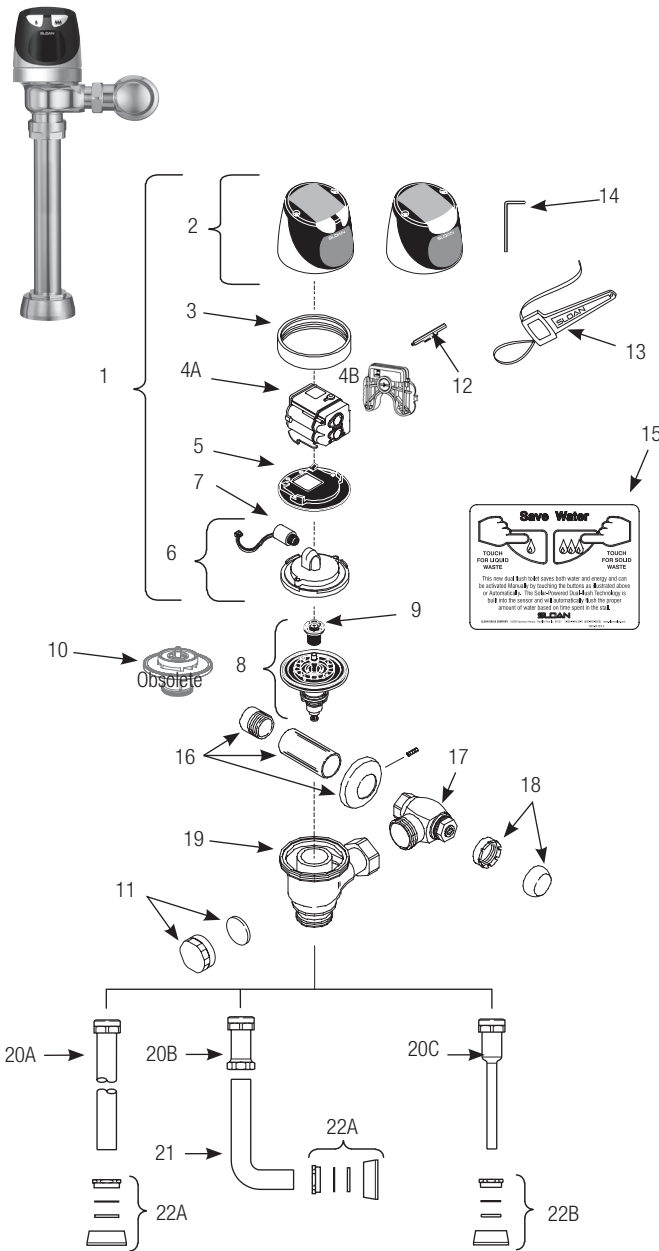


SOLIS® Flushometers Single-flush and Dual-flush



Item	Code	Part	Description
Items Included with RESS Retrofit and Complete Sloan SOLIS® Valves			
1.	0325300	EBV-304-A	Cover/Sensor/Assembly - Closet SOLIS 1.6 & 1.28 gpf Electronic Single Button Flush
		EBV-379-A	Cover/Sensor/Assembly - Closet SOLIS 1.1 gpf Electronic Single Button Flush
	0372024	WES-24-A	Cover/Sensor/Assembly Closet SOLIS Electronic Dual Flush
	0325301	EBV-306-A	Cover/Sensor/Assembly - Urinal 0.5 & 1.0 gpf SOLIS Electronic Single Button
	0325328	EBV-328-A	Cover/Sensor/Assembly - Urinal 0.25 gpf SOLIS Electronic Single Button
	0325394	EBV-385-A	Cover/Sensor/Assembly - Urinal 0.125 gpf SOLIS Electronic Single Button
	0325320	EBV-320-A	Cover/Sensor/Assembly - Closet 1.6 & 1.28 gpf SOLIS Electronic Single Button Flush fits Zurn® valve bodies
	0372028	WES-28-A	Cover/Sensor/Assembly- Closet SOLIS Electronic Dual Flush - fits Zurn® valve bodies
	0325321	EBV-321-A	Cover/Sensor/Assembly Urinal 0.25 gpf SOLIS Electronic Single Button - fits Zurn® valve bodies
2.	0325311	EBV-311-A	Cover Assembly - SOLIS Electronic Dual Flush Flush
	0325309	EBV-309-A	Cover Assembly - SOLIS Electronic Single Button Flush
3.	0325804	EBV-14	Locking Ring
	0305843	EBV-30	Locking Ring- fits Zurn® valve bodies
4A.	0325312	EBV-312-A-C	Module - SOLIS - Water Closet
	0325313	EBV-312-A-U	Module - SOLIS - Urinal
	0325397	EBV-388-A	Module - SOLIS - Urinal 0.125 gpf
	—	EBV-382-A	Module - SOLIS - 1.1 gpf Single Button Flush
	0372038	WES-33-A	Module - SOLIS - Water Closet (Dual Flush)
4B.	33250011	EBV Repair Kit	Battery Cover Door
5.	0325171	EBV-134	Cover Rest Plate
6.	3325456	EBV-145-A	Inside Cover Assembly (includes solenoid)
7.	3325453	EBV-136-A	Solenoid
8.	†		Flex Tube Diaphragm Assembly
9.	†		Flush Volume Regulator
10.	†		Cartridge Assembly DISCONTINUED
11.	3325814	EBV-1017-A	Handle Cap (RESS Retrofit Models Only)
