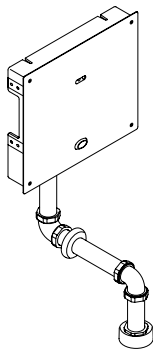
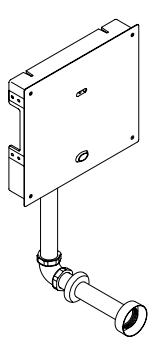
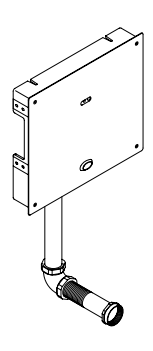
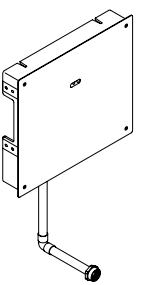


Model Variation

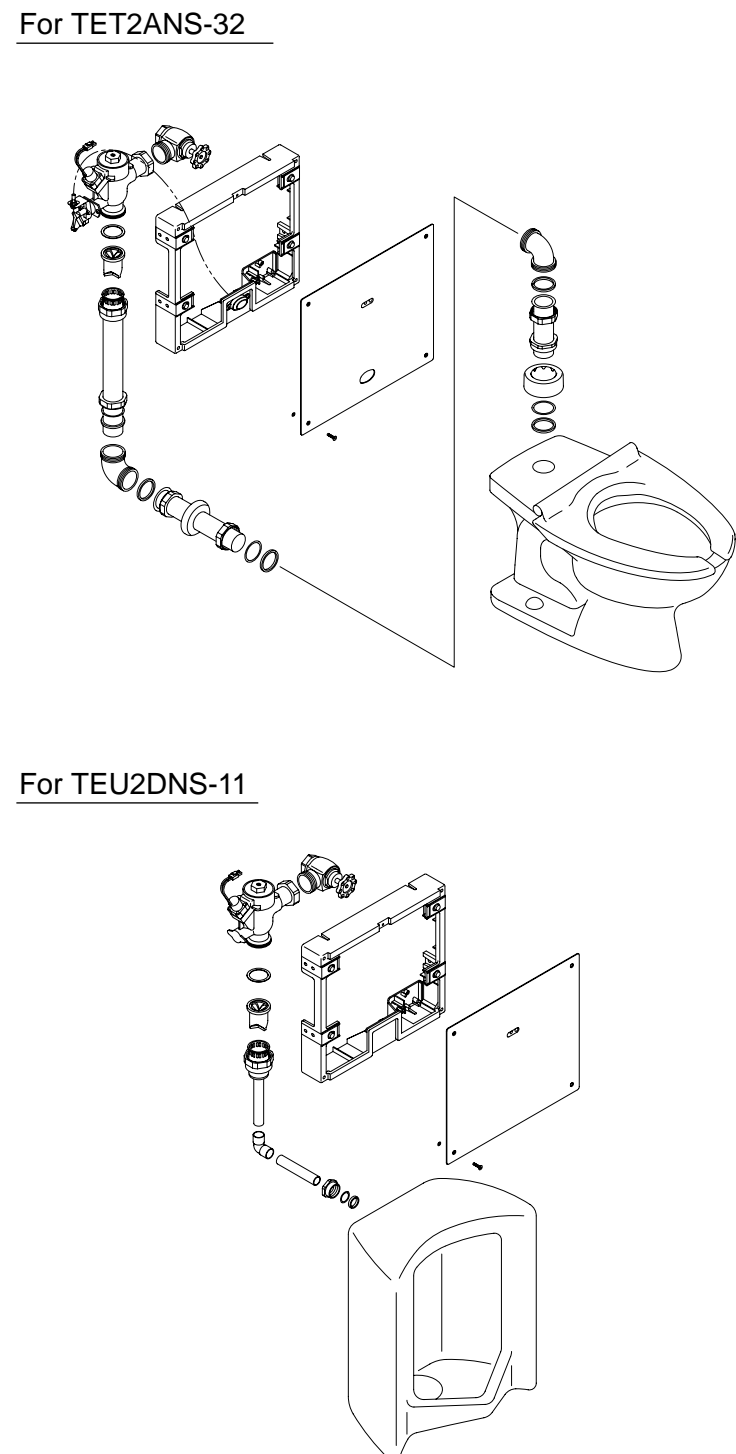
Toilet Flush Valve

Water Supply	Top Spud	Back Spud Floor	Back Spud Wall
Figure			
AC	TET2ANS-32	TET2ANS-33	TET2ANS-31
DC	TET2DNS-32	TET2DNS-33	TET2DNS-31

