

# Smart Water Valve+Meter

## Product Manual

### Installation precautions:

- Adhere to all relevant local codes and ordinances as they pertain to the Smart Water Valve+Meter. You are required to consult local plumbing codes and have appropriate licensing for the installation of this device.
- Never insert fingers or any other item into the valve. Inserting objects into the valve may result in damage or injury.
- The Smart Water Valve+Meter should only be powered using the supplied power adapter (Supports mains voltage: 100-240 VAC ~50/60 HZ). DO NOT APPLY POWER TO THE SMART WATER VALVE+METER UNTIL THE UNIT IS FULLY ASSEMBLED.

### In the box:


- *Control unit with cable harness*
- *Brass valve+meter*
- *Actuator*
- *Power adapter*
- *Wall bracket*
- *Wall anchors & screws (x2)*

### Additional Parts Requirements:

*Installation of the Smart Water Valve+Meter will require additional fittings to connect the ends of brass valve+meter to the pipe. The type of fittings needed will depend on the pipe material, pipe size, threading type, industry standards and applicable plumbing codes. Please see the "Specifications" section of the product packaging for more information on the pipe size and thread type of your specific Smart Water Valve+Meter.*

### Smart Water Valve+Meter Overview:

#### Buttons:

- Networking  : Places the device into learn mode. This button is also used to factory reset the device. See "Resetting the Smart Water Valve+Meter to Factory Default Settings".
- Open: Opens the valve.
- Close: Closes the valve.
  - The Close button can also be used to silence the buzzer in the case of a leak event. Press and hold for 5 seconds to silence the buzzer

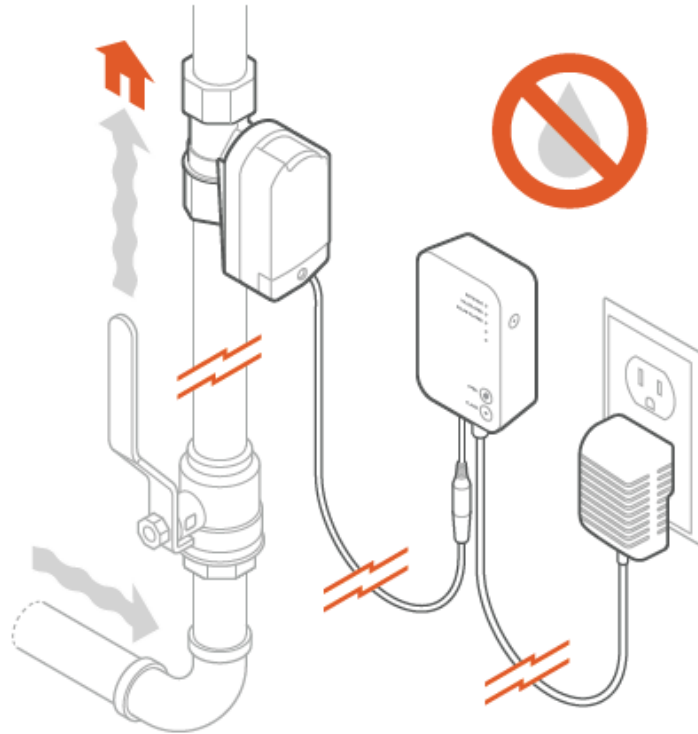
#### LEDs:

- Network
  - On– Added to a Z-Wave network
  - Blinking– In learn mode
  - Off– Not added to a Z-Wave network
- Valve Open
  - On– Open
  - Blinking– Opening
  - Off– Closing or closed
- Valve Closed
  - On– Closed
  - Blinking– Closing
  - Off– Opening or open
- Flow
  - On- Water is flowing
  - Off – No water is flowing and no hardware events active
  - Blinking – Hardware event active
    - 2 Blinks – High flow sensor failure
    - 3 Blinks – Low flow sensor failure
    - 4 Blinks – Actuator failure
    - Steady Blink – Low flow calibration in progress
- Alert
  - Off – No active events
  - Blinking - Flow/temperature event active
    - 2 Blinks – High flow event
    - 3 Blinks – Medium flow event
    - 4 Blinks – Low flow event
    - 5 Blinks – Temperature event

Note: If all LEDs are off, the device has no power. All LEDs will flash for five seconds during a factory reset.

