



MAC FAUCETS

When Style Matters

MTV-1 MUV-1 INSTALLATION MANUAL



Model

MTV-1 Toilet Flush Valve
MUV-1 Urinal Flush Valve

MAC FAUCETS Products

☎ 866 558 3200 ✉ info@macfaucets.com

www.macfaucets.com

Fig. 1 Urinal Rough-In

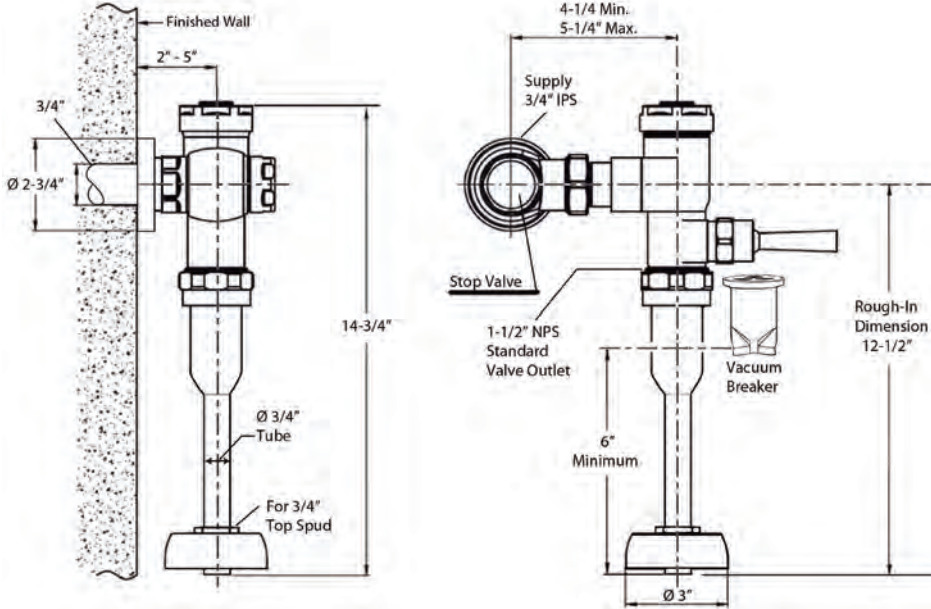
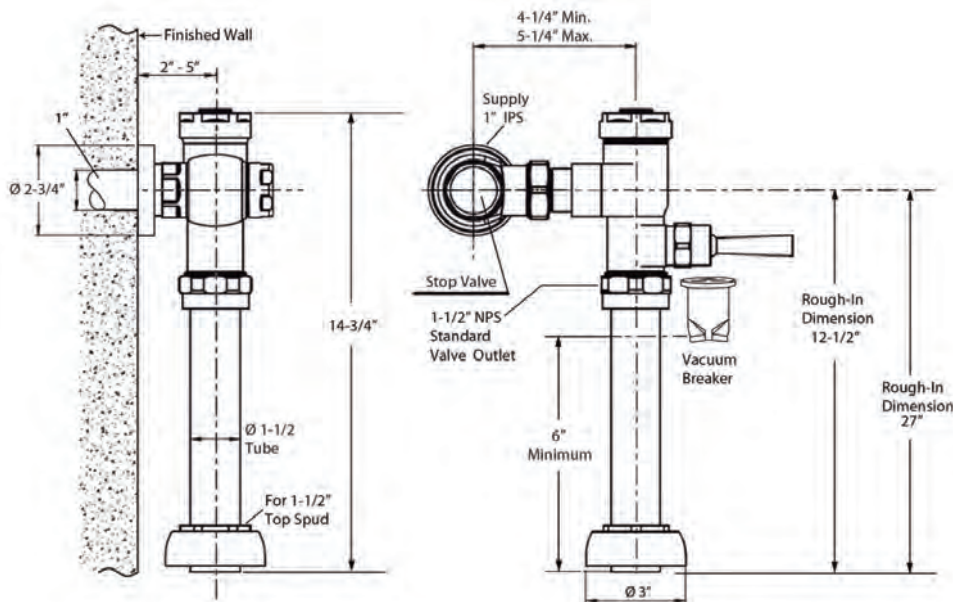


