



WiDom Multi Sensor Room Controller



Revision History

Rev. Doc.	Date	Reviser	Page	Description
0	24/07/2019	GT	All	Initial Version
1	10/03/2020	GT	All	Integration with Cloud System
2	16/04/2020	GT	14,15	Integration with Google Home

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Introduction

WiDom Multi Sensor Room Controller is a Z-Plus Static controller that integrates a *Luminance, Humidity, Temperature and Loudness* sensor in the same box. It can control a binary switch, dimmer, thermostat, roller sensor and alarm in a security environment with 128-bit AES encryption.

WiDom Multi Sensor Room Controller can operate with Z-Wave devices from any other manufacturer. As main powered device it will act as signal repeater to increase the network reliability.

WiDom Multi Sensor Room Controller does not map the Basic Command Class to any functionality. It ignores Basic Get/Set requests.

WiDom Multi Sensor Room Controller can be included in other Z-Wave Networks (if other Z-Wave nodes are not yet included) and can also include other controllers.

WiDom Multi Sensor Room Controller (from now on indicated as MSRC) has one association group, the "Lifeline" group, which supports sending associated devices reset notifications when the Hub is factory reset.

Technical Specifications

Power Supply	5 VDC
System temperature limitation	105 °C
Work Temperature	From -10° to 40° C
Wi-Fi	b, g (2.4 GHz)
Z-Wave Radio frequency	Check the radio frequency section
Protection system (Z-Wave)	S0 Security
Maximum distance (Z-Wave)	Up to 100 m outdoor Up to 40 m indoor
Conformity	CE, RoHS
Electrical IP Rating	IP 20

Radio Frequency

Product Code	Z-Wave Frequency
WMSRCEU*	868.4 MHz
WMSRCBR	919.8 MHz, 921.4 MHz
WMSRCCL	919.8 MHz, 921.4 MHz
WMSRCCO	908.4 MHz, 916 MHz
WMSRCIN	865.2 MHz
WMSRCJP	922.5 MHz, 923.9 MHz, 926.3 MHz
WMSRCRU	869.0 MHz
WMSRCZA	868.4 MHz, 869.85 MHz
WMSRCTW	922.5 MHz, 923.9 MHz, 926.3 MHz
WMSRCAE	868.4 MHz, 869.85 MHz

Product Code	Z-Wave Frequency
WMSRCAU	919.8 MHz
WMSRCCN	868.4 MHz
WMSRCHK	919.8 MHz
WMSRCIL	916 MHz
WMSRCMY	919.8 MHz, 921.4 MHz
WMSRCSG	920.9 MHz, 921.7 MHz, 923.1 MHz
WMSRCKR	920.9 MHz, 921.7 MHz, 923.1 MHz
WMSRCTH	920.9 MHz, 921.7 MHz, 923.1 MHz
WMSRCUS	908.4 MHz

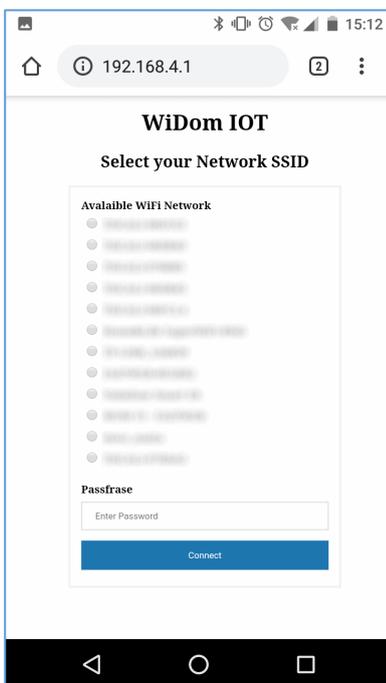
* WMSRCBEU **Black** version and WMSRCCEU **Carrara** version are available upon request.

Initial Setup

At the first run the controller starts in Access Point Mode by showing a SSID name look like WiDomIOT_xxxx where “xxxx” are for digit in the range of 0-9, A-F.



You have to connect to this SSID with a smartphone and prompt “12345678” as password. As soon as the connection has been established open a browser and connect to <http://192.168.4.1>. It will show you all the Wi-Fi networks visible to the controller. You have to select a Wi-Fi network and provide a passphrase in order to connect the device to the specified Wi-Fi Network.



By clicking on "Connect", the controller will restart. Once the restart has been completed, if the connection to the network has been carried out correctly, the BLUE LED blinks once every 15 seconds (in addition, within the network it will be possible to identify an "Expressif" device).

