

## INSTALLATION INSTRUCTIONS FOR TRUFLUSH MANUAL CLOSET AND URINAL FLUSHOMETERS

### TruFlush Models:



- TRF 156-1.6
- TRF 156-1.28
- TRF 156-1.1
- TRF 196-0.5
- TRF 196-0.25
- TRF 196-0.125

### LIMITED WARRANTY

Unless otherwise noted, Sloan Valve Company warrants this product, manufactured and sold for commercial or industrial uses, to be free from defects in material and workmanship for a period of three (3) years (one (1) year for special finishes, SF faucets, PWT electronics and 30 days for PWT software) from date of first purchase. During this period, Sloan Valve Company will, at its option, repair, replace, or refund the purchase price of any product which fails to conform with this warranty under normal use and service. This shall be the sole and exclusive remedy under this warranty. Products must be returned to Sloan Valve Company, at customer's cost. No claims will be allowed for labor, transportation or other costs. This warranty extends only to persons or organizations who purchase Sloan Valve Company's products directly from Sloan Valve Company for purpose of resale. This warranty does not cover the life of the 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.**

### PRIOR TO INSTALLATION

This valve is designed for new construction or where there is easily accessed plumbing for the fixture and the valve. This valve is designed for minimum six inch (153 mm) wall space depth. Distance from center of the valve (inlet or outlet pipe) to the finished surface of the wall can vary from 2"-3" (51-76 mm).

Wall plate opening must be minimum of 4" x 4" (102 x 102 mm) to maximum of 4.5" x 4.5" (114 mm x 114 mm). Mud plate is provided and must accompany valve for proper installation. Mud plate is removed after wall is finished.

### TOOLS REQUIRED FOR INSTALLATION

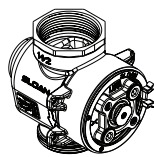
- Smooth-jawed wrench (at least 2") • Philips screwdriver • 5/64" hex wrench (supplied) • Wall plate depth guide- (supplied) • Adjusting tool- (supplied)

### ITEMS INCLUDED WITH THE PRODUCT

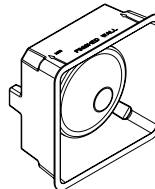
#### VALVE BOX

1. Valve assembly
2. Mud Guard
3. (2) #10-32 x 2-1/2 screws to secure mud guard
4. (2) 1/4"-20 x 2" screws to remove activation assembly
5. Adjustment tool
6. Installation instructions

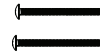
1. Valve Assembly



2. Mud Guard



3. Mud Guard Screws



4. Activation Assembly Screws



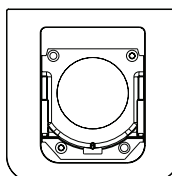
6. Instructions



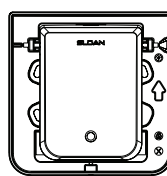
#### WALL PLATE BOX

1. Wall plate
2. Button and bracket assembly
3. (3) #10-32 x 2-1/2 screws to secure bracket to valve
4. (2) #8-32 x 7/8 screws to secure plate to valve
5. Depth setting tool
6. (3) #10-32 and locking nut for plunger
7. Allen Key
8. Installation instructions

