

SLOAN[®]

OPTIMA[®]

i.q.

EAF-100/150 I.I. — Rev. 1 (07/04)
Code No. 0816542

INSTALLATION INSTRUCTIONS

ELECTRONIC SENSOR OPERATED LAVATORY FAUCETS



EAF-150 Series

Battery Powered
Sensor Operated
Lavatory Faucets

EAF-100 Series

Plug-in Transformer Powered
Sensor Operated
Lavatory Faucets

ADA Compliant



The Optima *i.q.* faucet — Bringing intelligence to water

Sloan's Optima *i.q.* EAF-100/150 Series electronic hand washing faucets operate by means of a dual infrared sensor and microprocessor based logic. The modular design of the faucet simplifies installation and maintenance by incorporating all of the operating components above the sink within the die-cast metal spout.

ISM models feature an integral temperature control lever to allow the user to adjust water temperature. The faucet can also be adjusted and set to a fixed mixer setting. Faucets ordered without the ISM variation must be connected to a single, pre-tempered water supply.

The faucet is also available with the *i.q.* - Click feature. This feature allows the user to set faucet modes, including "continuous run" and "temporary off" simply by pressing a button on the spout. This feature is recommended only in installations where users have a regular familiarity

with the faucet (i.e., executive and non-public rest rooms). Models furnished with the *i.q.* - Click feature are also available with a Drain Pop Up.

Optima *i.q.* EAF-150 series faucets include a 6 VDC lithium battery. Battery life is approximately three (3) years. EAF-100 series faucets are hard wired and include a plug-in transformer.

The following instructions will serve as a guide when installing the Sloan Optima EAF-100/150 series sensor operated faucets. As always, good safety practices and care are recommended 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 (1-888-756-2614).

LIMITED WARRANTY

Sloan Valve Company warrants its Optima EAF-100/150 Series Electronic Hand Washing 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 years 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 the battery.

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-IN — Figure 1

MODELS EAF-100/150
2.2 gpm (8.3 Lpm) Max. Flow Aerator
Faucets with Single Line Water Supply

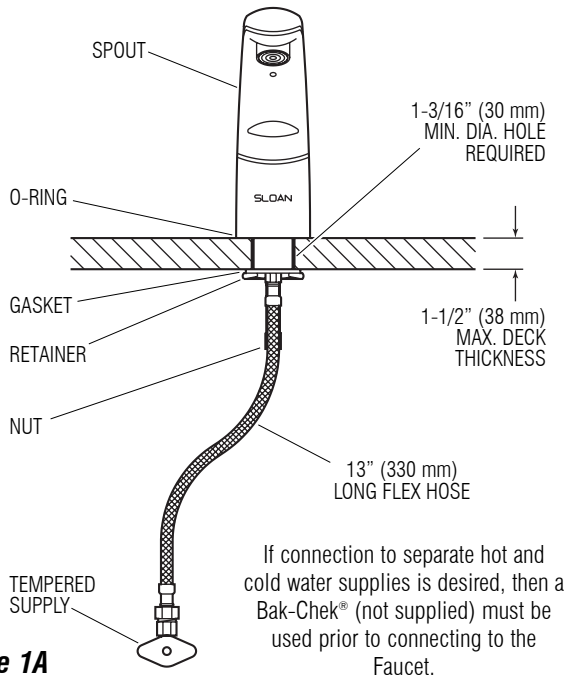


Figure 1A

FAUCET SPOUT DIMENSIONS AND POP UP DETAILS

POP UP —
MODELS EAF-100/150-ISM-DPU-IC ONLY

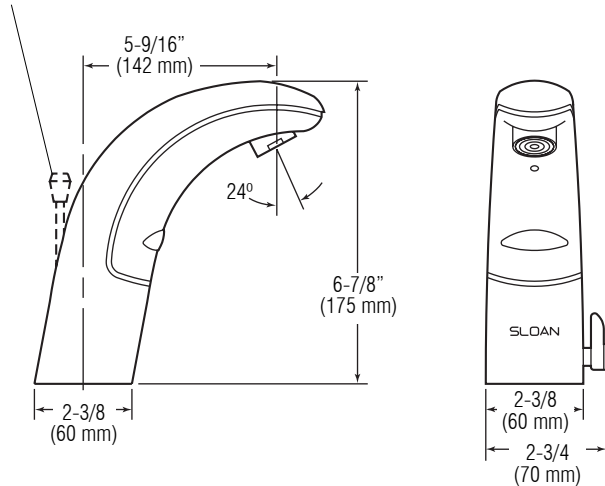


Figure 1C

When the EAF Faucet is installed on a sink that has three (3) hole punchings, a trim plate should be used.

