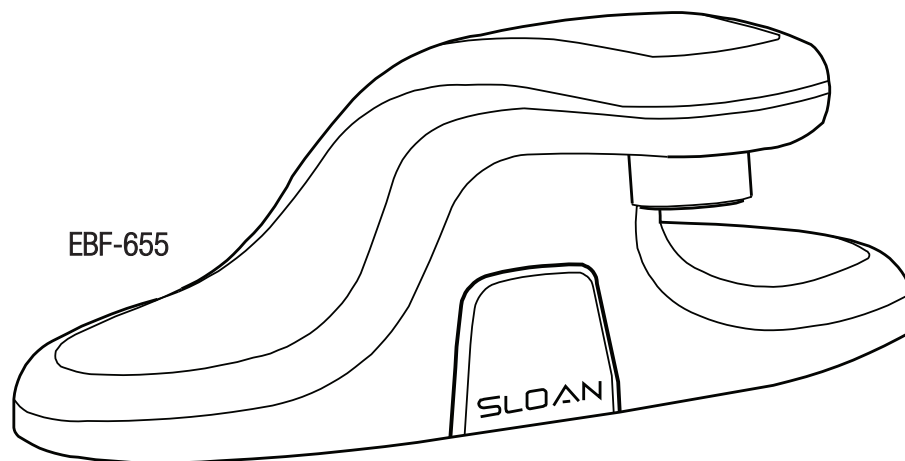
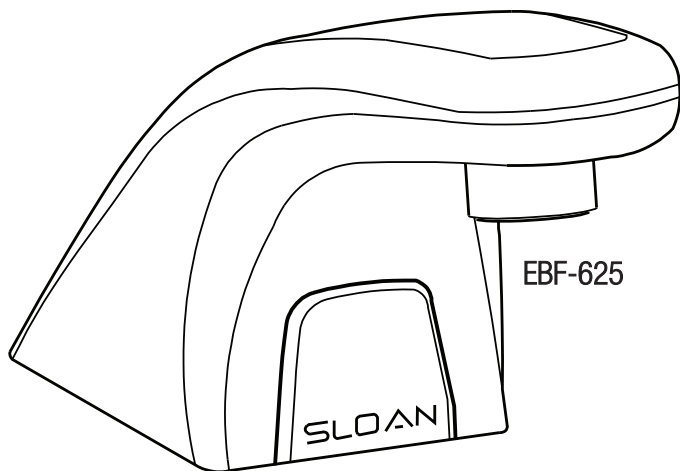


INSTALLATION INSTRUCTIONS FOR EBF-625/EBF-655 SENSOR ACTIVATED FAUCETS



MODELS

EBF-625

EBF-655

Battery Powered,

Sensor Activated

Lavatory Faucets

Installation of the Sloan Optima Plus EBF-625 or EBF-655 Battery Powered, Sensor Activated Faucet makes wash-up totally "hands free" providing the ultimate in sanitary protection and automatic operation. The Optima Plus faucet uses 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. In addition, the faucet is powered by four (4) "C" batteries which eliminates the need to run any electrical lines to the system.

The Sloan EBF-625 or EBF-655 battery powered, sensor activated faucet comes complete with an integral faucet and sensor assembly,

control module, alkaline batteries, and all mounting hardware. Bak-checks and a grid strainer are also available as optional equipment. The installer should supply 3/8" copper supply tube or flexible hose connections.

The following instructions serve as a guide when installing the Sloan EBF-625 or EBF-655 faucet. As always, good safety practices and care when installing your new faucet.

If further assistance is required, contact your nearest Sloan Representative office or the Sloan Installation Engineering Department at 1-888-SLOAN-14.

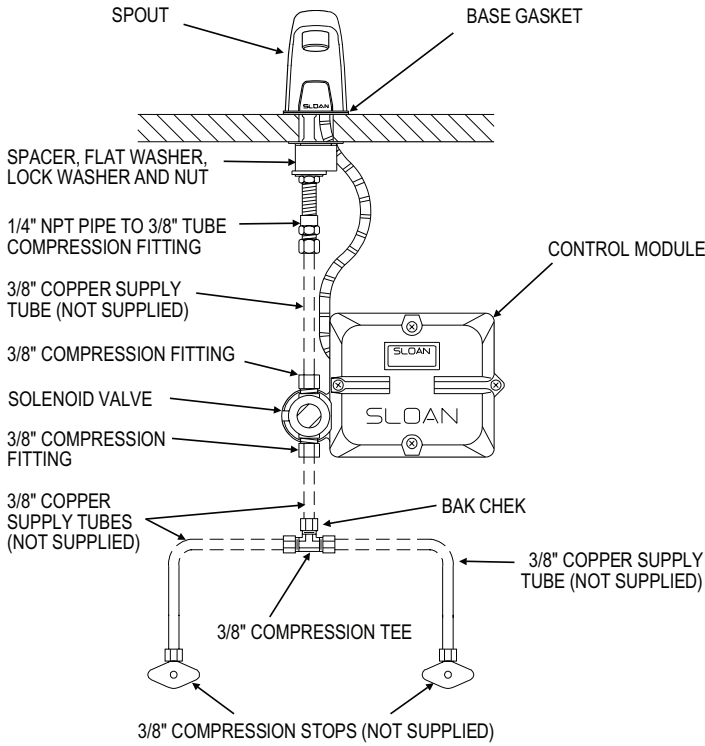
LIMITED WARRANTY

Sloan Valve Company warrants its EBF-625 and EBF-655 faucets 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 (3) years (one (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. This warranty does not cover the life of batteries.

