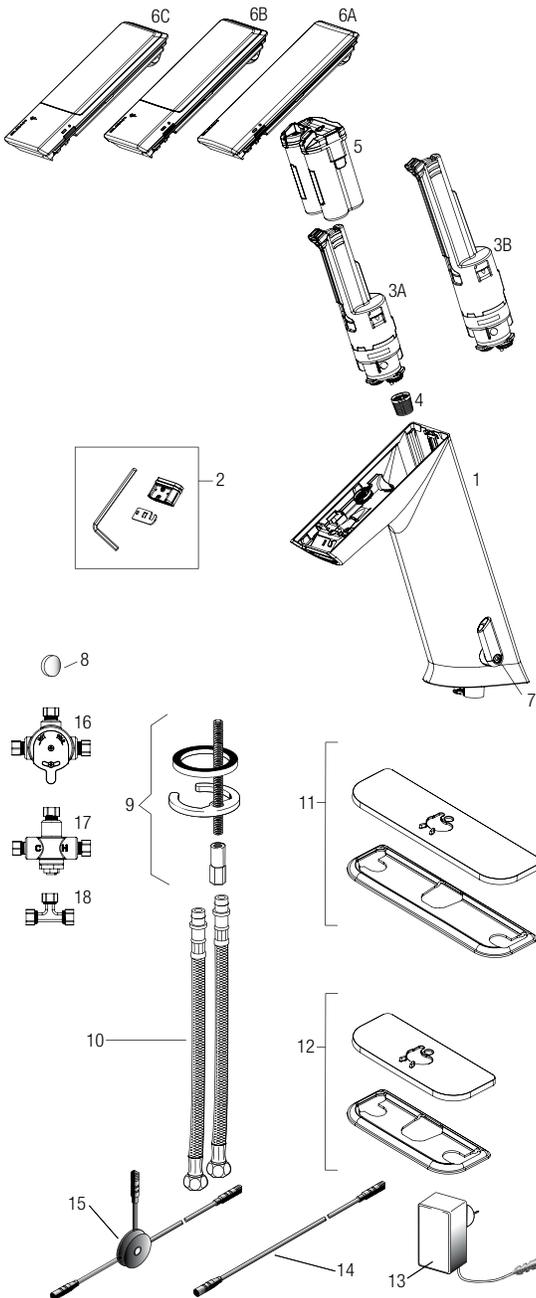


BASYS™ Infrared Sensor Activated



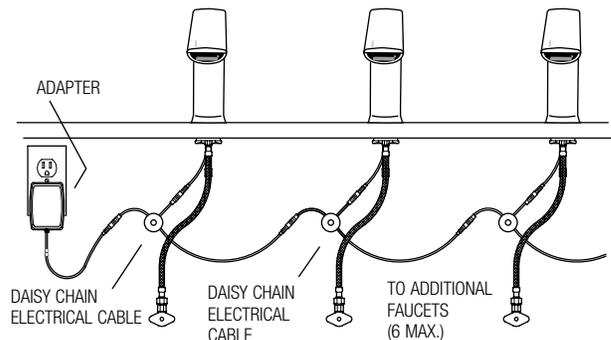
PARTS LIST—BASYS FAUCETS

Item No.	Code No.	Part No.	Description
1.	—	—	Mid Mount Faucet Assembly
	—	—	Mid Mount Faucet Assembly with Mixer
	—	—	High Mount Faucet Assembly
	—	—	High Mount Faucet Assembly with Mixer
2.	3324104	EFX-1002-A	0.5 gpm/1.9 Lpm Multi-Lam Insert (includes insert, o-ring, 2.5 mm allen key and removal tool)
	3324103	EFX-1001-A	1.5 gpm/5.7 Lpm Aerated Stream Insert (includes insert, o-ring, 2.5 mm allen key and removal tool)
	3324102	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.	3324122	EFX-15-A	0.5 gpm/1.9 Lpm Solenoid Valve Caddy Assembly – Mid Mount (Green)
	3324123	EFX-16-A	1.5 gpm/5.7 Lpm Solenoid Valve Caddy Assembly – Mid Mount (Blue)
3B.	3324124	EFX-17-A	0.5 gpm/1.9 Lpm Solenoid Valve Caddy Assembly – High Mount (Green)
	3324125	EFX-18-A	1.5 gpm/5.7 Lpm Solenoid Valve Caddy Assembly – High Mount (Blue)
4.	0324019	EFX-19	Strainer (Filter)
5.	3324128	EFX-7-A	Battery Pack Assembly
6A.	3324118	EFX-1-A	Crown Assembly
6B.	3324119	EFX-3-A	Solar Crown Assembly
6C.	3324120	EFX-4-A	Solar Crown with LCD Assembly
7.	—	—	Mixer Handle Assembly
8.	0324035	EFX-33	Handle Cap
9.	0335000	EAF-1	Faucet Mounting Kit (Pedestal)
10.	3325023	EAF-1008	13" (330 mm) Flexible Supply Hoses (2)
11.	3324101	EFX-26-A	Trim Plate for 8" Centerset Sink
12.	3324100	EFX-20-A	Trim Plate for 4" Centerset Sink
13.	0324027	EFX-27	Plug-in Voltage Adapter (US)
	—	EFX-28	Plug-in Voltage Adapter (EU)
	—	EFX-29	Plug-in Voltage Adapter (UK)
	0335037	EAF-37	Box Type Voltage Adapter
14.	0335024	EAF-24-A	11-13/16" (300 mm) Extension Cable
	0335025	EAF-25-A	47-1/4" (1200 mm) Extension Cable
	0335015	EAF-17-A	126" (3200 mm) Extension Cable
15.	0335023	EAF-23-A	Splitter
16.	3326009	MIX-60-A	Mechanical, Below Deck Mixing Valve
17.	0326045	MIX-135-A	Thermostatic, Below Deck Mixing Valve
18.	3365461	ETF-617-A	Bak-Chek Tee

NOTE: If changing flow rate caddy and spray insert must be changed in conjunction.
 — in Item No. column = Not shown in illustration
 — in Code No. and Part No. column = Not sold separately

Hand Hygiene

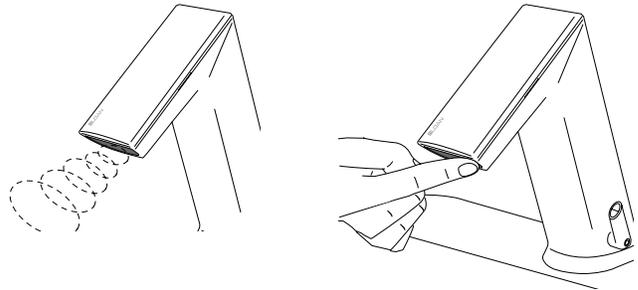
Electrical Connection for up to Six (6) Faucets Using One (1) Adapter



BASYS™ Infrared Sensor Activated

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.

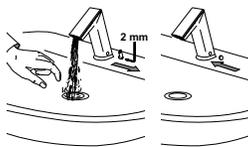


SET AND FIX TEMPERATURE AND ADJUST HOT LIMIT STOP

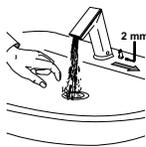
Adjust lever to set temperature.



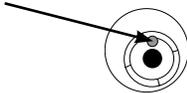
Optional — To fix temperature, set lever to the desired position, then remove lever and plug hole with Cap.



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 in 10° increments.



Function	Steps to Activate Function	Default Setting	IR Clic
IR Activation	Cover IR clic approximately for 2 sec. until LED will flash GREEN 1x - then remove finger from IR clic (Active for 5 sec.)	—	—
Cleaning Mode	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.	—
12/24 Line Purge Feature	See below.	Off	Off 12HR 24HR
Sensor Range Adjustment	See page 123.	6	1-8
Reset Electronics	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	—
Security Off	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.

