

Model Variation

Toilet Flush Valve

Water Supply	Top Spud	Back Spud Floor	Back Spud Wall
Figure			
1.6GPF (6LPF)	TET2GN32#SS	TET2GN33#SS	TET2GN31#SS
1.28GPF (4.8L)	TET2LN32#SS	TET2LN33#SS	TET2LN31#SS

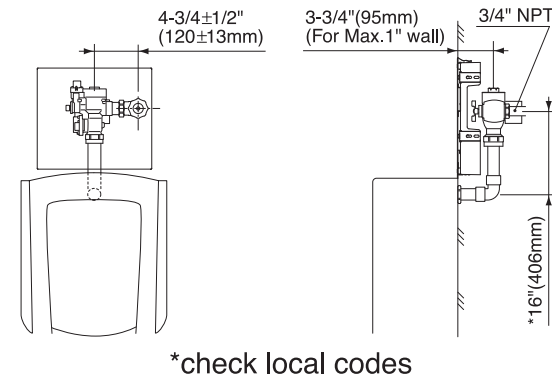
Urinal Flush Valve

Water Supply	Back Spud
Figure	
Flush pipe	3/4" O.D. / 1-1/4" O.D.
1.0GPF(3.8LPF)	TEU2GN11#SS / TEU2GN21#SS
0.5GPF(1.9LPF)	TEU2LN11#SS / TEU2LN21#SS

Specification

Model Number	TET2LN 32,33,31 #SS	TET2GN 32,33,31 #SS	TEU2LN 11,21#SS	TEU2GN 11,21#SS
Dimensions (cover)	12-5/8"(H) x 14-3/16"(W) (320mm(H) x 360mm(W))			
Detection range	Within 31-1/2"(800mm) from the front of the flush valve			
Detection time	6 seconds or more			
Ambient temperature	32-104°F(0-40°C) (water temperature: 34-104°F(1-40°C))			
Connection of the water supply pipe	1"NPT		3/4"NPT	
Supply water Pressure	Minimum (Flowing)	35 PSI (241kPa) / 15 PSI (103kPa)		
	Maximum	125 PSI (862kPa)		
Shutoff pressure	7 PSI (48kPa)			
Discharge quantity per flush at 28 PSI(196kPa) (Factory set)	Approx 1.28 gallon (4.8L)	Approx 1.6 gallon (6L)	Approx 0.5 gallon (1.9L)	Approx 0.5~1.0 gallon (1.9~3.8L)
	Required Min Flow rate: 23 gpm			

For TEU2GN11

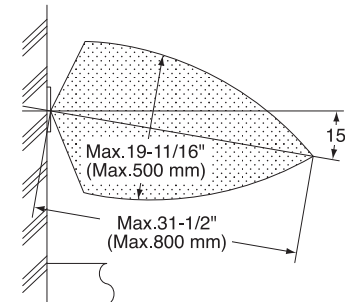


- Use care not to damage the surface of the infrared sensor.
- For Toilet Flush Valve**
The toilet sensor valve may not function if toilet seat and/or lid cover are left upright as it may block the sensor.
- For Urinal Flush Valve**
The automatic flush valve is designed to be used with a washout urinal for optimum performance. However, a siphon jet urinal may also be substitutional. Blowout urinals are not recommended.
- The detection range of the infrared sensor is shown in the figure below.
Do not install a handrail or any other object within the detection zone of the sensor, as object blocking the sensor may cause the valve to malfunction. Additionally, to avoid the possibility of valve malfunction, do not install the flush valve in a location where the sensor faces a stainless wall, other highly reflective surface or another infrared sensor.