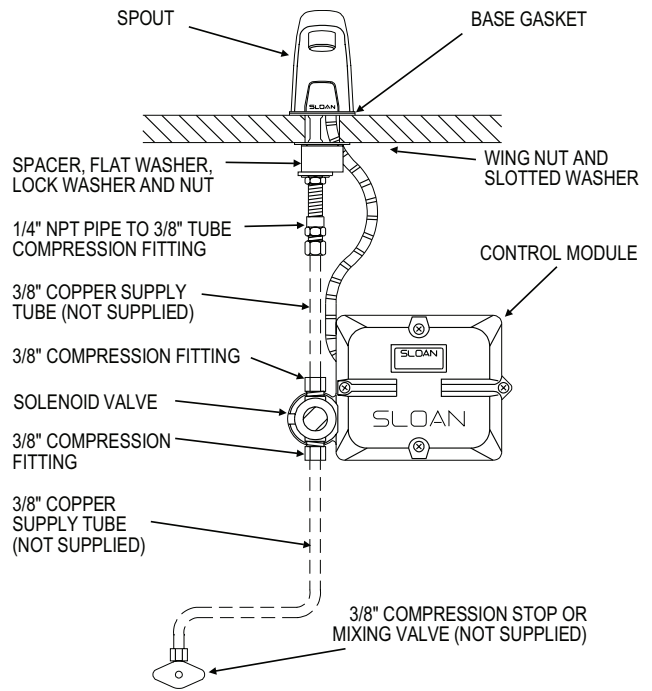
THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO EVENT IS SLOAN VALVE COMPANY RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY MEASURE WHATSOEVER.

ROUGH-INS

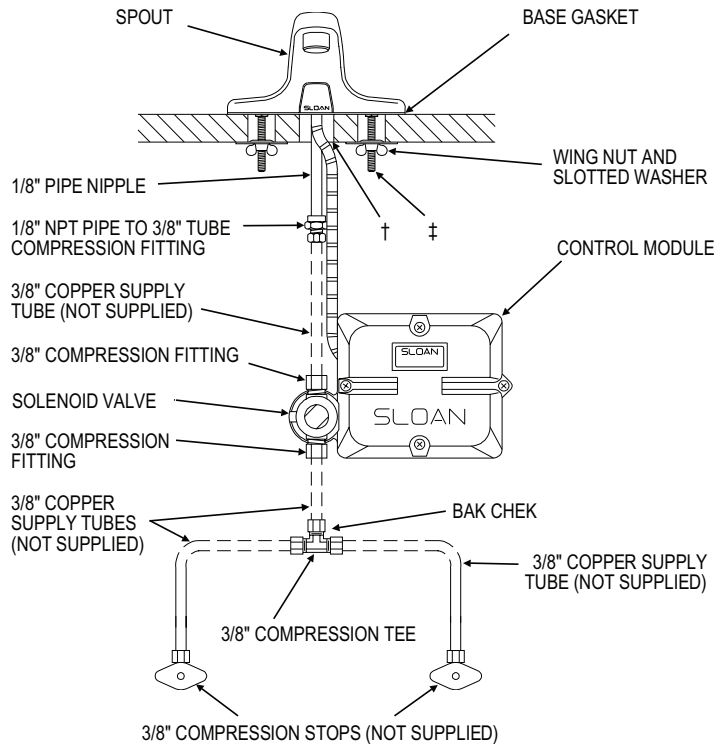
EBF-625 FAUCET WITH DUAL LINE WATER SUPPLY



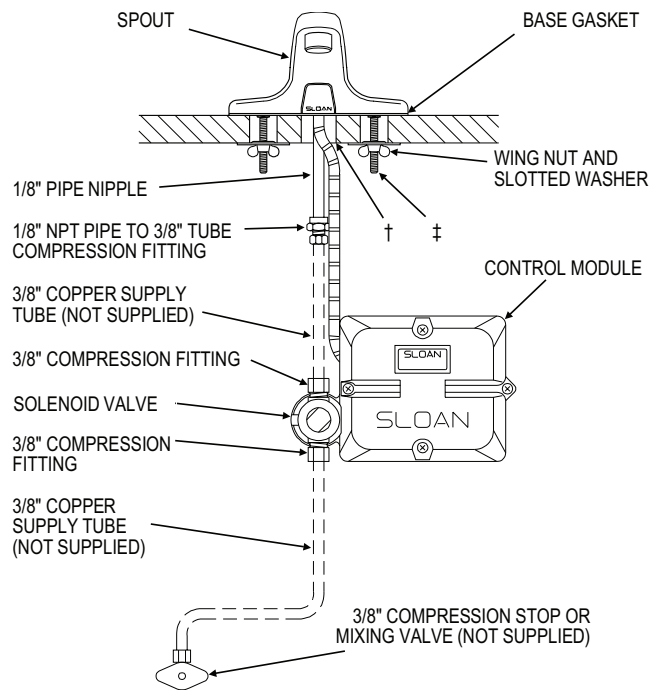
EBF-625 FAUCET WITH SINGLE LINE WATER SUPPLY



EBF-655 FAUCET WITH DUAL LINE WATER SUPPLY



EBF-655 FAUCET WITH SINGLE LINE WATER SUPPLY

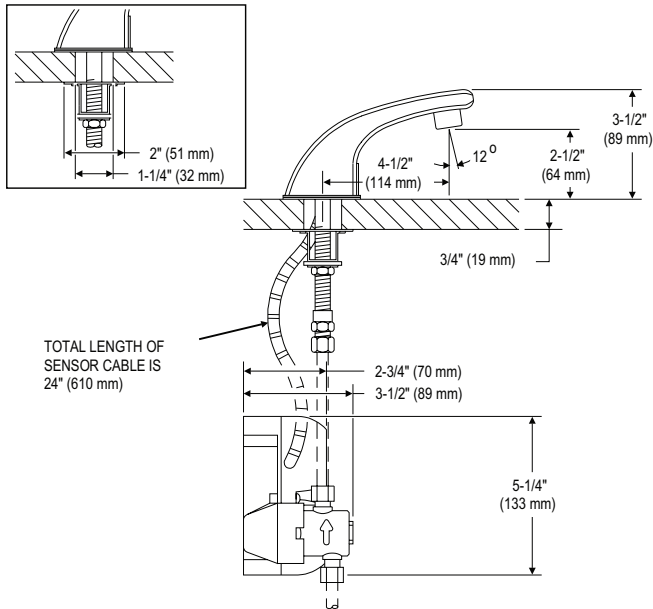


† 1" (25 mm) minimum diameter hole required to mount faucet shank on deck.

