

## FLUSH VALVE

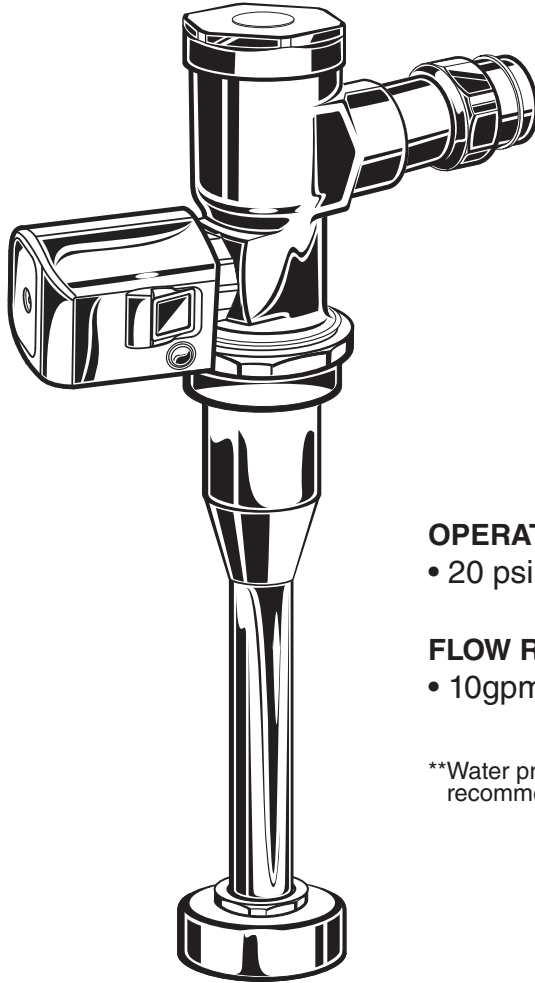
Exposed Urinal Flushometer  
with Side-Mount Operator  
for 3/4" Top Spud Urinals

### MODEL NUMBERS

6045SM013

6045SM051

6045SM101



#### OPERATING PRESSURE:

- 20 psi (flowing) - 80 psi (static)

#### FLOW REQUIREMENT:

- 10gpm (37.9 L/min).

\*\*Water pressure over 80 psi is not recommended with most plumbing fixtures

#### Certified to comply with:

- ASSE 1037
- ANSI/ASME A112.19.2
- ADA Compliant

*American Standard*

**NOTE TO INSTALLER: Please give this manual to the customer after installation.**

To learn more about American Standard Products visit our website at: [www.americanstandard-us.com](http://www.americanstandard-us.com)  
or e-mail us at: [CRTTEAM@americanstandard.com](mailto:CRTTEAM@americanstandard.com)

For Parts, Service, Warranty or other Assistance,  
please call (844) CRT-TEAM / (844) 278-8326 (In Canada: 1-800-387-0369)  
(In Toronto Area only: 1-905-306-1093)

*American Standard*  
**CRT**  
Certified Response Technician

Thank you for selecting American Standard...the benchmark of fine quality for over 100 years. To ensure that your installation proceeds smoothly--please read these instructions carefully before you begin.

## UNPACKING

All American Standard Products Are Water Tested At Our Factory. Some Residual Water May Remain In The Valve During Shipping