12.	0325107	EBV-91	Range Adjustment Tool
13.	0305823	EBV-22	Strap Wrench
14.	0325159	EBV-137	7/64" Hex Wrench
15.	0372029	WES-27	English Plate (Dual Flush only)
	0372025	WES-29	Spanish Plate (Dual Flush only)
Items Included with Complete Sloan SOLIS® Valves Only			
16.	3308782	H-633-AA	1" (25 mm) Sweat Solder Kit
	3308788	H-636-AA	¾" (19 mm) Sweat Solder Kit
17.	3308386	H-700-A	1" (25 mm) Bak-Chek® Control Stop
	3308384	H-700-A	¾" (19 mm) Bak-Chek® Control Stop
18.	3308772	H-1010-A	Vandal Resistant Stop Cap
19.	0305381	EBV-36-A	Valve Body
20A.	—	V-600-AA	1½" (38 mm) x 10 ½" (229 mm) Vacuum Breaker (Model 8111) (10" Outlet Tube)
	—	V-600-AA	1½" (38 mm) x 15" (584 mm) Vacuum Breaker (Model 8113)
	—	V-600-AA	1½" (38 mm) x 23" (584 mm) Vacuum Breaker (Model 8115)
	—	V-600-AA	1½" (38 mm) x 26" (660 mm) Vacuum Breaker (Model 8116)
20B.	—	V-600-A	3" (76 mm) Vacuum Breaker Assembly
20C.	—	V-600-AA	¾" (19 mm) x 10 ½" (229 mm) Vacuum Breaker (Model 8186) (10" Outlet Tube)
21.	—	F-109	1½" (38 mm) Elbow Flush Connection
22A.	0306146	F-5-AT	1½" Spud Coupling Assembly (Models 8110, 8110 8115 & 8116)
22B.	0306125	F-5-AW	¾" Spud Coupling Assembly (Model 8186)

† Part No. varies depending on flushometer model.
Manufactured in the U.S.A. by Sloan Valve Company under one or more of the following patents: U.S. Patents: D598,975; D599,436; 7,124,997. Other Patents Pending.
BAK-CHEK®, PARA-FLO®, PERMEX®, TURBO-FLO®.

SOLIS® Flushometers

Single-flush and Dual-flush

ITEM 8. FLEX TUBE DIAPHRAGM KIT SELECTION GUIDE

Code No.	Part No.	Description	Regulator Color
3325001	EBV-1020-A	1.6 gpf/6.0 Lpf Closet	GREEN
3325031	EBV-1024-A	1.28 gpf/4.8 Lpf Closet	GREEN
—	EBV-1028-A	1.1 gpf/4.2 Lpf Closet	GRAY
3325003	EBV-1023-A	0.5 gpf/1.9 Lpf Urinal	GREEN
3325090	EBV-1025-A	0.25 gpf/1.0 Lpf Urinal	GREEN

The EBV-1020-A Kit is supplied with multiple Flush Volume Regulators. The installer must use the correct Regulator when installing the kit.