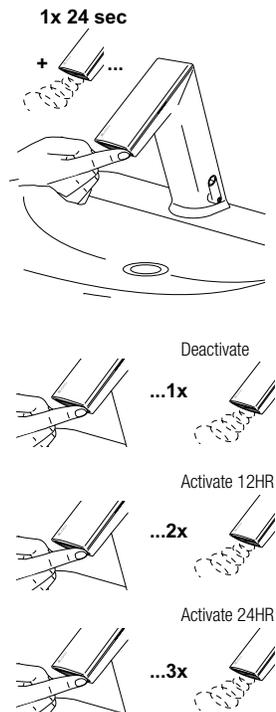
12/24 LINE PURGE FEATURE

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.

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.



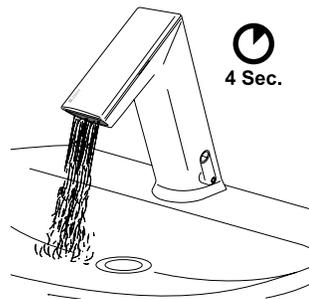
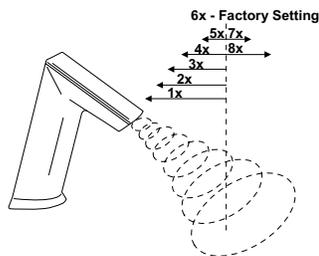
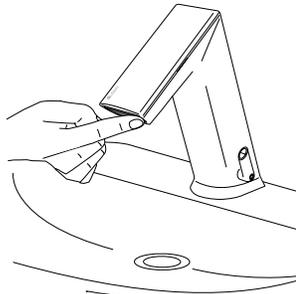
BASYS™ Infrared Sensor Activated

SENSOR RANGE ADJUSTMENT

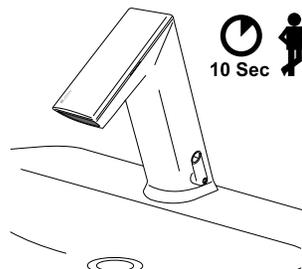
Factory setting is appropriate for the majority of applications and should not require resetting unless under extreme situations.

IR Activation (see page 122). To enter programming mode place finger on IR clic for 2 times then remove. Light on side of crown should blink to indicate programming mode.

Cover IR clic until LED flashes 4x - hold on until LED flashes 1x to 8x, from minimum to maximum. See diagram below. Release when requested range is reached.



Wait, until LED flashes GREEN.



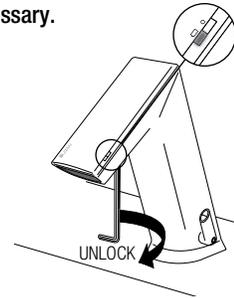
BATTERY REPLACEMENT

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.

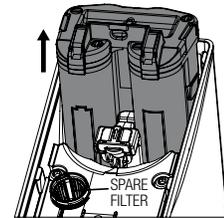
NOTE: Turning off water is not necessary.

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

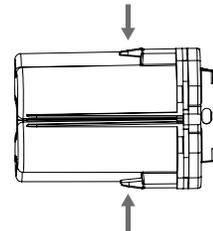
NOTE: Screw is captive within faucet body and will not fall out.



Remove battery pack assembly by lifting out of spout.



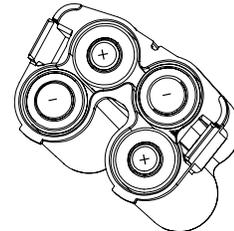
Open battery pack assembly by pushing in tabs on side of assembly.



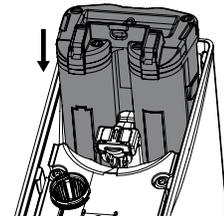
Remove all four (4) AA-cell batteries from battery pack.

Insert four (4) NEW AA-cell batteries into battery pack assembly cartridge.

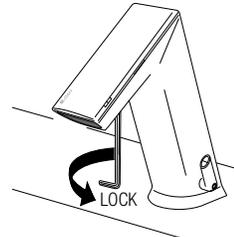
NOTE: Insure batteries are installed with proper polarity. The cover of the case indicates polarity of batteries. Improper polarity will not harm the faucet. Improper polarity will cause the faucet not to operate.



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



Slide on crown and secure.



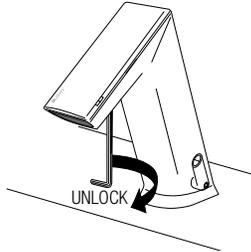
BASYS™ Infrared Sensor Activated

REPLACING THE SOLENOID STRAINER (FILTER)

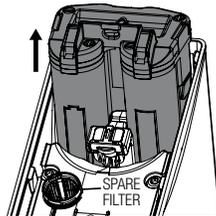
NOTE: Turning off water is not necessary, due to integrated automatic stop valve.

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

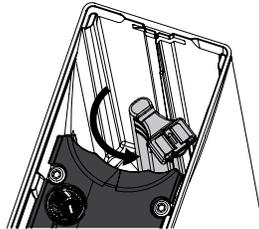
NOTE: Screw is captive within faucet body.



Remove battery pack assembly by lifting out of spout.

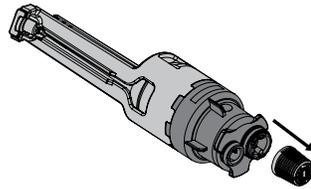


Rotate solenoid assembly counter-clockwise through a 45° angle.



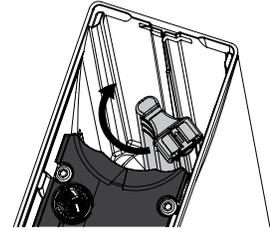
Pull solenoid caddy from faucet.

NOTE: STRAINER (FILTER) CAN BE REMOVED, CLEANED AND REPLACED AT THIS TIME.

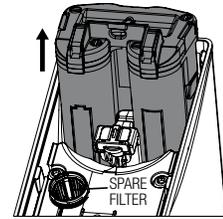


Insert new solenoid caddy at a 45° angle.

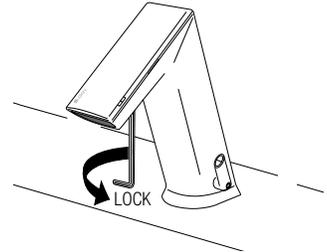
Rotate solenoid caddy clockwise to align with arrow, locking the unit and opening water path.



Reinsert battery pack assembly.



Slide on crown and secure.



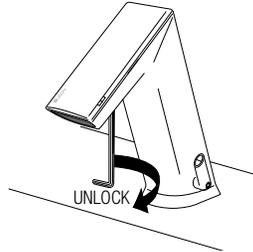
BASYS™ Infrared Sensor Activated

REPLACE SPRAY INSERT

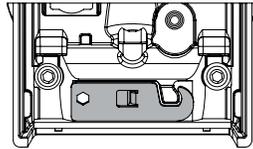
NOTE: Turning off water is not necessary, due to integrated automatic stop valve.

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

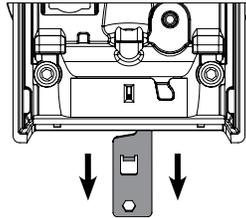
NOTE: Screw is captive within faucet body.



Retrieve spray removal tool located near the spray insert.

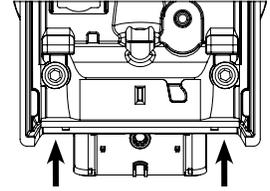


Insert spray removal tool into spray slot by sliding hook end of key between faucet spout and insert. Pull insert out of faucet once hooked.



Install new insert.

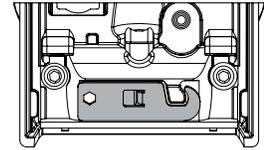
NOTE: If changing to a different flow rate solenoid caddy must be changed in conjunction.



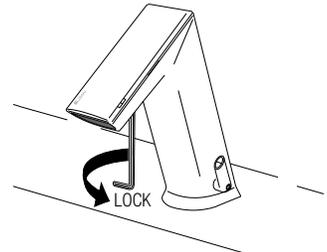
Return spray removal tool to storage location.

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.



Slide on crown and secure.