Fig. 2 Toilet Rough-In



GENERAL DESCRIPTION:

MANUAL FLUSH VALVE, 1.0 GPF

Exposed Flushometer for 3/4" Top Spud Fixtures

Exclusive, self cleaning piston-operated flush valve.

OPERATING PRESSURE:

Overall Range: 20-125 psi **

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

FLOW REQUIREMENT:

1.0gpm (3.79L/min)

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

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

GENERAL DESCRIPTION:

MANUAL FLUSH VALVE, 1.6 GPF

Exposed Flushometer for 1-1/2" Top Spud Fixtures

Exclusive, self cleaning piston-operated flush valve.

OPERATING PRESSURE:

Overall Range: 20-125 psi **

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

FLOW REQUIREMENT:

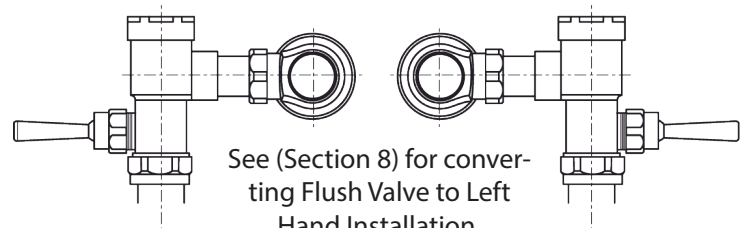
1.6gpm (6.056L/min)

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

Limited Warranty

Mac Faucets warrant this faucet to be free of defects for a period of one year from date of purchase. Mac Faucets will replace, free of charge, during this warranty period, parts that prove defective when properly installed and under normal use and service. Damage that occurs as a result of abuse, improper installation, environmental conditions, or improper application will void this warranty. Products must be shipped with postage and handling prepaid, along with dated proof of purchase. This warranty does not cover installation or any other labor charges. It does not cover shipping and handling of both replacement parts and returned defective parts. Products or components that have been altered or in any way modified will not be covered under this warranty. Replacement parts are under warranty only for the remaining period under the initial warranty. Some states do not allow for exclusion of incidental or consequential damage.

Right or Left Hand Installation



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.

Fig. 3 Recommended Tools

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
9. 2.0 mm Hex Wrench (Provided)

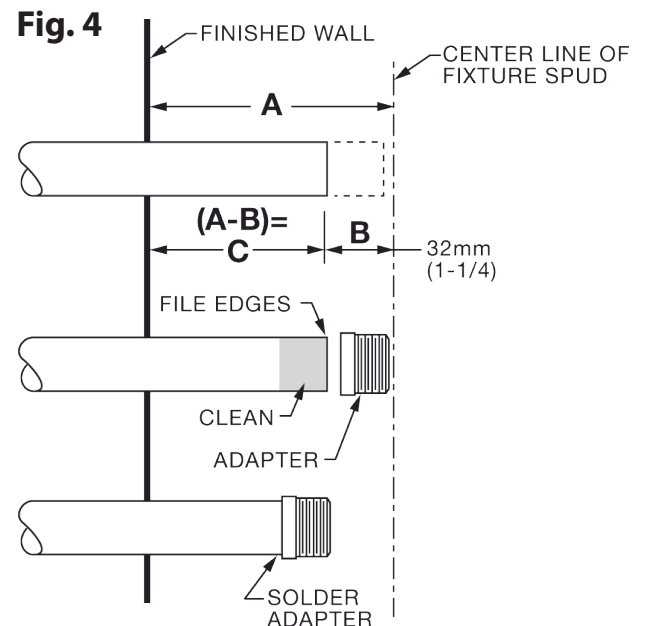


1 Install Sweat Solder Adapter **Fig. 4**

CAUTION Turn water supplies off before beginning

Note: Install Optional Sweat Solder Adapter (Supplied) for copper pipe supply line. Fig. 3.

