

TOTO

VACUUM BREAKER INSTALLATION NOTE

KEEP THIS DOCUMENT WITH THE
FLUSH VALVE INSTALLATION MANUAL
FOR FUTURE REFERENCE

WARNING: Do not over tighten. The silicone duckbill provides high chemical resistance but can tear if overtightened. Please follow the instructions carefully to avoid damage.

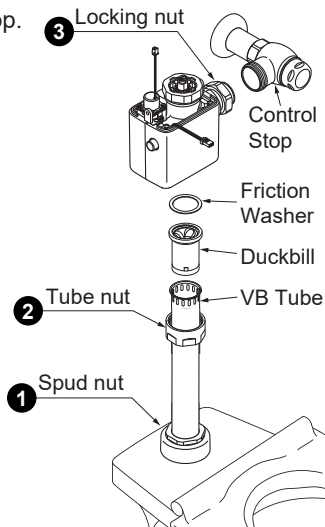
1. Align the flush valve with the vacuum breaker tube and control stop.
2. Use a wrench to securely tighten the fixture spud nut (1).
3. Thread the tube nut (2) onto the valve body until contact is felt (turning stiffens but is not yet hand-tight).
4. Then, use a combination of hand-tightening and a wrench to turn the nut an additional 1-1/8 turns (one full turn plus 45 degrees).

NOTE: To help track your turns, make a reference mark the nut with a marker or pencil.

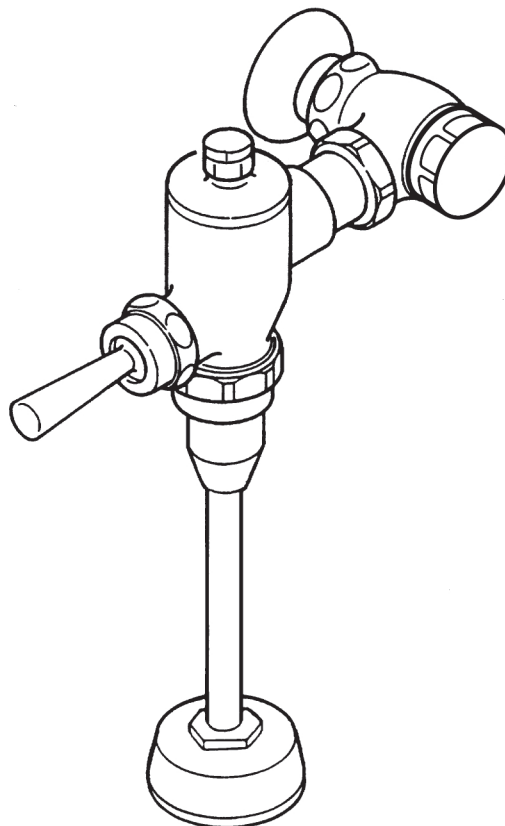
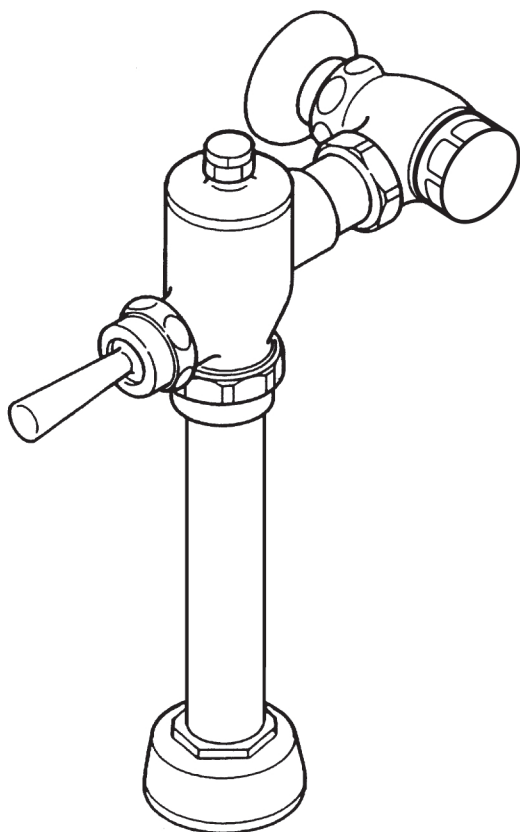
5. Hand-tighten the locking nut (3).
6. Use a wrench to securely tighten the locking nut (3).
7. Turn on water at control stop and check for leaks.

NOTE: If water droplets appear at the tube nut, wipe the area dry and check the security of the nut:

- If loose: Tighten an additional 1/8 turn (45 degrees) and retest.
- If snug: Droplets may be caused by the friction washer absorbing water. Do not tighten further; wait five minutes and recheck.
- If the leak persists: Disassemble and reinstall the components.



