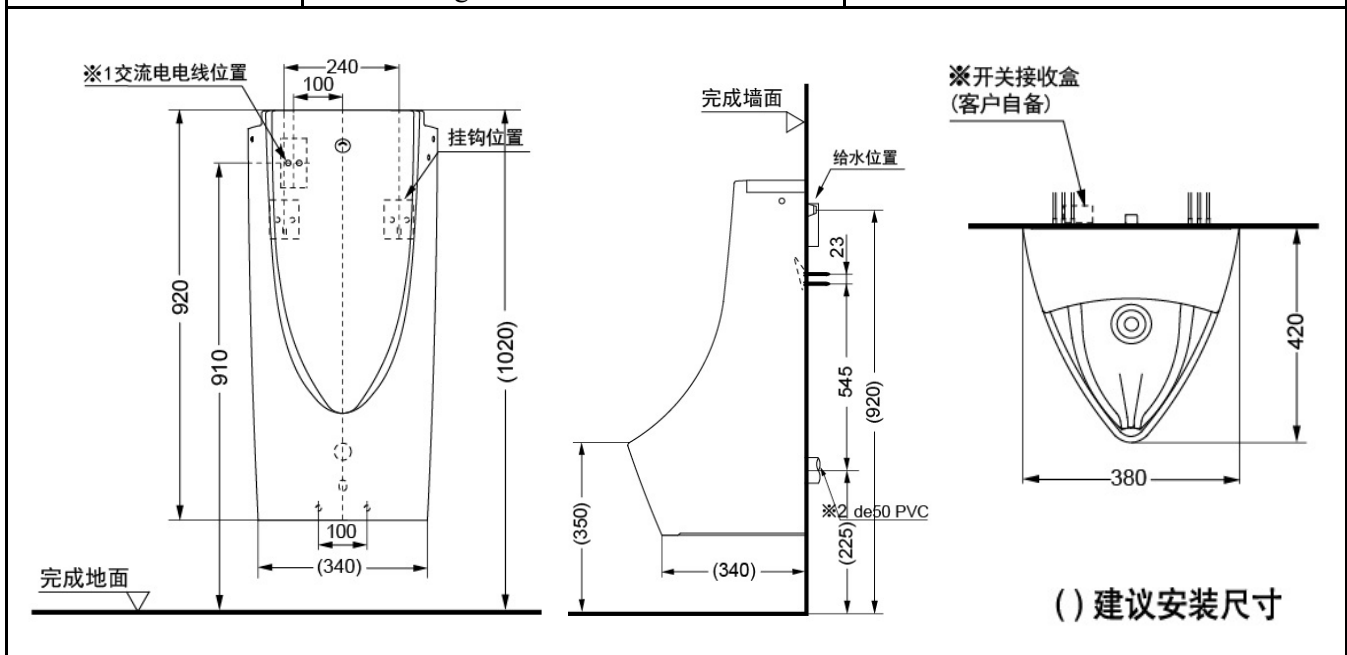




PROJECT		REF		REV	ITEM CODE	
LOCATION		DATE			PAGE	

SANITARY WARE SPECIFICATION SHEET

Item Descriptions	TO TO (Japan) Vitreous china wall hung integrated sensor urinal with full plastic pipeline for sea water ; AC operated ;nominated flow rate 0.4 LPF in WELS Grade 1 ; Registration No.: 1U 20-0001	<p>Illustration/ Drawing</p>
Dimensions	W420 x D380 x H920 mm	
Model	USWN900HE	
Materials / Colour	Vitreous China / White	
Manufacturer	TO TO (Japan)	
Source	Ka Shing Enterprises (H.K) Limited Mr. Ivan Lau / Mr. GilmanYuen	
Contact Tel/Fax	(852) 2628-0661 / (852) 2490-2700	
E-mail	project@kashingehk.com	
Website	www.kashingehk.com	



Note:

* All information of the above is for the reference only. No prior notice is made if any changes.

