



INSTALLATION INSTRUCTIONS DOUBLE, TRIPLE AND QUADRUPLE STATION SENSOR OPERATED SOLID SURFACE LAVATORY SYSTEMS



EWF-42000
Double Station
Solid Surface Corner Lavatory System



EWF-43000
Triple Station
Solid Surface Lavatory System

EWF-42000

Double Station
Sensor Operated
Solid Surface Corner Lavatory System

EWF-43000

Triple Station
Sensor Operated
Solid Surface Lavatory System



EWF-44000
Quadruple Station
Solid Surface Lavatory System

EWF-44000

Quadruple Station
Sensor Operated
Solid Surface Lavatory System

Made in the U.S.A.

Installation of the Sloan Optima EWF-40000 Series Solid Surface, sensor operated lavatory systems make wash-up totally "hands-free," providing the ultimate in sanitary protection and automatic operation. The lavatory systems use infrared technology to sense the user's presence and turn on a water supply that has been pre-mixed to the desired water temperature. When the user's hands are removed from the invisible beam of light, the water supply automatically turns off.

The Optima EWF-40000 Series Lavatory System is designed for easy installation and maintenance. All system components are pre-plumbed and assembled at the

factory. The Optima EWF-40000 Series Lavatory System comes complete with Optima Sensor (including 24 VAC solenoid valve and transformer), spouts, and can be supplied with juvenile height cabinet, thermostatic mixing valve and soap dispenser.

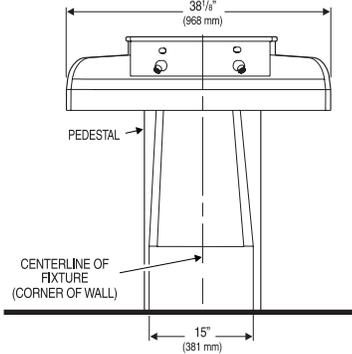
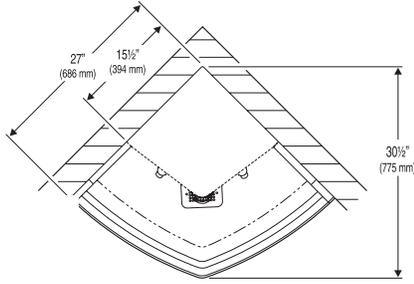
The following instructions will serve as a guide when installing the Sloan Optima Lavatory System. As always, good safety practices and care are recommended when installing your new Lavatory System. If further assistance is required, contact your nearest Sloan Representative office or the Sloan Installation Engineering Department.

LIMITED WARRANTY

Sloan Valve Company warrants its Optima EWF-40000 Series Lavatory Systems to be made of first class materials, free from defects of material or workmanship under normal use and to perform the service for which they are intended in a thoroughly reliable and efficient manner when properly installed and serviced, for a period of three years (1 year for special finishes) from date of purchase. During this period, Sloan Valve Company will, at its option, repair or replace any part or parts which prove to be thus defective if returned to Sloan Valve Company, at customer's cost, and this shall be the sole remedy available under this warranty. No claims will be allowed for labor, transportation or other incidental costs. This warranty extends only to persons or organizations who purchase Sloan Valve Company's products directly from Sloan Valve Company for purpose of resale.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO EVENT IS SLOAN VALVE COMPANY RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY MEASURE WHATSOEVER.

LAVATORY SYSTEM ROUGH-IN

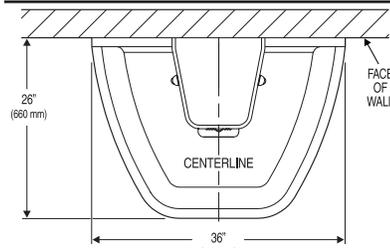
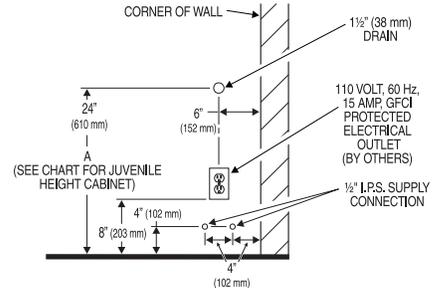
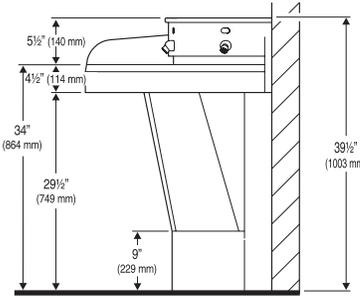


