

Alloy SmartHome Hub

User Guide

Last revised: December 4, 2020

About the Alloy SmartHome Hub

The Alloy SmartHome™ Hub is a **Security Enabled Z-Wave Plus™ central static controller**.

It is responsible for managing a network of Z-Wave™-compliant devices from a fixed location.



The Alloy SmartHome Hub provides extensive support for the following Z-Wave-compliant devices:

- Thermostats
- Secure door locks
- Notification sensors
- Binary and multilevel power switches
- Sirens
- Scene controllers

All Z-Wave-compliant devices from different manufacturers and product categories can be a part of the Z-Wave network controlled by the Alloy SmartHome Hub. At a minimum, the Alloy SmartHome Hub will control them via basic on/off commands.

Note that non-battery powered nodes can act as repeaters regardless of manufacturers.

Connecting to the Alloy SmartHome Hub




The Alloy SmartHome Hub (henceforth the Hub) is accessible via WiFi and cellular networks.

To access your Hub via WiFi, you first need to connect to your Hub's own access point. This will allow you to edit initial WiFi connection settings:

- Make sure that your computer is WiFi-enabled and that is not otherwise connecting to a network.
- Start the Hub by connecting it to its power supply.
- Wait for the LED to turn from blinking red to blinking orange.
- Press the button just above the LED for at least 5 seconds; this puts the Hub into Access Point Mode. The LED light will go from blinking green/red to steady orange.
- An SSID starting with srh (e.g. srh180517024) will soon appear to your computer's WiFi access manager (if in range).
- Select this access point. No password is required to connect to it.
- In your browser, enter the address <https://setupalloy.com>
- After the page opens, select an SSID, enter its password and apply the configuration.
- Press the complete button when it appears.
- The LED light on the Hub should eventually turn steady green.
- On your computer, select the same WiFi access point you configured your Hub with.

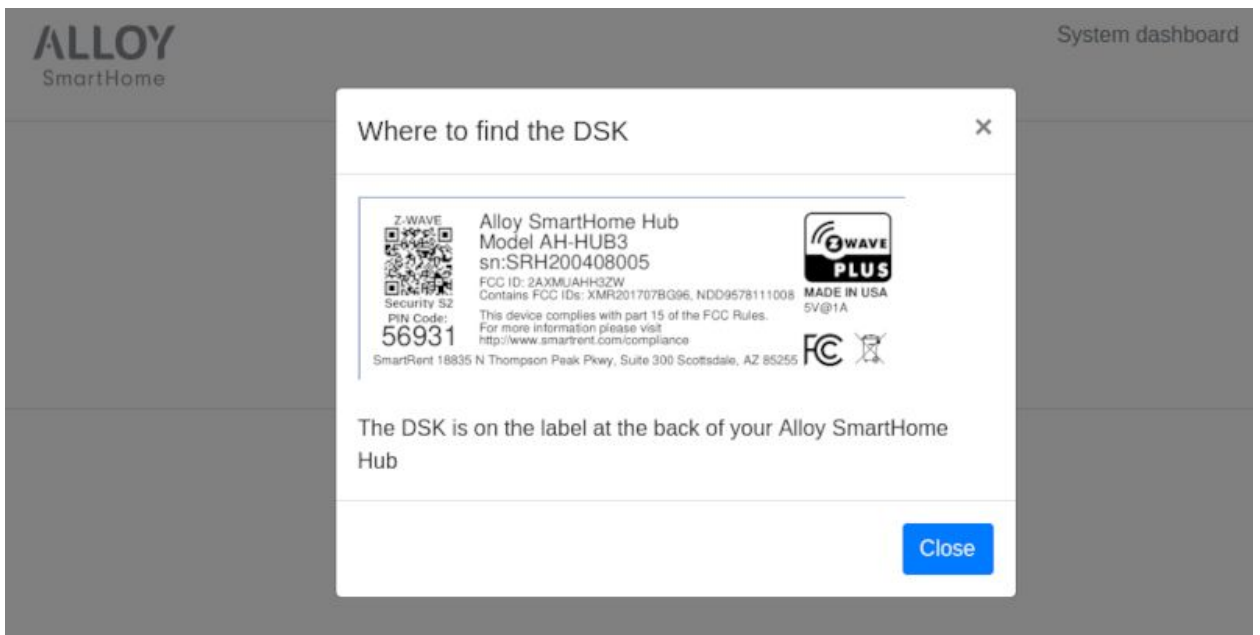
Accessing the Alloy SmartHome Hub Web application