Urinal Flush Valve

Water Supply	Back Spud
Figure	
Flush pipe	3/4" O.D. / 1-1/4" O.D.
AC	TEU2ANS-11 / TEU2ANS-21
DC	TEU2DNS-11 / TEU2DNS-21

Exploded View



Specification

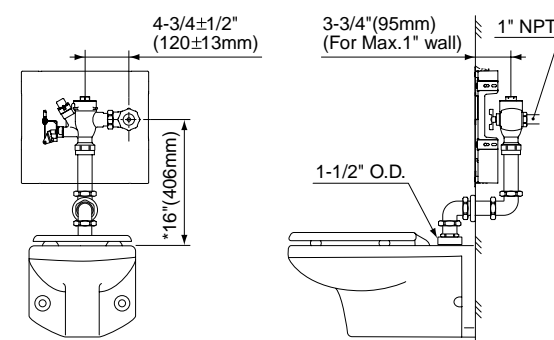
Model Number	TET2ANS-32,33,31	TET2DNS-32,33,31	TEU2ANS-11,21	TEU2DNS-11,21
Power supply	10V DC Supplied by AC Adapter	Alkaline Type AA Batteries 1.5V x 4pcs.	10V DC Supplied by AC Adapter	Alkaline Type AA Batteries 1.5V x 4pcs.
Dimensions (cover)	12-5/8"(H) x 14-3/16"(W) (320mm(H) x 360mm(W))			
Detection 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 required water pressure: 10 PSI (70kPa) (flowing) Maximum water pressure: 125PSI (862kPa)			
Shutoff pressure	7 PSI (48kPa)			
Discharge quantity per flush at 28 PSI (196kPa) (Factory set)	Approx. 1.6 gallon (6L)		Approx.0.5 ~ 1.0gallon (1.9 ~ 3.8L) (Fuzzy logic adjusted flush volume)	

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.

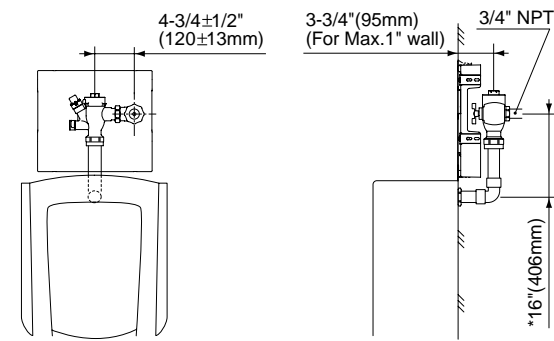
3. Main dimensions of the piping

For TET2ANS-32



*check local codes

For TEU2DNS-11



*check local codes

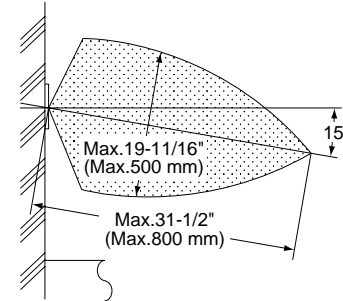
Note

Refer to local codes for special requirements.

- 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.