VARIABLE MOUNTING HEIGHT CHART — ALL MODELS				
WHEELCHAIR	DIMENSION DESCRIPTION	T.A.S. AGES 4-10	T.A.S. AGES 11-15	A.D.A. STANDARD
A	ROUGH-IN	20 1/2" (521 mm)	22 1/2" (572 mm)	24" (610 mm)
B	KNEE CLEARANCE	26" (660 mm)	28" (711 mm)	29 1/2" (749 mm)
C	RIM HEIGHT	30" (762 mm)	32" (813 mm)	33 1/2" (851 mm)
D	TOE CLEARANCE	13 1/2" (343 mm)	15 1/2" (394 mm)	17" (432 mm)

Double Station Corner Lavatory System

MODEL EWF-42000 — 0.5 gpm (1.9 Lpm) Max. — Aerator

SINK WEIGHT (Empty) — 120 Lbs. (54 Kg)

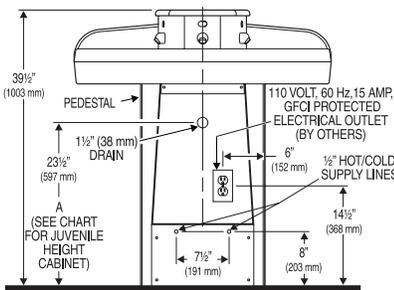


Floor Mounted Cabinet

Triple Station Lavatory System

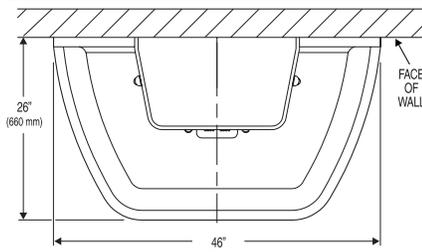
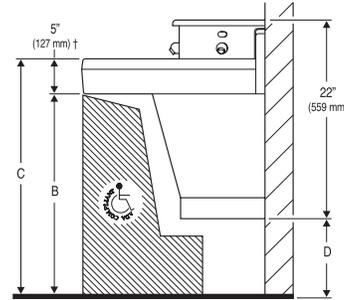
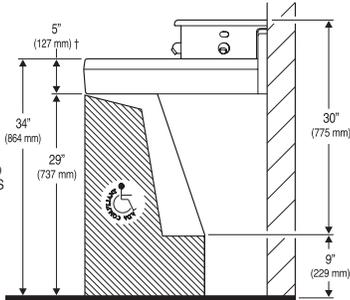
MODEL EWF-43000 — 0.5 gpm (1.9 Lpm) Max. — Aerator

SINK WEIGHT (Empty) — 140 Lbs. (63 Kg)



Standard Height Cabinet

Juvenile Height Cabinet

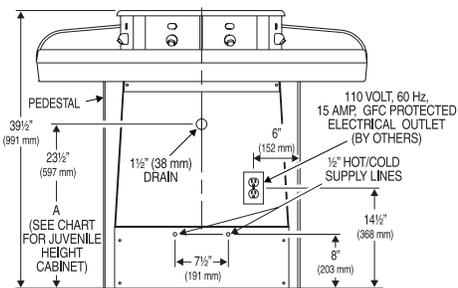


Floor Mounted Cabinet

Quadruple Station Lavatory System

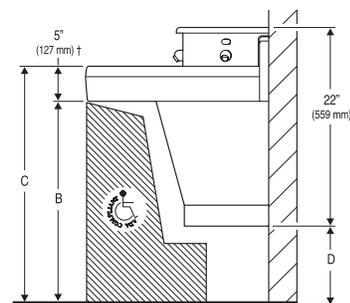
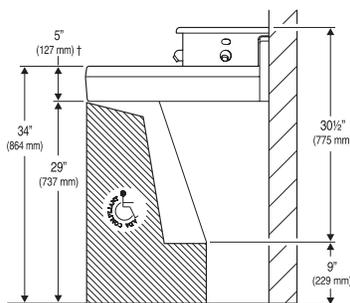
MODEL EWF-44000 — 0.5 gpm (1.9 Lpm) Max. — Aerator

