WATTS LF919 Series Cellular Flood Sensor Retrofit Connection Kit Instruction Manual

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Contents

Important Information

⚠ WARNING	
	Read this Manual BEFORE using this equipment. Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment. Keep this Manual for future reference.

⚠ WARNING You are required to consult the local building and plumbing codes prior to installation. If the

information in this manual is not consistent with local building or plumbing codes, the local codes should be followed.
Inquire with governing authorities for additional local requirements.

NOTICE Use of the SentryPlus Alert® technology does not replace the need to comply with all required instructions, codes, and regulations related to the installation, operation, and maintenance of the backflow preventer to which it is attached, including the need to provide proper drainage in the event of a discharge.
Watts is not responsible for the failure of alerts due to connectivity or power issues.

Monitor relief valve discharge with smart and connected sensor technology to detect flooding and transmit notification.
The Cellular Flood Sensor Retrofit Connection Kit upgrades existing installations by integrating and activating the sensor to enable functions for flood detection. When excessive relief valve discharge occurs, the sensor energizes a relay signaling flood detection and triggers real-time notification of potential flood conditions through the SynctaSM application.

Kit Components

The retrofit connection kit for installing and activating the flood sensor includes the items shown below. If any item is missing, speak with your account representative about ordering code 88009424.

A. Activation module with 8′ conductor cable and ground wire

B. Cellular Gateway with mounting tabs and screws

C. 24V Power adapter

D. Small sensor for valve sizes ½” to 1″; large sensor, valve sizes 1¼” to 2″

NOTICE When installing an air gap, attach the air gap brackets directly onto the flood sensor.

Requirements

- #2 Phillips screwdriver
- Wire stripper
- Suitable location within 8 feet of the flood sensor for mounting the Cellular Gateway on a wall or structure
- 120VAC, 60Hz, GFI-protected electrical outlet
- Ground wire running from the Cellular Gateway to the ground point
- Cellular network connection
- Internet browser

Install the Flood Sensor and Activation Module

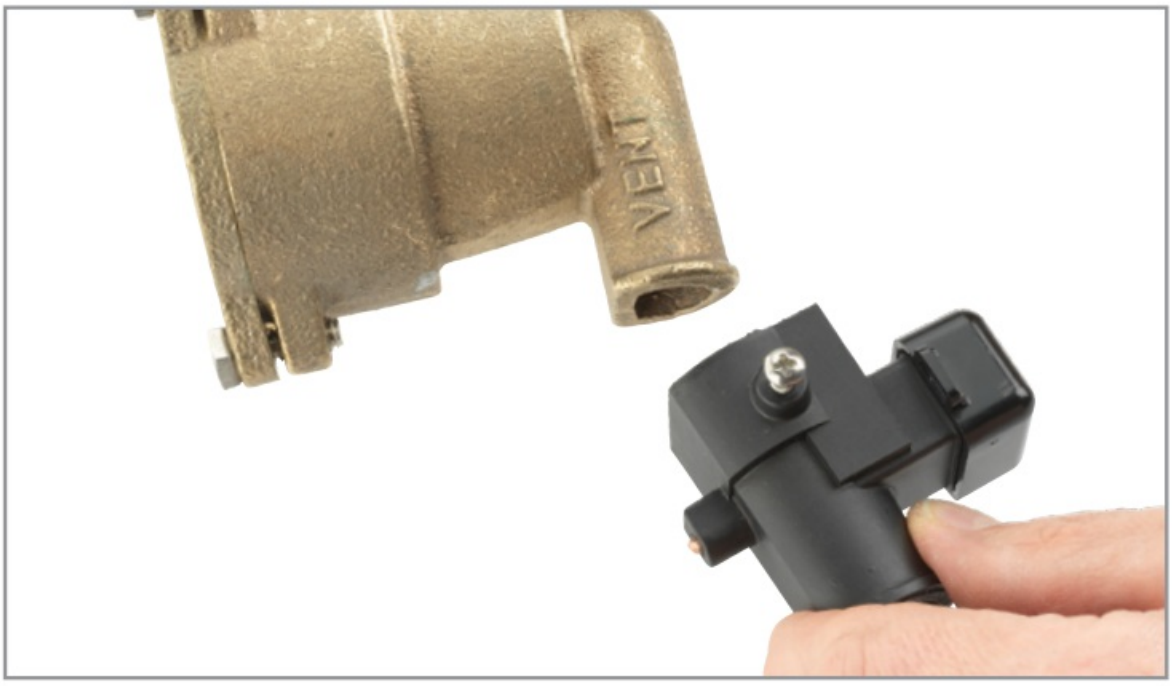
Install the flood sensor with the interface pointing in the same direction as the valve flow arrow.

The activation module receives a signal from the sensor when a discharge is detected. If the discharge meets the conditions of a qualifying event, the normally open contact is closed to provide a signal to the Cellular Gateway input terminal.