- Find the serial number of the Hub (something like *SRH176390014*). You may already know it as it is the name of Hub's access point (see above). The serial number also appears below the barcode on the label attached to the underside of the Hub.

 <p>Z-WAVE Security S2 PIN Code: 56931</p>	<p>Alloy SmartHome Hub Model AH-HUB3 sn:SRH200408005</p> <p>FCC ID: 2AXMUJAH3ZW Contains FCC IDs: XMR201707BG96, NDD9578111008</p> <p>This device complies with part 15 of the FCC Rules. For more information please visit http://www.smartrent.com/compliance</p> <p>SmartRent 18835 N Thompson Peak Pkwy, Suite 300 Scottsdale, AZ 85255</p>	 <p>MADE IN USA 5V@1A</p>  
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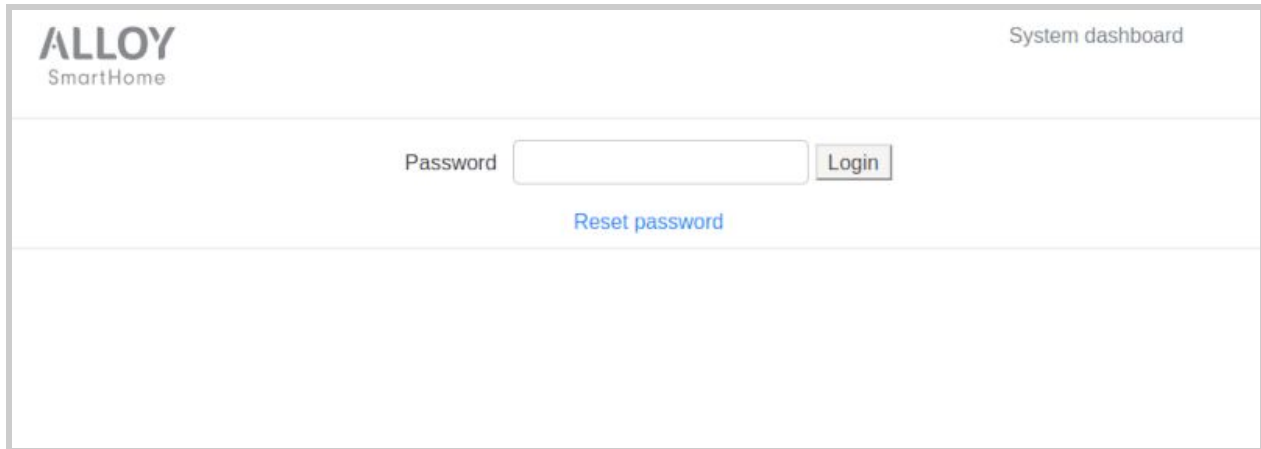
- Open a Web browser and enter the address <https://<serial number>.local:4443> (for example, <https://SRH176390014.local:4443>¹)
- Follow the instructions on the login page to create a password.

The screenshot shows the Alloy SmartHome login page. At the top left is the Alloy SmartHome logo, and at the top right is the text "System dashboard". The main content area contains a form for creating a password. It starts with a prompt "Enter the first 5 digits of the DSK" followed by a text input field and a question mark icon. Below this is a "Choose a password" section with a text input field and a button labeled "At least 8 characters". The next section is "Confirm password" with a text input field and a button labeled "Enter the password again". At the bottom of the form is a button labeled "Set password".



