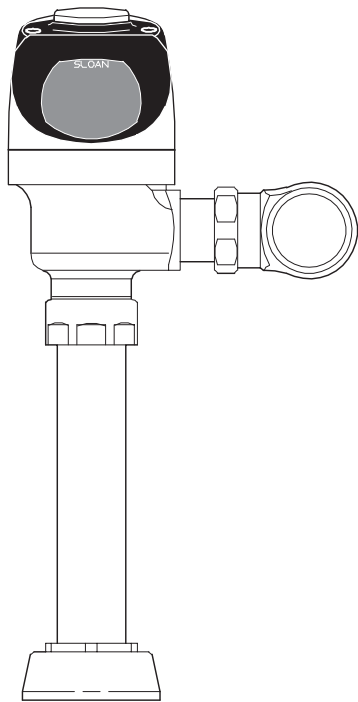


SLOAN®

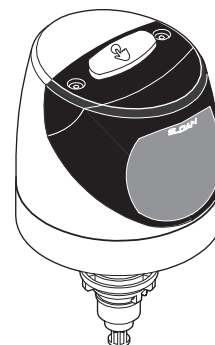
G2 OPTIMA plus®

Code No. 0816452
Rev. 0a (05/03)

INSTALLATION INSTRUCTIONS FOR RETROFIT AND COMPLETE VALVE INSTALLATION

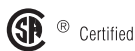


8100 Series Complete Flushometer Models



RESS Series Retrofit Conversion Kit Models

Made in the U.S.A.



The Sloan G2 Optima *Plus* Flushometer provides the ultimate in sanitary protection and automatic operation. The Optima *Plus* uses advanced infrared technology to detect a user's presence and initiate a flushing cycle once the user steps away. The Optima *Plus* is powered by four AA batteries which will provide up to three years of service (based on 4000 flushes per month).

RESS Optima *Plus* models are used to convert existing Royal and Regal style flushometers to sensor operation.

8100 series Optima *Plus* valves are complete flushometer valves and ideal for new installations.

When installing any Optima *Plus* valve it is important that the flush model matches the requirements of the plumbing fixture.

Optima *Plus* Water Closet Models can be furnished for the following:

- | | |
|------------------|------------------------------------|
| 1.6 gpf/6.0 Lpf | For Low Consumption Bowls |
| 2.4 gpf/9.0 Lpf | For 9 Liter European Water Closets |
| 3.5 gpf/13.2 Lpf | For older Water Closets |

Optima *Plus* Urinal Models can be furnished for the following:

- | | |
|------------------|------------------------------|
| 0.5 gpf/1.9 Lpf | For Wash Down Urinals |
| 1.0 gpf/3.8 Lpf | For Low Consumption Urinals |
| 1.5 gpf/5.7 Lpf | For older Siphon Jet Urinals |
| 3.5 gpf/13.2 Lpf | For older Blow Out Urinals |

LIMITED WARRANTY

Sloan Valve Company warrants its G2 Optima *Plus* Flushometers to be made of first class materials, free from defects of material or workmanship under normal use and to perform the service for which they are intended in a thoroughly reliable and efficient manner when properly installed and serviced, for a period of five years (1 year for special finishes) from date of purchase. During this period, Sloan Valve Company will, at its option, repair or replace any part or parts which prove to be thus defective if returned to Sloan Valve Company, at customer's cost, and this shall be the sole remedy available under this warranty. No claims will be allowed for labor, transportation or other incidental costs. This warranty extends only to persons or organizations who purchase Sloan Valve Company's products directly from Sloan Valve Company for purpose of resale. This warranty does not cover the life of the batteries.

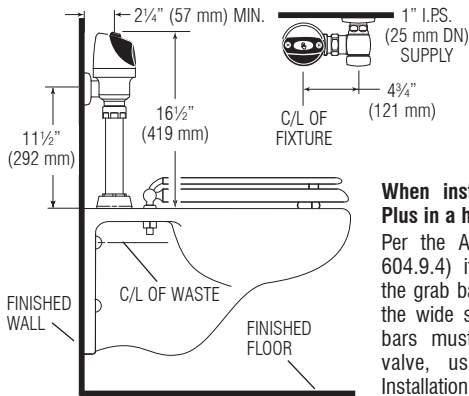
THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO EVENT IS SLOAN VALVE COMPANY RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY MEASURE WHATSOEVER.

VALVE ROUGH-IN — Figure 1

Typical Water Closet Installation

Model 8110/8111

Reference for RESS-C Retrofit

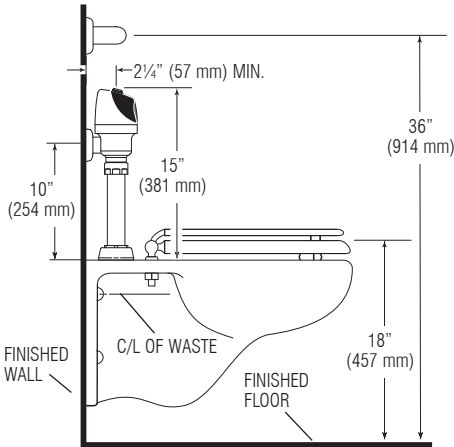


When installing the G2 Optima Plus in a handicap stall:

Per the ADA Guidelines (section 604.9.4) it is recommended that the grab bars be split or shifted to the wide side of the stall. If grab bars must be present over the valve, use the Alternate ADA Installation as shown below.