SINK WEIGHT (Empty) — 170 Lbs. (77 Kg)



Standard Height Cabinet

Juvenile Height Cabinet



PRIOR TO INSTALLATION

Prior to installing the Sloan Optima EWF-40000 Series Lavatory System, install the items listed below. Also, refer to the appropriate rough-in diagram on Page 2.

- **Plug-In Transformer** — Install electrical receptacle(s) for plug-in transformer(s) — 120 VAC, 2 amp service for each ETF-233 (24 VAC, 35 VA) plug-in transformer used.
- Hot and cold water supply lines or tempered water supply line
- Drain line

Important:

- *ADEQUATE STRUCTURAL SUPPORT IN OR BEHIND THE WALL IS REQUIRED. REFER TO THE APPROPRIATE ROUGH-IN DIAGRAM ON PAGE 2 FOR DRY WEIGHT OF SINK. STRUCTURAL SUPPORT MUST HAVE A MINIMUM PULLOUT RATING OF 1000 POUNDS (450 Kg).*
- *ALL ELECTRICAL WIRING SHOULD BE INSTALLED IN ACCORDANCE WITH NATIONAL/LOCAL CODES AND REGULATIONS.*
- *ALL PLUMBING SHOULD BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.*
- *A 24 VAC STEP-DOWN TRANSFORMER MUST BE USED FOR HARDWIRE APPLICATIONS.*
- *DO NOT PLUG TRANSFORMER INTO POWER SOURCE (RECEPTACLE) UNTIL ALL WIRING IS COMPLETED. PERMANENT DAMAGE TO THE TRANSFORMER AND*

CIRCUIT CONTROL MODULE WILL RESULT IF 24 VAC WIRES TOUCH EACH OTHER OR SHORT WHEN POWER SUPPLY IS ACTIVE.

- *BEFORE CONNECTING FLEX HOSES TO SUPPLY STOPS, FLUSH ALL WATER LINES UNTIL WATER IS CLEAR.*

TOOLS REQUIRED FOR INSTALLATION

- Electric drill for drilling anchor holes.
- Socket or open end wrench for installing anchoring fasteners.
- Open end wrench for connecting water lines.
- Pipe wrench for installing drain line.

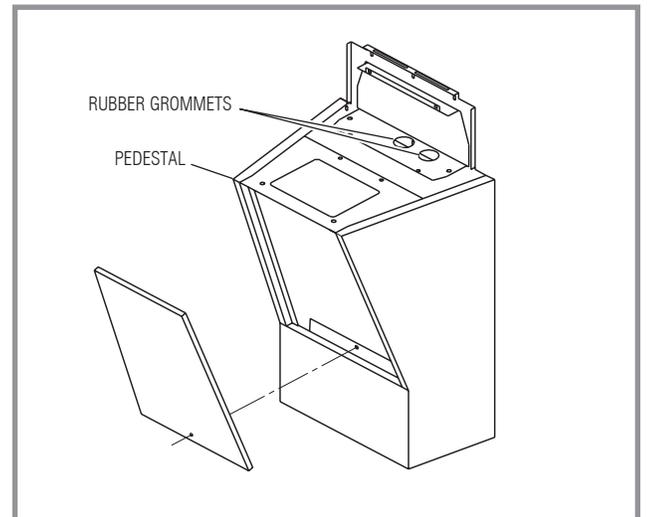
SINK LOCATION

Determine the appropriate wall location for the Lavatory System. Consider that hot and cold water supply lines, a drain line, and an electrical source (receptacle) will be required. Compare the physical dimensions of the Lavatory System to the space available for the installation. If wall is not load bearing, a carrier may be required behind the wall. Refer to the appropriate Rough-in diagram on Page 2 for Lavatory System dimensions. Prior to Lavatory System installation, electric wiring, plumbing supply and drain must be installed.