Installation location:

### Installation location



*[Need to modify to include SWVM brass + Cable Harness]*

*NOTE: Water shutoff valves and leak detection devices should NEVER be installed on a fire suppression system.*

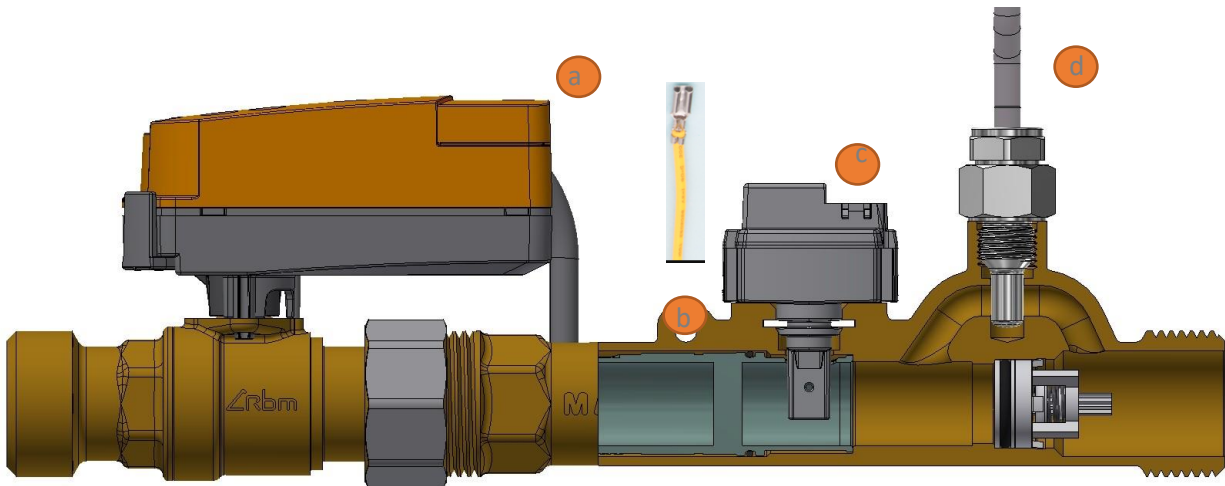
The Smart Water Valve+Meter must be installed:

- In a dry, indoor location.
- Downstream from the main shut-off valve on the desired water supply line.
- With the control unit located above the brass valve+meter. Use drip loops wherever possible to avoid damaging the electronics in the event of a leak.
- In compliance with all local plumbing and electrical codes.
- Within 20 feet of a wall outlet.
- Easily visible and accessible to the end user.

## Installation

### Installing the Smart Water Valve+Meter

1. Shut off the water supply line and drain the system.
2. Install the brass valve+meter in the desired water supply line using the appropriate fittings. See "Location" section for information on selecting a suitable installation location.
3. After installing the brass valve+meter, turn the water supply on and ensure there are no leaks originating from the brass or connections to the brass.
4. Connect the actuator to the brass valve+meter. Line up the posts on the actuator with the holes on the brass valve+meter and press until it snaps into place.
5. Connect the cable harness to the brass valve+meter
  - a. Connect the black VALVE cable to the actuator. Tighten the screw connector to ensure a secure connection.
  - b. Connect the green GROUND cable to the ground cable connection on the brass valve+meter.
  - c. Connect the black HIGH cable to the high flow sensor. Ensure that the tabs on the connector are fully engaged on the high flow sensor.
  - d. Connect the red LOW cable to the low flow sensor. Tighten the screw connector to ensure a secure connection.



NOTE: The blue PULSE cable is reserved for future use with pulse meters. You may safely leave this cable disconnected.[Show connections and cable harness]

6. Use the included wall bracket and anchors (if applicable) to mount the control unit above the brass valve+meter so the LEDs and buttons are visible and easily accessible.
7. Connect the power supply to the locking connector on the control unit. Rotate the connector clockwise to lock the power supply in place.

8. Plug the power supply into the nearest unswitched wall outlet. If possible, create a drip loop in the power cable. Verify that the Smart Water Valve+Meter is on by checking that the "Valve Open" or "Valve Closed" LED is illuminated. If no LEDs are illuminated, try a different power outlet.
9. Manually testing the Smart Water Valve+Meter
  - a. Open a tap or faucet downstream of the Smart Water Valve+Meter.
  - b. Press the "Close" button and wait for the "Valve Closed" LED to turn solid. Check that the valve has closed by verifying that no water is flowing from the fixture opened in (a).
  - c. Press the "Open" button and wait for the "Valve Open" LED to turn solid. Check that the valve has opened by verifying that water is flowing from the fixture opened in (a).
  - d. Verify that the Flow LED is illuminated when water is flowing.
  - e. Close the tap or faucet opened in step (a).
  - f. Verify that the Flow LED has turned off.
10. Add the Smart Water Valve+Meter to the Z-Wave network (see section "Adding the Smart Water Valve+Meter to the Z-Wave Network").

