

## INSTALLATION INSTRUCTIONS FOR ELECTRONIC INFRARED SENSOR ACTIVATED LAVATORY FAUCETS



**EFX-150.500.0000**  
**Model Shown**  
(High Model with Bowed  
Crown and Water  
Temperature Adjustment)

**EFX-1XX SERIES**



**EFX-277.502.0000**  
**Model Shown**  
(Mid LCD Solar Model with  
Water Temperature Adjustment  
and Scrub Time Display)

**EFX-2XX SERIES**

**MODEL GUIDE OR BUILD YOUR FAUCET ONLINE AT [WWW.SLOANVALVE.COM](http://WWW.SLOANVALVE.COM)**

### EFX

—	Body Type	Power	Crown	.	Mix	Sensing	Flow Rate	.	Batteries	Base Plate	Adapters	Drain Pop-Up
<b>0</b>	—	Hardwire	Bowed	.	None	Active IR	0.5 gpm (1.9 Lpm) Multi-Lam Spray Insert	.	Alkaline	None	None	No
<b>1</b>	High	—	—	.	Below Deck, Mechanical	—	—	.	—	4-inch	US Plug-in	Yes
<b>2</b>	Mid	—	—	.	Below Deck, Thermostatic	—	1.5 gpm (5.7 Lpm) Aerated Insert	.	—	8-inch	UK Plug-in	—
<b>3</b>	—	—	—	.	—	—	1.5 gpm (5.7 Lpm) Laminar Insert	.	—	—	EU Plug-in	—
<b>4</b>	—	—	—	.	—	—	—	.	—	—	Box Mount	—
<b>5</b>	—	Battery	Solar	.	Integral Side Mixer	—	—	.	—	—	—	—
<b>6</b>	—	—	—	.	—	—	—	.	—	—	—	—
<b>7</b>	—	Solar	Solar w/LCD	.	—	—	—	.	—	—	—	—
<b>8</b>	—	Turbine	—	.	—	—	—	.	—	—	—	—

Choose one from each column.

#### LIMITED WARRANTY

Unless otherwise noted, Sloan Valve Company warrants this product, manufactured and sold for commercial or industrial uses, to be free from defects in material and workmanship for a period of three (3) years (1 year for SF faucets, special finish and PWT electronics and 30 days on PWT software) from date of first purchase. During this period, Sloan Valve Company will, at its option, repair, replace, or refund the purchase price of any product which fails to conform with this warranty under normal use and service. This shall be the sole and exclusive remedy under this warranty. Products must be returned to Sloan Valve Company, at customer's cost. No claims will be allowed for labor, transportation or other 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.**

## PRIOR TO INSTALLATION

Prior to installing the Sloan BASYS™ Series Faucets, install the items listed below. Also, refer to rough-in illustrations.

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

### IMPORTANT:

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

- **KEEP THREAD SEALANT OUT OF YOUR WATERWAY TO PREVENT COMPONENT PART DAMAGE! DO NOT USE ANY SEALANT ON COMPRESSION FITTINGS.**

### Base Plates

When the BASYS™ Faucet is installed on a sink that has three (3) hole punchings, a Base Plate should be used. **Base Plates should be specified at time of ordering.**

**EFX-20-A** Base Plate for 4" (102 mm) Centerset Sink

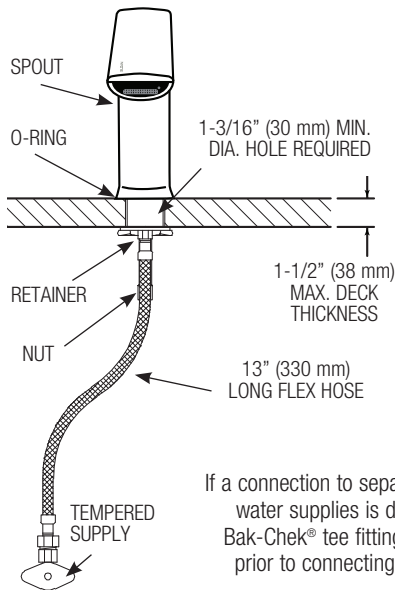
**EFX-26-A** Base Plate for 8" (203 mm) Centerset Sink

## TOOLS REQUIRED FOR INSTALLATION

- 2.5 mm allen key for removing crown
- 5/8" open end wrench for U.S. hose fittings
- 3/4" open end wrench for International hose fittings
- 13 mm socket or nut driver for mounting nut

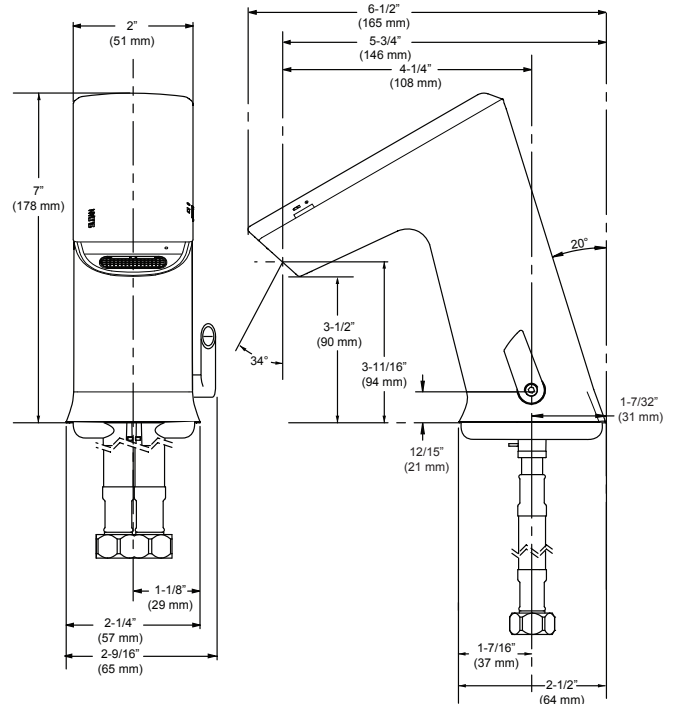
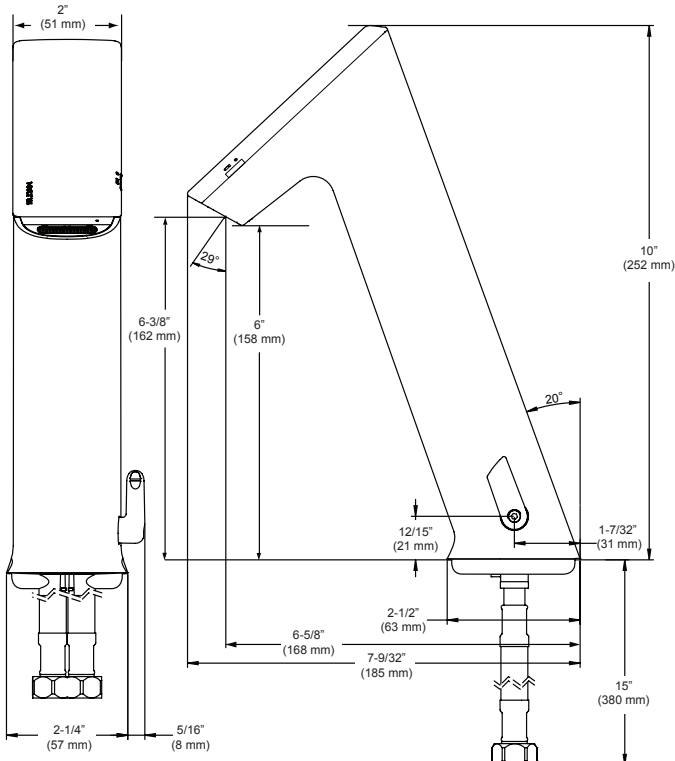
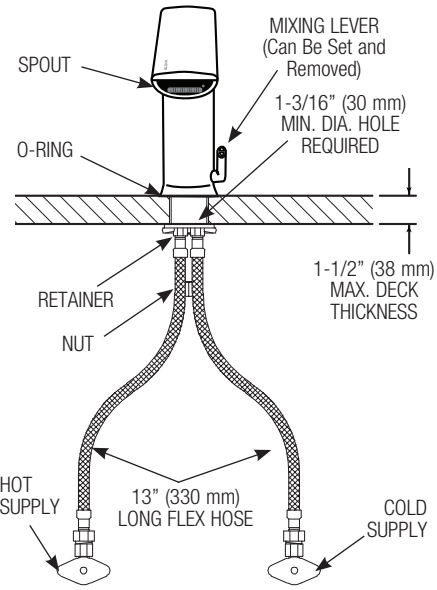
## FAUCET ROUGH-IN