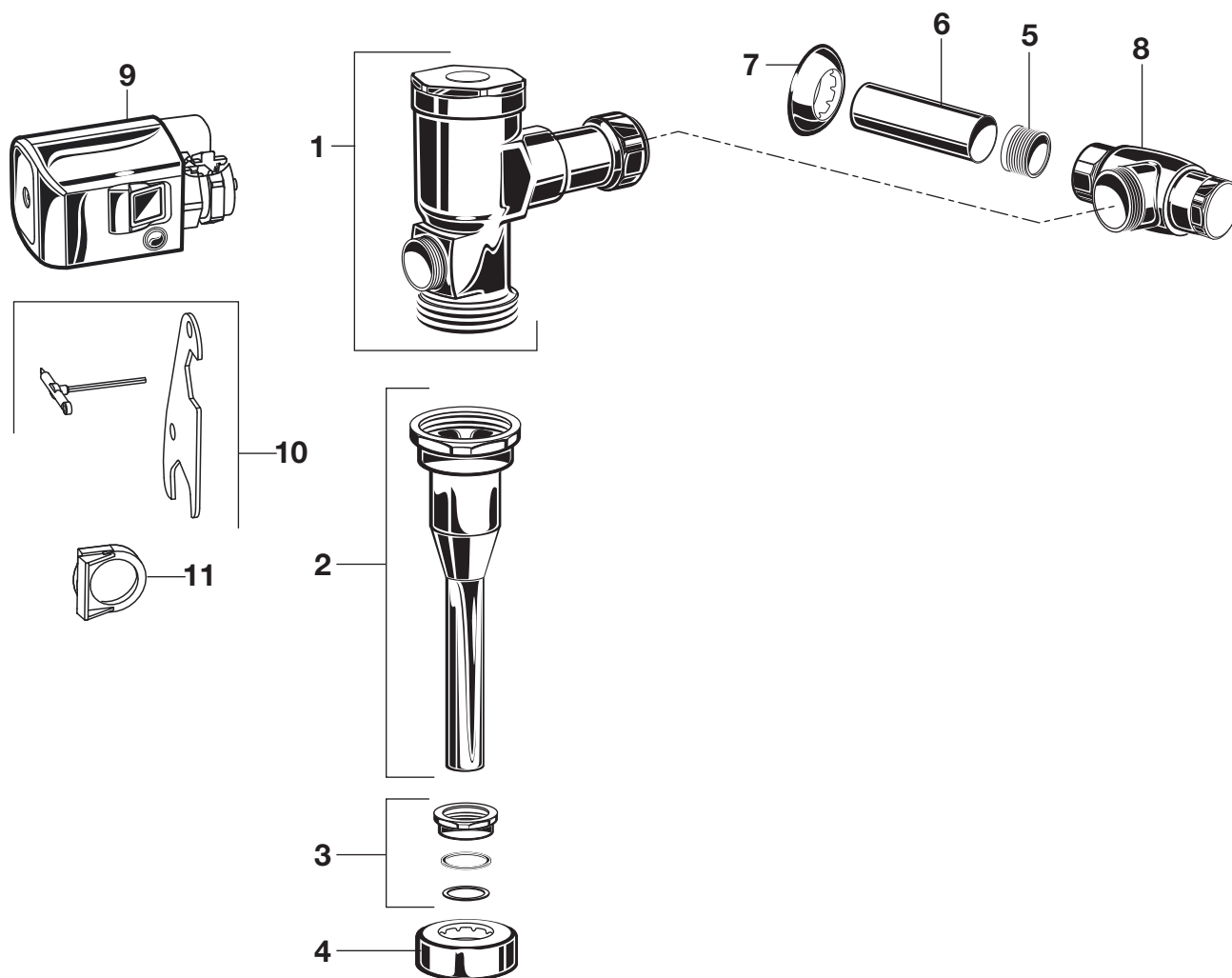
1. Remove the Flush Valve items from the carton. The illustration below shows all items after they have been removed from the carton. Some items may be packaged partially assembled to other items.

- |                                     |                        |
|-------------------------------------|------------------------|
| 1. Flush Valve Assembly             | 6. Cover Tube          |
| 2. Vertical Tube and Vacuum Breaker | 7. Wall Escutcheon     |
| 3. Spud Coupling Nut and Washers    | 8. Supply Stop         |
| 4. Spud Flange                      | 9. Side-Mount Operator |
| 5. Sweat Adapter                    | 10. Wrench Kit         |
|                                     | 11. Angle Locking Ring |

### CARE INSTRUCTIONS:

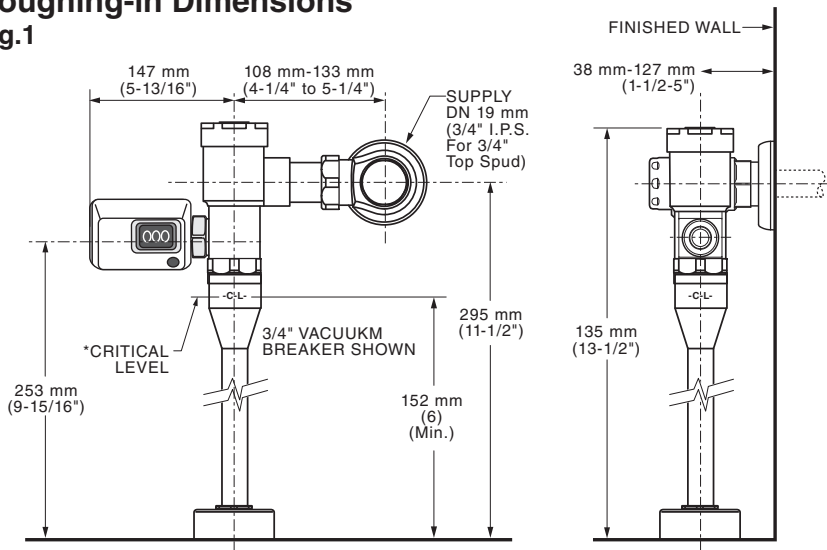
DO: CLEAN WITH CLEAR WATER. DRY WITH A SOFT COTTON FLANNEL CLOTH.