註冊號碼 (Registration No.): 1U 20-0001



自願參與用水效益標籤計劃 - 小便器用具
Voluntary Water Efficiency Labelling Scheme - Urinal Equipment



Certificate of Registration

註冊證書

茲證明

This is to certify that

將下列小便器用具在本計劃內註冊：
has registered the following urinal equipment under this scheme:

牌子 / Brand	:	TOTO
型號 / Model	:	WHP147+WHP148 (with urinal USWN900HE/H)
種類 / Category	:	1
原產地 / Country or Region Origin	:	China (Urinal & Flushing Valve)

在用水效益標籤上展示的標誌

Symbolic Presentation on the Water Efficiency Label



滴水點

Water droplet(s)

用水效益級別

Water Efficiency Grade

1

沖水量

Water Flush Volume

0.4

公升/循環

litres/cycle

簽發日期:

Date of Issue:

20 March 2020



水務署

Water Supplies Department



水務署署長(張業駒代行)

for Director of Water Supplies

· 上述小便器用具具有智能功能，並且能達至額外節省用水。

The above urinal equipment is operated with a smart demand operation to achieve additional water saving.



水務署
Water Supplies Department

總部 Headquarters
香港灣仔告士打道七號入境事務大樓 48 樓
48/F, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔號 : (20) in WSD 3321/19 T/J(479/2019)
Our ref.
來函檔號 :
Your ref.

電話 :
Tel.
傳真 : 2824 0578
Fax.



20 December 2019

Dear Sir,

**Approval of "TOTO" Sensor Flush Valve
(General Acceptance No. C20190617F)**

Your letter ref. L-TT-8122 dated 21 May 2019 and subsequent submissions received by this department up to 3 December 2019 refer.

Having considered the test report ref. 181438PC190008H issued on 28 November 2019 by Fugro Technical Services Limited, this Authority accepts that the fitting described below complies with, and its use when correctly installed does not contravene, the Waterworks Ordinance and Regulations.

Name of Manufacturer: TOTO Eastchina Co Ltd
Country of Origin: the Mainland of China
Brand: TOTO
Details of Fitting: 1/2" Sensor flush valve for urinal
Model: WHP147 + WHP148
Body Markings: TOTO
Expiry Date: 9 October 2024



Proviso: As the fitting has not been tested for use in contact with water intended for human consumption, the fitting can only be used in flushing water plumbing system.

This Authority hereby permits the use of the above fitting in flushing water plumbing systems subject to full adherence to Waterworks installation requirements. In particular, you are required to draw your customers' attention to the following requirement-

“Installation of filter before flushing valve is required. Without the filter, the flushing valve is liable to leak. The installed filter need frequent inspection and cleaning to maintain flushing supply. Normally only public toilets with good management system for maintenance would be considered.”

“A stop cock or gate valve must be installed at the upstream of the fitting for manual isolation of water supply.”

“The design flushing volume of the flushing valve should be compatible with the toilet bowl to ensure that effective clearance can be achieved by a single flush of water.”

“Flushing valve should be used within the range of working pressures specified by the manufacturer.” AND

“Installation of electronic opening and closing sanitary tapware should also comply with the requirements of Electrical & Mechanical Services Department.”

A condition of this acceptance is that the fitting to be installed shall be replicas of the sample as certified by the testing agent mentioned above and without modifications. This acceptance may be withdrawn at any time if the standard of the fitting installed fails to meet that of the approved sample or if the fitting is found to be unsuitable for use in flushing water plumbing systems.

For the use of the fitting in any project, the General Acceptance Number of this letter must be quoted as a means of identification of acceptance of the fitting by this Authority.

TOTO

Auto-cleaning Urinal (USWN900 Series • USWN902 Series)

Install the product properly according to these Work Instructions, to ensure that its functions perform sufficiently.
After installation, provide the customer with a clear explanation of how to use the product.

