

INSTALLATION AND MAINTENANCE GUIDE



APS KIT FOR SHOWERS

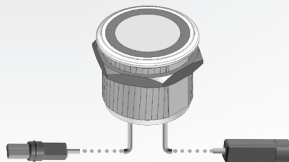
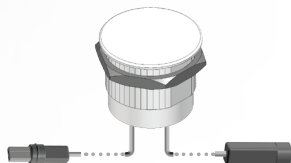
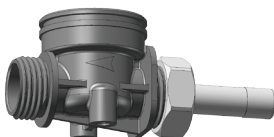
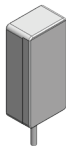
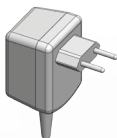
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TECHNICAL DATA

Product control:	Touch using Piezo technology
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.
Default flow time:	2 minutes
Programmable flow time:	1 – 2600 seconds

KIT ASSEMBLY

ILLUMINATED PIEZO SWITCH		OR	NON ILLUMINATED PIEZO SWITCH		
					
ACETAL SOLENOID		OR	INTEROPERABLE SOLENOID		
					
SOLENOID HOUSING AND ATTACHMENTS					
					
POWER SUPPLY OPTIONS					
	9V BATTERY BOX		9V TRANSFORMER		IP67 BATTERY BOX
	IP67 TRANSFORMER				
		IP68 ENCAPSULATED TRANSFORMER		IP68 SWITCHING TRANSFORMER	

PRE INSTALLATION INFO

Check contents

Separate all parts from the packaging and check each part with the kit assembly section.

Make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not attempt to install the system until you obtain the missing parts.

Preparation for Installation

Flush water supply lines thoroughly before installing the system. Do not allow dirt, Teflon tape or metal particles to enter the solenoid valve.

Shut off the water supply.

Important:

All plumbing is to be installed in accordance with applicable codes and regulations.

OPERATION

Once the kit is installed and connected to the water supply:

For a non illuminated Piezo switch touch the center of the switch surface.

For a ring illuminated piezo switch touch the center of the switch surface in the middle of the light ring.

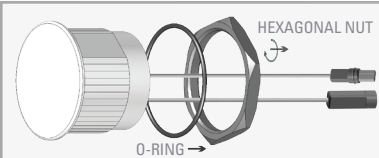
A factory default flow cycle of 120 seconds will be completed and if your system consists of a ring illuminated piezo switch, the ring of light will blink while water runs out of the system.

Please note: The system allows stopping the water flow before the default flow time has passed by touching the designated area again.

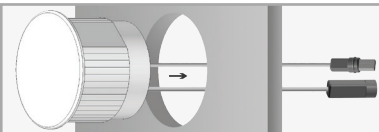
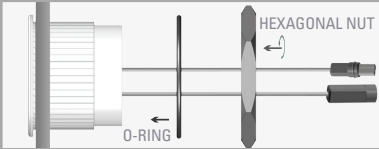
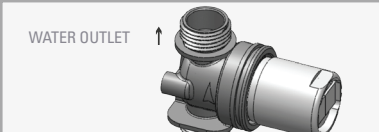
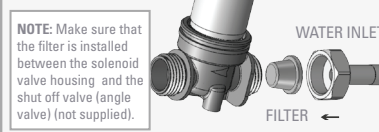
In order to adjust the flow time according to the project needs, please refer to page 5.

INSTALLATION

STEP 1 - PREPARATION FOR INSTALLATION

1	Remove the hexagonal nut and o-ring from the switch body.	
2	Shut off the water supply	

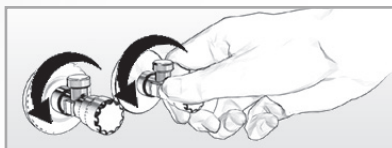
STEP 2 – INSTALLING THE SYSTEM

1	Place the switch at its designated location.	
2	Slide the hexagonal nut and o-ring over the switch body and secure it.	
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). 

INSTALLATION

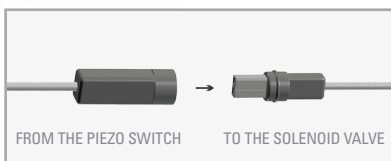
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Turn on the central water supply and the shut-off valves (angle valves) and check for leaks.



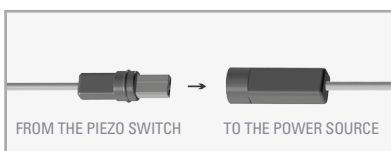
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Connect the water proof connector coming from the piezo switch to the solenoid valve connector.



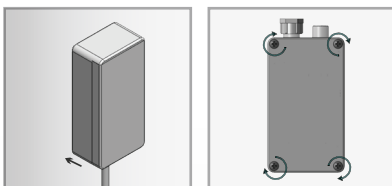
STEP 3 – CONNECTING THE POWER SOURCE

Connect the water proof connector coming from the piezo switch to the power source.