Once the password has been successfully created, you will be taken to the login screen where you will be asked to use it.

¹ If your computer is running Windows, you might need to use the Hub's IP address instead, for example, <https://192.168.0.33:4443>. See your router's documentation for instructions on how to see the list of IP addresses it allocates. You will recognize the Alloy SmartHome Hub in the list by its serial number.

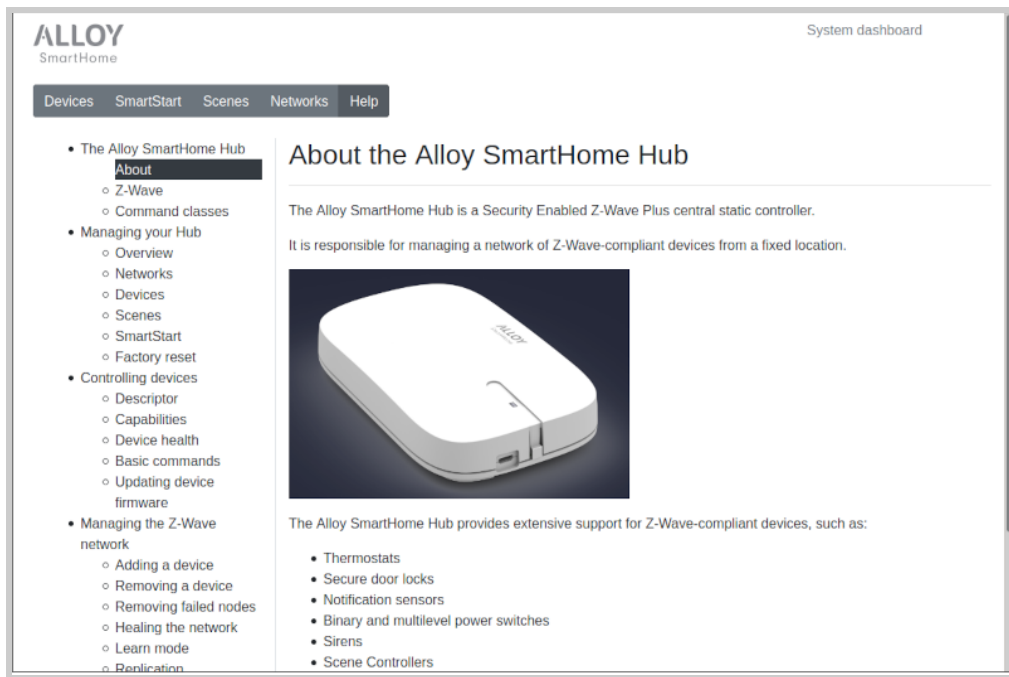


You can reset your password at any time when asked to login into your Hub. You will be taken to the password creation page.

Using the Alloy SmartHome Hub Web application

The Alloy SmartHome Hub Web application gives comprehensive access to the Hub's functionality.

After logging in, select the **Help** tab for documentation on how to use the Web application to manage your Alloy SmartHome Hub.



Managing the Z-Wave network

(Please see the help section in the Web application for additional information.)

Adding a device

When the **Devices** tab is selected, an **Add a device** button is displayed under the list of already added devices.

The screenshot shows the ALLOY SmartHome interface. At the top left is the logo 'ALLOY SmartHome'. A navigation bar contains 'Devices', 'SmartStart', 'Scenes', 'Networks', and 'Help'. The 'Devices' tab is active, displaying a list of devices:

ID	Name	Status
1	Central controller	awake
11	Power switch binary	awake
12	Power switch multilevel	awake
13	Door lock	awake
14	Thermostat general v2 + 2	awake
15	Portable remote controller	asleep

Below the list are buttons: 'Add a device', 'Remove a device', 'Update firmware (target 0)', 'Remove failed nodes', and 'Heal network'. On the right, the 'Capabilities' section is visible, showing a table of device information:

Descriptor	Capabilities										
About	<table border="1"> <tr> <td>Firmware ids</td> <td>0 and 5 and 4</td> </tr> <tr> <td>Firmware version</td> <td>1.3.18</td> </tr> <tr> <td>Manufacturer specific</td> <td>manufacturer id is 912, product id is 1, product type id is 1</td> </tr> <tr> <td>Security</td> <td>secure</td> </tr> <tr> <td>Serial number</td> <td>h'1E32103E5D</td> </tr> </table>	Firmware ids	0 and 5 and 4	Firmware version	1.3.18	Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1	Security	secure	Serial number	h'1E32103E5D
Firmware ids	0 and 5 and 4										
Firmware version	1.3.18										
Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1										
Security	secure										
Serial number	h'1E32103E5D										
Attributes	<table border="1"> <tr> <td>Zwave version</td> <td>firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14</td> </tr> </table>	Zwave version	firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14								
Zwave version	firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14										

At the bottom right, the 'Firmware uploads' section includes a dropdown for 'Upload firmware file for target' (set to 0) and a 'Browse...' button with the text 'No file selected.'

To add a device that is not yet part of a Z-Wave network, press the **Add a device** button and put a device into "add mode" (follow the instructions in the documentation that came with the device).

The Hub automatically discovers the capabilities of the devices added to its network when they are added and every time it starts up. Should the devices acquire new capabilities via firmware updates, these capabilities, to the extent that they are supported by the Hub, will be discovered the next time the Hub is restarted.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

1	Central controller	awake
10	Power switch binary	awake
11	Power switch multilevel	awake
12	Thermostat general v2 + 2	awake
14	Door lock	awake
15	Portable remote controller	asleep

Put a device into add mode...

Descriptor Capabilities

About	Firmware ids	0 and 5 and 4
	Firmware version	1.3.18
	Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1
	Security	secure
Serial number		h'1E32103E5D

Attributes	Zwave version	firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14
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Firmware uploads

Upload firmware file for target 0 No file selected.

If the device is an S2 authenticated device, in order to securely include it, you will be asked to provide its PIN.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

1	Central controller	awake
10	Power switch binary	awake
11	Power switch multilevel	awake
12	Thermostat general v2 + 2	awake
14	Door lock	awake
15	Portable remote controller	asleep

Enter the first 5 digits of the device's DSK (*****
19681-17330-01535-50608-20542-60346-63375)

Descriptor Capabilities

About	Firmware ids	0 and 5 and 4
	Firmware version	1.3.18
	Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1
	Security	secure
Serial number		h'1E32103E5D

Attributes	Zwave version	firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14
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Firmware uploads

Upload firmware file for target 0 No file selected.

The hub should complete the process automatically and, after a few seconds, report success and add the device to the list.

The screenshot shows the SmartRent application interface. At the top left is the SmartRent logo. Below it are navigation tabs for 'Devices', 'Networks', and 'Help'. The 'Devices' tab is active, displaying a list of devices with their IDs, names, and status (awake or asleep). A 'Remove a device' button is visible below the list. Below the list are buttons for 'Add a device', 'Remove a device', and 'Add S2 authenticated device with pin' (with a pin input field containing '11111'). A 'Remove failed nodes' button is also present. A green notification box at the bottom states: 'A notification sensor device was added with id 75. Security is none.' On the right side, there are tabs for 'Descriptor' and 'Capabilities'. The 'About' section is expanded, showing a table of device information:

Descriptor	Capabilities
About	
Firmware version	0
Home id	3884298480
Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1
Security	s2 access control
Serial number	h1E32137344

Below the 'About' section is an 'Attributes' tab.

If the device was not added securely, the application reports the fact.

The application also reports when adding a device fails or times out.

Removing a Device

When the **Devices** tab is selected, a **Remove a device** button is displayed under the list of already added devices.

To remove a device from the Z-Wave network controlled by the Hub, press the button and put one of the listed devices (other than the "Gateway") into "remove mode" (follow the instructions in the documentation that came with the device).