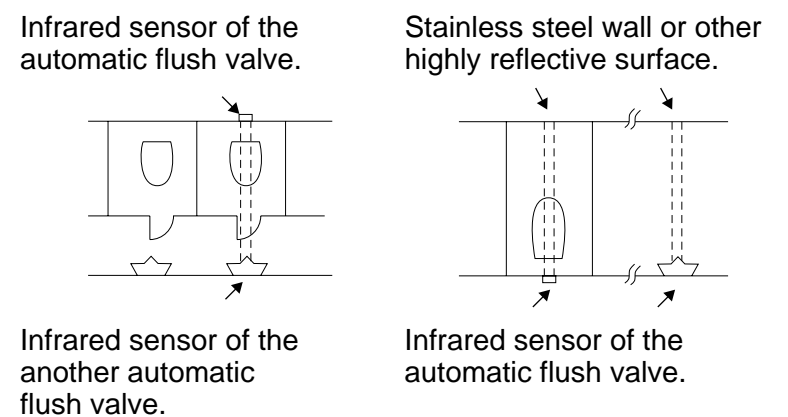
Detection zone

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.



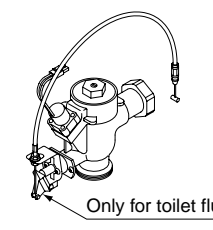
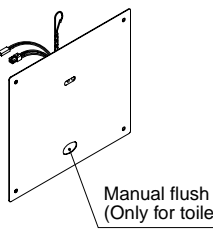
"AVOID" DO NOT place the Infrared sensor of one urinal so that it is in line with the sensor of another automatic flush valve sensor.

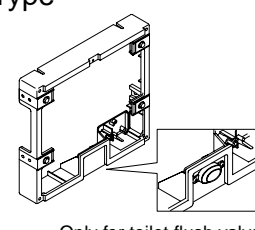
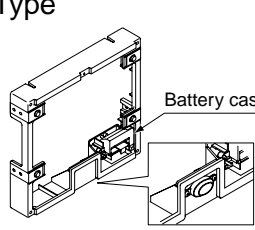
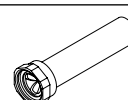
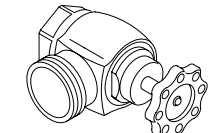
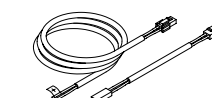
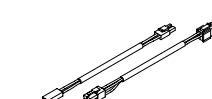
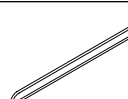
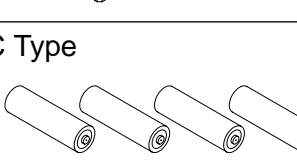
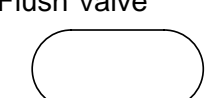
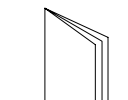
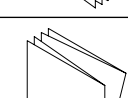
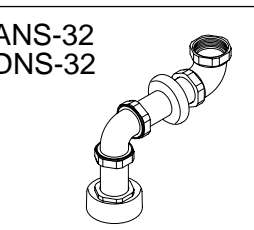
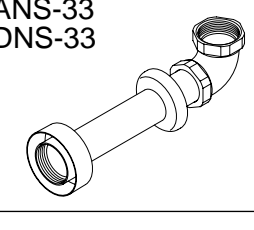
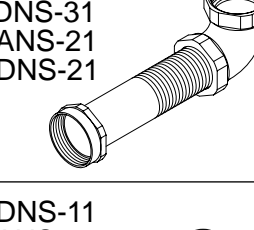
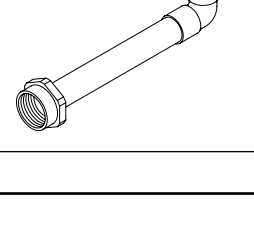
"AVOID" DO NOT place the Infrared sensor in front of a stainless steel wall or other highly reflective surface.



Installation

- Required tools**
Adjustable wrench, Phillips and slotted screwdrivers, wire stripper and crimping pliers.
- 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 washer & screw)	1

Item	Figure	Description	Q'ty
C		Box	1
			
D		Vacuum Breaker tube	1
E		Control stop	1
F		Connection wire	2
			
G		Tool (Allen wrench)	1
H		Alkaline Type AA Battery	4
I		Toilet Flush Valve	1
J		Notice Label	1
K		Owner's manual	1
L		Flush pipe	1
			