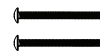
1. Wall Plate



2. Button/Bracket Assembly



3. Bracket to Valve Screws



4. Plate to Valve Screws



6. Locking nut for Plunger Screws



7. Allen Key

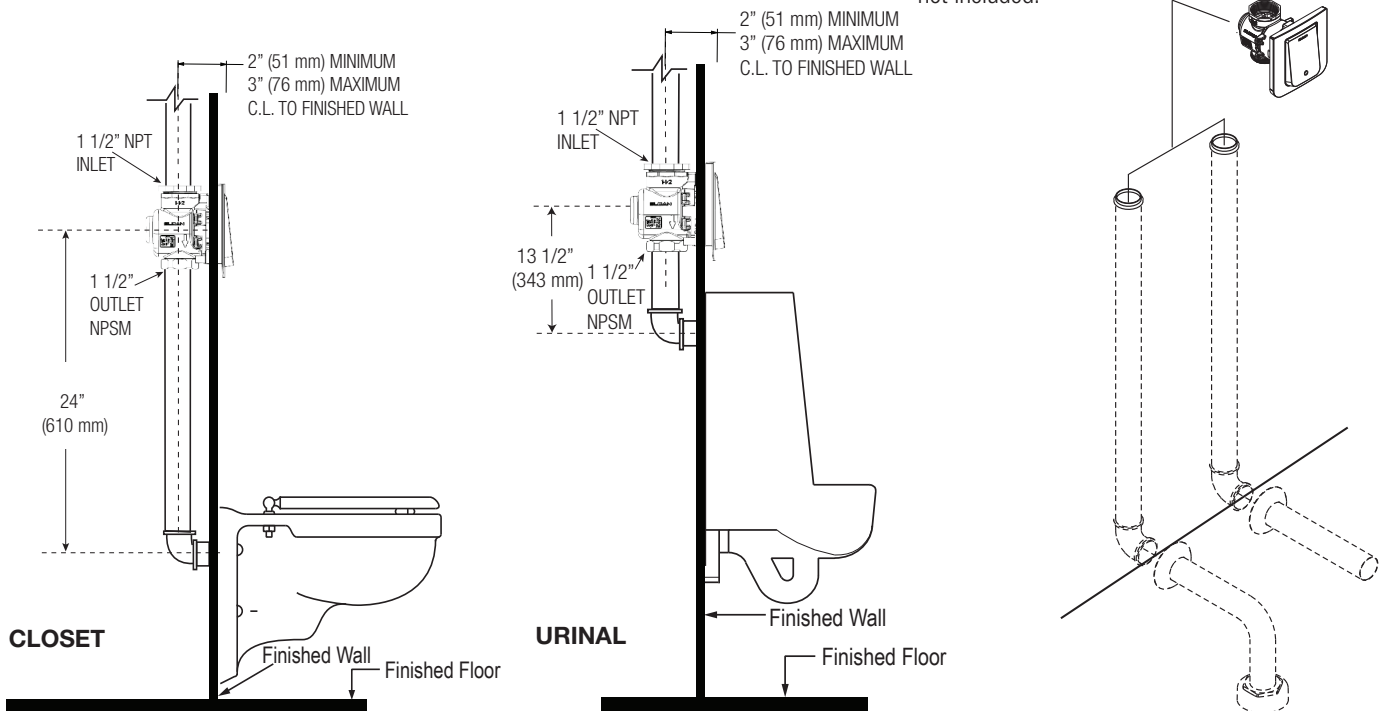


8. Instructions



# ROUGH-IN

NOTE : Flush Connections shown in dotted lines not included.



