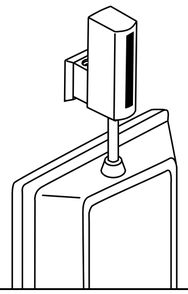
TOTO® INSTALLATION MANUAL

Lloyd® Urinal Flushometer Valve

COMPATIBILITY: Due to the unique size of the vacuum breaker assembly (5/8"), the Lloyd® Urinal Flushometer TEY1DNC-41 will only fit the Lloyd® Urinal UT930.

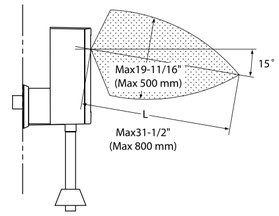
1 Specifications

Urinal Flush Valve

Figure		
Model Number	TEY1DNC-42	
Power Display	2 AA 1.5V Alkaline Batteries	
Dimensions	1-¾" x 6" x 4-¼" (45mm x 150mm x 107mm)	
Battery Life	2 Years @ 4,000 flushes/month	
Detection Range	31-½"	
Trap Seal Protection	Automatically flushes once every 24 hours	
Discharge Quantity	1 gallon per flush max	
Supply Water Pressure	Min. 10 PSI	Max. 100 PSI

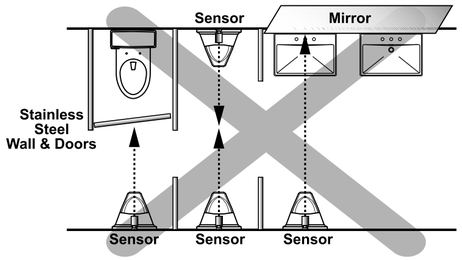
■ Detection zone

The detection zone is self-adjusting.The detection zone may differ according to the color of the user's clothes. When a user wears black clothes, the detectionzone may become smaller and the valve may not flush.



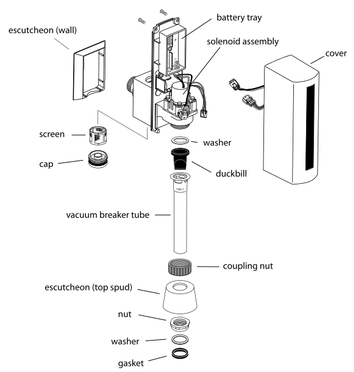
"AVOID"

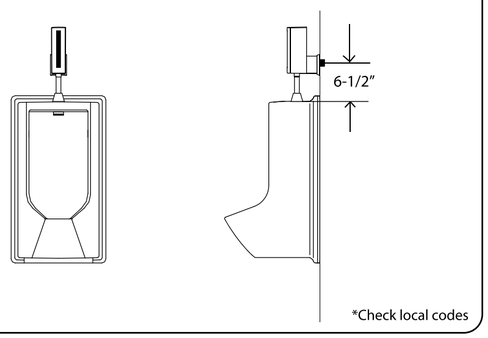
DO NOT place the infrared sensor of one urinal so that it is in in line with the sensor of another automatic flush valve sensor, mirror, stainless steel wall/door, or other highly reflective surface.



2 Set-up Drawing

TEY1DNC-42





3 Installation Precautions

1. Prior to Installation
   Prior to installing your TOTO® automatic flush valve, install the items listed below:
   - Urinal fixture
   - Drain line
   - Water supply line
   - Stop valve

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

2. 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. Do not use toothed tools to install or service the valve.

3. Be sure to install TOTO automatic flush valve so that the control stop is situated no more than 11-1/2" (292mm) above the urnial. Refer to local codes for specific requirements.

4. Use care not to damage the surface of the infrared sensor.

5. This automatic flush valve is designed to be used only with the TOTO Lloyd Urinal.

6. The detection range of the infrared sensor is shown in the figure above. Do not install a handrail or any other object within the detection zone of the sensor, as any object within the detection zone of 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 mirror, stainless steel wall, other highly refelective surface, or another infrared sensor.

4 Important Safeguards

(for your safety, please follow the instructions below.)