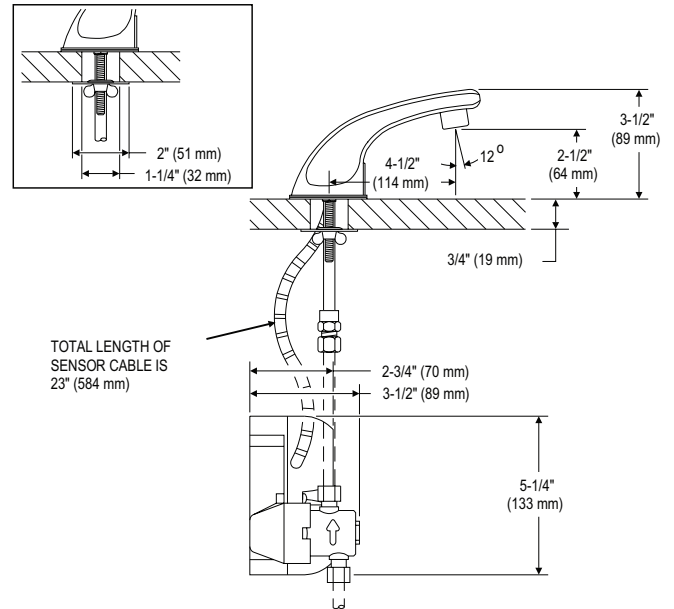
‡ 3/8" (10 mm) minimum diameter clearance for mounting studs.

ROUGH-INS (CONTINUED)

EBF-625 FAUCET WITH BOTH DUAL AND SINGLE LINE WATER SUPPLIES



EBF-655 FAUCET WITH BOTH DUAL AND SINGLE LINE WATER SUPPLIES



PRIOR TO INSTALLATION

Prior to installing the Sloan EBF-625 or EBF-655 faucet, install the items listed below.

- Lavatory/Sink
- Drain Line
- Hot Water and Cold Water OR Tempered Water Supply Lines

IMPORTANT:

- **ALL PLUMBING IS TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS**
- **FLUSH ALL WATER LINES PRIOR TO MAKING CONNECTIONS**

MIXING VALVE

When installation includes one of Sloan's Mixing Valve, these instructions AND those included with the mixing valve MUST be followed.

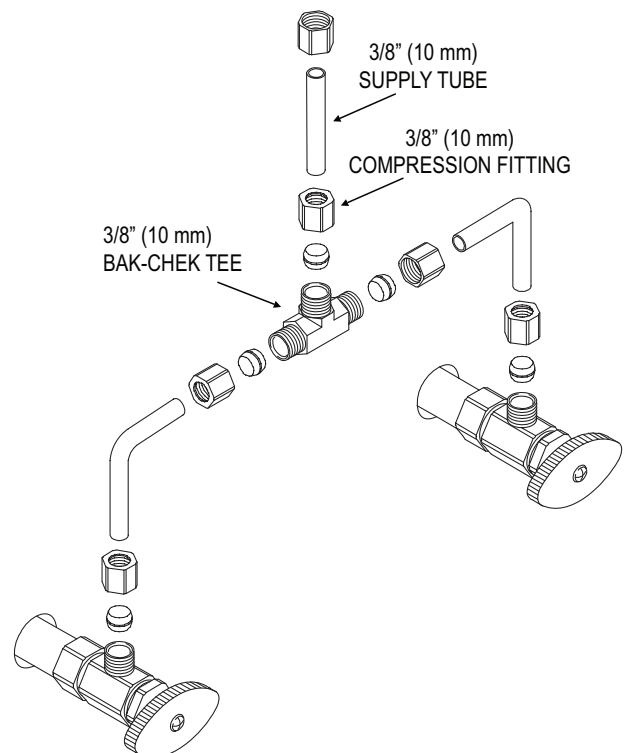
The Sloan EBF-625 and EBF-655 battery powered sensor activated faucets can be supplied with two Bak-Cheks. When connecting the faucet to a hot and cold water supply, two Bak-Cheks are required. Water temperature can be controlled by adjusting the supply stops. When connecting the faucet to a single line water supply or a pre-tempered water supply, a Bak-Chek is not required.

1 - INSTALL BAK-CHEK TEE (OPTIONAL)

A The Sloan Bak-Chek is designed for installation on a 3/8" supply stop. If an existing stop is used, the stop may require replacement or additional fittings not supplied by Sloan for connection of the Bak-Chek to the hot and cold water supply lines. Supply stops should be furnished by the installer.

B After flushing the water supply lines through the stops, use a compression nut and compression sleeve to connect inlet end of Bak-Chek to the Supply Stop.