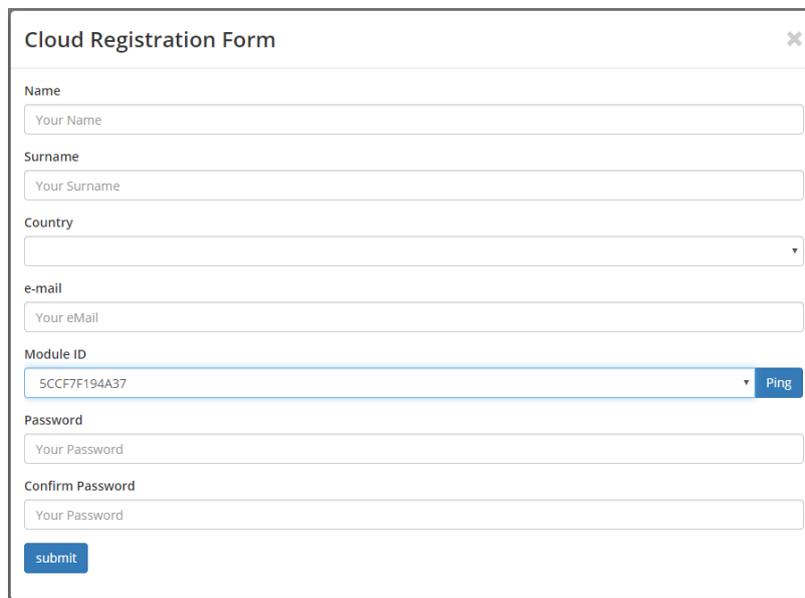
If for some reason (e.g.: incorrect network password) the MSRC module cannot connect to the network, the YELLOW LED will flash every 15 seconds. If the module is not connected, it is necessary to repeat the configuration by reconnecting to the "WiDomIoT_XXXX" access point.

Registration on WiDom Cloud

Once the MSRC module is correctly connected to the Wi-Fi network, it is possible to register on the website <https://www.widom.cloud> for being able to use the MSRC Cloud system.

It is important that for the registration on the site <https://www.widom.cloud>, the connection to the site takes place through a PC or smartphone within the same local network (LAN) to which the MSRC module is connected.

Once connected to the HOME section of the site, click on "Sign UP" at the top right side and the Registration Form will open.



The image shows a web browser window titled "Cloud Registration Form" with a close button (X) in the top right corner. The form contains the following fields and elements:

- Name:** A text input field with the placeholder "Your Name".
- Surname:** A text input field with the placeholder "Your Surname".
- Country:** A dropdown menu.
- e-mail:** A text input field with the placeholder "Your eMail".
- Module ID:** A dropdown menu showing "5CCF7F194A37" and a blue "Ping" button to its right.
- Password:** A text input field with the placeholder "Your Password".
- Confirm Password:** A text input field with the placeholder "Your Password".
- submit:** A blue button at the bottom left of the form.

Fill in all the fields by paying particular attention to insert:

- A password of no less than 5 characters
- A valid email address: in fact, to complete the registration, an account activation link will be sent to that address.

During the registration, it is possible to select the MSRC module among those visible within the LAN network. In case of doubt that the selected module is not the correct one, you can use the "Ping" button, which will make the LED on the device flash (RED-BLUE-GREEN).

To complete the registration process, simply click on the link received by the email at the address used to create the account.

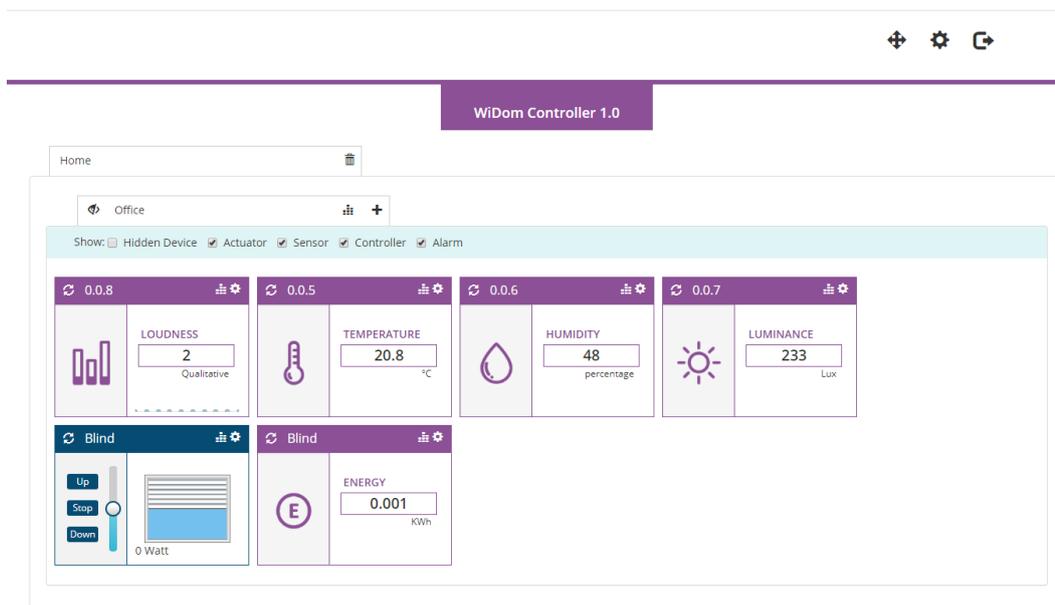
Login to the MSRC dashboard on WiDom Cloud