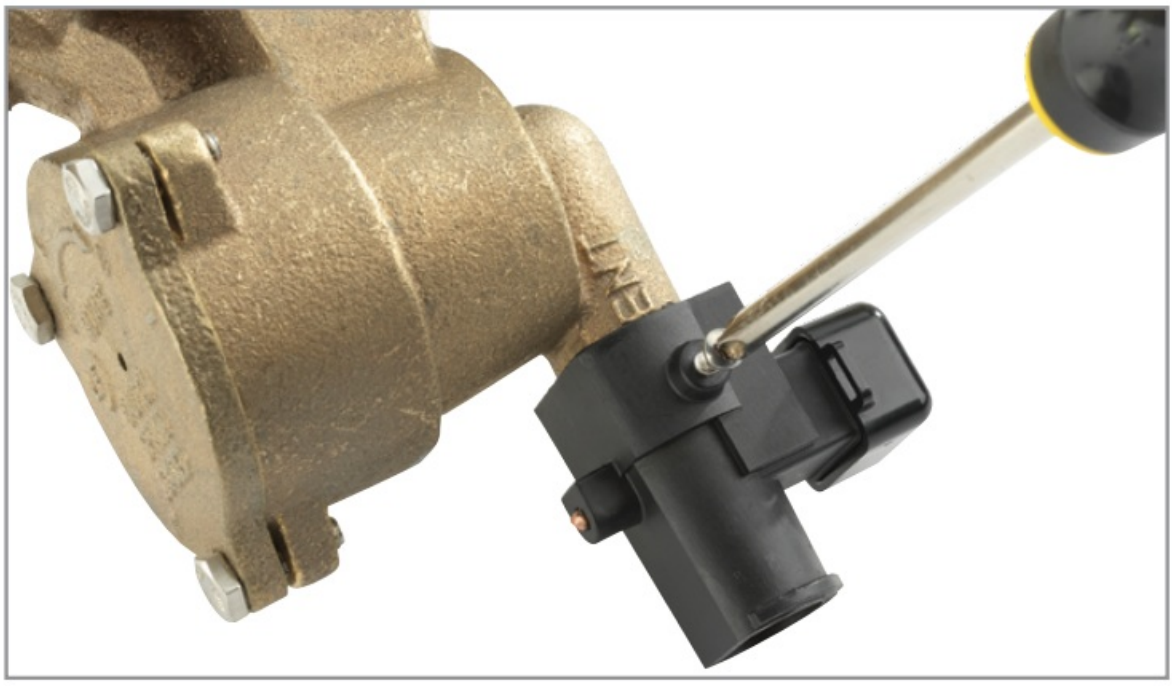
Custom Flood Sensor Settings

The default settings on the activation module for detecting discharge are suitable for the assembly series. However, the DIP switches can customized for a different wet threshold and time delay. Scan the QR code for more information.

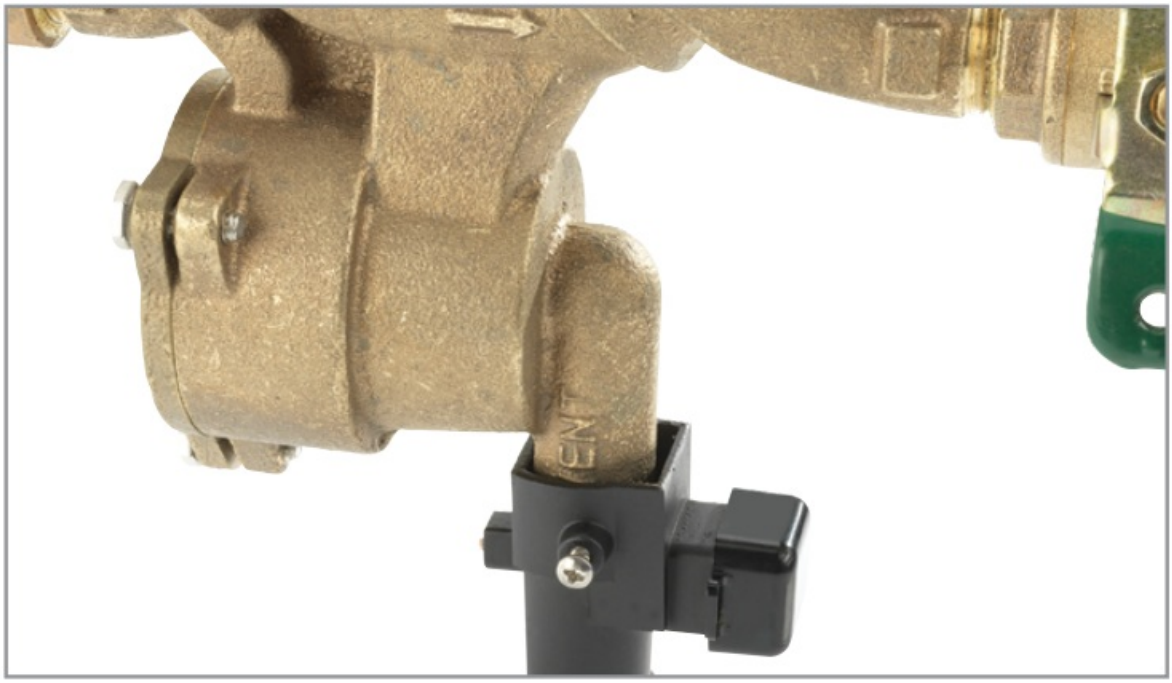
1. Position the flood sensor on the relief valve.



2. Use the #2 Phillips screwdriver to attach the sensor to the relief valve.



3. Ensure the sensor interface points in the same direction as the valve flow arrow.



4. Remove the dust cover from the sensor

5. Press the activation module onto the sensor.

6. Check that the module is fully seated to seal the O-ring and to make electrical contact.

NOTICE Retain the dust cover to protect the flood sensor when the activation module needs to be removed or replaced.

Set Up the Cellular Gateway

NOTICE When identifying a location to mount the Cellular Gateway, choose an area away from large metal objects and structures that can block cellular signal. The cellular antenna is placed inside the housing on the upper right side. Ensure that the antenna side is clear of walls, wires, pipes, or other obstructions.

These instructions cover the connection of the activation module cable to the terminal block of the Cellular Gateway. The 4-conductor activation module cable should be attached to the Cellular Gateway to transmit a normally open contact signal and provide power to the activation module. The contact signal closes when a discharge is detected.

When attaching the power adapter to the Cellular Gateway, distinguish the positive wire from the negative one. The positive wire has white stripes and must be inserted into the power terminal; the negative wire, into the ground terminal.

NOTICE The earth ground must be connected to the Cellular Gateway before the flood sensor is put in operation.

Attach the activation module cable to the device before or after it is mounted to a nearby wall or structure with the mounting tabs and screws. Collect the Cellular Gateway and mounting materials, power adapter, and Phillips screwdriver, and wire stripper for this segment of the installation.

