Since 1949
Acme Sanitary Ware Co. Ltd.
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STERN ENGINEERING LTD.

PROJECT		REF		REV	ITEM CODE	
LOCATION		DATE			PAGE	

SANITARY WARE SPECIFICATION SHEET

Item Descriptions	Stern (Israel) "Wave sensor" **Concealed** faucets sensor in DC Supply with 9V battery box
Dimensions	L57 x W35 x H35 mm
Model	Wave kit for faucets
Code Number	620400
Finish	Chrome Plated
Source	Acme Sanitary Ware Co. Ltd Mr. Eric Wong/ Mr. Wilson Hung
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Illustration/ Drawing

WAVE ON-OFF SENSOR KIT FOR FAUCETS Ref # 620400
Touch free electronic wave on-off sensor kit for faucets.Includes a wave on-off sensor unit, solenoid valve with housing and power supply. Filter included. The following settings can be changed by using the Stern remote control: Sensor Range, Delay In, Delay Out and On-Off.

Application:
Allows quick and easy modification of almost any traditional sanitary ware into an automatic touch-free one. This solution is ideal for installations where the selected location for the sensor is not necessarily close to the faucet spout. Being modular, it fits any interior and can be integrated with any existing water outlet.

Use:
Water will be delivered automatically when the user places a hand within a close distance of the sensor eye. A factory default flow cycle of 8 seconds will be completed.Please note: the system allows stopping the water flow before the default flow time has passed by placing a hand within a close distance of the sensor eye again.

TECHNICAL DATA

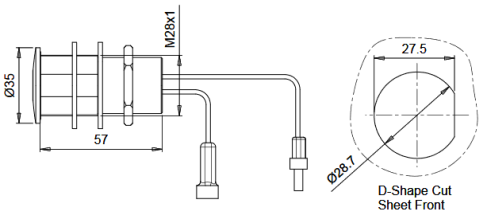
Product control:	Wave on-off sensor
Power Supply:	9V battery or 9V transformer
Recommended water pressure:	0.5-8.0 bar (7-116 PSI) With water pressure of more than 8 bars, use a pressure reducing valve
Hot water temperature:	Max 70° C.
Min. sensor range	**50 mm**
Max. sensor range	**200 mm**
Default flow time:	**8 seconds**
Programmable flow time:	**1 – 60 seconds**

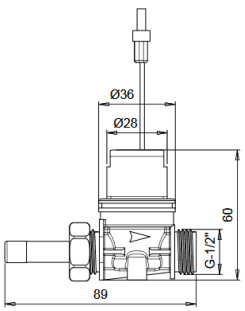
Water supply:
Cold or premixed water (1 inlet)

Water temperature:
Max 70°C

Operating pressure:
0.5 - 8.0 bar

Power source:
9V Battery





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

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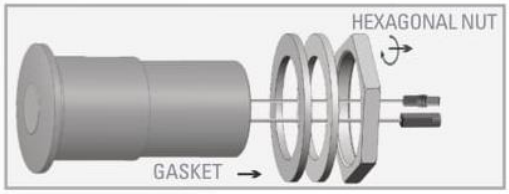
INSTALLATION

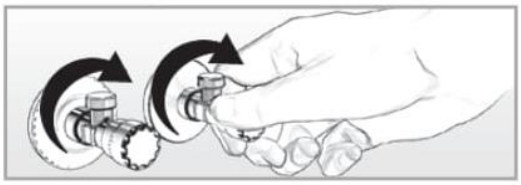
WAVE ON-OFF

STEP 1 - PREPARATION FOR INSTALLATION

1. Remove the hexagonal nut, disk and gasket from the switch body.

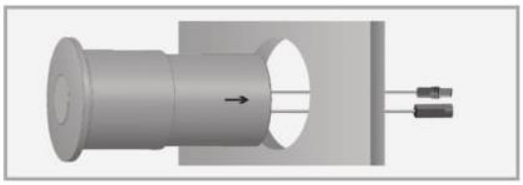


2. Shut off the water supply

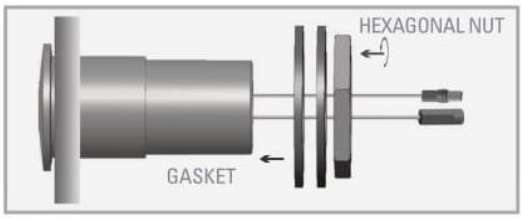


STEP 2 – INSTALLING THE SYSTEM

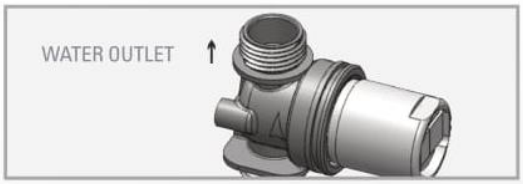
1. Place the sensor at its designated location.



2. Slide the hexagonal nut, disk and gasket over the sensor body and secure them into place.

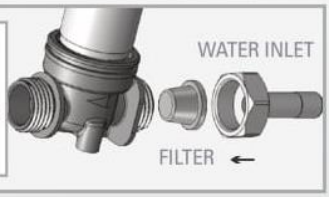


3. Connect the water outlet to the solenoid valve housing.



4. If your system is provided with an inlet nipple, fit the water supply inlet to the inlet nipple at the solenoid valve housing or connect it directly to the shut off valve.