DO NOT: DO NOT CLEAN THE PRODUCT WITH SOAPS, ACID, POLISH, ABRASIVES, HARSH CLEANERS, OR A CLOTH WITH A COARSE SURFACE.



## Roughing-in Dimensions

Fig.1



\*Note: The Critical Line (-C-L-) on Vacuum Breaker must typically be 6" (152mm) minimum above fixture. Consult Codes for details.

See **(Section 8)** for converting Flush Valve to Left Hand Installation.

## GENERAL DESCRIPTION

### MANUAL FLUSH VALVE, 0.5 GPF

Exposed Flushometer  
for 3/4" Top Spud Fixtures

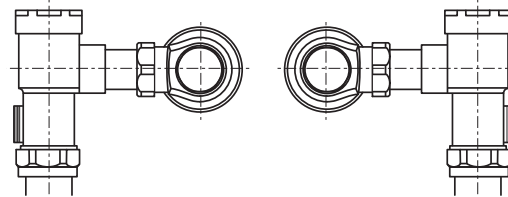
- 20 psi (flowing) - 80 psi (static)

### FLOW REQUIREMENT:

- 10gpm (37.9 L/min).

\*\*Water pressure over 80 psi is not recommended with most plumbing fixtures

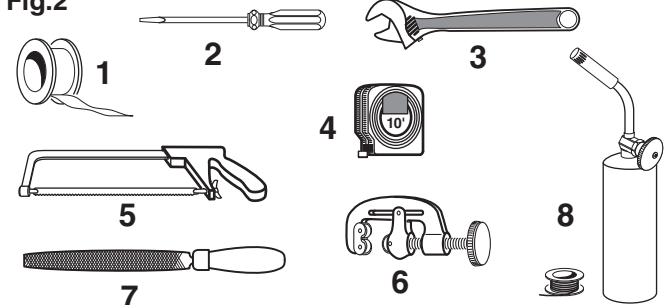
## Right or Left Hand Installation



## RECOMMENDED TOOLS; Fig. 2

1. Teflon Tape
2. Flat Blade Screwdriver (For adjusting Supply Stop)
3. Adjustable Wrench
4. Tape Measure
5. Hacksaw
6. Tubing Cutter
7. File
8. For Sweat Connection; Solder and Torch

Fig.2



## PRIOR TO INSTALLATION

**Note:** Prior to installing the Flush Valve the following items must be installed.

1. Urinal
2. Drain line
3. Water supply line

### IMPORTANT:

- All plumbing must be installed in accordance with applicable codes and regulations.
- The use of water hammer arrestors is strongly recommended for commercial applications. All piping behind the walls should be properly secured and fastened.
- Water supply lines must be sized to provide an adequate volume of water for each fixture.

- Flush all water lines prior to operation **(See Step 5)**. Dirt and debris can cause flush valve to run continuously.
- With the exception of Supply Stop Inlet, **DO NOT** use pipe sealant or plumbing grease on any valve component or coupling!
- Protect the chrome or special finish on the Flushometer. **DO NOT USE** toothed tools on finished surfaces to install or service these valves. Also see "Care and Cleaning" section of this manual.
- This product contains mechanical and/or electrical components that are subject to normal wear. These components should be checked on a regular basis and replaced as needed to maintain the valve's performance.