Installation Precautions

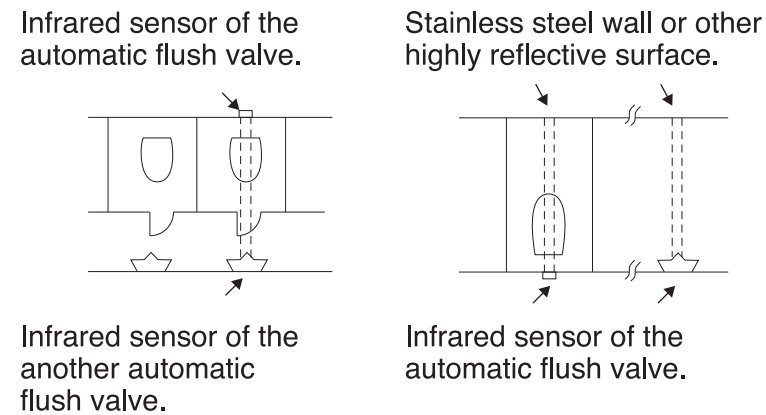
- Prior to Installation**
Prior to installing your TOTO automatic flush valve, install the items listed below:
· Closet fixture/Urinal fixture
· Drain line
· Water supply line
The supply piping to these devices shall be securely anchored to the building structure to prevent the installed device from 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 minimum pressure required to the valve is determined by the type of fixture selected. Consult fixture manufacturer for pressure requirement.
Do not use toothed tools to install or service the valve.

■ Detection zone
The detection zone is self-adjusting and is equipped with a 3-second flush delay after removal from the detection zone. (No flush delay for Urinal flush valve)
The detection zone may differ according to color of user's clothes.
When a user wears black clothes, the detection zone may become smaller and the valve may not flush.

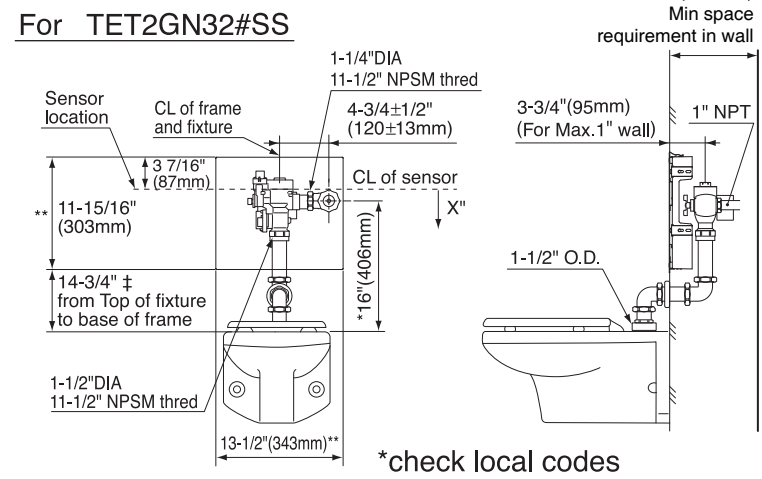


"AVOID"
DO NOT place the Infrared sensor of one urinal so that it is in line with the sensor of another automatic flush valve sensor.

"AVOID"
DO NOT place the Infrared sensor in front of a stainless steel wall or other highly reflective surface.



3. Toilet and Urinal Rough-in



X", ‡ =At least 5" clearance from sensor to tip of toilet seat up position or to top of grab bar is required to avoid false detection.