Once the registration is complete, you can access the dashboard of the MSRC by accessing the login page of <https://www.widom.cloud> and clicking on the link on the top right side.



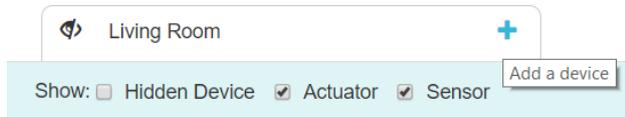
On the login page, enter the credentials:

- **e-mail:** email address used during registration
- **Password:** password chosen during registration

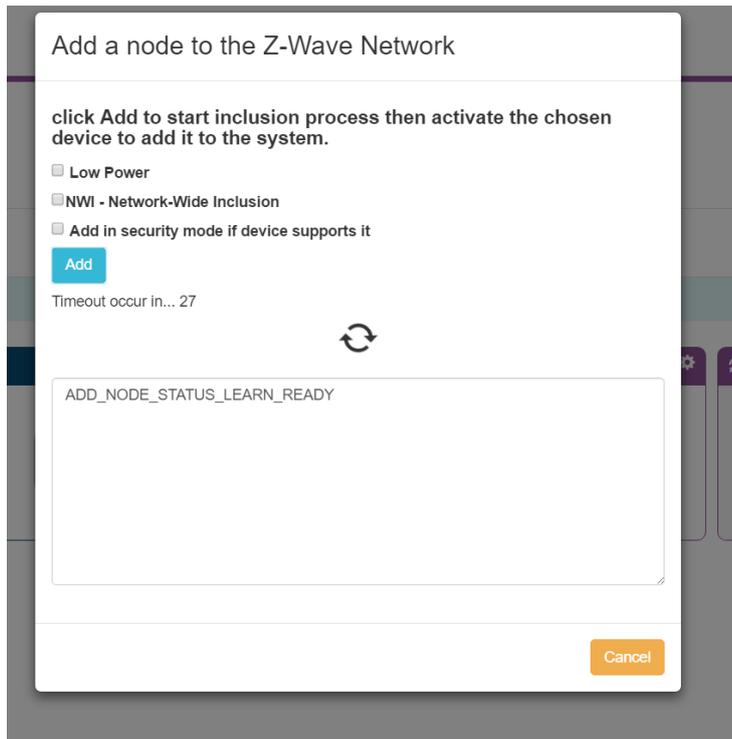
A screenshot of a login modal window titled 'Login'. It has a close button (X) in the top right corner. The form contains two input fields: 'e-mail' with the placeholder text 'Your e-mail' and 'Password' with the placeholder text 'Your Password'. Below the fields are three buttons: 'Login' (blue), 'Cancel' (red), and 'Register' (orange). At the bottom of the modal, there is a link for 'Reset Password'.

Including (add) a new device in the network

A Z-Wave device, either slave or controller, can be added by clicking the plus icon in each of the rooms in the dashboard.

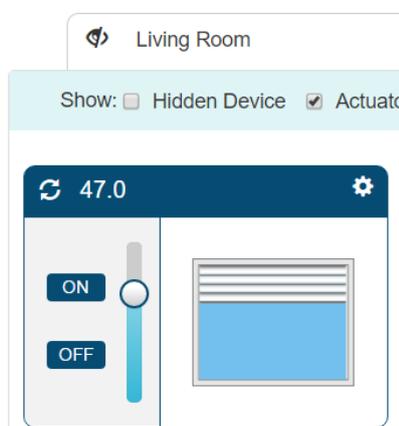


Then a pop-up window will be displayed and the user can choose how to perform the inclusion by setting the security option, Low Power and Network Wide Inclusion options and then press Add Button.



As soon as the inclusion Log shows "ADD_NODE_STATUS_LEARN_READY" the user can activate the Learn mode in the device to be included. The inclusion process can take a while to perform all the steps, including the interview of the device in order to discover their capabilities.

As soon as the inclusion process has been terminated the pop-up windows will be closed and the device will be shown in the dashboard.

