Saya Water Valve+Meter (SAYA-WMIZSA0034-0100) - Installation Guide

Installation precautions

- Adhere to all relevant local codes and ordinances as they pertain to the Saya Water Valve+Meter. You are required to consult local plumbing codes and have appropriate licensing for the installation of this device.
- Water shutoff valves and leak detection devices should never be installed on a fire suppression system. If a fire suppression system is present, ensure that the Saya Water Valve+Meter is installed downstream of the branch leading to the fire suppression system.
- Never insert fingers or any other item into the valve. Inserting objects into the valve may result in damage or injury.
- The Saya 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 Saya Water Valve+Meter until the unit is fully assembled.

In the box

- Saya Water Valve+Meter (SAYA-WMIZSA)

  
- Couplers

  
- Power Adapter

Meter overview

User interface

1. Power/Alert LED (Red)
2. Network LED (Green)
3. Display
4. Button



LED guide

LED Pattern	Description
Off	**Power/Alert LED**: No mains power **Network LED**: Not connected to network
Solid red	Power on from power adapter
Blinking red	Active alert
Solid green	Network connected
Blinking green	Adding to network

Display icons

Icon	Description
Battery	Low battery
Power	Power Adapter connected, Power on
Network	Connected to network

Icon	Description
Valve State 	Valve open
Valve State 	Valve closed

Main screen

The main display screen shows the total water usage (top) and current flow rate (bottom). A local menu is available through button press and hold combinations.

Note: The display will return to the main screen after 30 seconds of no user interaction. Billing-grade meter requirements adds many menus and views to the meter local user interface. All critical installer functions can be found under the Installer Menu. See Installer Menu section for more information.



Pre-installation checklist

Important: A *Water Management* service package is required to enroll the Saya Water Valve+Meter.

- Saya Water Valve+Meter (SAYA-WMIZSA) and included accessories
- Additional fittings
  - Installation of the Saya Water Valve+Meter requires additional fittings to connect to the ends of Valve+Meter couplers. The threads on the ends of the main body are custom. Couplers are required. The type of fittings needed depends on the pipe material, pipe size, threading type, industry standards, and applicable plumbing codes.
- Nearby wall outlet
  - It is recommended to use an outlet with a ground fault circuit interrupter (GFCI).
- Access to water supply line shutoff valve
- Enclosure (outdoor installation only)
  - Enclosures for outdoor installation are available. Ask your Alarm.com representative for details.

Installation location



Important: Water shutoff valves and leak detection devices should never be installed on a fire suppression system. If a fire suppression system is present, ensure that the Saya Water Valve+Meter is installed downstream of the branch

leading to the fire suppression system.

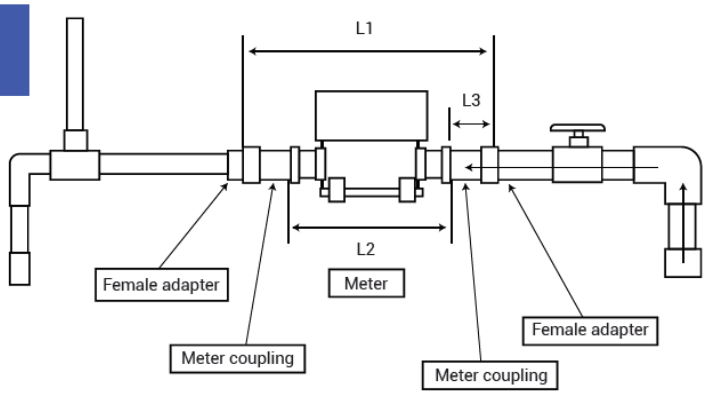
The Saya Water Valve+Meter must be installed:

- In a dry, indoor location. Outdoor installations are possible following the outdoor installation guidelines while using an approved outdoor enclosure.
- Downstream from the main shutoff valve and, if present, the pressure reducing valve.
- Within 20 feet of a wall outlet. It is recommended to use an outlet with a ground fault circuit interrupter (GFCI).
- On water main distribution pipes 1inch or less (SAYA-WMIZSA0100) or ¾ inch or less (SAYA- WMIZSA0034). For installation on larger pipe diameters, please review the local plumbing codes, water demand, and hydraulic performance to ensure varying pipe sizes are compatible.
- So that it is easily visible and accessible