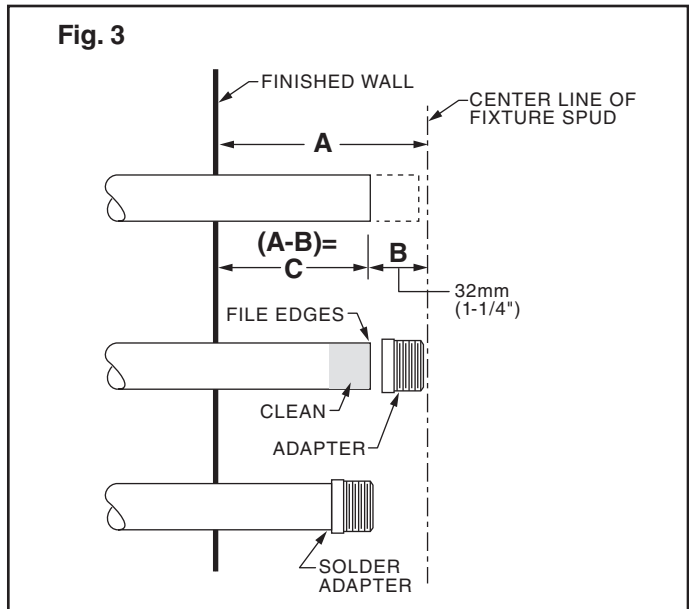
# FLUSH VALVE INSTALLATION

## 1 INSTALL SWEAT ADAPTER; Fig. 3

**CAUTION** Turn water supplies off before beginning

**Note:** *Install Optional Sweat Adapter (Supplied) for copper pipe supply line.*

1. Measure the distance (A) from the finished wall to the center of the inlet spud on the fixture.
2. Cut the supply pipe 1-1/4" (A-B=C) shorter than the measurement taken in Step 1. File any rough edges off the end of the supply pipe.
3. Clean the end of the supply pipe. Push the threaded Adapter until it is seated against the internal stop. Sweat the Adapter to the pipe.



## 2 INSTALL COVER TUBE, WALL ESCUTCHEON and STOP VALVE; Fig. 4

1. Measure from finished wall to first thread of Adapter or threaded supply pipe (dimension "X"). Cut COVER TUBE (1) to length (X). Apply Teflon Tape to the threaded end of the Adapter or supply pipe.
2. Push WALL ESCUTCHEON (2) onto the COVER TUBE (1). Slide both onto the SUPPLY PIPE (3).
3. Push the COVER TUBE (1) in to expose the threads of the supply pipe. With a wrench thread the STOP VALVE (4) onto the SUPPLY PIPE (3). Align and tighten.
4. Pull COVER TUBE (1) against STOP VALVE (4) and push WALL ESCUTCHEON (2) against finished wall.

Fig. 4

Fig. 4a

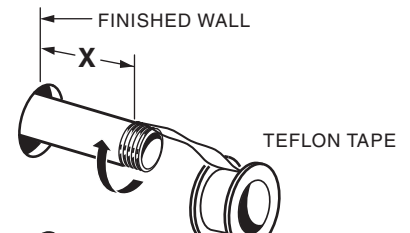


Fig. 4b

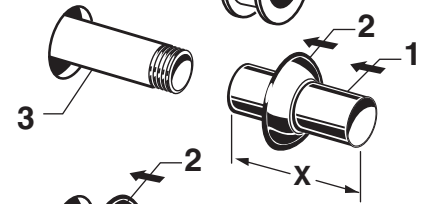
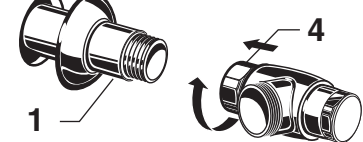


Fig. 4c

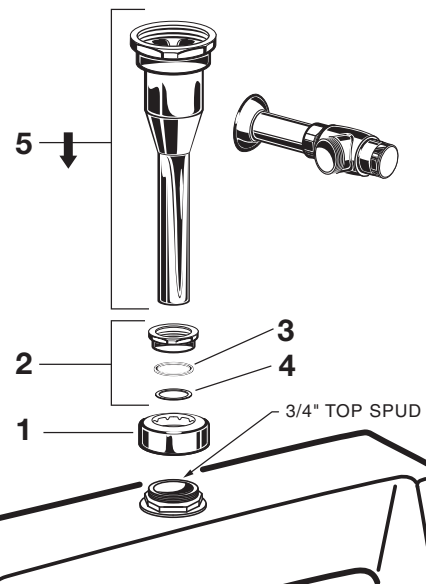


## 3 INSTALL VACUUM BREAKER TUBE; Fig. 5

1. Place the SPUD FLANGE (1) over the spud on the Fixture.
2. Place FRICTION WASHER (3) and SEAL WASHER (4) inside SPUD COUPLING NUT (2) and thread onto Spud. Do not tighten fully.
3. Insert the VACUUM BREAKER TUBE (5) into the SPUD COUPLING NUT (2) and push it down.