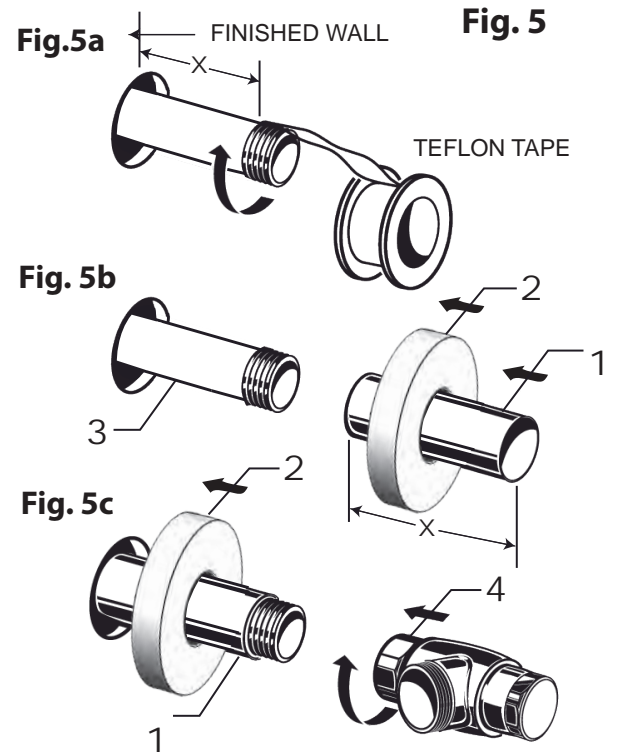
1. Measure the distance (A) from the finished wall to the center of the inlet spud on the fixture.
2. Cut the supply pipe 1-1/4" (A-B=C) shorter than the measurement taken in Step 1. File any rough edges off the end of the supply pipe.
3. Clean the end of the supply pipe. Push the threaded Adapter on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



2 Install Tube Sleeve, Wall Escutcheon and Supply Stop **Fig. 5**

1. Measure from finished wall to first thread of Adapter or threaded supply pipe (dimension "X"). Cut Tube Sleeve (1) to length (X). Apply Teflon Tape to the threaded end of the Adapter or supply pipe. Fig. 5a.
2. Push the Tube Sleeve (1) into the WALL ESCUTCHEON (2). Slide both onto the SUPPLY PIPE (3). Fig. 5b.
3. Place the STOP VALVE (4) into the threads of the supply pipe (3). Fig. 5c. With a wrench thread the SUPPLY STOP (4) onto the SUPPLY PIPE (3). Align and tighten. Fig. 5c.
4. Pull COVER TUBE (1) against SUPPLY STOP (4) and slide the WALL ESCUTCHEON (2) against finished wall.