INSTALLATION INSTRUCTIONS

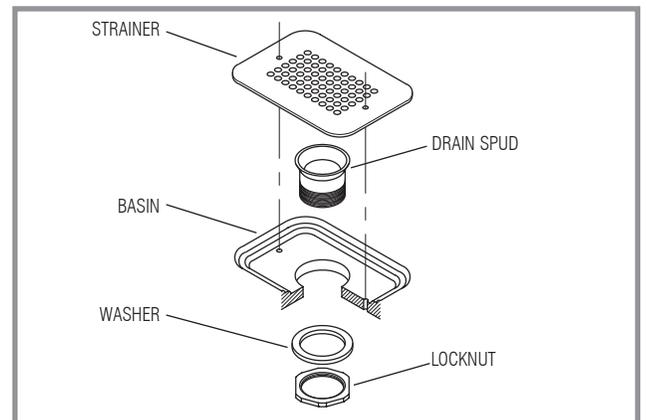
Step 1 — Pedestal Mounting

- Measure and mark the centerline of the Washfountain on the wall and floor.
Note: For off-the-floor units, mark a level horizontal line at 36½" above the finished floor for a rim height of 34".
- Place Back Panel against wall and align the three middle mounting holes with the centerline marked on wall. Back Panel must be level and plumb against the wall so that water in Basin will drain correctly once assembly is completed.
Note: For off-the-floor units, align top of pedestal with the horizontal line.
- Drill holes in wall at all mounting hole locations on the back panel.
- Secure Pedestal to wall using bolts, washers and wall anchors that are suitable for your specific type of wall: drywall, concrete, metal studs, wood studs, etc. (Wall anchors supplied by installer.)
- Once Pedestal is secured to the wall, locate the 2 (two) Rubber Grommets (supplied) and insert them into the 2 (two) 1¾" diameter holes located on top of Pedestal.



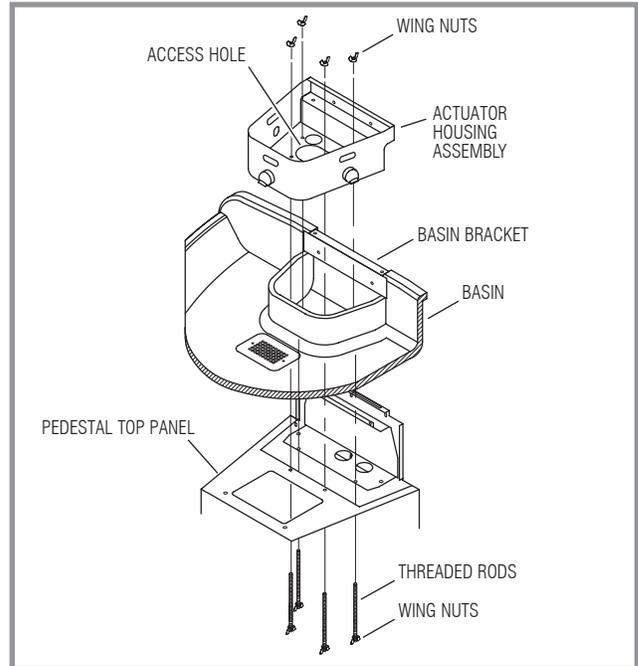
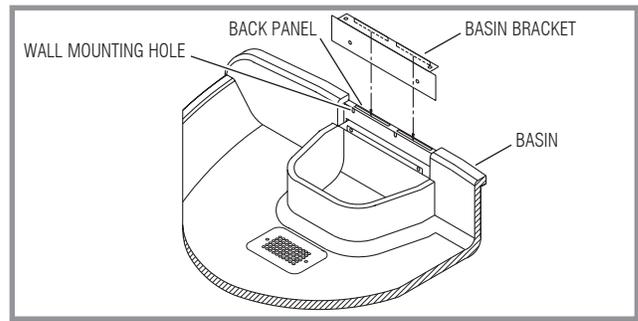
Step 2 — Strainer Installation

- Insert Drain Spud into Basin using plumbers putty (supplied by installer).
- From beneath Basin, install the Washer and Locknut onto the Drain Spud and secure Locknut against Basin.
- Install Strainer using the 2 (two) #10-24 x ½" flat Phillips-head screws supplied.