Read these Important Safeguards instruction thoroughly before using your Lloyd™ Flush Valve and follow the precaution instructions carefully.

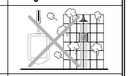
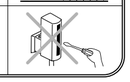
After you read this Instruction Manual, keep it where it can be easily referred to again.
Symbols are shown for safe and proper use of your Lloyd™ Flush Valve and in order to alert you possible personal injury and damage to your property. The symbols and their meanings are as follows.

⚠Warning	Ignoring these symbols may cause personal injury or property damage.

The items of observation are classified and described.

⃠	Absolutely "Do not".	⃠	Do not install the product in high humidity area such as a shower area or sauna.
⃠	Do not disassemble.	❗	This means mandatory.
⃠	Do not touch the area specified.		

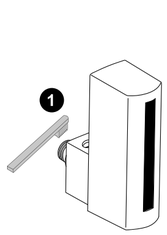
Some models may have different component as illustrated below.

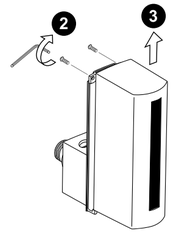
⚠Warning		
Do not	Never splash water on the controller. The Automatic Faucet is an electrical appliance, this may cause product malfunction.	
	Do not strike or kick to the Lloyd™ Flush Valve. This may cause product malfunction or water leakage.	
	Do not use the Lloyd™ Flush Valve at temperatures exceeding what local codes allow. This may cause product malfunction.	
Do not use in humid areas	Do not place an item with this symbol displayed in a room with high humidity such as shower area or sauna. This may cause product malfunction.	
Do not disassemble	Never attempt to disassemble, reassemble, repair or modify the Lloyd™ Flush Valve, unless you are an electrician. This may cause product malfunction and electric shock.	

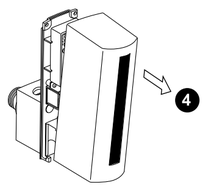
5 Installation Procedures

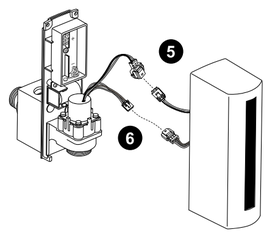
Clean the supply pipe.
- (1) Be sure to clean the supply pipe before installation.

Remove the front cover.
- (2) Remove the two hex head screws from the rear housing.
- (3) Lift the cover upward.
- (4) Slide the cover forward, as shown.
- (5) Disconnect the two wire lead for the solenoid assembly.
- (6) Disconnect the three wire lead for the battery circuit.

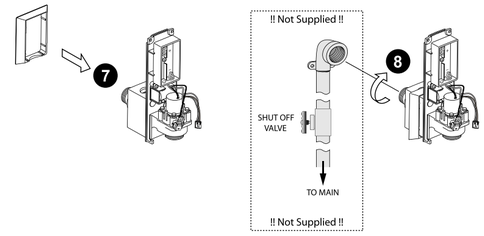






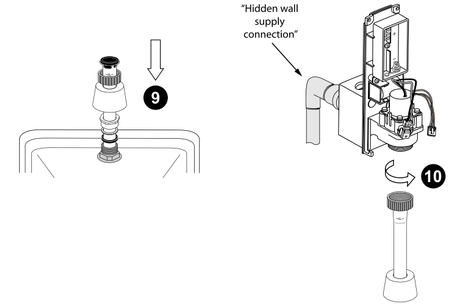


Install valve body to water supply.
- (7) Put the escutcheon (wall) onto the valve body.
- (8) Install valve body onto a 1/2" NPT female water supply. Use a thread sealing tape or compound.



NOTE: Water supply connection 1/2" NPT female is not supplied.

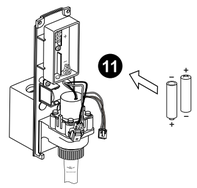
Install vacuum breaker tube assembly.
- (9) Install coupling nut, escutcheon (top spud), nut, washer, and gasket onto vacuum breaker tube, as shown. Insert into Lloyd™ urinal top spud.
- (10) Tighten coupling nut onto valve body.