### SINGLE SUPPLY 0.5 gpm (1.9 Lpm) Max. Flow ‡ Faucets with Single Tempered Water Supply



If a connection to separate hot and cold water supplies is desired, then a Bak-Chek® tee fitting must be used prior to connecting to the faucet.

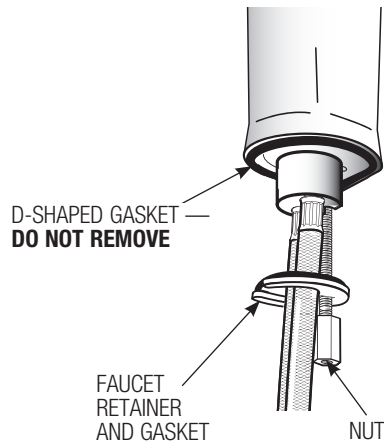
### DUAL SUPPLY 0.5 gpm (1.9 Lpm) Max. Flow ‡ Faucets with Hot and Cold Water Supply



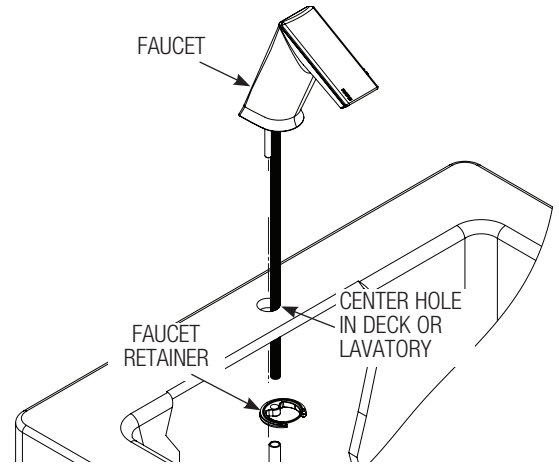
‡ Sloan BASYS™ Series Faucets are available with a 1.5 gpm (5.7 Lpm) Laminar and Aerated Inserts.

## 1 - INSTALL FAUCET

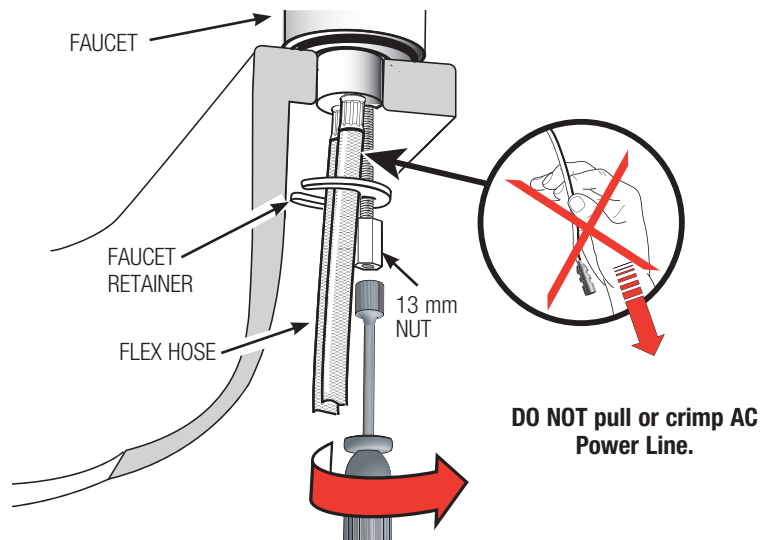
- A** Remove Nut and faucet retainer.  
**DO NOT REMOVE** the D-shaped gasket from base of faucet.  
**NOTE:** Do not remove sensor label until water is connected



- B** Install Faucet with faucet retainer 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 Base Plate should be installed at this time.