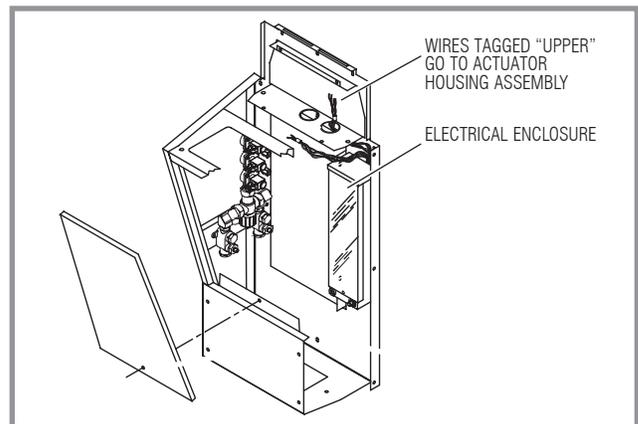
Step 3 — Head and Basin Assembly

- A** With the help of an assistant, carefully lift Basin onto Pedestal.
- Caution:** Do not leave bowl on pedestal unsupported. It may fall and cause damage or personal injury.
- B** From beneath Basin, align the 4 (four) threaded brass inserts of Basin with the 2 (two) holes on Pedestal Top Plate and the 2 (two) holes on the Back Panel.
- C** Secure with 4 (four) ¼-20 x ½” security screws (do not fully tighten screws).
- D** Locate the Basin Bracket, and slide Tinnerman nuts over the top 2 (two) holes. Find the tabs on the back of the Bracket. Slide tabs into the slots on the top of the Back Panel.
- E** Swing the Basin Bracket down so that it holds the Basin firmly in place.
(**Note:** The basin bracket is designed to fit tightly so that it pulls the basin firmly against the wall.)
- F** Using 2 (two) security screws, secure Basin Bracket in place. Tighten screws referred to in Step “C” (tighten back two screws first, then front two screws).
- G** Locate the Actuator Housing Assembly and the 2 (two) remaining Rubber Grommets. Turn the Actuator Housing Assembly over and insert a Rubber Grommet into each of the 1¼” diameter holes.
- H** Turn the Actuator Housing Assembly back over and set it on top of the Basin. Position it so that the 2 (two) holes near the back of the Actuator Housing Assembly line up with the 2 (two) holes on top of the Basin Bracket. Using 2 (two) ¼-20 x ½” security screws, secure in place (do not fully tighten screws).
- I** Locate the 4 (four) 6” Threaded Rods and 8 (eight) ¼-20 Wing Nuts.
- J** Thread one Wing Nut onto each Threaded Rod, just until the threads come through the other side.
- K** Place 1 (one) Threaded Rod down through the large oblong Access Hole in the center of the Actuator Housing Assembly. Feed the Threaded Rod back up through one of the 4 (four) holes on the Pedestal Top Panel and through the corresponding hole in the Actuator Housing Assembly. Thread a Wing Nut onto the end of the Threaded Rod and tighten securely. Repeat the process for the other holes. Tighten the 2 (two) screws referred to in Step “H.”



Step 4 — Sensor Connection

- A** Locate the group of colored wires tagged “upper” coming from the top of the Electrical Enclosure. Feed that group of wires up through the middle of the Basin and into the Actuator Housing Assembly through the Right Grommets.
- Note:** Use wire tie mounts and wire ties to route and secure wiring. Wires are long enough to accommodate various routing paths. Longer wires may need to be bundled with wire ties so they do not come in contact with sharp corners.
- B** Plug like-colored wires into each Sensor; e.g., two red wires to one Sensor, two orange wires to another Sensor, etc. Like-colored wires can be connected to either connector of the same Sensor.
- C** Locate the 3/8” x 4’ colored Tubing Water Lines and run them up into the Actuator Housing Assembly through the Left Grommets. Match the color of Tubing and Wire for each station; e.g., Red Wires are connected to one Sensor, and the Red colored Tubing must be connected to that Sensor’s Spray Head. Loosen the Plastic Nut of each Spray Head and firmly push the Tubing into the appropriate Straight Connectors. Tighten Nuts securely.