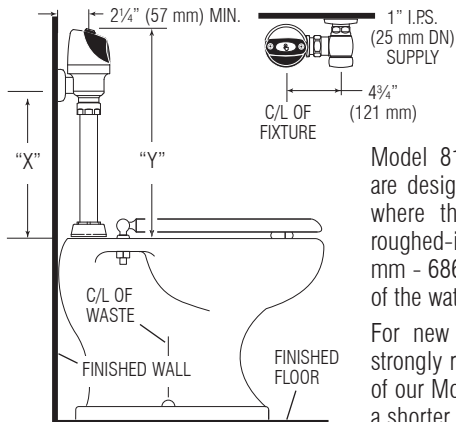
Alternate ADA Installation

Lower water supply rough-in to 10" (254 mm) and mount grab bar at the 36" (914 mm) maximum allowed height.



High Rough-in Water Closet Installation

Models 8113, 8115 & 8116



Model 8115 & 8116 valves are designed for installations where the water supply is roughed-in 24" - 27" (610 mm - 686 mm) above the top of the water closet.

For new installations, Sloan strongly recommends the use of our Model 8111 which has a shorter installation height.

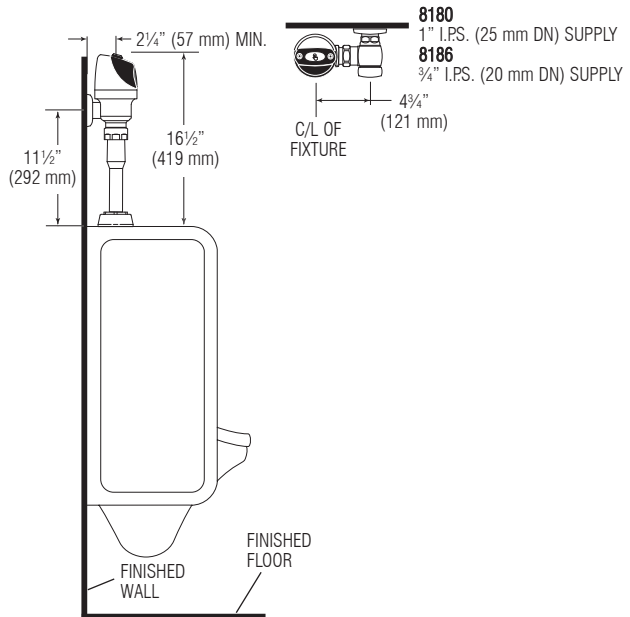
Use the Model 8113 when toilet seat with covers are being used.

Model	"X"	"Y"
8113	16" (406 mm)	21" (533 mm)
8115	24" (610 mm)	29" (737 mm)
8116	27" (686 mm)	32" (813 mm)

Typical Urinal Installation

Models 8180 & 8186

Reference for RESS-U Retrofit



PRIOR TO INSTALLING THE SLOAN G2 OPTIMA PLUS FLUSHOMETER

Prior to installing the Sloan G2 Optima Plus Flushometer, install the items listed below as illustrated in Figure 1. (New installations only.)

- Closet or urinal fixture
- Drain line
- Water supply line

Important:

- ALL PLUMBING IS TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.
- WATER SUPPLY LINES MUST BE SIZED TO PROVIDE AN ADEQUATE VOLUME OF WATER FOR EACH FIXTURE.
- FLUSH ALL WATER LINES PRIOR TO MAKING CONNECTIONS.

The Sloan G2 Optima Plus is designed to operate with 15 to 100 PSI (104 to 689 kPa) of water pressure. THE MINIMUM PRESSURE REQUIRED TO THE VALVE IS DETERMINED BY THE TYPE OF FIXTURE SELECTED. Consult fixture manufacturer for pressure requirements.

Most Low Consumption water closets (1.6 gallon/6 liter) require a minimum flowing pressure of 25 psi (172 kPa).

TOOLS REQUIRED FOR INSTALLATION

- Slotted screwdriver to adjust control stop.
- Sloan A-50 "Super-Wrench™" or smooth jawed spud wrench for couplings.
- Trimpot adjustment screwdriver (supplied) to adjust range, if necessary.
- Strap wrench (supplied) to install Optima Plus to valve body.
- 7/64" hex wrench (supplied) to secure Optima Plus cover to base plate.

IMPORTANT: The Strap Wrench provided with Optima Plus is a convenience tool and is not to be used to remove or install the Flushometer Couplings. Use Strap Wrench ONLY to install Optima Plus Locking Ring.