EBV-1025-A includes H-1015A Flow Control

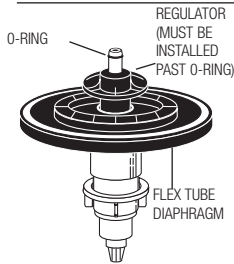
ITEM 9. REGULATORS

The flush volume of the flex tube diaphragm kit is controlled by the regulator. Regulators are identified by color. Some flex tube diaphragm kits are supplied with multiple regulators. The installer must make sure the proper regulator is used when installing the flex tube diaphragm kit.

REGULATOR (SOLD 6 PER PACKAGE)

Code No.	Part No.	Description	Regulator Color
5325122	EBV-95	Urinal-0.5 gpf/1.9 Lpf	GREEN
5325122	EBV-95	Closet-1.6 gpf/6.0 Lpf	GREEN

FLEX TUBE DIAPHRAGM ASSEMBLY



SOLIS models feature Sloan's exclusive flex tube diaphragm for the ultimate in valve performance, reliability and chloramine resistance.

ITEM 19D. SLIP JOINT GASKETS AND RINGS

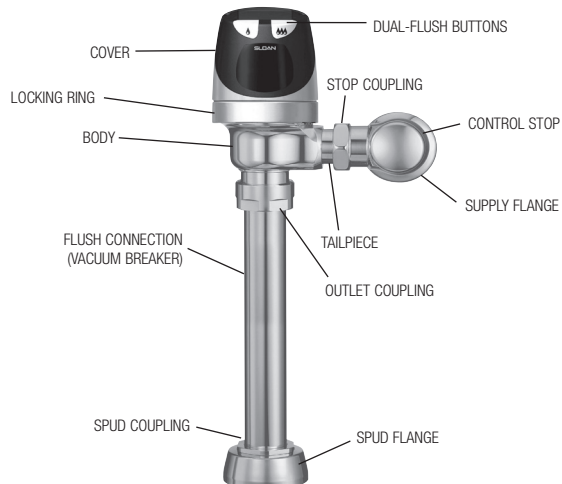
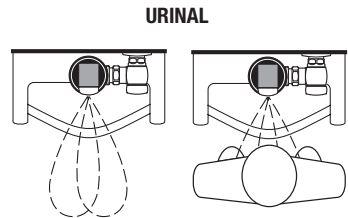
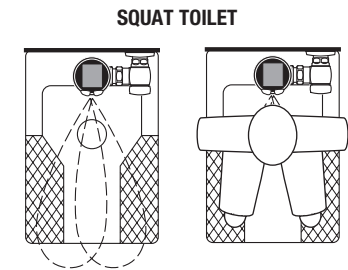
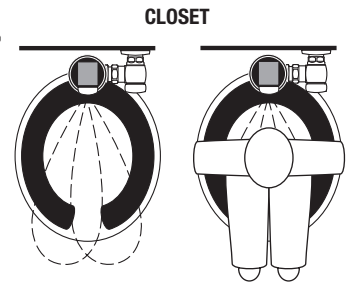
Size	Code No.	Part No.	Description
1-1/2"	5306058	F-3	Red Friction Ring
	5322001	VBF-5	Black Slip Joint Gasket
	0319086/5319086	S-30	Flexible Seat
	0319079	S-21	Rigid Seat (rubber over brass)
1-1/2" x 1-1/4"	0396062	F-105	Slip Joint Gasket – Rigid
1-1/4"	5306057	F-3	Red Friction Ring
	5322176	VBF-5	Black Slip Joint Gasket
	0307052/5307052	G-21	Rigid Seat (rubber over brass)
1"	5306056	F-3	Red Friction Ring
	5306115	F-5	Black Slip Joint Gasket
3/4"	5306055	F-3	Red Friction Ring
	5306113	F-5	Black Slip Joint Gasket

OPERATION

1. A continuous, invisible light beam is emitted from the SOLIS® sensor.

2. As the user enters the beam's effective range, 22 to 42 inches (559 mm to 1067 mm) for closet installations and 15 to 30 inches (381 mm to 762 mm) for urinal installations, the beam is reflected into the scanner window to activate the output circuit. Once activated, the output circuit continues in a "hold" mode for as long as the user remains within the effective range of the sensor. For dual-flush models, if the user stays longer than 65 seconds, a full flush will automatically initiate when the user leaves. For single-flush models, once the user steps away, a full flush will automatically initiate.