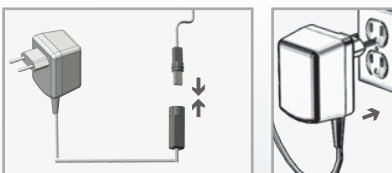
FOR BATTERY MODELS:

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



FOR TRANSFORMER MODELS:

- Connect the water proof connector coming from the piezo switch to the transformer.
- Plug the transformer into the electrical socket.



IMPORTANT: In order to avoid going into the flow time adjustment, wait 10 seconds before operating the system.

FLOW TIME ADJUSTMENT

Adjustment levels

The flow time is programmable on site. If necessary, the default flow time of 2 minutes can be adjusted to any value between 5 to 2600 seconds. The adjustment mechanism is composed by 3 adjustment levels for changing the flow time. An indicator light (LED) will guide you from one level to the other.

The following table shows the number of steps in each level, the duration at each step and how to recognize in what adjusting level you are.

	Level 1	Level 2	Level 3	Level 4 enables the hygiene flush option when available	Out of adjusting mode
No. of steps	100 steps	100 steps	100 steps		
Seconds to be increased by touching once	1 second	5 seconds	20 seconds		
Adjustment level indicator	After entering into adjusting mode level 1 is reached	Indicator light blinks twice	Indicator light blinks 3 times	Indicator light blinks 4 times	Indicator light blinks 5 times

How to adjust the flow time at Non- illuminated piezo switches

- 1) If you wish to see the indicator light located at the back of the piezo switch yourself disconnect the hexagonal nut and o-ring from the piezo switch base and pull it out of its location.
- 2) Disconnect the power source and piezo switch connectors.
- 3) Touch the piezo switch twice.
- 4) Then, reconnect the power source and piezo switch connectors.
- 5) The indicator red light (LED) on the back of the Piezo switch will start blinking. After a few blinks the LED will give a steady red light. Touch the Piezo switch when the steady red light is still on to enter into the adjusting mode. When done correctly, the light will stop blinking.

FLOW TIME ADJUSTMENT

Note: If you do not press the indicated area, the previous adjustment will remain.

6) By touching the Piezo switch a new flow time can be programmed. In adjusting mode level 1, each touch increases the flow time by 1 second with a maximum of 100 seconds. You will see the LED blinking every time that a new step is performed.

7) If your desired flow time is within 100 seconds, no other adjusting levels are needed and you can stop pressing the Piezo switch. The LED will blink 2 times, then 3 times and after 4 times you will exit the adjusting mode. The Piezo switch is now adjusted to the desired flow time.

8) If you need to perform steps at adjusting level 2, wait after you see the LED blink twice and then, perform the needed quantity of steps (with a maximum of 100 steps of 5 seconds).

If you do not need more levels, stop pressing. The indicator light will blink 3 times and after 4 times you will leave the adjusting mode. The Piezo switch is now adjusted to the desired flow time.

9) If you need to perform steps at adjusting level 3, wait after you see the LED blink 3 times and then, perform the needed quantity of steps (with a maximum of 100 steps of 20 seconds).

10) To leave the adjusting mode wait until the LED blinks 4 times. The Piezo switch is adjusted to the desired flow time.

FLOW TIME ADJUSTMENT

How to adjust the flow time in illuminated piezo switches

- 1) Disconnect the hexagonal nut and o-ring from the piezo switch base and pull it out of its location.
- 2) Disconnect the power source connectors.
- 3) Touch the piezo switch twice.
- 4) Then, reconnect the power supply.
- 5) The ring of light in the Piezo switch will start blinking. After a few blinks the ring of light will give a steady light. Touch the Piezo switch when the steady light is still on to enter into adjusting mode. When done correctly, the ring of light will stop blinking.

Note: If you do not press at the indicated area, the previous adjustment will remain.

6) By touching the Piezo area in the middle of the light ring in the Piezo switch the new flow time will be programmed. In adjusting mode level 1, each touch increases the flow time by 1 second with a maximum of 100 seconds. You will see the light blinking every time that a new step is performed.

7) If your desired flow time is within 100 seconds, no other adjusting levels are needed and you can stop pressing the Piezo switch. The light will blink 2 times, then 3 times and after 4 times you will exit the adjusting mode. The Piezo switch is now adjusted to the desired flow time.

8) If you need to perform steps at the adjusting level 2, wait until you see the light blinking twice and then, perform the needed quantity of steps (with a maximum of 100 steps of 5 seconds)

9) If you do not need more levels, stop pressing. The light will blink 3 times, and after 4 times you will exit the adjusting mode. The Piezo switch is now adjusted to the desired flow time.

10) If you need to perform steps at the adjusting level 3, wait after you see the light blinking 3 times and then, perform the needed quantity of steps.(with a maximum of 100 steps of 20 seconds)

11) To exit the adjusting mode wait until the light blinks 4 times. The Piezo switch is now adjusted to the desired flow time.