**Opening in Wall

Installation

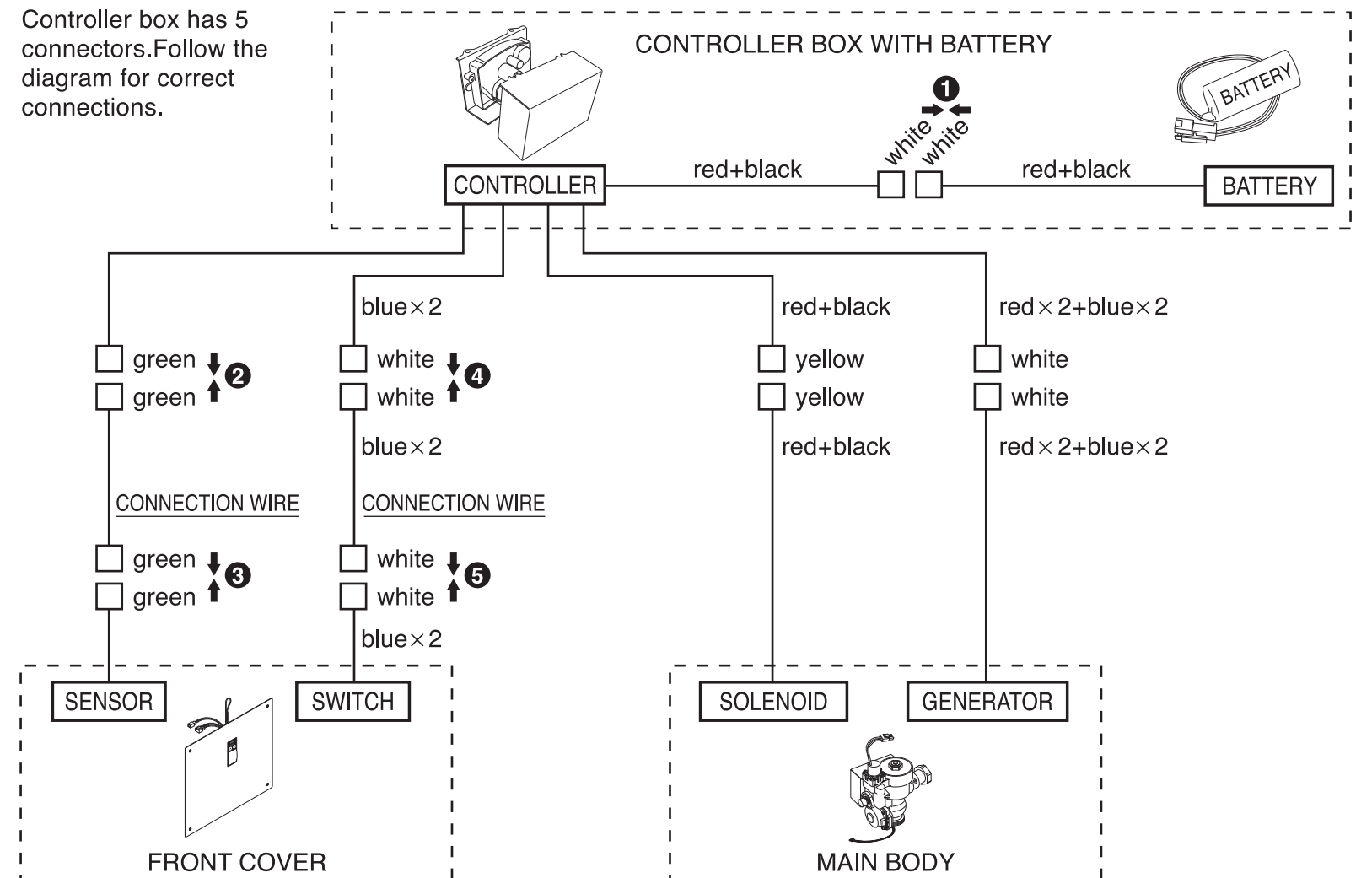
- Required tools
Adjustable wrench, Phillips and slotted screwdrivers,
- Inspection
Unpack the flush valve and carefully make sure the cover, main unit and all other parts are included and intact before starting installation of the product.

Item	Figure	Description	Q'ty
A		Main body (with a set of valve)	1
B		Front cover (with an infrared sensor and chain)	1
C		Box	1
D		Vacuum Breaker tube	1
E		Control stop	1
F		Connection Wire	2
G		Washer	4

Item	Figure	Description	Q'ty
H		Screw	4
I		Allen Wrench	1
J		Notice Label	1
K		Installation Instruction (this manual)	1
L		TET2GN32#SS TET2LN32#SS	Flush pipe
		TET2GN33#SS TET2LN33#SS	
		TET2GN31#SS TET2LN31#SS TEU2GN21#SS TEU2LN21#SS	
		TEU2GN11#SS TEU2LN11#SS	

Wiring

Controller box has 5 connectors. Follow the diagram for correct connections.