3. For dual-flush models, once a user is detected, if the user leaves in 65 seconds or less, a reduced flush will automatically initiate. The circuit automatically resets and is ready for the next user. For single-flush models, when the user steps away, this initiates a full flush. The circuit automatically resets and is ready for the next user.



SOLIS® Flushometers

Single-flush and Dual-flush

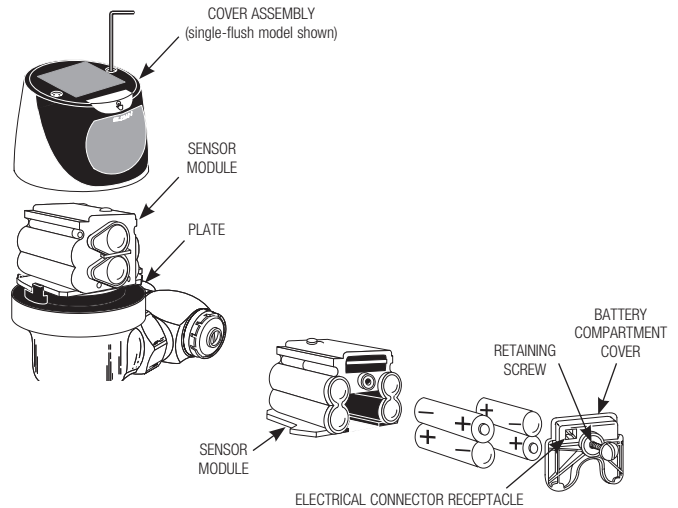
BATTERY REPLACEMENT

When required, replace batteries with four (4) AA-size batteries.

Note: Water DOES NOT have to be turned off to replace batteries.

Loosen the two (2) screws on top of unit. Remove the complete cover assembly. Lift the sensor module from its plate. Unplug the electrical connector from battery compartment cover. Loosen the retaining screw on battery compartment cover and remove battery compartment cover. Install four (4) AA-size batteries **exactly** as illustrated.

Install battery compartment cover and secure with retaining screw. Make certain that battery compartment cover is fully compressed against gasket to provide a seal; **DO NOT** overtighten. Plug the electrical connector into the battery compartment cover. Reinstall the sensor module onto the plate. Reinstall the complete Cover Assembly onto the plate. Tighten the two (2) screws on top of the unit.



RANGE ADJUSTMENT (ADJUST ONLY IF NECESSARY)

The SOLIS® has a factory set sensing range:

Water Closet Models - 22" to 42" (559 mm to 1067 mm)

Urinal Models - 15" to 30" (381 mm to 762 mm)

The Factory setting should be satisfactory for most installations.

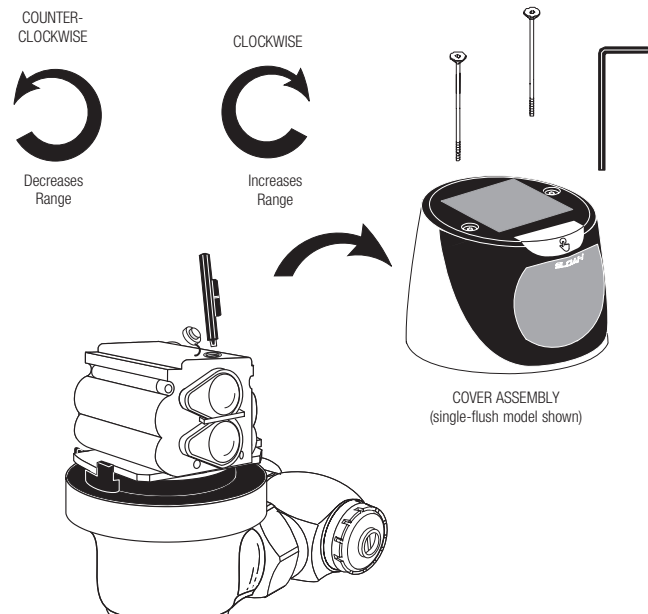
If the range is too short (i.e., not picking up users) or too long (i.e., picking up opposite wall or stall door) the range can be adjusted.

Note: Water DOES NOT have to be turned off to adjust range.

Loosen the two screws on top of the unit and remove cover. Remove the rubber plug from top of electronic sensor module to uncover the potentiometer.

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

When range adjustment is satisfactory, replace the rubber plug. Reinstall cover and tighten the two screws on top of the unit.