L		Flush pipe	1
			

Installation Procedure

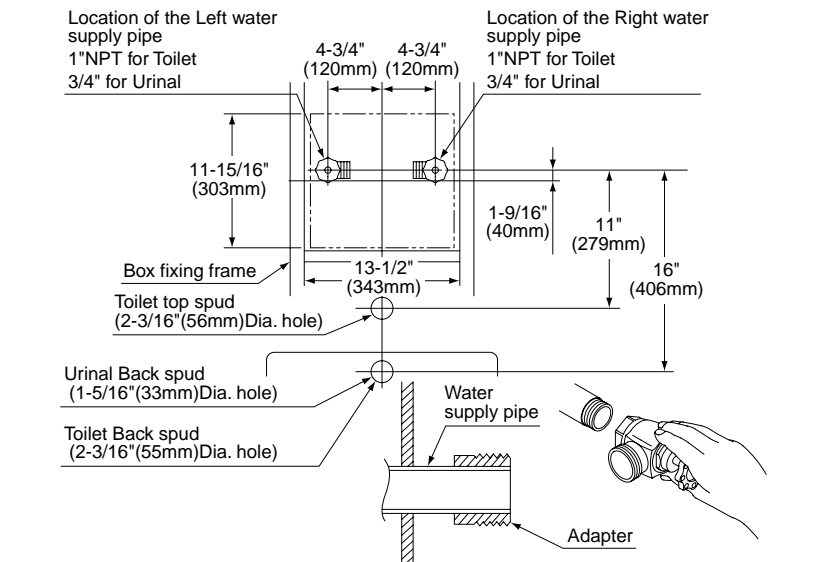
WARNING: To minimize the risk of electrical shock and fire hazard, be sure to turn off and lock out breaker for power line before starting the installation.

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.

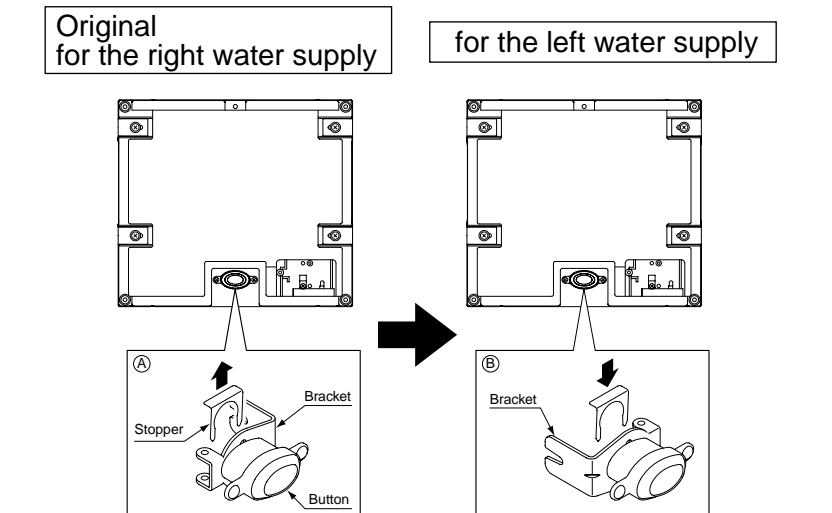
Note

Attach the control stop before installing the box fixing frame.



*For the Left water supply of Toilet flush valve

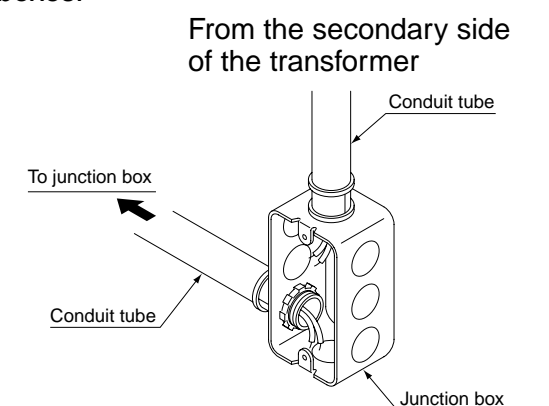
Slide the stopper up and remove the bracket from the button. (A)
Reinstall the bracket to the opposite direction shown in the figure below. (B)