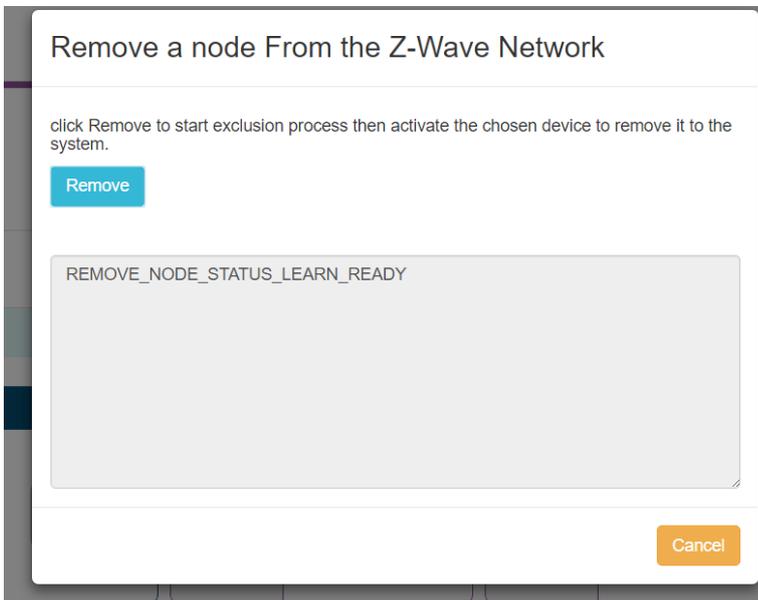


Excluding (remove) a device from the network

A Z-Wave device, either slave or controller, can be Removed by clicking in the Trash icon located in the header dashboard.



Then a pop-up window will be displayed and the user has to press the "Remove" button. As soon as the Exclusion Log shows "REMOVE_NODE_STATUS_LEARN_READY" the user has to get the device into "Learn Mode" by following the instruction of the device manufacturer.

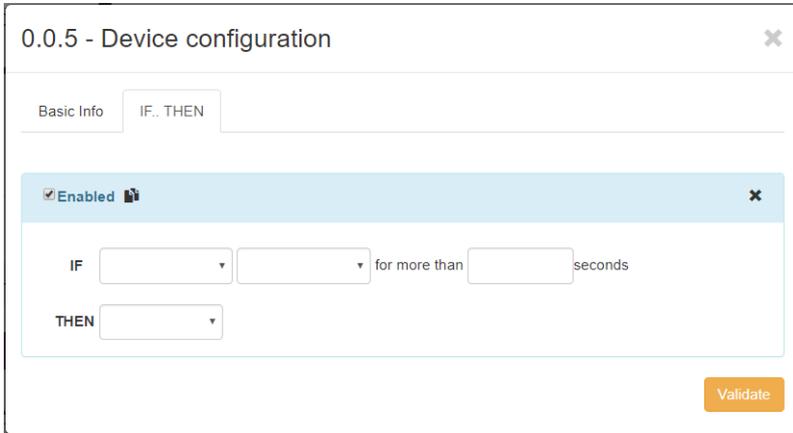


As soon as the exclusion process has been concluded a dashboard will be reloaded without the device that has been removed.

Scenario Settings - devices interaction rules

In order to configure interaction between the devices included in the dashboard, it is possible to set “IF.. THEN” rules.

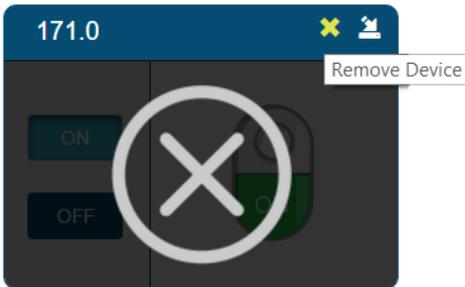
To set these rules click on Configuration Button  in the device control panel and then click on “IF.. THEN” tab. The following form will appear:



You can create or personalize scenarios by filling the fields in the form and then clicking on “Validate” button. It is possible to add rules by clicking on  button, and delete them by clicking on  button.

Remove Failing Node

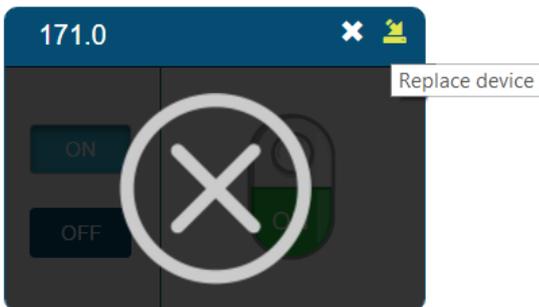
If a device will be recognized by the controller as failing node it will be shown in the dashboard as below.



