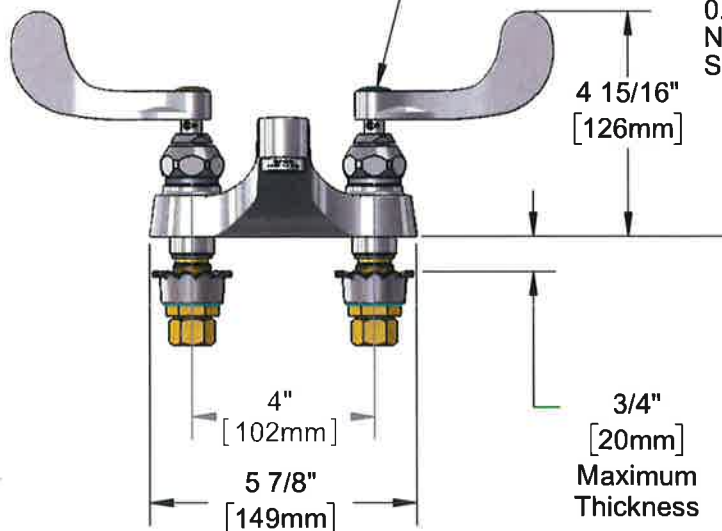
Customer/Wholesaler _____

Contractor _____

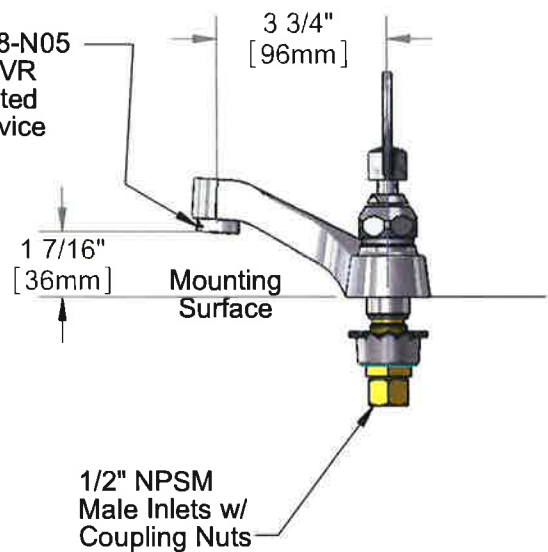
Architect/Engineer _____



Quarter-Turn Eterna Cartridges
w/ Spring Checks &
4" Wrist Action Handles w/
VR Screws & Color Coded Indexes



B-0199-08-N05
0.5 GPM VR
Non-Aerated
Spray Device



Rough-In Requirement:
(2) ϕ 1 1/8" [29mm] Mounting Holes

Product Specifications:

4" Centerset Deck Mount Faucet, Quarter-Turn Eterna Cartridges w/ Spring Checks, 4" Wrist Action Handles w/ Vandal Resistant Screws, 0.5 GPM VR Non-Aerated Spray Device & 1/2" NPSM Male Inlets w/ Coupling Nuts

Product Compliance:

ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)



T&S BRASS AND BRONZE WORKS, INC.

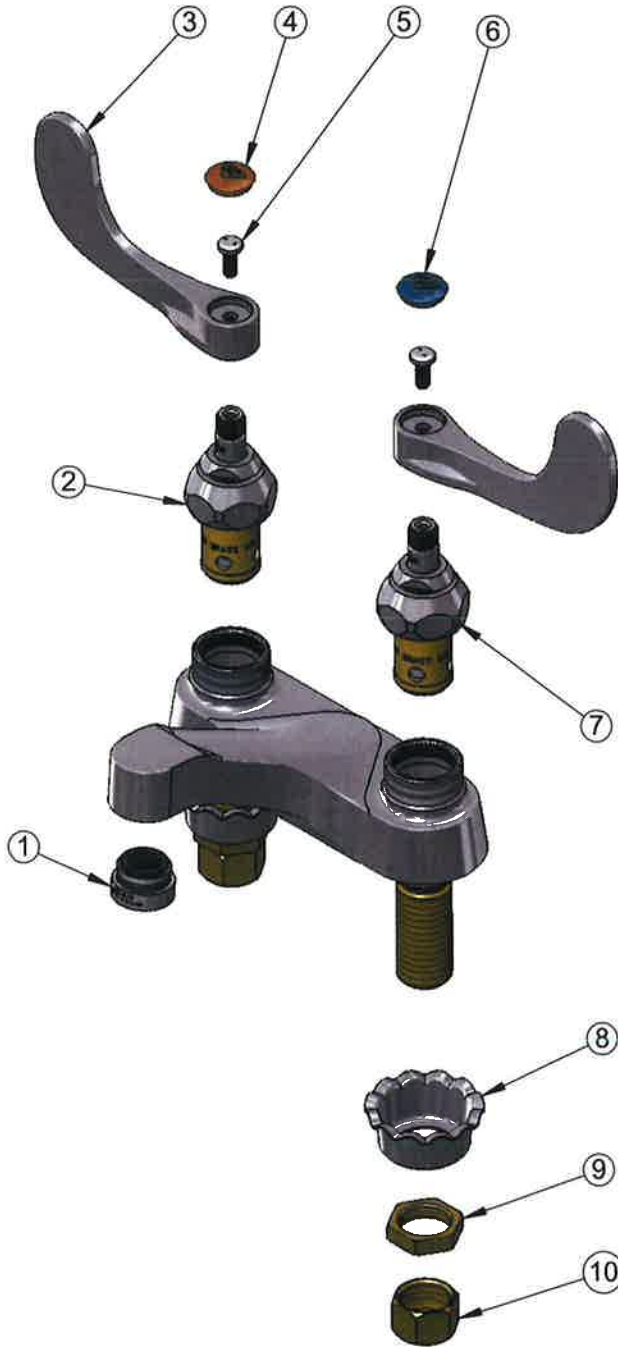
2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-0890-VF05

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ITEM NO.	SALES NO.	DESCRIPTION
1	B-0199-08-N05	0.5 GPM VR Spray Device, 13/16-27 Male
2	012443-40NS	Quarter-Turn Eterna Cartridge w/ Spring Check, RTC
3	B-WH4-NS	Wrist Action Handle (New Style)
4	001193-19NS	Red Button Index, Press-in
5	VRS-2	VR Wrist Action Handle Screw (2) w/ Spanner Bit
6	018506-19NS	Blue Button Index, Press-in
7	012442-40NS	Quarter-Turn Eterna Cartridge w/ Spring Check, LTC
8	001000-45	Rosette Washer
9	002954-45	Shank Lock Nut
10	000958-20	Coupling Nut



015425-45
Vandal Resistant
Key



014075-45
Vandal Resistant
#10 Spanner Bit

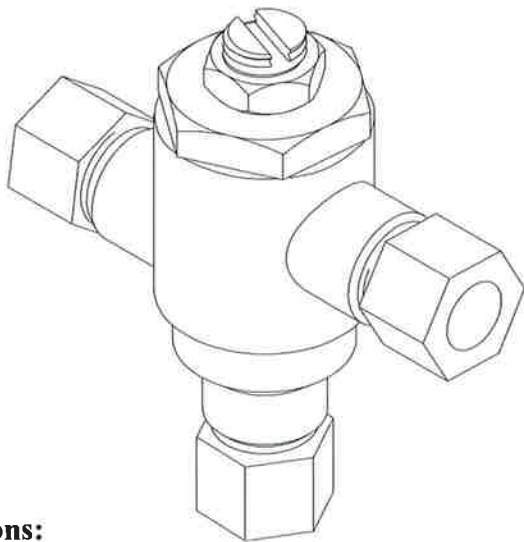
Product Specifications:

4" Centerset Deck Mount Faucet, Quarter-Turn Eterna Cartridges w/ Spring Checks, 4" Wrist Action Handles w/ Vandal Resistant Screws, 0.5 GPM VR Non-Aerated Spray Device & 1/2" NPSM Male Inlets w/ Coupling Nuts

Product Compliance:

ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)

170A-LF



Application:

The Model 170A-LF is a high performance thermostatic temperature limiting device used to supply single outlets. Can be used to supply one sensor faucet or one two handle manual faucet.

Features:

- Certified to ASSE 1070 to control down to 0.25 GPM
- Eco-Mix Certified Lead-Free* construction
- Integral inlet checks and stainless steel screens
- Vandal resistant locknut to prevent accidental adjustment
- Easy 3/8" tubing or flex hose installation

Specifications:

- Minimum flow: 0.25 GPM (0.95 l/Min) Certified to ASSE
- Maximum flow: 4 GPM
- Maximum pressure: 125 PSI (8.6 BAR)
- Maximum hot water temperature: 180°F (82°C)
- Hot water inlet temperature range: 120-180°F (49-82°C)
- Cold water inlet temperature range: 33-80°F (1-27°C)
- Temperature adjustment range: 95-120°F (35-49°C)

Certifications:

ASSE 1070-2015



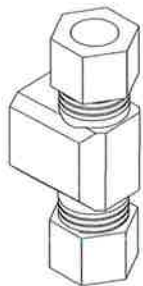
CSA B125.70-15



Certified to NSF61 thru the ASSE 1070 testing process

Options:

- ___ STSTL REC- Stainless steel cabinet, #4 finish, recessed
- ___ STSTL EXP- Stainless steel cabinet, #4 finish, exposed
- ___ BWE REC- Steel cabinet, baked white, recessed
- ___ BWE EXP- Steel cabinet, baked white, exposed
- ___ BP- Cold water By-Pass (shipped loose)
- ___ BRKT- mounting bracket (shipped loose)
- ___ CP- Chrome plated finish



BP option



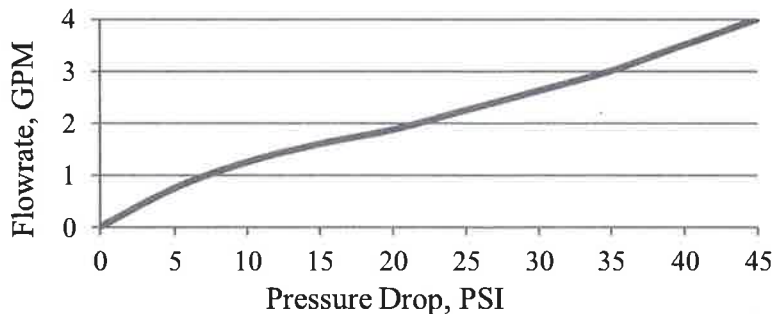
BRKT option



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P63W-000000A-1-01V

* This product is certified to meet Low Lead requirements of wetted surface area containing less than 0.25% lead by weight

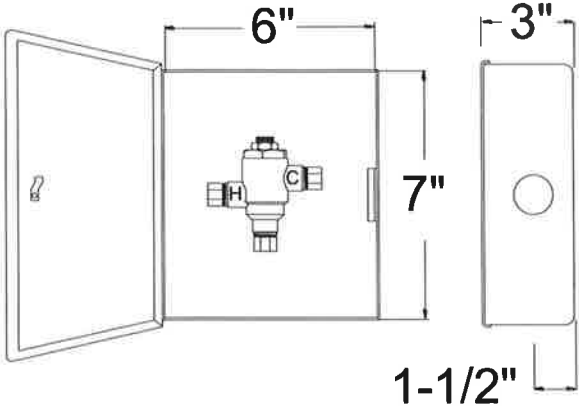
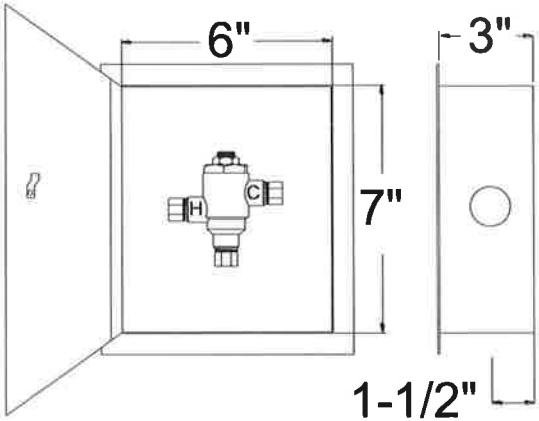
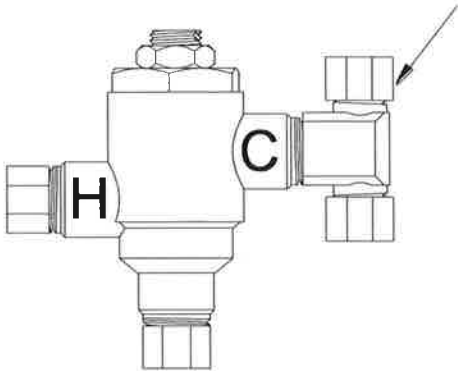
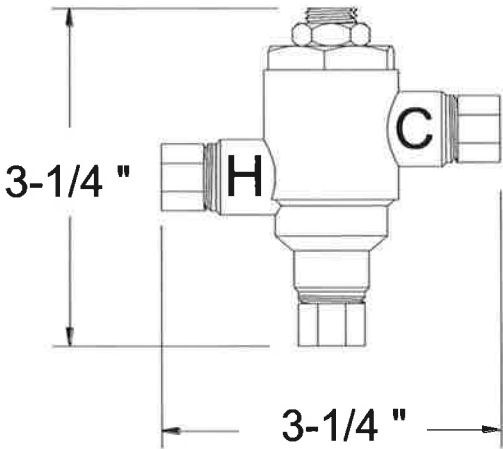
PRESSURE DROP							
5	10	15	20	30	45		PSI
.35	.70	1.05	1.4	2.1	3.1		BAR
0.75	1.25	1.6	1.88	2.63	4		GPM
2.84	4.73	6.06	7.1	10	15		L/MIN



1360 Elmwood Avenue, Cranston, RI 02910 USA
 Phone: 401.461.1200 Fax: 401.941.5310
 Email: info@leonardvalve.com
 Web Site: <http://www.leonardvalve.com>

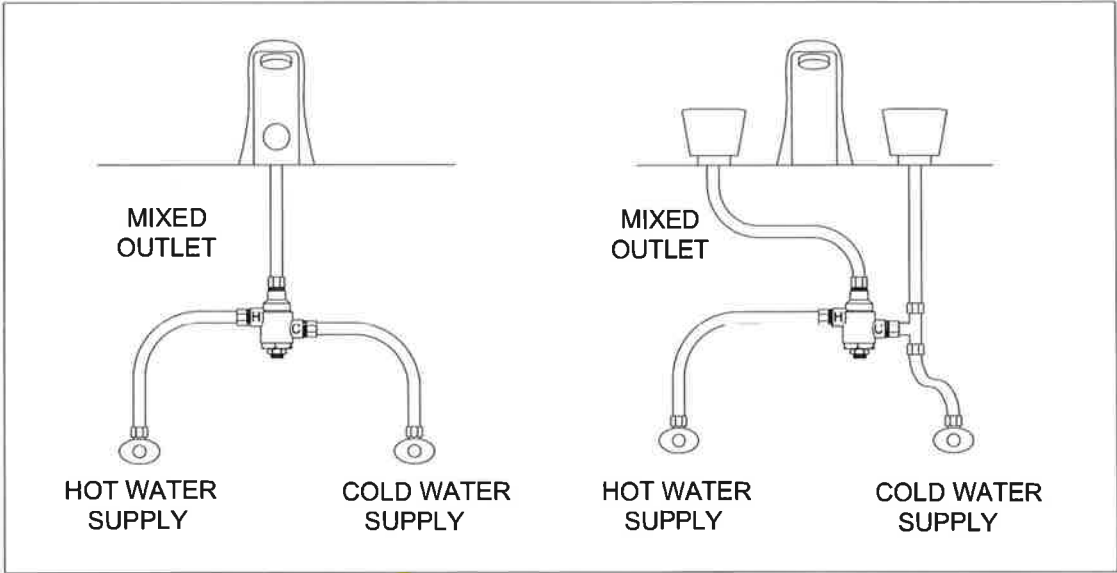
Engineer's Approval	Job # _____
	Arch/Eng. _____
	Contractor _____

BP-OPTION



170A-LF-REC

170A-LF-EXP



170A-LF

170A-LF-BP



Note: Leonard Valve Company reserves the right of product, or design modifications without notice or obligation.

1360 Elmwood Avenue, Cranston, RI 02910 USA
 Phone: 401.461.1200 Fax: 401.941.5310
 Email: info@leonardvalve.com
 Web Site: <http://www.leonardvalve.com>

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Printed in USA



McGuire Manufacturing Co., Inc.
60 Grandview Court
P.O. Box 746 ♣ Cheshire, CT 06410
203-699-1801 ♣ Fax: 203-699-1813
www.mcguiremfg.com
PRODUCT SPECIFICATION

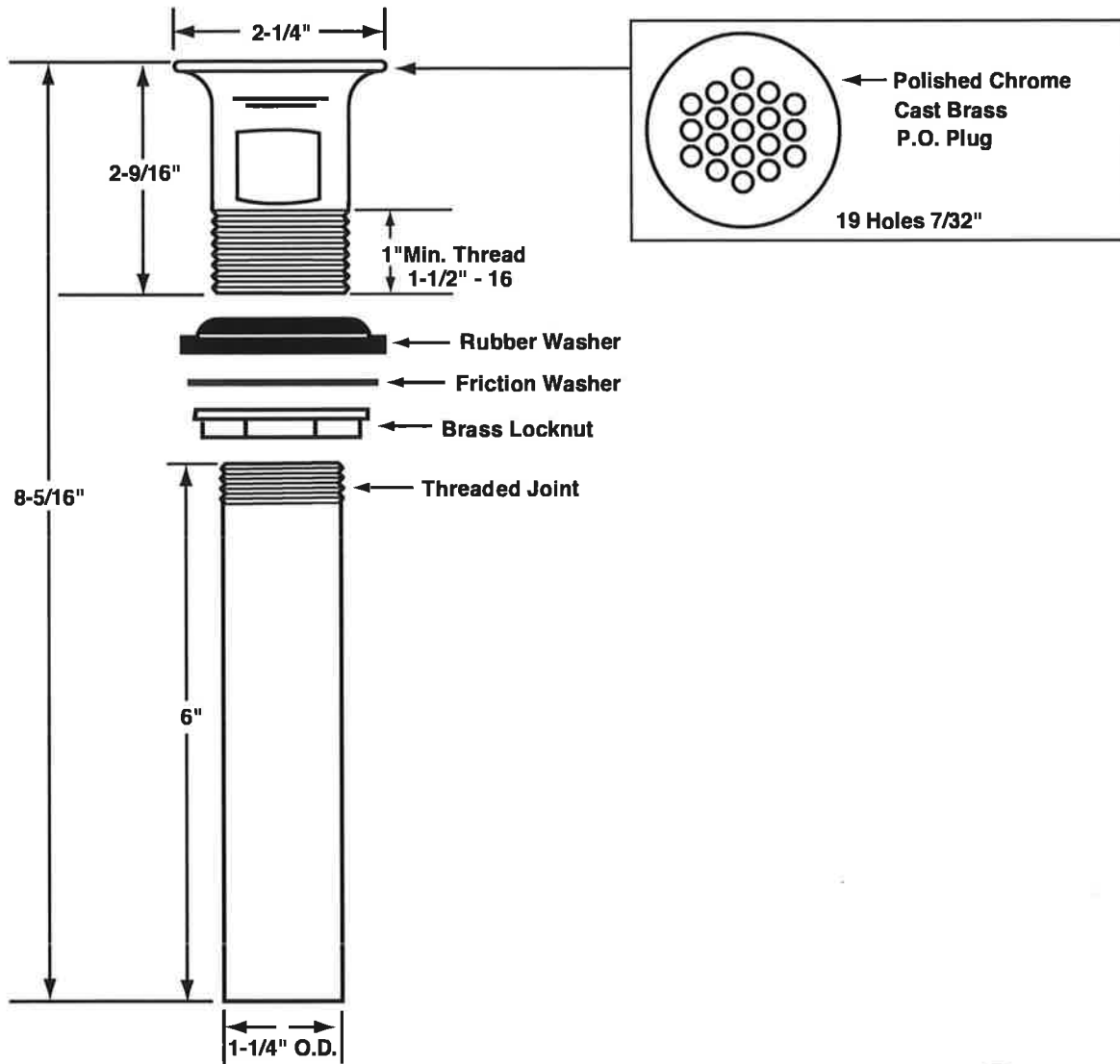
Part No.

155A

Open Grid P.O. Plug

Job Name:

Submittal Number:



*Available with 1-1/2" O.D. brass tailpiece, specify 155A2

See options and accessories section for details on product variations.



Specifications:

Cast Brass Chrome Plated Open Grid P.O. Plug with 17 gauge 1-1/4" x 6" seamless brass tailpiece, brass locknut, heavy rubber basin washer and fiber friction washer. P.O. Plug shall be in compliance with CSA or other recognized testing authority and bear both manufacturer and testing mark.



McGuire Manufacturing Co., Inc.
 60 Grandview Court
 P.O. Box 746 • Cheshire, CT 06410
 203-699-1801 • Fax: 203-699-1813
 www.mcguiremfg.com

PRODUCT SPECIFICATION

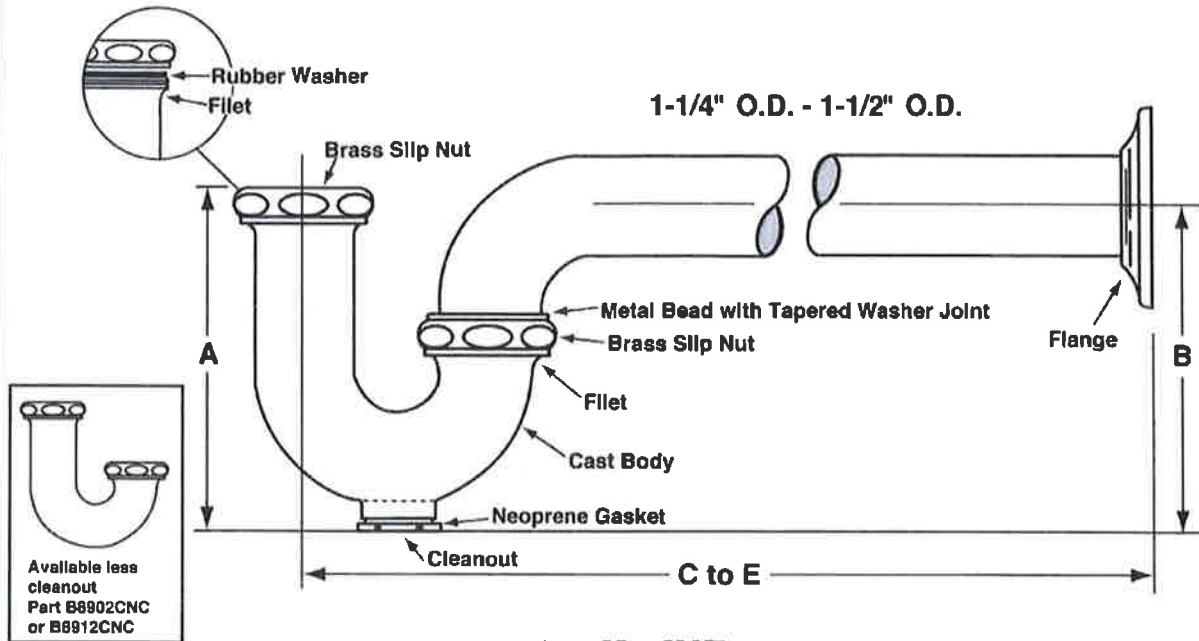
Part No.

B8872, B8902, B8902CNC,
 B8912, B8912CNC,
 C8872, C8902, C8912

**Cast Body P-Trap
 With or Without Cleanout**

Job Name:

Submittal Number:



Available less
 cleanout
 Part B8902CNC
 or B8912CNC

STOCK LINE

ROUGHING MEASUREMENTS					
NO.	TRAP DIMENSIONS		A	B	C to E
	INLET	OUTLET			
B8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
C8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
B8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8902CNC	1-1/4"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"
B8912CNC	1-1/2"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"

**FED SPEC W.W.P. 541
 CAST BRASS P TRAP
 MINIMUM SEAL 2"**

Note: Prefix "C" Indicates die cast slip nuts.

See options and accessories section for details on product variations.

Specifications:

P-Trap shall be chrome plated cast brass body (with, without) cleanout, with 17 gauge seamless tubular wall bend, slip nuts. Reducing washers shall be used with reducing cast brass nut. With (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. P-Trap shall bear manufacturer and testing mark.



McGuire Manufacturing Co., Inc.

60 Grandview Court
P.O. Box 746 • Cheshire, CT 06410
203-699-1801 • Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

**Options for
P-Traps**

Job Name:

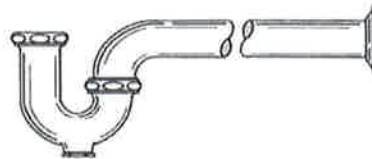
Submittal Number:

CAST BODY P-TRAP OPTIONS

WALL BEND OPTIONS -

Add suffix to part number.

- 15** - 15" C to E (1-1/4" and 1-1/2" only)
- 18** - 18" C to E (1-1/4" and 1-1/2" only)
- GJ** - Ground joint wallbend
Custom sizes available.



FLANGE OPTIONS -

Add suffix to part number.

- F** - Forged Brass, set screw, chrome plated
- DF** - Deep Flange, (bell type) chrome plated brass
- SDF** - Deep Flange, (bell type) chrome plated steel
- B** - Box Flange, chrome plated wrought steel
- BF** - Box Flange, chrome plated brass

STANDARD FINISH OPTIONS -

Add suffix to part number.

- C** - Polished Chrome
 - S** - Satin Chrome
- Custom finishes available.

Options available for McGuire "Classic" Professional Line only.



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PRODUCT SPECIFICATION

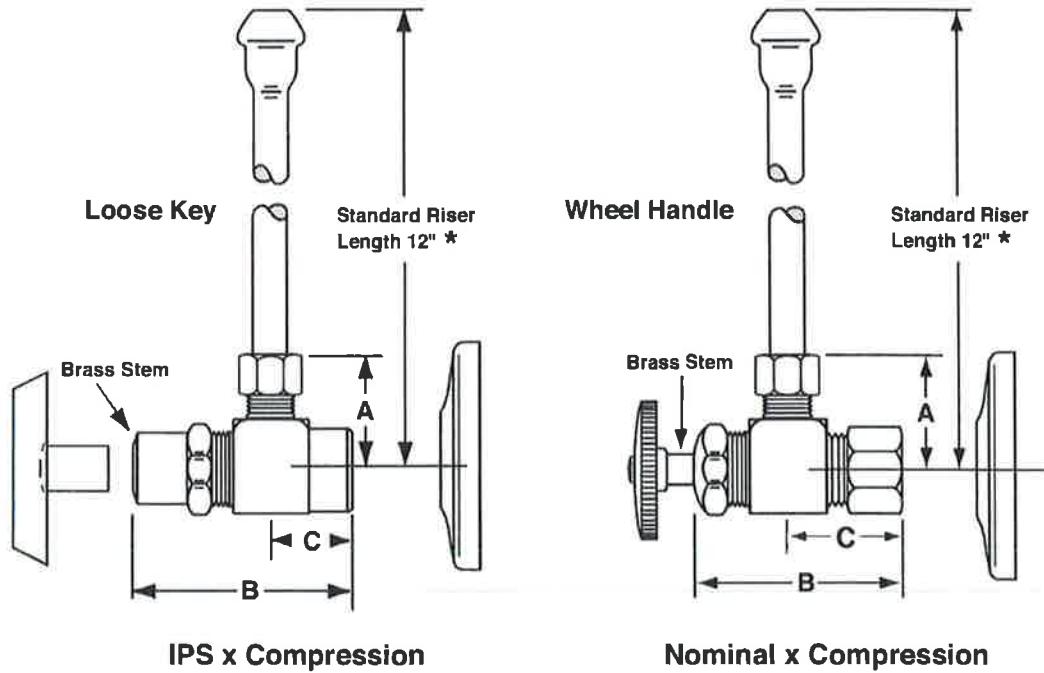
Part No.

LFH2165, **LFH2165LK**
 LFH2167, LFH2167LK,
 LFH2165CC, LFH2165CCLK

**AB1953 Compliant
 Heavy Lavatory Supply**

Job Name: _____

Submittal Number: _____



NO.	DESCRIPTION	ROUGHING MEASUREMENTS		
		A	B	C
LFH2165	1/2" IPS x 3/8" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2165LK	1/2" IPS x 3/8" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2167	1/2" IPS x 1/2" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2167LK	1/2" IPS x 1/2" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2165CC	1/2" Nominal x 3/8" OD, Wheel Handle	1-3/8"	2-1/4"	1-3/8"
LFH2165CCLK	1/2" Nominal x 3/8" OD, Loose Key	1-3/8"	2-15/16"	1-3/8"

LK designates *Loose Key*

* See options and accessories section for details on product variations.



Specifications:

Supply kit shall include heavy pattern chrome plated AB1953 compliant supply stop valves with full turn brass stem, no plastic, (12, 15, 20) inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be 1/2 inch (IPS, compression). Outlet shall be (3/8, 1/2) inch compression. Supply kit shall be McGuire _____ . Supply shall be AB1953 certified by recognized authority and bear manufacturer and testing mark.