RANGE ADJUSTMENT PROCEDURE

For the first ten (10) minutes of operation, a visible light flashes in the sensing window of the SOLIS® flushometer when a user is detected. This visible light feature can be reactivated after ten (10) minutes by opening and closing the battery compartment door.

Check the range by stepping toward the unit until the light flashes, indicating the sensor's maximum detection limit. Adjust the range potentiometer screw located on top of the sensor module a few degrees **CLOCKWISE** to increase the range or a few degrees **COUNTERCLOCKWISE** to decrease the range. Repeat this adjustment until the desired range is achieved.

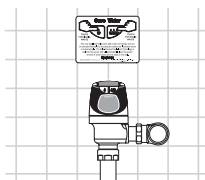
Always determine the sensing range with metal cover and lens window on top of the unit.

IMPORTANT: Adjust in small increments only! Range potentiometer adjustment screw rotates only 3/4 of a turn; DO NOT over-tighten.

When range adjustment is satisfactory, replace the Rubber Plug. Reinstall Cover and tighten the two Screws on top of the unit.

RECOMMENDED WALL PLATE LOCATIONS

Centered over flushometer

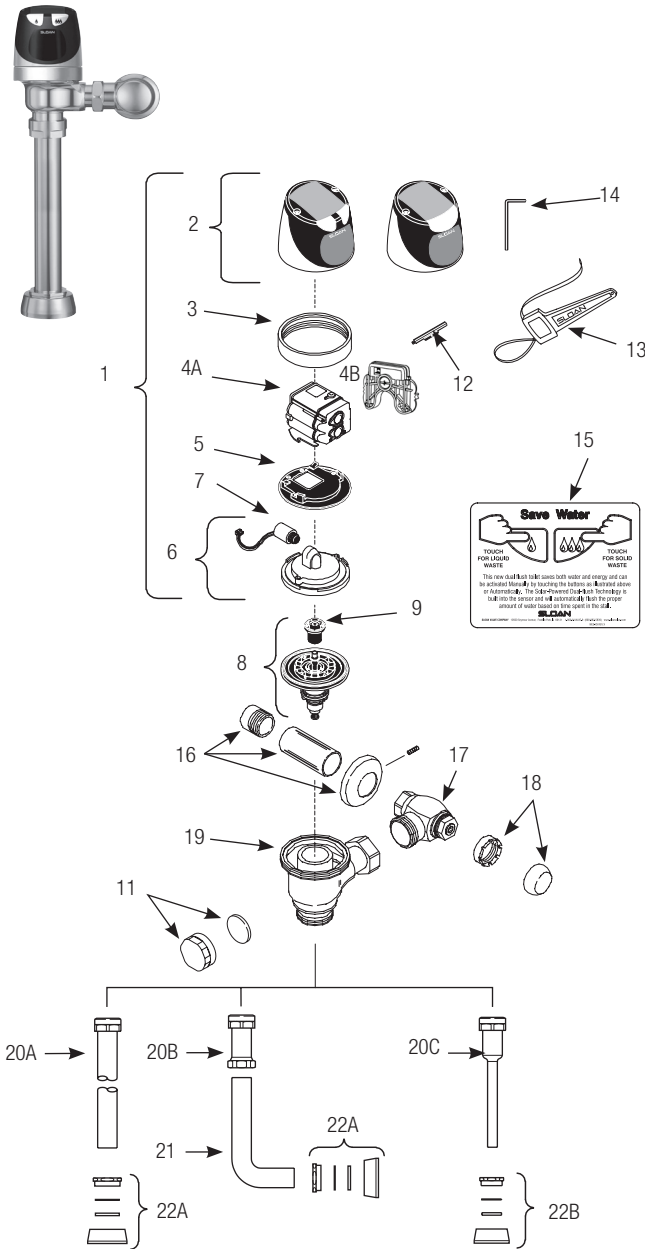


On stall door



SOLIS® Bluetooth (BT) Flushometers

Single-flush and Dual-flush



Items Included with RESS Retrofit and Complete Sloan SOLIS® Valves

1.	03250002	EBV-304A-BT	Cover/Sensor/Assembly - Closet SOLIS 1.28 gpf Electronic Single Button Flush
	03250001	EBV-304A-BT	Cover/Sensor/Assembly - Closet SOLIS Electronic Single Button Flush 1.6 gpf
	03250005	EBV-306A-BT	Cover/Sensor/Assembly - Urinal 0.25 gpf SOLIS Electronic Single Button
	03250006	EBV-306A-BT	Cover/Sensor/Assembly - Urinal 0.5 gpf SOLIS Electronic Single Button
	03250007	EBV-306A-BT	Cover/Sensor/Assembly - Urinal 0.1 gpf SOLIS Electronic Single Button
	03250003	EBV-379A-BT	Cover/Sensor/Assembly - Closet SOLIS Electronic Single Button Flush 1.1 gpf
	03250004	EBV-385A-BT	Cover/Sensor/Assembly - Closet SOLIS Electronic Single Button Flush 0.125 gpf
2.	0325311	EBV-311-A	Cover Assembly - SOLIS Electronic Dual Flush Flush
	0325309	EBV-309-A	Cover Assembly - SOLIS Electronic Single Button Flush
3.	0325804	EBV-14	Locking Ring