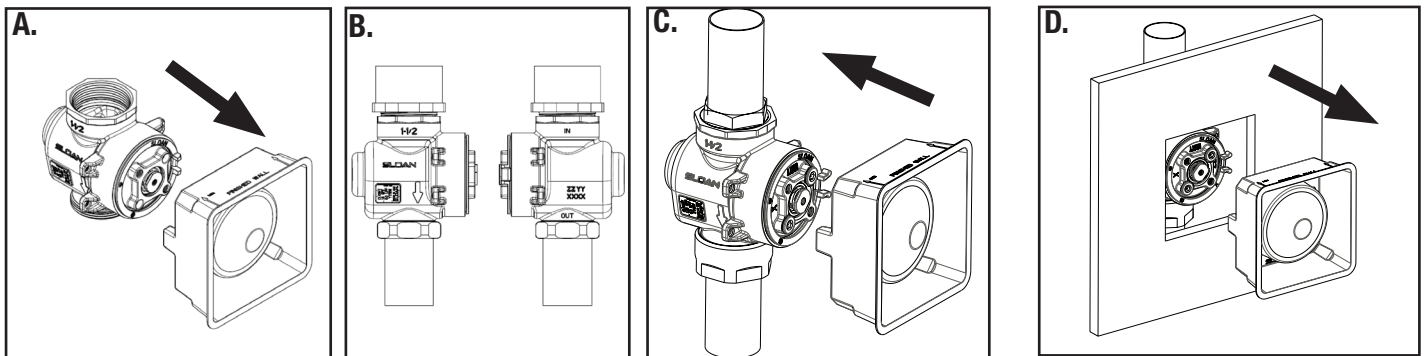
**!!! IMPORTANT !!!**

SLOAN'S FLUSHOMETERS ARE DESIGNED TO OPERATE WITH 20 TO 80 PSI (138 TO 552 KPA) OF WATER PRESSURE. **THE MINIMUM PRESSURE REQUIRED TO THE VALVE IS DETERMINED BY THE TYPE OF FIXTURE SELECTED.** CONSULT FIXTURE MANUFACTURER FOR MINIMUM PRESSURE REQUIREMENTS. MOST HIGH EFFICIENCY WATER CLOSETS REQUIRE A MINIMUM FLOWING PRESSURE OF 25 PSI (172 KPA). MANY BUILDING CODES AND THE ASME A112.19.2 FIXTURE STANDARD LIST MAXIMUM STATIC WATER PRESSURE AS 80 PSI (552 KPA).

**!!! IMPORTANT !!!**

**WITH THE EXCEPTION OF INLET, DO NOT USE PIPE THREAD SEALANT. DO NOT USE PLUMBING GREASE ON VALVE COMPONENTS OR COUPLINGS!**

## 1. CONNECT FLUSHOMETER



**A.** Remove mud plate and save for later use - **DO NOT DISCARD**

**PRIOR TO CONNECTING, MAKE SURE SUPPLY LINES ARE FLUSHED OUT- DEBRIS CAN CAUSE VALVE TO MALFUNCTION OR DAMAGE CAN ENSUE**

**B.** Connect inlet pipe to top of flushometer ("IN"), tighten securely with fixed jaw wrench. Connect fixture flush connection to bottom of flushometer ("OUT"), tighten securely

**C.** Reinstall mud plate to valve. Finish the wall. Use marks on mudguard to make sure finished wall is between 2" (51 mm) and 3" (76 mm) from the centerline of the pipe.

**D.** Remove mud plate and discard

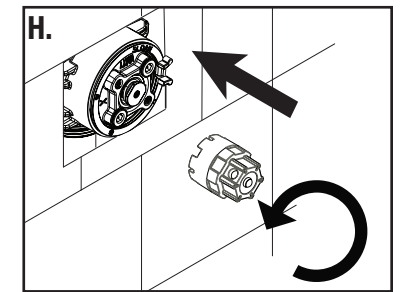
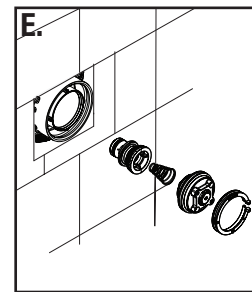
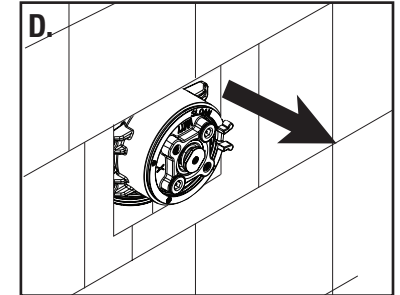
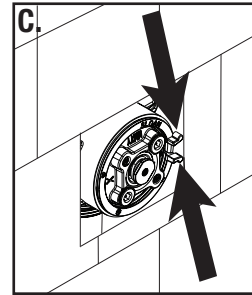
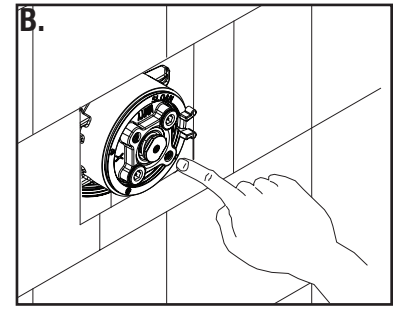
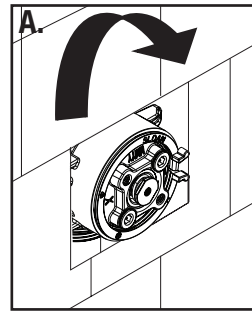
**NOTE.** Wall plate opening must be minimum of 4" x 4" (102 x 102 mm) to maximum of 4.5" x 4.5" (114 mm x 114 mm)