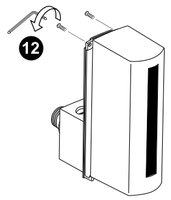


NOTE: Lloyd® urinal top spud is not supplied with TEY1DNC-41. Top spud is supplied with Lloyd® Urinal UT930.

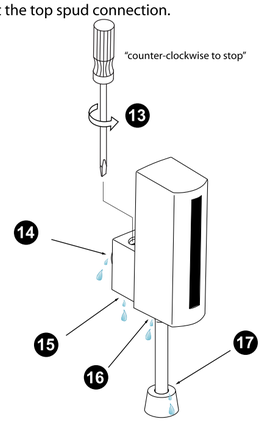
Install cover.
- (11) Install the "AA" batteries and connect the two wire leads.
- (12) Install cover and two hex head screws.

NOTE: During the installation of the cover, the red LED will illuminate. After the flushometer has calibrated the detection range, the red LED will no longer illuminate. Please allow several minutes for the flushometer to calibrate the detection range. (Refer to Section 7 for more detail about the red LED operation.)





Check for leaks.
Turn on main water supply.
- (13) Open the water supply on the valve body with a flat screw driver.
- (14) Inspect the water supply connection at the wall.
- (15) Inspect the cap at the screen location.
- (16) Inspect the coupling nut at the outlet connection.
- (17) Inspect the top spud connection.

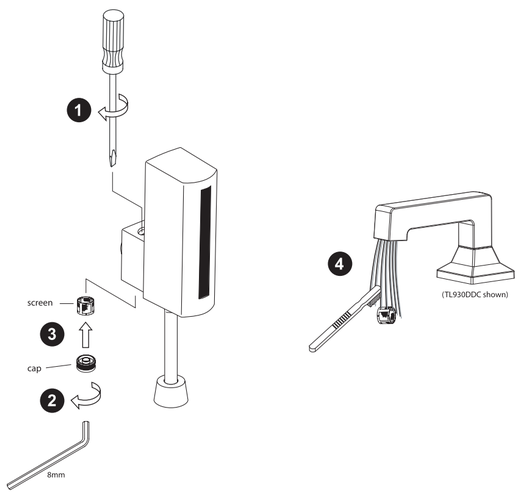


To be continued on the back ➡

6 Cleaning the screen

To insure the performance of the Lloyd™ Urinal Flushometer, periodically clean the screen.

(1) Close the water supply on valve body with a flat screw driver.
(2) Use a 8mm hex wrench to remove the cap.
(3) Remove screen from the cap.
(4) Use a tooth brush to clean the screen under flowing water.
Reverse Step 4 to 1 to reinstall the cap and screen.

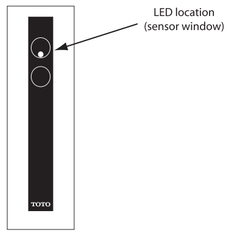


7 Battery replacement

When the batteries are low, the red LED lamp will blink only when the sensor detects a user.

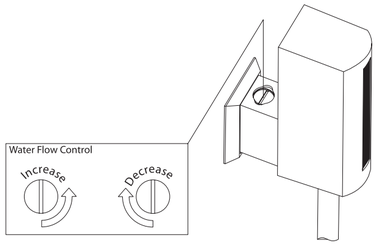
NOTE: Do not confuse the blinking red LED lamp for low batteries during the calibration of the detection range.

Use only two AA Alkaline batteries (1.5V LR6). Refer to Section 5 to remove of the cover and install the batteries.



8 Adjustment

The rate of water flow can be controlled by rotating the screw on the flushometer. Turn the screw clockwise to decrease and counter-clockwise to increase.



9 Installation Notes

NOTE TO THE INSTALLER

Please explain to the owner how to operate and care for this flushometer. Provide all written documentation (including this manual) to the owner.

Keep in mind, that the owner may block the sensor window preventing the flushometer from operating. Inform the owner not to place household items (towels, shelves, grab bars, etc.) that may block the sensor window.