Trim Plates must be specified and ordered separately:

ETF-607-A

Trim Plate for 4" (102 mm) Center-set Sink

ETF-608-A

Trim Plate for 8" (203 mm) Center-set Sink

When installing the Faucet on a three (3) hole sink, make sure that the center hole is large enough to accommodate the Faucet shank.

A 1-3/16" (30 mm) minimum diameter hole is required.

NOTE: A 1-7/32" (31 mm) Diameter hole is required if the deck is greater than 1/2" (13 mm) thick.

MODELS EAF-100/150-ISM
MODELS EAF-100/150-ISM-DPU-IC
2.2 gpm (8.3 Lpm) Max. Flow Aerator
Faucets with Hot and Cold Water Supply

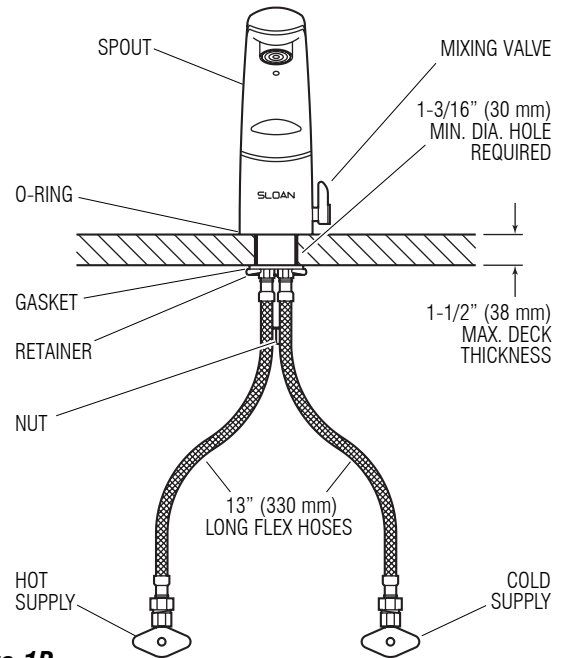


Figure 1B

FAUCET VARIATIONS

- ISM Integral Spout Mixer
- IC *l.g.-Click* Feature
- DPU Drain Pop Up
- P Plug-in Transformer (EAF-100 Series only)

PRIOR TO INSTALLATION

Prior to installing the Sloan Optima EAF-100/150 Series Faucet, install the items listed below. Also, refer to Figures 1A thru 1C.

- Lavatory/sink
- Drain line
- Hot and cold water supply lines or pre-tempered water supply line

IMPORTANT:

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

Trim Plates

When the EAF Faucet is installed on a sink that has three (3) hole punchings, a Trim Plate should be used. **Trim Plates must be specified and ordered separately.**

ETF-607-A Trim Plate for 4" (102 mm) Center-set Sink

ETF-608-A Trim Plate for 8" (203 mm) Center-set Sink

TOOLS REQUIRED FOR INSTALLATION

- 13 mm open end wrench for male end of flex hose
- 13 mm open end wrench or nut driver for Faucet retainer nut
- 3/4" open end wrench for female end of flex hose

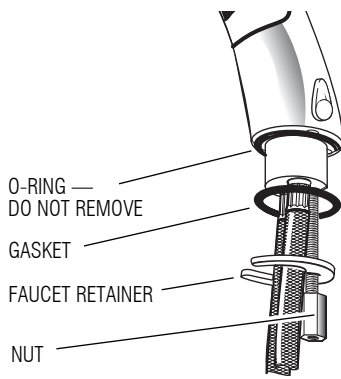
FAUCET INSTALLATION

Step 1

Remove all Mounting Hardware:

- Nut
- Faucet Retainer
- Gasket

Do Not remove the O-ring from base of Faucet.