## 2. ADJUST CONTROL FLOW

If supply line was flushed and is clean of debris, proceed to step **R**.  
If supply line was not previously flushed, follow steps **A-S**.

Valve is shipped with the flow adjustment turned off.

- A.** Ensure activation assembly is turned fully clockwise to make sure water is off
- B.** Push plunger screw in center to relieve pressure. Push in activation assembly until fully seated.
- C.** Remove orange safety ring by squeezing pins together and pulling out.
- D.** Attach supplied screws to threaded holes in activation assembly. Pull out activation assembly. Do not rotate to avoid turning water on!
- E.** Remove conical spring. Do not discard!
- F.** Remove piston by pulling it straight out. If unable to grip piston, remove screw from front of activation assembly and screw into center hole of piston.
- G.** Reinstall activation assembly and press until fully seated.
- H.** Reinstall orange safety ring securely. Safety ring will spin freely in valve body when properly installed.
- I.** Using tool, (along with screwdriver or wrench, if needed), turn activation assembly counter clockwise slowly to open flow of water to flush the lines- careful not to overflow the fixture
- J.** Once lines are flushed clear, turn activation assembly clockwise to shut water flow off.
- K.** Push button/plunger in center to relieve pressure
- L.** Remove orange safety ring by squeezing pins together
- M.** Pull out activation assembly using supplied screws. Do not rotate to avoid turning water on!
- N.** Reinstall piston - insert smaller sized end first until fully seated
- O.** Reinstall conical spring, small end first, into piston.
- P.** Reinstall activation assembly and press until fully seated
- Q.** Reinstall orange safety ring securely. Safety ring will spin freely in valve body when properly installed.
- R.** Using tool (along with screwdriver or wrench, if needed), turn activation assembly slowly counterclockwise to open flow of water
- S.** Push plunger screw to activate flush and adjust water flow as needed by rotating activation assembly (clockwise to lessen flow and counter clock wise to increase flow)



### !!! IMPORTANT !!!

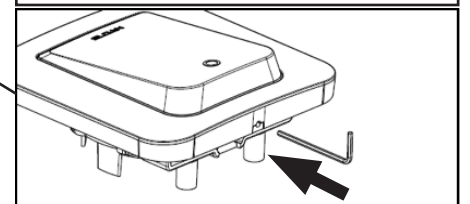
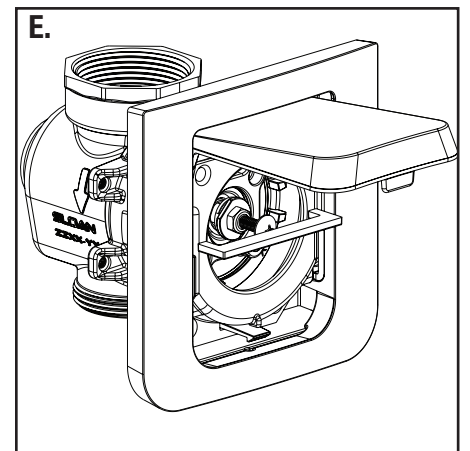
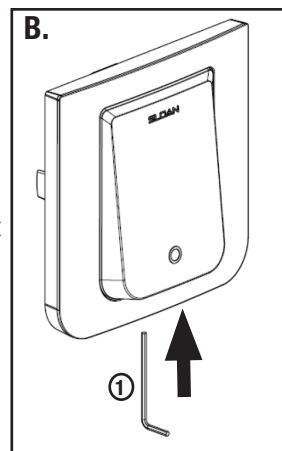
**THE ACTIVATION ASSEMBLY SHOULD NEVER BE OPENED TO THE POINT WHERE THE FLOW FROM THE VALVE EXCEEDS THE FLOW CAPABILITY OF THE FIXTURE. IN THE EVENT OF A VALVE FAILURE, THE FIXTURE MUST BE ABLE TO ACCOMMODATE A CONTINUOUS FLOW FROM THE VALVE.**