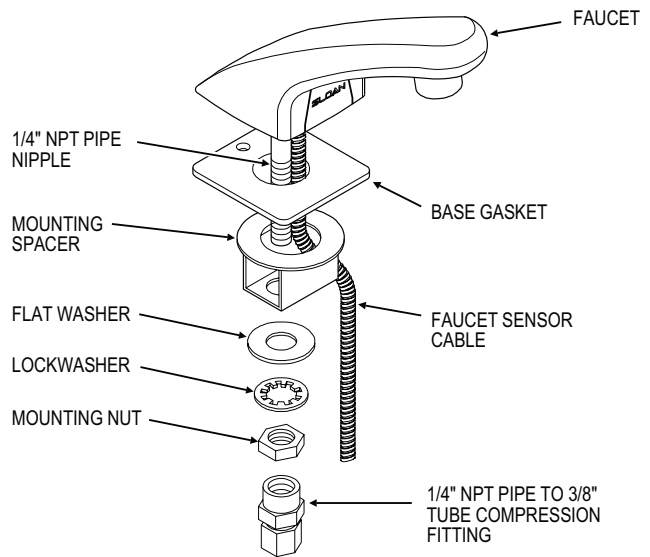
NOTE: Failure to install the Bak-Chek can result in a cross flow connection when the faucet is in the off position and the supply stops are open. If the pressures of the hot water supply and the cold water supply are different, hot water can migrate into the cold water supply or cold water can migrate into the hot water supply. Most plumbing codes require that the Bak-Chek be used to prevent this occurrence.



2A - INSTALL EBF-625 FAUCET

NOTE: Sloan Valve Company recommends that this faucet is installed with our trim plate. Our trim plate includes an anti-rotation feature to prevent rotary motion of this single-hole pedestal-style faucet.

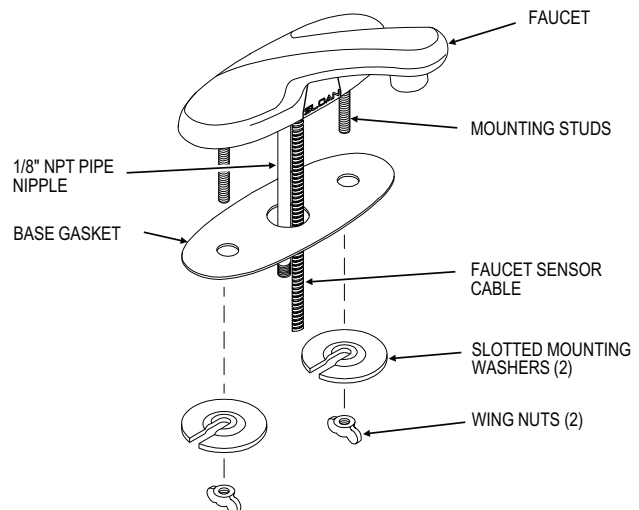
- A** Slide faucet base gasket over faucet shank and sensor cable.
- B** Install optional trim plate next followed by the trim plate gasket. Holding the faucet base gasket and optional trim plate assembly in place, insert sensor cable and faucet shank through the 1" (25 mm) center hole in deck lavatory. Use plumber's putty to secure optional trim plate.
- C** Thread sensor cable through side of mounting spacer, and then secure faucet to deck or lavatory using the mounting washer, lock washer and nut. Apply thread sealant or Teflon tape to threads at end of faucet shank.
- D** Install 3/8" compression fitting on end of faucet shank.



2B - INSTALL EBF-655 FAUCET

NOTE: Refer to the Installation Instructions included with the ETF-578-A trim plate for additional information about using an 8" trim plate with an EBF-655 faucet.

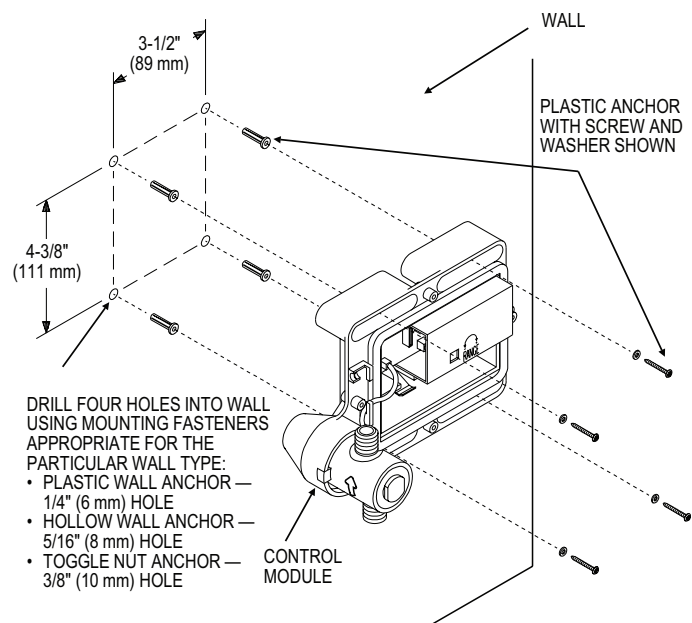
- A** Slide faucet base gasket onto faucet.
- B** Insert faucet sensor cable, pipe nipple, and mounting studs through the 4" (102 mm) spread deck holes. Secure faucet to deck using slotted mounting washers and wing nuts supplied.



3 - MOUNT CONTROL MODULE TO WALL

IMPORTANT: DO NOT install control module upside down. The control module may be oriented so that it faces sideways (vertically); however, optimum performance is obtained when the control module is horizontal with the Sloan logo on the cover facing up.

- A** Install the control module in an appropriate location. All four (4) cover screws must be accessible from the chosen mounting position. After installation, the cable from spout to control module should have some slack.
- B** Remove control module cover from control module base. Use the control module base as a template to mark locations on wall for mounting fasteners. Determine the appropriate mounting fastener for the particular wall type (three different fastener types are included; see parts list). Drill four (4) appropriately sized holes.
 - For plastic wall anchor – 1/4" (6 mm) holes
 - For hollow wall anchor – 5/16" (8 mm) holes
 - For toggle nut anchor – 3/8" (10 mm) holes
- C** Attach Control Module base to wall using appropriate fastener.