DC Type → Go to **Step 4**

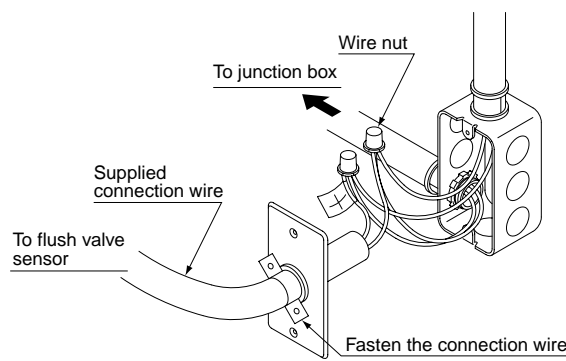
Step 2 For AC Type

Install the optional transformer Model (THU701TR, INPUT:120VAC,60Hz, OUTPUT:10VDC,1.95A or THU700TR, INPUT:24VAC,60Hz, OUTPUT:10VDC,1.95A) according the instructions given later in the "Installation of the Transformer" section of this manual, mount the junction box on a pillar or the like, and guide the two lead wires from the secondary side (10VDC) of the transformer to the junction box. Also guide the lead wires for multiple junction boxes.



Step 3 For AC Type

Join one lead wire, one supplied wire to flush valve and one wire for another junction box using a wire nut. Join the other sets of wires using another wire nut. Fasten the connection wire to the cover of the junction box.

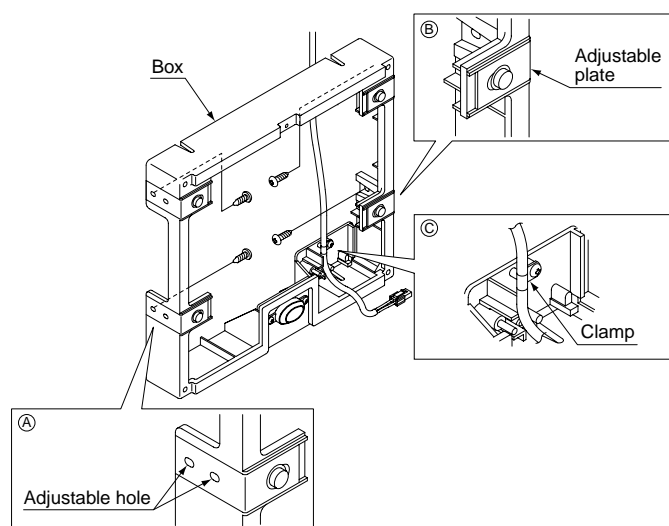


Step 4

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

For only AC Type

Fasten the connection wire at the position of the mark colored red with the clamp. (C)

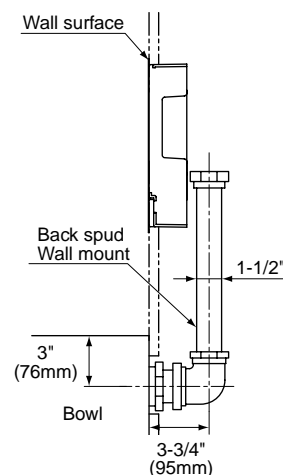
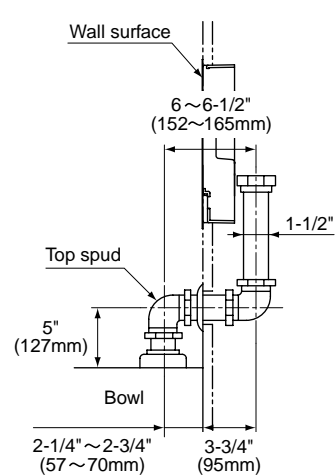


Step 5

Pass the flush pipe and the vacuum breaker through the hole bored in Step 1 and then mount them on the bowl.