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

● 1	Central controller	☰ awake
● 10	Power switch binary	☰ awake
● 11	Power switch multilevel	☰ awake
● 12	Thermostat general v2 + 2	☰ awake
● 14	Door lock	☰ awake
● 15	Portable remote controller	☰ asleep
● 16	Notification sensor (water)	☰ asleep

Put a device in remove mode...

Descriptor Capabilities

About	Firmware ids	0 and 5 and 4
	Firmware version	1.3.18
	Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1
	Security	secure
	Serial number	h'1E32103E5D
Attributes	Zwave version	firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14
Firmware uploads	Upload firmware file for target	0 ▾ Browse... No file selected.

The Hub should complete the process automatically and, after a few seconds, report success and remove the device from the list.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

● 1	Central controller	☰ awake
● 10	Power switch binary	☰ awake
● 11	Power switch multilevel	☰ awake
● 12	Thermostat general v2 + 2	☰ awake
● 14	Door lock	☰ awake
● 15	Portable remote controller	☰ asleep

Add a device Remove a device

Remove failed nodes Heal network

The notification sensor device with id 16 was removed

Descriptor Capabilities

About	Firmware ids	0 and 5 and 4
	Firmware version	1.3.18
	Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1
	Security	secure
	Serial number	h'1E32103E5D
Attributes	Zwave version	firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14
Firmware uploads	Upload firmware file for target	0 ▾ Browse... No file selected.

The Alloy SmartHome web application also reports an error whenever removing a device failed or timed out.

Updating device firmware

Some devices allow their firmware to be updated. Such a device will expose one or more firmware “targets” for updating.

For example, a door lock might expose one target (always target 0) for updating firmware on its Z-Wave chip, and expose another target for updating firmware on its touch panel.

If a device supports firmware updating and if it provides the information required to carry this out (manufacturer id and target firmware ids), a *Firmware Uploads* section will appear at the bottom of the device’s Descriptor containing a file upload form.

The screenshot shows the Alloy SmartHome interface. At the top left is the logo 'ALLOY SmartHome' and 'System dashboard' at the top right. A navigation bar contains 'Devices', 'SmartStart', 'Scenes', 'Networks', and 'Help'. Below this is a list of devices:

1	Central controller	awake
6	Power switch binary	awake
7	Power switch multilevel	awake
8	Door lock	awake
9	Thermostat general v2 + 2	awake
10	Portable remote controller	asleep

Buttons for 'Add a device' and 'Remove a device' are below the list. The 'Door lock' device (ID 8) is selected, and its descriptor is shown. The descriptor has two tabs: 'Descriptor' and 'Capabilities'. The 'About' section contains:

Firmware ids	42400 and 32770
Manufacturer specific	manufacturer id is 297, product id is 17920, product type id is 32770
Security	secure
Serial number	h'14B457FFFE0F6AFC

The 'Attributes' section contains:

Battery percent	98
Doorlock	secured
Zwave version	firmware version is 2.13, hardware version is 2, library type is enhanced slave, other firmware versions is [43.19], protocol version is 7.13

The 'Firmware uploads' section contains a dropdown menu for 'Upload firmware file for target' set to '0', and a 'Browse...' button with the text 'No file selected.' below it.

If you have access to firmware image files for your device (files with *.gbl* extensions), your first step will be to upload them one at a time to the Hub, after indicating the intended target for each one. Pressing **Browse** opens a file browser that filters for “.gbl” files. After selecting a file, the **Upload** button becomes visible. Press it to upload the file to the Alloy SmartHome Hub.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

● 1	Central controller	- awake
● 6	Power switch binary	- awake
● 7	Power switch multilevel	- awake
● 8	Door lock	awake
● 9	Thermostat general v2 + 2	awake
○ 10	Portable remote controller	asleep

Firmware image uploaded for target 0.