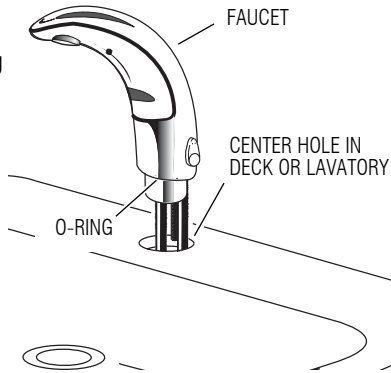


Step 2

Install Faucet with O-ring into the center hole in deck or lavatory —

1-3/16" (30 mm) min. hole required.

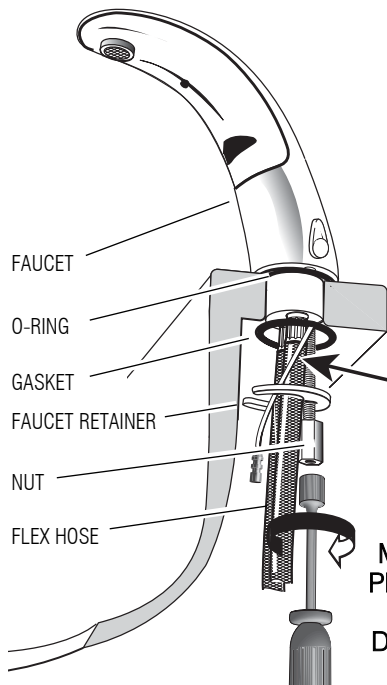
Note: If installing the Faucet on a three (3) hole sink, a Trim Plate should be installed at this time.



Step 3

Slide Gasket over Flex Hose(s).

Secure Faucet to deck or lavatory with Faucet Retainer and Nut.



MODELS POWERED BY PLUG-IN TRANSFORMER ONLY
DO NOT pull or crimp AC Power Line.

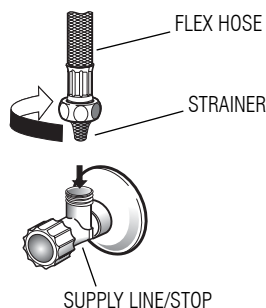
Step 4

IMPORTANT:

Flush dirt, debris, and sediment from Supply Line(s) **before** Connecting Flex Hoses.

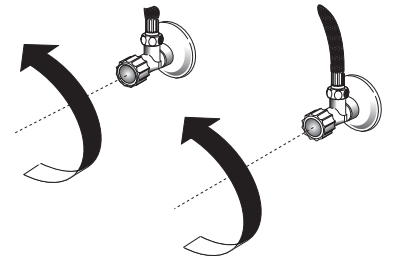
Install Strainer and Flex Hose onto Supply Stop.

Tighten the Flex Hose (with Strainer in place) securely to the Supply.



Step 5

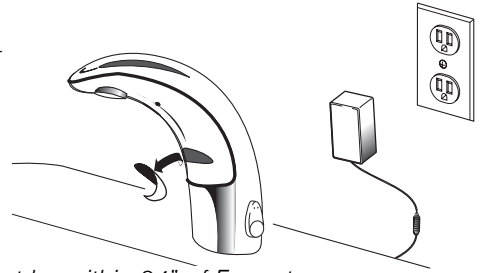
Open Supply Stops.



Step 6

Remove sticker from sensor.

For EAF 100 Models, Plug Transformer into receptacle.



Transformer must be within 24" of Faucet.

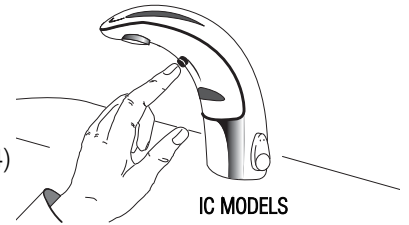
Step 7

Press button one (1) time, then immediately step away.

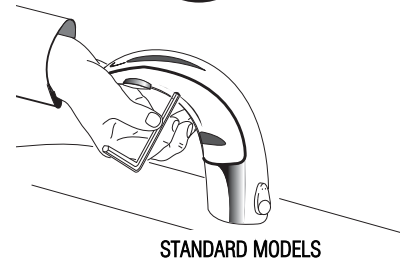
Faucet will run for four (4) seconds and the range will automatically adjust to it's environment.

Wait ten (10) seconds after water shuts off before using Faucet.