### !!! IMPORTANT !!!

**THE 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 PLUMBING FIXTURE IS CLEANSSED AFTER EACH FLUSH WITHOUT SPLASHING WATER OUT FROM THE LIP AND A QUIET FLUSHING CYCLE IS ACHIEVED.**

## 3. INSTALL BUTTON/BACKET ASSEMBLY

- A.** Retrieve button/bracket assembly from box
- B.** Release the snap feature of the button by inserting the provided 5/64" hex key through the hole at the bottom of the face plate while pressing at the top of the button.
- C.** Lift up button to 90 degrees until it locks in up position. Remove face plate and set aside.
- D.** Mount black wall bracket to valve, centering wall bracket to valve. Secure wall bracket evenly with three screws provided until bracket flush with wall.
- E.** Slide wall plate over button and wall bracket and secure to black bracket with two screws provided
- F.** Choose one of three plunger screws and nut provided and thread into plunger. If Plunger starts rotating, STOP. This means the screw has reached the bottom of the hole and overtightening the screw will cause damage to the Plunger. Try the next shorter screw included with the product to finish adjustment. Using depth guide provided, adjust depth of plunger screw until screw touches depth guide (use provided alternate length screws if necessary) and secure with nut.
- G.** Rotate button down until it snaps/locks into place.
- H.** Test flush by pushing button (make sure button is not pushing screw when in resting position)



## TROUBLESHOOTING GUIDE

### 1. Flushometer does not function (no water/flush).

- A. Ensure water supply to valve is turned on.
- B. Shut off sleeve is in closed position. Turn counterclockwise to open water flow.
- C. Plunger screw is not adjusted properly. Adjust screw using depth guide.

### 2. Volume of water is not sufficient to evacuate the bowl.

- A. Shut off sleeve is not open wide enough. Adjust shut off sleeve for desired delivery of water volume.
- B. Urinal piston parts installed in a Closet flushometer. Replace piston with proper Closet piston (1.6 gpf/6.0 Lpf or 1.28 gpf/4.8 Lpf)
- C. Water supply volume or pressure is inadequate (low). If the fixture does not siphon or evacuate the bowl, steps must be taken to increase the water supply pressure and/or volume. Contact the fixture manufacturer for minimum water supply requirements of the fixture.
- D. Plunger screw is not adjusted properly. Adjust screw using depth guide.

### 3. Flushometer closes off immediately.

- A. Urinal piston parts installed in a Closet flushometer. Replace piston with proper Closet piston (1.6 gpf/6.0 Lpf or 1.28/4.8 Lpf).
- B. Piston lip seal may be damaged or worn. Replace with new correct gpf/Lpf piston.
- C. Plunger screw not set properly. Adjust screw using depth guide.

### 4. Length of flush is too short (Short Flush).

- A. Incorrect piston is installed in Flushometer; for instance, Urinal assembly inside a Closet Flushometer, or High Efficiency assembly inside a higher consumption fixture. Determine the flush volume required by the fixture and replace with proper gpf/Lpf piston. Use valve label and markings on fixture for reference.
- B. Piston lip seal may be damaged or worn. Replace with new correct gpf/Lpf piston.
- C. Plunger screw is not adjusted properly. Adjust screw using depth guide.