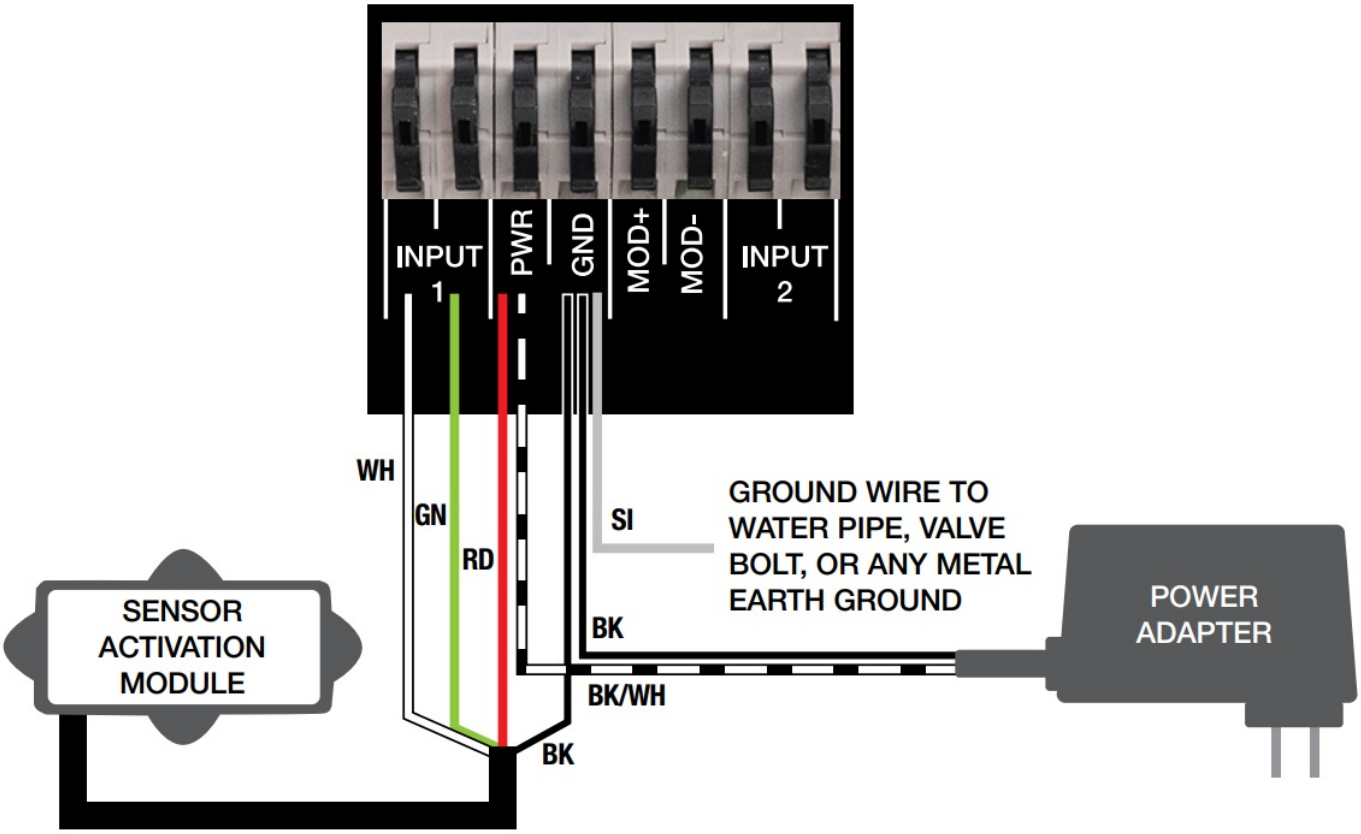
To connect the module cable to the device

1. Remove the transparent cover from the device.
2. Use the wire stripper to cut away enough insulation to expose 1 to 2 inches of the conductor wires and feed the cable through the bottom port.
3. Insert the white wire and the green wire into the first and second terminals of INPUT 1.
4. Feed the power adapter cord through the bottom port.
5. Connect the positive (BK/WH) power adapter wire to the red wire of the activation module cable and insert the wires into the PWR terminal.
6. Connect the negative (BK) power adapter wire to both the black wire of the activation module cable and the ground wire then insert the wires into the GND terminal.
7. Skip MOD+ and MOD-. Reserved.
8. Reattach the device cover and plug the power adapter into a 120VAC, 60Hz, GFI-protected electrical outlet.

If adding a second flood sensor to the configuration, insert the white and green wires into the first and second terminals of INPUT 2, the red wire into the PWR terminal, and the black wire into the GND terminal.

GATEWAY TERMINAL BLOCK

LETTER CODE	**WIRE COLOR**
WH	White
GN	Green
RD	Red
BK	Black
BK/WH	Black with white stripe
SI	Silver



Verify the Connections

NOTICE A cellular network signal is required for successful installation.

Upon initialization, the Cellular Gateway begins the start sequence automatically. The process may take up to 10 minutes to reach steady state. Check the status of the LED indicators to confirm connectivity.

To validate the connections, press the TEST button on the Cellular Gateway to send a test message through the Syncta app.
To restore the factory state of the Cellular Gateway and restart the startup sequence, press the RESET button. This causes all ongoing operations to cease.

Call customer service if you need assistance with technical details.