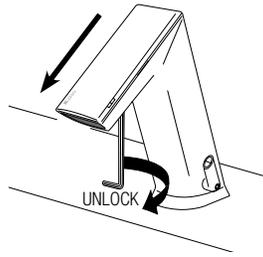


BASYS™ Infrared Sensor Activated

UPGRADE FAUCET FUNCTIONALITY

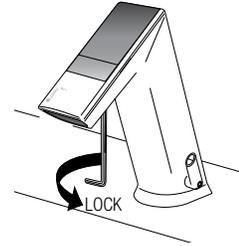
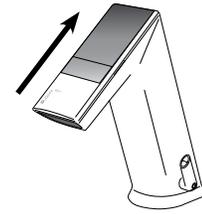
Remove crown by loosening hex screw located on underside of spout and slide crown down and lift off.

NOTE: Screw is captive within faucet body.

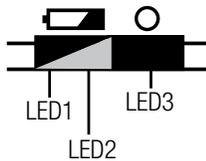


Place new crown on faucet by sliding onto spout and tightening hex screw on underside of spout.

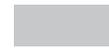
NOTE: All electronics are fully encapsulated in the crown and thus protected from the environment and easy to replace or upgrade.



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 IR				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

Hand Hygiene

BASYS™ Infrared Sensor Activated

TROUBLESHOOTING GUIDE

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

- Battery placement incorrect or batteries have been discharged.
- Ensure 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 now working contact Sloan's Tech Support Department.

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

INDICATOR: Solenoid valve produces an audible "CLICK".

- Water supply stop(s) closed.
Open water supply stop(s).
- Strainer is clogged.
Remove, clean, and reinstall strainer. Replace strainer, if needed (refer to page 124).

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

- Batteries low (battery powered models).
Replace batteries (refer to battery replacement on page 123).
- Power failure (hardwire models).
Check power supply.

6. 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).

7. 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 Tech Support Department (see below).

8. LED indicator blinks RED when faucet is in use.

- Batteries low (battery powered models).
- Replace batteries (refer to battery replacement on page 123).

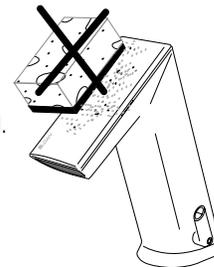
9. The water temperature is too hot or too cold on a faucet connected to hot and cold water supply lines.

- Supply stops are not adjusted properly.
Adjust supply stops.
- 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.
- Inadequate hot water supply.
Adjust supply stops.

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.



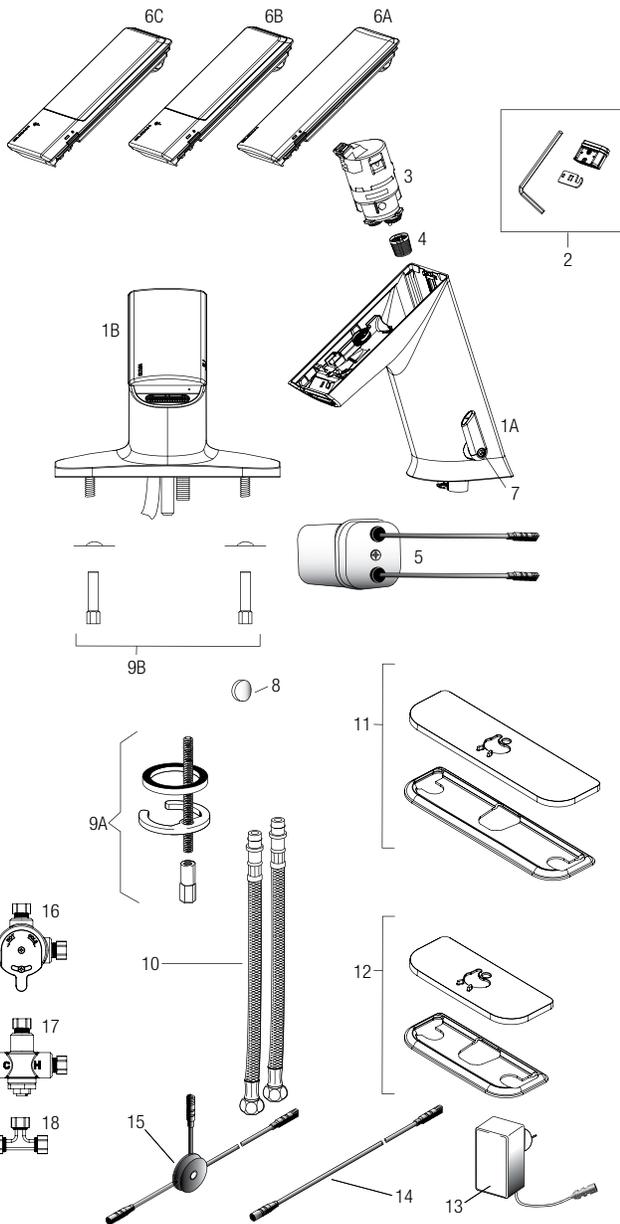
When assistance is required, please contact Sloan Technical Support at: 1-888-SLOAN-14 (1-888-756-2614).

BASYS™ Infrared Sensor Activated



EFX-3XX SERIES

EFX-6XX SERIES



Hand Hygiene

PARTS LIST—BASYS FAUCETS

Item No.	Code No.	Part No.	Description
1A.	—	—	Low Pedestal Faucet Assembly*
	—	—	Low Pedestal Faucet Assembly with Mixer*
1B.	—	—	Low Integrated Base Faucet Assembly†
2.	3324104	EFX-1002-A	0.5 gpm/1.9 Lpm Multi-Lam Spray Head (includes insert, o-ring, 2.5 mm allen key, and removal tool)
	3324103	EFX-1001-A	1.5 gpm/5.7 Lpm Aerated Stream Insert (includes insert, o-ring, 2.5 mm allen key, and removal tool)
	3324102	EFX-1000-A	1.5 gpm/5.7 Lpm Laminar Stream Insert (includes insert, o-ring, 2.5 mm allen key, and removal tool)
3.	—	EFX-37	0.5 gpm/1.9 Lpm Solenoid Valve Caddy Assembly — Low (Green)
	—	EFX-38	1.5 gpm/5.7 Lpm Solenoid Valve Caddy Assembly — Low (Blue)
4.	0324019	EFX-19	Strainer (Filter)
5.	3324118	EFX-23-A	Battery Pack Assembly
6A.	3324119	EFX-1-A	Crown Assembly
6B.	3324121	EFX-3-A	Solar Crown Assembly
6C.	3324120	EFX-4-A	Solar Crown with LCD Assembly
7.	—	—	Mixer Handle Assembly (for EFX-3 IR models only)
8.	—	EFX-25	Handle Cap (for EFX-3 IR models only)
9A.	0335000	EAF-1	Faucet Mounting Kit (for pedestal model only)
9B.	—	EFX-21-A	Faucet Mounting Kit (for integrated base model only)
10.	3325023	EAF-1008	13" (330 mm) Flexible Supply Hoses (2)
11.	3324101	EFX-26-A	Trim Plate for 8" Centerset Sink
12.	3324100	EFX-20-A	Trim Plate for 4" Centerset Sink
13.	0324027	EFX-27	Plug-in Adapter (US)
	—	EFX-28	Plug-in Adapter (EU)
	—	EFX-29	Plug-in Adapter (UK)
	0335037	EAF-37	Box Type Votage Adapter
14.	0335024	EAF-24-A	11-13/16" (300 mm) Extension Cable
	0335025	EAF-25-A	47-1/4" (1200 mm) Extension Cable
	0335015	EAF-17-A	126" (3200 mm) Extension Cable
15.	0335023	EAF-23-A	Splitter
16.	3326009	MIX-60-A	Mechanical, Below Deck Mixing Valve
17.	0326045	MIX-135-A	Thermostatic, Below Deck Mixing Valve
18.	3365461	ETF-617-A	Bak-Chek Tee