Descriptor	Capabilities								
About	<table border="1"> <tr> <td>Firmware ids</td> <td>42400 and 32770</td> </tr> <tr> <td>Manufacturer specific</td> <td>manufacturer id is 297, product id is 17920, product type id is 32770</td> </tr> <tr> <td>Security</td> <td>secure</td> </tr> <tr> <td>Serial number</td> <td>h'14B457FFFE0F6AFC</td> </tr> </table>	Firmware ids	42400 and 32770	Manufacturer specific	manufacturer id is 297, product id is 17920, product type id is 32770	Security	secure	Serial number	h'14B457FFFE0F6AFC
Firmware ids	42400 and 32770								
Manufacturer specific	manufacturer id is 297, product id is 17920, product type id is 32770								
Security	secure								
Serial number	h'14B457FFFE0F6AFC								
Attributes	<table border="1"> <tr> <td>Battery percent</td> <td>98</td> </tr> <tr> <td>Doorlock</td> <td>secured</td> </tr> <tr> <td>Zwave version</td> <td>firmware version is 2.13, hardware version is 2, library type is enhanced slave, other firmware versions is [43.19], protocol version is 7.13</td> </tr> </table>	Battery percent	98	Doorlock	secured	Zwave version	firmware version is 2.13, hardware version is 2, library type is enhanced slave, other firmware versions is [43.19], protocol version is 7.13		
Battery percent	98								
Doorlock	secured								
Zwave version	firmware version is 2.13, hardware version is 2, library type is enhanced slave, other firmware versions is [43.19], protocol version is 7.13								
Firmware uploads	Upload firmware file for target <input type="button" value="0"/> <input type="button" value="Browse..."/> YRD226_256_8002_V4.3.19_Dev.version.gbl <input type="button" value="Upload"/>								

Once firmware image files have been successfully uploaded, an **Update Firmware (target ...)** button will appear for each associated target. Pressing the **Update Firmware (target 0)** button will immediately start the firmware update process for target 0 of the device etc.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

● 1	Central controller	- awake
● 6	Power switch binary	- awake
● 7	Power switch multilevel	- awake
● 8	Door lock	awake
● 9	Thermostat general v2 + 2	awake
○ 10	Portable remote controller	asleep

Uploading firmware... (from fragment is 102, number of fragments wanted is 1)

Descriptor	Capabilities								
About	<table border="1"> <tr> <td>Firmware ids</td> <td>42400 and 32770</td> </tr> <tr> <td>Manufacturer specific</td> <td>manufacturer id is 297, product id is 17920, product type id is 32770</td> </tr> <tr> <td>Security</td> <td>secure</td> </tr> <tr> <td>Serial number</td> <td>h'14B457FFFE0F6AFC</td> </tr> </table>	Firmware ids	42400 and 32770	Manufacturer specific	manufacturer id is 297, product id is 17920, product type id is 32770	Security	secure	Serial number	h'14B457FFFE0F6AFC
Firmware ids	42400 and 32770								
Manufacturer specific	manufacturer id is 297, product id is 17920, product type id is 32770								
Security	secure								
Serial number	h'14B457FFFE0F6AFC								
Attributes	<table border="1"> <tr> <td>Battery percent</td> <td>98</td> </tr> <tr> <td>Doorlock</td> <td>secured</td> </tr> <tr> <td>Zwave version</td> <td>firmware version is 2.13, hardware version is 2, library type is enhanced slave, other firmware versions is [43.19], protocol version is 7.13</td> </tr> </table>	Battery percent	98	Doorlock	secured	Zwave version	firmware version is 2.13, hardware version is 2, library type is enhanced slave, other firmware versions is [43.19], protocol version is 7.13		
Battery percent	98								
Doorlock	secured								
Zwave version	firmware version is 2.13, hardware version is 2, library type is enhanced slave, other firmware versions is [43.19], protocol version is 7.13								
Firmware uploads	Upload firmware file for target <input type="button" value="0"/> <input type="button" value="Browse..."/> YRD226_256_8002_V4.3.19_Dev.version.gbl								

Be aware that the firmware update process might take many minutes.