	0305843	EBV-30	Locking Ring- fits Zurn® valve bodies
4A.	33250006	EBV-312A-BT	Module - SOLIS - Urinal 0.5 gpf
	33250007	EBV-312A-BT	Module - SOLIS - Urinal 1.0 gpf
	33250002	EBV-312A-BT	Module - SOLIS - Water Closet 1.28 gpf gpf
	33250001	EBV-312A-BT	Module - SOLIS - Water Closet 1.6 gpf gpf
	33250003	EBV-382A-BT	Module - SOLIS - Water Closet 1.1 gpf gpf
	33250004	EBV-388A-BT	Module - SOLIS - Urinal 0.125 gpf
	33250005	EBV-389A-BT	Module - SOLIS - Urinal 0.25 gpf gpf
4B.	33250011	EBV Repair Kit	Battery Cover Door
5.	0325171	EBV-134	Cover Rest Plate
6.	3325456	EBV-145-A	Inside Cover Assembly (includes solenoid)
7.	3325453	EBV-136-A	Solenoid
8.	†		Flex Tube Diaphragm Assembly
9.	†		Flush Volume Regulator
11.	3325814	EBV-1017-A	Handle Cap (RESS Retrofit Models Only)
12.	0325107	EBV-91	Range Adjustment Tool
13.	0305823	EBV-22	Strap Wrench
14.	0325159	EBV-137	7/64" Hex Wrench
15.	0372029	WES-27	English Plate (Dual Flush only)
	0372025	WES-29	Spanish Plate (Dual Flush only)

Items Included with Complete Sloan SOLIS® Valves Only

16.	3308782	H-633-AA	1" (25 mm) Sweat Solder Kit
	3308788	H-636-AA	¾" (19 mm) Sweat Solder Kit
17.	3308386	H-700-A	1" (25 mm) Bak-Chek® Control Stop
	3308384	H-700-A	¾" (19 mm) Bak-Chek® Control Stop
18.	3308772	H-1010-A	Vandal Resistant Stop Cap
19.	0305381	EBV-36-A	Valve Body
20A.	—	V-600-AA	1½" (38 mm) x 10½" (229 mm) Vacuum Breaker (Model 8111)
	—	V-600-AA	1½" (38 mm) x 15" (584 mm) Vacuum Breaker (Model 8113)
	—	V-600-AA	1½" (38 mm) x 23" (584 mm) Vacuum Breaker (Model 8115)
	—	V-600-AA	1½" (38 mm) x 26" (660 mm) Vacuum Breaker (Model 8116)
20B.	—	V-600-A	3" (76 mm) Vacuum Breaker Assembly
20C.	—	V-600-AA	¾" (19 mm) x 10½" (229 mm) Vacuum Breaker (Model 8186)
21.	—	F-109	1½" (38 mm) Elbow Flush Connection
22A.	0306146	F-5-AT	1½" Spud Coupling Assembly (Models 8110, 8110 8115 & 8116)
22B.	0306125	F-5-AW	¾" Spud Coupling Assembly (Model 8186)

† Part No. varies depending on flushometer model.

Manufactured in the U.S.A. by Sloan Valve Company under one or more of the following patents: U.S. Patents: D598,975; D599,436; 7,124,997. Other Patents Pending. BAK-CHEK®, PARA-FLO®, PERMEX®, TURBO-FLO®.