**Note:** *If cutting VACUUM BREAKER TUBE (5) to size, note that Critical Line (C/L) on Vacuum Breaker must typically be 6" (152mm) above fixture. Consult Code for details.*

Fig. 5



## 4 INSTALL FLUSH VALVE; Fig. 6a & 6b

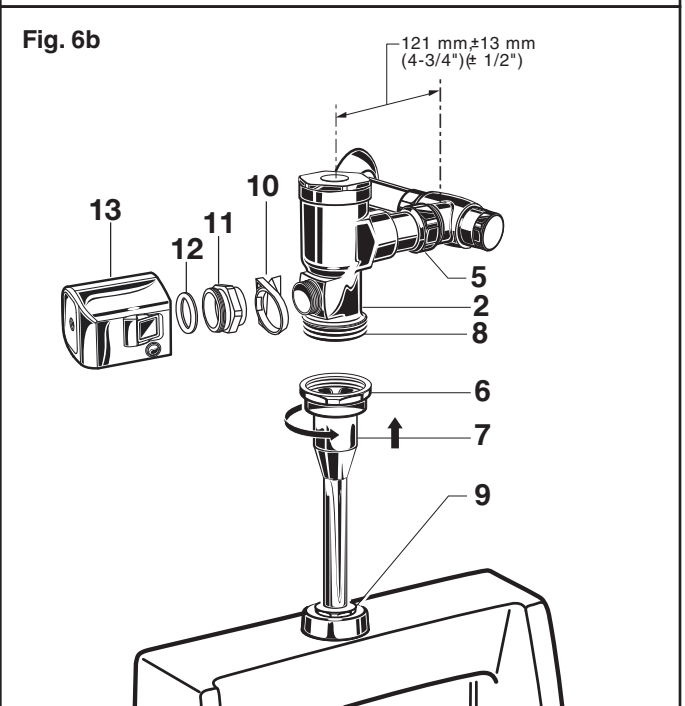
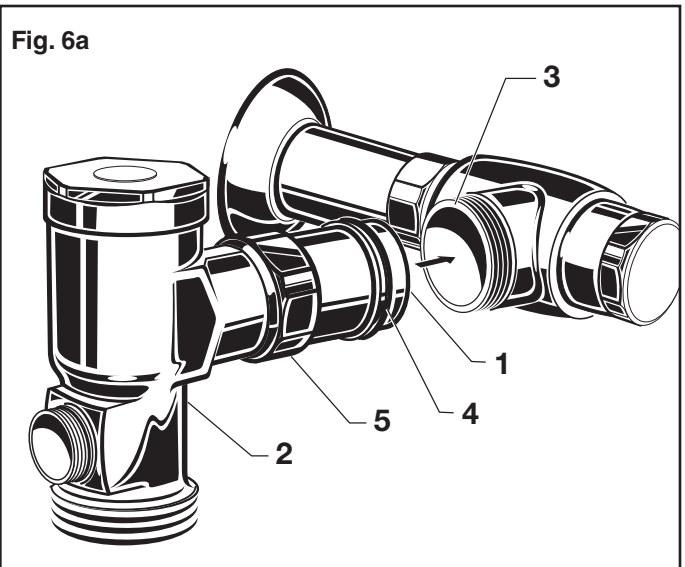
1. As shown in Fig. 6a, insert the side INLET FLANGE (1) on the FLUSH VALVE (2) into the SUPPLY STOP (3). Lubricate the INLET FLANGE O-RING (4) with water if necessary. Lightly tighten COUPLING NUT (5). Fig. 6a.