If Faucet does not function, refer to the Troubleshooting section of this instruction manual.

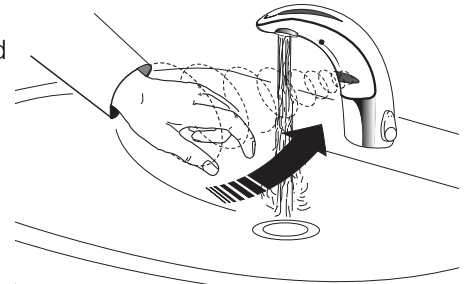


OR



Step 8

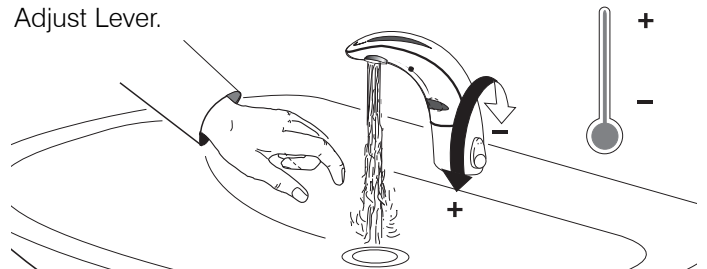
Activate Faucet and check for leaks.



Step 9 — ISM Models Only

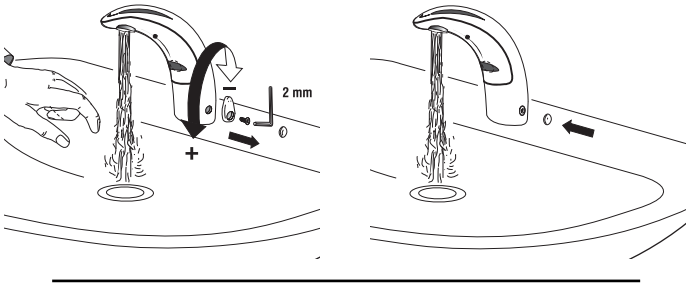
SET TEMPERATURE

Adjust Lever.



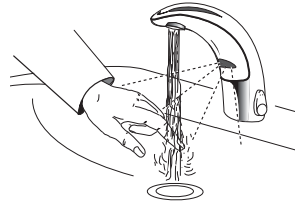
TO FIX TEMPERATURE

Set to desired position. Remove Handle. Plug hole with Cap.



OPERATION

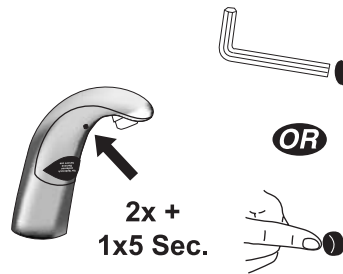
As the user's hands enter the beam's effective range, the beam is reflected back into the sensor receiver and activates the solenoid valve allowing water to flow from the Faucet. Water will flow until the hands are removed or until the Faucet reaches its automatic time out limit setting.



MANUAL RANGE ADJUSTMENT

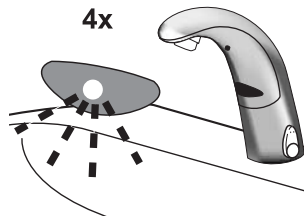
Note: use Manual Range Adjustment only when desired range cannot be obtained with Auto Range Adjustment in Step 7.

Push button two (2) times (double click).



Push again for five (5) seconds until LED flashes four (4) times.

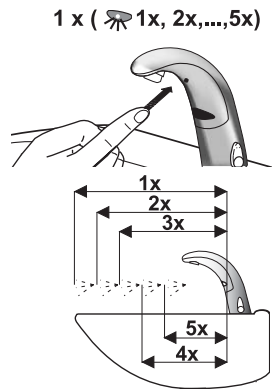
Then release button and wait five (5) seconds.



Push and hold button in as Faucet continuously cycles through the following five (5) range settings.

- One (1) flash = longest range
- Two (2) flashes = long range
- Three (3) flashes = medium range
- Four (4) flashes = short range
- Five (5) flashes = shortest range

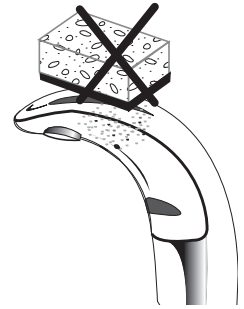
Release button at desired setting. Then water will flow for four (4) seconds signaling confirmation of setting. Wait an additional ten (10) seconds before using Faucet.