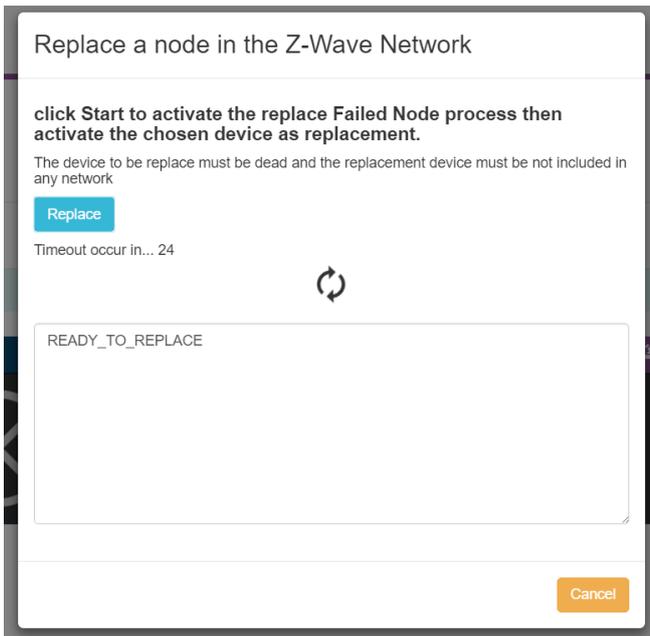
The user can decide to remove the device by clicking the “cross” icon. At that point the controller checks again if the device is still failing and if it is confirmed, the device will be removed.

Replace a Failing node

If a device will be recognized by the controller as failing node it will be shown in the dashboard as below.



The user can decide to replace the device by clicking the “replace” icon. A pop up window will be shown and the user has to click on the replace Button



As soon as the Exclusion Log shows "READY_TO_REPLACE", the user has to get the device that will replace the failed node into "Learn Mode" by following the instruction of the device manufacturer.

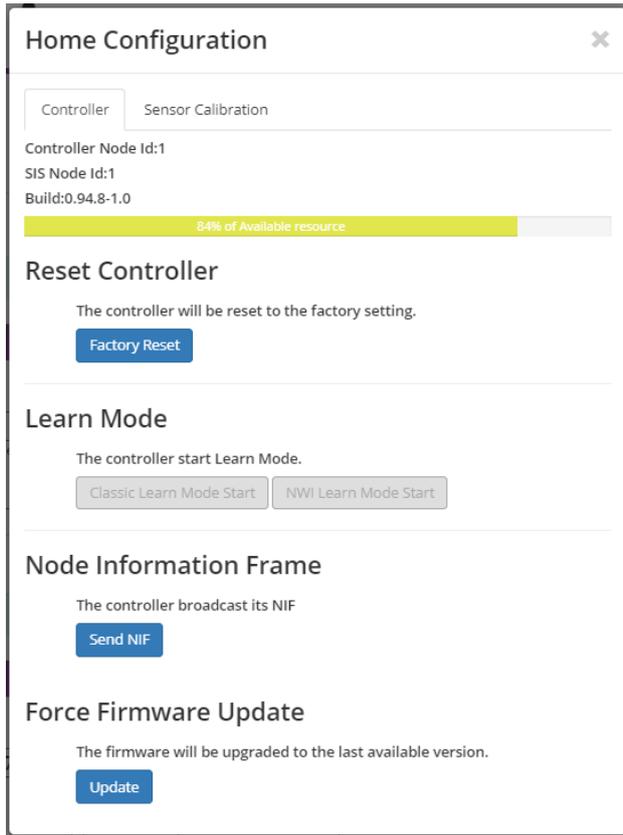
As soon as the Replace process has been terminated the pop-up windows will be closed and the device will be shown in the dashboard instead of the falling node.

Sensors Calibration

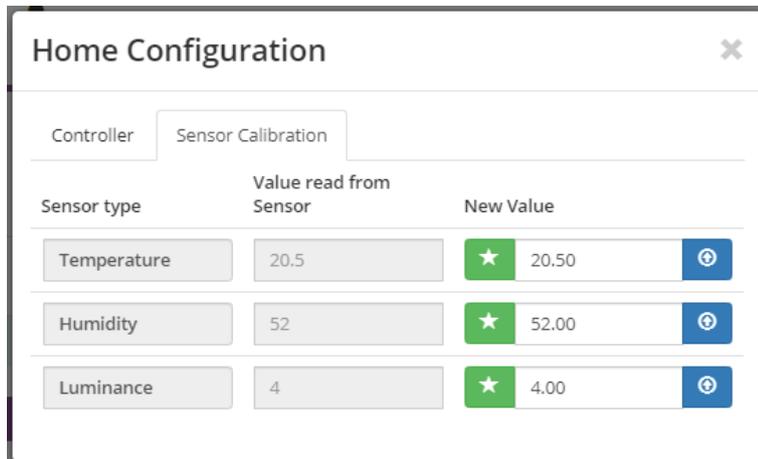
The integrate sensor can be calibrated using the WiDom MSRC interface. You can reach the calibration interface by clicking on the controller settings  on the top right of the dashboard:



The “Home Configuration” pop-up menu will open:



Then clicking on the “Sensor Calibration” tab will show the calibration interface:



The interface shows the sensors that you can calibrate. If the value measured by a sensor is different from real value you can insert the correct value in the “New value” cell and then click on the blue button (“set Value”). In this way the system generate a correction coefficient and use it to correct the value showed in the dashboard. You can reset the calibration coefficient clicking on the green button.

Controller-Learn Mode

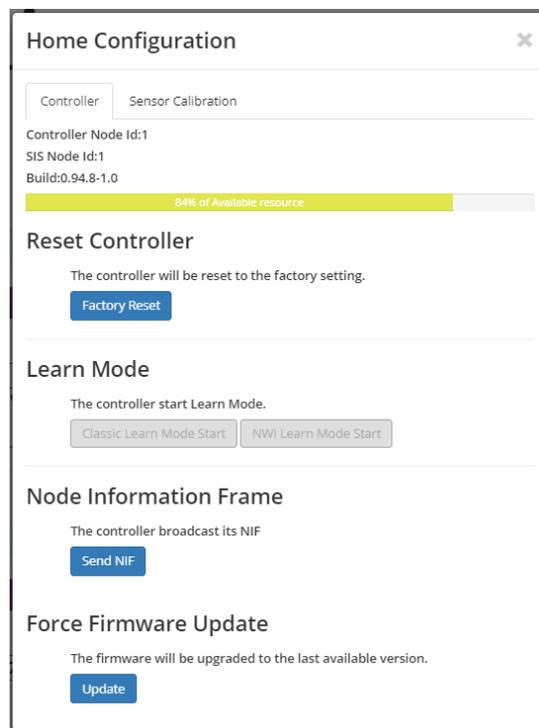
The WiDom controller can be put in learn mode in order to receive the network information from an existing controller.

Depending on the existing controller, the WiDom controller at the end of the process, can become Inclusion/SIS/Secondary controller.

As soon as the existing controller starts an inclusion/add/copy/transfer process, the WiDom Controller must enter the “Learn mode” by following this step:



By clicking on the controller Settings, a pop-up menu will open and the user has to press “Learn Mode Start” button. The Learn Mode will last for about 5 seconds and can be stopped by clicking “Learn Button Stop”.



In order to start the process, the controller that will send all the network information has to start an (Inclusion/add process, copy/transfer process).

This can be a long process since each device needs to be re-interviewed in order to have full access their capabilities.

Controller-Replication (copy)

Part of the inclusion process of a controller is the replication of the network information versus the included controller. In order to start the process WiDom Controller has to start a device inclusion (see “Including (add) a new device in the network” paragraph) and the controller that will be included has to get in “Learn Mode” by following the manufacturer instruction.

Include the controller in an existing Network

If the controller has not yet been included as a node into its network, then it can be included into an existing network. The inclusion process has to start from the including controller by following the instruction provided by the manufacturer, then the WiDom controller has to enter in Learn Mode by following the instruction of this manual's "Controller-Learn Mode" paragraph.

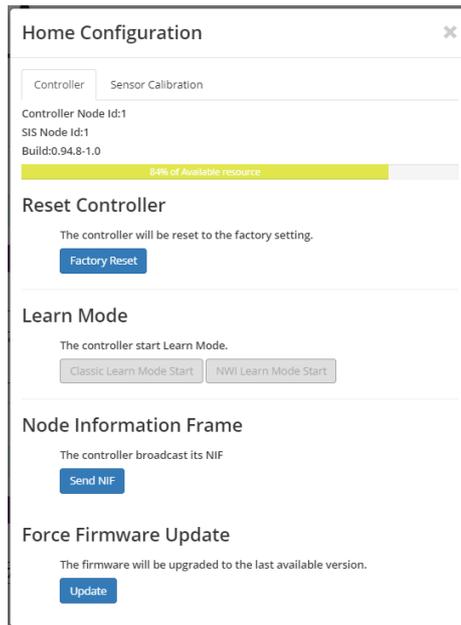
Factory Default Reset

If this controller is the primary controller of your network, by resetting it the nodes in your network will result as being orphaned and it will be necessary after the reset to exclude and re-include all of the nodes in the network. If this controller is being used as a secondary controller in the network, use this procedure to reset this controller only if the network's primary controller is missing or otherwise inoperable."