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

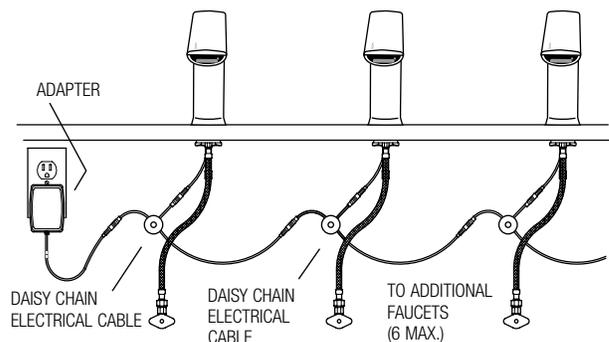
† Single Supply faucets include Bak-Chek®

*Integral Base model not available with integral to faucet side mixer; single supply faucets include Bak-Chek®

— in Item No. column = Not shown in illustration

— in Code No. and Part No. column = Not sold separately

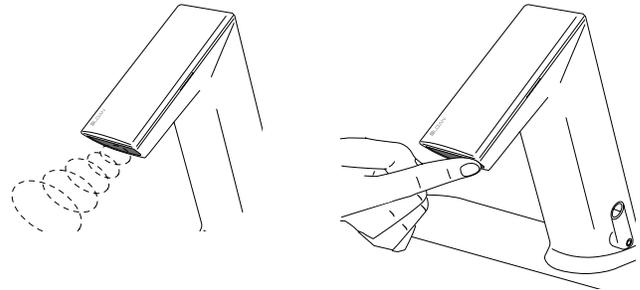
Electrical Connection for up to Six (6) Faucets Using One (1) Adapter



BASYS™ Infrared Sensor Activated

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.

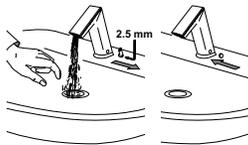


SET AND FIX TEMPERATURE AND ADJUST HOT LIMIT STOP

Adjust lever to set temperature.



OPTIONAL – To fix temperature, set lever to the desired position, then remove lever and plug hole with cap.



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 in 10° increments.



Function	Steps to Activate Function	Default Setting	IR Clic
IR Activation	Cover IR clic approximately for 2 sec. until LED will flash GREEN 1x - then remove finger from IR clic (Active for 5 sec.)	—	—
Cleaning Mode	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.	—
12/24 Line Purge Feature	See below.	Off	Off 12HR 24HR
Sensor Range Adjustment	See page 130.	6	1-8
Reset Electronics	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	—
Security Off	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.

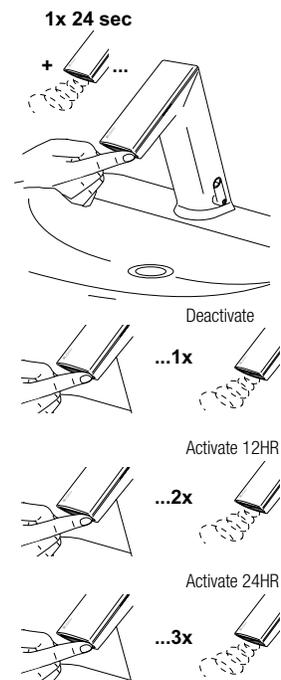
12/24 LINE PURGE FEATURE

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.

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.



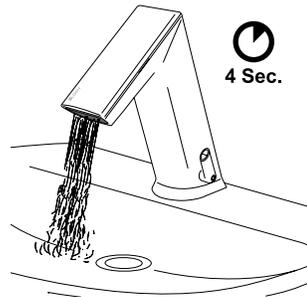
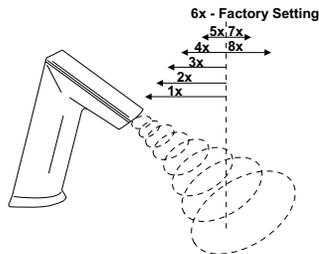
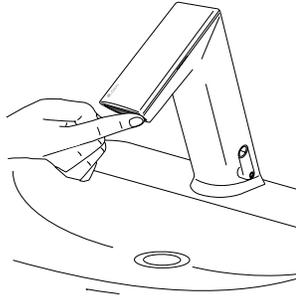
BASYS™ Infrared Sensor Activated

SENSOR RANGE ADJUSTMENT

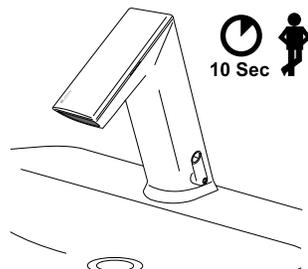
Factory setting is appropriate for the majority of applications and should not require resetting unless under extreme situations.

IR Activation (see page 129). 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.

Cover IR clic until LED flashes 4x - hold on until LED flashes 1x to 8x, from minimum to maximum range. See diagram below. Release when requested range is reached.



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.

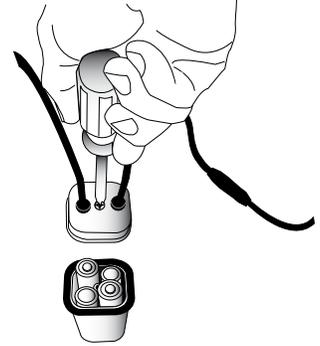
NOTE: Turning off water is not necessary.

Loosen cover screw and remove cover from battery pack.

Install four (4) AA-size batteries (supplied) as indicated by the (+) and (-) symbols inside the battery compartment.

Replace battery pack lid and tighten with screwdriver.

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.



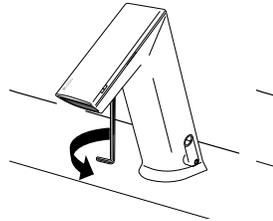
BASYS™ Infrared Sensor Activated

REPLACING THE SOLENOID STRAINER (FILTER)

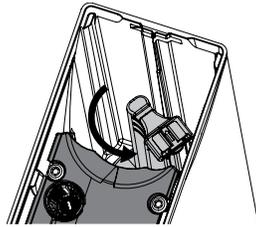
NOTE: Turning off water is not necessary, due to integrated automatic stop valve.

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.

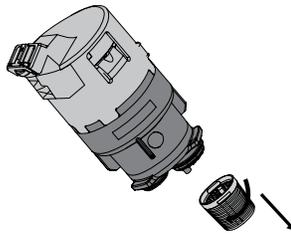


Rotate solenoid assembly counter-clockwise through a 45° angle.



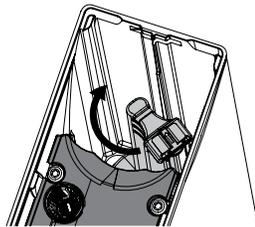
Pull solenoid caddy from faucet.

NOTE: Strainer can be removed, cleaned and replaced at this time.

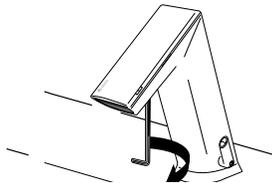


Insert new solenoid caddy at a 45° angle.

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



Slide on crown and secure.

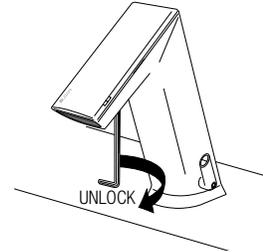


REPLACE SPRAY INSERT

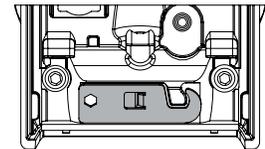
NOTE: Turning off water is not necessary, due to integrated automatic stop valve.

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

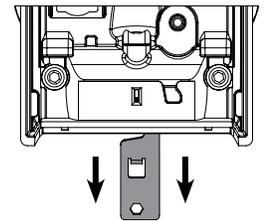
NOTE: Screw is captive within faucet body.



Retrieve spray removal tool located near the spray insert.

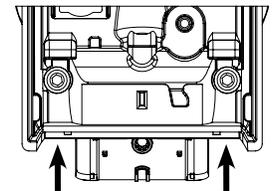


Insert spray removal tool into spray slot by sliding hook end of key between faucet spout and insert. Pull insert out of faucet once hooked.