Toilet Flushometer Valves TMT1NNC, TMT1LN
Toilet Flushometer Valve TMW1NNC
Urinal Flushometer Valves TMU1NNC, TMU1LN



Warranty Registration and Inquiry

For product warranty registration, TOTO U.S.A. Inc. recommends online warranty registration. Please visit our web site <http://www.totousa.com>. If you have questions regarding warranty policy or coverage, please contact TOTO U.S.A. Inc., Customer Service Department, 1155 Southern Road, Morrow, GA 30260 (888) 295-8134 or (678) 466-1300 when calling from outside of U.S.A.

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Rev Date: 10/10

BEFORE INSTALLATION

Prior to installing the Piston Flushometer Valve, install the items listed below:

- Closet or Urinal Fixture
- Drain Line
- Water Supply Line

The supply piping to these devices shall be securely anchored to the building structure to prevent the installed device from unnecessary movement when operated by the user. Care shall be exercised when installing the device to prevent marring the exposed significant surface.

IMPORTANT:

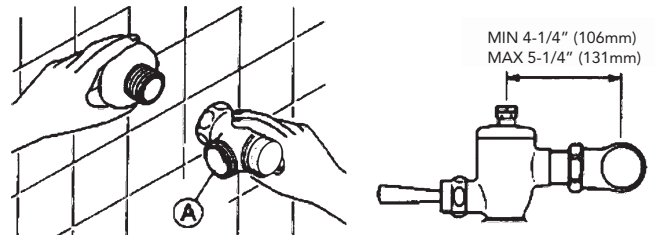
- ALL PLUMBING IS TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.
- WATER SUPPLY LINES MUST BE SIZED TO PROVIDE AN ADEQUATE VOLUME OF WATER FOR EACH FIXTURE.
- FLUSH ALL WATERLINES PRIOR TO OPERATION.

The Piston Valve is designed to operate with water pressure as low as 10psi (69kPa). HOWEVER THE MINIMUM PRESSURE REQUIRED TO OPERATE THE VALVE IS DETERMINED BY THE TYPE OF FIXTURE SELECTED. Consult the fixture manufacturer for pressure requirements. Pressure in excess of 100psi (690kPa) is not suitable for flushing any plumbing fixture. Most codes mandate a maximum of 80psi; Please check local code requirements. Protect the chrome or special finish of this flushometer. DO NOT USE TOOTHED TOOLS TO INSTALL OR SERVICE THE VALVE.

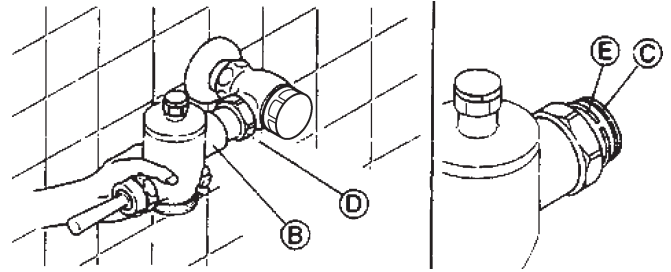
INSTALLATION PROCEDURE

- 1) Install the stop valve assembly **A** and wall flange. Refer to the rough in dimension shown. Thread sealing compounds should be used on the male NPT threads only.

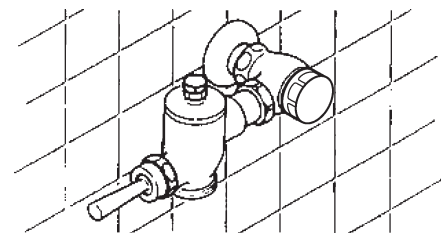
For sweat soldering, refer to the instructions in the sweat solder kit.



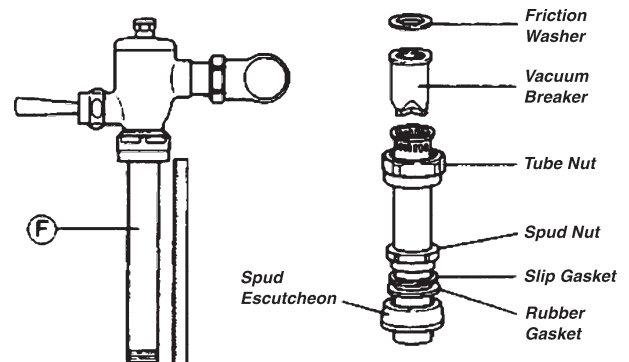
- 2) Prior to inserting the flushometer valve tailpiece **B** into the stop valve, be certain that the O-ring seal **C** is located in the O-ring seal groove at the end of the tailpiece, and that the lock nut **D** and locking snap ring **E** are located as shown. Care should be taken not to damage the O-ring when inserting the tailpiece into the stop valve. If lubrication is needed, wetting the O-ring with water will be sufficient.