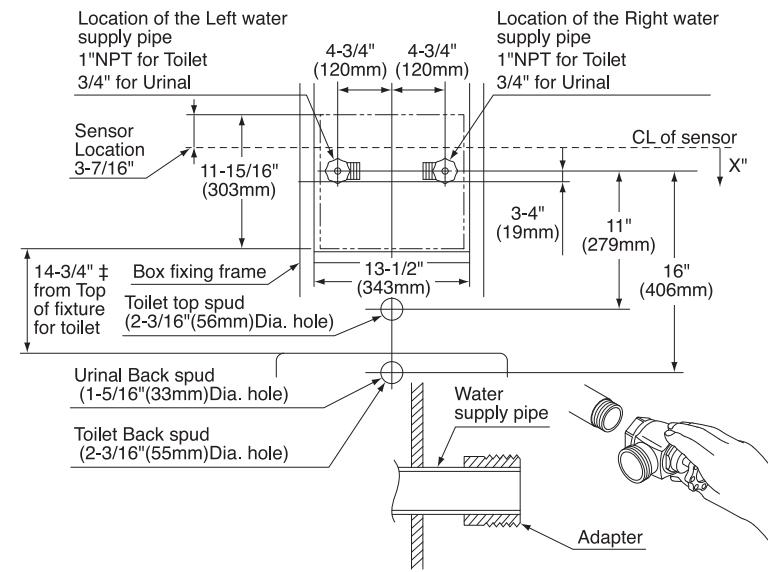
Installation Procedure

Step 1

Determine the installation of the box fixing frame based on the toilet/urinal position. Then determine the location of the water supply pipe and attach the control stop to the pipe. Thereafter bore a flush pipe guide hole in the wall. Slide a thread solder adapter on the water supply pipe if applicable.

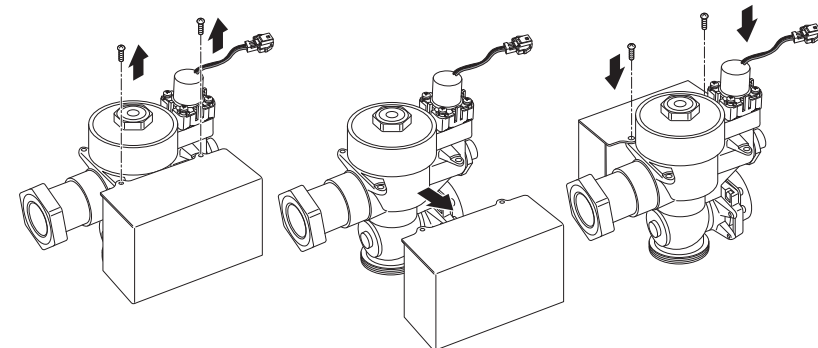
Note

Attach the control stop before installing the box fixing frame. Thread sealing compounds should be used on the male NPT threads only.



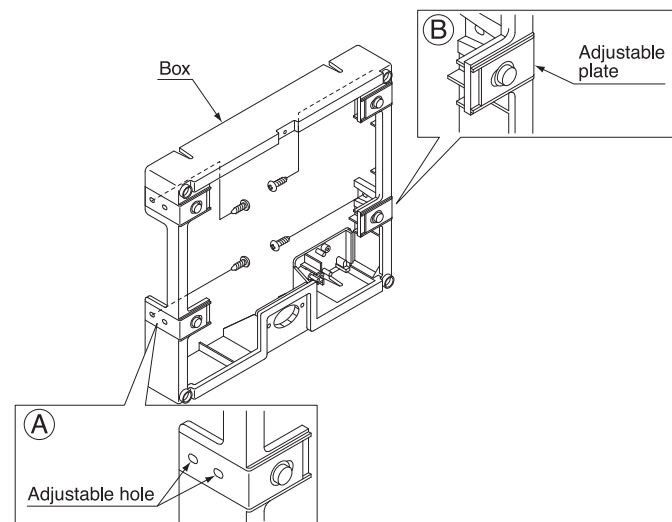
X, ‡ =At least 5" clearance from sensor to tip of toilet seat up position or to top of grab bar is required to avoid false detection. For toilet installation.