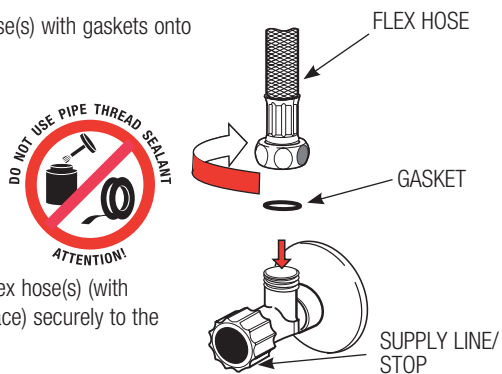
## 2 - SECURE TO SINK DECK



## 3 - CONNECT TO WATER SUPPLY

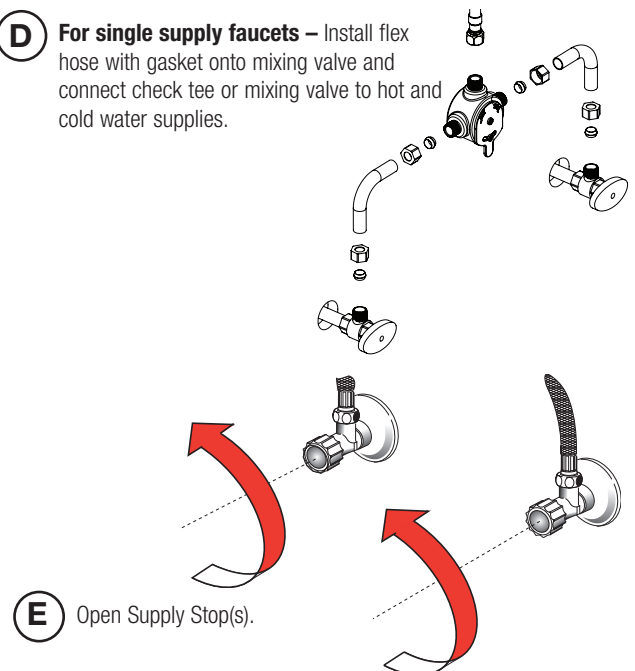
- A** **IMPORTANT:** Flush dirt, debris, and sediment from Supply Line(s) before Connecting Flex Hoses.

- B** Install flex hose(s) with gaskets onto supply stops.




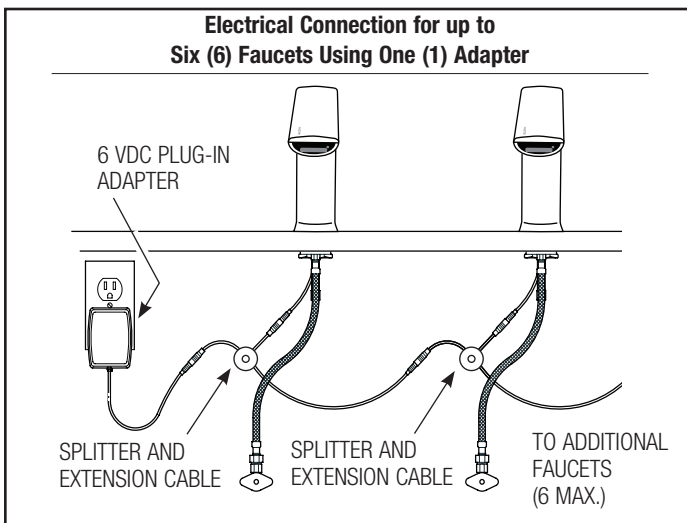
- C** Tighten the flex hose(s) (with gaskets in place) securely to the supply.


- D** For single supply faucets – Install flex hose with gasket onto mixing valve and connect check tee or mixing valve to hot and cold water supplies.




## 4 - START-UP SEQUENCE

- A** For Hardwire Models, Plug Adapter into receptacle.
- 
- ADAPTER
- TO FAUCET





- B** Remove label from sensor window.
- 
- The diagram shows the sensor window of the device. A red arrow points to the label on the sensor window, indicating it should be removed. The label is labeled "SENSOR LABEL". The "Green LED" is also indicated.


- C** Hold hand in front of spout (~ 1"). Remove hand when water flows. The background measurement starts. Wait for green LED on side of faucet.
- 

- D** Activate faucet and check for leaks. If faucet does not function, refer to the troubleshooting section.


## 5 - SET AND FIX TEMPERATURE AND ADJUST HOT LIMIT STOP

- A** Adjust lever to set temperature.
- 

- B** **Optional** — To fix temperature, set lever to the desired position, then remove lever and plug hole with Cap.
- 

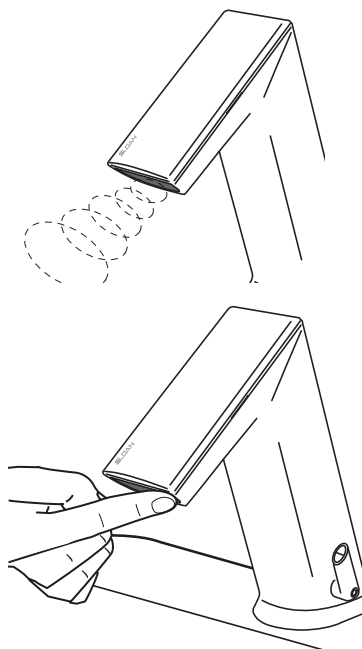
- C Optional Hot Limit Stop Adjustment** — To adjust the hot/cold mix (factory set at 50/50) remove the lever.
- Check to make sure dot is in center position before beginning adjustment.
- 
- Faucet may be adjusted.

Faucet may be adjusted in 10° increments.



The diagram illustrates the faucet handle adjustment. A hand is shown turning the handle. A red arrow indicates the range of motion, with a 2.5 mm scale bar and a 10° increment marker.

## ADDITIONAL FUNCTIONS



Function	Steps to Activate Function	Default Setting	IR Clic
<b>IR Activation</b>	Cover IR clic approximately for 2 sec. until LED will flash GREEN 1x - then remove finger from IR clic (Active for 5 sec.)	—	—
<b>Cleaning Mode</b>	IR activation; Cover IR clic 2x - confirmation of the function is active by a couple flashes by the LED; to return to normal operation cover IR clic 1x or the faucet will automatically return to normal function after 2 min.	2 min.	—
<b>12/24 Line Purge Feature</b>	See below.	Off	Off 12HR 24HR
<b>Sensor Range Adjustment</b>	See page 6.	6	1-8
<b>Reset Electronics</b>	IR activation; Cover IR clic 2x; LED will flash 5x Cover IR clic 1x for 5 sec. until LED flashes 4x, then remove finger from IR clic Wait for 20 sec. (After 10 sec. water will flow for 6 sec. and automatically adjust to environment)	Manually	—
<b>Security Off</b>	After 90 seconds (max) of hand and/or object within sensor appears permanent, waterflow will stop and will remeasure environment	On	—

Please contact factory for more extensive programming options.