### 5. Length of flush is too long (Long Flush) or continuous.

- A. Metering bypass hole in piston is clogged. Remove the piston from the valve and wash under clean running water. Do not attempt to remove filter screen. Replace piston if cleaning does not correct the problem.
- B. Supply line water pressure has dropped and is not sufficient to close the valve. Close shut off sleeve until pressure is restored.
- D. Piston is damaged. Replace with new proper gpf/Lpf piston
- E. Incorrect Piston is installed in Flushometer; for instance, Closet assembly inside a Urinal flushometer. Determine the flush volume required by the fixture and replace piston. Use valve label and markings on fixture for reference.

### 6. Chattering noise is heard during flush.

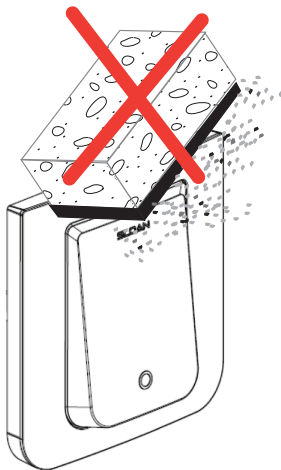
- A. Reduce flow pressure by turning shut off sleeve clockwise.

### 7. Valve leaks through Aspirator when Activated

- A. Debris between the umbrella valve and the retainer. Blow air on the aspirator. If this does not correct the problem, remove retainer with 5 mm Allen Key (not included) and wash it under clean running water. Replace aspirator if cleaning does not correct the problem.
- B. Loose Retainer. Hand tight retainer with 5 mm Allen Key (not included). Do not overtight. Replace aspirator if this does not correct the problem.

## CARE AND CLEANING

DO NOT use abrasive or chemical cleaners (including chlorine bleach) to clean Flushometers 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 Flushometer from any splattering of cleaner. Acids and cleaning fluids will discolor or remove chrome plating.



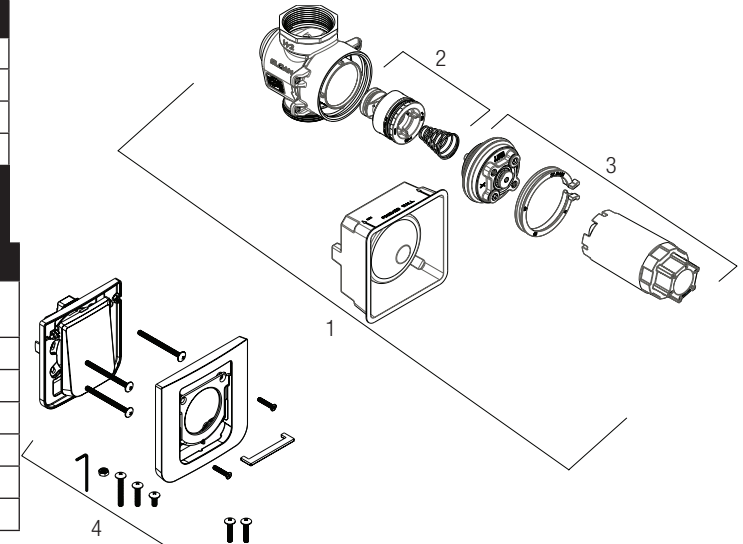
## PARTS LIST

Item No.	Part No.	Description
1	See Table	Valve Assembly Less Plate
2	See Table	Piston Assembly
3	See Table	Activation Assembly
4	GBL-200-A	Wall Plate Assembly*

## VALVE ASSEMBLY LESS PLATE SELECTION GUIDE

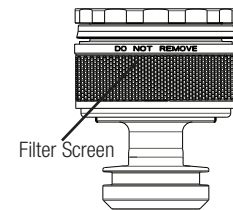
Code No.	Part No.	Description
3400010IN	TRF 156-1.6 LP (WASH DOWN)	Manual Valve Assembly 1.6 gpf/6.0 Lpf (wash down)
3400005	TRF 156-1.6 LP	Manual Valve Assembly 1.6 gpf/6.0 Lpf
3400006	TRF 156-1.28 LP	Manual Valve Assembly 1.28 gpf/4.8 Lpf
3400004IN	TRF-156-1.1 LP	Manual Valve Assembly 1.1 gpf/4.2 Lpf
3400007	TRF 196-0.5 LP	Manual Valve Assembly 0.5 gpf/1.9 Lpf
3400008	TRF 196-0.25 LP	Manual Valve Assembly 0.25 gpf/1.0 Lpf
3400009	TRF 196-0.125 LP	Manual Valve Assembly 0.125 gpf/0.5 Lpf

\*Consult factory for special finishes.