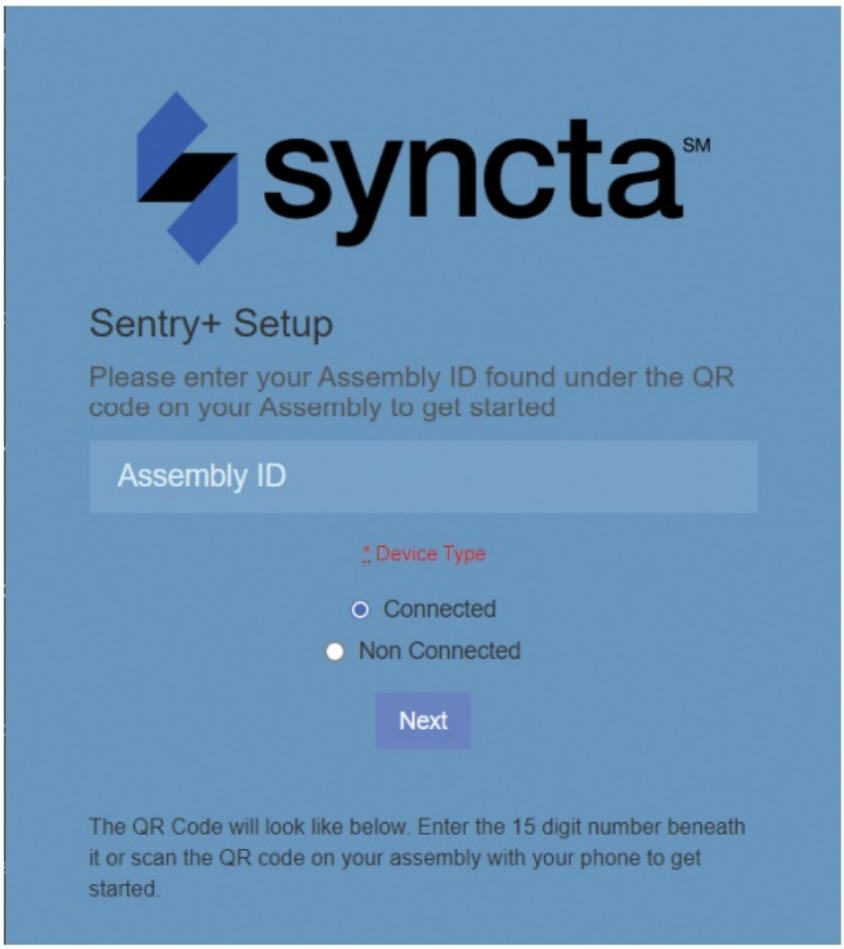
LED	INDICATOR	STATUS
POWER	Steady green	Unit is powered
CELL	Steady blue	Connection to cellular network is good
	Blinking blue	Searching for cellular network connection
	Blinking blue with short OFF pulses	Connection to cellular network is poor
IoT	Steady blue	Internet connection is established
	Blinking blue	Internet connection is lost or not established (The gateway attempts an internet connection indefinitely.)
FLOOD/INPUT1	Unlit	No relief water discharge is occurring
	Steady orange	Relief water discharge is occurring (This state remains for the duration of the discharge.)
INPUT2	Unlit	No relief water discharge is occurring
	Steady orange	Relief water discharge is occurring (This state remains for the duration of the discharge.)

Configure the Syncta App

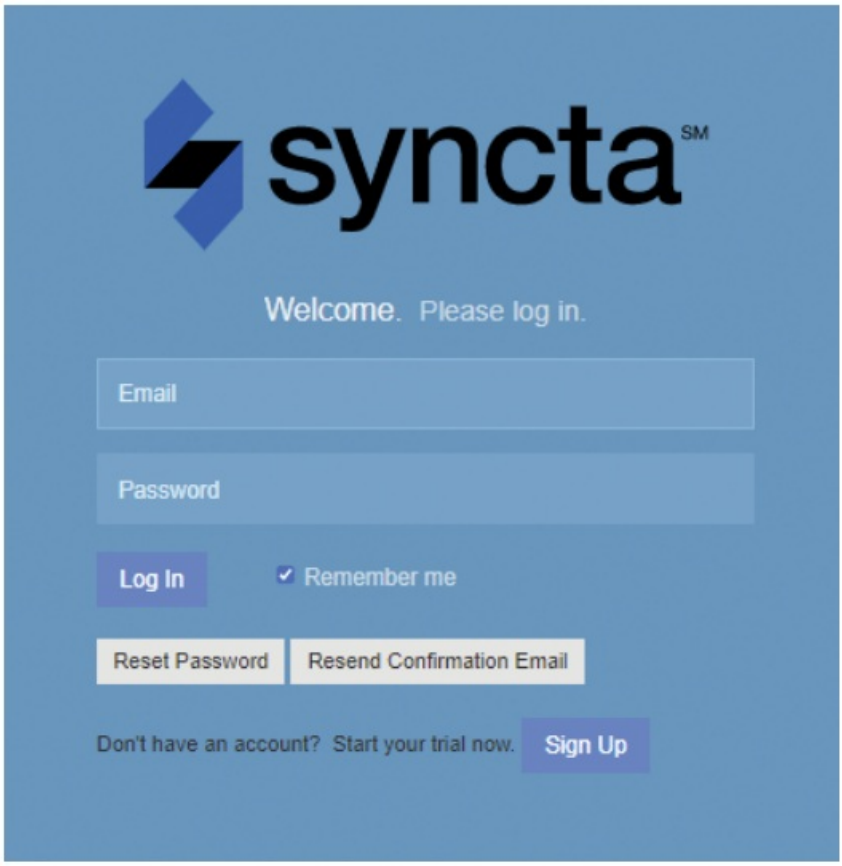
NOTICE These instructions cover the minimum user input needed to install and configure the Syncta app for use with the flood sensor. An internet connection is required for laptop or mobile device. Information on the Cellular Gateway ID label is needed to configure the Syncta app for sending flood alerts by email, phone, or text. Do not remove the label.