NOTE: Make sure that the filter is installed between the solenoid valve housing and the shut off valve (angle valve) (not supplied).



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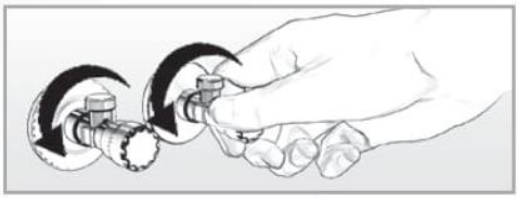
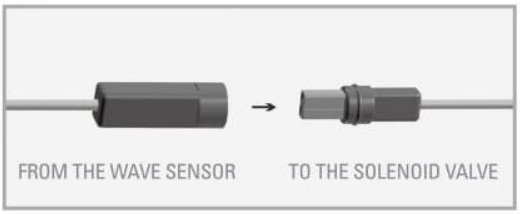
INSTALLATION

WAVE ON-OFF

5 Turn on the central water supply and the shut-off valves (angle valves) and check for leaks.

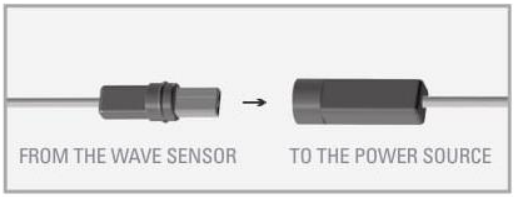


6 Connect the water proof connector coming from the wave sensor to the solenoid valve connector.



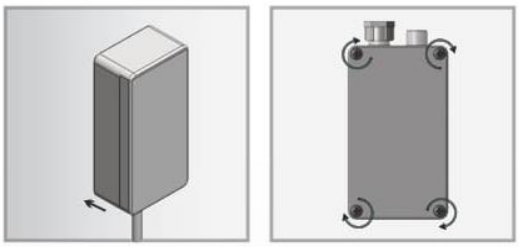
STEP 3 – CONNECTING THE POWER SOURCE

Connect the water proof connector coming from the wave sensor to the power source.



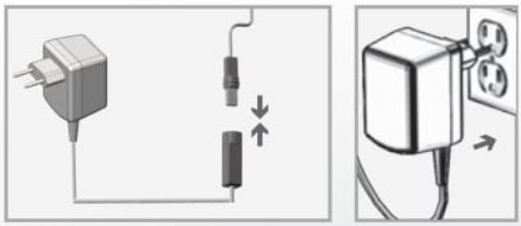
FOR BATTERY MODELS:

Install the battery box at the wall using the screws or the two sided adhesive foam tape.



FOR TRANSFORMER MODELS:

a. Connect the water proof connector coming from the wave sensor to the transformer.
b. Plug the transformer into the electrical socket.



IMPORTANT: In order to avoid going into adjusting mode, wait 10 seconds before operating the system.

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TROUBLE SHOOTING

PROBLEM	INDICATOR	CAUSE	SOLUTION
No water coming out of the faucet:	1.Sensor flashes continuously when user's hands are within the sensor's range.	Low battery.	Replace battery.
	2. Red light in the sensor does not flash once when user's hands are within the sensor's range.	1. Range is too short.	Increase the range.
		2. Range is too long.	Decrease the range.
		3. Battery is completely used up	The battery must be replaced.
		4. Unit is in "Security Mode"*	
		5. Sensor is picking up reflections from the washbasin or another object.	Eliminate cause of reflection.
	3. Red light in the sensor flashes once when user's hands are within the sensor's range.	1. Connectors between the electronic unit and solenoid are disconnected.	Connect the electronic unit connectors to the solenoid.
		2. Debris or scale in solenoid.	Unscrew solenoid, pull out the plunger and the spring from the solenoid and clean them. Use scale remover material if needed. **When replacing the plunger, please make sure that the spring is in vertical position.**
		3. The central orifice in the diaphragm is plugged or the diaphragm is torn	Clean the orifice or replace diaphragm.
		4. The water supply pressure is higher than 8 bar.	Reduce the supply water pressure.
		5. The water supply pressure is under 8 bars and yet the pressure in the faucet's body is higher. This situation could be caused by a sudden increase in the water supply pressure that the backcheck prevents from dropping, even after water supply pressure drops under 8 bars.	Shut off water supply and unscrew one of the flexible pipes in order to reduce the pressure that blocks the product.
Water flow from spout does not stop:	1. Sensor flashes once when user's hands are within the sensor's range.	Debris or scale in diaphragm	Clean the orifice or replace diaphragm.
	2. Red light in the sensor does not flash once when user's hands are within the sensor's range.	1. Sensor is dirty or covered.**	Clean or eliminate case of interference.
		2. Sensor is picking up reflections from the washbasin or another object.	1. Decrease the range or eliminate cause of reflection.
Water flow diminished		Filter or aerator is clogged	Remove, clean, re-install

* "Security Mode": If the sensor is covered for more than 90 sec. the faucet will automatically shut off water flow. To return to normal operation remove any blockage.

** In this case, the water flow will stop anyway after 90 seconds because of the security time.