Safety Precautions (be sure to read to ensure safety)

Read these "Safety Precautions" prior to construction, and install the product correctly. These instructions include a variety of safety indications. These are provided so that the product can be used safely, to prevent harm to customers or others, and to prevent damage to property. These indications and their meanings are as follows:

Indication	Meaning
WARNING	Ignoring the text accompanying this indication and handling the product incorrectly could result in death or serious injury.
CAUTION	Ignoring the text accompanying this indication and handling the product incorrectly could result in serious injury or property damage.

* "Property damage" refers to damage extending to the home/ household property and domestic animals/pets. Types of safety precautions that must be followed are classified using the two following symbols for explanatory purposes.

⊘ Indicates a prohibited use of the product.
⊙ Indicates a required step in the use of this product.
Ⓡ The symbol to the left indicates the action is "REQUIRED."

WARNING
Do not install in locations of high humidity such as bathrooms. Doing so may cause a malfunction or current leak.

People other than repair technicians should never disassemble, repair, or alter the product. Doing so may cause a malfunction, electric shock, or injury.

CAUTION
Always carry out construction work with at least two people. Otherwise, the installer may injure his or her lower back, or drop the porcelain and damage it.

REQUIRED
After construction, be sure to give the product a test run and check that there are no water leaks in any part. Not installing the product properly may cause water leaks that could result in flooding damage to property, such as household belongings.

Included Parts

⊘ Refer to the following and confirm that no parts are missing.

Upper lid		Drain cover	
* e water+ type with sponge			
Urinal	Water supply fixture	Others	
	Shutoff valve (1)	DC Dry Battery only	Hand this over to the customer
	Quick fastener (1)	Battery box (1)	
		Alkaline batteries(2) For Malaysian type, please procure locally.	Installation Manual (1; this document)
			Instruction Manual (1)
Draining Flange			
		M8 nuts (2)	Installation Manual (1)
		Bolt (1)	
		Washer [small] (1)	Tapping screws (4)
			Washer [large] (1) (for urinal)
		P seal (1)	Wood screw set (6 wood screws, 2 washers)
		Back hangers (2)	

Precautions prior to Installation

WARNING
Do not install in locations of high humidity such as bathrooms. Doing so may cause a malfunction or current leak.

REQUIRED
Be sure to install an overcurrent breaker and earth leakage circuit breaker in order to prevent danger.
Electric wire: Use a 600V plastic shielded electric wire or cable (A ø1.6 mm or ø2.0 mm single wire, or 2.0 mm stranded wire).
Insulate and waterproof the power wire connector.
Do not insert the power wire connector inside the device. Doing so may cause electric shock, a current leak, or a fire.

Thoroughly discuss the relevant procedures before performing water and electrical work.

- The power wire is to be provided on-site. (AC type only)
- A grounding wire is not needed, so use a two-core power wire. (AC type only)
- Water supply pressure ranges from 0.07 MPa (0 L/min [dynamic]) at minimum to 0.75 MPa at maximum. Use the product within this pressure range.
- Be especially careful not to damage the surface of the sensor.
- This product is an electrical appliance. Be careful not to spray water on it. The exposure angle and detection distance of the sensor are as shown in the diagram. When installing a handrail or the like in front of the urinal, do so in a way that does not obstruct the detection areas (both the stable detection area and unstable detection area) of the photoelectric sensor. Urinal sensors may mal-operate affected by reflective objects such as mirrors and stainless steel. Cases also happen when ground reflection caused by these items installed vertically even beyond 3m.
- The product may not function in environments exposed to strong sunlight.
- Inverters or other devices that use infrared light could cause malfunctions.
- A water supply inspection has been conducted prior to packaging. There may be some water remaining inside the product, but this is normal.