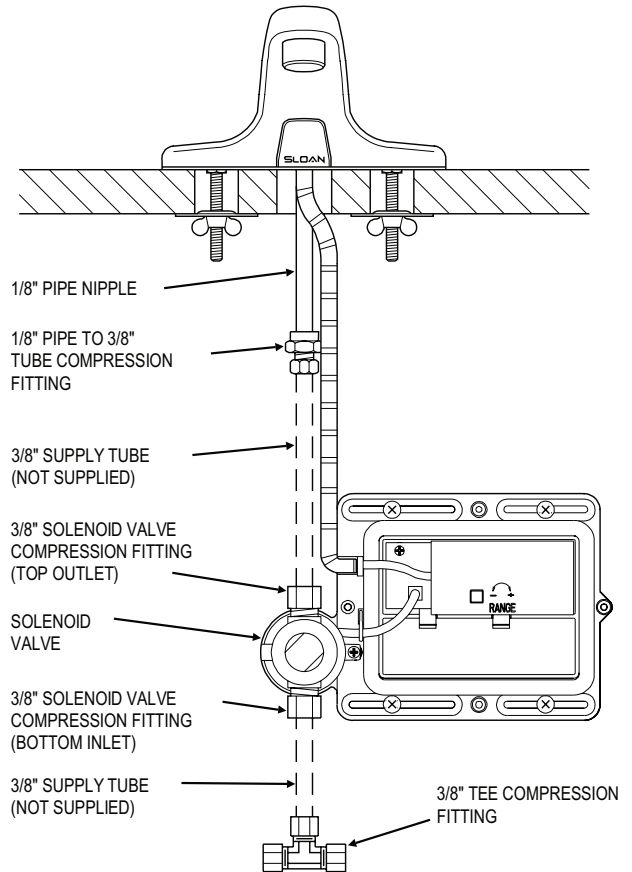
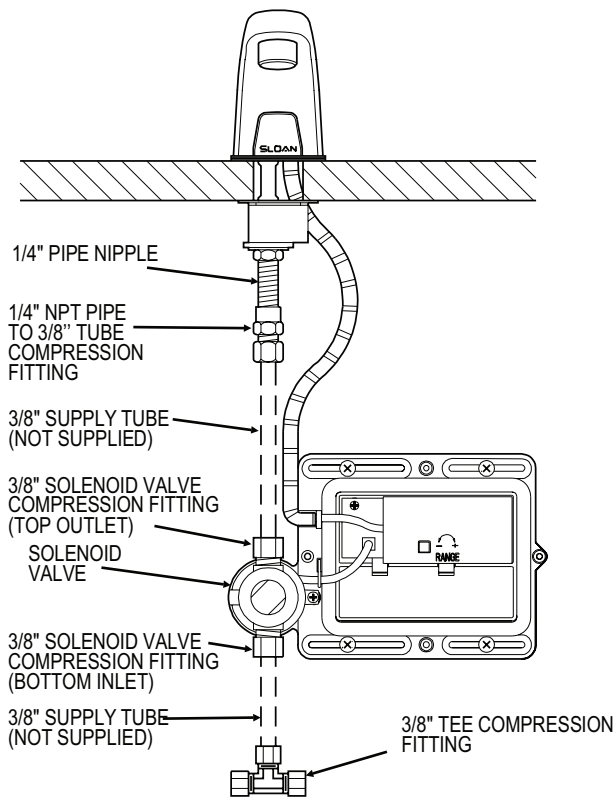


4 - CONNECT SENSOR CABLE TO CONTROL MODULE

- A** Remove circuit board cover from control module.
- B** Route sensor cable from spout to the control module, usually located under the faucet with sufficient slack in sensor cable. Insert locking connector from faucet spout into mating receptacle on connector board of control module.
- C** Insert the sensor cable into the strain relief slot in the control module.
- D** Install circuit board cover into control module.

5 - CONNECT SUPPLY LINE FROM SOLENOID VALVE OUTLET TO FAUCET

- A** **FOR MODEL EBF-625** – Install the 1/4" (6.4 mm) pipe to the 3/8" (9.5 mm) tube compression fitting on spout's pipe nipple.
FOR MODEL EBF-655 – Install the 1/8" (3.2 mm) pipe to the 3/8" (9.5 mm) tube compression fitting on spout's pipe nipple.
- B** **FOR MODELS EBF-625 AND EBF-655** – Connect 3/8" (9.5 mm) outside diameter (O.D.) of supply tube (furnished by installer) between the compression fitting on the spout's pipe nipple and the top outlet compression fitting on the solenoid valve.



NOTE: An arrow on the body of the solenoid valve indicates the water flow direction.

IMPORTANT: Keep thread sealant out of your waterway and prevent component part damage! **DO NOT USE** sealant on compression fittings. When thread sealant is used, **DO NOT APPLY** it to the first two "starter" threads.

6 - CONNECT SUPPLY LINE(S) FROM SUPPLY STOP TO SOLENOID VALVE INLET

NOTE: Supply stops should be furnished by installer.