Protect the chrome or special finish of this Flushometer. DO NOT USE TOOTHED TOOLS TO INSTALL OR SERVICE THE VALVE. Also, see "Care and Cleaning" section of this manual.

IMPORTANT: WITH THE EXCEPTION OF CONTROL STOP INLET, DO NOT USE PIPE SEALANT OR PLUMBING GREASE ON ANY VALVE OR OPTIMA PLUS COMPONENT!

INSTALLATION

**For Complete Valve Installation, Start Here.
For RESS Retrofit Installations, Start at Step 5.**

Step 1 — Install Control Stop (Figures 2 & 3)

Install the Sloan Bak-Chek Control Stop to the water supply line with the outlet positioned as required.

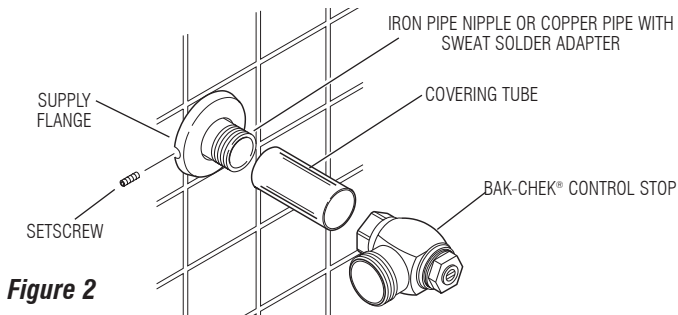


Figure 2

For Sweat Solder applications, refer to the following instructions and Figure 3:

- 1A. Measure distance from finished wall to centerline of fixture spud. Cut water supply pipe 1/4" (32 mm) shorter than this measurement. Chamfer O.D. and I.D. of water supply pipe.
- 1B. Slide Threaded Adapter onto water supply pipe until end of pipe rests against shoulder of Adapter. Sweat Solder Adapter to water supply pipe.
- 1C. Determine length of Covering Tube by measuring distance from finished wall to the first thread of Adapter (Dimension "X" in Illustration 1C below). Cut Covering Tube to this length.
- 1D. Slide Covering Tube onto water supply pipe. Slide Wall Flange over Covering Tube until it rests against the finished wall.

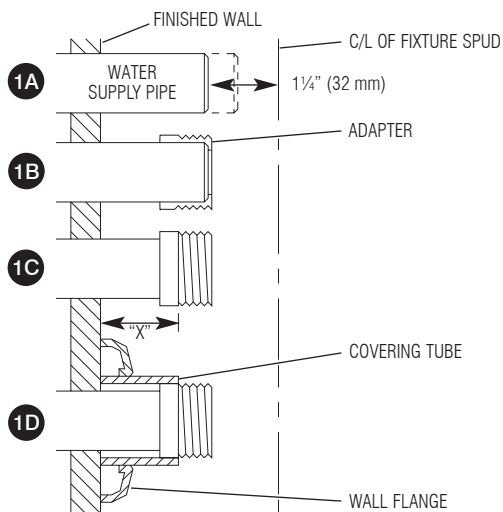


Figure 3

Install the Sloan Bak-Chek Control Stop to the water supply line with the outlet positioned as required. Refer to Figure 2.

Step 2 — Flush Out Supply Line (Figure 4)

Open Control Stop. Turn on water supply to flush line of any debris or sediment. Close Control Stop.

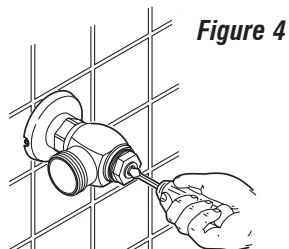


Figure 4

-  **CLOCKWISE CLOSES CONTROL STOP**
-  **COUNTERCLOCKWISE OPENS CONTROL STOP**

Step 3 — Install Vacuum Breaker Flush Connection (Figure 5)

Slide the Spud Coupling, Nylon Slip Gasket, Rubber Gasket and Spud Flange over the Vacuum Breaker Tube. Insert Vacuum Breaker Tube into fixture spud. Hand tighten Spud Coupling onto fixture spud.

If cutting Vacuum Breaker Tube to size, note that Critical Line (C/L) on Vacuum Breaker must typically be 6" (152 mm) above fixture. Consult Code for details.

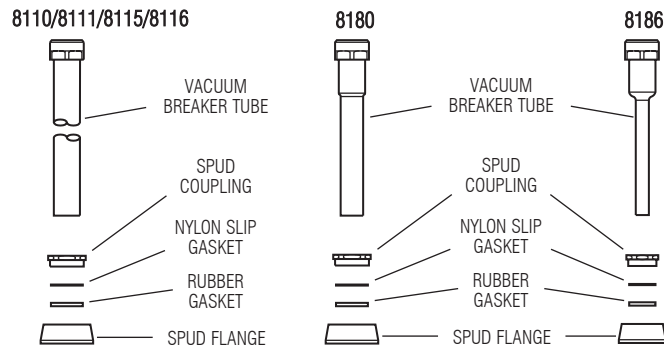


Figure 5

Step 4 — Install Flushometer (Figures 6 and 7)

SLOAN ADJUSTABLE TAILPIECE (Figure 6)

The Sloan Adjustable Tailpiece compensates for "off-center" roughing-in on the job. Maximum adjustment is 1/2" (13 mm) IN or 1/2" (13 mm) OUT from the standard 4 3/4" (121 mm) (centerline of Flushometer to centerline of Control Stop).