McGuire Manufacturing Co., Inc.

60 Grandview Court
 Cheshire, Connecticut 06410
 (203) 699-1801 Fax (203) 699-1813
 customerservice@mcguiremfg.com mcguiremfg.com

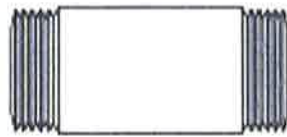
PRODUCT SPECIFICATION

Part No.

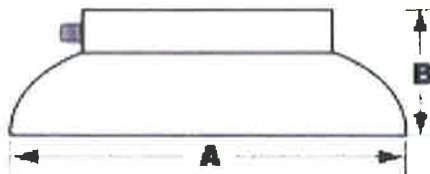
**All Cast Brass
 Nipples and
 Set Screw Flanges**

Job Name:

Submittal Number:



NO.	SIZE
1127	1-1/4" x 6"
2127	1-1/2" x 6"
3127	2" x 6"



NO.	SIZE	A	B
127038	3/8" I.P.S.	2.39"	.73"
127050	1/2" I.P.S.	2.25"	.7"
127058	5/8" O.D. (1/2" Copper)	2.39"	.73"
127069	1 1/16" O.D.	2.39"	.73"
127075	3/4" I.P.S.	2.25"	.7"
127078	7/8" O.D. (3/4" Copper)	2.25"	.7"
127100	1" I.P.S.	2.75"	.9"
1271251	1-1/4" I.P.S.	2.765"	.95"
1271250	1-1/4" O.D.	2.95"	1"
1271501	1-1/2" I.P.S.	2.95"	.9"
1271500	1-1/2" O.D.	2.95"	1"
1271580	1-5/8" O.D. (1-1/2" Copper)	2.8"	.9"
1271720	1-23/32" O.D.	Discontinued	
1272001	2" I.P.S.	3.675"	.9"
1272000	2" O.D.	3.3"	.95"

NO.	SIZE
N038015	3/8" x 1-1/2"
N038020	3/8" x 2"
N038030	3/8" x 3"
N038035	3/8" x 3-1/2"
N038040	3/8" x 4"
N038045	3/8" x 4-1/2"
N038050	3/8" x 5"
N038055	3/8" x 5-1/2"
N038060	3/8" x 6"
N038065	3/8" x 6-1/2"
N038100	3/8" x 10"
N038120	3/8" x 12"
N038150	3/8" x 15"
N038200	3/8" x 20"
N038240	3/8" x 24"
N050030	1/2" x 3"
N050040	1/2" x 4"
N050050	1/2" x 5"
N050055	1/2" x 5-1/2"
N050060	1/2" x 6"
N050080	1/2" x 8"
N125060	1-1/4" x 6"
N150060	1-1/2" x 6"
N200060	2" x 6"



Specifications:

All Cast Brass Nipples and Set Screw Flanges for use with P-Traps, supplies and shower arms. Highly polished and heavy chrome plated.



WARNING:

This product can be exposed to chemicals resulting from activities known to the State of California to cause cancer, and birth defects or other reproductive harm. For more information go to: www.P66Warnings.ca.gov



LAV GUARD²

FAST FIT UNDERSINK PIPING COVERS



ADA-compliant undersink protection



Submittal Sheet

General Description:

LAV GUARD² E-Z Series waste and supply piping covers satisfy ADA compliance requirements. Built-in E-Z Grip internal fasteners and internal, E-Z Tear-To-Fit trimming feature allow for fast installation without tools. Series #100 E-Z kits are designed to fit on all tubular and cast brass P-trap assemblies. Series #400 kits are the "original" LAV GUARD design and fit schedule 40 ABS and PVC P-trap assemblies — regardless of their geometry or rotational offset. Valve cover completely encloses angle valve and supply tube for both handled and keyed type water stops.

Material	Molded vinyl
Nominal Wall	1/8" constant
Durometer	70 - 80 - Shore A
UV Protection	Will not fade or discolor
Durability	Virtually indestructible
Trimming (E-Z Series)	Internal, E-Z Tear-To-Fit trim feature
Fasteners (E-Z Series)	Internal E-Z Grip fasteners (reusable)
Color	China white
Paintability	Apply Latex paint
Burning Characteristics ASTM D-635	Self extinguished 0 sec (ATB) 0 mm (AEB)
Bacteria/Fungus Resistance	ASTM G21 and G22/ Result: 0 growth
Maintenance	Use common detergents

Manufactured under one or more of the following U.S. or Canadian patents. Other patents pending.
 5,303,730 5,360,031 5,524,669 5,564,463 5,678,598 5,699,828 5,915,412
 5,915,413 5,901,739 5,960,820 2,075,324 2,119,427 2,136,027 2,158,083

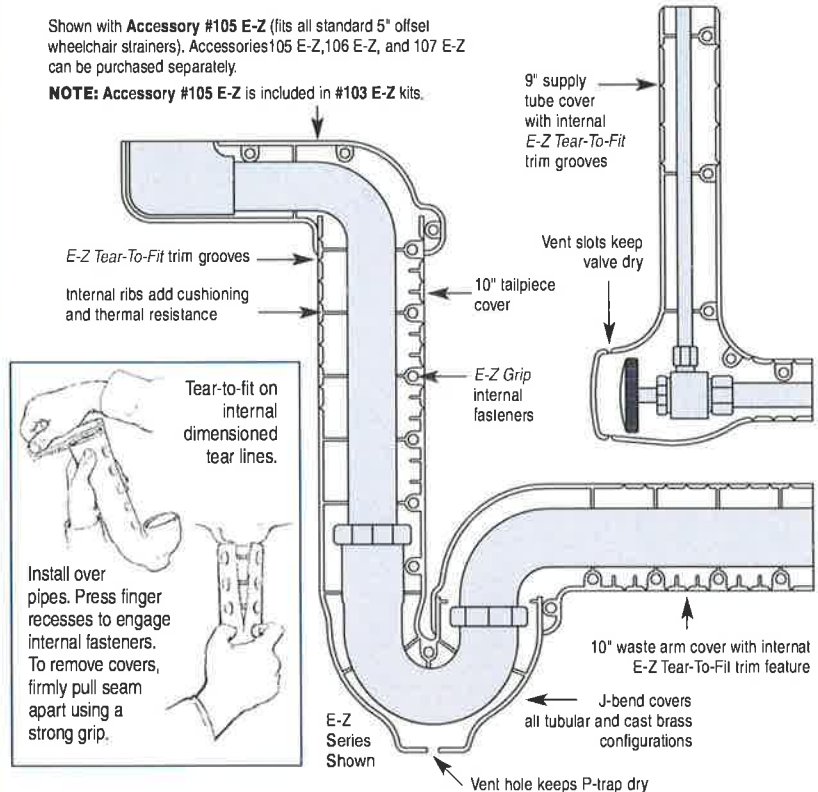


IPS Corporation, 202 Industrial Park Lane, Collierville, TN 38017
 (901) 853-5001 (800) 340-5969 FAX: (901) 853-5008
 e-mail: info@truebro.com Internet: http://www.truebro.com



Shown with **Accessory #105 E-Z** (fits all standard 5" offset wheelchair strainers). Accessories 105 E-Z, 106 E-Z, and 107 E-Z can be purchased separately.

NOTE: Accessory #105 E-Z is included in #103 E-Z kits.



#100 E-Z Series (shown above right) for tubular and cast brass P-trap assemblies.
 #400W* Series (original design) for schedule 40 P-trap assemblies.

- | | | |
|---|---|--|
| <input type="checkbox"/> Model #99 E-Z
One angle valve and supply cover | <input checked="" type="checkbox"/> Model #102 E-Z
One P-trap cover, two angle valves and covers | <input type="checkbox"/> Accessory #105-K
Kohler 6" offset |
| <input type="checkbox"/> Model #100 E-Z
One P-trap cover | <input type="checkbox"/> Model #402W
One P-trap cover, two angle valves and covers | <input type="checkbox"/> Accessory #106 E-Z
One basket strainer cover and offset waste cover (adjustable to 18") |
| <input type="checkbox"/> Model #400W*
One P-trap cover | <input type="checkbox"/> Model #103 E-Z
One P-trap cover, two angle valves and supply covers, one 5" offset tailpiece wheelchair strainer cover | <input type="checkbox"/> Accessory #107 E-Z
Two basket strainer covers and center or end outlet waste cover (adjustable) |
| <input type="checkbox"/> Model #101 E-Z
One P-trap cover, one angle valve cover | <input type="checkbox"/> Accessory #105 E-Z
One 5" offset tailpiece wheelchair strainer assembly | <input type="checkbox"/> Accessory #Ex99 E-Z
One 16" extension for water supply |
| <input type="checkbox"/> Model #401W*
One P-trap cover, one angle valve cover | | <input type="checkbox"/> Accessory #Ex100 E-Z
One 16" extension for drain waste arm or tailpiece |

*All #400W series items are the "original" LAV GUARD² design and construction. Specifications may change without notice.



Job/Location _____

Designer _____

TRUEBRO reserves the right to make product and material changes at any time without notice.

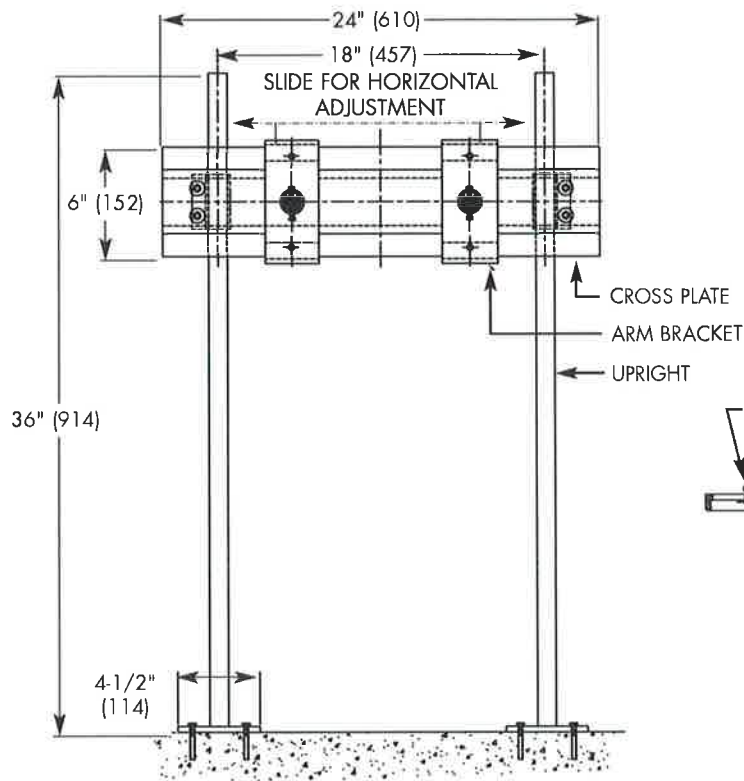


TCA-411

Tag: L-2

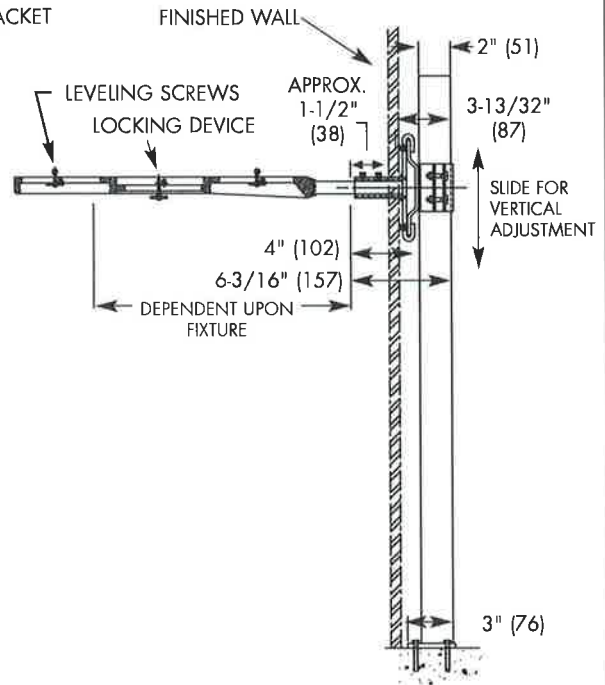
Floor Mounted Concealed Arm "Track" Lavatory Carrier

SPECIFICATION: Watts Drainage TCA-411 epoxy coated floor mounted concealed arm track lavatory carrier with heavy gauge steel offset uprights with welded feet, steel cross plate with integral mounting brackets, sliding adjustable arm brackets, and adjustable cast iron concealed arms with mounting clips, leveling screws, and basin lacking device.



Options (Select One or More)		
Suffix	Description	
-M42	42" Long Carrier Leg	<input type="checkbox"/>
-M54	2" Chrome Plated Escutcheons, Single	<input type="checkbox"/>
-M55	4" Chrome Plated Escutcheons, Single	<input type="checkbox"/>
-M60	Knee Operated Valve Support Plate Single	<input type="checkbox"/>

NOTE: ANCHOR LEGS TO CONCRETE FLOOR WITH MINIMUM 1/2" (13) ANCHOR BOLTS (BY OTHERS)



*Patent Pending

Job Name ATU Jones Hall Contractor Comfort Systems USA
 Job Location Russellville Contractor's P.O. No. _____
 Engineer Pettit and Pettit Representative Sanders Supply

WATTS Drainage reserves the right to modify or change product design or construction without prior notice and without incurring any obligation to make similar changes and modifications to products previously or subsequently sold. See your WATTS Drainage representative for any clarification. Dimensions are subject to manufacturing tolerances.



Specification Drainage Products

USA: 100 Watts Road, Spindale, NC, 28160-2298; TEL: 828-288-2179 TOLL-FREE: 1-800-338-2581 www.watts.com

S-1

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY M. Tall

PRODUCT SPECIFICATIONS

Elkay Lustertone™ Classic Stainless Steel 33" x 19-1/2" x 6-1/2", Equal Double Bowl Drop-in ADA Sink. Sink is manufactured from 18 gauge 304 Stainless Steel with a Lustrous Satin finish, Rear Center drain placement, and Bottom only pads.

Installation Type:	Drop-in
Material:	304 Stainless Steel
Finish:	Lustrous Satin
Gauge:	18
Sound Deadening:	Bottom only pads
Number of Bowls:	2
Sink Dimensions:	33" x 19-1/2" x 6-1/2"
Bowl 1 Dimensions:	14" x 14" x 6-3/8"
Bowl 2 Dimensions:	14" x 14" x 6-3/8"
Drain Size:	3-1/2" (89mm)
Drain Location:	Rear Center
Minimum Cabinet Size:	36"
Mounting Hardware:	Part # 64090014 included for countertops up to 3/4" (19mm) thick
Template Included:	No
Cutout Template #:	1000001276

Template is available for download at elkay.com. CAD software will be required to open the template.

Cutout Dimensions for Drop-in Installation:

32-3/8" x 18-7/8" (822mm x 479mm) with 1-1/2" (38mm) corner radius

Custom Options	
<input type="checkbox"/> Type 316 Stainless Steel	
Drain Location	
<input type="checkbox"/> Right Rear	<input type="checkbox"/> Left Rear
<input type="checkbox"/> Center	<input type="checkbox"/> Center Rear
Overflow Location	
<input type="checkbox"/> Front	<input type="checkbox"/> Rear
Alternate Punching	
<input type="checkbox"/> Faucet Model:	<input type="checkbox"/> Punch Required:
Sink Size	
<input type="checkbox"/> Bowl Depth:	<input type="checkbox"/> Drainboard Width:



A Century of Tradition and Quality.

For more than 100 years, Elkay has been making innovative products and providing exceptional customer care. We take pride in offering plumbing products that make life easier, inspire change and leave the world a better place.



Product Compliance:

ADA & ICC A117.1
ASME A112.19.3/CSA B45.4
Buy American Act



Sinks are listed by IAPMO® as meeting the applicable requirements of the Uniform Plumbing Code®, International Plumbing Code®, and National Plumbing Code of Canada.



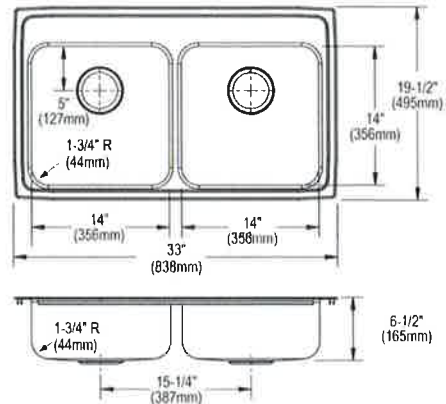
Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

Clean and Care Manual (PDF)

[Installation Instructions \(PDF\) - 1000005236](#)

[Warranty \(PDF\)](#)

Similar models are available with: Quick-Clip Mounting System, additional ADA depths



PART: _____ QTY: _____

PROJECT: _____

CONTACT: _____

DATE: _____

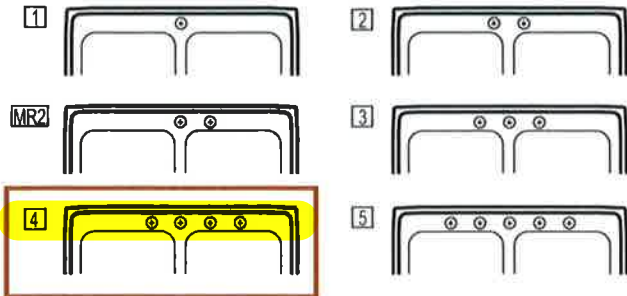
NOTES: _____

APPROVAL: _____

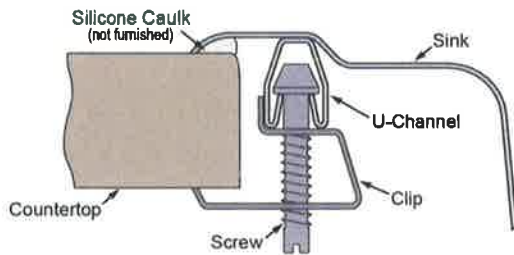
In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.






Hole Drilling Configurations:

1-1/2" (38mm) Diameter Faucet Holes on 4" (102mm) Centers





Installation Profile:



Optional Accessories		
CB1613	Elkay Hardwood 16-3/4" x 13-1/2" x 1" Cutting Board Spec Sheet (PDF)	
LK99	Elkay Deluxe 3-1/2" Drain Type 304 Stainless Steel Body Strainer Basket Rubber Seal and Tailpiece Spec Sheet (PDF)	
LKAD35	Elkay 3-1/2" Drain Fitting" Stainless Steel Body Strainer Basket and Offset Tailpiece Spec Sheet (PDF)	
LKGT1041CR	Elkay Gourmet Single Hole Kitchen Faucet Pull-out Spray and Lever Handle with Hi and Mid-rise Base Options Chrome Spec Sheet (PDF)	
LKGT1041NK	Elkay Gourmet Single Hole Kitchen Faucet Pull-out Spray and Lever Handle with Hi and Mid-rise Base Options Brushed Nickel Spec Sheet (PDF)	

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LKGT1041RB	<p>Elkay Gourmet Single Hole Kitchen Faucet Pull-out Spray and Lever Handle with Hi and Mid-rise Base Options Oil Rubbed Bronze</p> <p>Spec Sheet (PDF)</p>	
LKWRB1414SS	<p>Elkay Stainless Steel 13" x 13" x 7" Rinsing Basket</p> <p>Spec Sheet (PDF)</p>	

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.



T&S BRASS AND BRONZE WORKS, INC.

2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-2730

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ADA Compliant

This Space for Architect/Engineer Approval

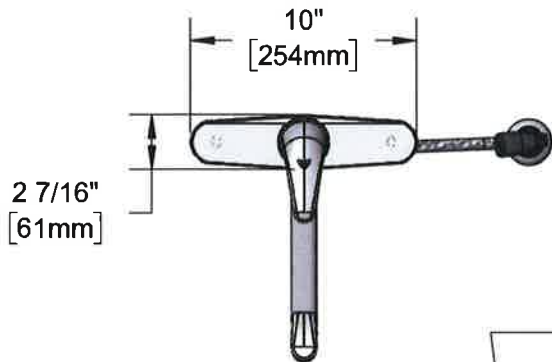
Job Name _____ Date _____

Model Specified _____ Quantity _____

Customer/Wholesaler _____

Contractor _____

Architect/Engineer _____



Ceramic Cartridge w/ Temperature Limit Stop

Polished Chrome Cover Plate w/ Base Gasket

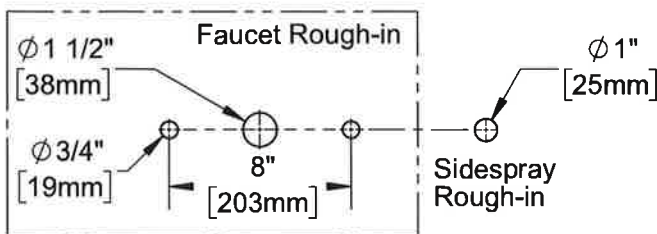
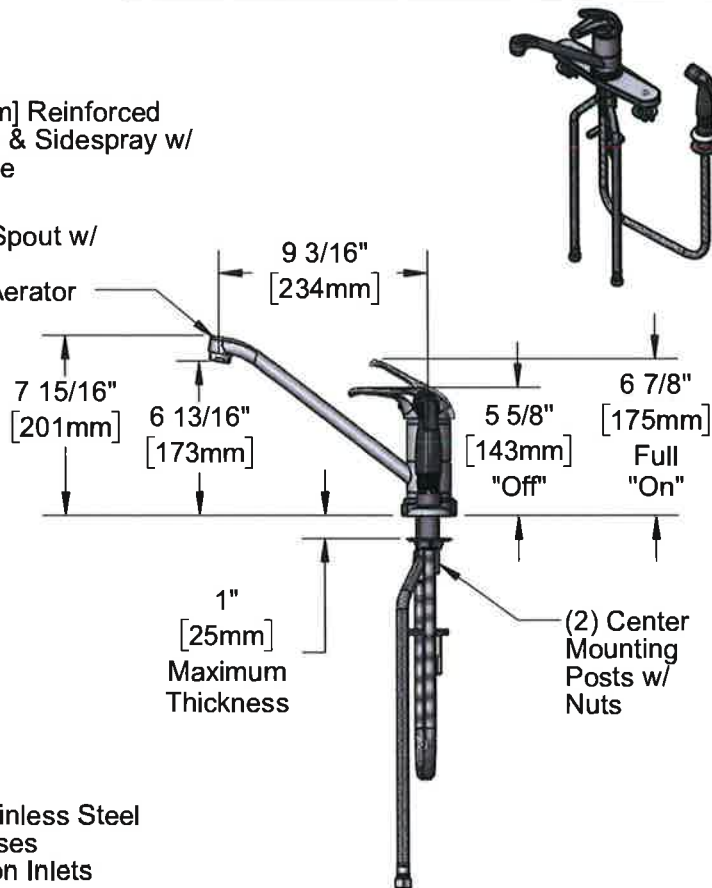
Cover Plate Mounting Posts w/ Nuts

Clamping Washer w/ Gasket

4' [1219mm] Reinforced Vinyl Hose & Sidespray w/ Hose Guide

9" Swivel Spout w/ B-0199-04 2.2 GPM Aerator

(2) 16" Flexible Stainless Steel Braided Supply Hoses w/ 3/8" Compression Inlets



Product Specifications:

Single Lever Deck Mount Faucet, Ceramic Cartridge, 9" Swivel Spout, 2.2 GPM Aerator, 10" Deckplate, Temperature Limit Stop, 4' Reinforced Flexible Sidespray w/ Hose Guide & (2) 16" Flexible Stainless Steel Braided Supply Hoses

Product Compliance:

ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)



T&S BRASS AND BRONZE WORKS, INC.

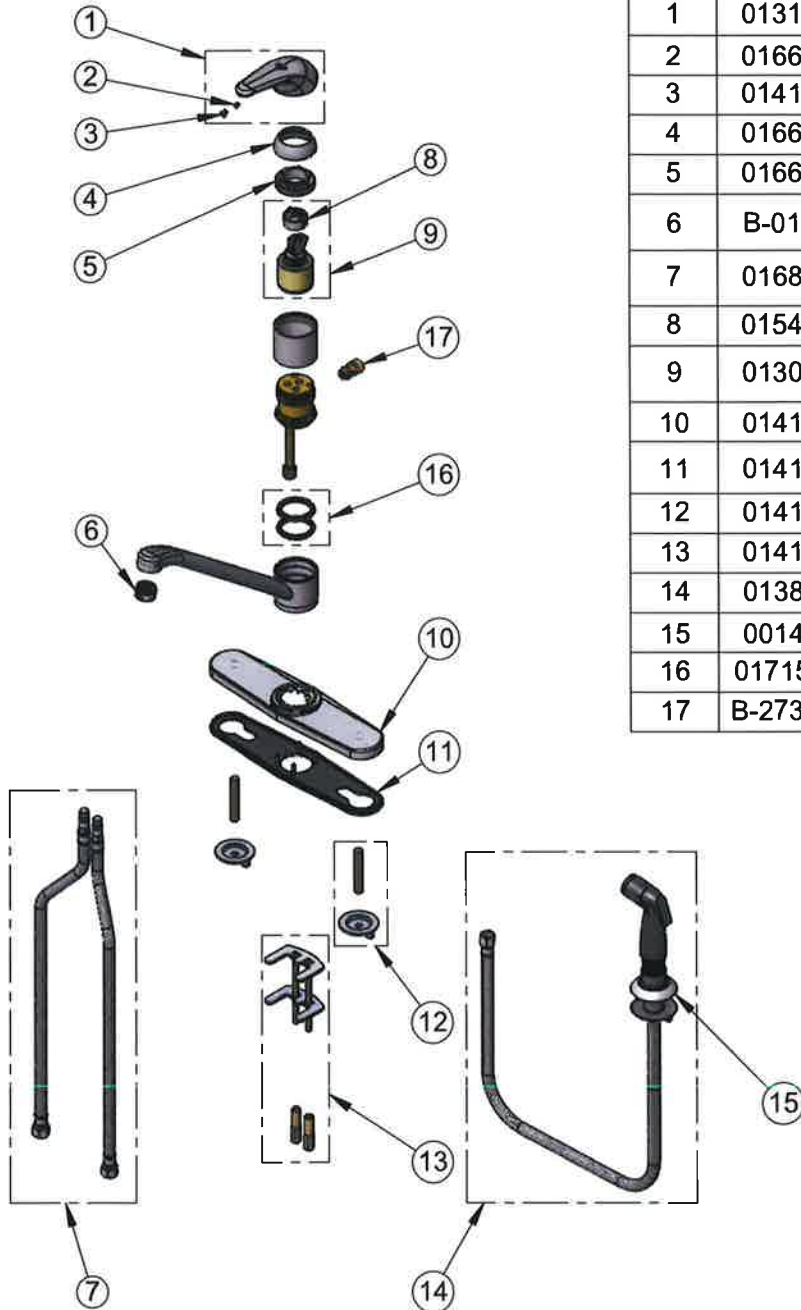
2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-2730

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ITEM NO.	SALES NO.	DESCRIPTION
1	013113-45	Single Lever Short Handle
2	016675-45	Set Screw
3	014173-45	Index, Temperature
4	016661-45	Trim Ring
5	016663-45	Locking Nut
6	B-0199-04	2.2 GPM Aerator, 15/16-27 UN Male
7	016879-45	16" Supply Hoses w/ 3/8" Compression Inlets (2)
8	015400-45	Temperature Limit Stop
9	013080-45	Ceramic Cartridge w/ Temperature Limit Stop
10	014161-45	Deck Plate, B-2730 & B-2731
11	014160-45	Deck Plate Gasket, B-2730 & B-2731
12	014162-45	Mounting Post & Nut Kit (2)
13	014163-45	Center Mounting Kit
14	013842-45	4' Sidespray w/ Hose Guide
15	001496-45	Hose Guide
16	017150-45K	Base Seal - Qty 2
17	B-2730-DRK	Diverter Repair Kit

Product Specifications:

Single Lever Deck Mount Faucet, Ceramic Cartridge, 9" Swivel Spout, 2.2 GPM Aerator, 10" Deckplate, Temperature Limit Stop, 4' Reinforced Flexible Sidespray w/ Hose Guide & (2) 16" Flexible Stainless Steel Braided Supply Hoses

Product Compliance:

ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)



McGuire Manufacturing Co., Inc.