Exposure angle and detection area For a 300 x 300 mm blank white paper

Parts Names

⊘ USWN900 Series • USWN902 Series

* is for AC type only

As-fitted Drawing

USWN900 Series

(Unit: mm)

USWN902 Series

(Unit: mm)

Construction Procedure

220-240V AC electrical work is required only for the AC type. Be sure to perform construction steps ① through ③ prior to installing the urinal.

* Install the drainage flange according to the included Work Instructions.

Installation Method

1 Mark the switch box installation position (for wet and dry construction)
Mark the center line of the installation position on the foundation wall.

2 Pare the foundation wall down
Pare the foundation wall down according to the dimensions in the diagram.

WARNING
The water supply pipe and power wire must not touch. Doing so may cause a malfunction or current leak.

⊘ Prohibited

* Open a ø15 hole in the decorative board, and pull the power wire inside.
* Install so that the water supply pipe and power wire do not touch.

3 Install the switch box and backfill the foundation wall

Connect the power wire and switch box to the conduit connector, pass the power wire through the conduit, and pull it into the switch box.

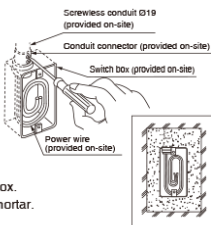
Use a switch box for a single device (no cover).

A grounding wire is not needed, so use a two-core power wire.

Use a screwless conduit (nominal designation, provided on-site).

Leaving around 40 cm of slack outside the box, wind the power wire inside the box.

Fill the area around the switch box with mortar.



4 Install the shutoff valve

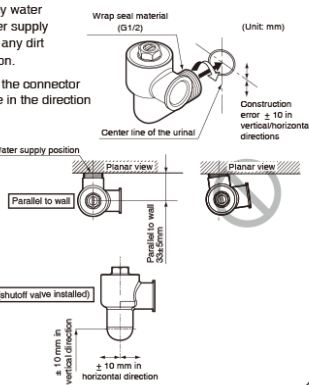


Be sure to supply water through the water supply pipe to flush out any dirt prior to installation.

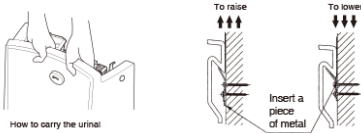
Wrap seal material around the connector and screw the shutoff valve in the direction of the arrow.

Work the shutoff valve so that it is within the construction error tolerance level.

Install the shutoff valve parallel to the wall. There may be cases where parts touch the porcelain and cannot be installed.

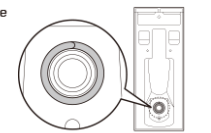


5 Install the urinal unit (continued)



Clean the area around the urinal drainage outlet of dirt and water, then attach the seal ring to the urinal drainage outlet.

Align the centers of the urinal drainage outlet and drainage flange, then hang the urinal unit from the back hanger.



CAUTION

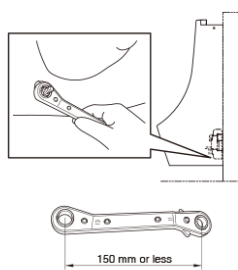
Do not install the urinal unit from the drainage outlet side. Doing so could cause water leaks from the drainage flange that could result in flooding damage to property, such as household belongings.

Fix the flange bolt to the lower part of the urinal with the washer (large) and nut.

The washer (large) and nut are packaged with the drainage flange.

Be careful not to tighten the nut too strongly and crack the urinal unit.

Be careful that the shutoff valve does not strike the urinal unit.



5 Install the urinal unit

Install the back hanger to the location shown in the diagram.

	*1 (size)	*2 (size)	*3 (size)
USWN900 Series	120mm	545mm	225mm
USWN902 Series	95mm	280mm	485mm

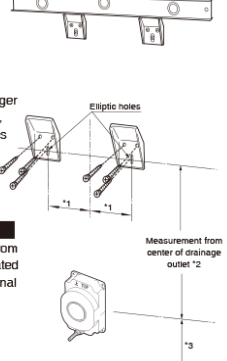
Drill a pilot hole of around Ø3 at the marked installation hole position.