IMPORTANT: WITH THE EXCEPTION OF CONTROL STOP INLET, DO NOT USE PIPE SEALANT OR PLUMBING GREASE ON ANY VALVE OR OPTIMA PLUS COMPONENT!

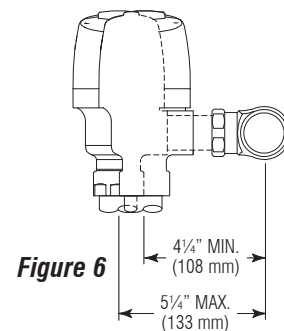


Figure 6

Refer to Figure 7

Insert Adjustable Tailpiece into Control Stop. Wet O-ring Seal with water to lubricate. Secure by hand tightening Tailpiece Coupling.

Align Flushometer body on top of Vacuum Breaker Flush Connection and secure by hand tightening Vacuum Breaker Coupling.

Align Flushometer body and securely tighten Tailpiece Coupling, Vacuum Breaker Coupling and Spud Coupling, respectively.

Important Note: Use a smooth jawed wrench to secure all couplings. This will eliminate damage to chrome or special finish that normally occurs when slip-joint pliers, pipe wrenches or other "toothed" tools are used.

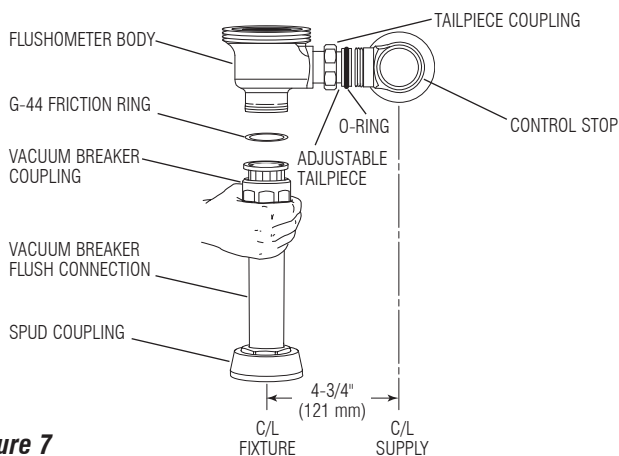


Figure 7

When Retrofitting an Existing Valve, Start Here

Step 5 — Remove Components from Existing Flushometer (RESS Retrofit Installations Only) (Figure 8)

- 5A. Remove Control Stop Cap.
- 5B. Turn off water supply at Control Stop. Push Valve Handle to relieve water pressure.
- 5C. Remove Outside and Inside Covers and old Inside Parts Kit.
- 5D. Remove old Handle Assembly and Gasket.

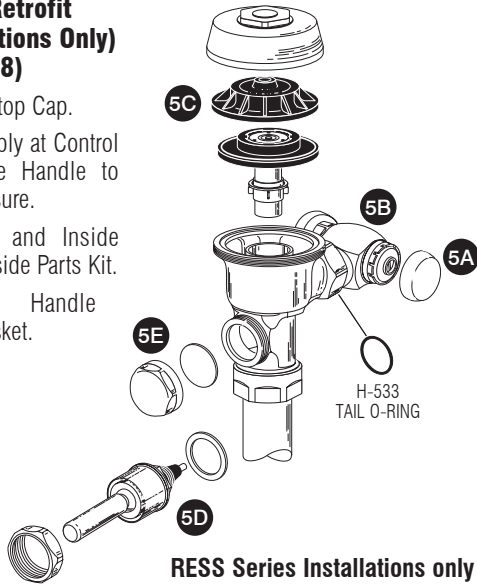


Figure 8

NOTE: Tail O-ring

An extra H-533 Tail O-ring is included in the event leakage occurs if the valve is repositioned during the installation of the new Optima Plus. Use only as needed.

Install Handle Cap (Figure 8, Item 5E)

Install Chrome Handle Cap with Gasket to handle opening on Flushometer body. Tighten Chrome Handle Cap securely.

Note: This step is required for Retrofit Installations ONLY.

Step 6 — Optima Plus G2 Flush Volume For RESS-C and RESS-U Retrofit Models

The Flush Volume of the Optima Plus is controlled by the Regulator in the Flex Tube Diaphragm Kit. Regulators are identified by color.