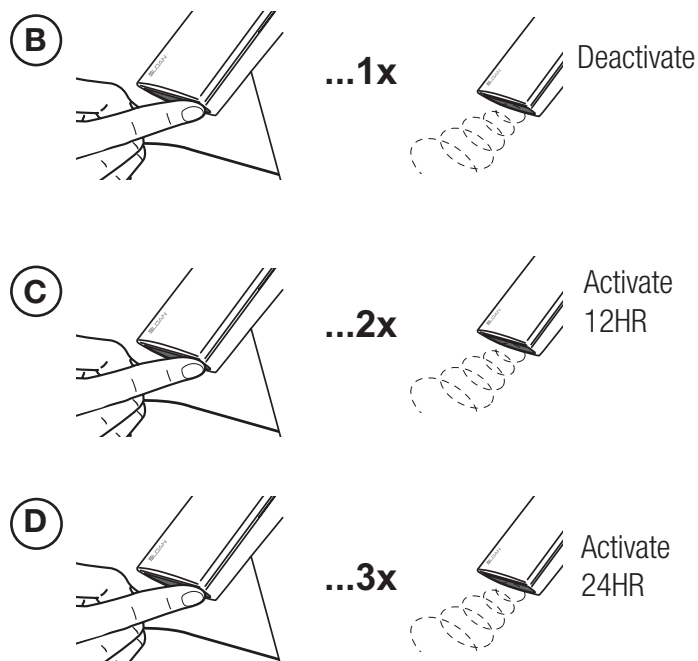
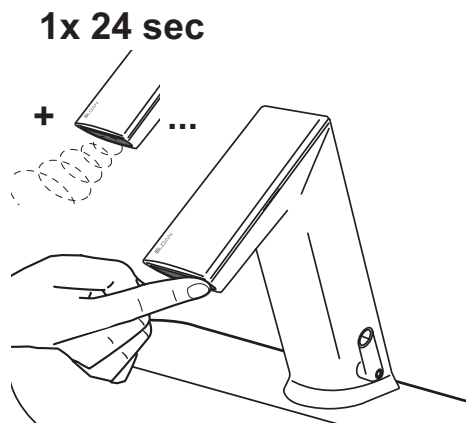
## 12/24 LINE PURGE FEATURE

This feature will operate the faucet every 12 or 24 hours since last use, if not used to prevent stagnant water conditions.

Default purge duration is two minutes.

Consult factory regarding other timing options.

- A** IR activation (see above). Cover IR clic approximately 24 sec. (ignore LED indications during this period). Release when requested program is reached. (See diagram to right). Programming mode will time out after 2 minutes if no changes are made.

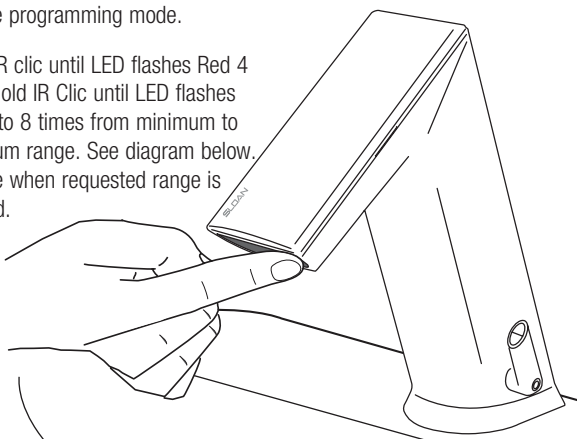


## SENSOR RANGE ADJUSTMENT

**FACTORY SETTING IS APPROPRIATE FOR THE MAJORITY OF APPLICATIONS AND SHOULD NOT REQUIRE RESETTNG UNLESS UNDER EXTREME SITUATIONS: HIGH REFLECTION OR LOW LIGHT.**

**A** IR Activation (see page 5). To enter programming mode place finger on IR clic for 2 times then remove. Light on side of crown should blink red to indicate programming mode.

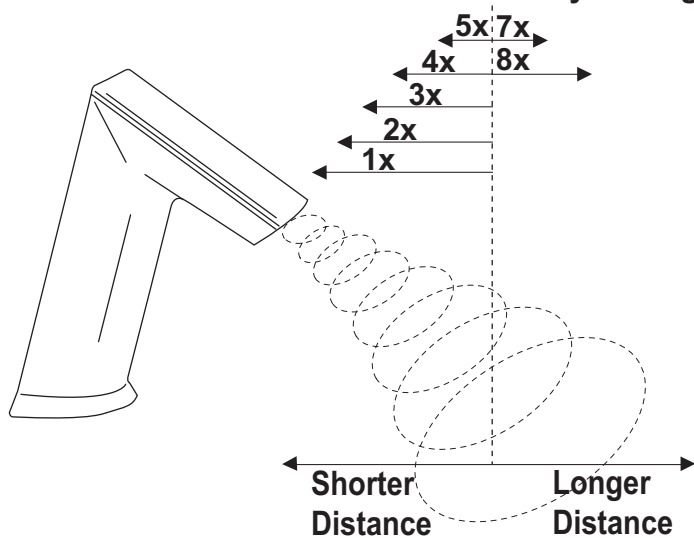
**B** Cover IR clic until LED flashes Red 4 times-hold IR Clic until LED flashes 1 time to 8 times from minimum to maximum range. See diagram below. Release when requested range is reached.



**C**

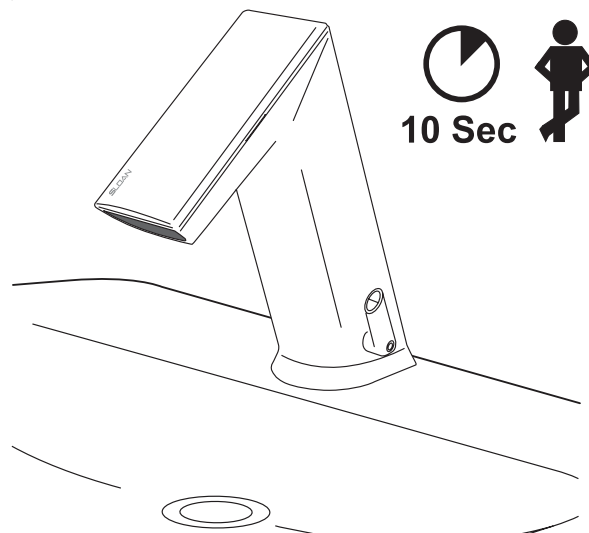


**6x - Factory Setting**



**D**

Wait, until LED flashes GREEN.