The controller can be reset to the factory configuration by pressing the factory reset button to the GUI by following these steps:



Click on the controller Settings. A pop-up menu will open and then press the "Factory Reset" button. The system will show an additional pop-up menu for confirmation and if the confirmation is approved it will proceed with the factory reset.



Association Command Class

The device supports a single Association Group for Lifeline association which is used for communicating to its associated node if a device local reset occurs. The group supports the association of up to 5 devices:

Group ID	Group Name	Profile	Commands received	Description
1	LifeLine Group	General: LifeLine	Device Reset Locally Notification	Devices to receive notifications on: device local reset

WiDom Cloud and Alexa

Use of Alexa skills

By using a smartphone, follow the steps below:

1. Open the "menu" at the top left side
2. Select "Skills and games"
3. Enable the "WiDomCloudSkill" skill
4. Log in by entering the credentials used for the registration on <https://www.widom.cloud>
5. If the credentials are correct, it will be possible to start searching for devices connected to the MSRC Cloud
6. Once the search is complete, the temperature sensor and the actuators in the MSRC dashboard will appear among the devices available on Alexa.

Control of devices through Alexa

Once the Alexa application has loaded the dashboard devices it is possible to control them through the app. When a new Z-Wave device is included in the MSRC dashboard it is not immediately visible from the Alexa app, but it is necessary to start the search for new devices from the app:

1. Click on "+" on the device screen
2. Click on "Add device"
3. Click on "Other"

Once the devices are visible from the Alexa app and a voice control device (Amazon Echo) is also included, dashboard devices can be controlled by using voice commands.

The voice commands for controlling the devices depend on their characteristics:

- For switches and smart plugs it is necessary to use voice commands to control devices of "Switch" category (provided by PowerController interfaces):
eg: "Alexa, turn on <device name>" (turn on the device)
- For dimmers it is necessary to use voice commands to control devices of "Dimmable switch" category (provided by PowerController and BrightnessController interfaces):
eg: "Alexa, set the <device name> to xx%" (sets brightness to percentage xx)
- For roller shutters it is necessary to use voice commands to control devices with the "PercentageController" interface:
eg: "Alexa, set the <device name> to xx percent" (sets the shutter opening to the percentage xx)

WiDom Cloud and Google Home

Use of the Google Home action

By using a smartphone, follow the steps below:

1. Log in to the Google Home application
2. Click on the "+" sign to add a device.
3. Click on "+ Configure device".
4. Click on the option to configure a new device "Compatible with Google" (last option below).
5. On the list of available services search and click on "WiDom Cloud"

Log in by entering the credentials used for registration on <https://www.widom.cloud>

If the credentials are correct, the app returns to the "Configure" screen.

Click on the arrow at the top left side to return to the Home section, where the actuators included in the MSRC Cloud dashboard will appear among the available devices.

Control of devices through Google Home

Once the Google Home application has uploaded dashboard devices, you can use the Google Home app to control them. When you include a new Z-Wave device in the MSRC dashboard it is not immediately visible from the Google Home app, but you need to run the followings:

1. A refresh of the dashboard web page
2. A refresh of Home on the Google home app.

After a few moments the new device will appear.

Once the devices are visible from the Google home app and a voice control device is also included (eg: Google mini) it is possible to control the dashboard devices through voice commands.

The voice commands for controlling the devices depend on their characteristics:

- For switches and smart plugs it is necessary to use voice commands to control devices of "Switch" category:
eg: "Ok Google turn on <device name>" (device on)
- For dimmers it is necessary to use voice commands to control devices of "Light" category:
eg: "Ok Google set <device name> on xx%" (sets brightness to percentage xx)
- For roller shutters it is necessary to use voice commands to control devices of "Blinds" category:
eg: "Ok Google set <device name> on xx%" (sets the shutter opening to the percentage xx)

Disposing the devices



This product bears the selective sorting symbol for waste electrical and electronic equipment (WEEE).

This means that this product must be handled pursuant to European Directive 2002/96/EC in order to be recycled or dismantled to minimize its impact on the environment.

For further information, please contact your local or regional authorities.

Electronic products not included in the selective sorting process are potentially dangerous for the environment and human health due to the presence of hazardous substances.

Compliance with directives

WiDom devices are built in compliance with directives LVD 2006/95/EC, EMC 2004/108/CE and R&TTE

WiDom shall not be held responsible for any damage caused by these devices if they are used in a manner that is not compliant with the instructions in this manual. WiDom reserves the right to make any changes to the product that it considers necessary or useful without jeopardizing its primary features.