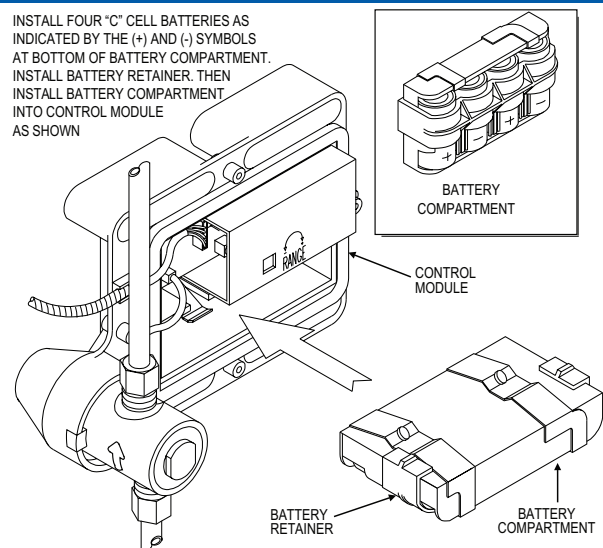
- A** Flush dirt, debris, and sediment from the supply line(s).
- B** **FOR DUAL LINE HOT AND COLD WATER SUPPLY APPLICATIONS** – When connecting the faucet to a hot and cold water supply, a Bak-Chek is required as described in Step 1. If Bak-Chek is not installed at this time, install them now referring back to Step 1 for instructions. Install a 3/8" copper supply tube between Bak-Chek Compression Tee Fitting supplied. Install a 3/8" copper supply tube between compression tee fitting and the bottom inlet compression fitting of solenoid valve.
- C** **FOR SINGLE LINE WATER SUPPLY APPLICATIONS** – When connecting the faucet to a single line water supply or a pre-tempered water supply, no Bak-Chek is required. Install a 3/8" copper supply tube between the supply stop and the bottom inlet compression fitting of solenoid valve.

7 - INSTALL BATTERIES

Remove the battery compartment from the control module by gently pulling straight out. Spread the ends of the battery retainer and remove it from the battery compartment. Insert the four (4) "C" cell alkaline batteries provided as indicated by the (+) and (-) symbols inside the battery compartment. Spread the ends of the battery retainer and slide it over the battery compartment until locked into place.

NOTE: Battery retainer must be installed, shown right. If installed upside-down, it will not install into the control module. Reinsert the battery compartment into the control module. See image, shown right.

INSTALL FOUR "C" CELL BATTERIES AS INDICATED BY THE (+) AND (-) SYMBOLS AT BOTTOM OF BATTERY COMPARTMENT. INSTALL BATTERY RETAINER. THEN INSTALL BATTERY COMPARTMENT INTO CONTROL MODULE AS SHOWN



8 - START-UP

A Open supply stops. Remove spray head, then activate faucet for 30 seconds by placing hands in front of the sensor. The solenoid valve should "click," sensor LED indicator should blink and water should flow from the spout. If this does not occur, refer to the Troubleshooting section.

NOTE: The sensor LED indicator should blink when faucet is activated for the first 10 minutes after start-up.

B Close supply stop(s) and install spray head in spout using the key provided. Reopen supply stop(s), activate faucet and check for leaks.

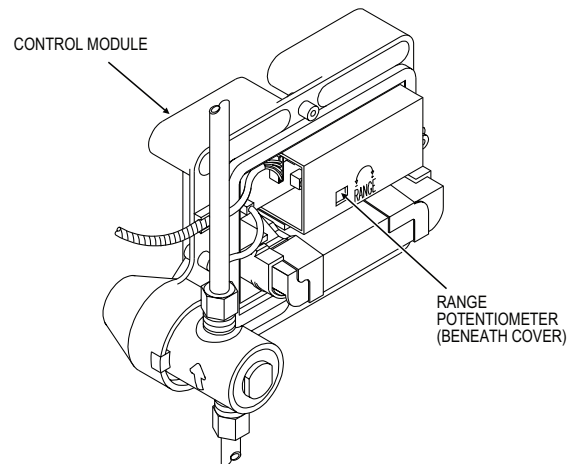
9 - RANGE ADJUSTMENT

A The OPTIMA Plus EBF-625 and EBF-655 faucets are factory set to operate when hands are placed 4-5" (102-127 mm) from sensor. This range should be satisfactory for most installations.

B If range adjustment is required, use a small Phillips screwdriver.

C **ADJUST RANGE** – The range potentiometer is located in the control module. Cycle faucet several times to assure that the sensor range does not inadvertently pick up reflection off the edge of the sink. If reflection occurs, slightly adjust range potentiometer counterclockwise and again cycle faucet. Repeat adjustment procedure until desired range is achieved.

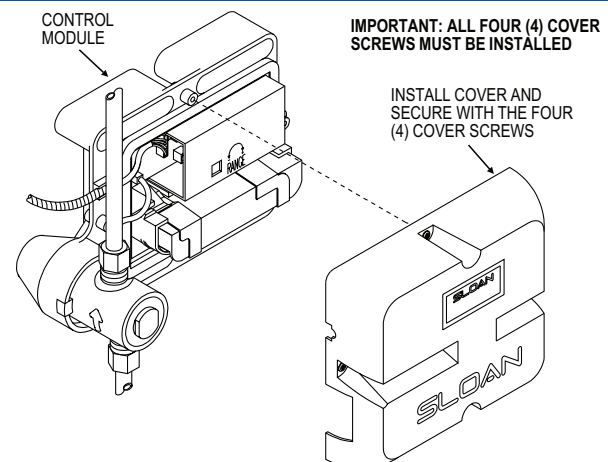
IMPORTANT: Range potentiometer adjustment screw rotates only 3/4 of a turn; DO NOT over-rotate.



10 - INSTALL COVER TO CONTROL MODULE

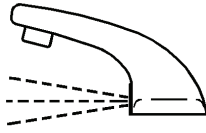
Place cover over the control module and use the four (4) screws provided to attach it. Cover can be installed in only one orientation.

IMPORTANT: Install ALL four (4) cover screws for proper installation.

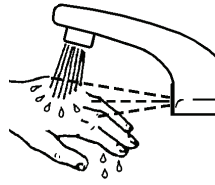


OPERATION

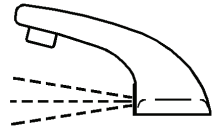
1. A continuous invisible beam of infrared light is emitted from the sensor located on the throat of the lavatory faucet.