To log in or create an account

1. Scan the QR code on the ID label or open a web browser and go to **https://connected.syncta.com**.



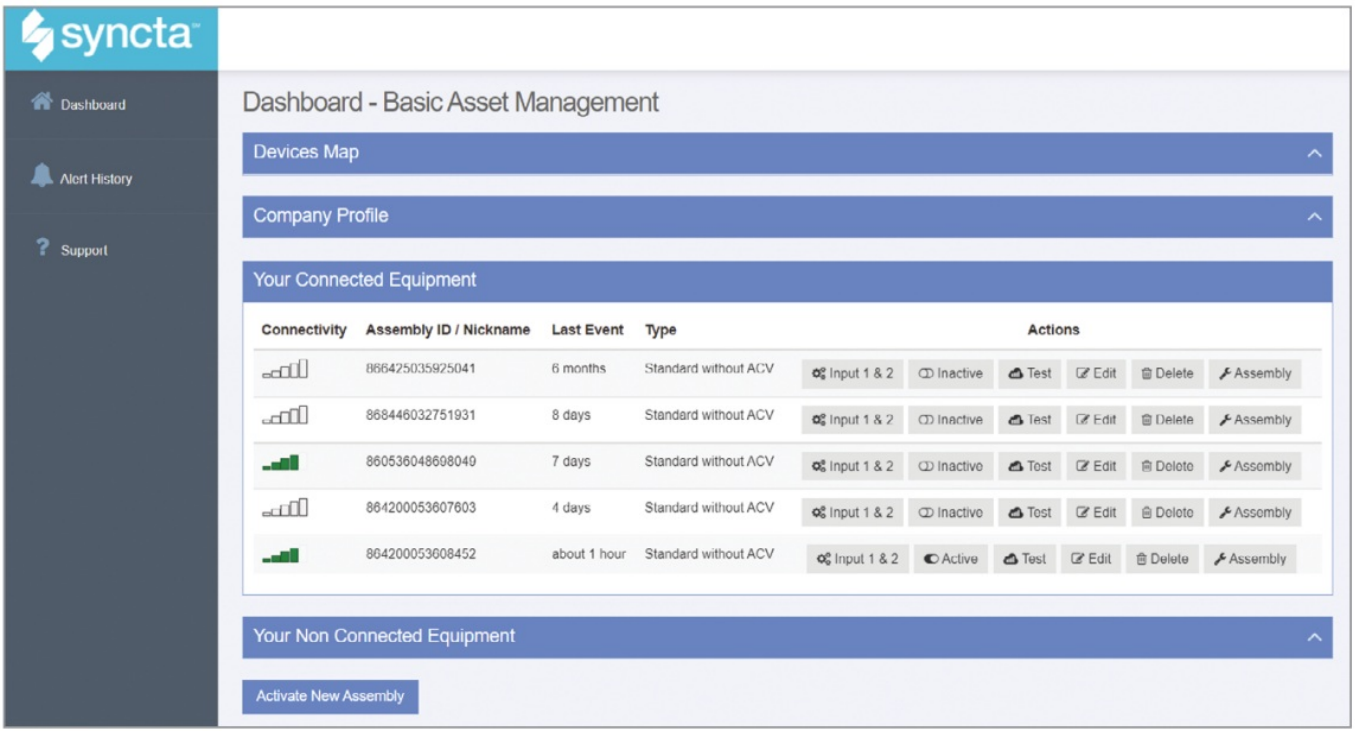
2. Enter the device ID, make sure Connected is selected, and tap Next. Syncta checks for the installation of a valid device. (Connected applies to devices requiring internet access; Nonconnected, to manual devices.)
3. Tap login to access an existing account.



NOTICE For first-time users, create an account before attempting to sign in. Tap Sign Up and complete all fields. Tap the check box to agree to the Terms & Conditions. After your review, select both check boxes at the bottom of the window then select Close. Follow through with the remaining screen prompts to complete the setup of your account, profile, and first assembly

The Syncta Dashboard

Start at the dashboard to take action on all or specific assemblies, such as view alerts, change settings to receive notifications, and test notifications.
The location of menu navigation is the only difference between desktop and mobile versions. On the desktop version, the menu is on the left and the user pull-down list (upper right) includes profile settings link and logoff. On the mobile version, open the menu navigation is upper right and includes all the function links.



From the dashboard, access the map for locations of assemblies, user-company profile, connected and non-connected equipment, and the function to activate an assembly.

Device Map – View the location of assemblies in an area.
Company Profile – Enter or update basic user information about the user and organization maintaining the assembly. This is also page accessed through the My Profile link.

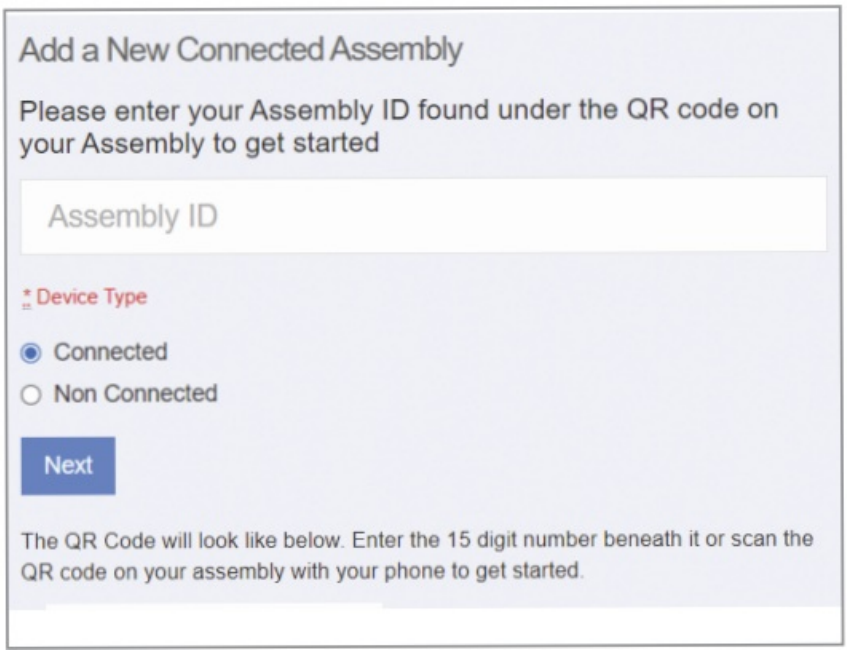
Connected Equipment – View internet connectivity of assembly, assembly ID, last event, setup type, and take an action on an assembly such as enter notification settings, enable or disable the assembly for actions with a toggle switch, test notification settings, edit assembly information, delete an assembly, and update assembly details.
Non Connected Equipment – For record keeping, also log equipment requiring maintenance but not connectivity.
Activate New Assembly – Use this function button to add an assembly or restore a previously deleted one.