Install new insert.

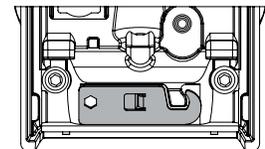
NOTE: If changing to a different flow rate solenoid caddy must be changed in conjunction.



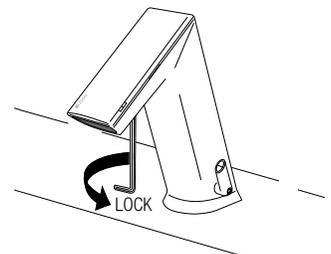
Return spray removal tool to storage location.

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.



Slide on crown and secure.

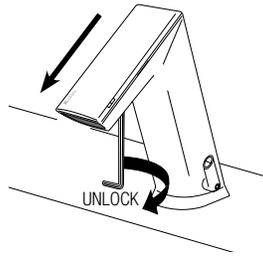


BASYS™ Infrared Sensor Activated

UPGRADE FAUCET FUNCTIONALITY

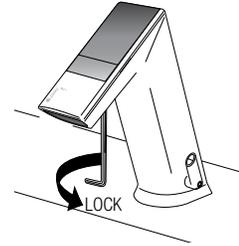
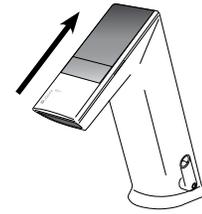
Remove crown by loosening hex screw located on underside of spout and slide crown down and lift off.

NOTE: Screw is captive within faucet body.

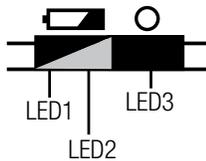


Place new crown on faucet by sliding onto spout and tightening hex screw on underside of spout.

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 IR				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

Hand Hygiene

BASYS™ Infrared Sensor Activated

TROUBLESHOOTING GUIDE

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

- Battery placement incorrect or batteries have been discharged.
- Ensure 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 problem persists contact Sloan Tech Support.

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

INDICATOR: Solenoid valve produces an audible “CLICK”.

- Water supply stop(s) closed.
Open water supply stop(s).
- Strainer is clogged.
Remove, clean, and reinstall strainer. Replace strainer, if needed (refer to page 131).

5. Solenoid valve DOES NOT produce an audible “CLICK”.

- Batteries low (battery powered models).
Replace batteries (refer to battery replacement on page 130).
- Power failure (hardwire models).
Check power supply.

6. 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).

7. 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 problem persists contact Sloan Tech Support (see below).

8. LED indicator blinks RED when faucet is in use.

- Batteries low (battery powered models).
- Replace batteries (refer to battery replacement on page 130).

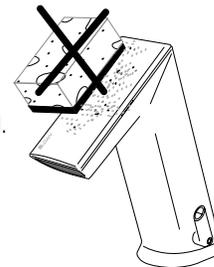
9. The water temperature is too hot or too cold on a faucet connected to hot and cold water supply lines.

- Supply stops are not adjusted properly.
Adjust supply stops.
- 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.
- Inadequate hot water supply.
Adjust supply stops.

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 sink, protect the faucet from any splattering of cleaner. Acids and cleaning fluids will discolor or remove chrome plating.



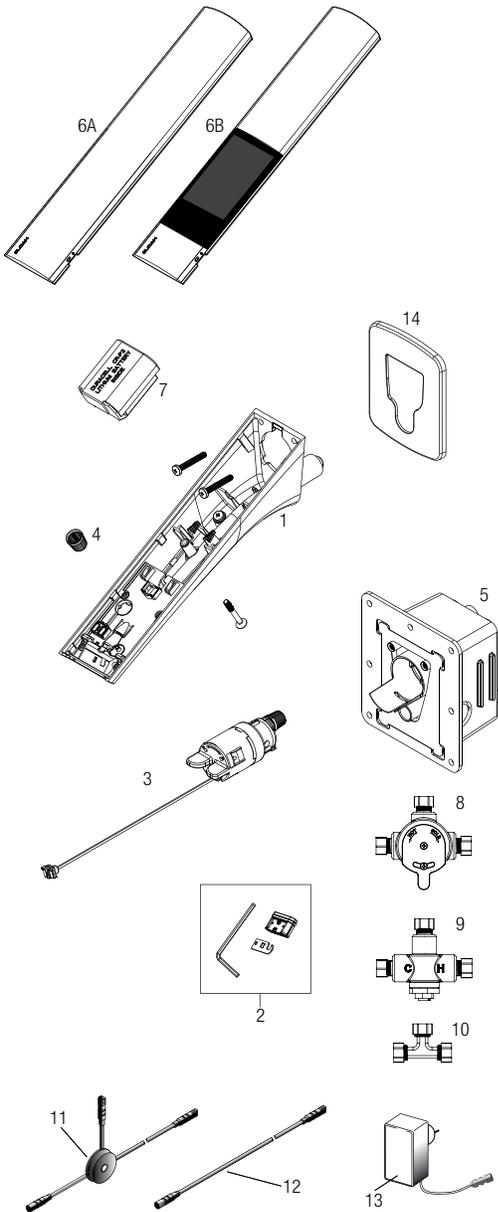
When assistance is required, please contact Sloan Technical Support at: 1-888-SLOAN-14 (1-888-756-2614).

BASYS™ Infrared Sensor Activated



EFX-8XX SERIES

EFX-8XX SERIES



PARTS LIST—BASYS FAUCETS

Item No.	Code No.	Part No.	Description
1.	—	—	Wall Mount Faucet Assembly
2.	3324104	EFX-1002-A	0.5 gpm/1.9 Lpm Multi-Lam Spray Head (includes insert, o-ring, 2.5 mm allen key, and removal tool)
	3324103	EFX-1001-A	1.5 gpm/5.7 Lpm Aerated Stream Insert (includes insert, o-ring, 2.5 mm allen key, and removal tool)
	3324102	EFX-1000-A	1.5 gpm/5.7 Lpm Laminar Stream Insert (includes insert, o-ring, 2.5 mm allen key, and removal tool)
3.	—	EFX-1011-A	0.5 gpm/1.9 Lpm Solenoid Valve Caddy Assembly – Wall (Green)
	—	EFX-1012-A	1.5 gpm/5.7 Lpm Solenoid Valve Caddy Assembly – Wall (Blue)
4.	0324019	EFX-19	Strainer (Filter)
5.	—	EFX-1013-A	Mounting Assembly
6A.	—	EFX-1009-A	Bowed Crown Assembly
6B.	—	EFX-1010-A	Solar Crown Assembly
7.	—	—	CR-P2 Lithium Battery
8.	3326009	MIX-60-A	Mechanical, Below Deck Mixing Valve
9.	0326045	MIX-135-A	Thermostatic, Below Deck Mixing Valve
10.	3365461	ETF-617-A	Bak-Chek Tee Assembly
11.	0335023	EAF-23-A	Splitter
12.	0335024	EAF-24-A	11-13/16" (300 mm) Extension Cable
	0335025	EAF-25-A	47-1/4" (1200 mm) Extension Cable
	0335015	EAF-17-A	126" (3200 mm) Extension Cable
13.	0324027	EFX-27	Plug-in Adapter (US)
	—	EFX-28	Plug-in Adapter (EU)
	—	EAF-39	Plug-in Adapter (UK)
	0335037	EAF-37	Box Mount Adapter
14.	—	EFX-1014-A	Wall Flange

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

† Single Supply faucets include Bak-Chek®

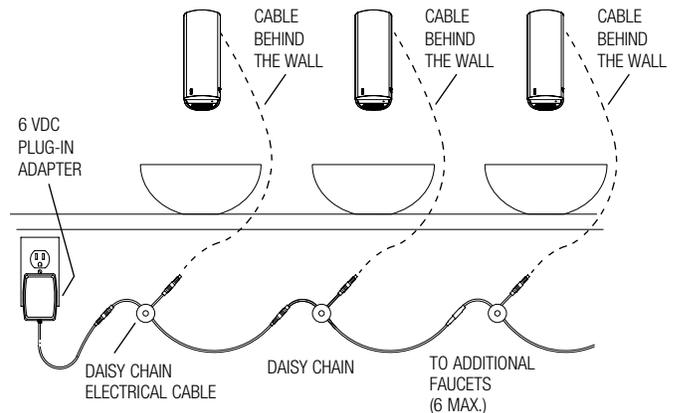
* Integral Base model not available with integral to faucet side mixer; single supply faucets include Bak-Chek®

— in Item No. column = Not shown in illustration

— in Code No. and Part No. column = Not sold separately

Hand Hygiene

Electrical Connection for up to Six (6) Faucets Using One (1) Adapter



NOTE: HARDWIRE FAUCETS SUPPLIED WITH ONE (1) 47" (1.2 m) EXTENSION CABLE.