Some owners are more concerned with cleanliness than others. Often a customer may take drastic measures to insure sanitation, such as dousing the flushometer with a cleaning solution from a pressurized sprayer. Inform the customer that the cleaning solution may penatrate the interior of the flushometer a damage electronic circuitry.

10 Storage (Freezing Conditions)

For long periods of non-use or for conditions where the room temperatures can drop to freezing (32°F ~ 0°C and below), the flushometer will need service on the valve body and solenoid assembly, as follows.

Valve Body (refer to appropriate Sections)

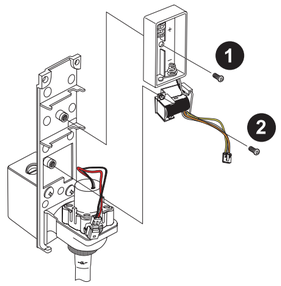
1. Turn off the water supply on the flushometer (Section 6).
2. Allow the flushometer to perform a flush cycle.
   Stand in the detection range for 6 seconds and move away.
   Or, place hand in front of the sensor eye for 6 seconds and remove.
3. Remove the front cover and disconnect the wire leads (Section 5).
4. Remove the batteries to prevent the 24 hour automatic flush cycle (Section 5).
5. Remove the cap & screen to release any residual water. Clean as outlined in Section 6 and set them aside.

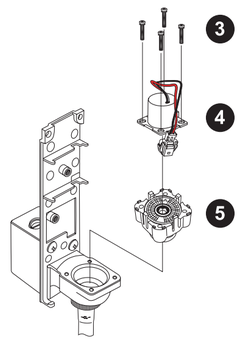
Solenoid Assembly (refer to illustrations)

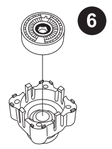
(1) Remove the single screw holding the battery tray.
(2) Remove the single screw holding the capacitor tray with 3 wire lead. The battery tray and capacitor tray are connected. Set these aside.
(3) Remove the four screws holding the solenoid assembly and set the screws aside.
(4) Remove the solenoid from the white housing and set it aside.
(5) Remove the white housing from the valve body.
(6) Separate the diaphragm disc from the white housing. Note the location of the O-ring on the diaphragm disc.
(7) Turn the diaphragm disc over to separate the rubber diaphragm from the diaghragm disc. Note the diaphragm disc has a metal pin which aligns with the rubber diaphragm.
(8) Clean the diaphragm disc, rubber diaphragm, and white housing under running water with a soft toothbrush.

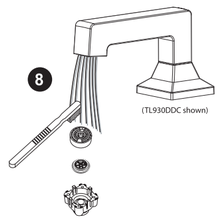
Reassembly (general procedure)

1. Assemble the solenoid assembly and install onto the valve body.
2. Install the battery tray and the capacitor tray.
3. Install the cap & screen.
4. For continued use, install new batteries. For storage or freezing conditions, omit the batteries.
5. Connect the wire leads and install the front cover.
6. For continued use, turn on the water supply. For storage or freezing conditions, leave the water supply off.









11 Trouble Shooting

Symptom	Possible Cause	Actions
No water during the flush cycle (the solenoid clicks).	The water supply main or the water supply on the valve is closed.	Open the water supply.
No water during the flush cycle (the solenoid does not click).	The cover glass is dirty or broken.	Clean or replace the glass.
	The wire connections are open.	Connect the wires.
	A reflective surface is in front of or near the sensor eye.	Remove reflective surface.
	User clothing is interfering or absorbing the infrared beam. NOTE: Though the infrared technology can operate in "no" light conditions, its beam is absorbed by dark materials.	Inform user/owner of the conditions with certain types of clothing. (Hold hand over sensor eye for 6 seconds to activate the flush cycle.)
The flush cycle does not stop.	The solenoid assembly has a dirty diaphragm.	Remove solenoid and clean diaphragm of debris under running water. (DO NOT use silicon or any other lubricant on the diaphragm surface.)
The flush volume is too low.	Water supply main or the water supply on the valve is partially closed.	Open water supply.
	Screen is clogged.	Clean screen with tooth brush under running water.
	Water supply pressure is below 15 PSI.	Water supply has a restriction. Verify main water supply pressure or plumbing contractor.
The flush volume is too high.	Water supply pressure is over 80 PSI.	Install water pressure regulator or consult plumbing contractor.
The red LED blinks all the time.	Batteries have been replaced or wires have just been connected.	Allow flushometer to calibrate the detection range. (Stay away from the flushometer for several minutes to allow the detection range to be set.)
The red LED blinks only with use.	Batteries are weak.	Replace the batteries with two AA Alkaline batteries (1.5V LR6).
Chrome finish is discolored or is deteriorating	Use of harsh chemicals to clean flushometer's exterior.	Avoid using harsh chemicals on the flushometer. (Inform maintenance personnel.)