To activate an assembly

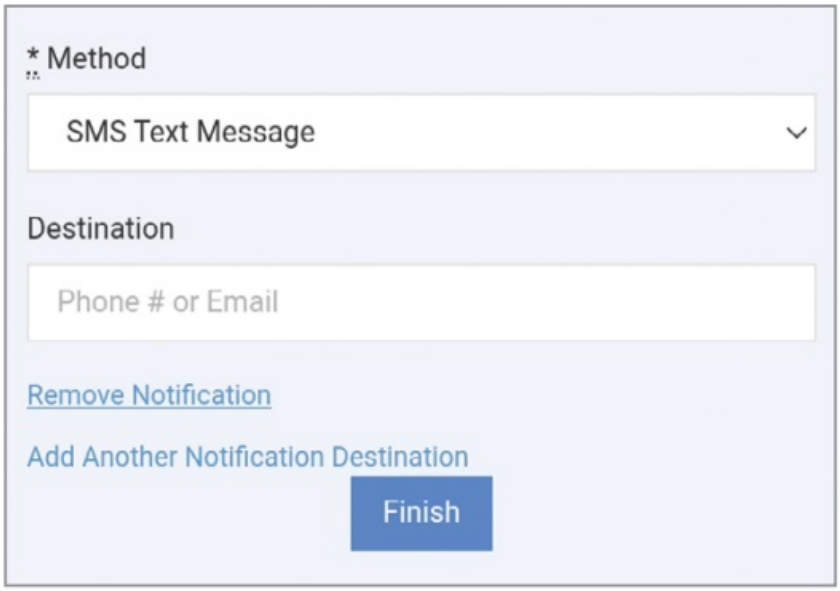
1. On the dashboard, select Activate New Assembly.
2. Enter the assembly ID, select Connected, and tap Next.

   Syncta checks for the installation of a valid device.

   (Connected applies to devices requiring internet access; Nonconnected to manual devices.)



3. Choose notification type from the Method drop-down list:
   Email Message, SMS Text Message, or Voice Call.

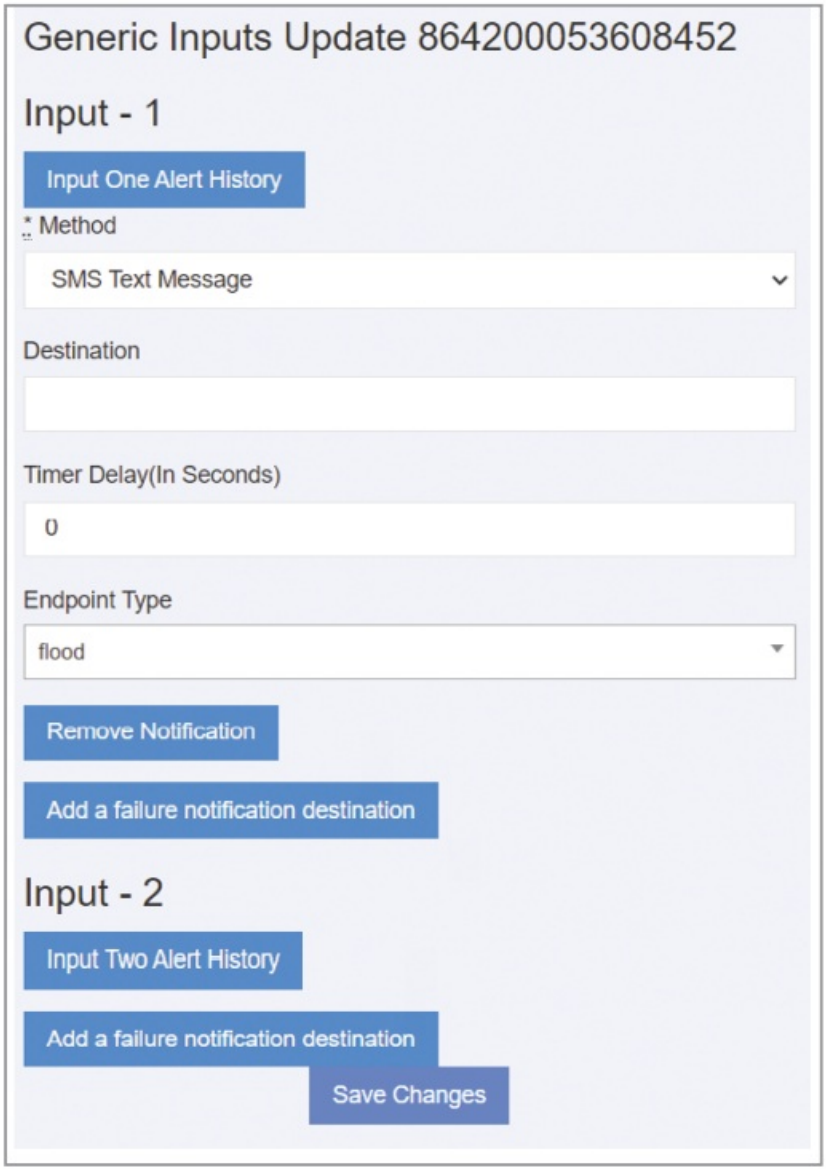


4. Depending on the notification method selected, enter a phone number or an email address in the Destination field.
5. Tap Finish.

NOTICE If the Cellular Gateway is wired for two flood sensors, configure alerts for both sensors. Configure Input 1 for the first or only flood sensor; configure Input 2 for a second sensor.

To set a notification alert

1. In the Actions field, select Input 1 & 2 to set up alerts.
2. Choose notification type from the Method drop-down list:
   Email Message, SMS Text Message, or Voice Call.



3. Depending on the notification type selected, enter phone number or email address in the Destination field.
4. Skip the Timer Delay field. For use with Sentry Plus Alert Control Box only.
5. For the endpoint type, select ‘Flood’ for the flood sensor from the drop-down list. This value indicates the type of event the connected device is reporting.
6. To set up the same alert for another notification method, select Add a failure notification destination and repeat steps 2 to 5 for that method.
7. Configure Input 2 in the same manner, if a second sensor is in use.
8. Select Save Changes.
9. Return to the dashboard, locate the device, and select TEST to verify the connections.
10. Check for the test notification in your email inbox or mobile device, depending on the configuration entered.