24 HOURS DUTY FLUSH OPTION

24 HS ANTI-LEGIONELLA / ANTI FREEZE DUTY FLUSH CYCLE OPTION

This anti-Legionella / anti freeze feature provides an automatic duty flush cycle for 2 minutes if the shower has not been used in the previous 24 hours.

This feature is optional and is ideal for buildings such as schools where the shower installations are often vacant for long periods. The duty flush cycle maximizes hygiene, and prevents frozen pipes during the cold winter months.

In order to activate this option proceed as follows:

- 1) Disconnect the power supply (batteries or transformer).
- 2) Wait ten seconds.
- 3) Reconnect the power supply.
- 4) The indicator light (LED) on the back of the piezo button will start blinking. After a few blinks the LED will give a steady red light. Touch the designated area at the Piezo button when the steady red light is still on to enter into adjusting mode. When done correctly, the light will stop blinking.

Note: If you will not press at the indicated area, the previous settings will remain.

- 5) To enable the automatic duty flush option you need to arrive directly to the adjustment level 4 (please see the adjustment levels table at page 5).

Once you have entered into the adjusting mode following steps 1 to 5, wait until the LED blinks 2 times, then 3 times and 4 times. Immediately after the LED blinks 4 times touch the piezo button once. This will enable the hygiene flush option. To leave the adjusting mode wait until the LED blinks 5 times. Now this option is activated. If the shower will not be used for 24 hours, a single 2 minutes hygiene flush will take place.

WARNING! A safe hot water temperature control is needed

This anti-Legionella / anti freeze feature is automatic and is intended to be used with cold or premixed water only. A thermostatic mixing valve (TMV) must be used to provide safe hot water temperatures and prevent scalding.

MAINTENANCE

Filter cleaning instructions

The system is provided with one stainless steel filter preventing foreign particles to enter the lines. If the water flow has decreased, this may be because the filter is clogged. The filter can be cleaned as follows:

1. Shut-off the water shut off valve.
2. Disconnect the flexible pipe.
3. Remove the filter and wash it under running water.
4. Reassemble the parts.
5. Reconnect the flexible pipe and restore the incoming water supply.
6. Make sure that there is no water leakage.

Care and cleaning of the piezo surface

DO NOT use steel wool or cleansing agents containing alcohol, acid, abrasives, or the like. Use of any prohibited cleaning or maintenance products or substances could damage the surface of the Piezo switch. For surface cleaning of the switch use **ONLY** soap and water, then wipe dry with clean cloth or towel. When cleaning bathroom tile, the switch should be protected from any splattering of harsh cleansers.

SERVICE CHECK LIST

No water is coming out of the faucet

Check the batteries. Low or used up batteries.
Replace the batteries.

Check the flow time. See page 5.

Check the connection between the piezo switch connector and the solenoid connector.

Check that the battery box is correctly connected.

Check the solenoid valve for debris or scale.
Unscrew the solenoid valve, pull out the plunger and the spring and clean them.

Use scale remover if needed. When replacing the spring, make sure that it is in vertical position.

Check the diaphragm. If needed, clean the orifice or replace it.

Check the water supply pressure. It must be 0.5-8.0 bar (7-116 PSI) . With water pressure of more than 8 Bars, use a pressure reducing valve.

Check the connection between the solenoid housing and the water outlet.

Check the flow time. If needed adjust it following the instructions at page 5.

Check the solenoid valve for debris or scale.
Unscrew the solenoid valve, pull out the plunger and the spring and clean them.

Use scale remover if needed. When replacing the spring, make sure that it is in vertical position.

Water flow does not stop

Water flow diminished

Check the filter. If needed, remove it, clean it and reinstall it. See page 7.

LIMITED WARRANTY

The manufacturer warrants that its electronic faucets, flush valves and controls will be free of defects in material and workmanship during normal use for two years from the date the product is purchased.

If a defect is found in normal use, the manufacturer will, at its discretion, repair, provide a replacement part or product, or make appropriate adjustments. Damage caused by accident, misuse, or abuse is not covered by this warranty. Improper care and cleaning will void the warranty. Proof of purchase (original sales receipt) must be provided to the manufacturer with all warranty claims.

The manufacturer is not responsible for labor charges, installation, or other incidental or consequential costs other than those noted above. In no event shall the liability of the manufacturer exceed the purchase price of the faucet, valve or control.

If you believe that you have a warranty claim, contact your Distributor, Dealer or Plumbing Contractor. Please be sure to provide all pertinent information regarding your claim, including a complete description of the problem, the product, model number, the date the product was purchased, from whom the product was purchased and the installation date. Also include your original invoice.

THE MANUFACTURER AND/OR SELLER DISCLAIM ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. This warranty excludes product damage due to installation error, incorrect maintenance, wear and tear, battery, water composition, product abuse, or product misuse, whether performed by a contractor, service company, or the consumer. This warranty does not cover product damage caused by the following:

- Incorrect installation, inversions of supply pipes.
- Pressures or temperatures exceeding recommended limits.
- Improper manipulation, tampering, bad or lapsed maintenance.
- Foreign bodies, dirt or scale introduced by the water supply.



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