If you need further assistance with Trouble Shooting, please contact our TOTO® Technical Support department at 1-888-295-8134 (toll free).

12 Three Year Limited Warranty

Warranty applies to Electronic Flush Valves only.

1. TOTO®U.S.A., INC. ("TOTO®") warrants its electronic flush valves ("Product"), to be free from defects in materials and workmanship during normal use when properly installed and serviced, for a period of three (3) years from date of purchase. This limited warranty is extended only to the original purchaser of the Product and is not transferable to any third party, including but not limited to any subsequent purchaser or owner of the Product. This warranty applies only to TOTO®Products purchased and installed in United States, Canada and Mexico.
2. TOTO's®obligations under this warranty are limited to repair, replacement or other appropriate adjustment, at TOTO's®option, of the Product or parts found to be defective in normal use, provided that such Product was properly installed, used and serviced in accordance with instructions. TOTO®reserves the right to make such inspections as may be necessary in order to determine the cause of the defect. TOTO®will not charge for labor or parts in connection with warranty repairs or replacements. TOTO®is not responsible for the cost of removal, return and/or reinstallation of the Product.
3. This warranty does not apply to the following items:
   a. Damage or loss sustained in a natural calamity such as fire, earthquake, flood, thunder, electrical storm, etc.
   b. Damage or loss resulting from any accident, unreasonable use, misuse, abuse, negligence, or improper care or maintenance of the Product.
   c. Damage or loss resulting from sediments or foreign matter contained in a water system.
   d. Damage or loss resulting from improper installation or from installation of the Product in a harsh and/or hazardous environment, or improper removal, repair or modification of the Product.
   e. Damage or loss resulting from electrical surges or lightning strikes or other acts which are not the fault of TOTO®or which the Product is not specified to tolerate.
4. To obtain warranty repair service under this warranty, you must take the Product or deliver it prepaid to a TOTO®service facility together with proof of purchase (original sales receipt) and a letter stating the problem, or contact a TOTO®distributor or products service contractor, or write directly to TOTO®U.S.A., INC., 1155 Southern Road, Morrow, GA 30260 (888) 295-8134. If, because of the size of the Product or nature of the defect, the Product cannot be returned to TOTO®, receipt by TOTO®of written notice of the defect together with proof of purchase (original sales receipt) shall constitute delivery. In such case, TOTO®may choose to repair the Product at the purchaser's location or pay to transport the Product to a service facility.

THIS WRITTEN WARRANTY IS THE ONLY WARRANTY MADE BY TOTO®. REPAIR, REPLACEMENT OR OTHER APPROPRIATE ADJUSTMENT AS PROVIDED UNDER THIS WARRANTY SHALL BE THE EXCLUSIVE REMEDY AVAILABLE TO THE ORIGINAL PURCHASER. TOTO®SHALL NOT BE RESPONSIBLE FOR LOSS OF THE PRODUCT OR FOR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OR EXPENSES INCURRED BY THE ORIGINAL PURCHASER, OR FOR LABOR OR OTHER COSTS DUE TO INSTALLATION OR REMOVAL, OR COSTS OF REPAIRS BY OTHERS, OR FOR ANY OTHER EXPENSE NOT SPECIFICALLY STATED ABOVE. IN NO EVENT WILL TOTO'S®RESPONSIBILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTIES, INCLUDING THAT OF MERCHANTABILITY OR FITNESS FOR USE OR FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED.

TOTO®

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