For the left water supply. Attach the controller box in the opposition direction so that the control box will be back.



Step 2

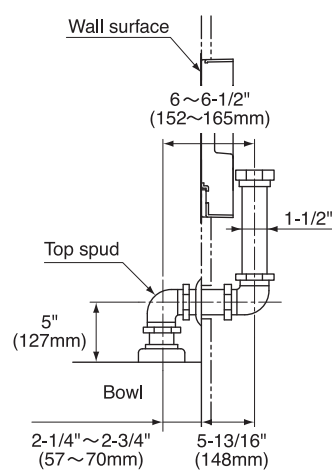
Fasten the box to the box fixing frame with four screws (To be prepare on the site) after adjusting it. (A) Secure the box with four screws attached to adjustable plate. (B)



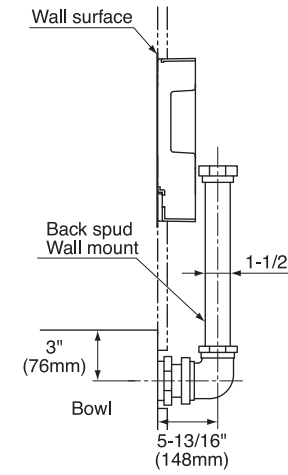
Step 3

Pass the flush pipe and the vacuum breaker through the hole bored in Step 1 and then mount them on the bowl. Cut the vacuum breaker tube, if required, to the proper length.

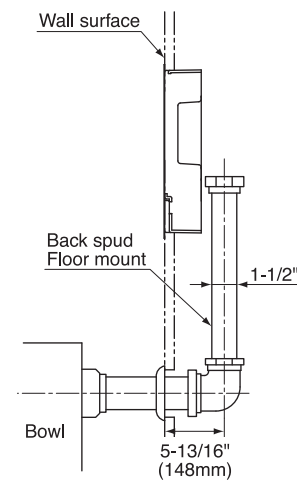
For TET2GN32#SS
TET2LN32#SS



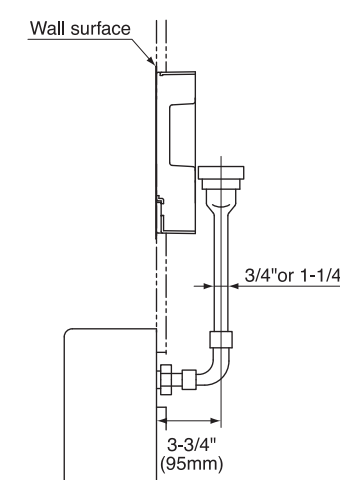
For TET2GN31#SS
TET2LN31#SS



For TET2GN33#SS
TET2LN33#SS

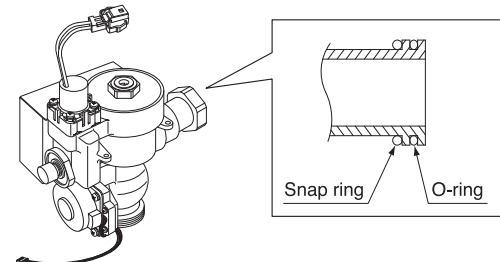


For TEU2GN11,21#SS
TEU2LN11,21#SS



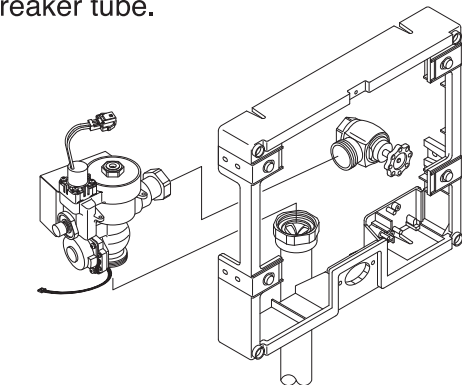
Step 4

Make sure that the O-ring fits in the groove at the end of the flush valve tailpiece. Care should be taken not to damage the O-ring when inserting the tailpiece into the control stop. If lubrication is needed, wetting the O-ring with water will be sufficient.