CARE AND CLEANING OF CHROME AND SPECIAL FINISHES

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 mild soap and water, then wipe dry with clean cloth or towel.

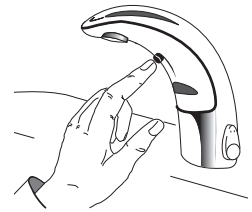
While cleaning the bathroom tile, protect the Faucet from any splattering of cleaner. Acids and cleaning fluids will discolor or remove chrome plating.



ADDITIONAL FEATURES

i.q.-Click FEATURE

The *i.q.-Click* feature is a button on the underside of the Faucet spout that allows the user to place the Faucet into the following function modes: Continuous Run, Temporary Off, Permanent Off, optional Twenty-Four Hour Sentinel Rinse and Auto Set Range Adjustment.



i.q.-Click SETTINGS

Function	Press Button	LED Signal
Continuous Run — 2 minute default setting (adjustable from 1 - 20 minutes)	1 time for 2 seconds or consult Factory	5 short flashes
RESET:	1 time	
Temporary Off	2 times (double click)	5 short flashes followed by periodic flashing
RESET:	1 time or will reset automatically after 2 minutes	
Permanent Off	Consult Factory	Periodic flashing and then 2 long flashes
RESET:	1 time	
24 Hour Sentinel Rinse	1 time for 24 seconds	2 short flashes
RESET:	1 time for 24 seconds	5 short flashes
Auto Set Range Adjustment	2 times (double click) and then 1 time for 5 seconds	4 short flashes —wait for 4 second water flow

Continuous Run

Water flows from 1 - 20 minutes constantly — for easy filling of sink, pail or for hygienic handwashing. Default setting is two (2) minute run time.

Temporary OFF

Water flow is deactivated up to two (2) minutes — for convenient cleaning of sink and faucet.

Permanent OFF

The faucet is totally deactivated for safety and energy saving reasons during long absence.

Twenty-Four Hour Sentinel Rinse

Sentinel Rinse occurs every twenty-four (24) hours from last use to keep fixture fresh during periods of nonuse.

Auto Set Range Adjustment

All *i.q.* Faucets feature the Auto Set function.

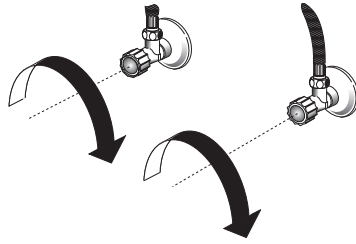
The detection area is automatically adapted to the sink where the Faucet is installed and this occurs upon initial power up. Thus reflection is prevented and a maximum of user convenience provided.

BATTERY REPLACEMENT

Replace battery when red LED indicator flashes each time Faucet is in use or when Faucet stops functioning.

Step 1

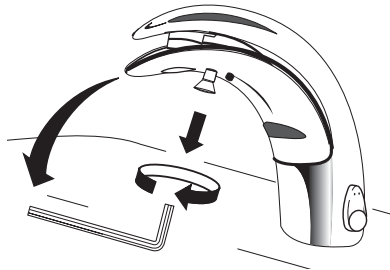
Close Supply Stop(s).



Step 2

Loosen Screw with hex wrench.

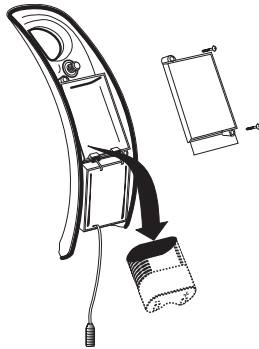
Remove Throat Plate. Disconnect electrical lead at connector if required.



Step 3

Remove Battery Cover using a No. 1 Phillips head screwdriver.

Remove old Battery. Dispose of properly.



Step 4

Wait three (3) minutes before inserting new battery.



Step 5

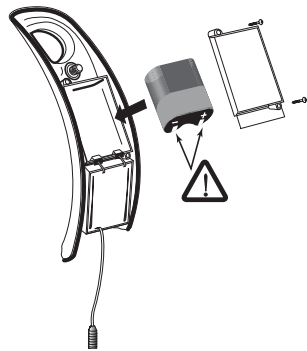
Insert a new 6 Volt Type 2CR5 Lithium Battery. The red LED will flash for one (1) minute.