2. As the user's hands enter the beam's effective range (beneath the spray head), the beam is reflected back into the sensor receiver and activates the solenoid valve. Tempered water flows from the faucet into the sink until the hands are removed from the beam or until the faucet reaches an automatic time out limit setting.



3. When hands are moved away from the sensor, the loss of reflected light initiates an electrical signal that deactivates the solenoid valve, shutting off the water flow. The circuit then automatically resets and is ready for the next user.



MAINTENANCE

CARE AND CLEANING

DO NOT USE abrasive or chemical cleaners (including chlorine bleach) to clean faucets that 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. Protect the faucet from any splattering of cleaner when cleaning bathroom tile. Acids and cleaning fluids will discolor or remove chrome plating.

BATTERY REPLACEMENT

The Sloan Optima Plus EBF-625 and EBF-655 battery powered, sensor activated lavatory faucets are furnished with four (4) "C" cell alkaline batteries that provide up to two (2) years of operation (8000 cycles per month). A flashing LED signal indicates that battery power will be depleted within one (1) month. Replace batteries with four (4) new "C" cell alkaline batteries.

Remove the Cover of the Control Module by unscrewing the four (4) cover screws located at the center of each side.

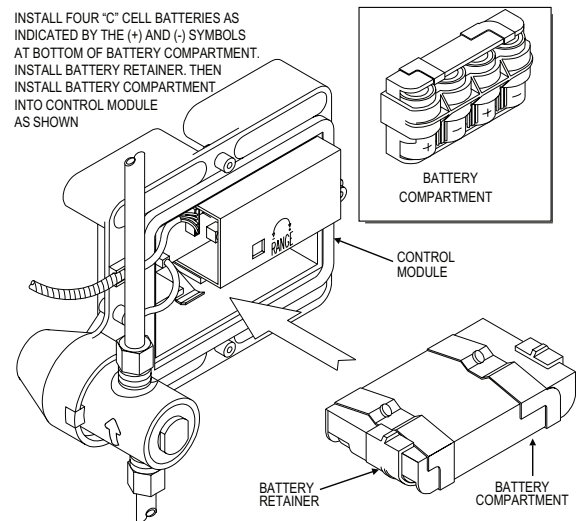
Remove the battery compartment from the control module by gently pulling straight out with a firm grip. Spread the ends of the battery reainer and remove it from the battery compartment. Remove the old batteries and insert four(4) fresh "C" cell alkaline batteries into the battery compartment. Spread the ends of the battery reainer and slide it over the battery compartment until locked into place.

NOTE: Battery Retainer **MUST** be installed as shown. If installed upside-down, it will not install into the Control Module. Reinsert the Battery Compartment into the Control Module as shown.

Place cover over the Control Module and use the four (4) screws provided to attach it. Cover can be installed in only one orientation.

IMPORTANT: Install ALL four (4) cover screws for proper installation.

INSTALL FOUR "C" CELL BATTERIES AS INDICATED BY THE (+) AND (-) SYMBOLS AT BOTTOM OF BATTERY COMPARTMENT. INSTALL BATTERY RETAINER. THEN INSTALL BATTERY COMPARTMENT INTO CONTROL MODULE AS SHOWN



CLEANING SCREEN FILTER

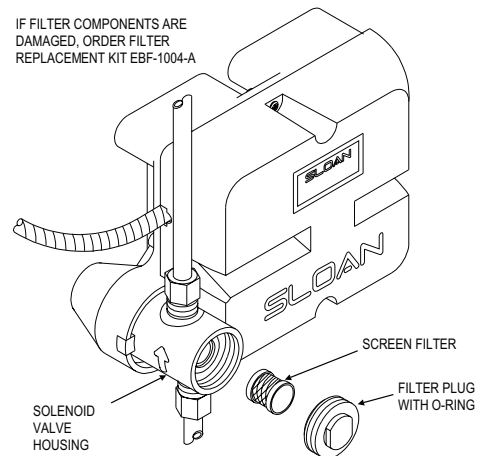
Before cleaning the screen filter, turn off water supply at the supply stop(s). Activate the faucet to relieve any pressure in the system. Unscrew the filter plug and remove it from the solenoid valve housing. Carefully pull the screen filter with attached rubber seals out from the solenoid valve housing.

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 the solenoid screen filter. If any filter components are damaged, order Filter Replacement Kit EBF-1004-A.

Carefully replace the screen filter into the groove of the solenoid valve housing. Examine the filter plug o-ring for wear or damage; replace if necessary. If necessary, lubricate the filter plug o-ring with water to keep it in place in the groove of the filter plug. Screw the filter plug into the solenoid valve housing.

Turn on the water supply at the supply stop(s). Activate the faucet to purge any air from the system lines. Check for leaks and repair as necessary.

IF FILTER COMPONENTS ARE DAMAGED, ORDER FILTER REPLACEMENT KIT EBF-1004-A



TROUBLESHOOTING GUIDE

1. **Faucet does not stop delivering water or continues to drip after user is no longer detected (automatic shut-off fails even when batteries are removed).**

Solenoid valve has been connected backward.

Disassemble solenoid valve compression fittings at both the inlet and outlet positions. The water should flow from inlet through the solenoid valve to the outlet according to the direction of the arrow shown on the side of the solenoid valve. Reconnect the compression fittings in the correct orientation.

Solenoid valve is dirty.

Backflush by reversing water flow (opposite to the direction shown by the arrow on the side of the solenoid valve) through the solenoid valve. Reconnect the compression fittings in the correct orientation. Activate faucet.

Solenoid valve module is defective.

Replace EBF-1011-A Solenoid Valve Module.