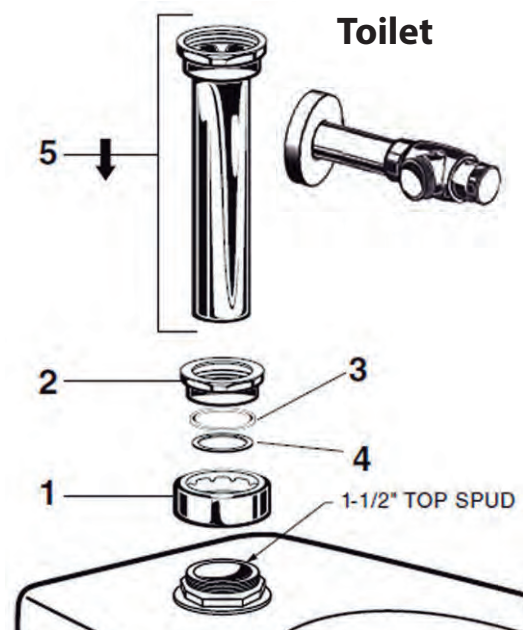
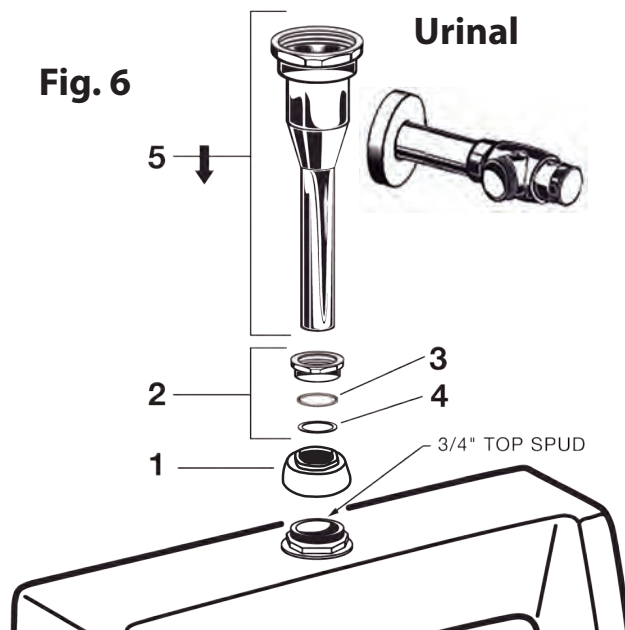
Fasten set screw with the Allen Wrench provided.



3 Install Down Tube and Vacuum Breaker **Fig. 6**

1. Place the SPUD FLANGE (1) over the spud on the Fixture.
2. Thread SPUD COUPLING NUT (2) onto Spud. Make sure SEAL WASHER (3) and FRICTION WASHER (4) are installed. Do not tighten fully.
3. Insert the DOWN TUBE (5) into the SPUD COUPLING NUT (2) and push it down.

Note: If cutting Down Tube (5) to size, note that Critical Line (C/L) on Vacuum Breaker must typically be 6" minimum above fixture. Consult Code for details.



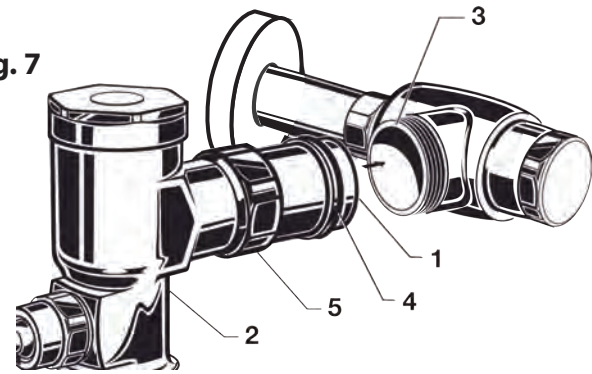
4 Install Flush Valve **Fig. 7a & 7b**

1. As shown in Fig. 7, Slide the TAILPIECE (1) of the FLUSH VALVE (2) into the SUPPLY STOP VALVE (3). Lubricate the TAILPIECE O-RING (4) with water if necessary. Lightly tighten COUPLING NUT (5). Fig. 7a or 7b.