Reinstall Battery Cover.

Reconnect electrical lead at connector if previously disconnected. Reinstall Throat Plate.

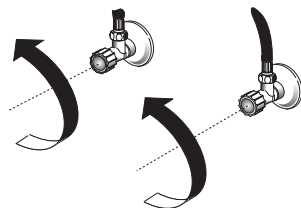
If LED doesn't flash or if it just lights up, remove the Battery. Wait three (3) minutes, then reinsert the Battery.

If water flows continuously after inserting the new Battery and opening the Supply Stops, remove the Battery. Wait three (3) minutes, then reinsert the Battery.



Step 6

Open Supply Stops.



TROUBLESHOOTING GUIDE

1. Problem: Faucet does not function.

Cause: Adhesive packaging label affixed over sensor eye.

Solution: Remove adhesive label from sensor eye.

Cause: "Permanent Off" activated.

Solution: Press button on Faucet throat one time.

2. Problem: Faucet delivers water in an uncontrolled manner.

Cause: Faucet is defective.

Solution: Contact the Sloan Valve Company Installation Engineering Department at 1-888-SLOAN-14 (1-888-756-2614).

3. Problem: Faucet does not deliver any water when Sensor is activated.

Indicator: Solenoid valve produces an audible "CLICK."

Cause: Water supply stop(s) closed.

Solution: Open water supply stop(s).

Cause: Water supply stop strainer(s) clogged.

Solution: Clean water supply stop strainer(s).

Indicator: Solenoid valve DOES NOT produce an audible "CLICK."

Cause: Battery low (EAF-150 Models).

Solution: Replace battery (refer to Battery Replacement on this page).

Cause: Power failure (EAF-100 Models).

Solution: Check power supply.

4. Problem: Faucet delivers only a slow flow or dribble when Sensor is activated.

Cause: Water supply stop(s) are partially closed.

Solution: Completely open water supply stop(s).

Cause: Water supply stop strainer(s) clogged.

Solution: Remove, clean, and reinstall water supply stop strainer(s). Replace strainer(s) if required.

Cause: Aerator is clogged.

Solution: Remove, clean, and reinstall Aerator. Replace Aerator if required.

Cause: Valve is defective.

Solution: Contact the Sloan Valve Company Installation Engineering Department at 1-888-SLOAN-14 (1-888-756-2614).

5. Problem: Faucet does not stop delivering water or continues to drip after user is no longer detected.

Cause: Valve is defective.

Solution: Contact the Sloan Valve Company Installation Engineering Department at 1-888-SLOAN-14 (1-888-756-2614).

6. Problem: LED indicator blinks when Faucet is in use.

Cause: Battery low.

Solution: Replace battery (refer to Battery Replacement on this page).

7. Problem: *l.g.* - Click doesn't function (-IC models only)

Cause: Button is defective.

Solution: Contact the Sloan Valve Company Installation Engineering Department at 1-888-SLOAN-14 (1-888-756-2614).

8. Problem: The water temperature is too hot or too cold on a Faucet connected to hot and cold supply lines.

CAUSE: Supply Stops are not adjusted properly.