60 Grandview Court
P.O. Box 746 ♣ Cheshire, CT 06410
203-699-1801 ♣ Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

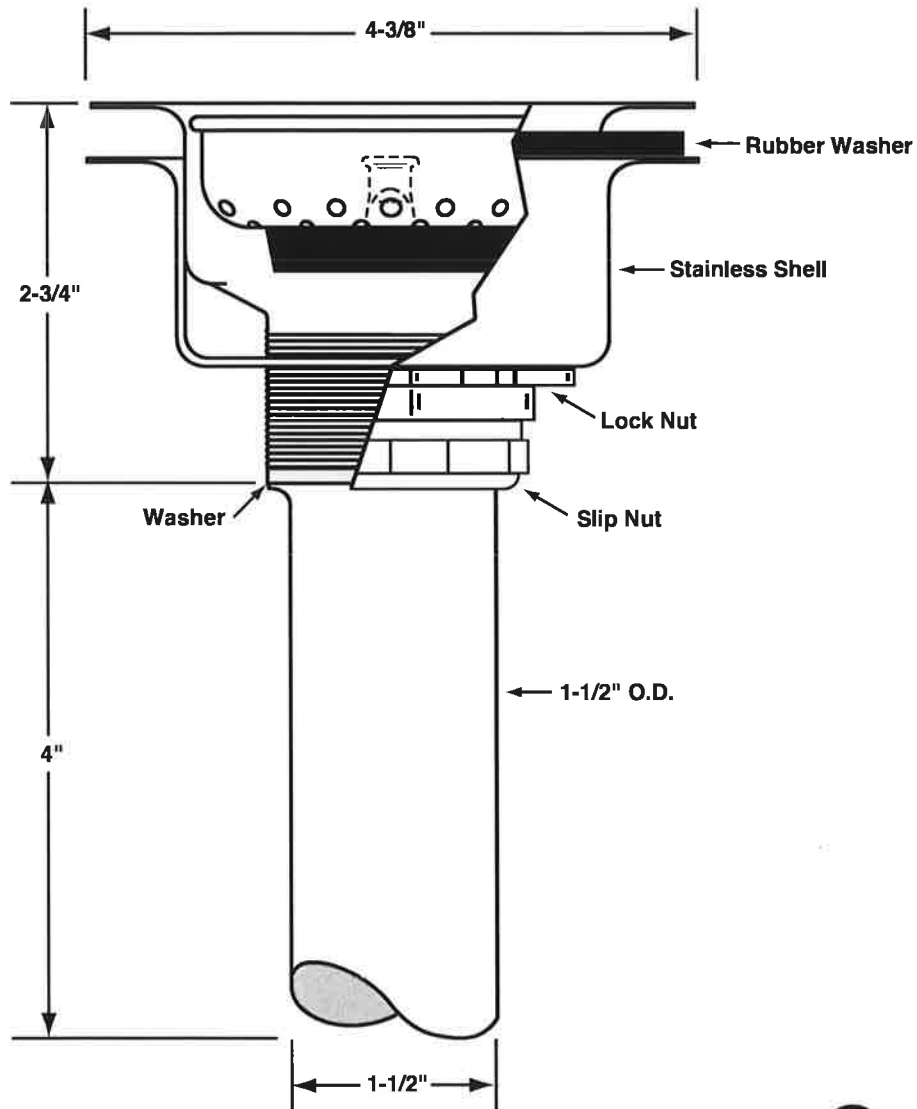
Part No.

151A

**Stainless Steel
Basket Strainer**

Job Name:

Submittal Number:



See options and accessories section for details on product variations.

Specifications:

Heavy Duty Forged Stainless Steel Basket Strainer with 1-1/2" x 4" seamless brass tailpiece, die cast slip and lock nuts. Basket Strainer shall be in compliance with CSA or other recognized testing authority and bear both manufacturer and testing mark.



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 203-699-1801 • Fax: 203-699-1813
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PRODUCT SPECIFICATION

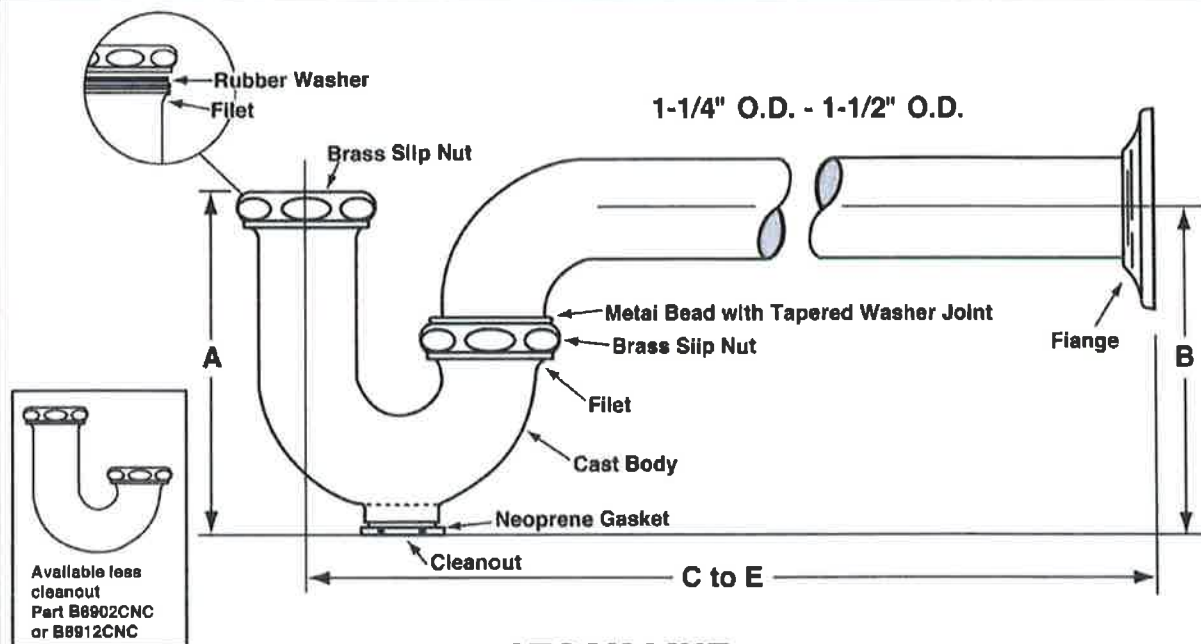
Part No.

B8872, B8902, B8902CNC,
B8912, B8912CNC,
 C887Z, C8902, C8912

**Cast Body P-Trap
 With or Without Cleanout**

Job Name: _____

Submittal Number: _____



Available less cleanout
 Part B8902CNC
 or B8912CNC

STOCK LINE

ROUGHING MEASUREMENTS					
NO.	TRAP DIMENSIONS		A	B	C to E
	INLET	OUTLET			
B8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
C8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
B8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8902CNC	1-1/4"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"
B8912CNC	1-1/2"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"

**FED SPEC W.W.P. 541
 CAST BRASS P TRAP
 MINIMUM SEAL 2"**

Note: Prefix "C" indicates die cast slip nuts.

See options and accessories section for details on product variations.

Specifications:

P-Trap shall be chrome plated cast brass body (with, without) cleanout, with 17 gauge seamless tubular wall bend, slip nuts. Reducing washers shall be used with reducing cast brass nut. With (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. P-Trap shall bear manufacturer and testing mark.



McGuire Manufacturing Co., Inc.

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P.O. Box 746 • Cheshire, CT 06410
203-699-1801 • Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

**Options for
P-Traps**

Job Name: _____

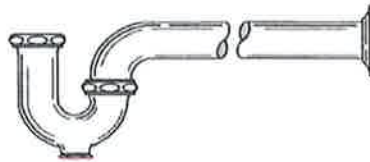
Submittal Number: _____

CAST BODY P-TRAP OPTIONS

WALL BEND OPTIONS-

Add suffix to part number.

- 15** - 15" C to E (1-1/4" and 1-1/2" only)
- 18** - 18" C to E (1-1/4" and 1-1/2" only)
- GJ** - Ground joint wallbend
Custom sizes available.



FLANGE OPTIONS-

Add suffix to part number.

- F** - Forged Brass, set screw, chrome plated
- ~~**DF** - Deep Flange, (bell type) chrome plated brass~~
- SDF** - Deep Flange, (bell type) chrome plated steel
- B** - Box Flange, chrome plated wrought steel
- BF** - Box Flange, chrome plated brass

STANDARD FINISH OPTIONS-

Add suffix to part number.

- C** - Polished Chrome
- ~~**S** - Satin Chrome~~
- Custom finishes available.

Options available for McGuire "Classic" Professional Line only.



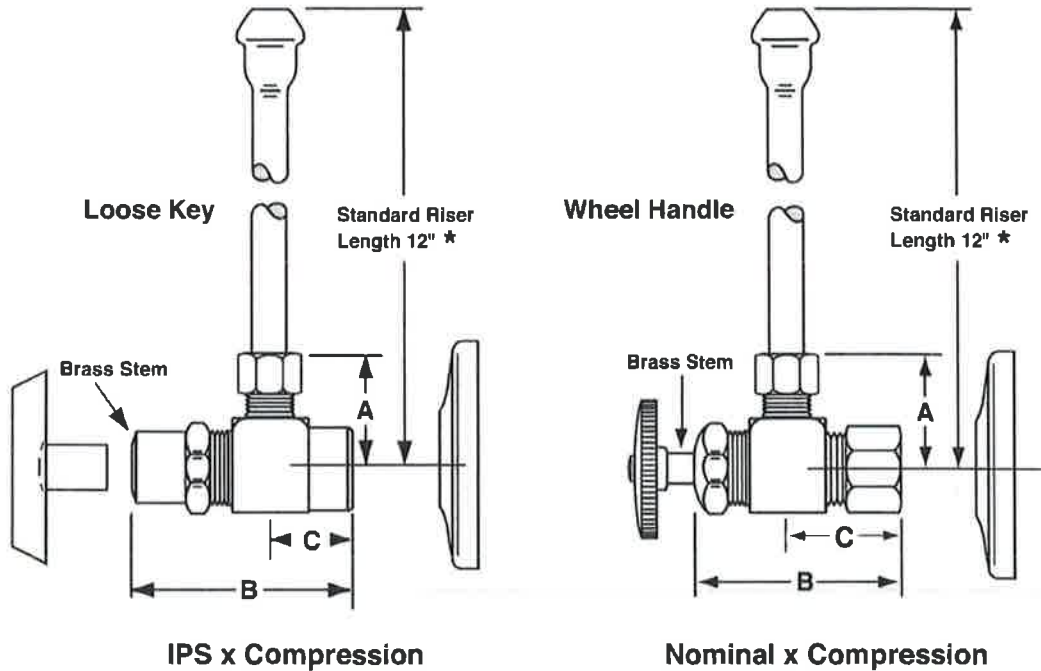
McGuire Manufacturing Co., Inc.
 60 Grandview Court
 P.O. Box 746 • Cheshire, CT 06410
 203-699-1801 • Fax: 203-699-1813
 www.mcguiremfg.com

PRODUCT SPECIFICATION

Part No.
LFH2165, LFH2165LK
 LFH2167, LFH2167LK,
 LFH2165CC, LFH2165CCLK
AB1953 Compliant
Heavy Lavatory Supply

Job Name:

Submittal Number:



NO.	DESCRIPTION	ROUGHING MEASUREMENTS		
		A	B	C
LFH2165	1/2" IPS x 3/8" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2165LK	1/2" IPS x 3/8" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2167	1/2" IPS x 1/2" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2167LK	1/2" IPS x 1/2" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2165CC	1/2" Nominal x 3/8" OD, Wheel Handle	1-3/8"	2-1/4"	1-3/8"
LFH2165CCLK	1/2" Nominal x 3/8" OD, Loose Key	1-3/8"	2-15/16"	1-3/8"

LK designates *Loose Key*

* See options and accessories section for details on product variations.



Specifications:

Supply kit shall include heavy pattern chrome plated AB1953 compliant supply stop valves with full turn brass stem, no plastic, (12, 15, 20) inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be 1/2 inch (IPS, compression). Outlet shall be (3/8, 1/2) inch compression. Supply kit shall be McGuire _____ . Supply shall be AB1953 certified by recognized authority and bear manufacturer and testing mark.

S-2

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY M. Tall

PRODUCT SPECIFICATIONS

Elkay Lustertone™ Classic Stainless Steel 22" x 19-1/2" x 6-1/2", Single Bowl Drop-in ADA Sink. Sink is manufactured from 18 gauge 304 Stainless Steel with a Lustrous Satin finish, Rear Center drain placement, and Bottom only pads.

Installation Type:	Drop-in
Material:	304 Stainless Steel
Finish:	Lustrous Satin
Gauge:	18
Sound Deadening:	Bottom only pads
Number of Bowls:	1
Sink Dimensions:	22" x 19-1/2" x 6-1/2"
Bowl 1 Dimensions:	18" x 14" x 6-3/8"
Drain Size:	3-1/2" (89mm)
Drain Location:	Rear Center
Minimum Cabinet Size:	27"
Mounting Hardware:	Part # 64090012 included for countertops up to 3/4" (19mm) thick
Template Included:	No
Cutout Template #:	1000001255

Template is available for download at elkay.com. CAD software will be required to open the template.

Cutout Dimensions for Drop-in Installation:

21-3/8" x 18-7/8" (543mm x 479mm) with 1-1/2" (38mm) corner radius

Custom Options	
<input type="checkbox"/> Type 316 Stainless Steel	
Drain Location	
<input type="checkbox"/> Right Rear	<input type="checkbox"/> Left Rear
<input type="checkbox"/> Center	<input type="checkbox"/> Center Rear
Overflow Location	
<input type="checkbox"/> Front	<input type="checkbox"/> Rear
Alternate Punching	
<input type="checkbox"/> Faucet Model:	<input type="checkbox"/> Punch Required:
Sink Size	
<input type="checkbox"/> Bowl Depth:	<input type="checkbox"/> Drainboard Width:



AMERICAN PRIDE. A LIFETIME TRADITION.
Like your family, the Elkay family has values and traditions that endure. For almost a century, Elkay has been a family-owned and operated company, providing thousands of jobs that support our families and communities.



Product Compliance: ADA & ICC A117.1
ASME A112.19.3/CSA B45.4
Buy American Act



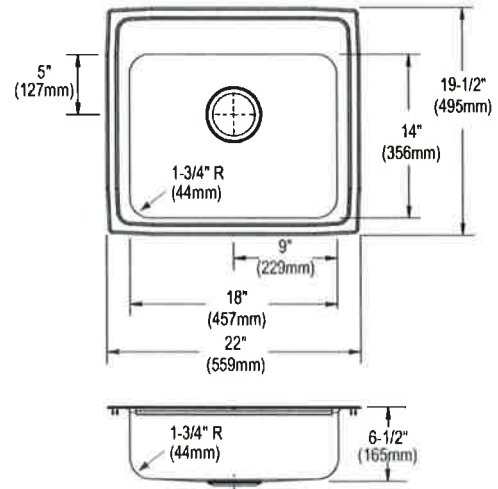
Sinks are listed by IAPMO® as meeting the applicable requirements of the Uniform Plumbing Code®, International Plumbing Code®, and National Plumbing Code of Canada.



Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

[Clean and Care Manual \(PDF\)](#)
[Installation Instructions \(PDF\) - 1000005236](#)
[Warranty \(PDF\)](#)

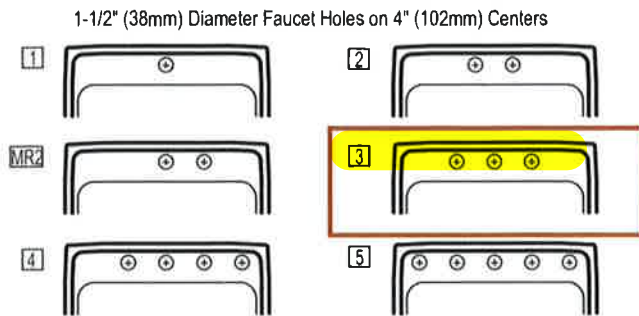
Similar models are available with: CuVerro antimicrobial copper, Quick-Clip Mounting System, additional ADA depths



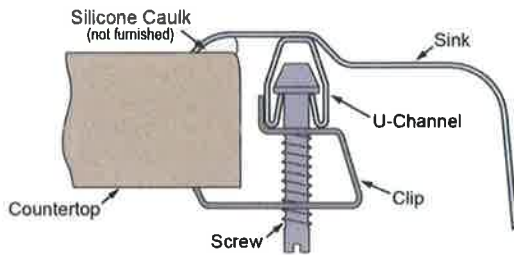
PART: _____ QTY: _____
 PROJECT: _____
 CONTACT: _____
 DATE: _____
 NOTES: _____
 APPROVAL: _____






In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Hole Drilling Configurations:



Installation Profile:



Optional Accessories		
CBS1418	Elkay Hardwood 15" x 19" x 3/4" Cutting Board Spec Sheet (PDF)	
LK99	Elkay Deluxe 3-1/2" Drain Type 304 Stainless Steel Body Strainer Basket Rubber Seal and Tailpiece Spec Sheet (PDF)	
LKAD35	Elkay 3-1/2" Drain Fitting" Stainless Steel Body Strainer Basket and Offset Tailpiece Spec Sheet (PDF)	
LKGT1041CR	Elkay Gourmet Single Hole Kitchen Faucet Pull-out Spray and Lever Handle with Hi and Mid-rise Base Options Chrome Spec Sheet (PDF)	
LKGT1041NK	Elkay Gourmet Single Hole Kitchen Faucet Pull-out Spray and Lever Handle with Hi and Mid-rise Base Options Brushed Nickel Spec Sheet (PDF)	

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T&S BRASS AND BRONZE WORKS, INC.

2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-2731

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ADA Compliant

This Space for Architect/Engineer Approval

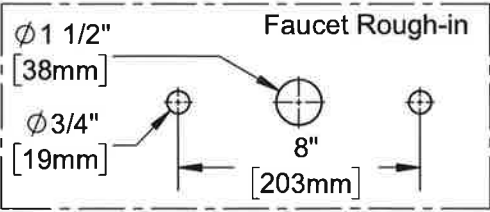
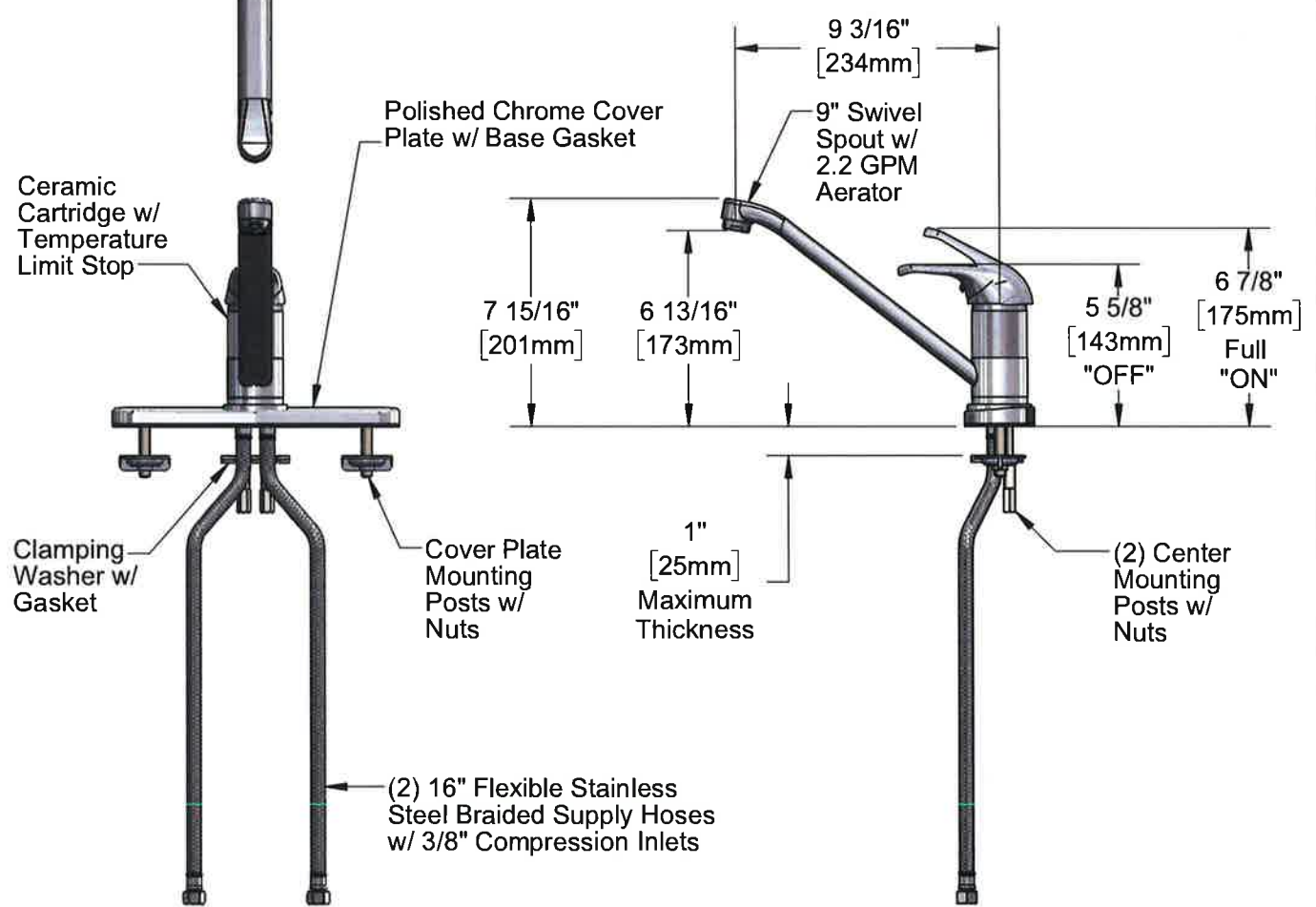
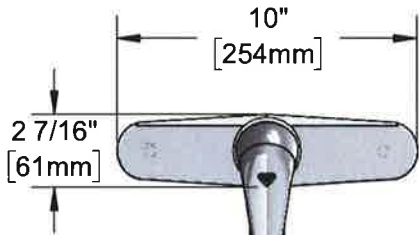
Job Name _____ Date _____

Model Specified _____ Quantity _____

Customer/Wholesaler _____

Contractor _____

Architect/Engineer _____



Product Specifications:
Single Lever Deck Mount Faucet, 9" Swivel Spout, 2.2 GPM Aerator, Temperature Limit Stop, 10" Deckplate & (2) 16" Flexible Stainless Steel Braided Supply Hoses

Product Compliance:
ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)



T&S BRASS AND BRONZE WORKS, INC.

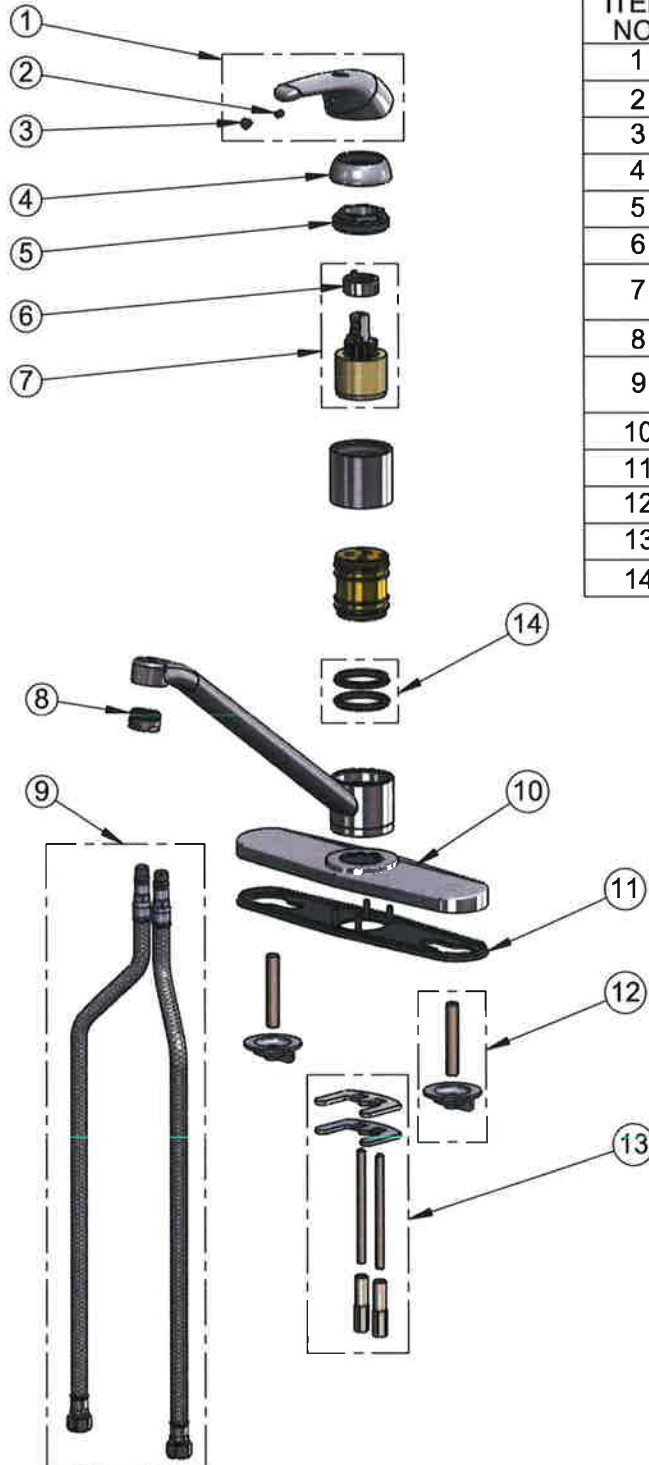
2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-2731

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ITEM NO.	SALES NO.	DESCRIPTION
1	013113-45	Single Lever Short Handle
2	016675-45	Set Screw
3	014173-45	Index, Temperature
4	016661-45	Trim Ring
5	016663-45	Locking Nut
6	015400-45	Temperature Limit Stop
7	013080-45	Ceramic Cartridge w/ Temperature Limit Stop
8	B-0199-04	Aerator, 2.2 GPM - 15/16-27 UN Male
9	016879-45	16" Supply Hoses w/ 3/8" Compression Inlets (2)
10	014161-45	Deck Plate, B-2730 & B-2731
11	014160-45	Deck Plate Gasket, B-2730 & B-2731
12	014162-45	Mounting Post & Nut Kit (2)
13	014163-45	Center Mounting Kit
14	017150-45K	Base Seal (2)

Product Specifications:

Single Lever Deck Mount Faucet, 9" Swivel Spout, 2.2 GPM Aerator, Temperature Limit Stop, 10" Deckplate & (2) 16" Flexible Stainless Steel Braided Supply Hoses

Product Compliance:

ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)



McGuire Manufacturing Co., Inc.

60 Grandview Court
P.O. Box 746 ♣ Cheshire, CT 06410
203-699-1801 ♣ Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

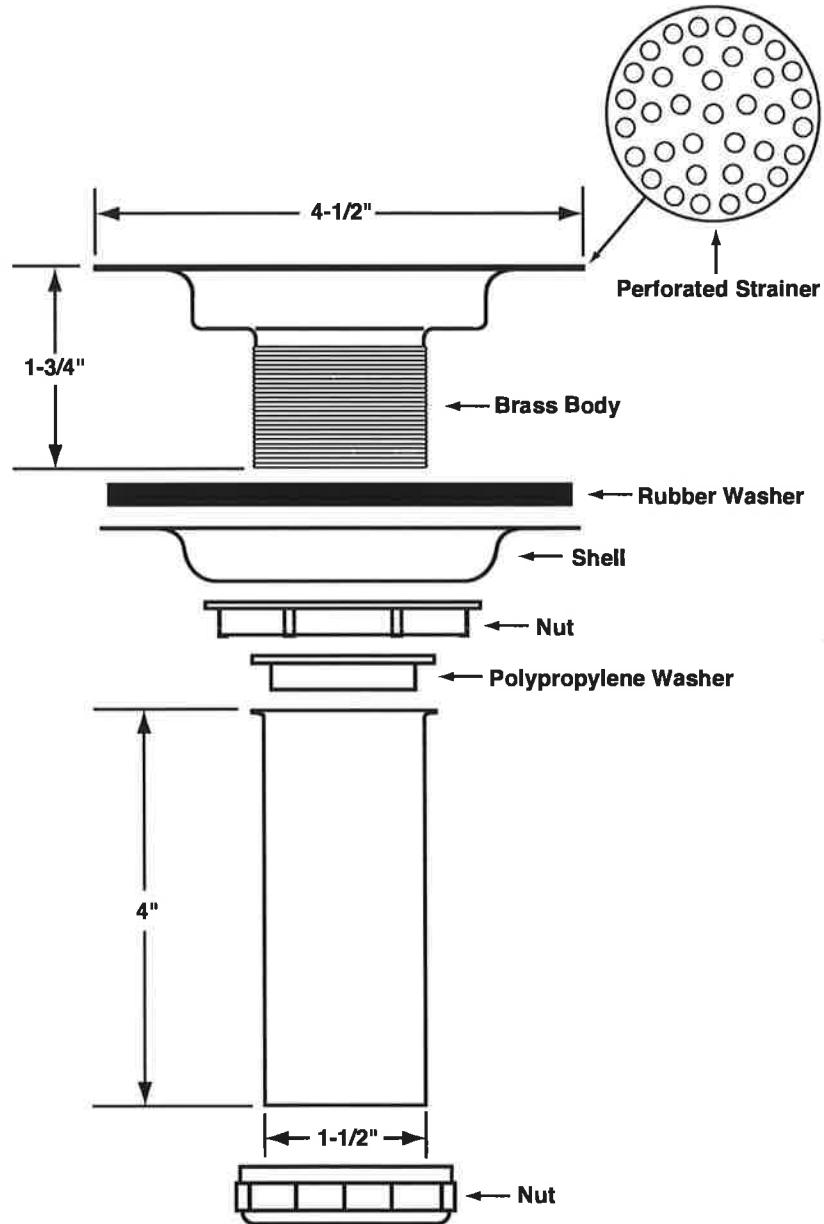
Part No.