Reference Chart

Fixture & Flush	Regulator Color
0.5 gpf (1.9 Lpf) Urinal	Green
1.0 gpf (3.8 Lpf) Urinal	Green
1.5 gpf (5.7 Lpf) Urinal	Black
1.6 gpf (6.0 Lpf) Closet	Green
3.5 gpf (13.2 Lpf) Closet	White
4.5 gpf (17.0 Lpf) Closet	White
3.5 gpf (13.2 Lpf) Urinal	White
2.4 gpf (9.0 Lpf) Closet	Blue

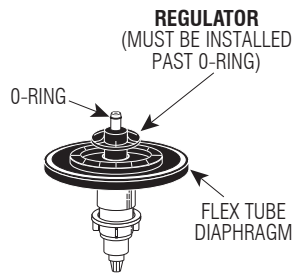
Note: For a 4.5 gpf (17.0 Lpf) Water Closet flush use the EBV-1020-A kit with the White Regulator. Cut and remove the A-164 Flow Ring from the Guide.

Note: A 0.5 gpf (1.9 Lpf) Urinal kit can be converted to a 1.0 gpf (3.8 Lpf) by cutting and removing the smooth A-164 Flow Ring from the Guide.

RESS-C and RESS-U G2 Optima Plus valves are supplied with multiple Regulators to address multiple flushing applications. The product is shipped with it's lowest flush volume configuration. To convert the flush to a higher flushing volume, simply change the Regulator.

When installing a new Regulator on a Flex Tube Diaphragm Kit, be sure to push the Regulator past the O-ring when installing.

Note: Never use more water than needed. Low Consumption water closets and urinals will not function properly on excess water.



Step 7 — Assemble Flex Tube Diaphragm to Optima Plus Assembly (Figure 9)

Remove Tab at underside of Optima Plus Assembly. Insert metal end of Flex Tube into the hole at underside of Optima Plus Assembly. The O-ring must be fully inserted into the hole. Push the Diaphragm securely against underside of Optima Plus Assembly. Place entire Assembly onto the Valve Body.

Note: Sensor Lens must face directly forward. Rotating the Sensor to either side will decrease the Sensor's ability to detect a target.

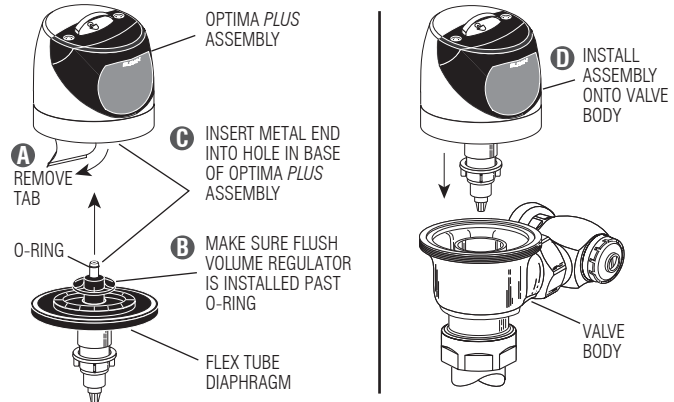


Figure 9

TIGHTEN LOCKING RING (Figure 10)

Thread Locking Ring onto Valve Body. Use Strap Wrench provided to tightly secure Locking Ring.

Important: The Locking Ring must be installed down past the valve body threads by at least one thread. If difficulty is experienced installing the Locking Ring, turn the Locking Ring back and forth, each time working it further down the threads. The Locking Ring will act as a thread chaser in the event there has been a build-up of matter on the threads of the old valve body.

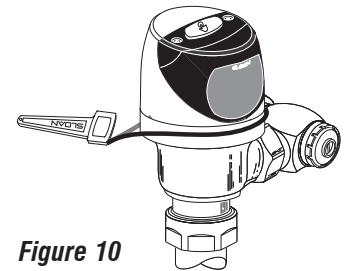


Figure 10

If retrofitting the G2 Optima Plus onto a Zurn valve body, a special Locking Ring must be used (identified by a machined groove around the ring).

Order the G2 Optima Plus with the "Z" variation to receive the unit supplied with this Ring.

Step 8 — Remove Tab to Activate Sensor Module (Figure 11)

Remove the Tab located over the Override Button to activate the Sensor Module. For the first ten (10) minutes of operation, a Visible Red Light flashes in the Sensing Window of the Optima Plus Flushometer when a user is detected.

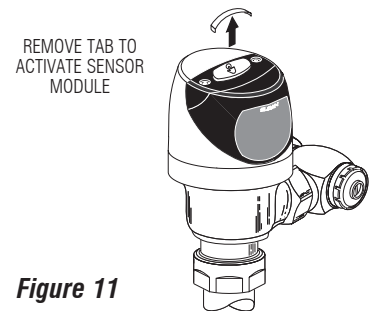


Figure 11

Step 9 — Test Sensor Operation (Figure 12)

Stand in front of the Optima Plus sensor, wait ten (10) seconds, then step away. Solenoid will “click,” indicating that the Optima Plus is operating.

