Smart Water Valve

Product Manual

Caution:

- Adhere to all relevant local codes and ordinances as they pertain to the Smart Water Valve. You are required to consult local plumbing codes and have appropriate licensing for the installation of this device.
- It is recommended to test valve functionality prior to installation.
- 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 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 UNTIL THE UNIT IS FULLY ASSEMBLED.

Box Contents:

- *Smart Water Valve Control Unit*
- *Valve*
- *Actuator*
- *Power Adapter*
- *Wall Bracket*
- *Wall Anchors and Screws (x2)*
- *Cable Ties (x3)*

Additional Parts Requirements:

Installation of the Smart Water Valve will require additional fittings to connect the ends of the valve to the pipe. The type of fittings needed will depend on the pipe material, 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.

Smart Water Valve Overview:

Buttons:

- Networking [Insert Radio Icon]: Places the device into learn mode. This button is also used to factory reset the device. *See "Resetting the Smart Water Valve to Factory Default Settings".*
- Open: Opens the valve.
- Close: Closes the valve.

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

Note: If all LEDs are off, the device has no power.

Location:

The Smart Water Valve must be installed:

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

- 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 valve. 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:

1. Shut off the water supply line and drain the system.

2. Install the valve in the desired water supply line using appropriate fittings. See *"Location"* section for information on selecting a suitable installation location.

3. After installing the valve, turn the water supply on and ensure there are no leaks originating from the valve or connections to the valve.

4. Connect the actuator to the valve.

5. Connect the actuator to the control unit using the attached cable. If possible, create a drip loop in the actuator cable.

6. Use the included wall bracket and anchors (if applicable) to mount the control unit above the valve so the LEDs and buttons are visible and easily accessible.

7. Connect the power supply to the locking barrel connector on the control unit. Rotate the connector clockwise to lock the power supply in place.

8. Plug the power supply into the nearest wall outlet. If possible, create a drip loop in the power cable. Verify that the Smart Water Valve 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

   a. Open a tap or faucet downstream of the Smart Water Valve.

   b. Press the "Close" button and wait for the "Valve Closed" light 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" light to turn solid. Check that the valve has opened by verifying that water is flowing from the fixture opened in (a).

   d. Close the tap or faucet opened in step (a).

10. Add the Smart Water Valve to the Z-Wave network (see *"Adding the Valve to the Z-Wave Network"*).

Adding the Smart Water Valve to the Z-Wave Network:

TIP: For best results, we recommend bringing the Z-Wave controller into the area where the Smart Water Valve 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 control unit to begin the ADD process. The NETWORK light on the control unit will begin flashing.

3. After the Smart Water Valve is successfully added, the NETWORK light on the Smart Water Valve will turn solid. If the NETWORK light 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 is not communicating with the Z-Wave controller:
1. Try excluding the device from the network (see *"Removing the Valve from the Z-Wave Network"*) and re-adding it to the network.

2. If Step 1 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 Valve from the Z-Wave Network:

TIP: For best results, we recommend bringing the Z-Wave controller into the area where the Smart Water Valve 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 control unit to begin the remove process. The NETWORK light on the control unit will begin flashing.

3. After the Smart Water Valve is successfully removed from the Z-Wave network, the NETWORK light on the control unit will turn off. If the NETWORK light is still illuminated after the removal process, repeat steps 1 and 2.

Resetting the Smart Water Valve to Factory Default Settings:

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

Local Reset: Press and hold the Networking [Insert Radio Icon] button for 15 seconds. All three LEDs will blink for five seconds and the device will restart.

Manual Valve Actuation:

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

1. Remove the actuator from the valve by pulling the actuator away from the valve.
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.

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 contrôle'. L'antenne(s) utilisée pour ce transmetteur doit etre installé pour fournir une distance de séparation d'au moins 20 cm de toutes les personnes et ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ou transmetteur.