152

**Wide Top Sink
Strainer**

Job Name:

Submittal Number:



See options and accessories section for details on product variations.

Specifications:

Wrought Brass Chrome Plated Wide Top Sink Strainer with 1-1/2" x 4" seamless brass tailpiece.
Fits sink thickness up to 3/4 inch.



McGuire Manufacturing Co., Inc.

60 Grandview Court
 P.O. Box 746 • Cheshire, CT 06410
 203-699-1801 • Fax: 203-699-1813
 www.mcguiremfg.com

PRODUCT SPECIFICATION

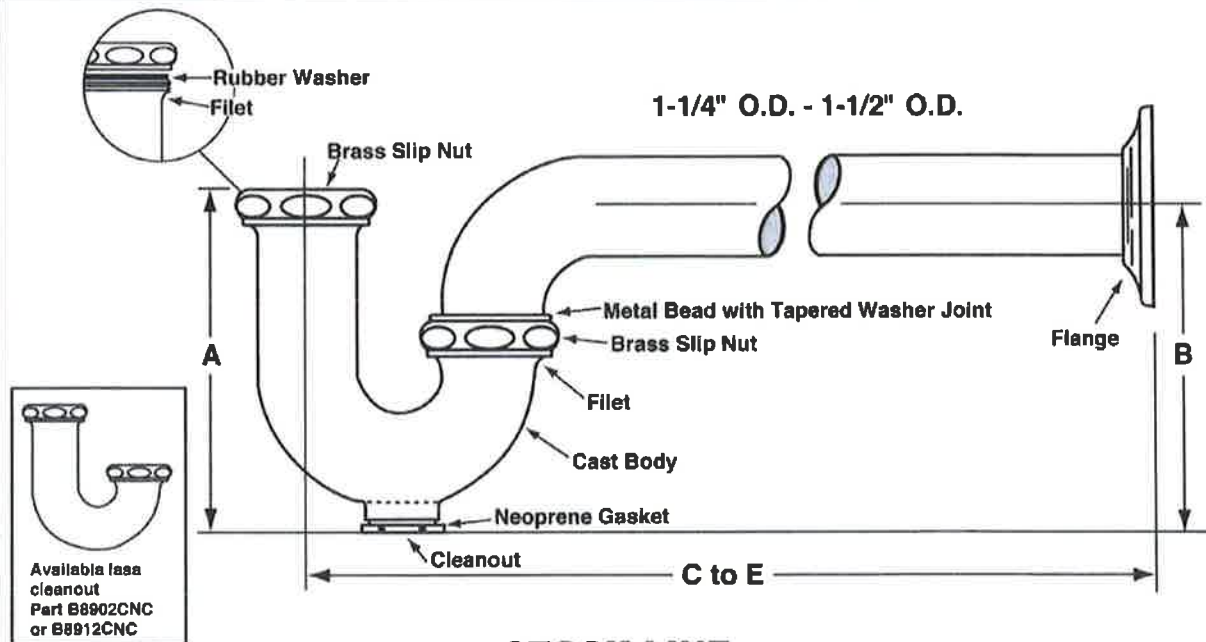
Part No.

B8872, B8902, B8902CNC,
B8912, B8912CNC,
 C887Z, C8902, C8912

**Cast Body P-Trap
 With or Without Cleanout**

Job Name: _____

Submittal Number: _____



STOCK LINE

ROUGHING MEASUREMENTS					
NO.	TRAP DIMENSIONS		A	B	C to E
	INLET	OUTLET			
B8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
C8872	1-1/4"	1-1/4"	5"	4-1/2"	10"
B8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8902CNC	1-1/4"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8902	1-1/4"	1-1/2"	5"	4-1/2"	10-1/2"
B8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"
B8912CNC	1-1/2"	1-1/2"	4-5/8"	4-1/8"	10-1/2"
C8912	1-1/2"	1-1/2"	5"	4-1/2"	10-1/2"

**FED SPEC W.W.P. 541
 CAST BRASS P TRAP
 MINIMUM SEAL 2"**

Note: Prefix "C" indicates die cast slip nuts.

See options and accessories section for details on product variations.

Specifications:

P-Trap shall be chrome plated cast brass body (with, without) cleanout, with 17 gauge seamless tubular wall bend, slip nuts. Reducing washers shall be used with reducing cast brass nut. With (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. P-Trap shall bear manufacturer and testing mark.



McGuire Manufacturing Co., Inc.

60 Grandview Court
P.O. Box 746 • Cheshire, CT 06410
203-699-1801 • Fax: 203-699-1813
www.mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

**Options for
P-Traps**

Job Name: _____

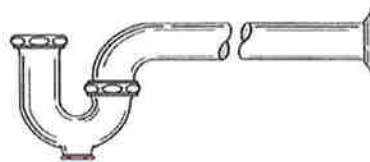
Submittal Number: _____

CAST BODY P-TRAP OPTIONS

WALL BEND OPTIONS-

Add suffix to part number.

- 15** - 15" C to E (1-1/4" and 1-1/2" only)
- 18** - 18" C to E (1-1/4" and 1-1/2" only)
- GJ** - Ground joint wallbend
Custom sizes available.



FLANGE OPTIONS-

Add suffix to part number.

- F** - Forged Brass, set screw, chrome plated
- ~~**DF** - Deep Flange, (bell type) chrome plated brass~~
- SDF** - Deep Flange, (bell type) chrome plated steel
- B** - Box Flange, chrome plated wrought steel
- BF** - Box Flange, chrome plated brass

STANDARD FINISH OPTIONS-

Add suffix to part number.

- C** - Polished Chrome
 - ~~**S** - Satin Chrome~~
- Custom finishes available.

Options available for McGuire "Classic" Professional Line only.



McGuire Manufacturing Co., Inc.

60 Grandview Court
 P.O. Box 746 • Cheshire, CT 06410
 203-699-1801 • Fax: 203-699-1813
 www.mcguiremfg.com

PRODUCT SPECIFICATION

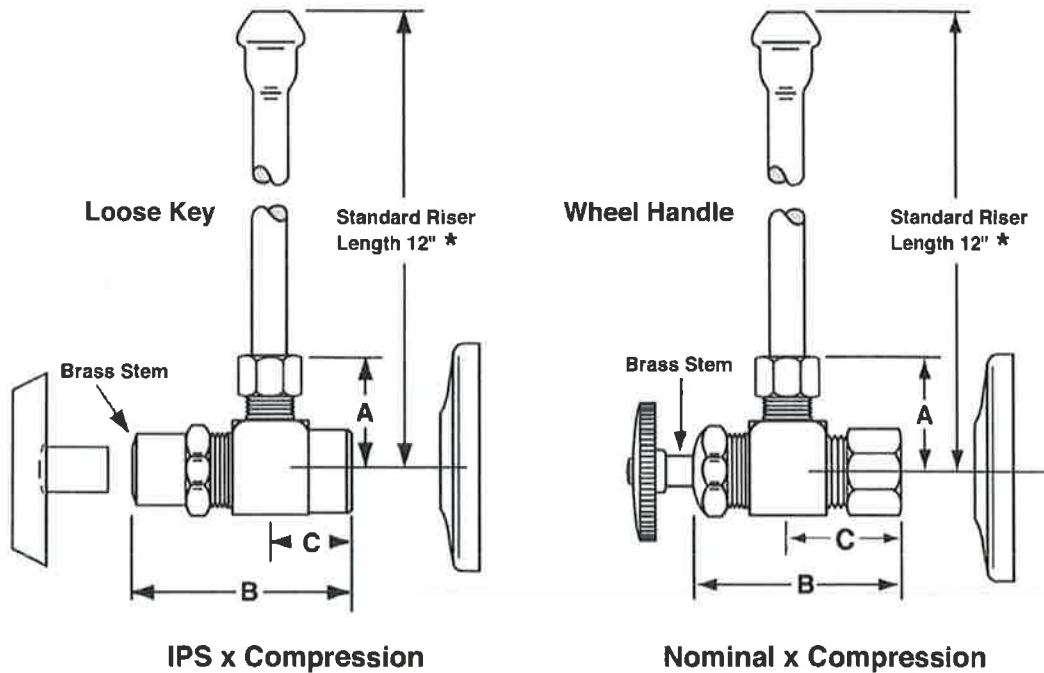
Part No.

LFH2165, **LFH2165LK**
 LFH2167, LFH2167LK,
 LFH2165CC, LFH2165CCLK

**AB1953 Compliant
 Heavy Lavatory Supply**

Job Name:

Submittal Number:



NO.	DESCRIPTION	ROUGHING MEASUREMENTS		
		A	B	C
LFH2165	1/2" IPS x 3/8" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2165LK	1/2" IPS x 3/8" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2167	1/2" IPS x 1/2" OD, Wheel Handle	1-3/8"	1-15/16"	1"
LFH2167LK	1/2" IPS x 1/2" OD, Loose Key	1-3/8"	2-5/8"	1"
LFH2165CC	1/2" Nominal x 3/8" OD, Wheel Handle	1-3/8"	2-1/4"	1-3/8"
LFH2165CCLK	1/2" Nominal x 3/8" OD, Loose Key	1-3/8"	2-15/16"	1-3/8"

LK designates *Loose Key*

* See options and accessories section for details on product variations.



Specifications:

Supply kit shall include heavy pattern chrome plated AB1953 compliant supply stop valves with full turn brass stem, no plastic, (12, 15, 20) inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be 1/2 inch (IPS, compression). Outlet shall be (3/8, 1/2) inch compression. Supply kit shall be McGuire _____ . Supply shall be AB1953 certified by recognized authority and bear manufacturer and testing mark.



McGuire Manufacturing Co., Inc.

60 Grandview Court
 Cheshire, Connecticut 06410
 (203) 699-1801 Fax (203) 699-1813
 customerservice@mcguiremfg.com mcguiremfg.com

PRODUCT SPECIFICATION

Part No.

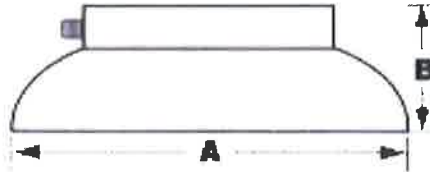
**All Cast Brass
 Nipples and
 Set Screw Flanges**

Job Name:

Submittal Number:



NO.	SIZE
1127	1-1/4" x 6"
2127	1-1/2" x 6"
3127	2" x 6"



NO.	SIZE	A	B
127038	3/8" I.P.S.	2.39"	.73"
127050	1/2" I.P.S.	2.25"	.7"
127058	5/8" O.D. (1/2" Copper)	2.39"	.73"
127069	11/16" O.D.	2.39"	.73"
127075	3/4" I.P.S.	2.25"	.7"
127078	7/8" O.D. (3/4" Copper)	2.25"	.7"
127100	1" I.P.S.	2.75"	.9"
1271251	1-1/4" I.P.S.	2.765"	.95"
1271250	1-1/4" O.D.	2.95"	1"
1271501	1-1/2" I.P.S.	2.95"	.9"
1271500	1-1/2" O.D.	2.95"	1"
1271580	1-5/8" O.D. (1-1/2" Copper)	2.8"	.9"
1271720	1-23/32" O.D.	Discontinued	
1272001	2" I.P.S.	3.675"	.9"
1272000	2" O.D.	3.3"	.95"

NO.	SIZE
N038015	3/8" x 1-1/2"
N038020	3/8" x 2"
N038030	3/8" x 3"
N038035	3/8" x 3-1/2"
N038040	3/8" x 4"
N038045	3/8" x 4-1/2"
N038050	3/8" x 5"
N038055	3/8" x 5-1/2"
N038060	3/8" x 6"
N038065	3/8" x 6-1/2"
N038100	3/8" x 10"
N038120	3/8" x 12"
N038150	3/8" x 15"
N038200	3/8" x 20"
N038240	3/8" x 24"
N050030	1/2" x 2"
N050040	1/2" x 4"
N050050	1/2" x 5"
N050055	1/2" x 5-1/2"
N050060	1/2" x 6"
N050080	1/2" x 8"
N125060	1-1/4" x 6"
N150060	1-1/2" x 6"
N200060	2" x 6"

Specifications:

All Cast Brass Nipples and Set Screw Flanges for use with P-Traps, supplies and shower arms. Highly polished and heavy chrome plated.



WARNING:

This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and both products or other reproductive harm. For more information go to: www.P65Warnings.com

SH-1,SH-3

APPROVED	<input type="checkbox"/>
APPROVED AS CORRECTED	<input checked="" type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.
DATE 22 October 22 BY M. Tall



SYMMONS® Origins®

the smart choice™

Location:



9601-PLR, 9601-PLR-TRM, 9601PLRTRMTC Shower Trim Specification Submittal

Feature Highlights	Options/Modifications
--------------------	-----------------------

- Origins Shower System or Trim
- Requires Temptrol® Pressure Balancing Shower Valve (included with 9601-PLR)
- Adjustable stop screw to limit handle turn (included with 9601-PLR)
- Metal lever handle
- 1 mode showerhead with easy to clean nozzles
- 2.5 gpm (9.5 L/min) flow restrictor
- Tub spout not included
- Components shall be metal and nonmetallic construction, plated in standard Polished Chrome finish
- Available with TA-10 flow control spindle and T-12A cap assembly for Temptrol valve bodies installed with Test Cap (order p/n 9601PLRTRMTC)

Model Numbers

- 9601-PLR**
Shower Trim with Temptrol Pressure Balancing Shower Valve
- 9601-PLR-TRM**
Shower Trim, Temptrol Pressure Balancing Shower Valve ordered separately
- 9601PLRTRMTC**
Shower Trim with TA-10 flow control spindle and T-12A cap assembly, must order Temptrol valve with Test Cap

Compliance

- ASME A112.18.1/CSA B125.1
- WaterSense @ 2.0 gpm/1.75 gpm/1.5 gpm
- Buy American Act (9601-PLR only)



Warranty

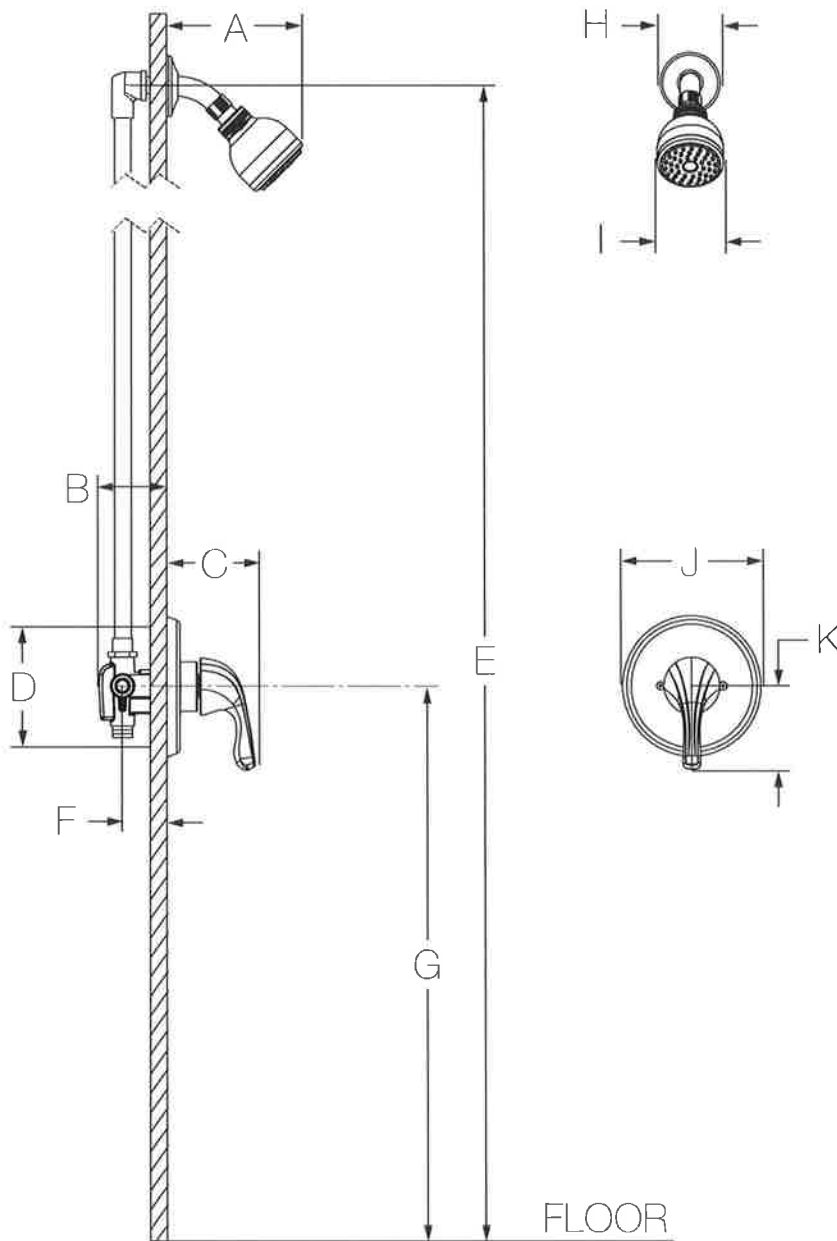
Limited Lifetime - to the original end purchaser in consumer/residential installations.
5 Years - for industrial/commercial installations.
 Refer to www.symmons.com/warranty for complete warranty information.
 Go to www.symmons.com/register to register your Symmons product.

- 1.2** 1.2 gpm (4.5 L/min) flow restrictor
- 1.5** 1.5 gpm (5.7 L/min) flow restrictor
- 1.75** 1.75 gpm (6.6 L/min) flow restrictor
- 2.0** 2.0 gpm (7.6 L/min) flow restrictor
- 143** 3 mode showerhead
- 145** 5 mode showerhead
- 151** 1 mode showerhead
- 231** Super showerhead
- 295** institutional showerhead
- B** Brass escutcheon (chrome only)
- D** Brass dome cover (chrome only)
- L1** Less showerhead
- LAM** Metal finish insert handle
- LP** Loop handle
- OP** 13" oval plate
- REB** Rebuild trim kit, includes TA-10 and TA-4
- VP** Vandal resistant escutcheon screws in place of standard screws
- STN** Satin Nickel finish

Note: Append appropriate -suffix to model number.

-X Service Stops

Dimensions



Measurements	
A	6-3/8", 162 mm
B	3-1/2", 89 mm
C	3-5/8", 92 mm
D	Shower Valve Hole Size Min. Ø 3", 76 mm Max. Ø 4", 102 mm
E	Ref. 77", 1956 mm
F	Rough-in 2-3/8" ± 1/2", 60 mm ± 13 mm
G	Ref. 42", 1067 mm
H	Ø 2-1/2", 64 mm
I	Ø 2-3/4", 70 mm
J	Ø 5-3/4", 146 mm
K	3-3/8", 86 mm

Notes:

- 1) Valve body and piping not included and shown as reference only.
- 2) Plaster shield (p/n T-176) for dry wall, plaster or other type walls 1/2" or greater.
- 3) All dimensions measured from nominal rough-in (see F as reference).
- 4) Dimensions subject to change without notice.

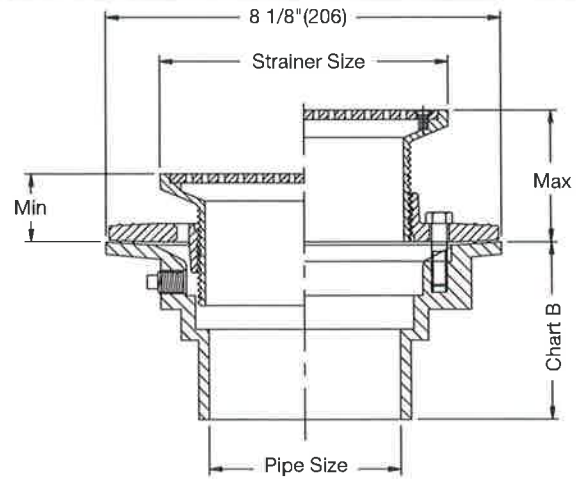
Engineering Specification

Job Name **ATU Jones Hall**
 Job Location **Russellville**
 Engineer **Pettit and Pettit**
 Approval _____
 Tag **SH-1,SH-3**

Contractor **Comfort Systems USA**
 Approval _____
 Contractor's P.O. No. _____
 Representative **Sanders Supply**

FD-100-M Floor Drain with Square Strainer Specification

Watts FD-100-M epoxy coated cast iron floor drain with anchor flange, reversible clamping collar with primary & secondary weepholes, adjustable square heel proof nickel bronze strainer, and no hub (standard) outlet.



Pipe Sizing		
Suffix	Description	
2	2"(51) Pipe Size	<input type="checkbox"/>
3	3"(76) Pipe Size	<input type="checkbox"/>
4	4"(102) Pipe Size	<input type="checkbox"/>
6	6"(152) Pipe Size	<input type="checkbox"/>



Outlet Type		
Suffix	Description	
NH	No Hub (MJ)	<input type="checkbox"/>
P	Push On	<input checked="" type="checkbox"/>
T	Threaded Outlet	<input type="checkbox"/>
X	Inside Caulk	<input type="checkbox"/>

Options		
Suffix	Description	
-5	Sediment Bucket	<input type="checkbox"/>
-6	Vandal Proof	<input type="checkbox"/>
-7	Trap Primer Tapping	<input checked="" type="checkbox"/>
-8	Backwater Valve (2, 3, 4" Only)	<input type="checkbox"/>
-9	Hinged Grate (For 6", 8" Strainer Only)	<input type="checkbox"/>
-13	Galvanized Body	<input type="checkbox"/>
-15	Strainer Extension (DD-50)	<input type="checkbox"/>
-F4-50	4" Round Cast Iron Funnel	<input type="checkbox"/>
-F4-1	4" Round Nickel Bronze Funnel	<input type="checkbox"/>
-F6-1	6" Round Nickel Bronze Funnel	<input type="checkbox"/>
-G-50	4x9" Oval Cast Iron Funnel	<input type="checkbox"/>
-G-1	4x9" Oval Nickel Bronze Funnel	<input type="checkbox"/>
-S0	Side Outlet	<input type="checkbox"/>

Strainer		
Suffix	Description	
M5	5" x 5"(127) Nickel Bronze	<input checked="" type="checkbox"/>
M6	6" x 6" (152) Nickel Bronze	<input type="checkbox"/>
M8	8" x 8" (203) Nickel Bronze	<input type="checkbox"/>

Optional Body Material		
Suffix	Description	
-60	PVC Body w/Socket Outlet	<input type="checkbox"/>
-61	ABS Body w/Socket Outlet	<input type="checkbox"/>

Strainer Size

Str. Dia.	Min.	Max.	Load Rating	Free Area Sq. In.
5" x 5"(127x127)	1"(25)	3"(76)	*MD	9
6" x 6"(152x152)	1 1/8"(29)	3 1/8"(79)	*MD	12
8" x 8"(203x203)	1 1/4"(32)	3 1/4"(83)	*MD	26

Chart B

Pipe Size	Std.	P	T	X	60/61
	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"(51)	3-5/8"(92)	4-1/4"(108)	4-1/4"(108)	4-1/2"(114)	4"(102)
3"(76)	3-5/8"(92)	4-1/4"(108)	4-1/4"(108)	4-1/2"(114)	4"(102)
4"(102)	3-5/8"(92)	4-1/4"(108)	4-1/4"(108)	4-1/2"(114)	4"(102)
6"(152)	3-1/2"(89)				

NOTICE

The load classifications are in accordance with the American National Standards A112.6.3. ASME Ratings are as follows:
 *MD - Safe Live Load 2000-4999 lbs. (900-2250 kg)
 These categories are given as a guide only. Please consult factory.

NOTICE

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 Canada: T: (888) 208-8927 • F: (888) 479-2887 • Watts.ca
 Latin America: T: (52) 55-4122-0138 • Watts.com

SH-2

APPROVED	<input type="checkbox"/>
APPROVED AS CORRECTED	<input checked="" type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.
DATE 22 October 22 BY M. Todd



Location: _____

SYMMONS® Origins®

the smart choice™



9605-PLR, 9605-PLR-TRM, 9605PLRTRMTC
**Shower/Hand Shower Trim
 Specification Submittal**

Feature Highlights

- Origins Shower/Hand Shower System or Trim
- Requires Temptrol® Pressure Balancing Shower Valve (included with 9605-PLR)
- Requires Symmons Dual Outlet Diverter Valve (included with 9605-PLR)
- Adjustable stop screw to limit handle turn (included with 9605-PLR)
- Metal lever handles
- ADA 36" grab bar for hand shower wand
- Dual checks for backflow protection
- 60" flexible metal hose
- ADA 1 mode hand shower wand with non-positive shutoff
- 1 mode showerhead with easy to clean nozzles
- 2.5 gpm (9.5 L/min) flow restrictors
- Tub spout not included
- Components shall be metal and nonmetallic construction, plated in standard Polished Chrome finish
- Available with TA-10 flow control spindle and T-12A cap assembly for Temptrol valve bodies installed with Test Cap (order p/n 9605PLRTRMTC)
- For optional in-line vacuum breaker order p/n EF-109

Model Numbers

- 9605-PLR**
Shower/Hand Shower Trim with Temptrol Pressure Balancing Shower Valve and Symmons Dual Outlet Diverter Valve
- 9605-PLR-TRM**
Shower/Hand Shower Trim, Temptrol Pressure Balancing Shower Valve and Symmons Dual Outlet Diverter valve ordered separately
- 9605PLRTRMTC**
Shower/Hand Shower Trim with TA-10 flow control spindle and T-12A cap assembly, must order Temptrol valve with Test Cap

Compliance



- ASME A112.18.1/CSA B125.1
- Buy American Act (9605-PLR only)
- WaterSense @ 1.5 gpm and 2.0 gpm (does not apply to L3 modification)



Warranty

Limited Lifetime - to the original end purchaser in consumer/residential installations.
5 Years - for industrial/commercial installations.
 Refer to www.symmons.com/warranty for complete warranty information.
 Go to www.symmons.com/register to register your Symmons product.

Options/Modifications

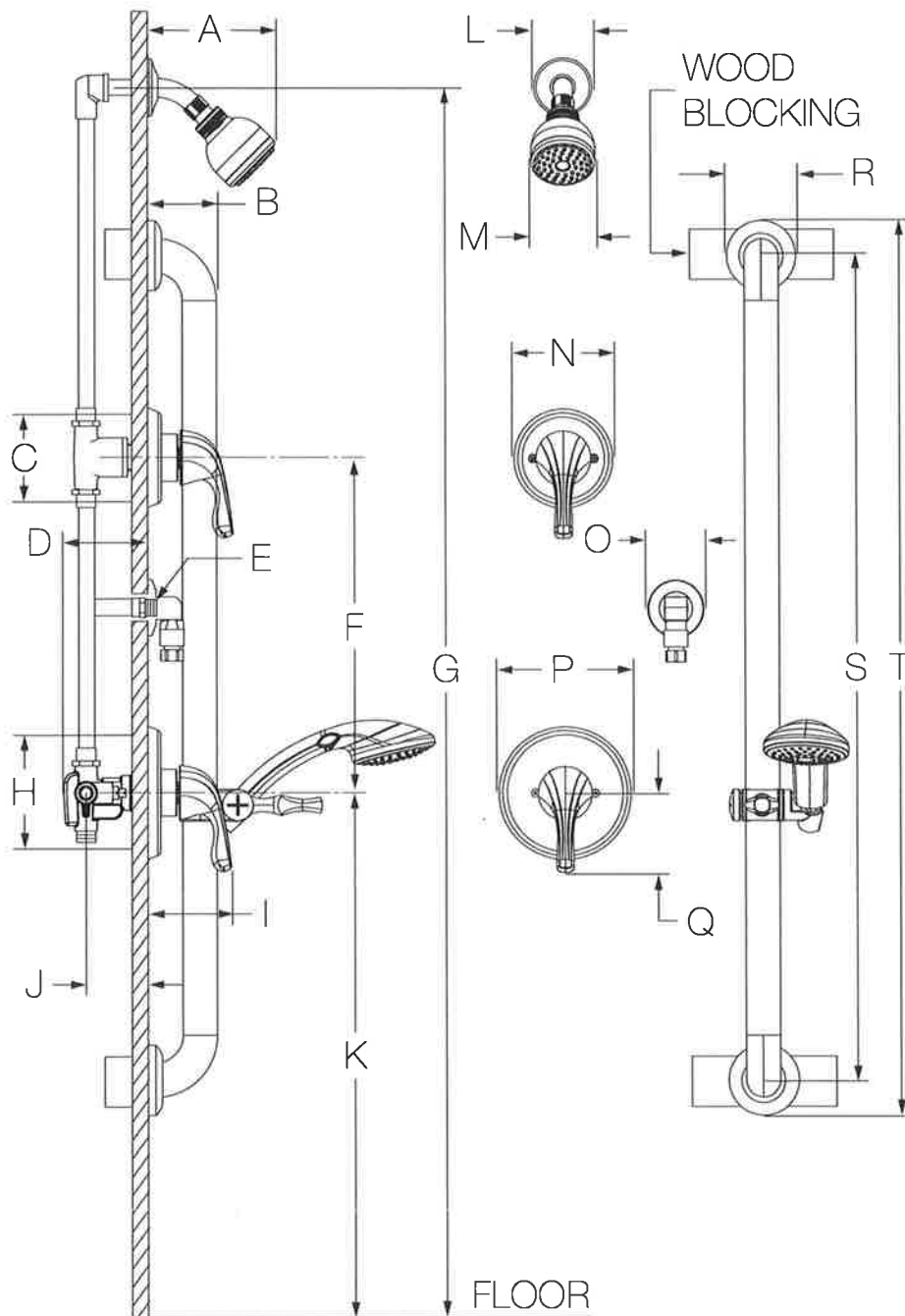
- 1.5**  1.5 gpm (5.7 L/min) flow restrictor
- 2.0** 2.0 gpm (7.6 L/min) flow restrictor
- 72** 72" hose in place of 60" hose
- B** Brass escutcheon (chrome only)
- CHKS** Integral check stops - for use in installations where a positive shut-off device is used downstream of mixing valve
- L1** Less showerhead
- L2** Less hand shower wand
- L3** Less showerhead & hand shower wand
- L4** Less showerhead, shower arm & flange
- L5** Less hand shower system (less bar/cradle, hose, wand & elbow)
- L7** Less handle
- NS**  Non-shared diverter valve
- R** 60" white vinyl hose in place of 60" metal hose
- VP** Vandal resistant escutcheon screws in place of standard screws
- X** Integral service stops - allows water shut off at valve for service
- STN** Satin Nickel finish

Note: Append appropriate -suffix to model number.