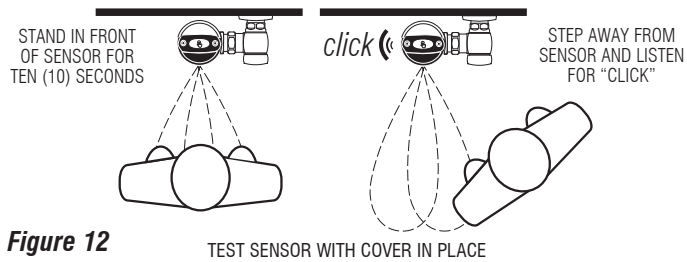


Figure 12

RANGE ADJUSTMENT

The Optima Plus 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 a range adjustment is required, refer to the Range Adjustment instructions on this page.

Step 10 — Adjust Control Stop to Suit Fixture (Figure 13)

Adjust Control Stop to meet the flow rate required for proper cleansing of the fixture. If installed, remove Vandal Resistant Control Stop Cap. Open Control Stop COUNTERCLOCKWISE ½ turn from the closed position. Activate Flushometer by placing hand in front of Optima Plus Sensor Lens for ten (10) seconds (or press override button) and then moving it away. Adjust Control Stop after each flush until the rate of flow delivered properly cleanses the fixture.

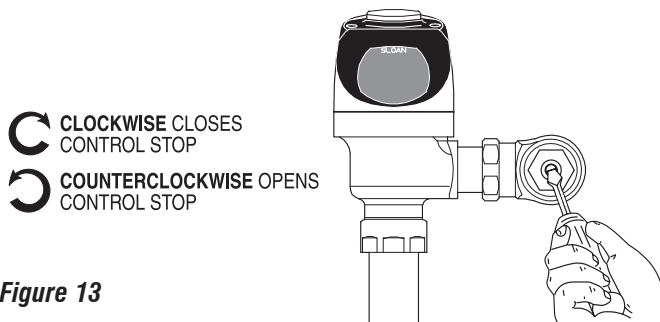


Figure 13

Important: A Sloan Flushometer is engineered for quiet operation. Excessive water flow creates noise, while too little water flow may not satisfy the needs of the fixture. Proper adjustment is made when:

1. The plumbing fixture is cleansed after each flush without splashing water out from the lip.
2. A quiet flushing cycle is achieved.

The Control Stop should never be opened to the point where the flow from the valve exceeds the flow capability of the fixture. In the event of a valve failure, the fixture must be able to accommodate a continuous flow from the valve.

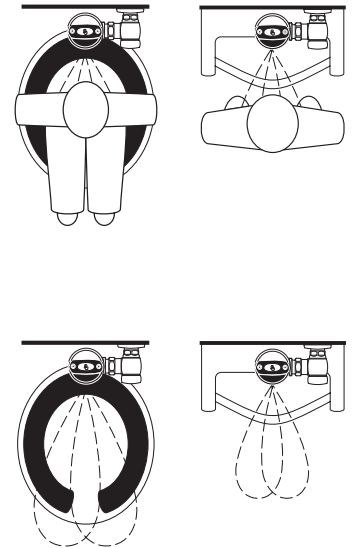
Step 11 — Install Stop Cap

For RESS retrofit applications, reuse Stop Cap from existing valve. In complete valve installations, a new Stop Cap is provided.

For G2 models, follow the instructions packaged with the Free Spinning Vandal Resistant Stop Cap.

OPERATION

1. A continuous, INVISIBLE light beam is emitted from the Optima Plus 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.
3. When the user steps away, the loss of reflected light initiates an electrical "one-time" signal that activates the flushing cycle to flush the fixture. The Circuit automatically resets and is ready for the next user.



RANGE ADJUSTMENT (Adjust only If Necessary)

The G2 Optima Plus 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. Remove the Override Button. Remove the Rubber Plug from top of Electronic Sensor Module to uncover the Potentiometer.

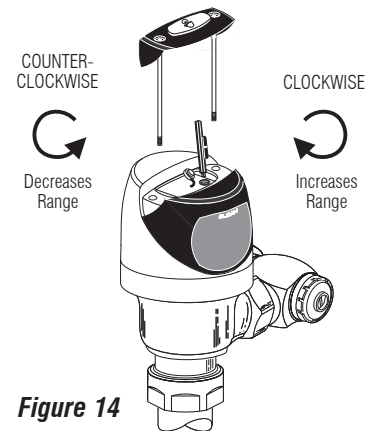


Figure 14

RANGE ADJUSTMENT PROCEDURE

For the first ten (10) minutes of operation, a Visible Red Light flashes in the Sensing Window of the G2 Optima Plus Flushometer when a user is detected. This Visible Red 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 Red 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 ¾ of a turn; **DO NOT** over-rotate.

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

TROUBLESHOOTING GUIDE

I. 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.

II. Valve Does Not Flush; Sensor Not Picking Up User.

- A. Range too short; increase the range.