A firmware update might fail for a number of reasons, including:

- The firmware image file is not valid for its target.
- The device target has already been updated to the same or a higher firmware version.
- The firmware update process was somehow unable to complete successfully.

The device will usually restart once the firmware update process has completed successfully.

Please note that when the Alloy SmartHome Hub reboots, it intentionally forgets the firmware image files that were uploaded to it.

Healing the Z-Wave network

Devices can become inaccessible because of incorrect routing data distributed over devices in the network.

Pressing the Heal network button will often resolve the issue.

The screenshot shows the Alloy SmartHome System dashboard. On the left, there is a list of devices with their status (awake or asleep). Below the list are buttons for 'Add a device', 'Remove a device', 'Update firmware (target 0)', 'Remove failed nodes', and 'Heal network'. On the right, there is a 'Descriptor' and 'Capabilities' section with a table of device information, and a 'Firmware uploads' section with a file upload button.

Descriptor	Capabilities
About	Firmware ids: 0 and 5 and 4
	Firmware version: 1.3.18
	Manufacturer specific: manufacturer id is 912, product id is 1, product type id is 1
	Security: secure
	Serial number: h'1E32103ESD
Attributes	Zwave version: firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14

The network healing process takes very little time and the outcome is shown.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

ID	Device Name	Status
1	Central controller	awake
11	Power switch binary	awake
12	Power switch multilevel	awake
13	Door lock	awake
14	Thermostat general v2 + 2	awake
15	Portable remote controller	asleep

Network healing: done

Descriptor Capabilities

About	Capabilities
Firmware ids	0 and 5 and 4
Firmware version	1.3.18
Manufacturer specific	manufacturer id is 912, product id is 1, product type id is 1
Security	secure
Serial number	h*1E32103E5D

Attributes	Capabilities
Zwave version	firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14

Firmware uploads

Upload firmware file for target 0

No file selected.

Putting the Hub in Learn Mode

The Alloy SmartHome Hub can be put in Learn Mode in order to add it to another controller's network as a secondary controller. This is useful when performing tests on the Hub.

Please note that the moment the Alloy SmartHome Hub becomes a secondary controller, it falls under the control of the primary controller. Until the Hub becomes primary again, the Alloy SmartHome Hub Web application is no longer functional.

You put the Hub in Learn Mode with the small button on the Hub itself (just above the LED light).



Press it twice within one second and it will put the Alloy SmartHome Hub in Learn Mode for 30 seconds. The LED flashes green while the Hub is in Learn Mode from pressing the button. The Hub restarts if it was successfully added as a secondary controller by another controller.

Replication

The Alloy SmartHome Hub is a Z-Wave static central controller. It is responsible for managing a network of Z-Wave-compliant devices from a fixed location.

It typically acts as the "primary" controller for the network, meaning that it is responsible for the addition (inclusion) and removal (exclusion) of devices from the network. Only primary controllers can add or remove devices. A controller maintains "routing tables" and uses them to reach the devices in its network.

A primary controller can add another, secondary, controller to the network. When it does, it "replicates" its routing tables on the secondary controller.

There are two possible replication scenarios involving the Alloy SmartHome Hub:

- The Alloy SmartHome Hub adds a secondary Z-Wave controller, and replicates its routing tables to it.
- Another controller adds the Alloy SmartHome Hub to its own network as a secondary controller, and replicates its routing tables to it.

The Alloy SmartHome Hub adds a controller (from any manufacturer) to its network the same way it adds any new device.

The routing tables on the Alloy SmartHome Hub are automatically replicated to the newly added, secondary, controller.

It is possible to have another controller add the Alloy SmartHome Hub to its own network. It is a rare procedure, carried out only by qualified personnel. It is typically done to run tests.

The Alloy SmartHome Hub must be put into Learn Mode before it can be added by another controller. This is done by pressing twice within one second on the physical button on the Hub that's just above the LED. The Hub will be put in Learn Mode for 30 seconds. If the Hub is successfully added by another controller, it will reboot.