-231 Super Showerhead

-X Service Stops

Dimensions



Measurements	
A	6-3/8", 162 mm
B	3", 76 mm
C	Diverter Valve Hole Size Min. Ø 3", 76 mm Max. Ø 3-1/4", 83 mm
D	3-1/2", 89 mm
E	Male 1/2" NPT fitting must protrude 3/8" from finished wall
F	Ref. 10", 254 mm
G	Ref. 77", 1956 mm
H	Shower Valve Hole Size Min. Ø 3", 76 mm Max. Ø 4", 102 mm
I	3-5/8", 92 mm
J	Rough-in 2-3/8" ± 1/2", 60 mm ± 13 mm
K	Ref. 42", 1067 mm
L	Ø 2-1/2", 64 mm
M	Ø 2-3/4", 70 mm
N	Ø 4-1/4", 108 mm
O	Ø 2-1/2", 64 mm
P	Ø 5-3/4", 146 mm
Q	3-3/8", 86 mm
R	Ø 3-1/8", 79 mm
S	36", 914 mm
T	39", 991 mm

Notes:

- 1) Valve body and piping not included and shown as reference only.
- 2) Plaster shield (p/n T-176) for dry wall, plaster or other type walls 1/2" or greater.
- 3) All dimensions measured from nominal rough-in (see J as reference).
- 4) Dimensions subject to change without notice.

Engineering Specification

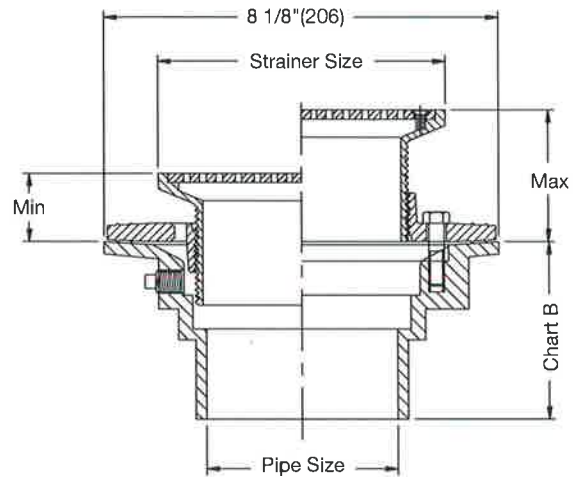
Job Name **ATU Jones Hall**
 Job Location **Russellville**
 Engineer **Pettit and Pettit**
 Approval _____
 Tag **SH-2**

Contractor **Comfort Systems USA**
 Approval _____
 Contractor's P.O. No. _____
 Representative **Sanders Supply**

FD-100-M Floor Drain with Square Strainer

Specification

Watts FD-100-M epoxy coated cast iron floor drain with anchor flange, reversible clamping collar with primary & secondary weepholes, adjustable square heel proof nickel bronze strainer, and no hub (standard) outlet.



Pipe Sizing		
Suffix	Description	
2	2"(51) Pipe Size	<input type="checkbox"/>
3	3"(76) Pipe Size	<input type="checkbox"/>
4	4"(102) Pipe Size	<input type="checkbox"/>
6	6"(152) Pipe Size	<input type="checkbox"/>

Outlet Type		
Suffix	Description	
NH	No Hub (MJ)	<input type="checkbox"/>
P	Push On	<input checked="" type="checkbox"/>
T	Threaded Outlet	<input type="checkbox"/>
X	Inside Caulk	<input type="checkbox"/>

Strainer		
Suffix	Description	
M5	5" x 5" (127) Nickel Bronze	<input checked="" type="checkbox"/>
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M8	8" x 8" (203) Nickel Bronze	<input type="checkbox"/>

Optional Body Material		
Suffix	Description	
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-61	ABS Body w/Socket Outlet	<input type="checkbox"/>

Options		
Suffix	Description	
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-6	Vandal Proof	<input type="checkbox"/>
-7	Trap Primer Tapping	<input checked="" type="checkbox"/>
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-9	Hinged Grate (For 6", 8" Strainer Only)	<input type="checkbox"/>
-13	Galvanized Body	<input type="checkbox"/>
-15	Strainer Extension (DD-50)	<input type="checkbox"/>
-F4-50	4" Round Cast Iron Funnel	<input type="checkbox"/>
-F4-1	4" Round Nickel Bronze Funnel	<input type="checkbox"/>
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-G-50	4x9" Oval Cast Iron Funnel	<input type="checkbox"/>
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-S0	Side Outlet	<input type="checkbox"/>

Strainer Size

Strainer Size				
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Chart B

Pipe Size	Std.	P	T	X	60/61
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6"(152)	3-1/2"(89)				

NOTICE

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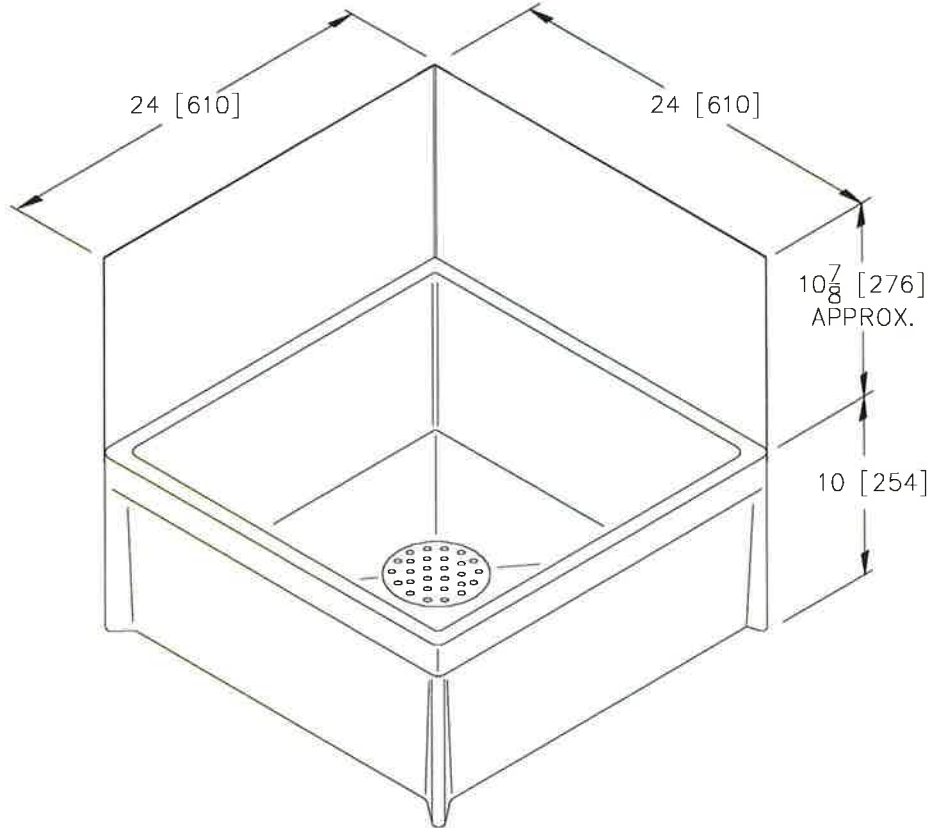
SS-1

APPROVED	<input type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input checked="" type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

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PETTIT & PETTIT
CONSULTING ENGINEERS, INC.
DATE 22 October 22 BY M. Todd

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Product	Mop Basin Size	Approx. Wt. Lbs. [kg]
Z1996-24-WG	24 x 24 x 10 [610 x 610 x 254]	50 [23]

ENGINEERING SPECIFICATION: Z1996-24-WG

Mop Service Basin 24 x 24 x 10 [610 x 610 x 254] Molded high density composite basin, PVC drain body, stainless steel dome strainer/lint basket, (2) stainless steel wall guards, and 3 [76] gasketed outlet connection. Certifications: Meets ANSI Z124.6, CSA listed, and IAPMO listed under file # 3561.

OPTIONS (Check/specify appropriate options)

SUFFIXES

- _____ -AW White Body
- _____ -BD Brass Drain
- _____ -BS Stainless Steel Bumper Guard
- _____ -BV Vinyl Bumper Guard
- _____ -HH Hose and Hose Bracket
- _____ -MH Mop Hanger
- _____ -NHG PVC Drain Gasket for No-Hub Pipe
- _____ -PRP Pipe Reducer for PVC Drain
- _____ -PRS Pipe Reducer for Stainless Steel Drain
- _____ -SDL Stainless Steel Drain with Locking Nut
- _____ -SF Service Faucet





T&S BRASS AND BRONZE WORKS, INC.

2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

B-0665-BSTP

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ADA Compliant

This Space for Architect/Engineer Approval

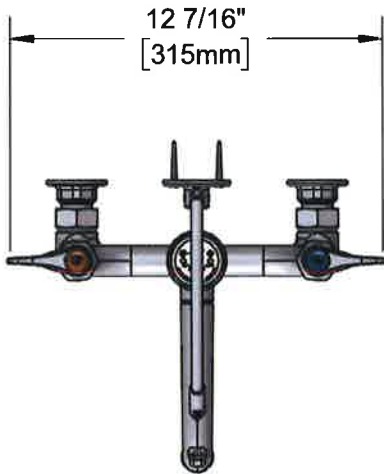
Job Name _____ Date _____

Model Specified _____ Quantity _____

Customer/Wholesaler _____

Contractor _____

Architect/Engineer _____



Support Rod w/
Wall Bracket &
Mounting Screws

Items Not Shown
for Clarity

B-0969
1/2" NPT Vacuum
Breaker

Quarter-Turn
Eterna Cartridges w/
Spring Check &
Lever Handles w/
Color Coded Indexes

Garden Hose
Male Outlet

Ø 2" [51mm]
Flanges w/
1/2" NPT
Female Inlets

Built-In Service
Stops

Mounting
Surface

14 5/16"
[364mm]

3 15/16"
[100mm]

8"
[203mm]
Adjustable From
7 3/4" to 8 1/4"
[197mm to 210mm]

2 11/16"
[68mm]

9 1/8"
[232mm]

Product Specifications:

8" Wall Mount Service Sink, Quarter-Turn Eterna Cartridges w/ Spring Checks, Lever Handles, Upper Support Rod, Built-In Stops, Garden Hose Male Outlet, Polished Chrome Finish, 1/2" NPT Vacuum Breaker & 1/2" NPT Female Inlets

Product Compliance:

ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)
ASSE 1001 (VB)



T&S BRASS AND BRONZE WORKS, INC.

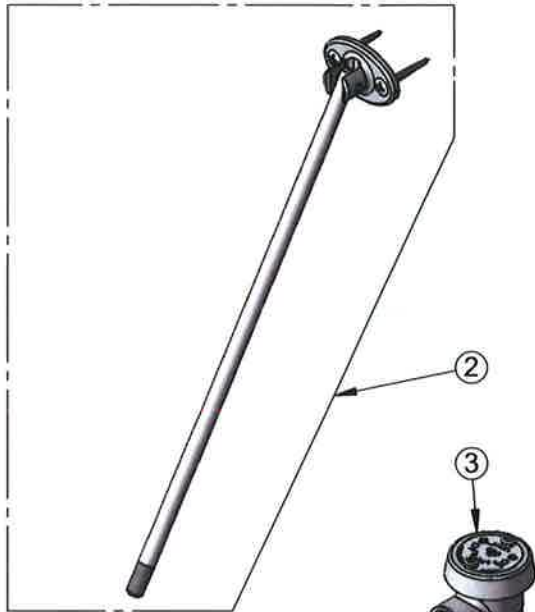
2 Saddleback Cove / P.O. Box 1088
Travelers Rest, SC 29690

Model No.

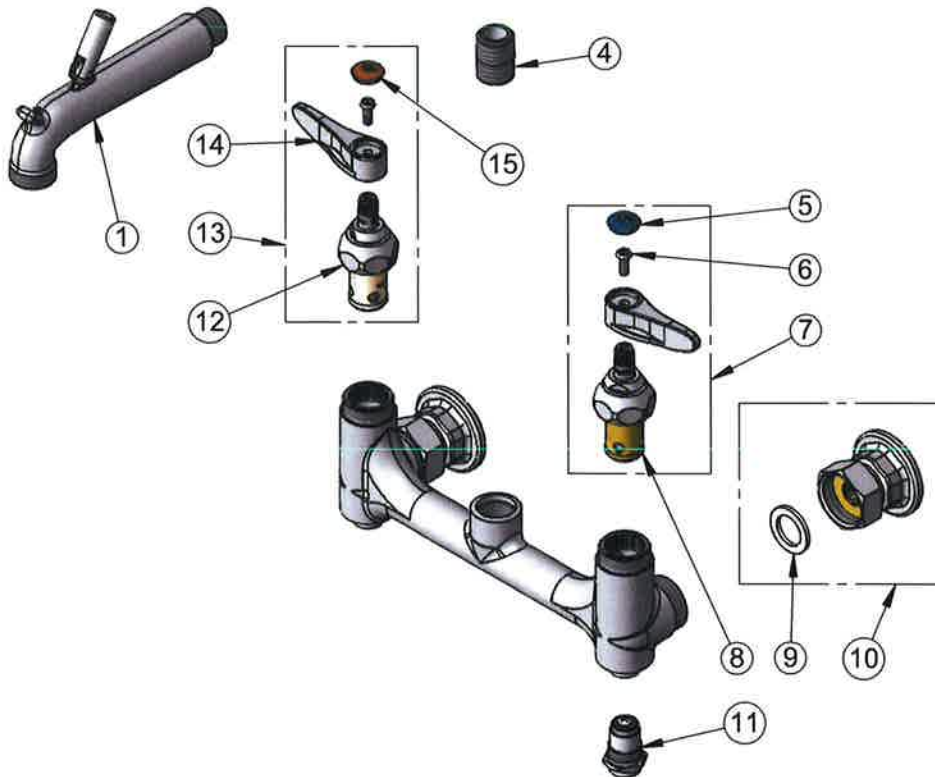
B-0665-BSTP

Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com



ITEM NO.	SALES NO.	DESCRIPTION
1	009545-40	Spout w/ Male GH Outlet & Upper Clevis - Polished Chrome
2	009546-40	Upper Support Rod
3	B-0969	1/2" NPT Vacuum Breaker
4	002534-25	Close Nipple, 1/2" NPT
5	018506-19NS	Blue Button Index, Press-in
6	000925-45	Lab Handle Screw
7	002711-40NS	Quarter-Turn Eterna Cartridge w/ Spring Check, Handle, Blue Index & Screw, LTC
8	012442-40NS	Quarter-Turn Eterna Cartridge w/ Spring Check, LTC
9	001019-45	Coupling Nut Washer
10	00AA	1/2" NPT Female Eccentric Flange
11	163A	Built-in Service Stop
12	012443-40NS	Quarter-Turn Eterna Cartridge w/ Spring Check, RTC
13	002712-40NS	Quarter-Turn Eterna Cartridge w/ Spring Check, Handle, Red Index & Screw, RTC
14	001638-45NS	Lever Handle (New Style)
15	001193-19NS	Red Button Index, Press-in



Product Specifications:

8" Wall Mount Service Sink, Quarter-Turn Eterna Cartridges w/ Spring Checks, Lever Handles, Upper Support Rod, Built-In Stops, Garden Hose Male Outlet, Polished Chrome Finish, 1/2" NPT Vacuum Breaker & 1/2" NPT Female Inlets

Product Compliance:

ASME A112.18.1 / CSA B125.1
NSF 61 - Section 9
NSF 372 (Low Lead Content)
ANSI A117.1 (ADA)
ASSE 1001 (VB)

Molded Stone[®] Mop Service Basins

FIAT



These rugged molded stone mop service basins are manufactured from the SMC process under the highest quality standards. The quality control molding is achieved in matched metal dies under intense heat and pressure with the result being a one-piece, dependable homogeneous product. Color is White.

SPECIFICATIONS

- 10" (254) high walls with 1" (25) wide shoulders. Model MSB-3624 includes an integrally molded shelf 10 9/16" (268) wide
- Stainless steel factory installed drain body complete with a QDC-3 joint connector for a 3" (76) drain pipe
- A combination dome strainer and stainless steel lint basket is included

Ces robustes cuves d'entretien de vadrouilles molded stone sont fabriquées grâce au procédé SMC selon les normes de qualité les plus rigoureuses afin d'en assurer la durabilité et d'éliminer les problèmes après l'installation. Le moulage se fait dans des matrices métalliques jumelées, à haute température et sous une forte pression, ce qui assure un produit homogène et fiable d'une seule pièce. La couleur est le blanc.

CARACTÉRISTIQUES

- Côtés de 10 po (254) avec épaulement de 1 po (25). Le modèle MSB-3624 comprend une tablette moulée intégrée de 10 9/16 po (268)
- Renvoi en acier inoxydable avec raccord QDC-3 pour tuyau de renvoi de 3 po (76)
- Crépine en coupole et filtre à charpie en acier inoxydable combinés compris

DIMENSIONS

MSB-3624

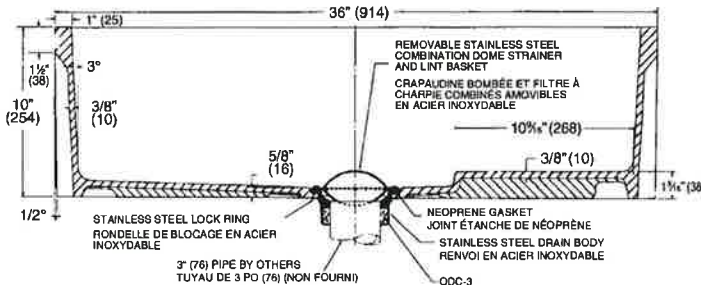
- ▲ 36" x 24" x 10" (914 x 610 x 254)
- ▲ Shipping weight / Poids à l'expédition: 70 lbs (32 kg)

MSB-2424

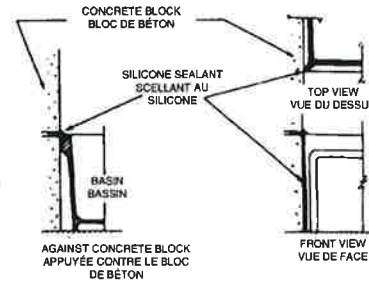
- ▲ 24" x 24" x 10" (610 x 610 x 254)
- ▲ Shipping weight / Poids à l'expédition: 50 lbs (23 kg)

OPTIONAL EQUIPMENT / ÉQUIPEMENT FACULTATIF

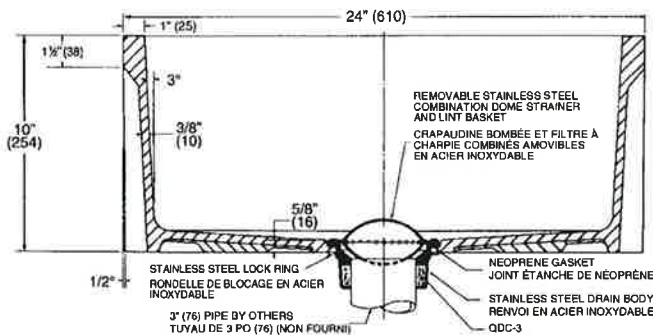
<p>830 AA – Wall mounted service faucet, chrome plated with vacuum breaker, integral stops, adjustable wall brace, pail hook and 3/4" (19) hose thread on spout. Body inlets 8" (203) center to center, four arm handles. Centre of spout outlet from back of wall flange 9 3/8" (238). CSA approved</p>		<p>830 AA – Robinet de service mural chromé avec coupe-vide, dispositif d'arrêt intégré, attache murale réglable et filets pour boyau 3/4 po (19) sur le bec. Conduites d'alimentation à 8 po (203) de centre à centre et clés à quatre ailettes. 9 3/8 po (238) entre le centre du bec et l'arrière de la bride murale. Homologué par L'ANCOR</p>																																								
<p>889 CC – Mop Bracket, 24" (610) long x 3" (76) wide, stainless steel with three (3) rubber grips</p>		<p>889 CC – crochet pour vadrouille, 24 po (610) de long par 3 po (76) de large, en acier inoxydable et muni de trois pinces à outils en caoutchouc</p>																																								
<p>E-77-AA – Vinyl bumper guards in 24" or 36" length</p>		<p>E-77-AA – butoirs en vinyle en 24 po ou 36 po de long</p>																																								
<p>1453 BB – Flat stainless steel strainer</p>		<p>1453 BB – Crépine plate en acier inoxydable pour utilisation résidentielle</p>																																								
<p>Quick Drain Connectors (QDC's)</p> <table border="1"> <thead> <tr> <th>For Use With</th> <th>QDC 3.2</th> <th>QDC 3SN</th> <th>QDC 3XH</th> <th>QDC 4</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> </tr> <tr> <td>_____</td> <td>•</td> <td></td> <td>•</td> <td>•</td> </tr> <tr> <td>_____</td> <td>•</td> <td></td> <td>•</td> <td>•</td> </tr> </tbody> </table>	For Use With	QDC 3.2	QDC 3SN	QDC 3XH	QDC 4	_____	•	•	•	•	_____	•		•	•	_____	•		•	•		<p>Raccord rapide pour tuyau d'écoulement (QDC's)</p> <table border="1"> <thead> <tr> <th>For Use With</th> <th>QDC 3.2</th> <th>QDC 3SN</th> <th>QDC 3XH</th> <th>QDC 4</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> </tr> <tr> <td>_____</td> <td>•</td> <td></td> <td>•</td> <td>•</td> </tr> <tr> <td>_____</td> <td>•</td> <td></td> <td>•</td> <td>•</td> </tr> </tbody> </table>	For Use With	QDC 3.2	QDC 3SN	QDC 3XH	QDC 4	_____	•	•	•	•	_____	•		•	•	_____	•		•	•
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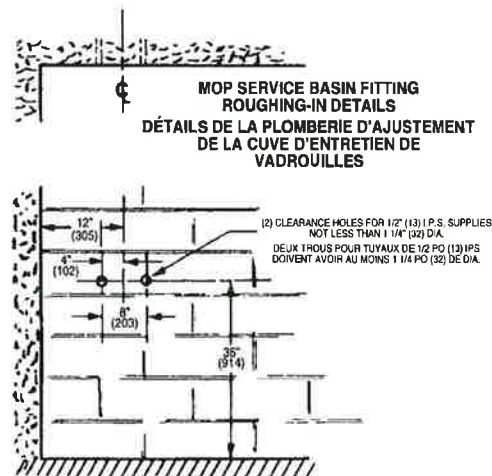
**SECTION THRU DRAIN CONNECTION
MSB-3624 (WITH SHELF)
VUE TRANSVERSALE DU RACCORD DE RENVOI
MSB-3624 (AVEC TABLETTE)**



**SUGGESTED INSTALLATION
INSTALLATION PROPOSÉE**



**SECTION THRU DRAIN CONNECTION
MSB-2424 (LESS SHELF)
VUE TRANSVERSALE DU RACCORD DE RENVOI
MSB-2424 (SANS TABLETTE)**



**SUGGESTED ROUGH-IN FOR SERVICE FAUCET - PLATES #830-AA
PLOMBERIE PROPOSÉE POUR LE ROBINET DE SERVICE - PLAQUES N° 830-AA**

OPTIONAL EQUIPMENT / ÉQUIPEMENT FACULTATIF

<p>➔ Stainless Steel Wall Guards Made of heavy gauge stainless steel. Designed and is used to protect walls adjacent to the receptor. Two panels are supplied for a corner installation, a third panel is required for a recessed installation. The wall guard models are identified as follows: MSG 2424, MSG 3232, MSG 3624, and MSG 3636</p>		<p>Protecteurs muraux en acier inoxydable Fabriqués en acier inoxydable durable et de haut calibre. Conçus pour protéger les murs adjacents au récepteur. Deux panneaux sont fournis pour une utilisation en coin, un troisième panneau est requis pour une utilisation en alcôve. Les modèles de protecteurs muraux sont identifiés comme suit: MSG 2424, MGS 3232, MSG 3624 et MSG 3636</p>
<p>➔ 832 AA - Hose and Bracket; 30" (762) long flexible heavy duty 5/8" (16) rubber hose, cloth reinforced with 3/4" (19) chrome coupling at one end. Bracket is 5" (127) long x 3" (76) wide stainless steel with rubber grip</p>		<p>832 AA - Boyau et support : Boyau en caoutchouc flexible de 5/8" (16) résistant, 30" (762) de long, renforcé à une extrémité avec un assemblage de chrome de 3/4" (19). Support de 5" (127) de long X 3" (76) de large en acier inoxydable avec prise en caoutchouc.</p>

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

WB-1

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY M Todd



Product Description

Stock Number

Model Number

UPC BarCode

Cu. Ft./ Case

Units/ Case

Lbs./ Case

1-800-888-8312 Fax 901-853-5008

GUY GRAY ORIGINAL WASHING MACHINE OUTLET BOXES

- 20 Gauge Box / 20 Gauge Faceplate
- Available with 110 Volt and 220 Volt Electrical Outlets
- 4-Wire Available on Models Designated With NW Prefix

- Available with 1/4 Turn Ball Valves, 1/4 Turn Ball Valves with Hammer Arresters, Single Lever or Domestic Valves

- G90 Hot Dipped Galvanized Steel (Unpainted)
- Male Threaded Drain Fitting & Locknut Included

GUY GRAY "B" SERIES

CENTER DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES

1/2" MIP/Sweat Conx. Valve - 1 1/2" Threaded Drain	82026	B150	012181-820261	1.940	6	39
1/2" MIP/Sweat Conx. Valve - 2" Threaded Drain	82032	B200	012181-820322	1.940	6	39
Top Mount 1/2" MIP/Sweat Conx. Valves - 2" Threaded Drain	82036	BB200TS	012181-820360	1.940	6	41
Domestic Valve w/1/2" Pex conx.- 2" Threaded Drain	81974	B200X	012181-819746	1.940	6	39
Domestic Valve w/1/2" CPVC conx.- 2" Threaded Drain	81975	B200C	012181-819753	1.940	6	39



CENTER DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES W/DUPLEX RECEPTACLE

1/2" MIP/Sweat Valve - 2" Threaded Drain - 3 Wire Receptacle	82033	BE200	012181-820339	2.280	6	45
Top Mount 1/2" MIP/Sweat- 2" Threaded Drain-3 Wire Receptacle	82037	BBE200TS	012181-820377	2.280	6	46



CENTER DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES W/DUPLEX & DRYER RECEPTACLES

1/2" MIP/Sweat Valve - 1 1/2" Threaded Drain - 3 Wire Receptacle	82028	BED150	012181-820285	2.620	6	51
1/2" MIP/Sweat Valve - 2" Threaded Drain - 3 Wire Receptacle	82034	BED200	012181-820346	2.620	6	53
Top Mount 1/2" MIP/Sweat -2" Threaded Drain-3 Wire Receptacle	82038	BBED200TS	012181-820384	2.620	6	50