## PISTON PARTS LIST SELECTION GUIDE

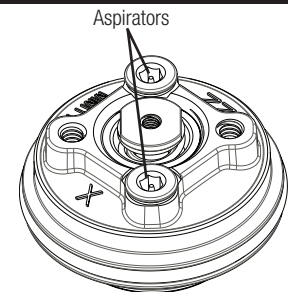
Code No.	Part No.	Description	Piston Color*
3340024IN	GBL-1024-A	1.6 gpf/6.0 Lpf (wash down) TruFlush closet piston assembly	Orange
3340005	GBL-1005-A	1.6 gpf/6.0 Lpf TruFlush closet piston assembly	Green
3340006	GBL-1006-A	1.28 gpf/4.8 Lpf TruFlush closet piston assembly	Purple
33400064	GBL-1089-A	1.1 gpf/4.2 Lpf TruFlush closet piston assembly	Grey
3340007	GBL-1007-A	0.5 gpf/1.9 Lpf TruFlush urinal piston assembly	Red
3340008	GBL-1008-A	0.25 gpf/1.0 Lpf TruFlush urinal piston assembly	Burgundy
3340009	GBL-1009-A	0.125 gpf/0.5 Lpf TruFlush urinal piston assembly manual	Pink



\* Colors may differ. Consult factory to confirm you have the correct piston assembly.

## ACTIVATION ASSEMBLY SELECTION GUIDE

Code No.	Part No.	Description	Aspirator Retainer Color*
3340026IN	GBL-1026-A	1.6 gpf/6.0 Lpf (wash down) closet activation assembly	Orange
3340000	GBL-1000-A	1.6 gpf/6.0 Lpf closet activation assembly	Green
3340001	GBL-1001-A	1.28 gpf/4.8 Lpf closet activation assembly	Purple
33400063	GBL-1093-A	1.1 gpf/4.2 Lpf closet activation assembly	Grey
3340002	GBL-1002-A	0.5 gpf/1.9 Lpf urinal activation assembly	Red
3340003	GBL-1003-A	0.25 gpf/1.0 Lpf urinal activation assembly	Burgundy
3340004	GBL-1004-A	0.125 gpf/0.5 Lpf urinal activation assembly	Pink



\* Colors may differ. Consult factory to confirm you have the correct piston assembly.

## ASPIRATOR ASSEMBLY SELECTION GUIDE

Code No.	Part No.	Description	Aspirator Retainer Color*
3340032IN	GBL-1032-A	1.6 gpf/6.0 Lpf (wash down) closet aspirator assembly (6PK)	Orange
3340028	GBL-1028-A	1.6 gpf/6.0 Lpf closet aspirator assembly (6PK)	Green
3340030	GBL-1030-A	1.28 gpf/4.8 Lpf closet aspirator assembly (6PK)	Purple
33400058	GBL-1095-A	1.1 gpf/Lpf closet aspirator assembly (6pk)	Grey
3340031	GBL-1031-A	0.5 gpf/1.9 Lpf urinal aspirator assembly (6PK)	Red
3340029	GBL-1029-A	0.25 gpf/1.0 Lpf urinal aspirator assembly (6PK)	Burgundy
3340042	GBL-1033-A	0.125 gpf/0.5 Lpf urinal aspirator assembly (6PK)	Pink

\* Colors may differ. Consult factory to confirm you have the correct piston assembly.

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

**For complete listing of items available for repair,  
please consult Maintenance and Repair Guide.**

**Contact Technical Support for assistance.  
1.888.756.2614 or 1.888.SLOAN14**