### Adding the Smart Water Valve+Meter to the Z-Wave Network:

*TIP: For best results, we recommend bringing the Z-Wave controller into the area where the Smart Water Valve+Meter is installed.*

1. Put the Z-Wave controller in add mode. Refer to controller documentation for more information.
2. Press the Networking [Insert Radio Icon] button on the side of the Smart Water Valve+Meter control unit to begin the add process. The network LED on the control unit will begin flashing.
3. After the Smart Water Valve+Meter is successfully added, the network LED on the control unit will turn solid. If the network LED is not illuminated after the add process, repeat steps 1 and 2.

***This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All non-battery-operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.***

### Troubleshooting:

*The Smart Water Valve+Meter is not communicating with the Z-Wave controller:*

1. Remove power from the Smart Water Valve+Meter. Wait at least 2 minutes before reapplying power and reattempting communication with the Z-Wave controller.
2. If Step 1 does not resolve the issue, try excluding the device from the network (see "Removing the Smart Water Valve+Meter from the Z-Wave Network") and re-adding

it to the network.

3. If Step 2 does not resolve the issue, we recommend installing a Z-Wave Repeater nearby and performing a Z-Wave network rediscovery.

*TIP: Any wall powered Z-Wave device will act as a Repeater and improve the range between the Z-Wave Controller and the Z-Wave device you are installing.*

### Removing the Smart Water Valve+Meter from the Z-Wave network:

*TIP: For best results, we recommend bringing the Z-Wave controller into the area where the Smart Water Valve+Meter is installed.*

1. Put the Z-Wave controller in Remove mode. Refer to the controller documentation for more information.
2. Press the networking [Insert Radio Icon] button on the side of the Smart Water Valve+Meter control unit to begin the remove process. The Nnetwork LED on the control unit will begin flashing.
3. After the Smart Water Valve+Meter is successfully removed from the Z-Wave network, the Network LED on the Control Unit will turn off. If the Network LED is still illuminated after the removal process, repeat Steps 1 and 2.

### Resetting the Smart Water Valve+Meter to factory default settings:

*Caution: Resetting the Smart Water Valve+Meter to its factory default settings will cause the device to remove itself from the network and restore all settings to their default values.*

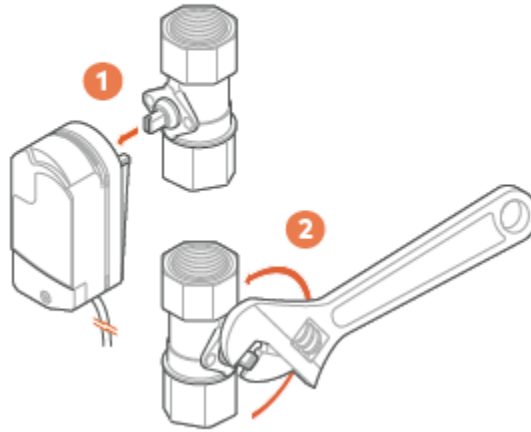
1. Press and hold the Networking [Insert Radio Icon] button for 15 seconds.
2. All three LEDs will blink for five seconds and the device will restart.
3. When the reset is complete, the LEDs will turn off and only the Valve Open or Valve Closed LED will be illuminated.

### Manual valve actuation:

In the event of power loss or system failure, the Smart Water Valve+Meter can be manually actuated using the following procedure:

1. Remove the actuator from the valve+meter by pulling the actuator away from the valve+meter.
2. Use a pair of pliers, adjustable crescent wrench or flat head screwdriver, to move the valve stem to the correct position, as shown below.

- 1 Remove the actuator from the valve by pulling the actuator away from the valve.
- 2 Use pliers, an adjustable crescent wrench, or a flat head screwdriver to move the valve stem to the correct position, as shown below.



[Replace valve with SWMV sensor and valve assembly]

## Notices:

### FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

–and–

2. This device must accept any interference received, including Interference that may cause undesired operation.

*NOTE: Changes and Modifications not expressly approved by Building 36 can void your authority to operate this equipment under Federal Communications Commissions rules.*

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### IC Notice

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### Radiation Exposure Statement

The device has been found to be compliant to the requirements set forth in CFR 47 Sections 2.1091 and Industry Canada RSS-102 for an uncontrolled environment. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Le dispositif a été jugé conforme aux exigences énoncées dans les articles 47 CFR 2.1091 et Industrie Canada RSS-102 pour un environnement non contrôlé. L'antenne(s) utilisée pour ce transmetteur doit être installée pour fournir une distance de séparation d'au moins 20 cm de toutes les personnes et ne doit pas être co-localisées ou fonctionner en conjonction avec une autre antenne ou transmetteur.

#### CE Notice

Hereby, Alarm.com declares that the radio equipment type ADC-SWM150-EU is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: <https://www.alarm.com/about/international/eu-red>

Frequency: 868.42MHz | Output Power: 2 mW

Designed by Building 36, an Alarm.com company.



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