Warranty

This warranty is provided by WiDom srl (hereinafter “**WiDom**”) based in Quartu S.Elena 09045 (CA), Italy (VAT number 03452490927).

WiDom warrants to the original purchaser (hereinafter “**Customer**”) that the device sold under this agreement (hereinafter “**Device**”) is free from defects in parts and workmanship under normal use for 12 months from date of purchase (“**Warranty Period**”).

The original purchase invoice or sales receipt, showing the date of purchase is the proof of date of purchase by the Customer.

If a Device, sold by WiDom to the Customer, has manufacturing defects or in any case of alleged lack of conformity, the Customer shall send within thirty (30) days from the day in which he discovers such defects, a claim form by using the web site (www.widom.it) informing WiDom on the full name of the Customer, the nature of the defects and the date in which the Devices has been purchased.

Warranty Claims received after the expiration of the Warranty Period shall not be considered valid.

Once WiDom, receives the Warranty Claim, it shall inform the Customer by e-mail or letter, if the Warranty is applicable and the address where the Device shall be sent in order to verify the defects (if any). Customer must prepay shipping and transportation charges as indicated by WiDom. The Device shall be sent by the Customer to WiDom at its own costs and expenses, by express courier or hand delivered, and with the original packaging, the supplied accessories (if any) and documents proving date of purchase. WiDom shall then inform the Customer about the defects and on its repair or replacement (where applicable). Should WiDom not evidence defects on the Device, the Device shall be returned to the Customer.

Should WiDom notices the defects, and this warranty is applicable, it will remove, at its sole discretion, any defect, free of charge, by repairing any defective components of the Device with new or regenerated components or by replacing the Device. The Warranty Period of the replaced or repaired Device shall not be extended.

WiDom will ship the repaired or a replaced Device to Customer freight prepaid.

WiDom will not be liable for damages to property caused by faulty device. WiDom will not be liable for indirect, incidental, special, consequential or punitive damages, or for any damage, including, inter alia, loss of profits, savings, data, loss of benefits, claims by third parties and any property damage or personal injuries arising from or related to the use of the Device.

If the Device cannot be replaced with another of the same type (e.g. the Device is no longer in production or no longer available for selling in the Customer’s country), it may be replaced with a different one having similar technical specifications to the faulty one. Such replacement shall be considered as a total fulfilment of WiDom’s obligations.

Warranty exclusion

- defects caused by normal wear of parts or especially subject to wear, such as parts that require periodic replacement during the normal operation of the system (e.g. Batteries);
- splits, cracks, scratches, dents, scratched or discolored surfaces and parts, breakage of plastic parts and in general of any other cosmetic damage;
- damages resulting from use of the system other than that provided, including but not limited to the failure to follow instructions contained in the operating manual;
- damages caused by accident, abuse, misuse, dirt, viruses, liquid contact, fire, earthquake, improper or inadequate maintenance or calibration, negligence or other external causes;
- environmental damage and / or defects caused by smoke, dust, dirt, soot, or other external influences;
- damages caused by modifications and alterations in the functionality or features without the written permission of WiDom;
- damages resulting from transportation or inadequate packaging when returning the product to a WiDom or to an authorize service center;
- defects caused by force majeure events such as lightning, floods, fires, incorrect voltage, improper ventilation;
- damages caused by malfunctioning software, computer virus attack, or by failure to update the software as recommended by WiDom;
- damages resulting from surges in the power and/or telecommunication network, improper connection to the grid in a manner inconsistent with the operating manual, or from connecting other devices not recommended by WiDom;
- damages caused by operating or storing the device in extremely adverse conditions, i.e. high humidity, dust, too low (freezing) or too high ambient temperature;
- products whose serial number has been removed, damaged or rendered illegible;
- expiration of the Warranty Period.

If a defect is not covered by the Warranty, WiDom will inform the Customer about the extra expenses for the repair or replacement.

This warranty may be subject to changes. Please check at www.widom.it the newest warranty claim procedure.

This guarantee shall not exclude, limit or suspend the Customer rights when the provided product is inconsistent with the purchase agreement.

Extended warranty activation

The devices bought in the EU, entitle the end customers to a two-year guarantee offered by the retailer (or trader) that is separate from the above commercial guarantee offered by the manufacturer to the distributor or reseller.

WiDom offers an extra year guarantee to the end customers in addition to the EU guarantee. This warranty can be obtained only if the customer completes, by using the contacts on WiDom's website, the following two steps:

- 1) Within fifteen (15) days from the date of purchase, send to WiDom a copy of the purchase invoice and product code;
- 2) Promptly after installing the device, send to WiDom the conformity certification issued by the professional who installed the device with indication of the serial number.

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