III. Valve Does Not Flush; Sensor Picking Up Opposite Wall or Surface, or Only Flushes When Someone Walks By. Red Light Flashes Continuously for First 10 Minutes Even with No One in Front of the Sensor.

- A. Range too long; shorten range.

IV. 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.

V. Unit Flashes 4 Quick Times When User Steps Within Range.

- A. Batteries low; replace batteries.

VI. 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.

VII. Not Enough Water to Fixture.

- A. Wrong Flush Volume Regulator installed in Flex Tube Diaphragm Kit. Install the correct Regulator (see Step 6 of these instructions).

- B. Wrong Optima *Plus* model installed; i.e., 1 gpf. urinal installed on 3.5 gal. closet fixture. Replace with proper Optima *Plus* model, or refer to the G2 Optima *Plus* Conversion Guide (0816453) to convert existing unit to the proper 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.

VIII. Too Much Water to Fixture.

- A. Wrong Flush Volume Regulator installed in Flex Tube Diaphragm Kit. Install the correct Regulator (see Step 6 of these instructions).

- B. Control Stop not adjusted properly. Readjust Control Stop.

- C. Wrong Optima *Plus* model installed; i.e., 3 gpf. model installed on 1.0 or 1.5 gal. urinal fixture. Replace with proper Optima *Plus* model, or refer to the G2 Optima *Plus* Conversion Guide (0816453) to convert existing unit to the proper model.

- D. Dirt in Diaphragm Bypass. Clean under running water or replace Flex Tube Diaphragm.

Note: The EBV-46-A Beam Deflector is no longer required or available for the G2 Optima *Plus*.

For information and instructions on field converting G2 Optima *Plus* Module settings or to activate the Stadium Flush™ Feature in urinal models, refer to the Sloan G2 Optima *Plus* Conversion Guide (0816453).

This manual and the Optima *Plus* Repair and Maintenance Guide are available at www.sloanvalve.com.

BATTERY REPLACEMENT (Figures 15 and 16)

When required, replace batteries with four (4) Alkaline Type AA 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) Alkaline Type AA Batteries **exactly** as illustrated in Figure 16.

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.

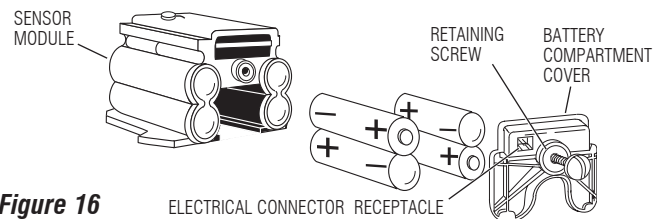


Figure 15

CARE AND CLEANING OF CHROME AND SPECIAL FINISHES

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.

Refer to the Optima *Plus* Flushometer Maintenance Guide for additional Troubleshooting and Repair Part information.

If further assistance is required, please contact the Sloan Valve Company Installation Engineering Department at 1-888-SLOAN-14 (1-888-756-2614).

Manufactured in the U.S.A. by Sloan Valve Company under one or more of the following patents: U.S. Patents: 4,893,039; 5,169,118; 5,244,179; 5,295,655; Des. 345,113; Des. 355,478. Other Patents Pending. BAK-CHEK®, PARA-FLO®, PERMEX®, TURBO-FLO®.

PARTS LIST

Item Part Number Description
No.

Items Included with RESS Retrofit and Complete Optima Plus Valves

1	EBV-138-A	G2 Cover/Ring/Sensor Assembly — Water Closet
	EBV-139-A	G2 Cover/Ring/Sensor Assembly — Urinal
	EBV-149-A	G2 Cover/Ring/Sensor Assembly — Water Closet w/ Zurn ring
	EBV-150-A	G2 Cover/Ring/Sensor Assembly — Urinal w/ Zurn ring
2	EBV-142-A	Cover Assembly
3	EBV-130-A	Override Button Assembly (includes screws & hex wrench)
	EBV-132-A	Screws (2) and Hex Wrench Only
4	EBV-131	Lens Window Cover
5	EBV-14	Locking Ring
	EBV-31-A	Locking Ring — for Zurn valves
6	EBV-129-A-C	G2 Electronic Module — Water Closet
	EBV-129-A-U	G2 Electronic Module — Urinal
7	EBV-134	Cover Rest Plate
8	EBV-145-A	G2 Inside Cover Assembly (includes solenoid)
9	EBV-136-A	Isolated Solenoid (For G2 Sensor only)
10	See Chart	Flex Tube Diaphragm Assembly
11	See Chart	Flush Volume Regulator
12	EBV-1017-A	Handle Cap (RESS units only)
13	EBV-91	Range Adjustment Tool
14	EBV-22	Strap Wrench
15	EBV-137	7/64" Hex Wrench