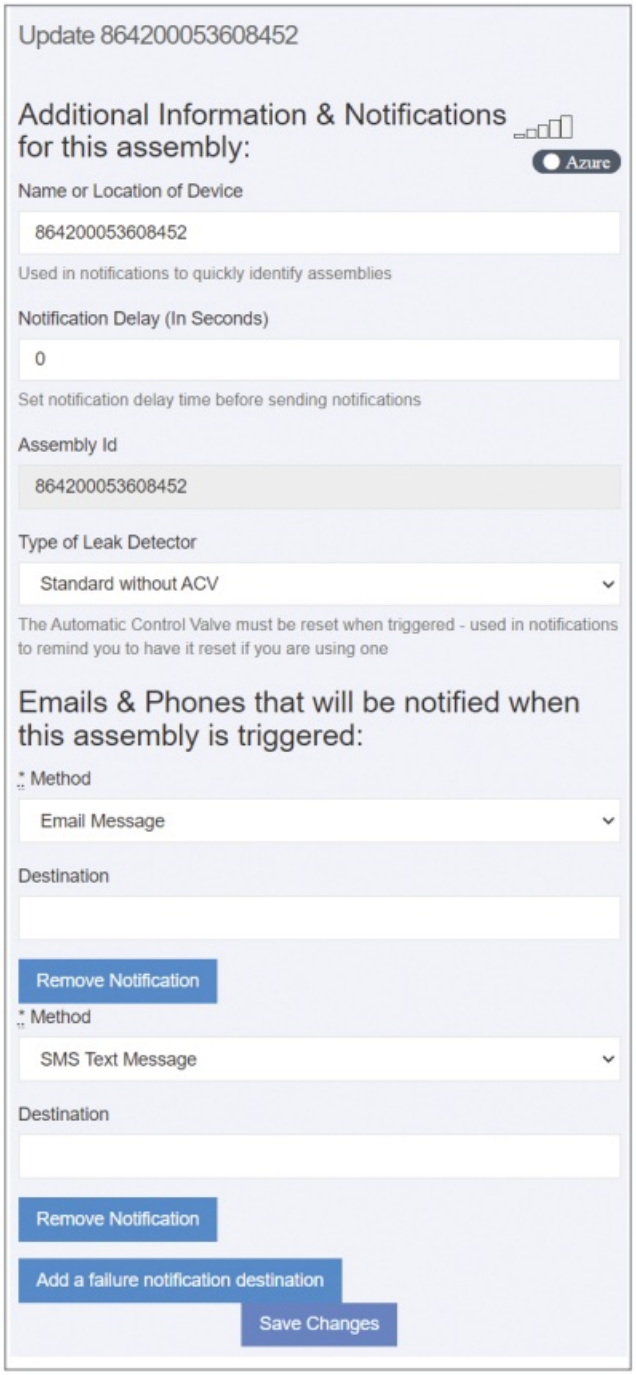
NOTICE In general, fill in all the fields on the Syncta app pages to create complete and accurate records of devices deployed, users, and alerts history. Edit the entries as required to maintain up-to-date records. Start at the dashboard to add equipment or to take action on specific equipment, such as view alerts, change settings to receive notifications, and test notifications.

To update assembly info and notification settings

1. Access the Update Assembly Information page by the Edit function in the Connected Equipment section of the

dashboard, or through the map locator.

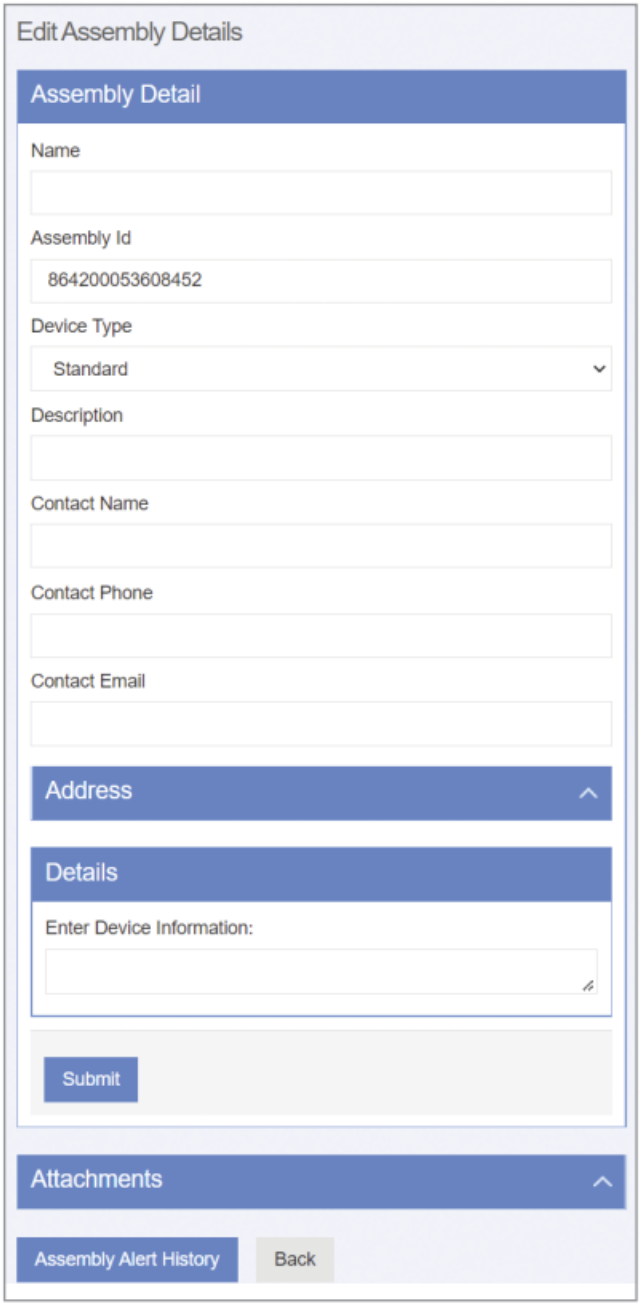
2. Enter or modify additional information on the assembly.



3. Enter notification method and destination.
4. Remove or add a notification entry, if necessary.
5. Tap Save Changes.

To edit assembly details

1. Input assembly details including assembly information and contact information.
2. Fill in address fields to specify the exact location of the assembly.