- 3) Insert the flushometer valve tailpiece **B** into the stop valve **A** and hand-tighten the lock nut **D** to the stop valve. Plumb the entire unit.

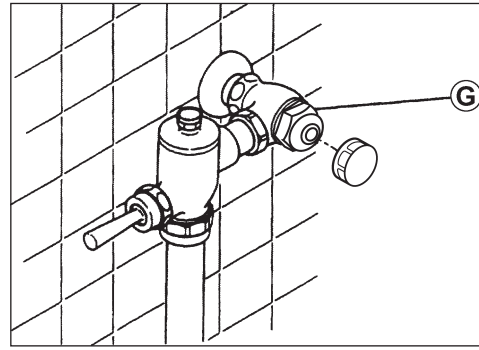


- 4) Determine the length of the vacuum breaker tube **F** required to join the flushometer valve and fixture spud. Cut the vacuum breaker tube, if required, to this length. Assemble the vacuum breaker tube assembly and spud nut assembly to the flushometer valve and fixture spud.



- 5) Hand tighten the spud nut and the vacuum breaker tube nut to the fixture and flushometer valve. Align and plumb the valve assembly. Tighten the fixture spud nut, vacuum breaker tube nut, and lock nut with a wrench.

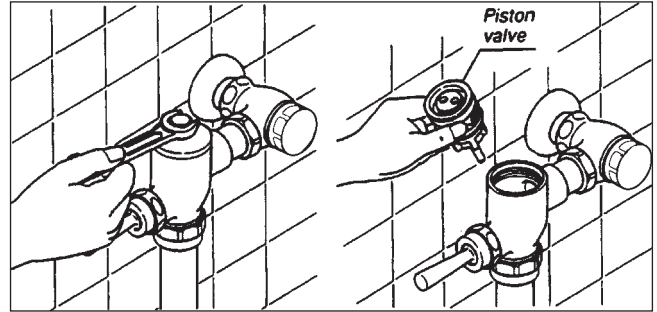
- 6) Before the water supply is turned on, be sure all stop valves to the flush valves are closed off tightly. The stop valves can be opened and closed by using the adjustment screw located at the center of the stop valve cap **G**, behind the adjustment screw cover if already installed. Stop valve adjustments can only be made by using the adjustment screw. If for any reason, it becomes necessary to remove the stop valve cap **G**, be certain that the water is shut off at the main supply valve.



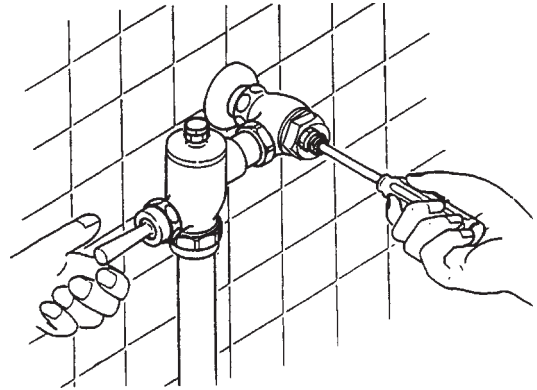
For new installations, we recommend the following steps:

- Shut off stop valve and remove flushometer cover.
- Lift out the piston valve. Install the flushometer cover and open the stop valve to flush the line of any debris and sediment.

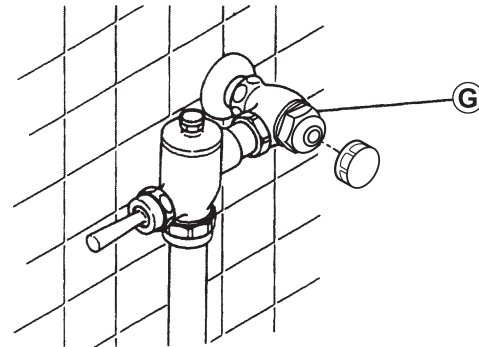
After completion, shut off the stop valve, remove the flushometer cover and reinstall the piston valve. Reinstall the flushometer cover securely. Open the stop valve and activate the flushometer valve.