CENTER DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES W/DUPLEX & DRYER RECEPTACLES ON RIGHT

1/2" MIP/Sweat Valve - 2" Threaded Drain - 3 Wire Receptacle	82142	NWBED2003	012181-821428	2.620	6	52
1/2" MIP/Sweat Valve - 2" Threaded Drain - 4 Wire Receptacle	82035	NWBED2004	012181-820353	2.620	6	55
1/2" Qtr. Turn Sweat Valve - 2" Threaded Drain - 4 Wire Receptacle	88079	NWBEDQT2004	012181-880791	2.620	6	30



RIGHT DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES

1/2" MIP/Sweat Conx. Valve - 1 1/2" Threaded Drain	82030	FB150	012181-820308	1.940	6	38
1/2" MIP/Sweat Conx. Valve - 2" Threaded Drain	82039	FB200	012181-820391	1.940	6	38
1/2" MIP/Sweat Conx. Single Lever Valve - 1 1/2" Threaded Drain	82031	WB150	012181-820315	1.940	6	45
1/2" MIP/Sweat Conx. Single Lever Valve - 2" Threaded Drain	82043	WB200	012181-820438	1.940	6	41



RIGHT DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES WITH HAMMER ARRESTERS VALVES

Single Lever Valve w/Hammer Arresters - 2" Drain	82048	WB200HA	012181-820483	1.940	6	45
Single Lever Valve w/Hammer Arresters - 2" Drain/Top Supply	82049	WB200HATM	012181-820490	1.940	6	45



RIGHT DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES W/DUPLEX RECEPTACLE

1/2" MIP/Sweat Valve - 2" Thrded Drain - 3 Wire Receptacle	82040	FBE200	012181-820407	2.280	6	43
1/2" MIP/Sweat SingleLvr Valve - 2" Thrded Drain - 3 Wire Receptacle	82044	WBE200	012181-820445	2.280	6	52
1/2" MIP/Sweat Valve w/Arrstrs - 2" Thrded Drain - 3 Wire Receptacle	82047	WBE200HA	012181-824076	2.280	6	52



RIGHT DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES W/DUPLEX & DRYER RECEPTACLE

1/2" MIP/Sweat Valve - 2" Thrded Drain - 3 Wire Receptacle	82041	FBED200	012181-820414	2.620	6	50
1/2" MIP/Sweat Single Lvr Valve - 2" Thrded Drain - 3 Wire Receptacle	82045	WBED200	012181-820452	2.620	6	53



RIGHT DRAIN GALVANIZED WASHING MACHINE OUTLET BOXES W/DUPLEX & DRYER RECEPTACLE ON RIGHT

1/2" MIP/Sweat Valves - 2" Thrded Drain - 4 Wire Receptacle	82042	NWFBED2004	012181-820421	2.620	6	54
1/2" MIP/Sweat Single Lvr Valves - 2" Thrded Drain - 3 Wire Receptacle	82046	NWNWBED2003	012181-820469	2.620	6	62
1/2" MIP/Sweat Single Lvr Valves - 2" Thrded Drain - 4 Wire Receptacle	82144	NWNWBED2004	012181-821442	2.620	6	62



WC-1, WC-2

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

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PETTIT & PETTIT
CONSULTING ENGINEERS, INC.
DATE 22 October 22 BY M. Tull



Afwall® Millennium™ FloWise® Elongated Flushometer Toilet VITREOUS CHINA LESS EVERCLEAN®

BARRIER FREE

Afwall® Millenium™ FloWise® Elongated Flushometer Toilet LESS EverClean®

- Wall-mounted flushometer valve toilet
- Vitreous china
- Conventional glaze
- High Efficiency, Low Consumption. Operates in the range of 1.1 gpf to 1.6 gpf (4.2 Lpf to 6.0 Lpf)
- Meets definition of HET (High Efficiency Toilet) when used with a high efficiency flush valve (1.1 gpf - 1.6 gpf or 1.28/1.1 gpf dual flush)
- Maximum Performance (MaP) score of 1,000 grams at 1.1 gpf - 1.6 gpf
- Condensation channel
- Concealed trapway design
- Elongated bowl
- Powerful direct-fed siphon jet action
- 1-1/2" inlet spud
- Fully-glazed 2-1/8" trapway
- 10" x 12" water surface area
- Tested to support static weight load of 1,000 lbs. (454 kg)



SEE REVERSE FOR ROUGHING-IN DIMENSIONS

- 2257.101 Elongated bowl only, top spud
- 2033.101 Elongated bowl only, top spud with slotted rim for bedpan holding
- 2634.101 Elongated bowl only, back spud

System MaP* Score:

- 1,000 grams of miso @ 1.1 gpf to 1.6 gpf when used with an American Standard flush valve

* Maximum Performance (MaP) testing performed by IAPMO R&T Lab. MaP Report conducted by Veritec Consulting, Inc. and Koeller and Company.

Component Parts:

- 047007-0070A Inlet Spud (furnished with bowl)

Nominal Dimensions:

660 x 356 x 381mm
(26" x 14" x 15")

Recommended working pressure—between 25 psi at valve when flushing and 80 psi static

Fixture only, less seat, bolt caps, and flushometer valve

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2/CSA B45.1 for Vitreous China Fixtures

To Be Specified:

- Color: White
- Seat:
 - American Standard #5901.100 Heavy duty open front less cover
 - American Standard #5905.100 Extra heavy duty open front less cover
- Flushometer Valve:
 - 1.6 gpf:
 - Sensor-Operated: American Standard Selectronic® DC Power #6065.161.002 (Top Spud)
AC Power #6067.161.002 (Top Spud)
 - Manual: American Standard #6047.161.002 (Top Spud)
 - 1.28 gpf:
 - Sensor-Operated: American Standard Selectronic® DC Power #6065.121.002 (Top Spud)
AC Power #6067.121.002 (Top Spud)
 - Manual: American Standard #6047.121.002 (Top Spud)
 - 1.6 / 1.1 gpf Dual Flush:
 - Sensor-Operated: American Standard Selectronic® DC Power #6065.761.002 (Top Spud)
AC Power #6067.761.002 (Top Spud)
 - 1.28 / 1.1 gpf Dual Flush:
 - Sensor-Operated: American Standard Selectronic® DC Power #6065.721.002 (Top Spud)
AC Power #6067.721.002 (Top Spud)



MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USABLE BUILDING FACILITIES - CHECK LOCAL CODES.

- When installed so top of seat is 432 to 483mm (17" to 19") from the finished floor.



ENVIRONMENTAL
PRODUCT
DECLARATION



When used with
1.1 or 1.28 gpf
toilet flush valves

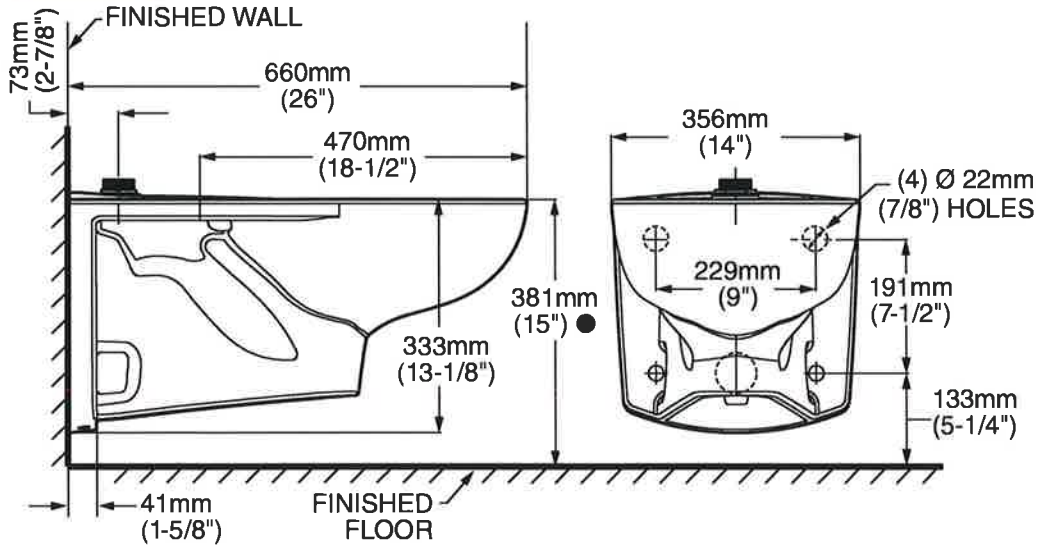


ADA
COMPLIANT

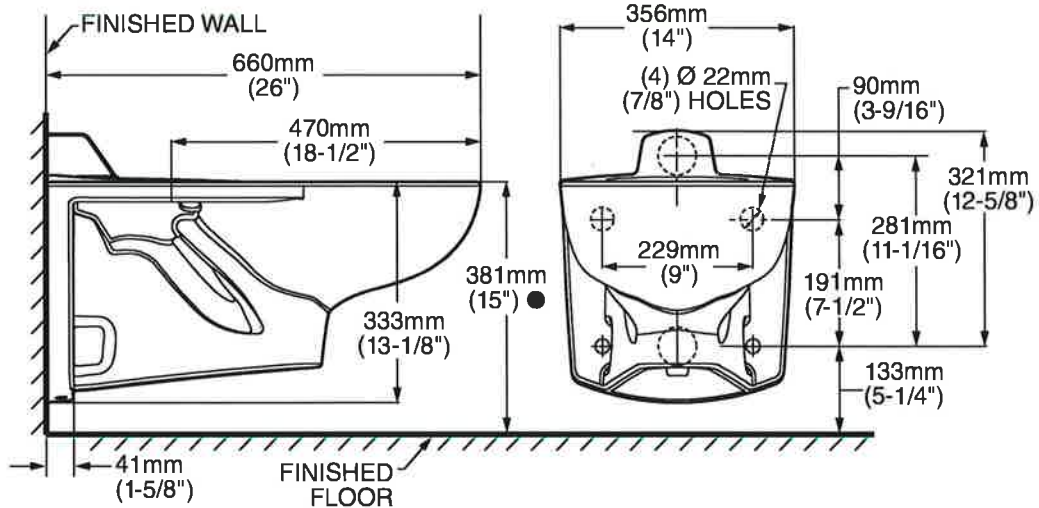


WATER
EFFICIENT

2257.101/2633.101



2634.101



NOTES:

● Toilet designed to meet ADA accessibility standards when top of seat height set at 432 to 483mm (17" to 19") from finished floor.

PRODUCT 2257 SHOWN, 2366 SAME EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.

WASTE OUTLET SEAL RING MUST BE NEOPRENE OR GRAPHITE-FELT (WAX RING NOT RECOMMENDED).

SUGGESTED 2mm (1/16) CLEARANCE BETWEEN FACE OF WALL AND BACK OF BOWL.

TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSHOMETER VALVE, THE PLUMBER MUST

VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.

FLUSHOMETER VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.

CARRIER FITTING AS REQUIRED TO BE FURNISHED BY OTHERS.

PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORT.

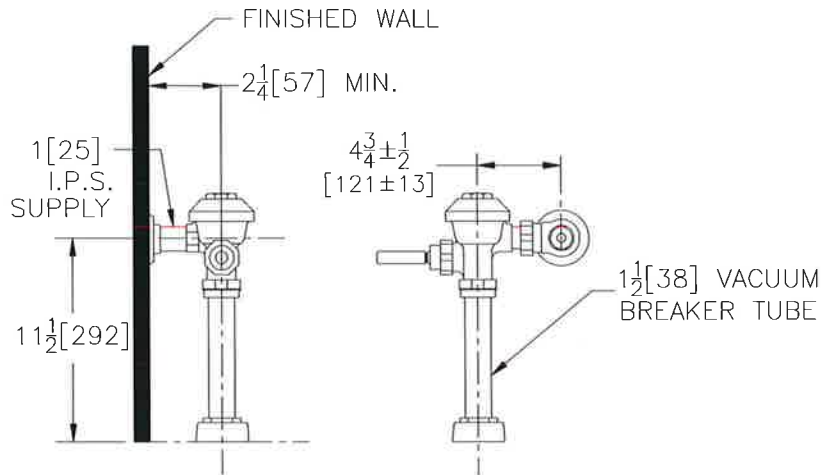
IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages



Aquaflush®

TAG WC-1, WC-2

Z6000 Model for Water Closets



Flow Options

- WS1 1.6 Gal. Low Consumption Flush
- WS 3.5 Gallons Per Flush
- FF 4.5 Gal. Full Flush

Suffix Options (Check/Specify Appropriate Options)

- BG BioCare™ ADA Handle
- DF Dual Flush 1.6/1.1 gpf
- H Handle on Front of Flush Valve
- HL 1" [25] Metal Push Button
- HL3 3" [76] Metal Push Button
- VC Vandal Resistant Stop Cover
- YB Sweat Solder Kit
- YC Cast Wall Flange
- YJ Split Ring Pipe Support
- YK Solid Ring Pipe Support
- Other

ENGINEERING SPECIFICATION: ZURN Z6000 Aquaflush Exposed Closet Flush Valve - Exposed, quiet diaphragm-type, chrome plated flushometer valve with a polished exterior. Complete with a chloramine resistant, dual seal diaphragm with a clog resistant by-pass. The valve is ADA compliant with a non-hold-open and no leak handle feature, high back pressure vacuum breaker, one piece hex coupling nut, adjustable tailpiece, spud coupling and flange for top spud connection. Control stop has internal siphon-guard protection. Internal seals are made of chloramine resistant materials.

-Z6000PL - Aquaflush Plus is furnished as specified above and includes sweat solder kit, vandal resistant stop cap, and cast wall flange with set screw. **Complete with a chloramine resistant, dual seal diaphragm with a clog resistant by-pass.**

Architectural/Engineering Approval

ZURN INDUSTRIES, LLC. ♦ COMMERCIAL BRASS OPERATION ♦ 5900 ELWIN BUCHANAN DRIVE ♦ SANFORD NC 27330

PHONE: 1-800-997-3876 ♦ FAX: 919-775-3541 ♦ WORLD WIDE WEB: WWW.ZURN.COM

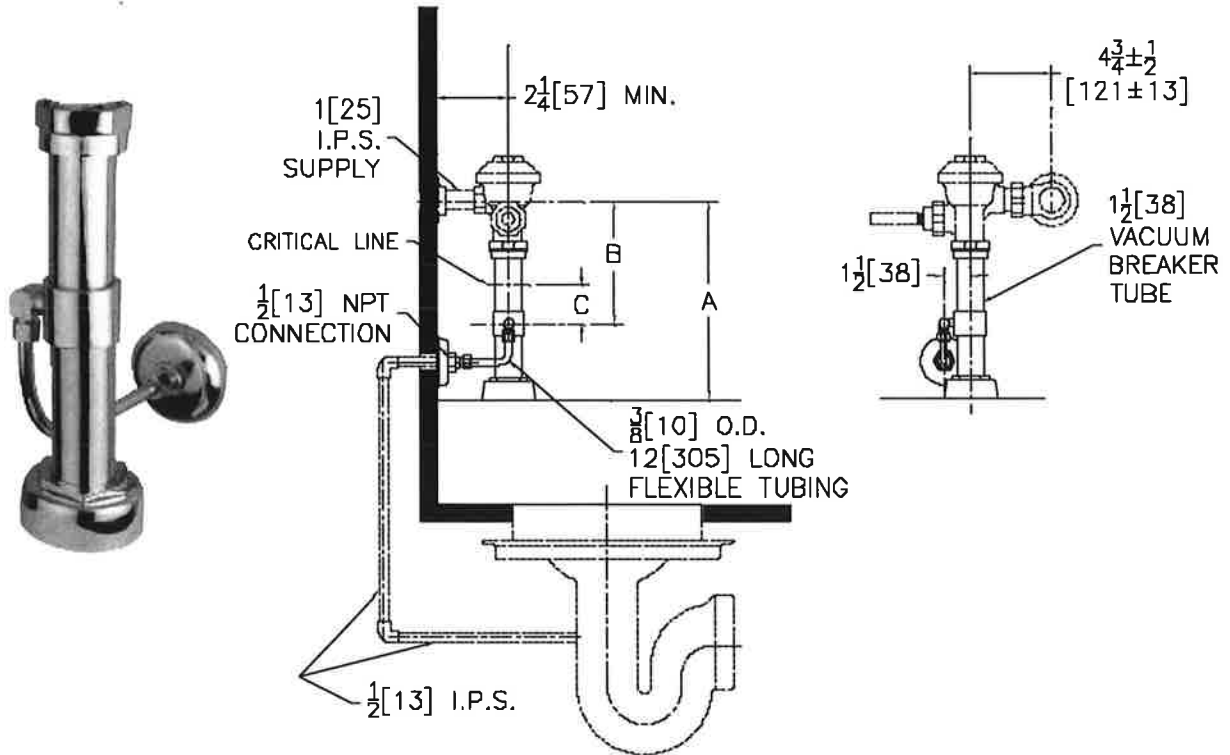
IN CANADA: ZURN INDUSTRIES LIMITED ♦ 3544 NASHUA DRIVE ♦ MISSISSAUGA, ONTARIO L4V1L2 ♦ PHONE: 905-405-8272 FAX: 905-405-1292



Aquaflush®

TAG WC-1, WC-2

Exposed P6000-TPO Model Trap Primer Assembly



Suffix Options (Check/Specify Appropriate Options)

_____	-YH	One Wall Bumper
_____	-YJ	Split Ring Pipe Support
_____	-YK	Solid Ring Pipe Support
_____	-YL	Solid Ring Pipe Support with Bumper
_____	-YN	Bumper on Flush Pipe
_____		Other

Complies with ASSE 1018 certification.

Product No.	A		B		C	
	In.	MM.	In.	MM.	In.	MM.
P6000-TPO	11 1/2	292	7 1/8	181	2 3/8	60
P6000-1-TPO	16	406	11 3/8	289	6 3/8	162
P6000-2-TPO	24	610				
P6000-3-TPO	27	686				
Longer Lengths As Specified						

ENGINEERING SPECIFICATION: ZURN P6000-TPO Aquaflush Trap Primer Assembly- The Aquaflush trap primer elbow assembly provides a source of water to maintain a constant water seal in floor drains preventing sewer gases from entering a specific area. During each flush valve actuation, a small amount of water is diverted to the floor drain to help maintain the water seal. The Trap Primer Assembly is furnished complete with 1-1/2"[38] flush tube with trap primer collar, spud coupling and flange for top spud connection, 3/8" x 12" supply tube and fittings, vacuum breaker, vacuum breaker tube nut and wall escutcheon.

This space is for Architectural/engineering Approval

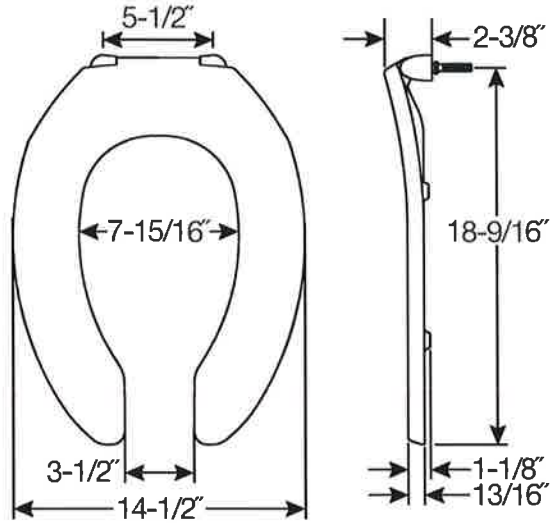
ZURN INDUSTRIES, INC. ♦ COMMERCIAL BRASS OPERATION ♦ 5900 ELWIN BUCHANAN DRIVE ♦ SANFORD NC 27330
Phone: 1-800-997-3876 ♦ Fax: 919-775-3541 ♦ World Wide Web: www.zurn.com

In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905-405-8272 Fax: 905-405-1292



295CT / 295SSCT

COMMERCIAL HEAVY-DUTY
PLASTIC TOILET SEAT



FEATURES:

- **STA-TITE® Commercial Fastening System™**
Eliminates callbacks for loosened seats

SPECIFICATIONS:

Size: Elongated

Material: Plastic

Style: Open Front less Cover

Ring Bumpers: Four

Hinges: Plastic Non Self-Sustaining Check Hinges (295CT) or Self-Sustaining Check Hinges (295SSCT) with Non-Corroding 300 Series Stainless Steel Posts and Pintles

Hardware: STA-TITE® Commercial Fastening System™

Codes & Standards:



Complies with
IAPMO/ANSI Z124.5
Performance Standards
Heavy-Duty Commercial



Proudly Made in the USA

Eco-Friendly



For Commercial Applications

Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____
 Tag WC-1,WC-2

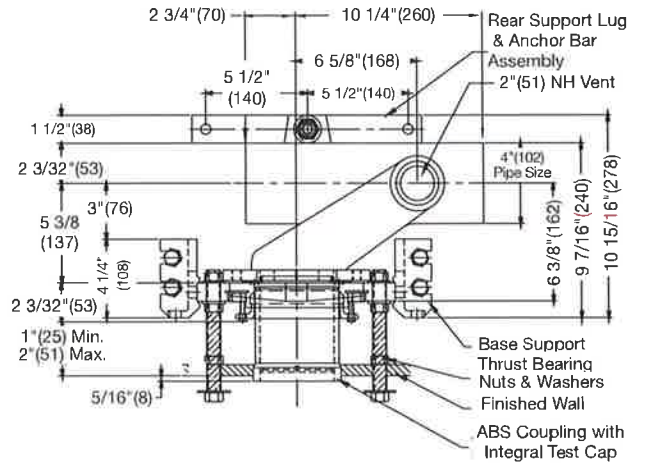
Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

ISCA-103-L/R

**Industry Standard Single Horizontal
750 lb. Closet Carrier**

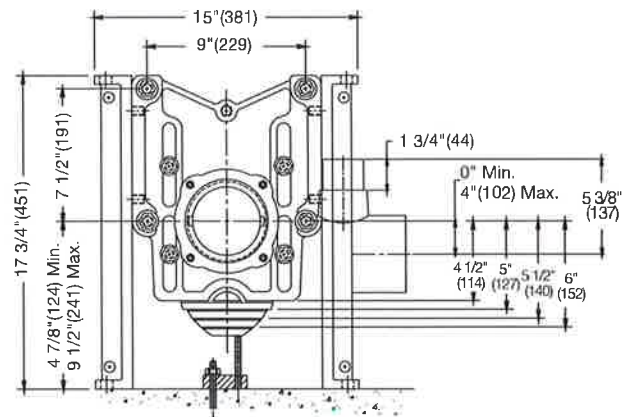
Specification

Watts ISCA-103-L/R *Industry Standard* single horizontal adjustable water closet carrier with epoxy coated cast iron fitting, 4"(102) no hub waste and 2"(51) no hub vent connections, epoxy coated cast iron patented compression seal faceplate assembly, and epoxy coated cast iron foot supports with incremental height markings. Adjustable for standard and wheelchair height, ductile iron rear anchor support, adjustable ABS nipple with integral test cap and neoprene bowl gasket, stainless steel support rods and hardware, and chrome plated cap nuts. Carrier complies with requirements of ASME A112.6.1M up to a 750 lb. (340 kg.) static load.



Suffix	Options (Select One or More) Description	
-3	3" No Hub Fitting	<input type="checkbox"/>
-36	36" Long Barrel Fitting	<input type="checkbox"/>
-CI	Cast Iron Nipple	<input type="checkbox"/>
-HS	Hub & Spigot Connections	<input type="checkbox"/>
-M11	Tiling Frame	<input type="checkbox"/>
-M20	Flush Valve Support	<input type="checkbox"/>

Please refer to watts.com for BAA information on specific models.



NOTICE

All foot supports must be securely anchored to concrete floor with min. 1/2"(13) anchors with pull-out force of 500 lbs. (227 kg.) Rear anchor support must be securely anchored with min. 1/2"(13) anchors with pull-out force of 1000 lbs. (454 kg).

Dual slotted carrier feet require one 1/2"(13) anchor bolt per foot.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



USA: T: (800) 338-2581 • F: (628) 248-3929 • Watts.com
Canada: T: (888) 208-8927 • F: (888) 479-2887 • Watts.ca
Latin America: T: (52) 55-4122-0138 • Watts.com

For Commercial Applications

Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____
 Tag WC-1,WC-2

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

ISCA-103-D

Industry Standard Back-To-Back Horizontal 750 Lb. Closet Carrier

Specification

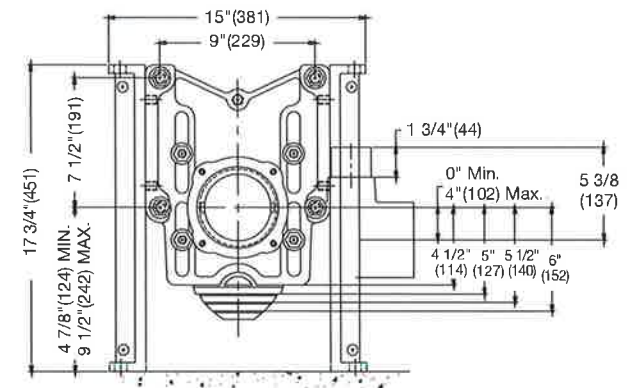
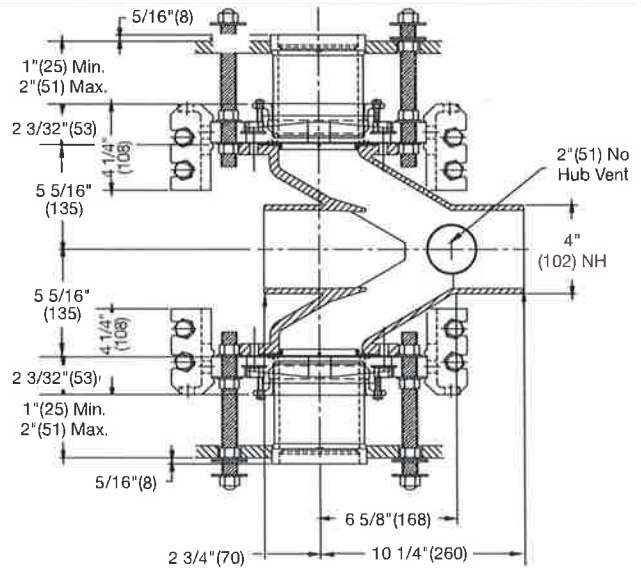
Watts ISCA-103-D *Industry Standard* back-to-back horizontal adjustable water closet carrier with epoxy coated cast iron fitting, 4"(102) no hub waste and 2"(51) no hub vent connections, epoxy coated cast iron patented compression seal faceplate assembly, and epoxy coated cast iron foot supports with incremental height markings. Adjustable for standard and wheelchair height, adjustable ABS nipple with integral test cap and neoprene bowl gasket. Stainless steel rods and hardware, and chrome plated cap nuts. Carrier complies with requirements of ASME A112.6.1M up to a 750 lb. (340 kg.) static load.

Options (Select One or More)	
Suffix	Description
-3	3" No Hub Fitting <input type="checkbox"/>
-36	36" Long Barrel Fitting <input type="checkbox"/>
-CI	Cast Iron Nipple <input type="checkbox"/>
-HS	Hub & Spigot Connections <input type="checkbox"/>
-M11	Tiling Frame <input type="checkbox"/>
-M20	Flush Valve Support <input type="checkbox"/>

Please refer to watts.com for BAA information on specific models.

NOTICE

All foot supports must be securely anchored to concrete floor with min. 1/2"(13) anchors with pull-out force of 500 lbs. (227 kg.) Rear anchor support must be securely anchored with min. 1/2"(13) anchors with pull-out force of 1000 lbs. (454 kg).
 Dual slotted carrier feet require one 1/2"(13) anchor bolt per foot.



NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

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 Latin America: T: (52) 55-4122-0138 • Watts.com

For Commercial Applications

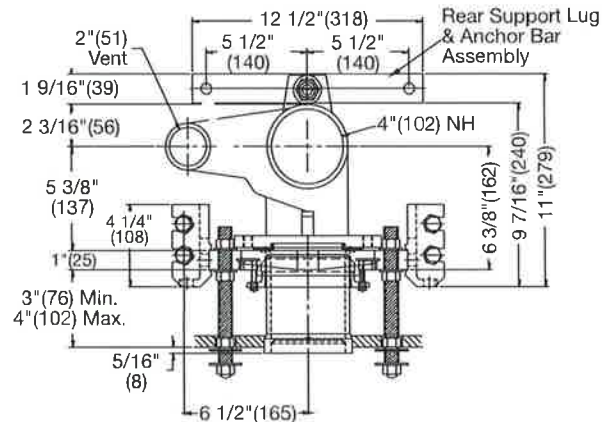
Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____
 Tag WC-1,WC-2

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

ISCA-123
Industry Standard Single Vertical
750 lb. Closet Carrier

Specification

Watts ISCA-123 *Industry Standard* single vertical adjustable water closet carrier with epoxy coated cast iron fitting, 4"(102) no hub waste and 2"(51) no hub vent connections, epoxy coated cast iron patented compression seal faceplate assembly, and epoxy coated cast iron foot supports with incremental height markings. Adjustable for standard and wheelchair height, ductile iron rear anchor support, adjustable ABS nipple with integral test cap and neoprene bowl gasket, stainless steel support rods and hardware, and chrome plated cap nuts. Carrier complies with requirements of ASME A112.6.1M up to a 750 lb. (350 kg.) static load.