Drilling a pilot hole of around Ø3 will make it easier to work.

Use a level or other instrument to install the back hanger so that its upper surface is level.

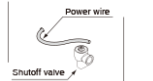
Do not immediately fix the back hanger with the three wood screws; instead, temporarily fix it with the elliptic holes only.

Attach the seal ring onto the urinal for a trial at first. Hang the urinal from the back hanger, adjust it to the indicated position, then fix it in place. If the urinal does not reach the indicated height, loosen the back hanger's wooden screws, then place a metal plate between it and the wall to adjust it.



Key points

Pull the power wire around 25 cm toward the shutoff valve, in order to make it easier to connect the power wire and terminal block.



6 Connect the shutoff valve and valve

CAUTION

Be careful that the valve's O-ring is not dirtied or damaged. If the O-ring is dirtied, damaged, or sticks out, it could cause water leaks that could result in flooding damage to property, such as household belongings.

Use the quick fastener to connect the shutoff valve and valve.

The quick fastener is inside the shutoff valve's box.

<Installation Method>

Remove the hygienic sheet on the valve's O-ring.

Insert the valve straight into the shutoff valve.

Align the recess on the shutoff valve's flange with the projection on the valve's flange, then insert.

Align the flanges on the shutoff valve and valve, then insert the quick fastener.

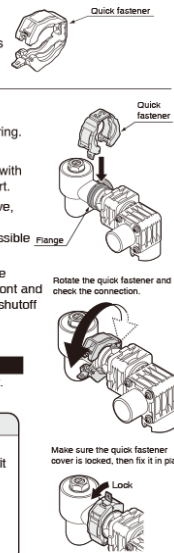
If the valve is not fully inserted, it will be impossible to install the quick fastener.

Confirm that the flange is fully inserted into the recess on the quick fastener, rotate it to the front and rear, then check the connection between the shutoff valve and valve.

CAUTION

If the quick fastener does not rotate smoothly after connecting it, reconnect it. If the quick fastener is not connected properly, water leaks could result in flooding damage to property, such as household belongings.

Install the quick fastener properly, then check visually or through other means.



7 Check for water leaks in the water supply connections

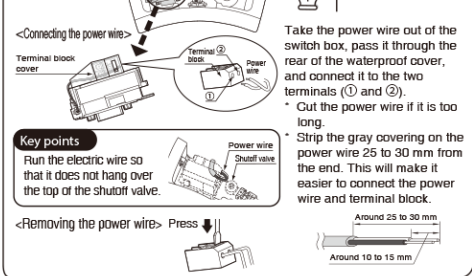
After confirming that there are no pipe connection problems, supply water through the piping, and confirm that there are no water leaks in the connections between the piping and shutoff valve, and between the shutoff valve and valve.

8 Connect the power wire (AC type, e water+ type)

CAUTION
Confirm that no current is applied before connecting the power wire. Failure to do so may cause electrical shock.
The power supply terminal block and primary power supply must be connected by a qualified person only. Failure to do so may cause a malfunction or electric shock.

REQUIRED
When inserting the power wire (VVF) into the terminal block, insert the grounded side of the wire into the white line side, and the non-grounded side of the wire into the black line side. Failure to do so may cause fire.

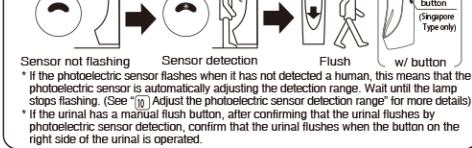
WARNING
When removing the power wire, always be sure to press the white part on the surface of the power supply terminal block with a flat-head screwdriver, then remove the wire.
Pulling the power wire out with unreasonable force may cause damage to the controller.