TROUBLESHOOTING GUIDE (CONTINUED)

2. Sensor troubleshooting LED does not function (red indicator light does not flash during set-up procedure)

No battery power is being supplied to sensor.

Ensure that the batteries are installed properly. Check that the orientation of each battery matches the positive (+) and negative (-) symbols shown on the bottom of the battery compartment. Reinsert the battery compartment into the control module.

Insufficient battery power is being supplied to sensor.

One (or more) of the batteries is "dead." To ensure proper operation, insert four (4) new "C" sized alkaline batteries. Check that the orientation of each battery matches the positive (+) and negative (-) symbols shown on the bottom of the battery compartment. Reinsert the battery compartment into the control module.

Sensor Cable is not properly inserted.

Disconnect and reconnect Sensor Cable to the Control Module.

Sensor Range is set at minimum distance.

Increase Sensor Range. Use a small screwdriver to turn the potentiometer screw (white screw in blue base) clockwise.

Control Module assembly is defective.

Replace EBF-60-A Control Module assembly.

3. The water temperature is too hot or too cold on a faucet connected to hot and cold supply lines with Bak-Chek.

Supply stops are not adjusted properly.

Adjust Supply Stops.

NOTE: A thermostatic mixing valve may be required on some systems.

4. Faucet does not deliver any water when Sensor is activated.

Solenoid valve produces audible "CLICK." Water supply valve is closed.

Open the water supply.

Solenoid valve DOES NOT produce an audible "CLICK".

Disconnect and reconnect Solenoid lead to the Control module, if solenoid lead is not properly connected to the Control Module. Batteries are not installed properly. Check that the orientation of each battery matches the positive (+) and negative (-) symbols shown on the bottom of the battery compartment. Reinsert the Battery Compartment into the Control Module. The troubleshooting LED should flash RED when a user is detected.

5. Faucet delivers only a slow flow or dribble when Sensor is activated.

Water supply valve is partially closed.

Completely open the Supply Stop.

Solenoid Filter is clogged.

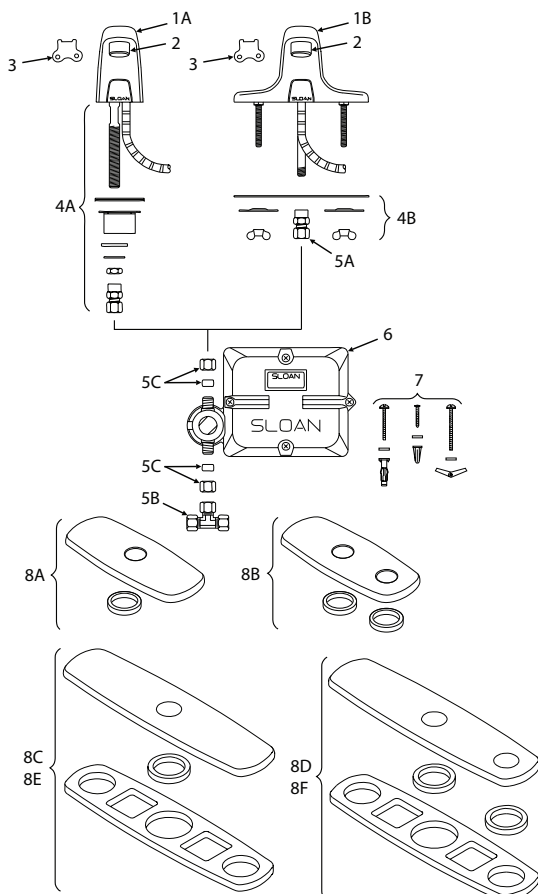
Remove, clean, and reinsert. Replace EBF-1004-A Solenoid Filter Kit, if necessary.

Aerator or Spray Head is clogged.

Remove, clean, and reinsert.

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

PARTS LIST



ITEM NO.	PART NO.	DESCRIPTION
1A	EBF-120-A	Pedestal Faucet Spout and Sensor Assembly (EBF-625)
1B	EBF-81-A	Faucet Spout and Sensor Assembly (EBF-655)
2	ETF-1023-A	0.5 gpm (1.9 Lpm) Spray Head with Key
	ETF-1024-A	2.2 gpm (8.3 Lpm) Aerator Spray Head with Key
	F-175-L	2.2 gpm (8.3 Lpm) Laminar Flow Spray Head
3	ETF-435	Replacement Key ONLY for ETF-1023-A and ETF-1024-A
4A	EBF-123-A	Faucet Mounting Kit for EBF-625
4B	ETF-546-A	Faucet Mounting Kit for EBF-655
5A	ETF-547	1/8" NPT Pipe to 3/8" Tube Compression Fitting Connection
5B	ETF-617	3/8" Bak-Chek Tee Compression Fitting
5C	EBF-113-A	Single Solenoid Supply Kit
6	EBF-60-A	Control Module Assembly
7	EBF-79-A	Mounting Hardware Kit for Control Module Assembly
8A	ETF-103-A	4" (102 mm) Centerset Trim Plate for EBF-625
8B	MIX-101-A	4" (102 mm) Centerset Trim Plate for EBF-625 with Optional Mixing Valve
8C	ETF-105-A	8" (204 mm) Centerset Trim Plate for EBF-625
8D	MIX-106-A	8" (204 mm) Centerset Trim Plate for EBF-625
8E	ETF-576-A	8" (204 mm) Centerset Trim Plate for EBF-655
8F	ETF-577-A	8" (204 mm) Centerset Trim Plate for EBF-655 with Optional Mixing Valve
-	EBF-80-A	Sensor Replacement Kit
-	EBF-1011-A	Solenoid Replacement Kit
-	EBF-1004-A	Solenoid Filter Replacement Kit (includes Filter Screen and O-Ring)

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

SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, IL 60131

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