Options (Select One or More)	
Suffix	Description
-CI	Cast Iron Nipple <input type="checkbox"/>
-HS	Hub & Spigot Connections <input type="checkbox"/>
-M11	Tiling Frame <input type="checkbox"/>
-M20	Flush Valve Support <input type="checkbox"/>

Please refer to watts.com for BAA information on specific models.

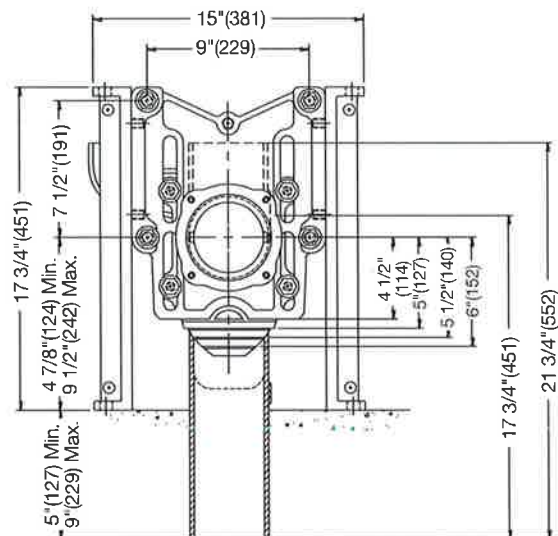
NOTICE

All foot supports must be securely anchored to concrete floor with min. 1/2"(13) anchors with pull-out force of 500 lbs.(227 kg.) Rear anchor support must be securely anchored with min. 1/2"(13) anchors with pull-out force of 1000 lbs.(454 kg.)

Dual slotted carrier feet require one 1/2"(13) anchor bolt per foot.

NOTICE

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 Canada: T: (888) 208-8927 • F: (888) 479-2887 • Watts.ca
 Latin America: T: (52) 55-4122-0138 • Watts.com

Engineering Specification

Job Name **ATU Jones Hall**
 Job Location **Russellville**
 Engineer **Pettit and Pettit**
 Approval _____
 Tag **WC-1,WC-2**

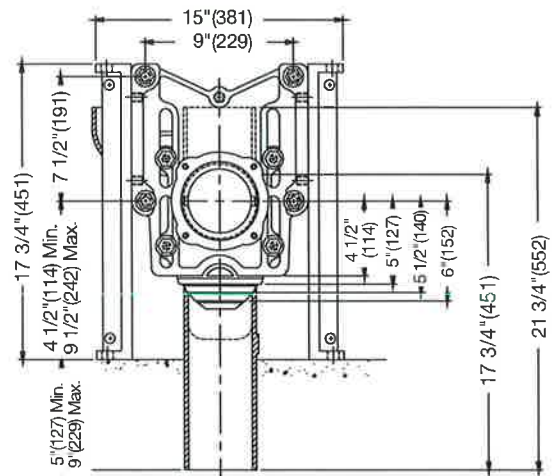
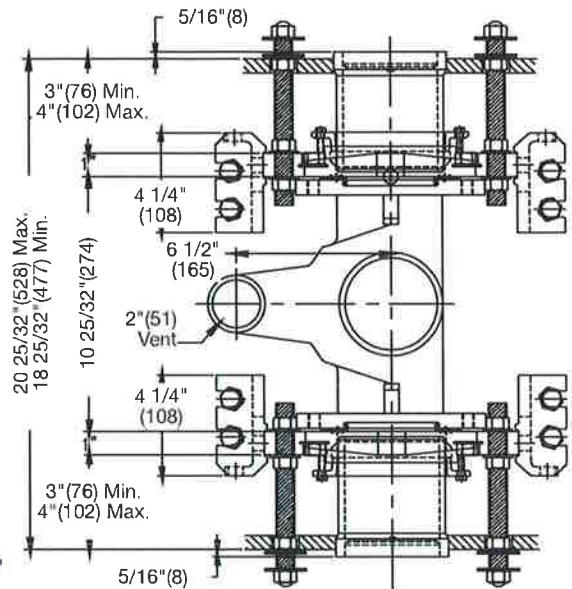
Contractor **Comfort Systems USA**
 Approval _____
 Contractor's P.O. No. _____
 Representative **Sanders Supply**

ISCA-123-D

Industry Standard Back-To-Back Vertical 750 lb. Closet Carrier Specification

Watts ISCA-123-D *Industry Standard* single back-to-back vertical adjustable water closet carrier with epoxy coated cast iron fitting, 4"(102) no hub waste and 2"(51) no hub vent connections, epoxy coated cast iron patented compression seal faceplate assembly, and epoxy coated cast iron foot supports with incremental height markings. Adjustable for standard and wheelchair height, adjustable ABS nipple with integral test cap and neoprene bowl gasket, plated hardware and chrome cap nuts. Carrier complies with requirements of ASME A112.6.1M up to a 750 lb. (340 kg.) static load.

Options		
Suffix	Description	
-CI	Cast Iron Nipple	<input type="checkbox"/>
-HS	Hub & Spigot Connections	<input type="checkbox"/>
-M11	Tiling Frame	<input type="checkbox"/>
M20	Flush Valve Support	<input type="checkbox"/>



NOTICE

All foot supports must be securely anchored to concrete floor with min. 1/2"(13) anchors with pull-out force of 500 lbs.(227 kg.)

Dual slotted carrier feet require one 1/2"(13) anchor bolt per foot.

NOTICE

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FD-1

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

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PETTIT & PETTIT

CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY M. Tall

Engineering Specification

Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____
 Tag FD-1

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

FD-100-A Floor Drain With Round Strainer

Specification

Watts FD-100-A epoxy coated cast iron floor drain with anchor flange, reversible strainer, and no hub (standard) outlet.



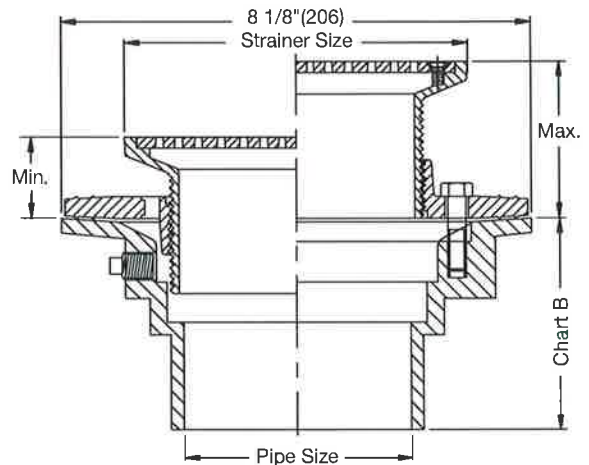
Pipe Sizing		
Suffix	Description	
2	2"(51) Pipe Size	<input type="checkbox"/>
3	3"(76) Pipe Size	<input type="checkbox"/>
4	4"(102) Pipe Size	<input type="checkbox"/>
6	6"(152) Pipe Size	<input type="checkbox"/>

Outlet Type		
Suffix	Description	
NH	No Hub (M.I.)	<input type="checkbox"/>
P	Push On	<input checked="" type="checkbox"/>
T	T Threaded Outlet	<input type="checkbox"/>
X	Inside Caulk	<input type="checkbox"/>

Strainer		
Suffix	Description	
A5	5"(127) Dia., Nickel Bronze	<input type="checkbox"/>
A6	6"(127) Dia., Nickel Bronze	<input type="checkbox"/>
A7	7"(178) Dia., Nickel Bronze	<input checked="" type="checkbox"/>
A8	8"(203) Dia., Nickel Bronze	<input type="checkbox"/>
A10	10"(254) Dia., Nickel Bronze	<input type="checkbox"/>

Optional Body Material		
Suffix	Description	
-60	PVC Body w/Socket Outlet	<input type="checkbox"/>
-61	ABS Body w/Socket Outlet	<input type="checkbox"/>

Options		
Suffix	Description	
-5	Sediment Bucket	<input type="checkbox"/>
-6	Vandal Proof	<input type="checkbox"/>
-7	Trap Primer Tapping	<input checked="" type="checkbox"/>
-8	Backwater Valve (2, 3, 4" Only)	<input type="checkbox"/>
-13	Galvanized Body	<input type="checkbox"/>
-15	Strainer Extension (DD-50)	<input type="checkbox"/>
-F4-50	4" Round Cast Iron Funnel	<input type="checkbox"/>
-F4-1	4" Round Nickel Bronze Funnel	<input type="checkbox"/>
-F6-1	6" Round Nickel Bronze Funnel	<input type="checkbox"/>
-G-50	4x9" Oval Cast Iron Funnel	<input type="checkbox"/>
-G-1	4x9" Oval Nickel Bronze Funnel	<input type="checkbox"/>
-SO	Side Outlet	<input type="checkbox"/>



Strainer Size				
Str. Dia.	Min.	Max.	Load Rating	Free Area Sq. In.
5"(127)	13/16"(21)	3 1/4"(83)	*MD	8
6"(152)	7/8"(22)	3 3/8"(86)	*MD	9
7"(178)	11/16"(17)	3 1/4"(83)	*MD	12
8"(203)	7/8"(22)	3 1/4"(83)	*MD	18
10"(254)	1 1/4"(32)	3 1/4"(83)	*MD	28

Chart B					
Pipe Size	Std. No Hub	P Push On	T Female Thread	X Inside Caulk	60/61 PVC/ABS
2"(52)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)				

NOTICE

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Precision Plumbing Products

"Specify with Confidence - Install with Pride"

**P1-500 AND P2-500 PRESSURE DROP ACTIVATED
SUBMITTAL TRAP PRIMER**

www.pppinc.net

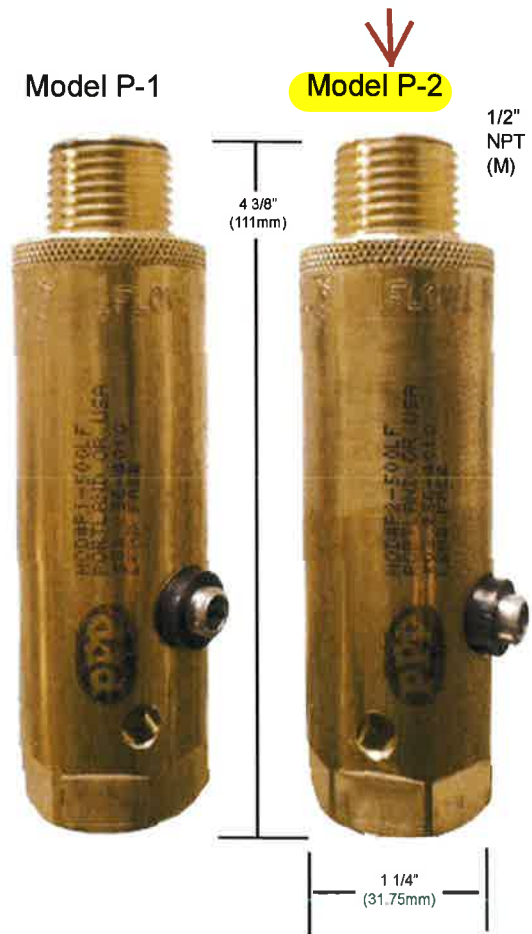
The P1-500 and P2-500 are adjustable to the static line pressure by use of the adjusting screw. System operating range is 20 psi minimum to 80 psi (138 to 552 kpa) maximum.

The valve requires a 10 psi (70 kpa) pressure drop across the valve to activate and will deliver a metered amount of water to the floor drain. The trap Primer is to be connected to a cold water supply only.

Constructed of C693 Lead Free brass, EPDM E70 O-rings, Dow #7 Silicone, #60 stainless steel mesh screen, stainless steel adjustment screw.

Model P1-500 will prime 1-4 floor drains using our patented DU-U Distribution unit.

Model P2-500 will prime 1-2 floor drains using our patented DU-U Distribution unit.



PROJECT SUBMITTAL

Project: _____

Contractor: _____

Engineer: _____

Date Submitted: _____

Prepared By: _____

**TRAP PRIMER VALVE
MODELS: P1-500 & P2-500**

**LEAD FREE
NSF/ANSI - 372- 2016**

INSTALLATION REQUIREMENTS

This valve is designed to be installed on 1/2" to 1 1/2" cold water line, feeding a flush valve or other open and closing valve supply line that is frequently used.

Trap Primer valve makeup line to floor drain is recommended to be a minimum of 12" off the finished floor before a 90° elbow can be installed.

The furthest recommended distance of makeup line is 20' to the floor drain.

Trap primer makeup line must have continuous slope to the floor drain (consult local code requirements).

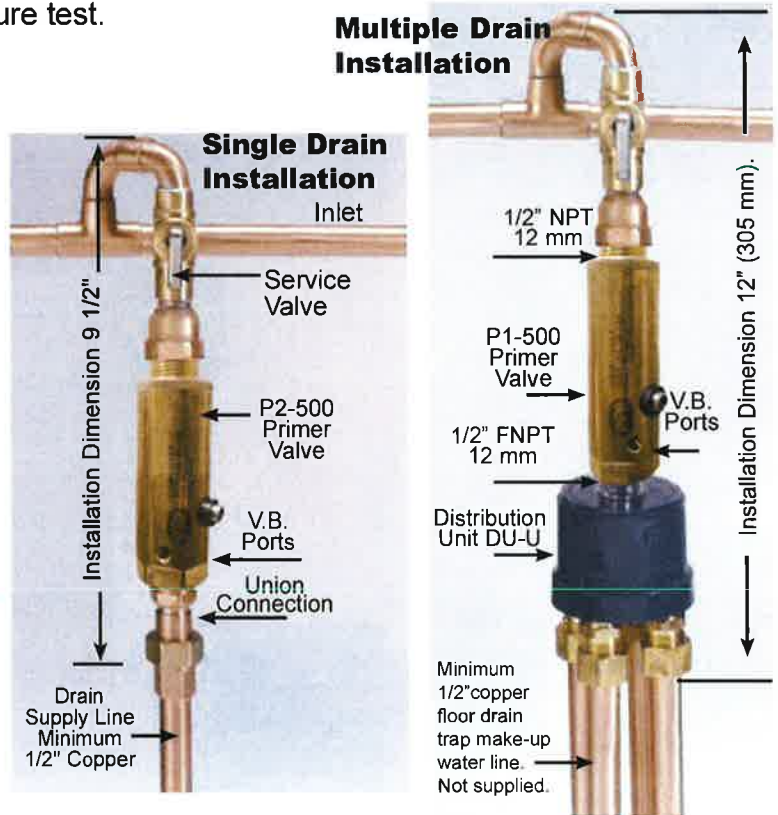
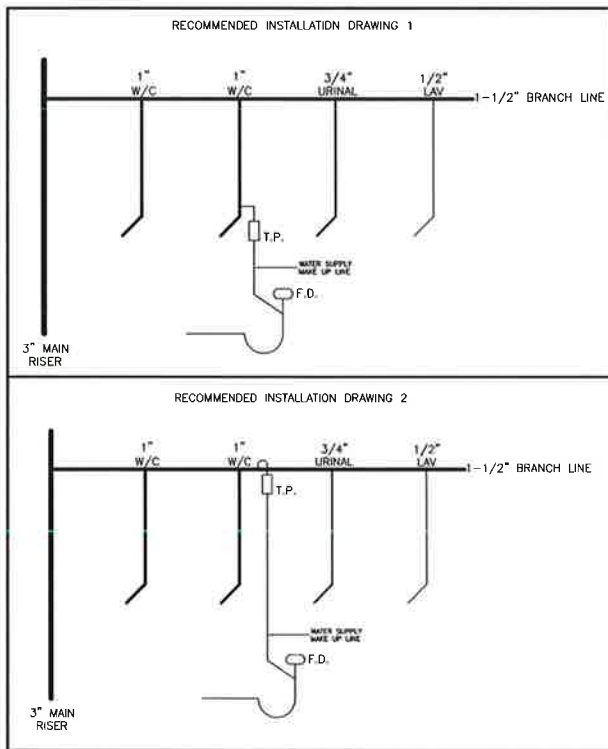
Install with a shut off valve for servicing on the inlet side and a union connection on the outlet side.

The valve must be installed level.

If using the distribution unit the clear plastic cover must be used.

Do not subject the valve to rough in pressure test.

Primer Model	# of Drains	Distribution Units
P2-500	1	N/A
P2-500	2	DU-4/DU-U
P1-500	3	DU-4/DU-U
P1-500	4	DU-4/DU-U



Precision Plumbing Products

Division of JL Industries, Inc.

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LEAD FREE
NSF/ANSI - 372 - 2016



SP-1

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

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PETTIT & PETTIT
CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY M. Tull

280-SERIES

Cast Iron Submersible Sump/Effluent Pump

Liberty Pumps®

A Family and Employee Owned Company

1/2 hp

1-1/2" Discharge

3/4" Solids Handling

Features

- Liberty Pumps unique, one-piece "Uni-Body" casting
- Quick-connect 10' standard power cord allows replacement of cord in seconds without breaking seals to motor (other lengths available)
- Permanently lubricated upper and lower bearings
- Oil-filled, hermetically sealed motor with thermal overload protection
- Stainless-steel removable bottom screen
- Stainless-steel rotor shaft
- Stainless-steel fasteners

115V Models

- 280 Manual
- 281 Wide-Angle Float Switch with Quick-connect
- 283 Wide-Angle Float Switch, Series Plug
- 287 Vertical Magnetic Float (VMF) Switch for heavy-duty sump pump applications

208-230V Models

- 280HV Manual
- 281HV Wide-Angle Float Switch with Quick-connect
- 283HV Wide-Angle Float Switch, Series Plug
- 287HV Vertical Magnetic Float (VMF) Switch

Wide-angle float switches are mercury-free, mechanically activated.



Available with
Vertical Magnetic
Float Switch



innovate. evolve.

280-Series

Impeller

Vortex style engineered polymer

Paint

Powder coat

Max Fluid Temperature

140°F (60°C) Intermittent
104°F (40°C) Continuous duty

Motor Specifications

1/2 hp 8A (115V) 4A (208/230V)
Oil-Filled; Thermally Protected
(PSC) Permanent Split Capacitor

Power Cord Type

SJTW (10' and 15' models)
SJTOOW (35' and 50' models)

Motor Housing

Class 25 cast iron

Dimensional Data

Weight: 29 lbs
Height: 13"
Major Width: 10" (Model 287)

Shaft

Stainless

Hardware

Stainless

Mechanical Shaft Seal

Unitized ceramic carbon

Bearings

Upper and lower ball bearings

Minimum Sump Diameters

Models 281, 283 14"
Model 287 10"

FACTORY SWITCH SETTINGS	MODELS 281 & 283	MODEL 287
Turn on level	13"	9.5"
Turn off level	7"	4"

The Model 283 features a fully adjustable wide-angle float switch. Differential adjustments can be made easily by tethering the float switch to the discharge pipe or other mounting point. Vertical float switch Model 287 is not adjustable.

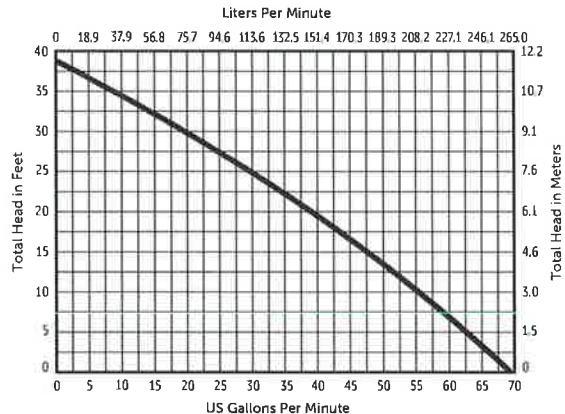
Cord Lengths

MODEL	10'	25'[-2]	35'[-3]	50'[-5]
280	Standard	Optional	Optional	Optional
281	Standard	Optional	Optional	Optional
283	Standard	Optional	Optional	N/A
287	Standard	Optional	N/A	N/A

10' cord length standard on all models. For optional lengths, add -2, -3 or -5' suffix to model number.
Example: for model 280 with 35' cord, order 280-3

Performance Curve

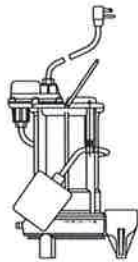
60 Hz, 3450 RPM



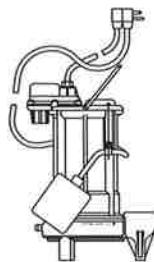
Effluent Models



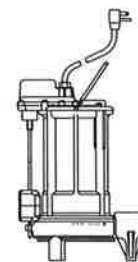
Model 280
Manual,
no float switch



Model 281
Wide-angle
float switch
with Quick-
connect



Model 283
Wide-angle
float switch
with series
(piggyback)
plug



Model 287
VMF-Series
Vertical magnetic
float switch for
smaller pits – will
operate in a 10"
diameter sump

Specifications subject to change without notice.

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Liberty Pumps - 7000 Apple Tree Avenue - Bergen, New York 14416
Phone 800-543-2550 - Fax 585-494-1839 - LibertyPumps.com

STANDARD CHECK VALVES

Liberty Pumps®

A Family and Employee Owned Company

Economy Check Valves



CV2N1 1-1/4" and 1-1/2" combo

CV150 1-1/2"

CV200 2"

- ABS valve body
- Rubber slip connect with hose clamps
- Vertical or horizontal installation
- 15 PSI rated at 104°F for CV2N1 and CV150
- 25 PSI rated at 140°F for CV200

Thread X Barb Fit



CV150-125T 1-1/2" MPT x 1-1/4" Barb

CV150-150T 1-1/2" MPT x 1-1/2" Barb

- PVC construction
- Thread directly into 1-1/2" sump pump discharge
- 30 PSI rated at 104°F

Cast Iron High-temperature 200°F



HCV150 1-1/2"

HCV200 2"

- Heavy-duty cast iron body
- Full flow
- High-temperature rubber flapper - 200°F
- 125 PSI rated
- Vertical or horizontal installation
- Female NPT connections

Ball/Check/Union Combination



BCV150 1-1/2"

BCV200 2"

- Ball/check combo provides compact design
- Heavy-duty PVC
- 150 PSI rated at 72°F
- 30 PSI rated at 140°F
- Vertical or horizontal installation
- Features union for easy disassembly
- Socket weld connections

Heavy-Duty Compression Fit



CV2N1C 1-1/4" and 1-1/2" combo

CV200C 2"

CV300C 3"



- Heavy-duty PVC
- Vertical or horizontal installation
- 150 PSI rated at 72°F for CV2N1C and CV200C
- 30 PSI rated at 140°F for CV2N1C and CV200C
- 125 PSI rated at 72°F for CV300C
- 25 PSI rated at 140°F for CV300C

STANDARD ALARMS

For Sump, Sewage and Effluent

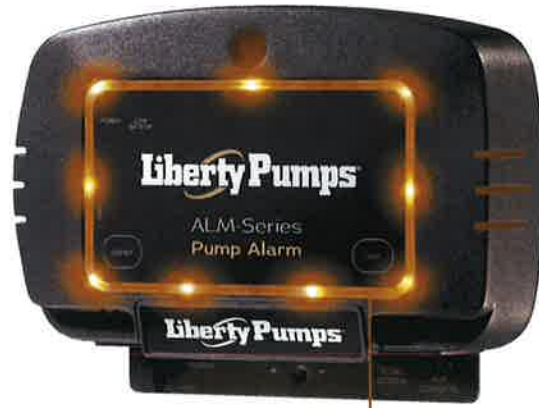
Liberty Pumps®

A Family and Employee Owned Company

ALM-Series

- Indoor rated
- 115V Operation with 9-volt battery back-up
- 86 Decibel horn
- Red LED Alarm Ring
- Green power "ON" light
- Auxiliary contacts
- Automatic alarm reset
- Alarm Test / Silence buttons
- 9-volt battery included

See ALM-EYE Series literature for Wi-Fi connected models



Patent: See LibertyPumps.com/patents

Super bright LED alarm ring

Models

- ALM-2-1 Narrow angle float switch, 10' cord
- ALM-2 Narrow angle float switch, 20' cord
- ALM-P1 Compact snap-on float switch, 10' cord
- ALM-PK Puddle sensor, 50' cord



Narrow Angle Float Switch
(Sewage/Effluent application)



Compact Snap-on Float Switch
Fits 1-1/4" or 1-1/2" pipe (Sump application)



Puddle Sensor
(For floor level sensing)

Patent: See LibertyPumps.com/patents

ALM-2W & ALM-230W

Indoor/Outdoor

ALM-2W - 115V

ALM-230W - 230V

- Meets Type 3R watertight standards
- 115V Operation, direct wire
- Thermoplastic enclosure
- Red alarm beacon
- 82 Decibel horn
- Alarm Test / Silence switch
- 20' Float switch cord
- Includes auxiliary contacts
- Easy field wiring with removable cover



ALM-3W

Commercial Outdoor

- NEMA 4X rated
- Commercial-duty enclosure
- 115V Operation, direct wire
- Red alarm beacon, 360° visible
- 88 Decibel horn
- Alarm "Test / ON / Silence" switch
- 20' Float switch cord
- Includes auxiliary contacts



RPZ

APPROVED	[]
APPROVED AS CORRECTED	[]
REVISE AND RESUBMIT	<input checked="" type="checkbox"/>
NOT APPROVED	[]

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PETTIT & PETTIT

CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY m Tull

Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

LEAD FREE*

Series **957**, 957N, 957Z Reduced Pressure Zone Assemblies

Sizes: 2½" – 10"

Series 957, 957N, 957Z Reduced Pressure Zone Assemblies provide protection to the potable water system from contamination in accordance with national plumbing codes. Series 957, 957N, 957Z are normally used in health hazard applications for protection against backsiphonage or backpressure.

Series 957 is also available with SentryPlus™ Alert technology to detect catastrophic relief valve discharge that could potentially cause flooding, and issue a multi-channel alert (call, email, text) to selected users so they can take action to avoid potentially costly flooding.

Features

- 2½", 3" and 4" sizes available with quarter-turn ball valve shutoffs
- Replaceable check disc rubber
- Extremely compact design
- 70% Lighter than traditional designs
- 304 (Schedule 40) stainless steel housing & sleeve
- Groove fittings allow integral pipeline adjustment
- Patented torsion spring checks provide lowest pressure loss
- Unmatched ease of serviceability
- Bottom mounted cast stainless steel relief valve
- Available with grooved butterfly valve shutoffs



957OSY



957ZBFG



957QT

NOTICE

Inquire with governing authorities for local installation requirements

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

NOTICE

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Specifications

The Reduced Pressure Zone Assembly shall consist of two independent torsion spring check modules, a differential pressure relief valve located between and below the two modules, two drip tight shutoff valves, and required torsion spring check modules and relief valve shall be contained with a sleeve accessible single housing constructed from 304 (Schedule 40) stainless steel pipe with groove end connections. Torsion spring checks shall have replaceable elastomer discs and in operation produce drip tight closure against the reverse flow of liquid caused by backpressure or backsiphonage. Assembly shall be a Watts Regulator Company Series 957, 957N, 957Z.

NOTICE

When installing a drain line on Series 957 backflow preventers, use 957AG air gaps. See ES-AG/EL/TC for additional information.