*Zurn® is a registered trademark of Zurnco, Inc. Use of "Zurn" is for identification purposes only and does not imply affiliation, endorsement, or association between Sloan and Zurnco, Inc.

SOLIS® Bluetooth (BT) Flushometers

Single-flush and Dual-flush

ITEM 8. FLEX TUBE DIAPHRAGM KIT SELECTION GUIDE

Code No.	Part No.	Description	Regulator Color
3325001	EBV-1020-A	1.6 gpf/6.0 Lpf Closet	GREEN
3325031	EBV-1024-A	1.28 gpf/4.8 Lpf Closet	GREEN
—	EBV-1028-A	1.1 gpf/4.2 Lpf Closet	GRAY
3325003	EBV-1023-A	0.5 gpf/1.9 Lpf Urinal	GREEN
3325090	EBV-1025-A	0.25 gpf/10 Lpf Urinal	GREEN

The EBV-1020-A Kit is supplied with multiple Flush Volume Regulators. The installer must use the correct Regulator when installing the kit.

EBV-1025-A includes H-1015A Flow Control

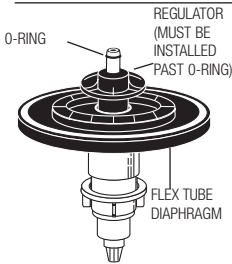
ITEM 9. REGULATORS

The flush volume of the flex tube diaphragm kit is controlled by the regulator. Regulators are identified by color. Some flex tube diaphragm kits are supplied with multiple regulators. The installer must make sure the proper regulator is used when installing the flex tube diaphragm kit.

REGULATOR (SOLD 6 PER PACKAGE)

Code No.	Part No.	Description	Regulator Color
5325122	EBV-95	Urinal-0.5 gpf/1.9 Lpf	GREEN
5325122	EBV-95	Closet-1.6 gpf/6.0 Lpf	GREEN

FLEX TUBE DIAPHRAGM ASSEMBLY



SOLIS models feature Sloan's exclusive flex tube diaphragm for the ultimate in valve performance, reliability and chloramine resistance.

ITEM 19D. SLIP JOINT GASKETS AND RINGS

Size	Code No.	Part No.	Description
1-1/2"	5306058	F-3	Red Friction Ring
	5322001	VBF-5	Black Slip Joint Gasket
	0319086/5319086	S-30	Flexible Seat
	0319079	S-21	Rigid Seat (rubber over brass)
1-1/2" x 1-1/4"	0396062	F-105	Slip Joint Gasket – Rigid
1-1/4"	5306057	F-3	Red Friction Ring
	5322176	VBF-5	Black Slip Joint Gasket
	0307052/5307052	G-21	Rigid Seat (rubber over brass)
1"	5306056	F-3	Red Friction Ring
	5306115	F-5	Black Slip Joint Gasket
3/4"	5306055	F-3	Red Friction Ring
	5306113	F-5	Black Slip Joint Gasket

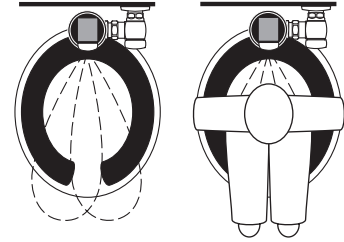
OPERATION

1. A continuous, INVISIBLE light beam is emitted from the SOLIS® sensor.

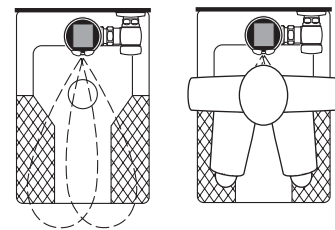
2. As the user enters the beam's effective range, 22 to 42 inches (559 mm to 1067 mm) for closet installations and 15 to 30 inches (381 mm to 762 mm) for urinal installations, the beam is reflected into the scanner window to activate the output circuit. Once activated, the output circuit continues in a "hold" mode for as long as the user remains within the effective range of the sensor. For dual-flush models, if the user stays longer than 65 seconds, a full flush will automatically initiate when the user leaves. For single-flush models, once the user steps away, a full flush will automatically initiate.

3. For dual-flush models, once a user is detected, if the user leaves in 65 seconds or less, a reduced flush will automatically initiate. The circuit automatically resets and is ready for the next user. For single-flush models, when the user steps away, this initiates a full flush. The circuit automatically resets and is ready for the next user.