NOTE: EXTENSION CABLES AVAILABLE SEPARATELY.

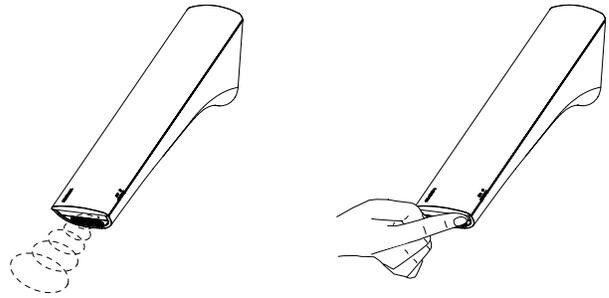
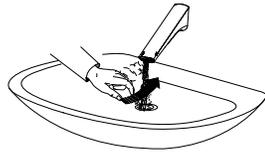
NOTE: USE ONLY SLOAN SUPPLIED POLARIZED AND KEYED CABLE ASSEMBLIES.

IMPORTANT: CUTTING AND SPLICING WIRES WILL VOID WARRANTY.

BASYS™ Infrared Sensor Activated

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.



Function	Steps to Activate Function	Default Setting	IR Clic
IR Activation	Cover IR clic approximately for 2 sec. until LED will flash GREEN 1x - then remove finger from IR clic (Active for 5 sec.)	—	—
Cleaning Mode	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.	—
12/24 Line Purge Feature	See below.	Off	Off 12HR 24HR
Sensor Range Adjustment	See page 136.	6	1-8
Reset Electronics	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	—
Security Off	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.

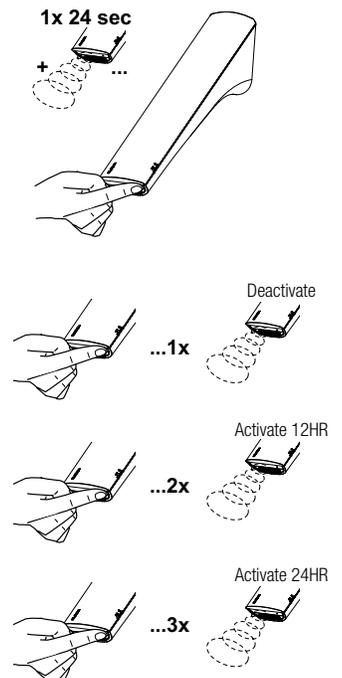
12/24 LINE PURGE FEATURE

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.

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.



Hand Hygiene

BASYS™ Infrared Sensor Activated

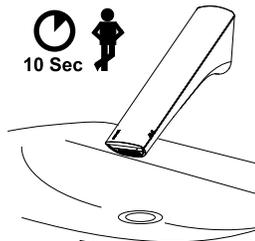
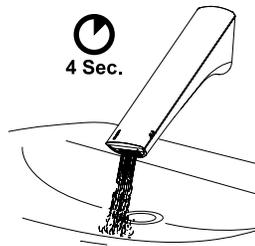
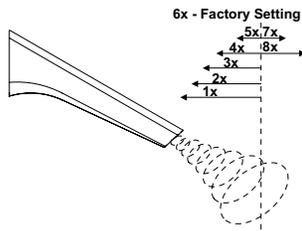
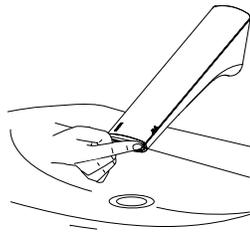
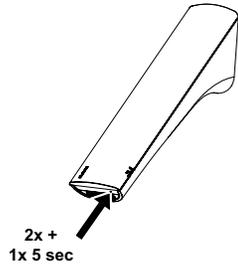
SENSOR RANGE ADJUSTMENT

Factory setting is appropriate for the majority of applications and should not require resetting unless under extreme situations.

IR Activation (see page 135). To enter programming mode place finger on IR clic for 2 times then remove. Light on side of crown should blink to indicate programming mode.

Cover IR clic until LED flashes 4x - hold on until LED flashes 1x per minute.

8x max range (see diagram below) - release when requested range is reached.



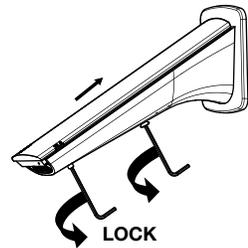
BATTERY REPLACEMENT

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.

Remove crown by loosening 2 hex screws located on underside of spout and slide crown down and lift off.

NOTE: Screw is captive within faucet body and will NOT fall out.



Wait, until LED flashes GREEN.

BASYS™ Infrared Sensor Activated

REPLACING THE SOLENOID STRAINER (FILTER)

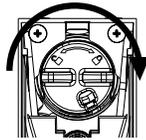
NOTE: Turning off water is not necessary, due to integrated automatic stop valve.

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.

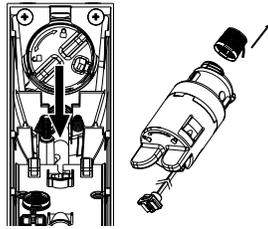


Rotate solenoid assembly counter-clockwise through a 45° angle.

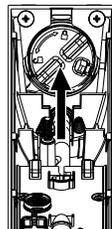


Pull solenoid caddy from faucet.

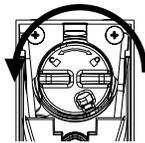
NOTE: Strainer can be removed, cleaned and replaced at this time.



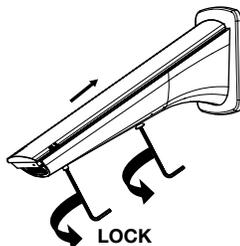
Insert new solenoid caddy at a 45° angle.



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



Slide on crown and secure in 2 places.



REPLACE SPRAY INSERT

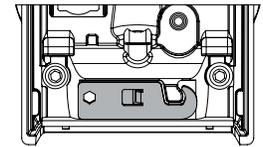
NOTE: Turning off water is not necessary, due to integrated automatic stop valve.

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

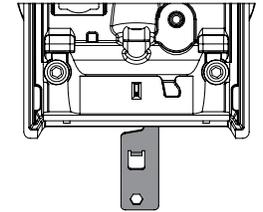
NOTE: Screw is captive within faucet body.



Retrieve spray removal tool located near the spray insert.

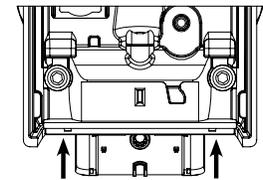


Insert spray removal tool into spray slot by sliding hook end of key between faucet spout and insert. Pull insert out of faucet once hooked.



Install new insert.

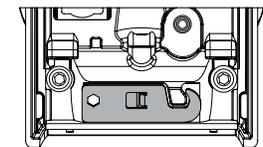
NOTE: If changing to a different flow rate solenoid caddy must be changed in conjunction.



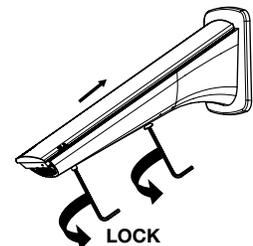
Return spray removal tool to storage location.

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.



Slide on crown and secure.