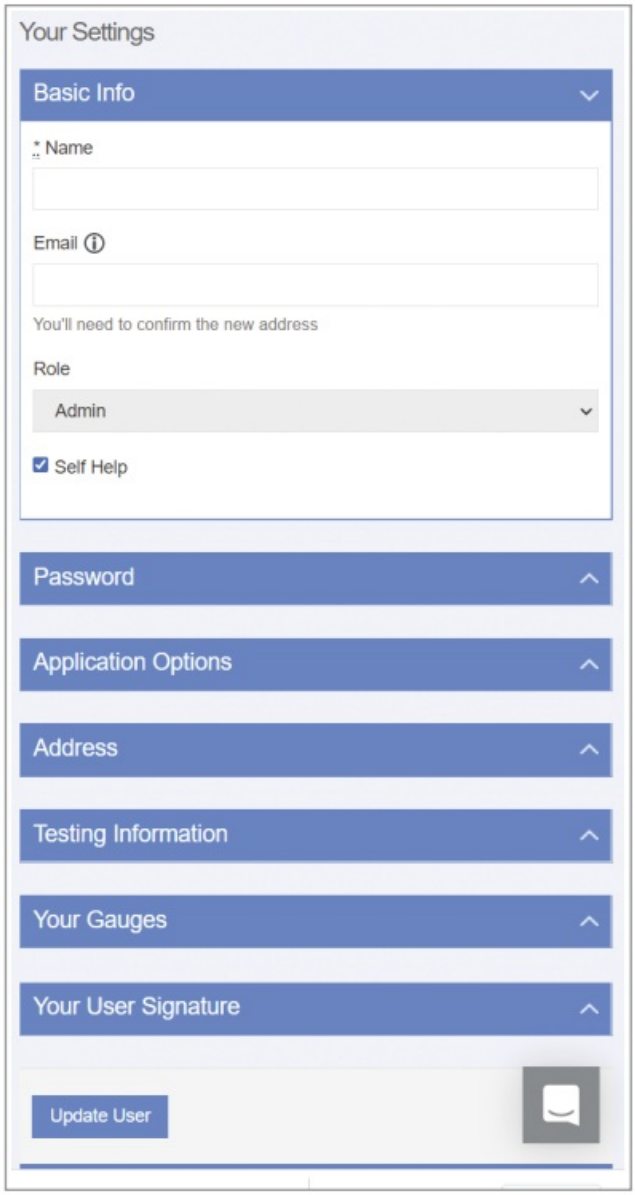
3. Enter any other relevant information about the assembly in the free-form comment field.
4. Tap Submit.
5. Upload files such as photos and maintenance records.
6. Tap Assembly Alert History to view the message log or Back to return to the dashboard.

To update the profile

1. Start with the User Profile link or Company Profile on the dashboard.
2. Update the profile settings, as needed, for these categories:
    - Basic user information
    - Password
    - Text size options for mobile devices
    - Address where assembly is located
    - Testing/certification information
    - Gauge information
    - User signature (To make an entry, use a mouse or other input device; for touchscreen devices, use a

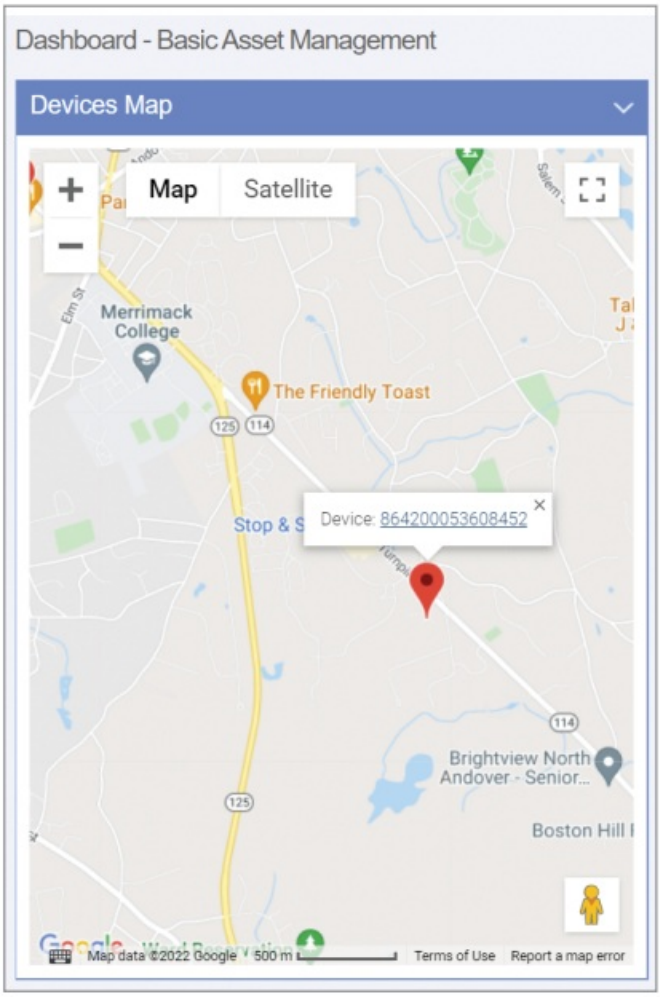
stylus or your finger.)

3. Tap Update User to finish.



To use the map locator

Tap a marker to see the assembly ID. Tap the ID link to modify assembly information and notification settings on the Update Assembly Information page.



To view alert history

Open the Alert History page from the navigation menu or the Edit Assembly Details page.
Each entry in the Alert History log is a record of the assembly ID, alert message, and date of alert.
The delete action occurs without confirmation

Limited Warranty: Watts Regulator Co. (the “Company”) warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.
THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.
Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE

LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.

CUSTOMER SUPPORT

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Documents / Resources

	WATTS LF919 Series Cellular Flood Sensor Retrofit Connection Kit [pdf] Instruction Manual LF919 Series Cellular Flood Sensor Retrofit Connection Kit, LF919 Series, Cellular Flood Sensor Retrofit Connection Kit, Sensor Retrofit Connection Kit, Retrofit Connection Kit, Connection Kit, Kit

References

- Data Entry App | Backflow Testing App | Syncta
- Watts Canada | Plumbing, Heating and Water Quality Solutions
- Watts | Plumbing, Heating and Water Quality Solutions
- connected.syncta.com
- User Manual