11 Confirm that the urinal flushes

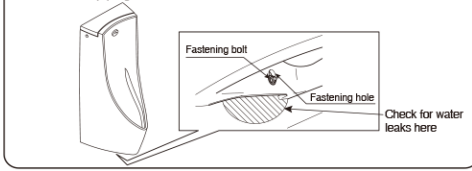
Confirm that the photoelectric sensor's lamp turns off when no human is detected. Trigger the photoelectric sensor and confirm that the urinal flushes. Please adjust the stop-valve flow if the water can't reach the front end of the urinal when flushing.

AC type units will automatically flush the urinal immediately after electric current is applied. Confirm the above once automatic flushing is complete immediately after electric current is applied.



12 Check for water leaks in the drainage connections

After confirming that there are no pipe connection problems, supply water through the piping, and confirm that there are no water leaks in the connections between the piping and shutoff valve, and between the shutoff valve and valve.



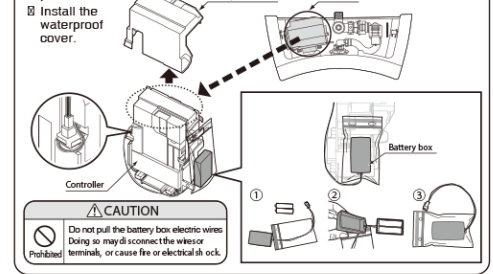
13 Configure preliminary flushing (switch as needed)

CAUTION
Do not remove the terminal block cover covering the terminal block. Touching the terminal block may cause electrical shock.

The preliminary flushing switch is set to "OFF" by default.

9 Insert battery (DC Dry Battery type only)

Remove the waterproof cover.
Insert the alkaline battery into the battery box, then connect the controller connector and battery box connector.
For 10 minutes after connecting the battery box, the LED flashes during photoelectric sensor detection to enable the detection status to be confirmed. The lamp does not flash even when it detects something after this 10 minute period.



10 Adjust the photoelectric sensor detection range

The detection range is automatically adjusted when the power is turned on.
The photoelectric sensor's automatic detection range adjustment function operates soon after power is activated. If the photoelectric sensor lamp continues to flash or stay lit when the unit detects something other than a human, this means that the detection range is currently being adjusted. Be careful that the sensor is not triggered by a human before the lamp turns off.
If a human is detected when the lamp is flashing or lit, it will take longer to adjust the detection range. Adjustment is complete when the lamp turns off.
DC Dry Battery type flashes; AC type stays lit.



13 Configure preliminary flushing (continued)

Remove the waterproof cover.
Slide the controller up.
Open the setting switch cover on the controller, and turn switch 1 ON.
After setting the switch, return the waterproof cover, controller, and setting switch cover to their original positions.
Switches 2 through 4 have no effect on the preliminary flushing setting. If switches 2 through 4 are mistakenly turned ON, be sure to turn them OFF.

14 Install the upper lid

Hold the fastening fixture down from inside the urinal, then use a hex wrench (nominal designation 4) to loosen the decorative bolt.
Bring the decorative bolt to the outside. (Reference: Gap of approximately 8 mm)
While pressing the sponge attached to the rear surface of the upper lid against the wall, place the lid.
There are fastening fixtures on both ends.
Use a hex wrench to turn the decorative bolt, then fasten the urinal unit and upper lid.
Be careful not to tighten the decorative bolt too strongly and crack the urinal unit or upper lid.
If there is a gap between the upper lid and urinal unit after fastening the upper lid, loosen the decorative bolt, then tighten both sides again equally until there is no gap.
Install only the upper lid that came packaged with the unit. The upper lid and urinal unit are manufactured together as a single unit. Using an upper lid other than the one packaged with the unit could cause looseness.
Use the numbers on the number stickers attached to the storage side surface of the urinal unit and the underside of the upper lid to check the combination.
If the fastening fixture is removed, refer to the diagram to the left for assembly.