Available Models & Options

Suffix:

NRS – non-rising stem, resilient seated gate valves

OSY – UL/FM outside stem and yoke resilient seated gate valves

BFG – UL/FM grooved gear operated butterfly valves with tamper switch

QT – 2½" - 4" (65 - 100mm) quarter-turn ball valves

*OSY FxG – Flanged inlet gate connection and grooved outlet gate connection

**OSY GxG – Grooved inlet gate connection and flanged outlet gate connection

***OSY GxG – Grooved inlet gate connection and grooved outlet gate connection

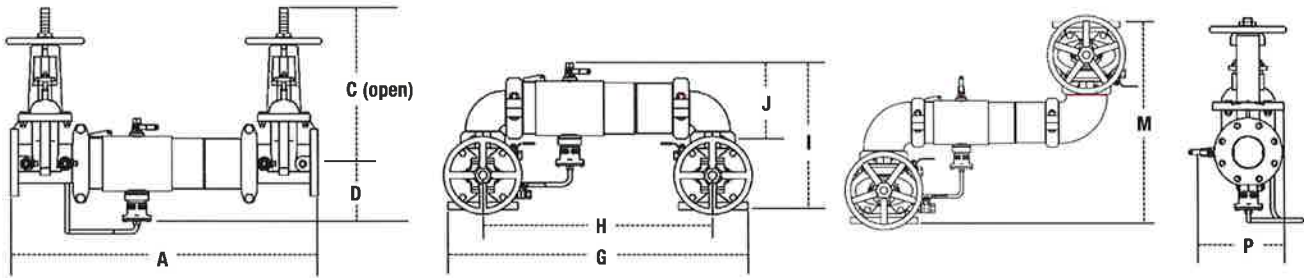
****ALERT with SentryPlus™ Alert flood detection system

*Available with grooved NRS gate valves – consult factory

**Post indicator plate and operating nut available – consult factory

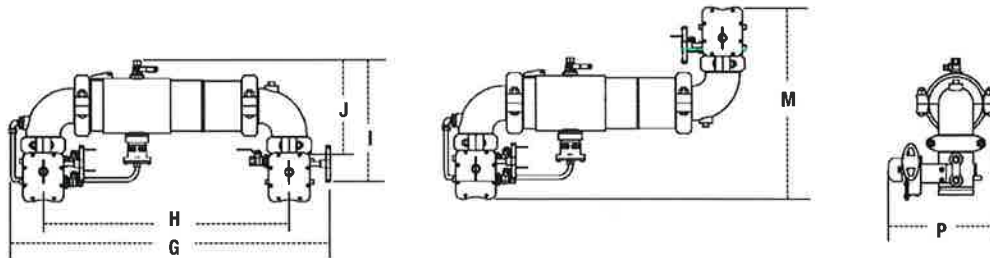
***Consult factory for dimensions

**** Not available with the 957N or 957Z



957, 957N, 957Z

SIZE	DIMENSIONS												WEIGHT															
	A		C (OSY)		C (NRS)		D		G		H		I		J		M		P		957NRS		957OSY		957N NRS		957N OSY	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
2½	30¾	781	16⅞	416	9⅞	238	6½	165	29⅞	738	21½	546	15½	393	8⅞	223	21¼	540	9⅞	234	118	54	128	58	126	57	136	62
3	31¾	806	18⅞	479	10¼	260	6⅞	170	30¼	768	22¼	565	17⅞	435	9⅞	233	23	584	10½	267	134	61	148	67	147	67	161	73
4	33¾	857	22¾	578	12¼	310	7	178	33	838	23½	597	18½	470	9⅞	252	26¼	667	11⅞	284	164	74	164	74	187	85	187	85
6	43½	1105	30⅞	765	16	406	8½	216	44¾	1137	33½	851	23⅞	589	13⅞	332	34¼	870	15	381	276	125	298	135	317	144	339	154
8	49¾	1264	37¾	959	19⅞	506	9⅞	246	54⅞	1375	40⅞	1019	27⅞	697	15⅞	399	36⅞	937	17⅞	437	441	200	483	219	516	234	558	253
10	57¾	1467	45¾	1162	23⅞	605	11⅞	285	66	1676	49½	1257	32½	826	17⅞	440	44½	1124	20	508	723	328	783	355	893	405	950	431



957NBF, 957ZBF

SIZE	DIMENSIONS						WEIGHT							
	G		H		I		J		M		P		957N/957Z	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
2½	32½	826	23	584	15½	394	9½	241	19¾	502	11⅞	300	67	30
3	34	864	24	610	16⅞	414	10⅞	256	21¼	540	12⅞	308	70	32
4	35⅞	905	25½	648	17⅞	437	10⅞	279	23½	597	12⅞	321	87	39
6	46½	1181	35¼	895	20½	521	13½	343	27¼	692	15	382	160	73

Noryl® is a registered trademark of SABIC Innovative Plastics Holding BV.

Dimensions — Weight

Materials

Housing & Sleeve: 304 (Schedule 40) Stainless Steel

Elastomers: EPDM, Silicone and Buna-N

Torsion Spring Checks: Noryl®, Stainless Steel

Check Discs: Reversible Silicone or EPDM

Test Cocks: Lead Free* Bronze Body

Pins & Fasteners: 300 Series Stainless Steel

Springs: Stainless Steel

Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC)
(Excluding 'N' Pattern – 10", 'Z' Pattern – 6" and 10")
- AWWA C511-97



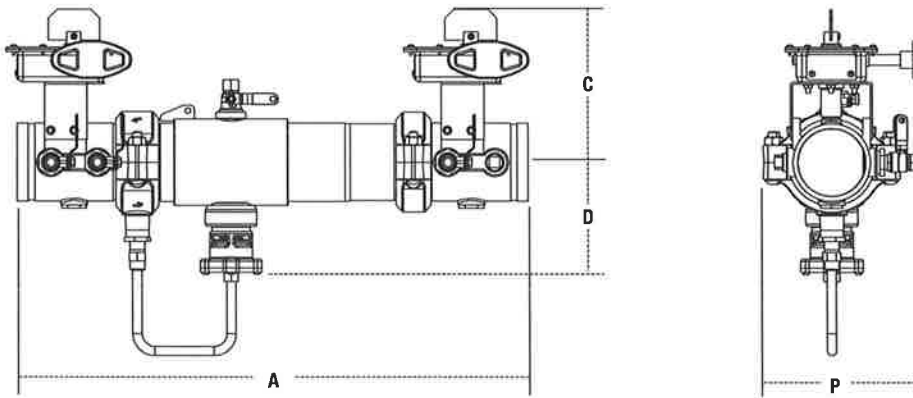
Pressure — Temperature

Temperature Range: 33°F – 140°F (0.5°C – 60°C)

Maximum Working Pressure: 175psi (12.1 bar)

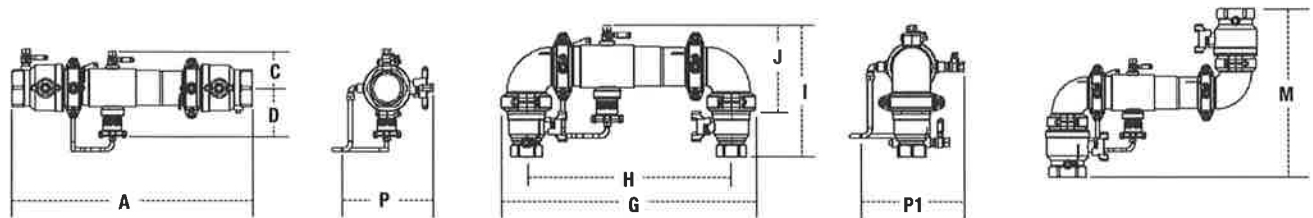
For additional approval information please contact the factory or visit our website at Watts.com

Dimensions — Weight continued



957 BFG

SIZE	DIMENSIONS								WEIGHT	
	A		C		D		P		lbs.	kgs.
in.	in.	mm	in.	mm	in.	mm	in.	mm		
4	29	737	7 ³ / ₈	197	6 ³ / ₈	162	9 ¹ / ₂	241	66	30
6	36 ¹ / ₂	927	9 ¹ / ₁₆	246	7 ⁷ / ₁₆	189	14 ¹ / ₄	362	122	55



957QT

SIZE	DIMENSIONS										WEIGHT													
	A		C		D		G		H		I		J		M		P		P1		QT		QTN	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.
2 ¹ / ₂	27 ¹ / ₂	698	4 ⁷ / ₈	124	6 ⁷ / ₈	175	30 ³ / ₄	768	21 ¹ / ₂	546	16 ¹ / ₁₆	407	11 ³ / ₈	289	19 ⁷ / ₈	505	11 ⁵ / ₁₆	287	11 ⁵ / ₁₆	287	46	21	57	26
3	28	711	4 ⁷ / ₈	124	6 ⁷ / ₈	175	30 ³ / ₄	768	22 ¹ / ₄	565	16 ⁹ / ₁₆	420	11 ³ / ₈	289	20 ⁷ / ₈	531	11 ⁵ / ₁₆	287	11 ⁵ / ₁₆	287	56	25	67	30
4	28 ³ / ₄	730	4 ⁷ / ₈	124	6 ⁷ / ₈	175	30 ³ / ₄	768	23 ¹ / ₂	597	18 ⁵ / ₁₆	465	11 ³ / ₈	289	24 ³ / ₈	619	11 ⁵ / ₁₆	287	11 ⁵ / ₁₆	287	76	34	87	39

Capacity

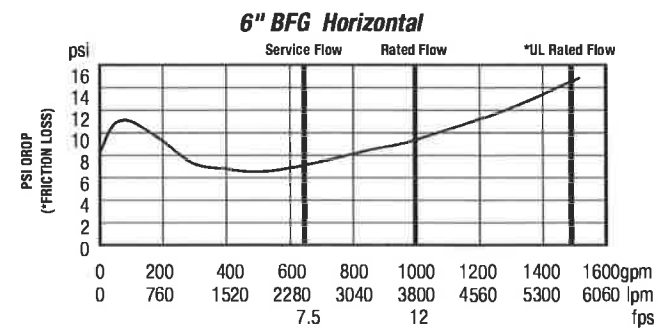
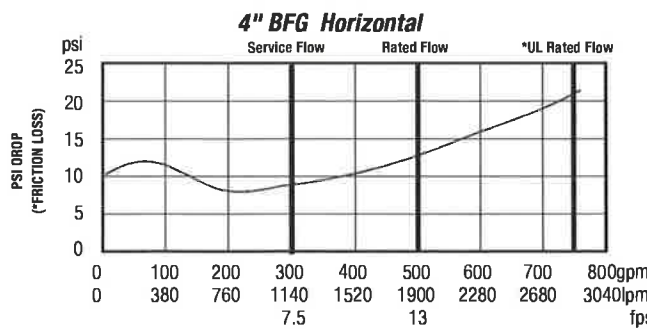
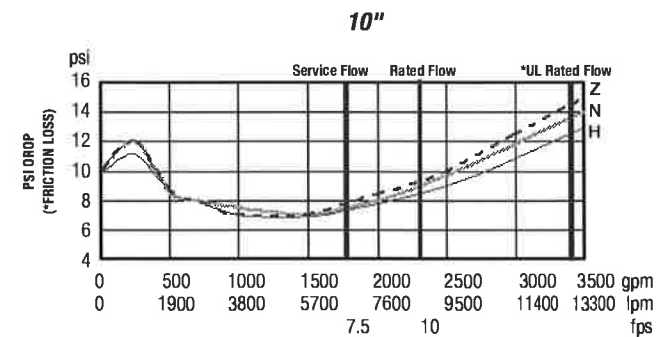
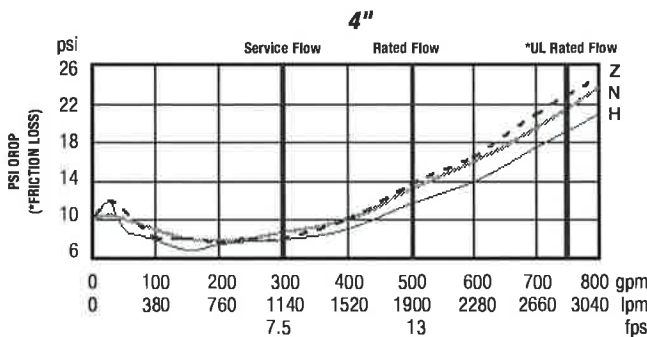
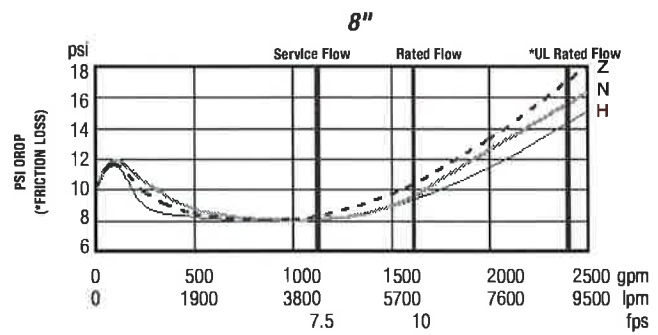
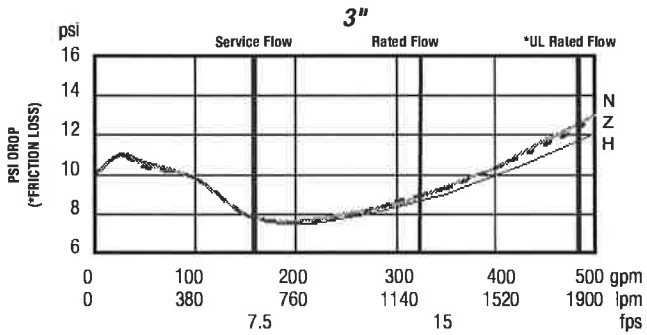
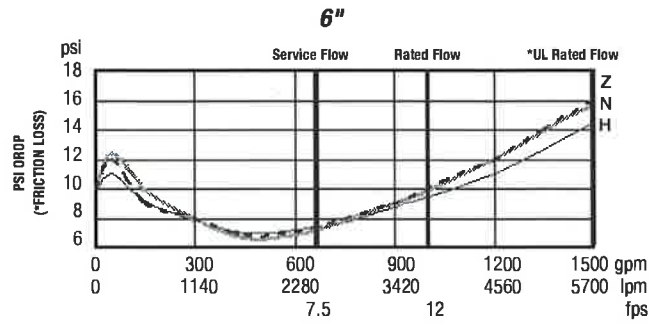
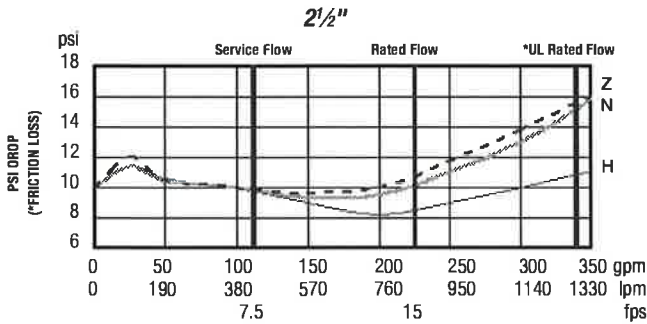
Series 957, 957N, 957Z flow curves as tested by Underwriters Laboratory.

Flow characteristics collected using butterfly shutoff valves

—— Horizontal - - - - N-Pattern ····· Z-Pattern

Flow capacity chart identifies valve performance based upon rated water velocity up to 25fps

- Service Flow is typically determined by a rated velocity of 7.5fps based upon schedule 40 pipe.
- Rated Flow identifies maximum continuous duty performance determined by AWWA.
- UL Flow Rate is 150% of Rated Flow and is not recommended for continuous duty.
- AWWA Manual M22 [Appendix C] recommends that the maximum water velocity in services be not more than 10fps.



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 Canada: T: (888) 208-8927 • F: (888) 479-2887 • Watts.ca
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Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

LEAD FREE*

Series 77F-DI-125, 77F-DI-FDA-125

Flanged, Wye Pattern, Cast Iron Strainers

Sizes: 2" – 12"

Series 77F-DI-125, 77F-DI-FDA-125 Flanged, Wye Pattern, Cast Iron Strainers feature 304 stainless steel perforated screens, a cast iron flanged retainer cap and a drain/blowoff connection furnished with a closure plug. Series 77F-DI-FDA-125 also features a double coated, heat fused epoxy coating on the interior and exterior for FDA approved sanitary applications.

Features

- Flanges conform to American National Standards Institute, Class 125 (ANSI B16.1) and WW-S-2739 Type 2
- Lead Free* cast iron body
- 304 Stainless steel perforated screens
- Cast iron flanged retainer cap with gasket tapped for closure plug
- Drain/Blowoff connection furnished with closure plug
- Series 77F-DI-FDA-125 comes with heat fused FDA approved epoxy coating (interior and exterior)

Models

77F-DI-125 — 2" – 12" with flanged connections for water and steam service

77F-DI-FDA-125 — 2" – 12" with flanged connections and double coated, heat fused FDA approved epoxy coating (interior and exterior) for water service only

Specifications (77F-DI-125)

A flanged, wye pattern, cast iron strainer to be installed as indicated on the plans. The strainer must have flanges that conform to American National Standards Institute, Class 125, 304 stainless steel perforated screens and a drain/blowoff connection furnished with a closure plug. Pressure rating no less than 200psi (13.8 bar) WOG non-shock and 125psi (8.6 bar) WSP. Strainer shall be a Watts Series 77F-DI-125.

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.



77F-DI-FDA-125

Pressure – Temperature

Maximum Operating Pressure:
 200psi (13.8 bar) WOG, non-shock, @ 210°F (99°C)
 125psi (8.6 bar) WSP @ 353°F (178°C)
 Optional Epoxy Coating: 140°F (60°C) Maximum

Standard Screens

2" – 5": 1/16" perforation
 6" – 8": 1/8" perforation
 10" – 12": 3/16" perforation

Screen Options

Wire Mesh Liners: 304 stainless steel (#20, #40, #60, #80, #100)
 Perforated Screens: 304 stainless steel (3/64", 1/16", 1/8", 3/16")

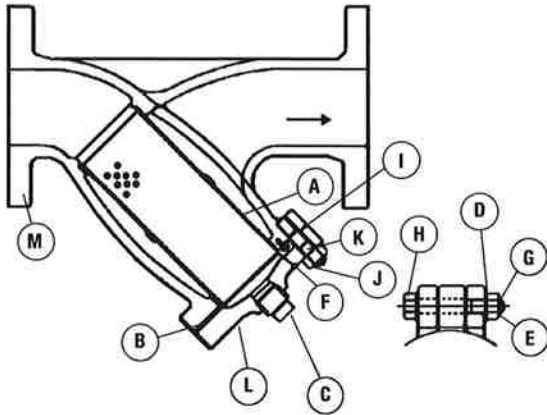
Specifications (77F-DI-FDA-125)

A flanged, wye pattern, cast iron strainer with a double coated, heat fused, FDA approved epoxy coating on the interior and exterior surfaces for FDA sanitary applications. Flanges to conform to ANSI B16.1 Class 125, 304 stainless steel perforated screens, and a drain/blowoff connection furnished with a closure plug. Pressure rating 200psi (13.8 bar) WOG. Strainer shall be a Watts Series 77F-DI-FDA-125.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Materials



- | | | |
|----|----------------|---------------------|
| A. | Screen | AISI 304SS |
| B. | Cover Gasket | Graphite |
| C. | Plug | *ASTM A47 |
| D. | Washer | ASTM A6 |
| E. | Cotter Pin | ASTM A112 |
| F. | Plate | *ASTM A6 |
| G. | Bolt Nut | ASTM A6 |
| H. | Bolt | ASTM A6 |
| I. | Set Screw | ASTM B16 |
| J. | Cover Bolt Nut | ASTM A6 |
| K. | Cover Bolt | ASTM A6 |
| L. | Cover | *ASTM A-126 Class B |
| M. | Body | *ASTM A-126 Class B |

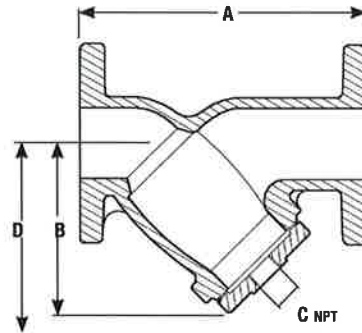
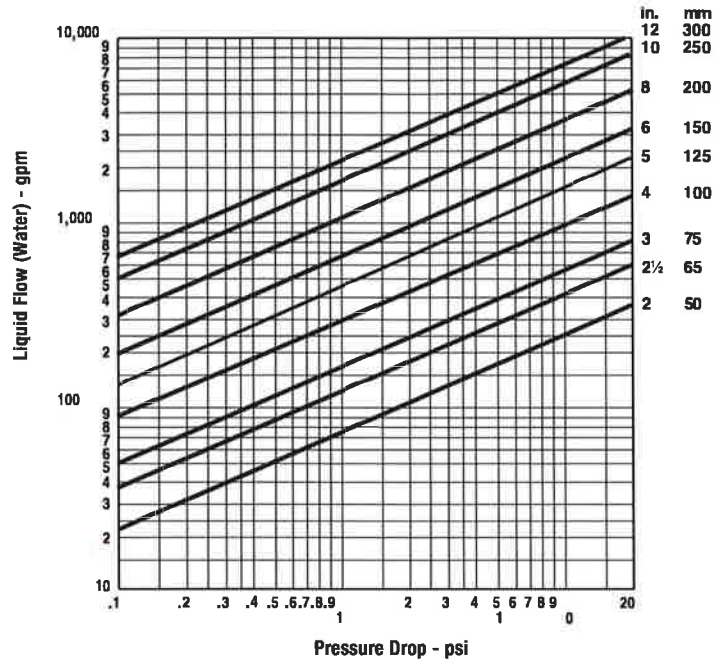
Note: * 77F-DI-FDA-125 component parts epoxy coated internally and externally.

Standards

Tested and Certified by NSF International



Flow/Pressure Drop Chart



Dimensions – Weights

SIZE	DIMENSIONS						WEIGHT				
	A in.	A in.	B mm	B in.	C(NPT) in.	C(NPT) mm	D* in.	D* mm	Screen Area sq.in.	lbs.	kgs.
2	7 $\frac{1}{2}$	200	5 $\frac{1}{4}$	133	$\frac{1}{2}$	13	7	178	36	18	8
2 $\frac{1}{2}$	10	254	6 $\frac{1}{2}$	165	1	25	9 $\frac{3}{4}$	248	56	28	13
3	10 $\frac{1}{2}$	257	7	178	1	25	10	254	75	34	15
4	12 $\frac{1}{2}$	308	8 $\frac{1}{4}$	210	1 $\frac{1}{2}$	38	12	305	121	60	27
5	15 $\frac{1}{2}$	397	11 $\frac{1}{4}$	286	2	51	17	432	210	95	43
6	18 $\frac{1}{2}$	470	13 $\frac{1}{2}$	343	2	51	20	508	278	133	60
8	21 $\frac{1}{2}$	551	15 $\frac{1}{2}$	394	2	51	22 $\frac{3}{4}$	578	387	247	112
10	26	660	18 $\frac{1}{2}$	470	2	51	28	711	577	370	168
12	29 $\frac{1}{2}$	759	21 $\frac{3}{4}$	552	2	51	30	762	795	579	262

* D dimension is minimum clearance for screen removal.



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Air Gaps, Elbows and Test Cocks

Job Name ATU Jones Hall
 Job Location Russellville
 Engineer Pettit and Pettit
 Approval _____

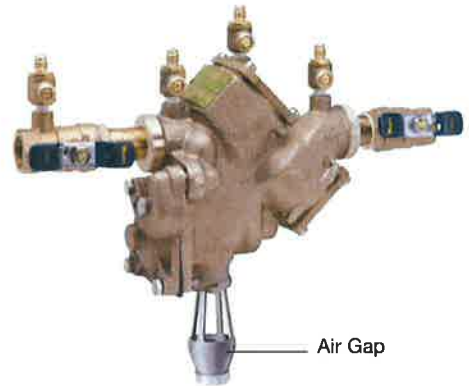
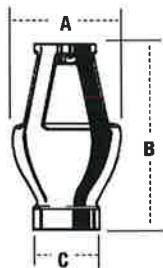
Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

Air Gaps, Elbows and Test Cocks for Reduced Pressure Zone Assemblies

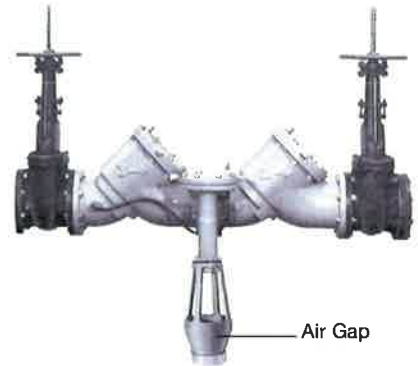
Air Gaps

An air gap provides the unobstructed, physical separation between the discharge end of a potable water supply line and an open receiving vessel.

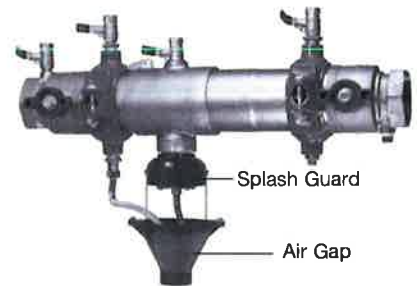
The installation of an air gap and drain line are recommended.



909 QT/LF909 QT



909 OSY/ LF909 OSY



957 QT

MODEL	ORDER-CODE	SERIES/ SIZES	DIMENSIONS			WEIGHT				
			A	B	C (NPT)	lbs	kg			
			in.	mm	in.	mm	in.	mm		
909AGA	0881399	1/2" - 1/2" 009/LF009 3/4" 009/LF009M2/M3 1/2" - 1" 995	2 3/8	60	3 1/8	79	1/2	13	.63	.28
909AGC	0881376	3/4" - 1" 009/LF009, 909/LF909 1" - 1 1/2" 009/LF009M2 1 1/4" - 2" 995	3 3/4	83	4 7/8	124	1	25	1.50	.68
909AGF	0881378	1 1/4" - 3" 009/LF009, 909/LF909 1 1/4" - 2" 009/LF009M1 2" 009/LF009M2	4 3/8	111	6 3/8	171	2	51	3.25	1.47
909AGK	0881385	4" - 6" 909/LF909 4" - 10" 909RPDA 8" - 10" 909/LF909M1	6 3/8	162	9 3/8	244	3	76	6.25	2.83
909AGM	0881387	8" - 10" 909/LF909	7 3/8	187	11 1/4	286	4	102	15.50	7.03
919 AGC	0881576	3/4" - 1" 919/LF919	2 3/8	60	3 1/8	79	1/2	13	0.63	0.28
919 AGF	0881577	1 1/4" - 2" 919/LF919	4 3/8	111	8 1/2	216	2	51	3.5	1.6
957AG	0111764	2 1/2" - 10" 957	7 1/2	190	12	304	2	51	1.50	.68
Splash Guard										
994AGK-P	0881397	2 1/2" - 10" 994	8	203	11 1/4	286	2	51	1.50	0.68
995-AG	0439190	3" - 6" 995	5	127	8	203	2	51	-	-
957AG	0111815	2 1/2" - 10" 957	4 3/8	119	2 1/2	62	-	-	.4	0.18

NOTICE

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NOTICE

Inquire with governing authorities for local installation requirements

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



ECO

APPROVED	<input checked="" type="checkbox"/>
APPROVED AS CORRECTED	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
NOT APPROVED	<input type="checkbox"/>

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, or to techniques of construction, and for coordination of the work of all trades.

PETTIT & PETTIT
CONSULTING ENGINEERS, INC.

DATE 22 October 22 BY M Tull

Engineering Specification

Job Name **ATU Jones Hall**
 Job Location **Russellville**
 Engineer **Pettit and Pettit**
 Approval _____
 Tag **ECO**

Contractor **Comfort Systems USA**
 Approval _____
 Contractor's P.O. No. _____
 Representative **Sanders Supply**

CO-200-RX-4

Floor Cleanout with Ductile Iron Top Specification

Watts Drainage CO-200-RX-4 epoxy coated cast iron floor cleanout with 5"(127) round adjustable gasketed heavy duty ductile iron top, removable gas tight gasketed brass cleanout plug, and no hub (standard) outlet.



Pipe Sizing		
Suffix	Description	
2	2"(51) Pipe Size	<input type="checkbox"/>
3	3"(76) Pipe Size	<input type="checkbox"/>
4	4"(102) Pipe Size	<input type="checkbox"/>

Outlet Type		
Suffix	Description	
NH	No Hub (MJ)	<input type="checkbox"/>
P	Push On	<input checked="" type="checkbox"/>
X	Inside Caulk	<input type="checkbox"/>

Options		
Suffix	Description	
-C	Membrane Clamp	<input type="checkbox"/>
-6	Vandal Proof	<input type="checkbox"/>
-13	Galvanized Body	<input type="checkbox"/>

Optional Body Material		
Suffix	Description	
-60	PVC Body w/Poly Plug	<input type="checkbox"/>
-61	ABS Body w/Poly Plug	<input type="checkbox"/>

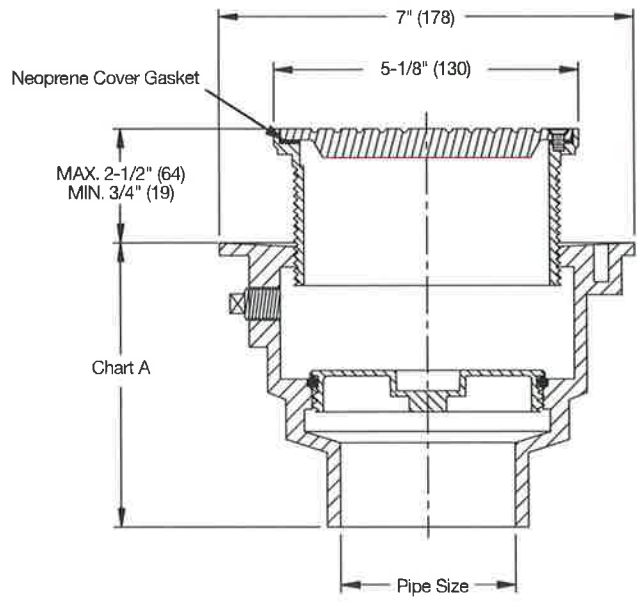


Chart A

	NH(MJ)	P	60/61
Pipe Size	No Hub	Push On	PVC/ABS
2"	4-1/2" (114)	5-1/2" (140)	4" (102)
3"	4-1/2" (114)	5-1/2" (140)	4" (102)
4"	4-3/4" (121)	5-1/2" (140)	4" (102)

Load Rating
*XHD

*The load classifications are in accordance with the American National Standards ASME A112.21.1M ASME Ratings are as follows:
 XHD - Safe Live Load 7500-10000 lbs.(3375-4500kg)
 The above categories are given as a guide only. Please consult factory.

NOTICE

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