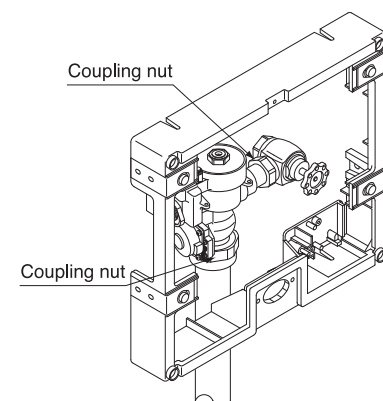
Step 5

Connect the flush valve with the control stop and the vacuum breaker tube.



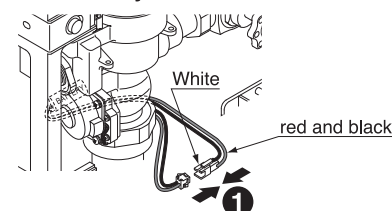
Step 6

Tighten the coupling nut with a wrench to prevent a water leak.



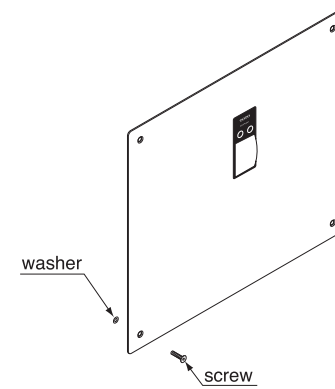
Step 7

Connect the connector of the battery with the controller.



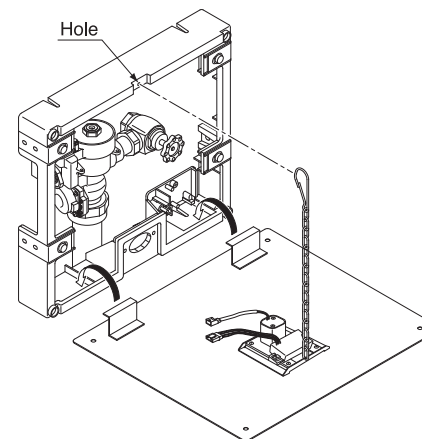
Step 8

Attach the vandal screws with the front cover using washers.



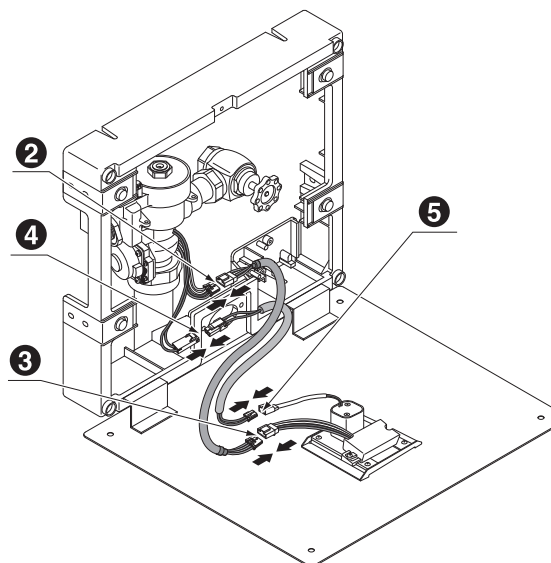
Step 9

Connect the chain from the front cover with a hole on the box.



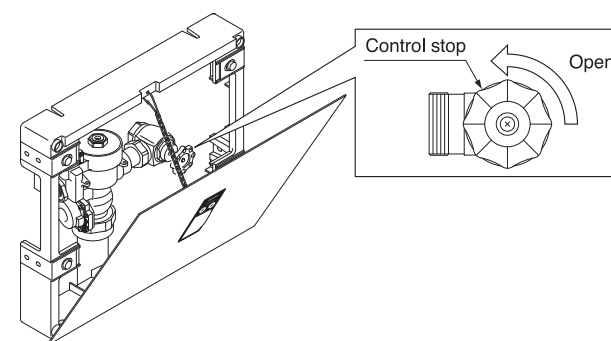
Step 10

Connect the infrared sensor with the controller by using the connection wire. (2, 3) Connect the switch with the controller by using the connection wire. (4, 5)



Step 11

Open the control stop. Do not proceed to step 11 until all water leaks are eliminated by tightening all the pipe connections. Failure to correct all water leaks prior to use may increase the risk of damage to the product.