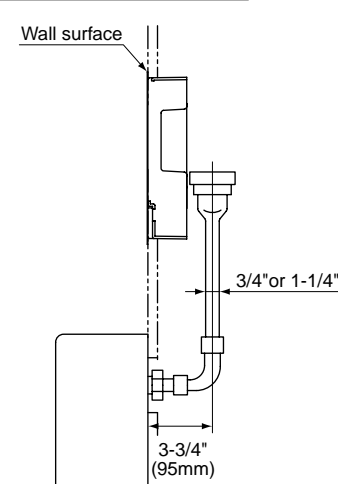
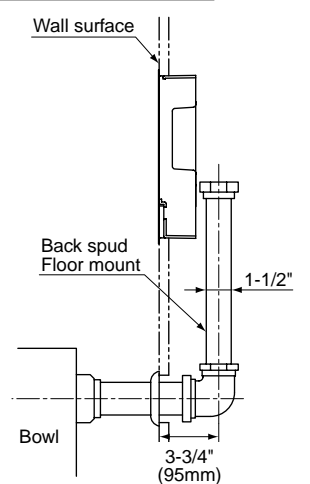
For TET2ANS-32
TET2DNS-32

For TET2ANS-31
TET2DNS-31



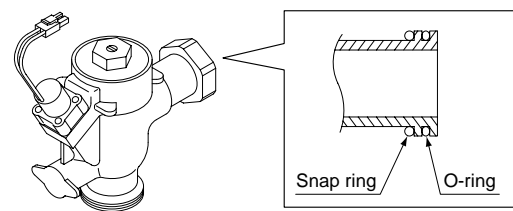
For TET2ANS-33
TET2DNS-33

For TEU2ANS-11,21
TEU2DNS-11,21



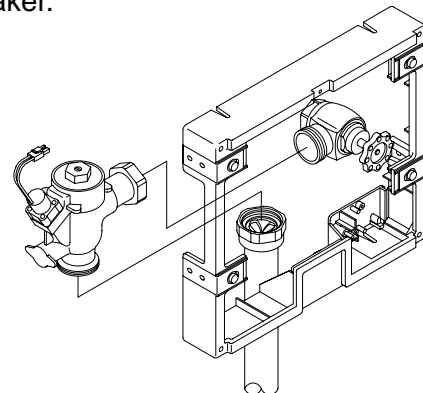
Step 6

Make sure that the O-ring fits in the groove of the connecting pipe.



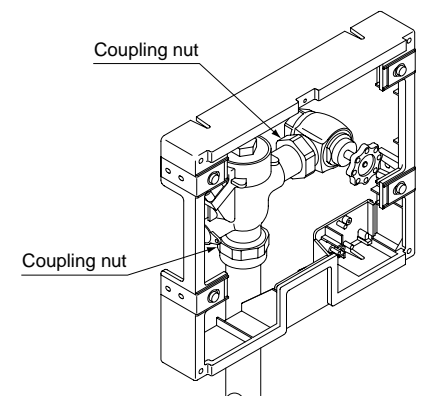
Step 7

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



Step 8

Tighten the coupling nut to prevent a water leak.



Step 9

For Toilet flush valve

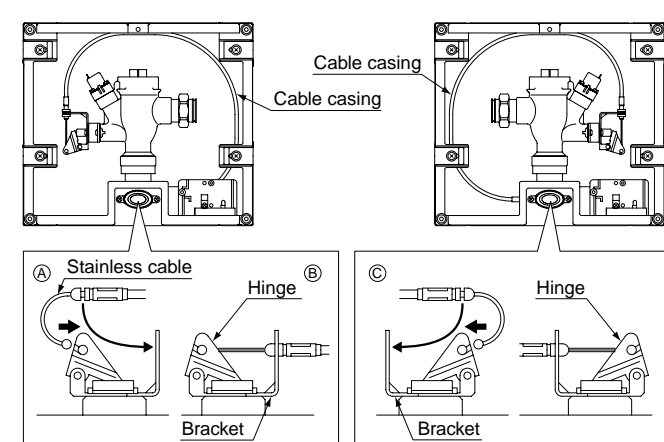
Insert the end of the stainless cable for manual flushing into the hinge hole. (A) Slide the cable casing into the opening of the bracket. (B) Make sure the rod of the flush valve is thrust when the button is pushed.