- 7) Flushometer valves are preset for fixture volume as marked on the valve cartons. The valve does not require adjustment for variations in water pressure within its operating range. To set the flushometer valve for proper operation, open the stop valve completely by turning the adjustment screw and flush the Flushometer valve several times. Gradually adjust the stop valve down, using the adjustment screw, so that the rate of water flow into the fixture is not excessive, yet is sufficient to adequately evacuate the waste. The final setting for urinals should be such that the fixture will not overflow when the valve is actuated several times in succession.



- 8) The stop cap screw cover should be replaced and tightly secured after final adjustments have been made.



SPECIFICATIONS

Flush volume:

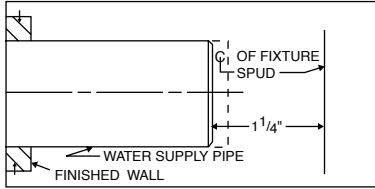
- TMT1NNC - 6.0 LPF (1.6 GPF)
- TMW1NNC - 13.3 LPF (3.5 GPF)
- TMU1NNC - 3.8 LPF (1.0 GPF)

Protect the chrome or special finish of the flushometer. DO NOT USE TOOTHED TOOLS TO INSTALL OR SERVICE THE VALVE.

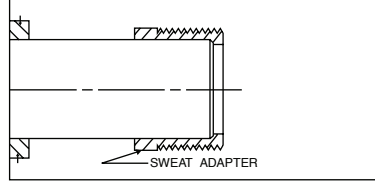
A non-hold open feature is standard on these valves

SWEAT SOLDER ADAPTER INSTALLATION INSTRUCTIONS

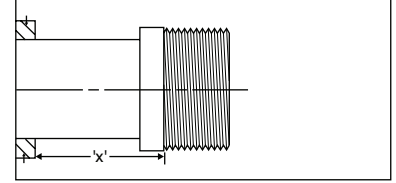
1) Measure the distance from finished wall to center line of the fixture spud; cut the water supply pipe 1-1/4" shorter than this measurement. Chamfer O.D. and I.D.



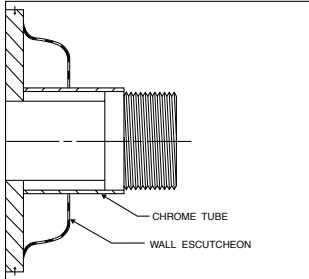
2) Slide the threaded adapter onto the supply pipe until shoulder stops on the end of the pipe. Then sweat-solder the adapter to the water supply pipe.



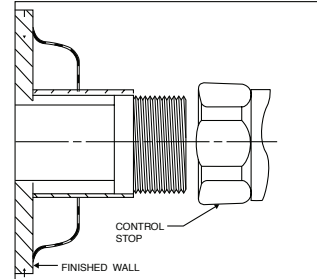
3) Measure from the finished wall to the first thread of adapter for length of the chrome tube. Cut the chrome tube at this length x".



4) Slide the wall escutcheon over the chrome tube and slide both the chrome tube and the wall escutcheon over the supply pipe, pushing the wall escutcheon all the way to the wall.

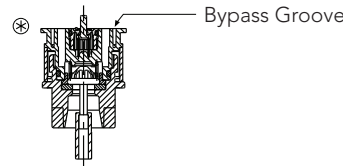


5) Screw the control stop onto the water supply pipe adapter.



TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Valve will not operate.	Water supply is shut off.	Turn on the water supply and open control stop.
Valve does not shut off.	Dirt in piston bypass hole.	⊗ Clean bypass groove by flushing away debris.
	Dirt or debris at valve seat or sealing area.	Clean valve seat and clean piston. Replace the seat seal if needed.
Not enough water to fixture.	Wrong flushometer valve unit installed.	Check fixture requirements. Install proper flushometer valve unit.
	Control stop improperly adjusted.	Adjust control stop.
	Piston is damaged.	Replace piston.
	Piston stroke is too short.	Turn piston adjustment screw counter-clockwise.
Too much water for fixture; noisy flush	Wrong flushometer valve unit installed	Check fixture requirements. Install proper flushometer valve unit.
	Control stop improperly adjusted.	Adjust control stop by turning the screw clockwise.
	Piston stroke is too long.	Turn piston adjustment screw clockwise.
Lever assembly leaks.	Lever nut is loose.	Tighten nut.
	Fiber washer is damaged.	Replace washer.
	U-packing is dirty.	Disassemble lever & clean u-packing.



LIMITED WARRANTY

TOTO® warrants its products to be made of first class materials, free from defects in 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 three years from the date of purchase. During this period TOTO will, at its option, repair or replace any part, or parts, which prove to be thus defective if returned to TOTO, at the 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 TOTO's products directly from TOTO for the purpose of resale.

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