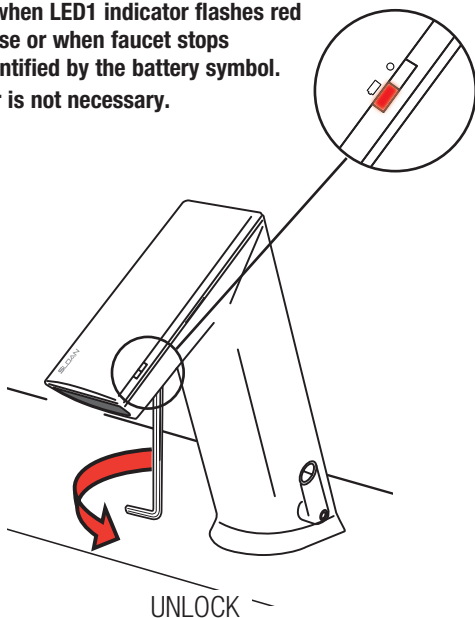


## BATTERY REPLACEMENT

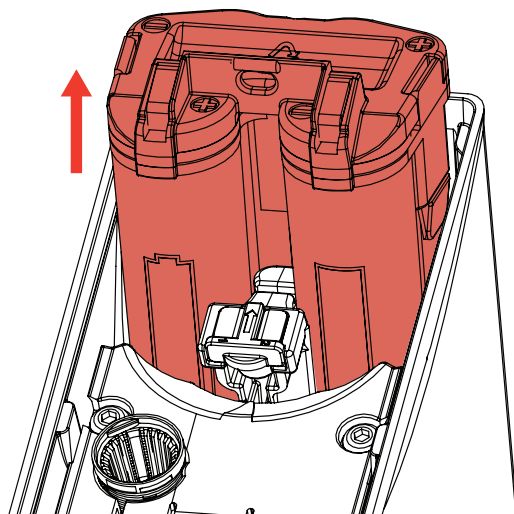
**NOTE:** Replace battery when LED1 indicator flashes red each time faucet is in use or when faucet stops functioning. LED1 is identified by the battery symbol.

**NOTE:** Turning off water is not necessary.

- A** Remove crown by loosening hex screw located on underside of spout and slide crown down and lift off.
- NOTE:** Screw is captive within faucet body and will not fall out.

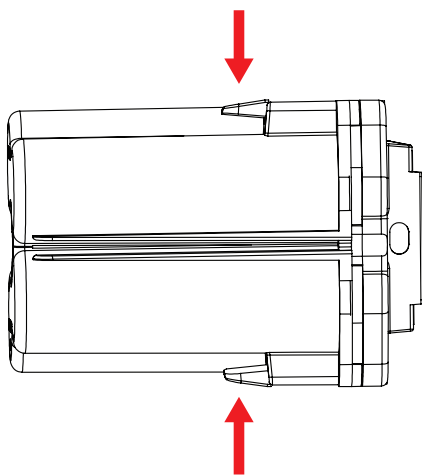


- B** Remove battery pack assembly by lifting out of spout.



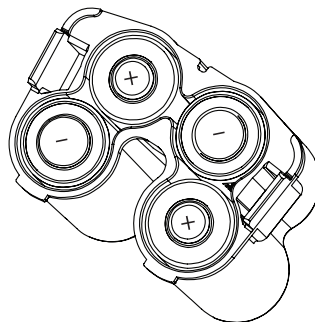
**NOTE:** Turbine faucet looks slightly different.

- C** Open battery pack assembly by pushing in tabs on side of assembly.

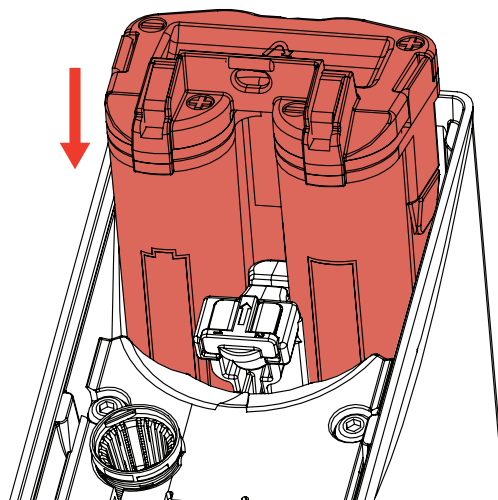


- D** Remove all four (4) AA-cell batteries from battery pack.

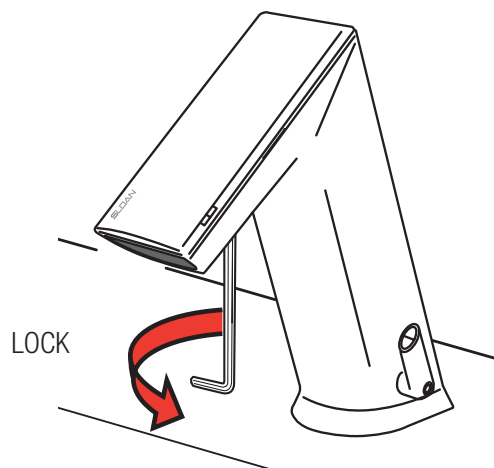
- E** Insert four (4) NEW AA-cell batteries into battery pack assembly cartridge.
- NOTE:** Insure batteries are installed with proper polarity. The cover of the case indicates polarity of batteries. Improper polarity will not harm the faucet. Improper polarity will cause the faucet not to operate.



- F** Replace cover of the battery pack assembly and reinsert assembly into faucet.



- H** Slide on crown and secure.

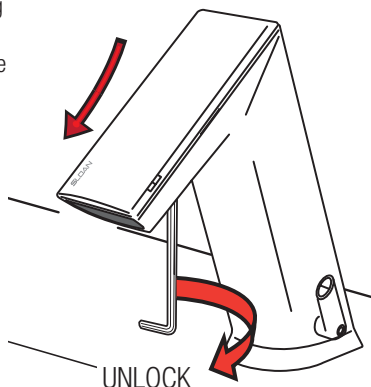




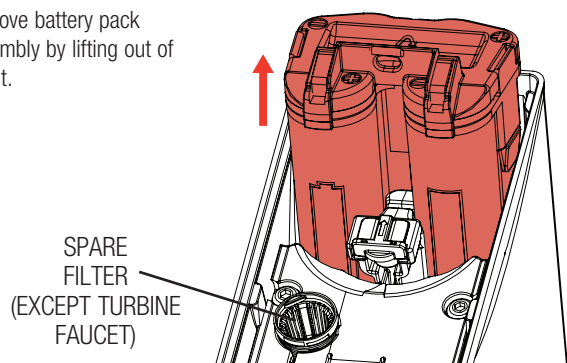
## REPLACING THE SOLENOID/FILTER

**NOTE: TURNING OFF WATER IS NOT NECESSARY, DUE TO INTEGRATED AUTOMATIC STOP VALVE.**

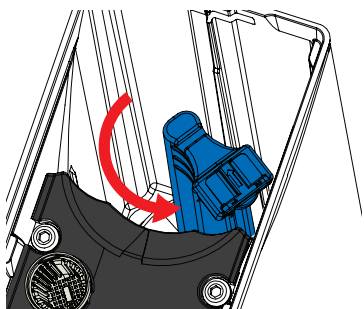
- A** Remove crown by loosening hex screw located on underside of spout and slide crown down and lift off.  
**NOTE: Screw is captive within faucet body.**



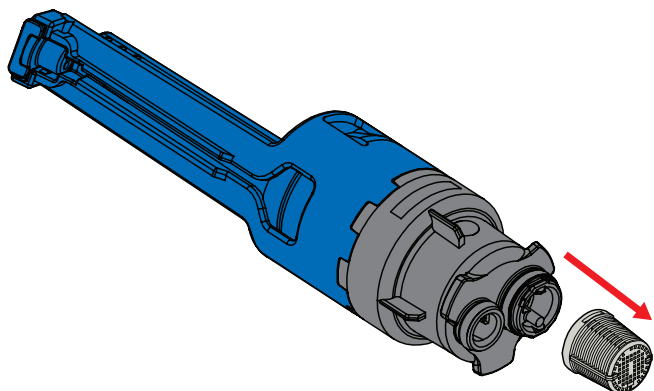
- B** Remove battery pack assembly by lifting out of spout.