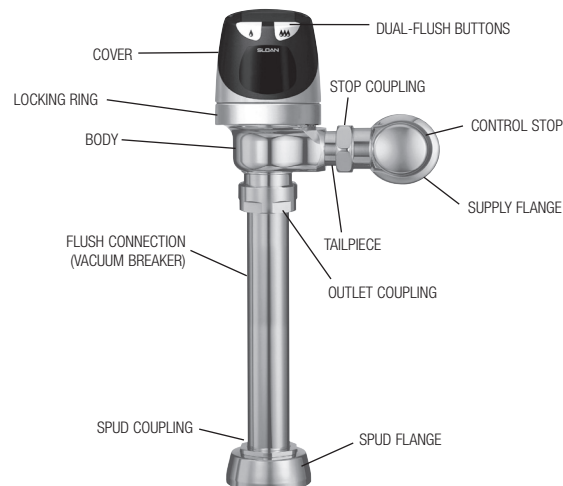
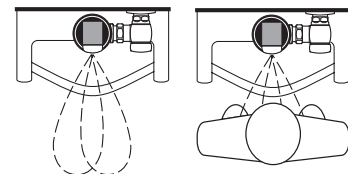
CLOSET



SQUAT TOILET



URINAL



SOLIS® Flushometers

Single-flush and Dual-flush

TROUBLESHOOTING GUIDE

1. Sensor flashes continuously only when user steps within range.

- A. Unit in start-up mode; no problem. This feature is active for the first ten (10) minutes of operation.

2. Valve DOES NOT flush; sensor not picking up user.

- A. Range too short; increase the range.

3. Valve DOES NOT flush; sensor picking up opposite wall or surface, or only flushes when someone walks by. Light flashes continuously for first 10 minutes even with no one in front of the sensor.

- A. Range too long; shorten range.

4. Valve DOES NOT flush even after adjustment.

- A. Range adjustment potentiometer set at full "max" or full "min" setting. Readjust potentiometer away from full "max" or "min" setting.
- B. Batteries completely used up; replace batteries.
- C. Problem with electronic sensor module; replace electronic sensor module.

5. Unit flashes 4 quick times when user steps within range.

- A. Batteries low; replace batteries.

6. Valve DOES NOT shut off.

- A. Bypass orifice in diaphragm is clogged with dirt or debris, or bypass is clogged by an invisible gelatinous film due to "over-treated" water. Remove flex tube diaphragm and wash under running water.
Note: Size of orifice in the bypass is of utmost importance for the proper metering of water by the valve. DO NOT ENLARGE OR DAMAGE THIS ORIFICE. Replace flex tube diaphragm if cleaning does not correct the problem.
- B. Dirt or debris fouling stem or flex tube diaphragm. Remove flex tube diaphragm and wash under running water.
- C. O-ring on stem of flex tube diaphragm is damaged or worn. Replace O-ring if necessary.
- D. Problem with electronic sensor module; replace sensor module.

7. Not enough water to fixture.

- A. Wrong flush volume regulator installed in flex tube diaphragm kit. Install the correct regulator.
- B. Wrong SOLIS® model installed; i.e., 1 gpf. Urinal installed on 3.5 gal. closet fixture. Replace with proper SOLIS® model.
- C. Enlarged bypass in diaphragm. Replace flex tube diaphragm.
- D. Control stop not adjusted properly. Readjust control stop.
- E. Inadequate volume or pressure at supply. Increase water pressure or supply (flow) to valve. Consult factory for assistance.

8. Too much water to fixture.

- A. Wrong flush volume regulator installed in flex tube diaphragm kit. Install the correct regulator.
- B. Control stop not adjusted properly. Readjust control stop.
- C. Wrong SOLIS model installed; i.e., 3 gpf. model installed on 1.0 or 1.5 gal. Urinal fixture. Replace with proper SOLIS mode.
- D. Dirt in diaphragm bypass. Clean under running water or replace flex tube diaphragm.

Note: The EBV-46-A beam deflector is not required or available for the SOLIS®.

CARE AND CLEANING INSTRUCTIONS

DO NOT USE abrasive or chemical cleaners to clean flushometers as they may dull the luster and attack the chrome or special decorative finishes. Use **ONLY** soap and water, then wipe dry with clean cloth or towel.

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

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