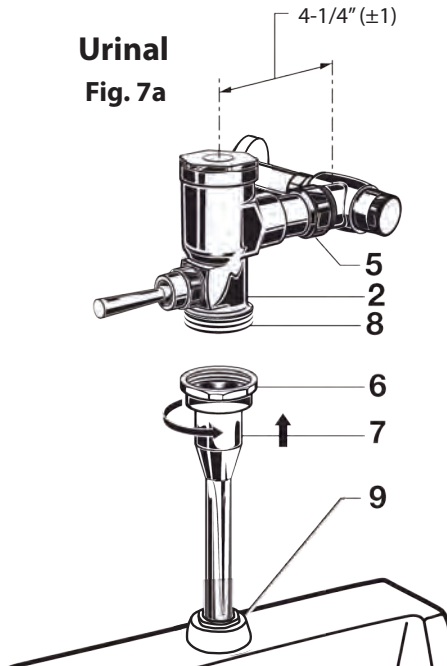
Important: Do not use lubricants (other than water) or any type of thread sealing paste or tape. Make sure that the locking snap ring and the O-ring are inserted correctly. Hand tighten the coupling nut, **DO NOT CROSS THREADS.**

2. Align the FLUSH VALVE (2) (Fig. 7a or 7b) directly above the DOWN TUBE (7) and VACUUM BREAKER COUPLING NUT (6). **Note:** There is a 1" tolerance for the (4-1/4") dimension.
3. Pull the DOWN 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. 7b.
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. 7b.

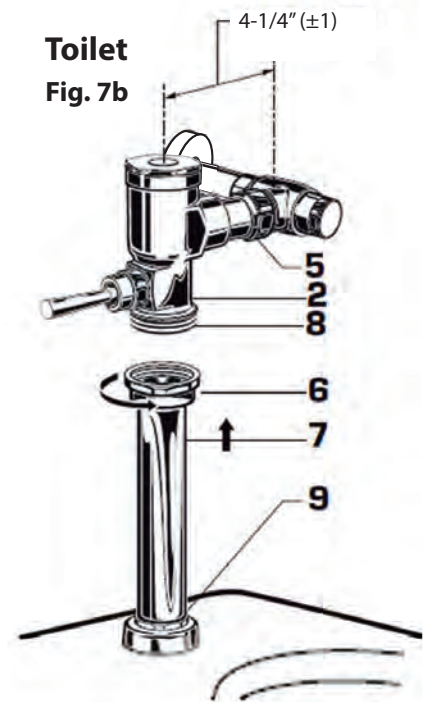
Fig. 7



Urinal
Fig. 7a



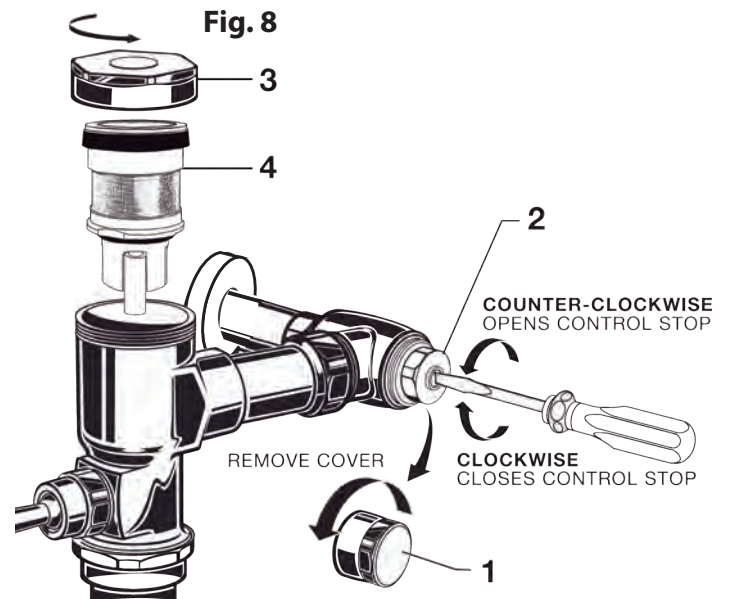
Toilet
Fig. 7b



5 Flush Out Supply Lines **Fig. 8**

1. Remove COVER (1) from SUPPLY STOP (2). Make sure supply stop is closed.
2. Remove FLUSH VALVE CAP (3). Pull out PISTON (4). Replace 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). Replace PISTON (4). Replace FLUSH VALVE CAP (3) and tighten.