**Important: Do not use lubricants (other than water) or any type of thread sealing paste or tape.**

2. Align the FLUSH VALVE (2) (Fig. 6b) directly above the VERTICAL TUBE (7) and VACUUM BREAKER COUPLING NUT (6).

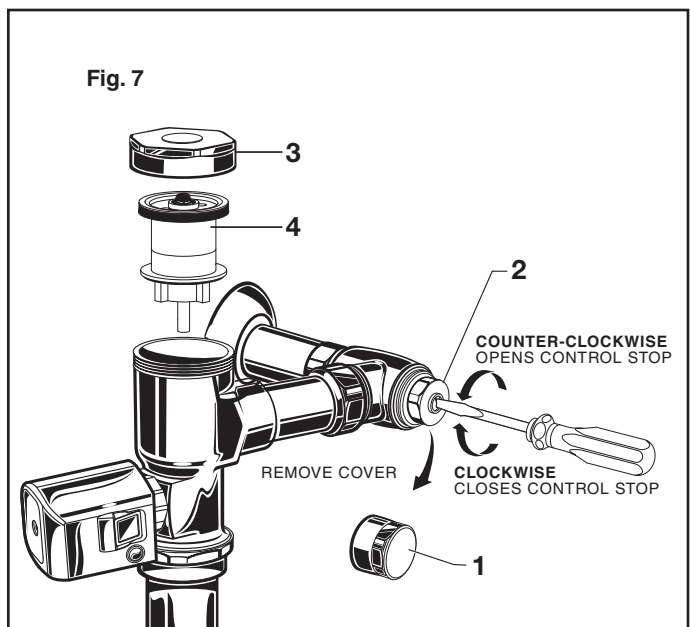
**Note: There is a  $\pm 13\text{mm}$ , ( $\pm 1/2$ ) tolerance for the 121mm (4-3/4") dimension. Fig. 6b.**

3. Pull the VERTICAL TUBE (7) up to meet the threaded FLUSH VALVE CONNECTION (8) and hand tighten the VACUUM BREAKER COUPLING NUT (6). Align all components of the flush valve assembly. Fig. 6b.
4. Lightly tighten the COUPLING NUT (5) connection first, then the VACUUM BREAKER COUPLING NUT (6) and finally the SPUD COUPLING NUT (9). Once aligned correctly, use a wrench to tighten couplings to make water tight connections. Fig. 6b.
5. Slide ANGLE LOCKING RING (10) onto FLUSH VALVE (2) (Square end of the ANGLE LOCKING RING (10) should be facing the wall). Install ADAPTER (11) onto FLUSH VALVE (2) using the wrench provided. Fig. 6b.
6. After installing FLAT SEAL (12) into FLUSHING UNIT (13), install FLUSHING UNIT (13) onto ADAPTER (11). Fig. 6b.



## 5 FLUSH OUT SUPPLY LINES; Fig. 7

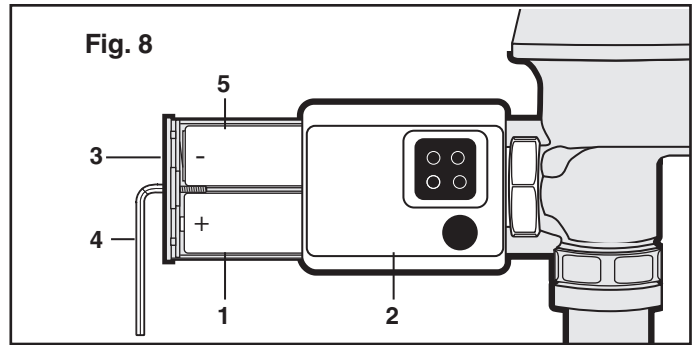
1. Remove COVER (1) from SUPPLY STOP (2). Make sure supply stop is closed.
2. Remove FLUSH VALVE CAP (3). Pull out PISTON (4). Reinstall FLUSH VALVE CAP (3) and tighten.
3. With a flat blade screwdriver open SUPPLY STOP (2) to flush line of any debris or sediment.
4. Close SUPPLY STOP (2). Remove FLUSH VALVE CAP (3). Reinstall PISTON (4). Reinstall FLUSH VALVE CAP (3) and tighten.



## 6 ACTIVATION; Fig. 8

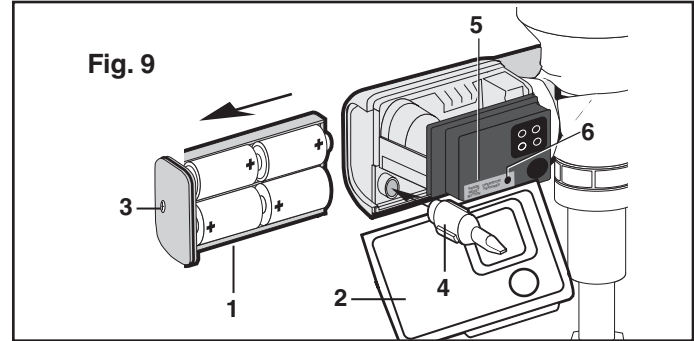
**Note:** Four (4) “C” Cell batteries are not factory installed inside the Flush unit.