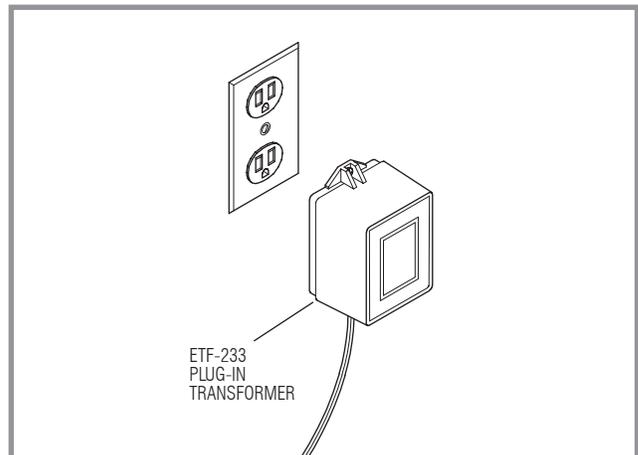
Step 5 — Drain and Water Supply Line Connection

- A** Install P-trap and drain lines making sure all connections are secure.
- Note:** P-trap and drain lines furnished by others.
- B** Flush supply line(s) of any debris. Install Flex Hose(s) to water supply line(s). Tighten fitting(s) securely

Step 6 — Supply Power to Lavatory System

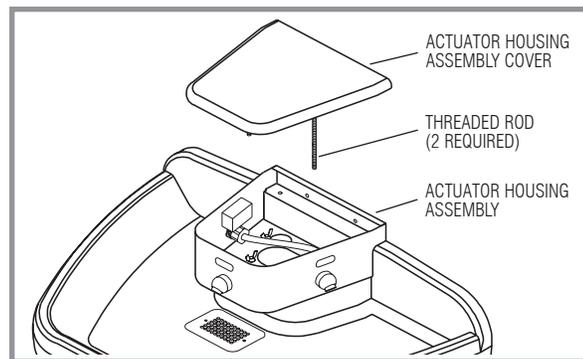
Make sure that power is supplied to the receptacle. Once all wiring within the system is connected, plug the Transformer into the receptacle.

Important: Plug-in Transformer **MUST** be used with a Ground Fault Interrupt (GFCI) Receptacle to help prevent possible electrical shock.



Step 7 — Final Assembly

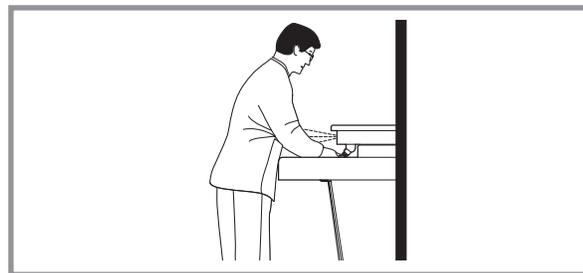
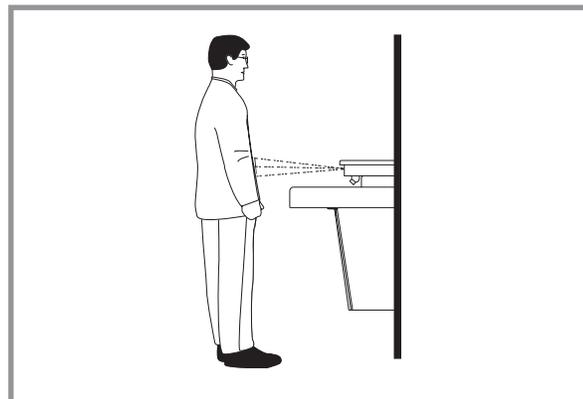
- A** Turn the Actuator Housing Assembly Cover over and screw a 1/4"-20 x 12" Threaded Rod into each of the 2 (two) threaded inserts.
- B** Install the Actuator Housing Assembly Cover guiding the Threaded Rods through the holes in the Actuator Housing Assembly.
- C** From inside the Pedestal Base, install the 2 (two) Wing Nuts onto the 2 (two) Threaded Rods. Tighten Wing Nuts securely.