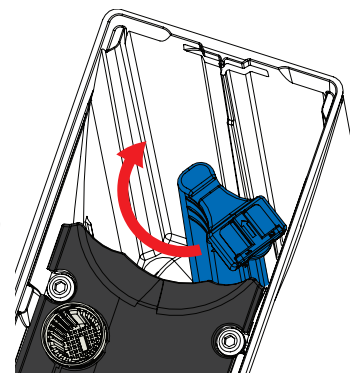
- C** Rotate solenoid assembly counter-clockwise through a 45° angle.



- D** Pull solenoid caddy from faucet.  
**NOTE: STRAINER CAN BE REMOVED, CLEANED AND REPLACED AT THIS TIME.**

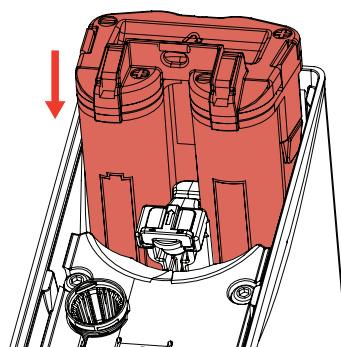


- E** Insert new solenoid caddy at a 45° angle.

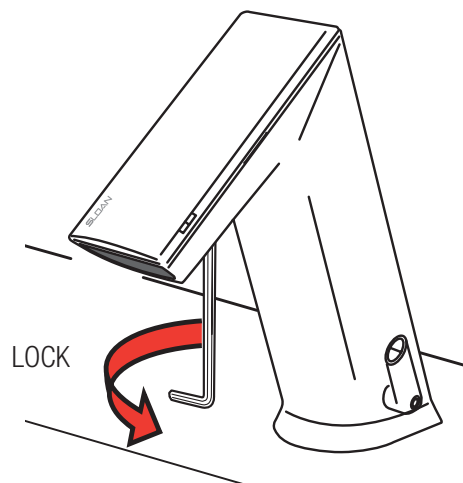


- F** Rotate solenoid caddy clockwise to align with arrow, locking the unit and opening water path.

- G** Reinsert battery pack assembly.



- H** Slide on crown and secure.

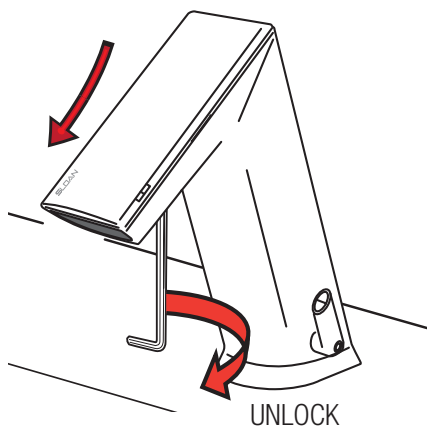




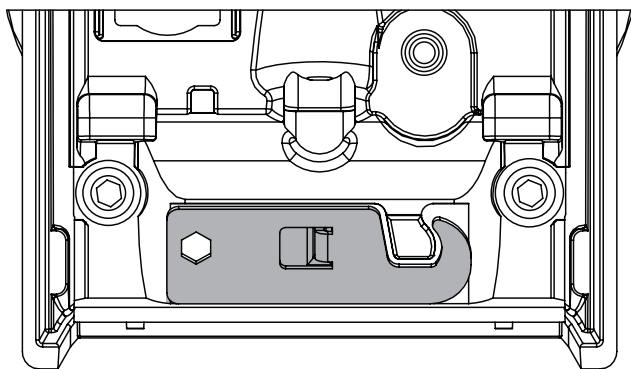
## REPLACE SPRAY INSERT

**NOTE: TURNING OFF WATER IS NOT NECESSARY, DUE TO INTEGRATED AUTOMATIC STOP VALVE.**

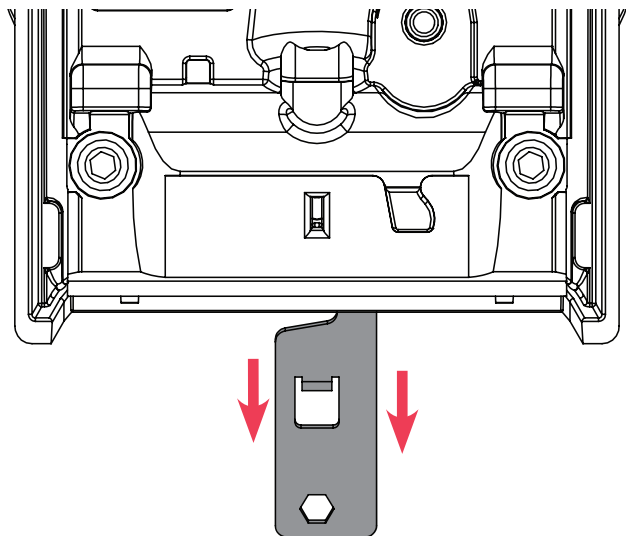
- A** Remove crown by loosening hex screw located on underside of spout and slide crown down and lift off.  
**NOTE: Screw is captive within faucet body.**



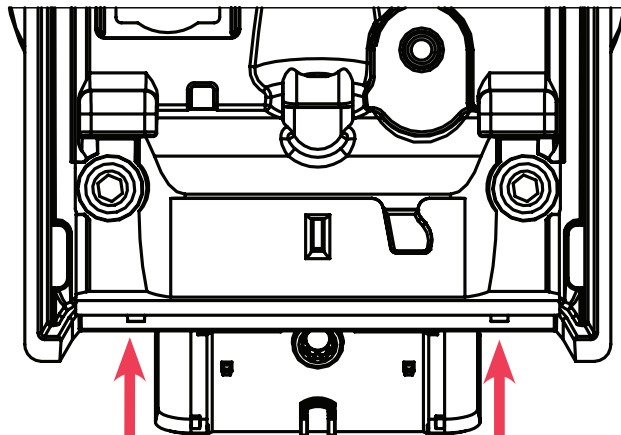
- B** Retrieve spray removal tool located near the spray insert.