BASYS™ Infrared Sensor Activated

UPGRADE FAUCET FUNCTIONALITY

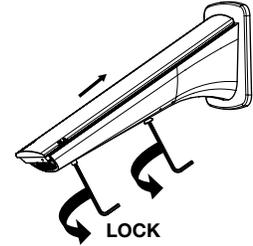
Remove crown by loosening hex screw located on underside of spout and slide crown down and lift off.

NOTE: Screw is captive within faucet body.

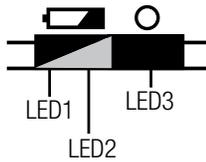


Place new crown on faucet by sliding onto spout and tightening hex screw on underside of spout.

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



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 IR				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

Hand Hygiene

BASYS™ Infrared Sensor Activated

TROUBLESHOOTING GUIDE

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

- A. Battery placement incorrect or batteries have been discharged.
- B. Ensure 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.

- A. Adhesive packaging label affixed over sensor eye.
- B. Remove adhesive label from sensor eye.

3. Faucet delivers water in an uncontrolled manner.

- A. Faucet is not working properly.
- B. Clean sensor window; if problem persists contact Sloan Tech Support (see below).

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

INDICATOR: 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, if needed (refer to page 137).

5. Solenoid valve DOES NOT produce an audible “CLICK”.

- A. Batteries low (battery powered models).
Replace batteries (refer to battery replacement on page 136).
- B. Power failure (hardwire models).
Check power supply.

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

- A. Water supply stop(s) are partially closed.
Completely open water supply stop(s).

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

- A. Faucet is not working properly.
- B. Clean sensor window; if problem persists contact Sloan Tech Support (see below).

8. LED indicator blinks RED when faucet is in use.

- A. Batteries low (battery powered models).
- B. Replace batteries (refer to battery replacement on page 136).

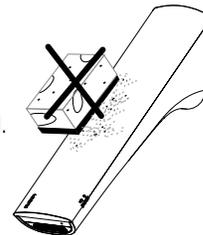
9. The water temperature is too hot or too cold on a faucet connected to hot and cold water supply lines.

- 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.

CARE AND CLEANING

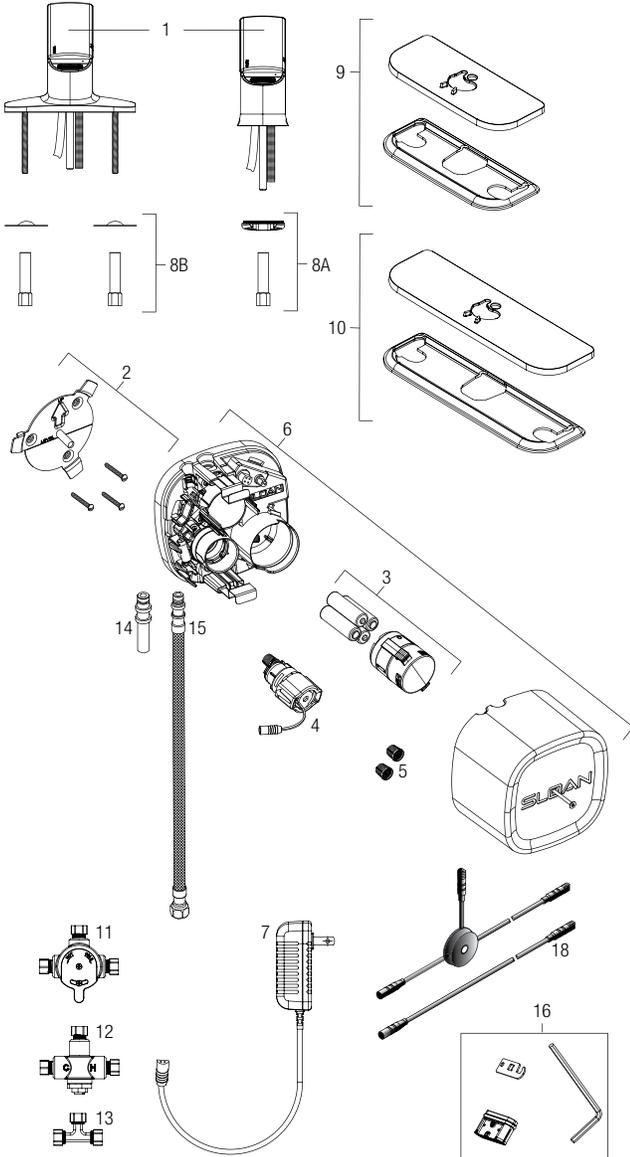
DO NOT USE abrasive or chemical cleaners (including chlorine bleach) to clean faucets that may dull the luster and attack the chrome or special decorative finishes. Use **ONLY** mild soap and water, then wipe dry with clean cloth or towel.

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



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

BASYS™ Capacitance Sensing Activated



PARTS LIST—BASYS FAUCETS

Item No.	Code No.	Part No.	Description
1.	0324002	EFX-2	Standard Crown
2.	0324036	EFX-36	Control Module Mounting Kit
3.	3324113	EFX-8	Battery Pack
4.	0324013	EFX-13	Solenoid Valve Caddy 0.5 gpm (1.9 Lpm)
	0329014	EFX-14	Solenoid Valve Caddy 1.5 gpm (5.7 Lpm)
5.	0324019	EFX-19	Filter / Strainers
6.	3324105	EFX-1003-A	Control Module Assembly – 0.5 gpm (1.9 Lpm)
	3324106	EFX-1004-A	Control Module Assembly with Turbine – 0.5 gpm (1.9 Lpm)
	3324107	EFX-1005-A	Control Module Assembly – 1.5 gpm (5.7 Lpm)
	3324108	EFX-1006-A	Control Module Assembly with Turbine – 1.5 gpm (5.7 Lpm)
7.	0324031	EFX-31	120 VAC/6.75 VDC Plug-in Voltage Adapter
8A.	0335000	EAF-1	Faucet Spout Mounting Kit (Pedestal)
8B.	0324021	EFX-21-A	Faucet Spout Mounting Kit (Integrated Base)
9.	3324100	EFX-20-A	4-inch (102 mm) Centerset Base Plate Kit
10.	3324101	EFX-26-A	8-inch (203 mm) Centerset Base Plate Kit
11.	3326009	MIX-60-A	Below Deck Mechanical Mixing Valve
12.	0326045	MIX-135-A	Below Deck Thermostatic Mixing Valve
13.	0324033	ETF-617-A	Bak-Chek® Tee
14.	0324034	EFX-33	Inlet Hose Fitting
15.	3324102	EFX-34	Flexible Supply Hose 18" (45 mm)
16.	3324104	EFX-1002-A	0.5 gpm (1.9 Lpm) Multi-Lam Spray Insert, includes: insert, o-ring, insert removal tool, and hex key
	3324103	EFX-1001-A	1.5 gpm (5.7 Lpm) Aerated Stream Insert includes: insert, o-ring, insert removal tool, and hex key
	3324102	EFX-1000-A	1.5 gpm (5.7 Lpm) Laminar Stream Insert includes: insert, o-ring, insert removal tool, and hex key
17.	0335023	EAF-23-A	Splitter
18.	0335024	EAF-24-A	11-13/16" (300 mm) Extension Cable
	0335025	EFX-25-A	47-1/4" (1200 mm) Extension Cable
	0335015	EFX-17-A	126" (3200 mm) Extension Cable

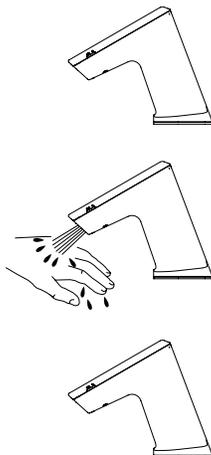
NOTE: If changing flow rate, caddy and spray insert must be changed in conjunction.
 Manufactured by Sloan Valve Company under one or more of the following U.S. Patents: 7,690, 623; 7,069,941; 6,619,320.
 — in Item No. column = Not shown in illustration
 — in Code No. and Part No. column = Not sold separately

Hand Hygiene

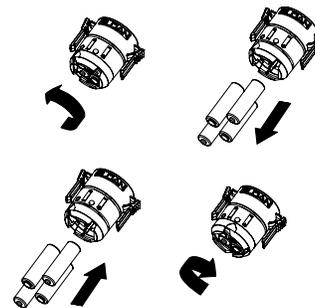
BASYS™ Capacitance Sensing Activated

OPERATION OF FAUCET

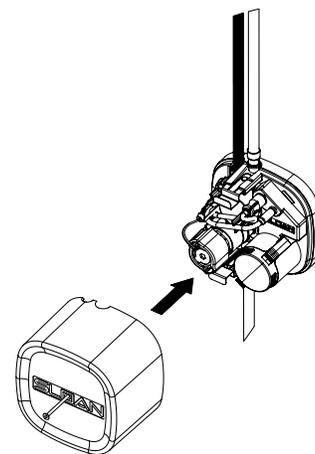
A continuous ambient field is emitted and monitored by the faucet system. As the user's hands enter the effective range the sensor activates the solenoid valve allowing tempered water to flow from the faucet. Water will flow until the hands are removed or until the faucet reaches its automatic time out setting. When hands are moved away from the faucet, the capacitance sensor deactivates the solenoid valve, shutting off the water flow. The system automatically resets and is ready for the next user.