For the left water supply

Before installing the cable, the bracket should be reinstalled to the opposite direction. (C, and also see Step 1)

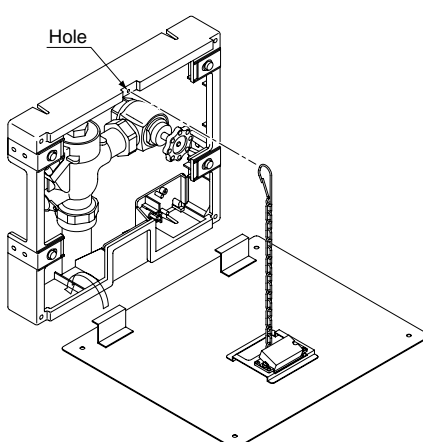
Original for the right water supply

for the left water supply



Step 10

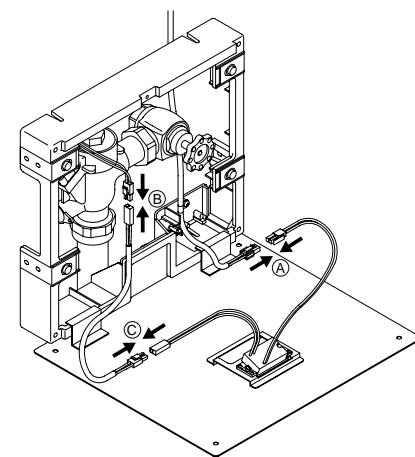
Connect the chain from the front cover with a hole on the



Step 11

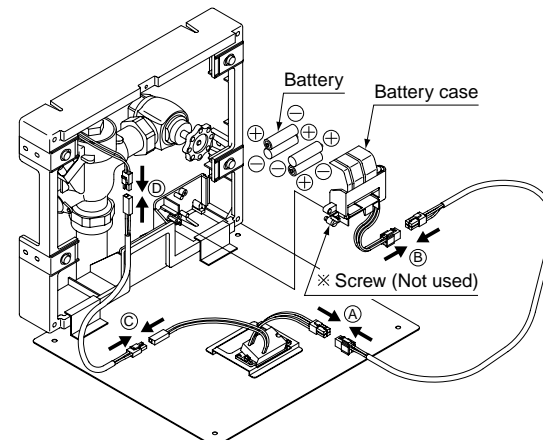
For AC Type

Attach the connector of the infrared sensor unit with the connector from the junction box. (A) Attach the connector of the infrared sensor unit with the connector from the solenoid by using connection wire. (B, C)



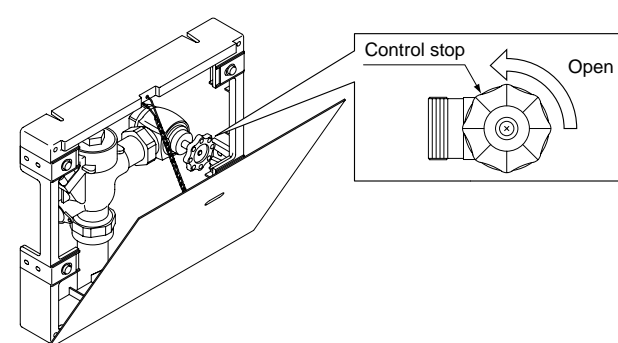
For DC Type

Remove the battery case from the box. Install the supplied 4 batteries into the battery case. Install the battery case with the 4 batteries into the box exactly as shown in the figure. Connect the infrared sensor with the battery case by using the connection wire. (A, B) Connect the infrared sensor with the solenoid by using the connection wire. (C, D)



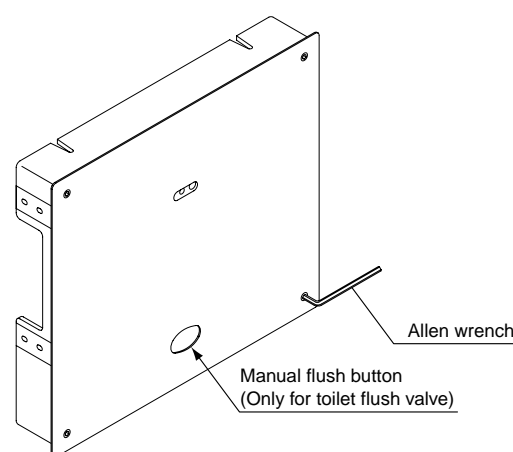
Step 12

Open the control stop. Do not proceed to step 13 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 electrical shock, fire hazard or damage to the product.