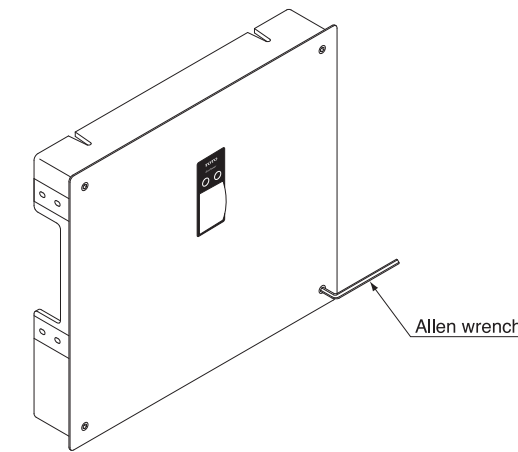


To set the flush valve for proper operation, open the control stop completely and flush several times. Flush volume is already factory pre set. Consistent flush volume can be observed as long as supply water pressure and flow rate requirements mentioned earlier are met.

Slight adjustment of the control stop should be made if excessive flush volume, which is because of very high water pressure and flow rate, is noticed.

Step 12

Fasten the front cover to the box by tightening the screws with the supplied tool. (Allen wrench) Take care so that any cord, wire or chain might not be caught between the front cover and the box.



Test Run

1. Make sure the control stop is open.
2. Sit on the toilet seat. (for Toilet flush valve) Stand within two feet from the front of the flush valve. (for Urinal flush valve)
3. Stay there for 6 seconds or more and leave the toilet seat or the urinal. The valve will automatically flush.
4. Press the manual flushing switch and make sure the valve flushes properly.
5. Recheck all the pipe connections for water leaks. If the flush valve is not operating properly following the test run consult the Troubleshooting section of the Owner's Manual.

Note to the installer

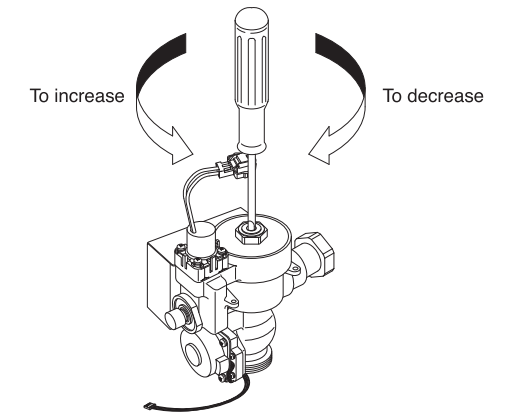
After the flush valve unit has been installed correctly, please explain to your customer how to use it and tell him or her to observe the following instructions.

1. Do not put any object in front of the sensor window which could obstruct the sensor, causing the flush valve to malfunction.
2. For troubleshooting, consult the Owner's Manual. If you lack the necessary skills required or have difficulty following the directions for installation, maintenance, repairs, troubleshooting or adjustment, of the product, do not proceed without help from a qualified person to assist you in performing any of these functions.

Adjustment

WARNING: To minimize the risk of electrical shock and fire hazard, turn off and lock out breaker for power line before starting adjustment.

1. Adjustment of the discharge quantity
 - (1) Remove the front cover.
 - (2) Adjust the discharge quantity by rotating the screw on the piston valve.



2. Adjustment of the flow rate

Adjust the flow rate by turning the screw/handle of the control stop.

Turn the screw/handle to the right to decrease the flow rate and turn it to the left to increase.
3. Adjustment of the detection range

The detection range of the infrared sensor does not need to be adjusted because it has been factory-preset.