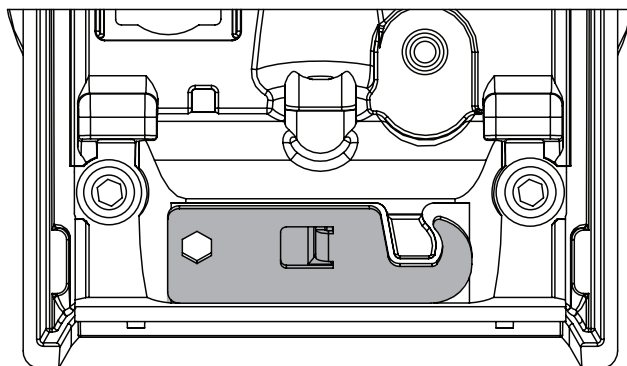
- C** Insert spray removal tool into spray slot by sliding hook end of key between faucet spout and insert. Pull insert out of faucet once hooked.



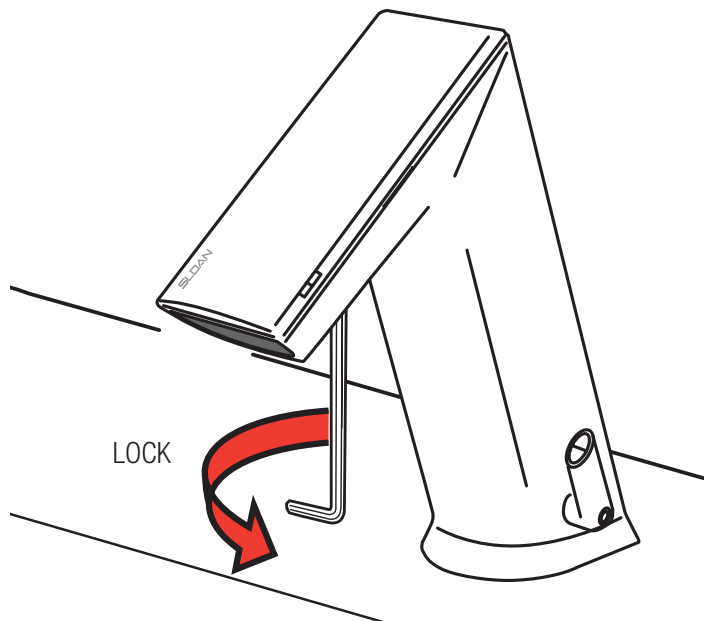
- D** Install new insert.  
**NOTE: If changing to a different flow rate solenoid caddy must also be changed.**



- E** Return spray removal tool to storage location.  
**NOTE: This can only be done once spray head is installed. This will lock the spray head in place.**  
**NOTE: If spray head is inserted incorrectly – key will not lock in properly. Turn faucet on to push insert out and re-install.**



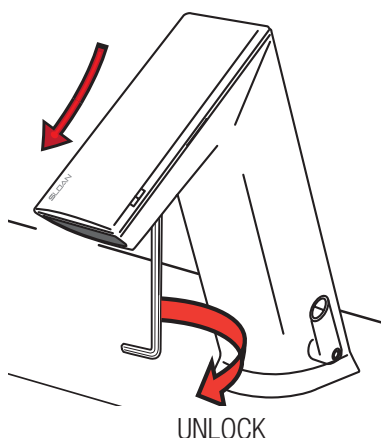
- G** Slide on crown and secure.



## UPGRADE FAUCET FUNCTIONALITY

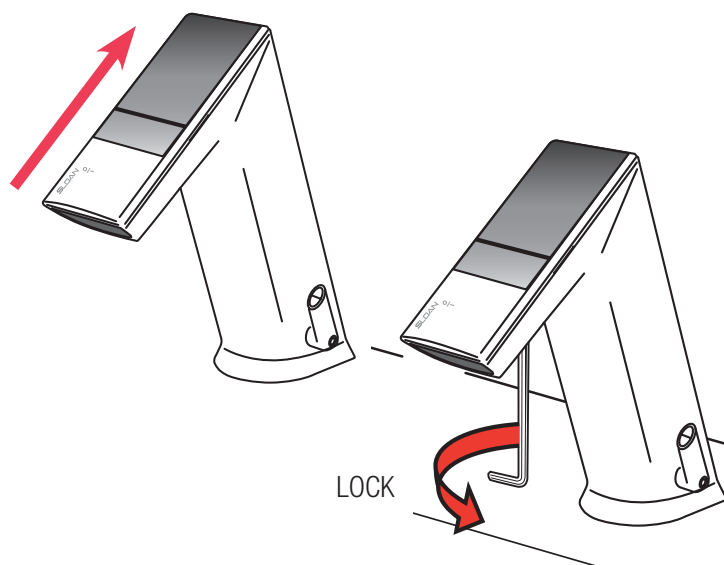
- A** Remove crown by loosening hex screw located on underside of spout and slide crown down and lift off.

**NOTE: Screw is captive within faucet body.**

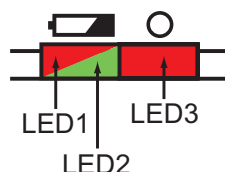


- B** Place new crown on faucet by sliding onto spout and tightening hex screw on underside of spout.

**NOTE: All electronics are fully encapsulated in the crown and thus protected from the environment and easy to replace or upgrade.**



## LED DISPLAY DIAGNOSTIC CODES



LEDs BLINKING



LEDs ON

Function	LED1	LED2	LED3	Description 1	Description 2
Start Up Boot				LED1 and LED2 alternate blinking	Fast Toggle
Battery Check after Start Up				LED1 on for 2 sec, if battery greater than 3.5V	
Line Power Check after Start Up				LED3 on for 2 sec, if line power greater than 3.5V	
IR Adjust Process				LED1 blinking while IR adjusts	Few seconds
IR Adjust OK				LED2 on for 2 sec, if adjustment OK	
Battery Low				LED1 blinks 3x, if battery is less than warning level	Only while in detection mode
Battery Empty				LED1 double flashes 3x, if battery is less than empty level	Only while in detection mode
Valve Error				LED3 double flashes 3x, if valve current error; flash after the 3rd error, off after the 3rd good operation	Flashes after the 3rd error, off after the 3rd good operation
IR Activation				LED2 on for 2 sec, if IR-click has been activated	After 5 sec. automatically back to operating mode
Cleaning Mode				LED1 4-in-1 flash, if cleaning mode is activated	During "Cleaning Mode" is activated Permanent 4-in-1 flashes

## TROUBLESHOOTING GUIDE

### 1. Red LED in spout does not blink 2 sec after battery installation.

**Battery placement incorrect or batteries have been discharged.**

Ensure alkaline batteries are installed properly. Check the orientation of each battery matches the positive (+) and negative (-) symbols shown on the battery compartment.