1. Load 4 “C” Alkaline BATTERIES (5) onto BATTERY TRAY (1).
2. Install battery tray into SIDE MOUNT OPERATOR (2) and tighten SCREW (3) using WRENCH (4) provided. (**Note:** last three turns of the wrench will activate the automatic flushing unit)



## 7 ADJUSTING SENSOR DISTANCE; Fig. 8 & 9

1. Remove BATTERY TRAY (1) by loosening SCREW (3). **Fig. 9**
2. Remove FRONT COVER (2) and remove SENSOR ADJUSTMENT TOOL (4). **Fig. 9**
3. Install BATTERY TRAY (1) and SCREW (3) back into the unit. **Fig. 9**
4. Press RANGE RESET BUTTON (5) (When object in view, it will flash green light for 7 minute rest period). **Fig. 9**
5. Stand at a desired distance and use the SENSOR ADJUSTMENT TOOL (4) to turn SENSOR ADJUSTMENT SCREW (6) all the way counter clockwise and then turn clockwise until green L.E.D begins to Flash. **Fig. 9**



## 8 ADJUSTING MODES OF OPERATION; Fig. 9 & 10

The FLUSH unit includes different modes of operation. Remove FRONT COVER (2) by loosening up SCREW (3) by using a wrench and removing BATTERY TRAY (1). Refer to the “Mode Adjustment Guide” for switch settings. The “Mode Adjustment Guide” can also be found on the inside of side cover for your convenience.

<b>24 Hour Flush On</b>	Allows the flush valve to automatically flush after 24 hour period of non-use to maintain the trap seal.
<b>Alarm Tone</b>	It beeps when the battery is running low. If you don't want it to beep, you can turn off this feature, with the toggle switches.

## 9 BATTERY REPLACEMENT; Fig. 8

1. Remove BATTERY TRAY (1) by loosening SCREW (3).
2. Replace 4 “C” Alkaline BATTERIES (2). (**Note:** Replace all 4 batteries at the same time for proper function)

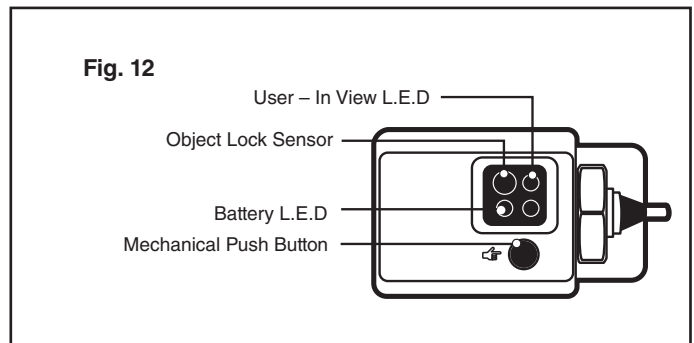
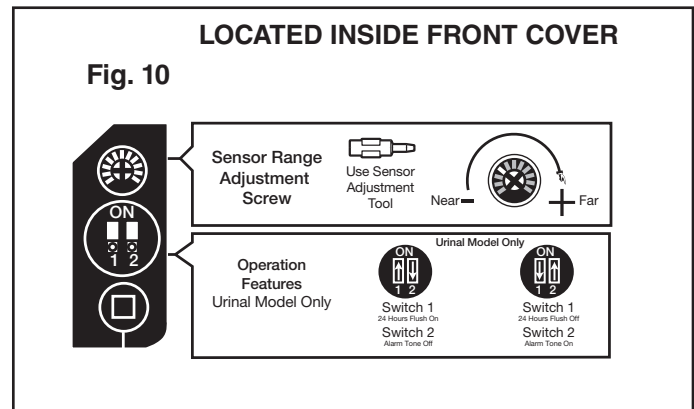
## 10 VISUAL INDICATOR GUIDE; Fig. 12

**User – In View L.E.D (1)** – 5 second after a user is in view a green light flashes 3 times.( during a startup sequence the green light flashes constantly for 7 minutes when a user is in view)

**Battery L.E.D (2)** – Yellow light flashes which indicates that the batteries all 4 “C” Alkaline batteries will need to be replaced.