Step 8 — Start-Up

- A** Turn on water supply to lavatory system. Check for leaks at water supply and drain lines. Repair any leaks.
- B** With Aerator removed, activate Spray Head for 30 seconds by standing in front of the Spray Head. The Solenoid Valve should "click," Sensor LED indicator should blink and water should flow from the Spray Head. If this does not occur, refer to the Troubleshooting section of this instruction manual.
- C** Close Supply Stops and reinstall Aerator (using the Key provided). Reopen Supply Stops, activate Spray Head and check for leaks.

Optima EWF-40000 Series Lavatory Systems are equipped with EL-1500-LL self adaptive infrared sensor. No adjustment is necessary. Self adaptive range will operate when user is 25 to 45 inches (636 to 1143 mm) from the Sensor.

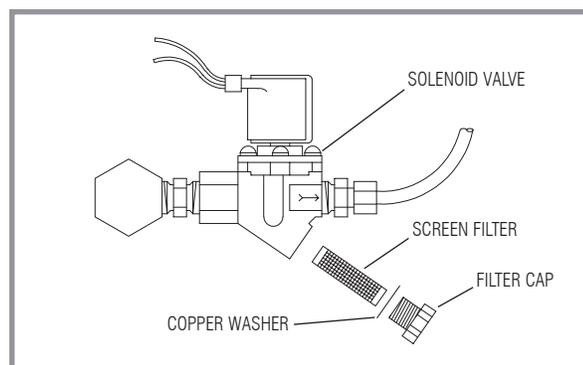


OPERATION

As the user enters the beam's effective range, the beam is reflected back into the sensor receiver and activates the solenoid valve allowing water to flow from the Spray Head. Water will flow until the user steps away from the spray head or until the automatic time out limit setting is reached.

SOLENOID SCREEN FILTER CLEANING

- A** Before cleaning the Screen Filter, turn off the water supply at supply stop(s).
- B** Activate the Spray Head to relieve any pressure in the system.
- C** Unscrew the Filter Cap and remove it from the Solenoid Valve Housing.
- D** Carefully remove the Screen Filter from the Solenoid Valve Housing.
- E** Clean the Screen Filter using fresh tap water only. If necessary, use a small brush to clean. Use caution while cleaning to prevent damage to Screen Filter.
- F** Examine the Copper Washer for wear or damage; replace if necessary. Carefully replace the Screen Filter into the Filter Cap. Screw the Filter Cap with Copper Washer into the Solenoid Valve Housing and tighten securely to prevent leaks.
- G** Turn on the water supply at the supply stop(s). Activate the Spray Head to purge any air from the system lines. Check for leaks and repair as necessary.



CARE AND CLEANING OF CHROME & SPECIAL FINISHES

DO NOT use abrasive or chemical cleaners (including chlorine bleach) to clean spray head as they may dull the luster and attack the chrome or special decorative finishes. Use ONLY soap and water, then wipe dry with clean cloth or towel.

While cleaning the bathroom tile, the faucet should be protected from any splattering of cleaner. Acids and cleaning fluids will discolor or remove chrome plating.

TROUBLESHOOTING GUIDE

I. No water flows when sensor is activated

Ensure that main power supply is turned "ON." Check receptacle, transformer, solenoid, leads and connections.

If Sensor LED does not blink:

- A. Control module circuit board is faulty; replace.
- B. Sensor is faulty; replace sensor module.

If Sensor LED blinks when user is sensed:

- A. Supply Stop(s) may be closed; open Supply Stop(s).

- B. Debris may be in Solenoid filter; remove, clean and reinstall.