Items Included with Complete Optima Plus Valves Only

16	H-633-AA	1" (25 mm) Sweat Solder Kit
	H-636-AA	3/4" (19 mm) Sweat Solder Kit
17	H-700-A	1" (25 mm) Bak-Chek® Control Stop
	H-700-A	3/4" (19 mm) Bak-Chek® Control Stop
18	H-1010-A	Vandal Resistant Stop Cap
19	EBV-36-A	Valve Body (Less Handle Opening)
20A	V-600-AA	1 1/2" (38 mm) x 10.5" (267 mm) Vacuum Breaker (Model 8110)
	V-600-AA	1 1/2" (38 mm) x 23" (584 mm) Vacuum Breaker (Model 8115)
	V-600-AA	1 1/2" (38 mm) x 26" (660 mm) Vacuum Breaker (Model 8116)
20B	V-600-AA	1 1/4" (32 mm) x 10.5" (267 mm) Vacuum Breaker (Model 8180)
20C	V-600-AA	3/4" (19 mm) x 10.5" (267 mm) Vacuum Breaker (Model 8186)
21A	F-5-A	1 1/2" Spud Coupling Assembly (Models 8110, 8115 & 8116)
21B	F-5-A	1 1/4" Spud Coupling Assembly (Model 8180)
21C	F-5-A	3/4" Spud Coupling Assembly (Model 8186)

FLEX TUBE DIAPHRAGM KITS

Sloan OPTIMA Plus Battery Powered Flushometer Inside Parts Kit Selection Guide

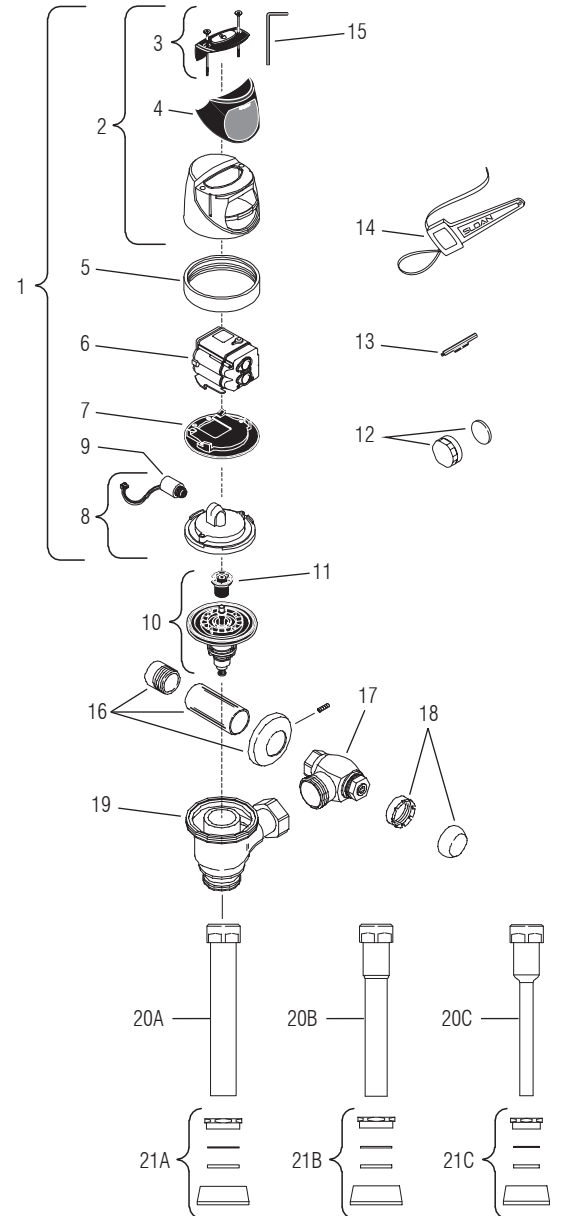
Flush Volume and Fixture	Item No. 10 Flex Tube Diaphragm Kit No.	Item No. 11 Flush Volume Regulator Part No.	Regulator Color
0.5 gpf/1.9 Lpf Urinal	EBV-1023-A	EBV-95	Green
1.0 gpf/3.8 Lpf Urinal	EBV-1022-A	EBV-95	Green
1.5 gpf/5.7 Lpf Urinal	EBV-1022-A	EBV-102-2	Black
3.5 gpf/13.2 Lpf Urinal	EBV-1020-A	EBV-102-1	White
1.6 gpf/6.0 Lpf Closet	EBV-1020-A	EBV-95	Green
3.5 gpf/13.2 Lpf Closet	EBV-1020-A	EBV-102-1	White
2.4 gpf/9.0 Lpf Closet	EBV-1021-A	EBV-101	Blue

The EBV-1020-A and EBV-1022-A Kits are supplied with multiple Flush Volume Regulators. The installer must use the correct Regulator when installing the kit.

FLEX TUBE DIAPHRAGM ASSEMBLY



G2 Optima Plus Valve Models Feature Sloan's Exclusive Flex Tube Diaphragm™ for the ultimate in valve performance, reliability and chloramines resistance.



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