Fig. 8

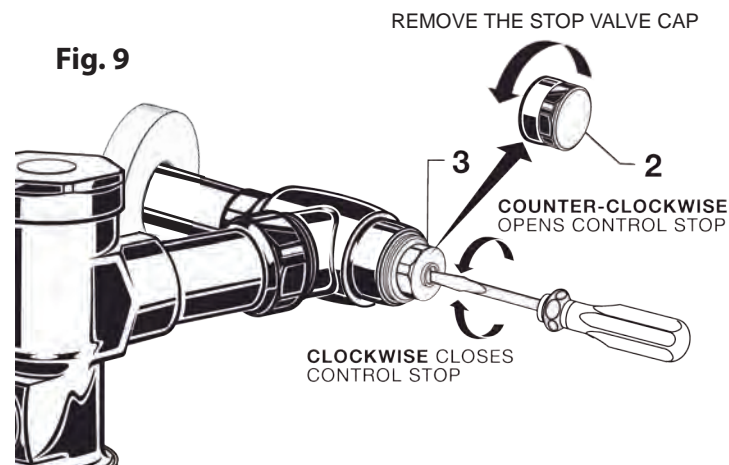


6 Adjust Supply Stop **Fig. 9**

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. The fixture and drain must be able to handle a continuous flow in case of a flush valve failure. Valve is designed to provide stated flush volume with a 10 GPM flow rate.

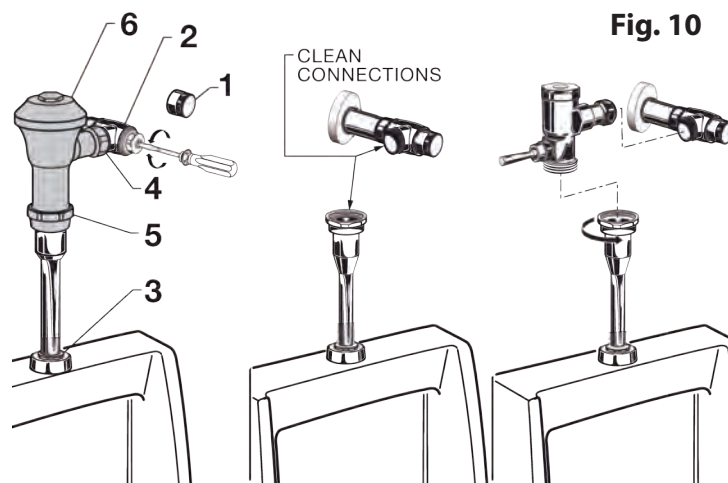
1. Remove the stop valve cap (2) from SUPPLY STOP (3). Turn on water supply 1/4 turn to 1/2 turn (CCW) and test for leaks. **Note: Unit may flush for approximately 5 to 10 sec. when water is first turned on.**
2. Actuate the FLUSH VALVE by pulling handle down.
3. Adjust SUPPLY STOP (3) after each flush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



7 How To Retrofit Our Flush Valve **Fig. 10** (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 MAC Faucets.

1. Remove the soap valve cap (1) from SUPPLY STOP (2) if installed. Fig. 10.
2. Turn water supply off. Fig. 10.
3. Loosen SPUD COUPLING NUT (3). Unthread COUPLING NUT (4) and VACUUM BREAKER COUPLING NUT (5). Remove FLUSH VALVE (6). Fig. 10.
4. Clean all threaded connections before installing the new flush valve. Fig. 10.
5. Refer to Sections 4,5 and 6 to complete the retrofit installation. Fig. 10.



8 Left Or Right Hand Installation **Fig. 11**

1. The FLUSH VALVE can be installed either as a right or left hand installation.
2. Orientate the FLUSH VALVE as shown in Fig. 11 to desired position for a left or right hand installation.