**Object Lock Sensor (3)** – Detects user or object.

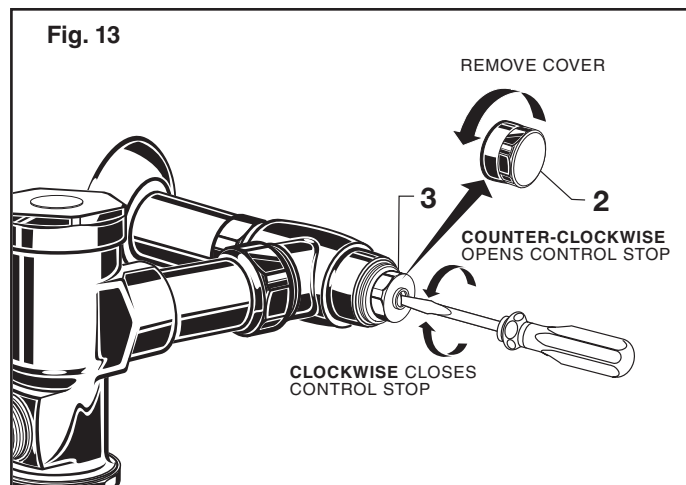
**Mechanical Push Button** – Allows manual activation of flush when needed and when batteries are drained.



## 11 ADJUST SUPPLY STOP; Fig. 13

**IMPORTANT:** To avoid overflowing, the SUPPLY STOP (3) must never be opened to the point where the flow from the valve exceeds the flow capacity of the fixture. Valve is designed to provide stated flush volume with a 25 GPM flow rate.

1. Remove COVER (2) from SUPPLY STOP (3). Turn on water supply 1/4 turn to 1/2 turn (CCW) and test for leaks. Note: Unit may flush for approximately 5 to 10 sec. when water is first turned on.
2. Actuate the FLUSH VALVE by activating a flush.
3. Adjust SUPPLY STOP (3) after each flush until the stated flush volume is achieved, no splashing occurs and the fixture is properly cleansed.
4. When adjustment is complete, reinstall COVER (2) and tighten to ensure vandal-resistance.

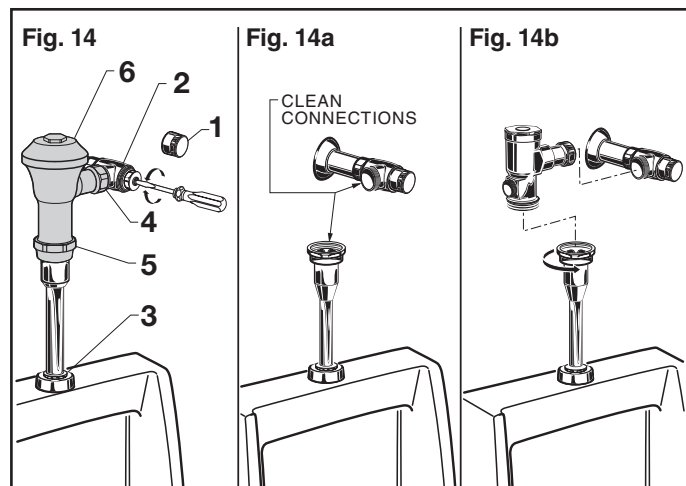


## 12 HOW TO RETROFIT OUR VALVE; Fig. 14

(Replaces Industry Standard Manual and Electronic Valves)

**Note:** In most Retrofits the wall escutcheon, supply stop, cover tube and vacuum breaker do not have to be replaced. If these items do need replacement they must be purchased separately or order the complete flush valve assembly from American Standard.

1. Remove COVER (1) from SUPPLY STOP (2) if installed. Fig. 14.
2. Turn water supply off. Fig. 14.
3. Loosen SPUD COUPLING NUT (3). Unthread COUPLING NUT (4) and VACUUM BREAKER COUPLING NUT (5). Remove FLUSH VALVE (6). Fig. 14a.
4. Clean all threaded connections before installing the new flush valve. Fig. 14a.
5. Refer to Sections 4, 5 and 6 to complete the retrofit installation. Fig. 14b.



## 13 LEFT OR RIGHT HAND INSTALLATION; Fig. 15

1. The FLUSH VALVE can be installed either as a right or left hand installation.
2. Orientate the FLUSH VALVE as shown in Fig. 13 to desired position for a left or right hand installation.

**NOTE:** If it is necessary to change orientation of SMO unit, use the provided collar wrench to loosen the collar nut, rotate SMO unit 180 degrees and tighten collar nut again.