II. Very low flow or slow dribble

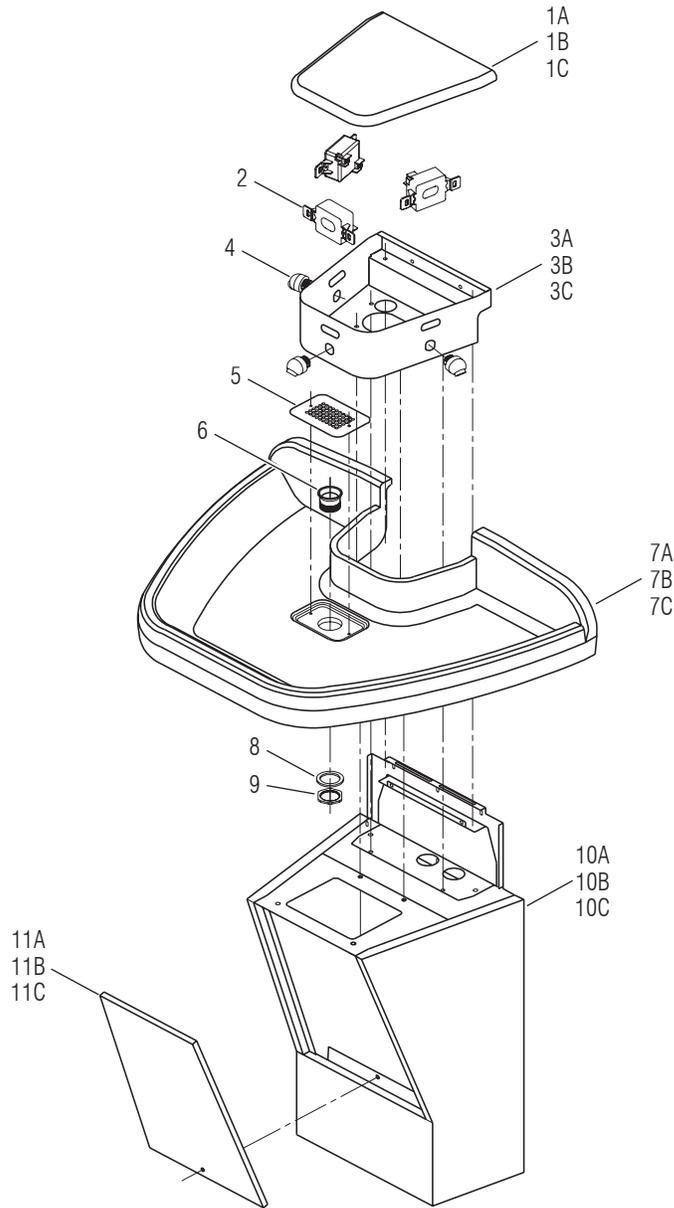
- A. Supply Stop(s) may be closed; open Supply Stop(s).
- B. Debris is in solenoid, won't close properly; remove operator and clean. Reassemble in the same manner.
- C. Debris may be in Solenoid filter; remove, clean and reinstall.
- D. Debris is in spray head; remove, clean and reinstall.

III. Continues to run (even after power to faucet has been disconnected)

- A. Solenoid valve is installed backwards; install correctly.
- B. Debris is in solenoid, won't close properly; remove operator and clean. Reassemble in the same manner.

If further assistance is required, please contact the Sloan Valve Company Installation Engineering Department at 1-888-SLOAN-14 (1-888-756-2614).

PARTS LIST



Item No.	Description
1A	Actuator Housing Assembly Cover (double station)
1B	Actuator Housing Assembly Cover (triple station)
1C	Actuator Housing Assembly Cover (quadruple station)
2	Sensor
3A	Actuator Housing Assembly (double station)
3B	Actuator Housing Assembly (triple station)
3C	Actuator Housing Assembly (quadruple station)
4	Spray Head
5	Strainer
6	1 1/2" Drain Spud
7A	Solid Surface Basin (double station)
7B	Solid Surface Basin (triple station)
7C	Solid Surface Basin (quadruple station)
8	Washer
9	Locknut
10A	Pedestal (double station)
10B	Pedestal (triple station)
10C	Pedestal (quadruple station)

Item No.	Description
11A	Solid Surface Access Cover (double station)
11B	Solid Surface Access Cover (triple station)
11C	Solid Surface Access Cover (quadruple station)
MIXING VALVE	
MIX-135-A Below Deck Thermostatic Water Mixing Valve (BDT Variation)	
SENSOR REPLACEMENT KIT	
EL-1500-LL	
SOLENOID REPLACEMENT KIT	
ETF-408	
SOLENOID FILTER REPLACEMENT KIT	
ETF-1009-A	

NOTICE:

The information contained in this document is subject to change without notice.