### 2. Faucet does not function.

**Adhesive packaging label affixed over sensor eye.**

Remove adhesive label from sensor eye.

### 3. Faucet delivers water in an uncontrolled manner.

**Faucet is not working properly.**

Clean sensor window. If continually not working contact Sloan's Tech Support Department.

### 4. Faucet does not deliver any water when sensor is activated.

**Solenoid valve produces an audible "CLICK".**

**A. Water supply stop(s) closed.**

Open water supply stop(s).

**B. Strainer is clogged.**

Remove, clean, and reinstall strainer. Replace strainer (filter), if needed (refer to page 8)

**Solenoid valve DOES NOT produce an audible "CLICK".**

**A. Batteries low (battery powered models).**

Replace batteries (refer to battery replacement on page 7).

**B. Power failure (hardwire models).**

Check power supply.

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

**Water supply stop(s) are partially closed.**

Completely open water supply stop(s).

### 6. Faucet does not stop delivering water or continues to drip after user is no longer detected.

**Faucet is not working properly.**

Clean sensor window. If continually now working contact Sloan's Technical Support Department (see below).

### 7. LED indicator blinks RED when faucet is in use.

**Batteries low (battery powered models).**

Replace batteries (refer to battery replacement on page 7).

### 8. The water temperature is too hot or too cold on a faucet connected to hot and cold water supply lines.

**A. Supply stops are not adjusted properly.**

Adjust supply stops.

**B. For models with integral side mixing valve—Mixing valve is set improperly for the water temperature desired.**

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

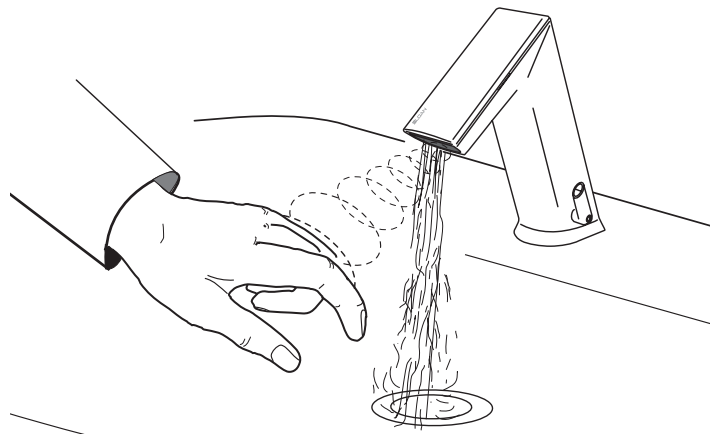
**C. Inadequate hot water supply.**

Adjust supply stops.

When assistance is required, please contact  
Sloan Technical Support at:  
**1-888-SLOAN-14 (1-888-756-2614)**

## OPERATION

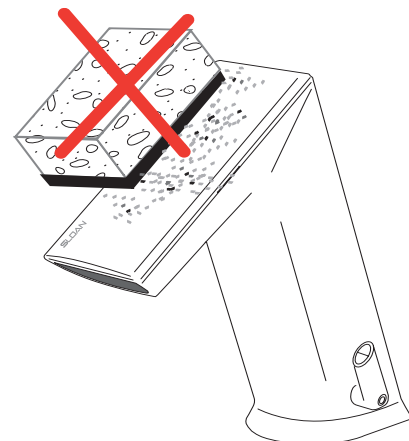
As the user's hands enter the beam's effective sensor range, the beam is reflected back into the sensor receiver and activates the solenoid valve allowing water to flow from the faucet. Water will flow until the hands are removed or until the faucet reaches its automatic time out limit setting, if hands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



## 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** 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.



# PARTS LIST

Item #	Part #	Description
1	—	Mid Mount Faucet Assembly
—	—	Mid Mount Turbine Faucet Assembly
—	—	Mid Mount Faucet Assembly with Mixer
—	—	Mid Mount Turbine Faucet Assembly with Mixer
—	—	High Mount Faucet Assembly
—	—	High Mount Turbine Faucet Assembly
—	—	High Mount Faucet Assembly with Mixer
—	—	High Mount Turbine Faucet Assembly with Mixer
2	EFX-1002-A	0.5 gpm/1.9 Lpm Multi-Lam Insert (includes insert, o-ring, 2.5 mm allen key and removal tool)
	EFX-1001-A	1.5 gpm/5.7 Lpm Aerated Stream Insert (includes insert, o-ring, 2.5 mm allen key and removal tool)
	EFX-1000-A	1.5 gpm/5.7 Lpm Laminar Stream Insert (includes insert, o-ring, 2.5 mm allen key and removal tool)
3A	EFX-15	0.5 gpm/1.9 Lpm Solenoid Valve Caddy Assembly – Mid Mount (Green)
	EFX-16	1.5 gpm/5.7 Lpm Solenoid Valve Caddy Assembly – Mid Mount (Blue)
3B	EFX-17	0.5 gpm/1.9 Lpm Solenoid Valve Caddy Assembly – High Mount (Green)
	EFX-18	1.5 gpm/5.7 Lpm Solenoid Valve Caddy Assembly – High Mount (Blue)
4	EFX-19	Strainer (Filter)
5	EFX-7	Battery Pack Assembly
6A	EFX-1-A	Crown Assembly
6B	EFX-3-A	Solar Crown Assembly
6C	EFX-4-A	Solar Crown with LCD Assembly
7	EFX-24	Mixer Handle Assembly
8	EFX-25	Handle Cap
9	EAF-1	Faucet Mounting Kit (Pedestal)
10	EAF-1008	13" (330 mm) Flexible Supply Hoses (2)
11	EFX-26-A	Base Plate for 8" Centerset Sink
12	EFX-20-A	Base Plate for 4" Centerset Sink
13	EAF-11	Plug-in Voltage Adapter (US)
	EAF-41	Plug-in Voltage Adapter (EU)
	EAF-39	Plug-in Voltage Adapter (UK)
	EAF-37	Box Mount Adapter
14	EAF-24-A	11-13/16" (300 mm) Extension Cable
	EAF-25-A	47-1/4" (1200 mm) Extension Cable
	EAF-17-A	126" (3200 mm) Extension Cable
15	EAF-23-A	Splitter
16	MIX-60-A	Mechanical, Below Deck Mixing Valve
17	MIX-135-A	Thermostatic, Below Deck Mixing Valve
18	ETF-617-A	Bak-Chek Tee

**NOTE: If changing flow rate caddy and spray insert must be changed in conjunction.**

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 U.S. Patents. Other Patents Pending. BAK-CHEK<sup>®</sup>, BASYS<sup>™</sup>,  
 Any Application. Any Environment.<sup>™</sup>

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