Step 13

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. Energize the primary side of the transformer (THU701TR or THU700TR) For AC Type
2. Make sure the control stop is open.
3. Sit on the toilet seat. (for Toilet flush valve) Stand within two feet from the front of the flush valve. (for Urinal flush valve)
4. Stay there for six seconds or more and leave the toilet seat or the urinal. The valve will automatically flush.
5. Press the manual flushing button and make sure the valve flushes properly. (for Toilet flush valve)
6. 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. Recheck installation procedures only after turning off and locking out breaker for power line

Note to the installer

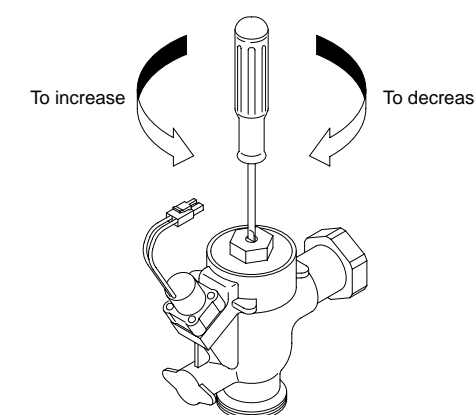
After the flush valve unit has been installed correctly, please explain to your customer how to use it and tell him or her to observe the following instructions.

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.
 - ① To minimize the risk of electrical shock and fire hazard, turn off and lock out breaker for power line before attempting troubleshooting, maintenance, adjustment or repairs.
 - ② If you lack the necessary skills required or have difficulty following the directions for installation, maintenance, repairs, troubleshooting or adjustments, 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.



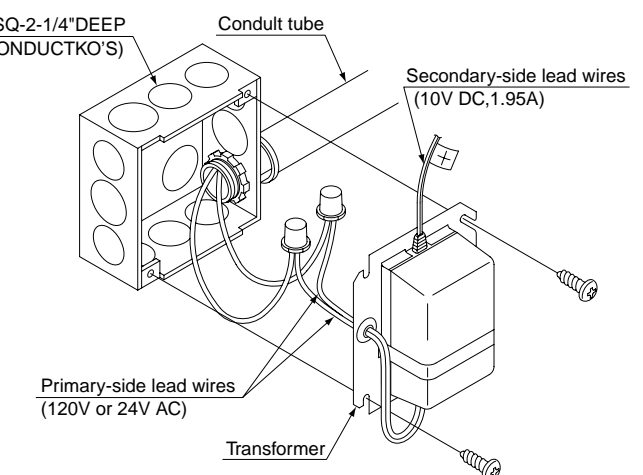
2. Adjustment of the flow rate
 - Adjust the flow rate by turning the screw/handle of the control stop.
 - Turn the screw/handle to the right to decrease the flow rate and turn it to the left to increase.
3. Adjustment of the detection range
 - The detection range of the infrared sensor does not need to be adjusted because it has been factory-preset.

Installation of the Transformer

WARNING: Whenever installing the transformer or wiring, turn off and lock out breaker for power line in order to minimize the risk of electrical shock or fire hazard.

This automatic flush valve unit requires a special transformer. When installing the transformer, please observe the following instruction.

1. The wiring distance from the transformer to the flush valve must be 45 feet (13.5m) or less. Use UL class II No.18 wire when connecting the flush valve to the transformer.
2. This transformer can be connected to a maximum of 10 flush valves.



WARNING: Be sure to ground the 4"SQ box to eliminate the risk of electrical shock or fire hazard. Never kink or bend primary-side lead wires and/or secondary-side lead wires of the transformer when wiring them in the conduit tube or the junction box altogether.

Wiring

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

This product must be connected to the type of power source indicated on the installation instruction. If you are not sure of the type of power source available, consult your dealer or local power company.

- The wiring diagram is shown below.
- When connecting the secondary side of the transformer to each flush valve, use only UL Class II No.18 wires.

- Wiring Diagram -