Installation recommendations

Installation Recommendation

Model	SAYA-WMILSA0034	SAYA-WMILSA0100
Nominal Pipe Size	3/4"	1"
L1	13.6 in/ 13%	13.9 in/ 13%
L2	8.4 in	8.7 in
L3	2.6 in	2.6 in



Note: Some models of the Saya Water Valve+Meter include a backflow preventing “check valve”. Ensure that there is adequate distance between the Valve+Meter and the home’s hot water heater to allow for expansion caused by the hot water heater. Additionally, consider installing an expansion tank downstream of the Valve+Meter. In most installations, an expansion tank should not be required.

Installation

Install the Saya Water Valve+Meter

1. Shut off the water supply line and drain all water from the plumbing system.
2. Install the Valve+Meter in the water supply line using the appropriate fittings. See Installation location for more information on choosing a location.

   Important: Ensure that the device is installed in the correct orientation. An arrow embossed on the Valve+Meter indicates the correct direction of water flow.

   Note: If soldering fittings or adapters, use caution to avoid damaging the Valve+Meter from excess heat. Remove the Valve+Meter from the fittings prior to soldering, if possible.

The Valve+Meter couplers have a face sealing gasket. For best results, ensure the gasket is installed properly prior to connecting the Valve+Meter.

3. After installing the Valve+Meter, slowly turn on the main water supply and ensure there are no leaks originating from the Valve+Meter, connections or surrounding pipes.
4. Connect the power adapter to the power adapter connector.
5. Plug the power adapter into the nearest non-switched wall outlet. Verify that the Saya Water Valve+Meter is powered by checking that the Power LED is illuminated

Note: The Network LED may be blinking at this point. The Valve+Meter will start the Add/Remote process anytime power is connected by the power adapter.

To add the Saya Water Valve+Meter to the Z-Wave network:

Add with SmartStart/Long Range:

Z-Wave SmartStart allows adding the device information and security key to the controller (hub/panel) ahead of time. It is recommended to enroll this device as a SmartStart device to eliminate the need to put Z-Wave controllers into Add Mode or enter a Z-Wave pin code.

Note: Z-Wave Long Range can only be used with SmartStart. Verify the Z-Wave Controller used supports SmartStart and Z-Wave Long Range.

1. Follow the controller's instructions for provisioning a Z-Wave device's SmartStart QR Code.
2. Scan the QR code on the Saya Water Valve+Meter.
3. Follow the instructions provided by the controller to complete the SmartStart registration.
4. Plug in the power adapter to install location outlet (see Installation location) and connect the power adapter to the Valve+Meter. The Valve+Meter will start the SmartStart process anytime mains power is applied. If the power adapter is already plugged in and connected, disconnect and reconnect it at the Valve+Meter to restart the SmartSmart process. The Network LED will begin blinking.
5. After the Saya Water Valve+Meter is successfully added to the Z-Wave network, the Network LED will turn solid. If the Network LED is not illuminated after the Add process, check steps 1-3 were completed successfully and repeat step 4.

Add manually as an S0 device:

1. Put the Z-Wave controller (hub/panel) into add mode. Refer to the contoller's documentation for more
2. Plug in the power adapter to install location outlet (see Installation location) and connect the power adapter to the Valve+Meter. The Valve+Meter will start the Add/Remove process anytime mains power is applied. If the power adapter is already plugged in and connected, disconnect and reconnect it at the Valve+Meter to restart the Add process. The Network LED will begin blinking.
3. After the Saya Water Valve+Meter is successfully added to the Z-Wave network, the Network LED will turn solid. If the Network LED is not illuminated after the Add process, repeat steps 1 and 2.

Installer Menu

The Installer Menu is at the top level of the meter user interface menu system. It allows for adding and removing from a Z-Wave network, open and closing the valve, and resetting the meter to factory default.