Twist top of battery pack counter-clockwise to open. Remove batteries and replace batteries with four (4) new "AA" batteries. Twist top of battery pack clockwise to close.



Replace cover.



BATTERY REPLACEMENT

NOTE: REPLACE BATTERY WHEN RED BATTERY INDICATOR LED FLASHES 4 TIMES EACH TIME FAUCET IS IN USE OR WHEN FAUCET STOPS FUNCTIONING.

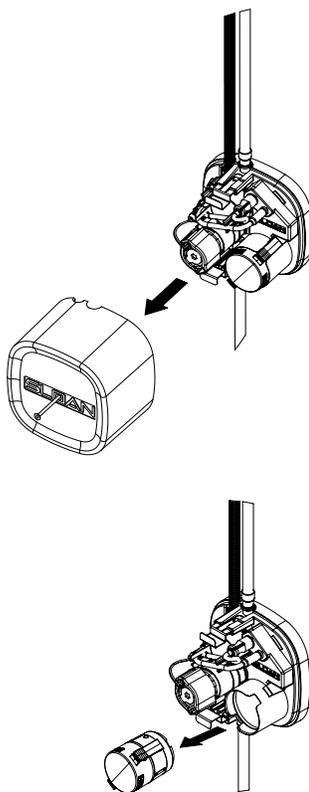
No need to turn off water.

Loosen screw with hex wrench and remove cover.

NOTE: IT IS POSSIBLE FOR THE FAUCET TO ACTIVATE WHEN THE CAP WIRE OR SOLENOID IS TOUCHED OR WHEN THE CONTROL MODULE COVER IS BEING SCREWED ONTO THE MANIFOLD.

Slide cover forward and lift off.

Remove battery case.

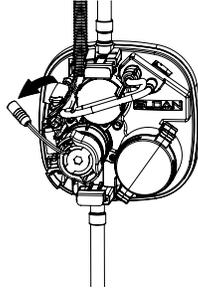


Hand Hygiene

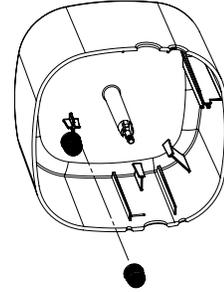
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REPLACE FILTER

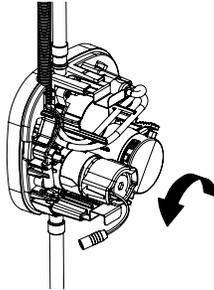
Disconnect solenoid wire from control module.



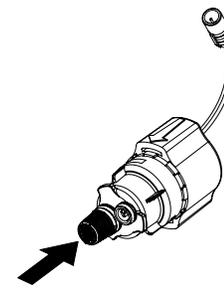
Remove new filter from control module cover.



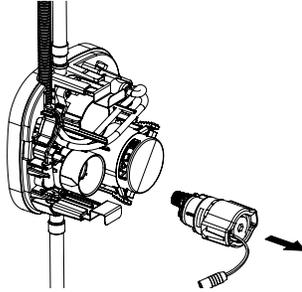
Turn solenoid caddy counterclockwise lining up arrows on control module and solenoid caddy assembly.



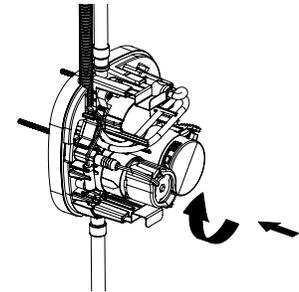
Snap new filter onto solenoid caddy assembly.



Remove solenoid caddy assembly from control module by pulling straight out.

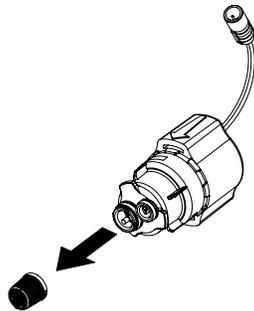


Insert solenoid caddy assembly into control module lining up arrows. Turn solenoid caddy assembly clockwise 45°.



Reconnect solenoid caddy wire to control module.

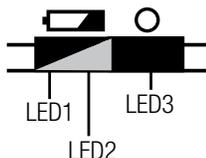
Remove filter from solenoid caddy assembly.



Hand Hygiene

BASYS™ Capacitance Sensing Activated

LED DISPLAY DIAGNOSTIC CODES



NOTE: LED1 and LED2 are for battery and programming related items. LED3 is for solenoid service.

Function	LED1	LED2	LED3	Notes
Power Up Success (Battery Only Models)		Blinks 5x		Blinks 1 every second (5 seconds); for battery power
Power Up Success (Adapter Models)	Blinks 3-5x	Blinks 3-5x		Blinks 1 every second (5 seconds); for adapter power
Low Battery	Blinks 4x			Battery power is low; During hand detection
Clean Mode		Blinks		Once every 2 seconds; Touch faucet body more than 8 seconds, water hold for 2 minutes
Water Hold		Blinks		Once every 1 second; If water turns on/off 5 times in 20 seconds, faucet turns off for 1 minute
Solenoid Latch Failure			Blinks	Two LED blinks; After hand removed from detection zone
Cap Sensor Fails to Calibrate		Blinks		4 times per second; Before first water burst Detection for cable is not installed correctly
Ambient Electrical Noise Too High		Blinks		4 times per seconds; After first water burst

TROUBLESHOOTING GUIDE

1. Faucet does not function.

- Batteries not installed.
Install batteries.
- Capacitance cable not connected.
Connect cable.

2. Faucet delivers water in an uncontrolled manner.

- Faucet is not working properly.
Contact Sloan Technical Support.

3. Faucet does not deliver any water when Sensor is activated. Solenoid Valve produces an audible "CLICK."

- Water supply stop(s) closed.
Open water supply stop(s).
- Water supply stop strainer(s) clogged.
Remove, clean, and reinstall water supply stop strainer(s). Replace strainer(s), if required.

Solenoid Valve DOES NOT produce an audible "CLICK."

- Battery low (battery operated models).
Replace battery (refer to Battery Replacement section of guide).
- Power failure.
Check power supply.

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

- Valve is not working properly.
Contact Sloan Technical Support.

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).
- Water supply stop strainer(s) clogged.
Remove, clean, and reinstall water supply stop strainer(s). Replace strainer(s), if required.
- Spray head is clogged.
Remove, clean, and reinstall spray head. Replace spray head, if required.
- Faucet is not working properly.
Contact Sloan Technical Support.

6. LED indicator blinks when faucet is in use.

- Battery low (battery operated models).
Replace battery (refer to Battery Replacement section of guide).

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

- Supply stops are not adjusted properly.
Adjust supply stops.

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 sink, protect the faucet from any splattering of cleaner. Acids and cleaning fluids will discolor or remove chrome plating.

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Sloan Technical Support at: 1-888-SLOAN-14 (1-888-756-2614).**