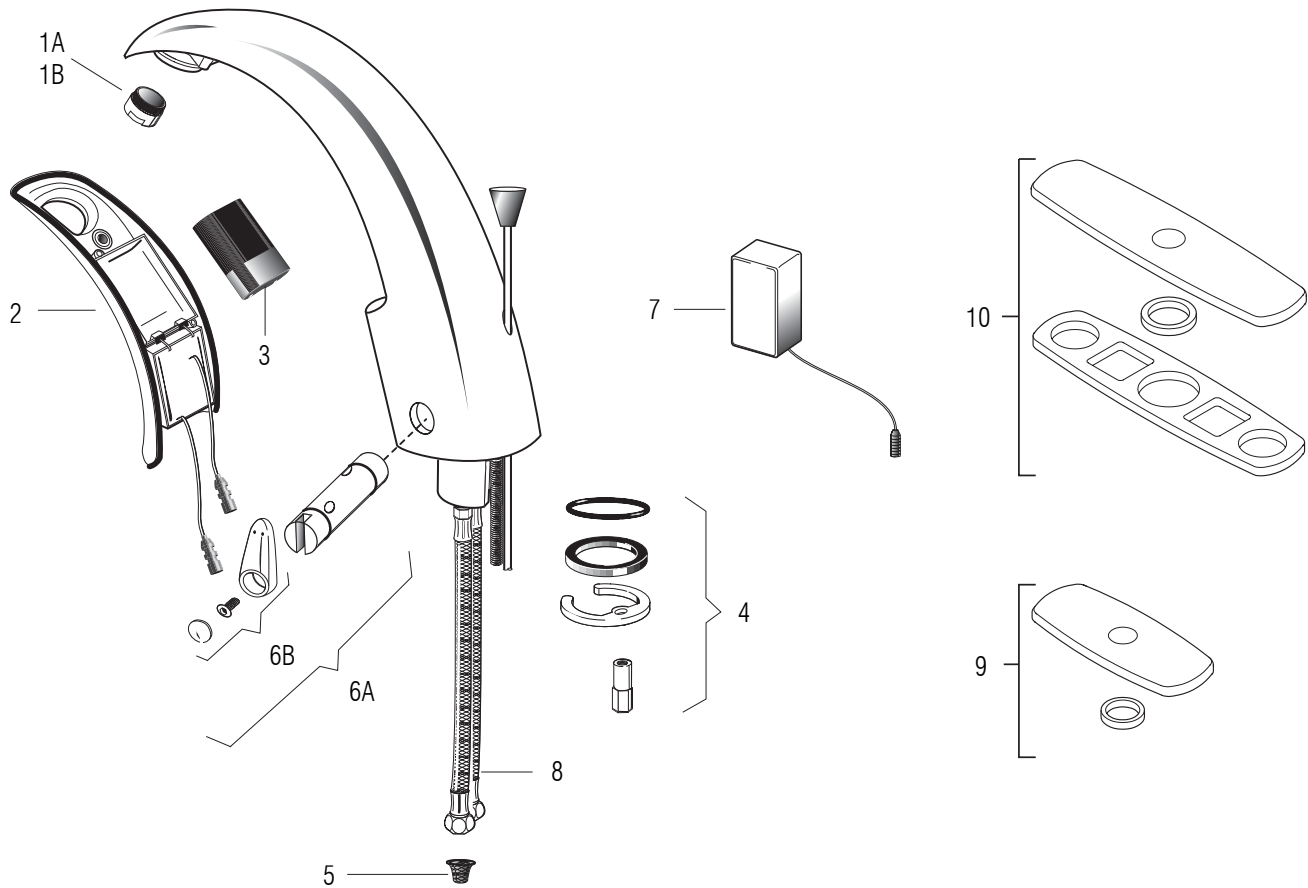
SOLUTION: Adjust Supply Stops.

CAUSE: For models with integral mixing valve — Mixing valve is set improperly for the water temperature desired.

SOLUTION: Rotate mixing valve handle clockwise to decrease water temperature or counterclockwise to increase water temperature.

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.	Part No.	Description
1A	EAF-10	2.2 gpm (8.3 Lpm) Aerator Spray Head
1B	EAF-12	0.5 gpm (1.9 Lpm) Spray Head
2A	EAF-3-A	Throat Plate Assembly (Battery Models)
2B	EAF-6-A	Throat Plate Assembly (Plug-in Transformer Models)
2C	EAF-4-A	Throat Plate Assembly with <i>i.q.</i> - <i>Click</i> (Battery Model)
2D	EAF-7-A	Throat Plate Assembly with <i>i.q.</i> - <i>Click</i> (Plug-in Transformer Model)
3	EAF-1000	Battery Replacement Kit

Item No.	Part No.	Description
4	EAF-1	Faucet Mounting Kit
5	EAF-9	Strainer (Filter)
6A	EAF-1001	Mixer Handle Assembly and Cartridge
6B	EAF-1002	Handle Repair Kit
7	EAF-11	Transformer
8	EAF-1008	13" (330 mm) Flexible Supply Hose
9	ETF-607-A	Trim Plate for 4" Center-set Sink
10	ETF-608-A	Trim Plate for 8" Center-set Sink

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