To enter the Installer Menu:

- Press and hold the button while on the Main Screen until the Installer Menu is displayed. This is indicated by an “I” in brackets, as shown in the following image:



Open/Close the Valve

1. Enter the Installer Menu (*[I]*) by pressing and holding the button from the Main Screen

2. Press the button once to view valve state.

3. Press and hold the button to toggle the valve state.
4. The valve should begin to change state.
5. The displayed valve state will change when complete.

Add/Remove Meter from a network

The easiest way to add or remove the meter from a Z-Wave network is to power cycle the device while your Hub/Panel is in Learn mode. If the device is not plugged in, apply power by plugging the Power Adapter into a nearby outlet. Ensure the Power Adapter is connected to the meter at the barrel jack connection. If the meter is already plugged into an outlet, simply unplug it and plug it back in to power cycle.

To add/remove the meter from a network through the Installer Menu:

1. Enter the Installer Menu (*[I]*) by pressing and holding the button from the Main Screen.
2. Press the button to go through the Installer Menu until the Network Menu (*net*) is reached.

3. Press and hold the button until *Learn* changes to *000* to enter the Network Menu.

4. Press and hold the button until *000* changes to *001* to start Learn mode.
   a. The Network LED will begin to blink when adding to a network. The Network LED will turn solid when the addition is successful.
   b. The Network LED will turn off when removed successfully from the network.

Factory Reset

To reset the meter to factory default and clear all settings:

Important: Resetting to factory default will clear all network settings. It may not remove the meter from the Hub/Panel device list.

1. Enter the Installer Menu (*[I]*) by pressing and holding the button from the Main Screen.
2. Press the button to go through the Installer Menu until the Network Menu (*net*) is reached.

   
3. Press and hold the button until *Learn* changes to *000* to enter the Network Menu.

   
4. Press the button once to change *000* to *rt*, which is the Reset option.

   
5. Press and hold the button to start the factory reset.

Troubleshooting

The Saya Water Valve+Meter is not communicating with the Z-Wave Controller

If the Valve+Meter is not communicating or indicates it is offline via the website or mobile app, try the following in order:

1. Verify that the Z-Wave Controller is powered on and connected.
2. Run a Network Rediscovery to find any additional routes between the Valve+Meter and controller (not applicable for Z-Wave Long Range).
3. Remove the device and try re-adding it to the network. For information about removing the device, see To remove the Saya Water Valve+Meter from the Z-Wave network.
4. Install a Z-Wave repeater nearby and repeat step 2.

Note: Z-Wave Long Range does not use a mesh network. Long Range devices will talk directly to the hub/panel and repeaters will not route communication between these devices.

Actuator is moving, but no command was sent to the Valve+Meter

The Valve+Meter has two built-in features to extend the life of the actuator and ball valve. The actuator inside the Valve+Meter performs a valve check weekly to ensure there are no restrictions in the motion of the ball valve.

To remove the Saya Water Valve+Meter from the Z-Wave Network:

1. Put the Z-Wave controller (hub/panel) in Remove Mode. Refer to the controller's documentation for more

information.

2. Plug in the power adapter to install location outlet (see Installation Location) and connect the power adapter to the Valve+Meter. The Valve+Meter will start the Add/Remove process anytime mains power is applied. If the power adapter is already plugged in and connected, disconnect and reconnect it at the Valve+Meter to restart the Remove process. The Network LED will begin blinking.
3. After the Saya Water Valve+Meter is successfully removed from the Z-Wave network, the Network LED will turn off. If the Network LED is still illuminated after the Remove process, repeat steps 1 and 2.

Notices

FCC Statement

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

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.

Note: Changes and modifications not expressly approved by Alarm.com can void authority to operate this equipment under Federal Communications Commissions rules.

IC Statement

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.
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.
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 with 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 être installée pour fournir une distance de séparation d’au moins 20 cm de toutes les personnes et ne doit pas être co-localisée ou fonctionner en conjonction avec une autre antenne ou transmetteur.