The other controller then takes over the role of primary controller and replicates its routing table on the Alloy SmartHome Hub which has now become a secondary controller.

From the [Z-Wave Node Type Overview and Network Installation Guide](#)

4.1.1.2 Including controllers

The inclusion process is initiated by activating the include initiator on the Primary Controller or Inclusion Controller and the include initiator on the new controller that should be included into the network. The Primary Controller or Inclusion Controller will assign Home ID and Node ID to the new controller, which will then automatically become a Secondary or Inclusion Controller.

As part of the inclusion of additional controllers into the network, a replication of the routing tables and optionally other information will automatically take place. This ensures that the new controller has the newest information available. At later stages, when the Primary Controller has been updated with new nodes (or nodes have been deleted), a new replication can be initiated by activating the include initiators on both controllers as desired above. This network information updating can also be done automatically using the Static Update Controller functionality.

Factory Reset

To reset the Alloy SmartHome Hub to its factory settings, you will first need to remove all devices. A **Factory reset** button will then become visible.

The screenshot shows the Alloy SmartHome System dashboard. At the top left is the logo 'ALLOY SmartHome' and at the top right is 'System dashboard'. Below the logo is a navigation bar with 'Devices', 'SmartStart', 'Scenes', 'Networks', and 'Help'. A status bar shows '1 Central controller' with a '- awake' indicator. On the left side, there are several buttons: 'Add a device', 'Remove a device', 'Remove failed nodes', 'Heal network', 'Put in learn mode', and 'Factory reset'. The 'Factory reset' button is highlighted in black. On the right side, there are two tables. The first table, titled 'About', lists: Firmware ids (0 and 5 and 4), Firmware version (1.3.18), Manufacturer specific (manufacturer id is 912, product id is 1, product type id is 1), Security (secure), and Serial number (h*1E32103E5D). The second table, titled 'Attributes', lists: Zwave version (firmware version is 7.14, hardware version is 1, library type is bridge controller, other firmware versions is [7.14 and 2.3], protocol version is 7.14). Below the tables is a 'Firmware uploads' section with a dropdown menu set to '0' and a 'Browse...' button, with the text 'No file selected.' below it.

Pressing the **Factory reset** button will immediately reset the Hub. The Hub will reboot.

If this controller is the primary controller for your network, resetting it will result in the nodes in your network 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 in the event that the network primary controller is missing or otherwise inoperable.

Associations

The Hub supports the Association Group 1 (Lifeline).

Notifications emitted by devices in the Z-Wave network controlled by the Hub are propagated to the Alloy SmartHome Hub Web application, as well as to external applications connected via the Hub's secure MQTT API.

The currently supported types of notifications are:

- Smoke Alarm
- Water Alarm
- Access Control Event
- Home Security Event
- Siren Event
- Power Management Alarm

Attribute values shown for each device are updated upon receiving a notification for that device. Any attribute value updated from the last received notification is highlighted in yellow.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

1	Central controller	awake
6	Power switch binary	awake
7	Power switch multilevel	awake
8	Door lock	awake
9	Thermostat general v2 + 2	awake
10	Portable remote controller	asleep

Add a device Remove a device

Descriptor Capabilities Root device

About	Firmware ids	67 and 113 and 114
	Manufacturer specific	manufacturer id is 152, product id is 36, product type id is 51201
	Security	none
	Serial number	0573

Attributes	Battery percent	67
	Humidity	51
	Temperature	85.5
	Thermostat cooling setpoint	78
	Thermostat fan mode	mode is auto low
	Thermostat fan state	state is off
	Thermostat heating setpoint	70
	Thermostat mode	mode is heat
	Thermostat operating state	state is heating
	Zwave version	firmware version is 11.27, hardware version is 0, library type is enhanced slave, other firmware versions is [0.36 and 0.4], protocol version is 4.5

Firmware uploads Upload firmware file for target 0

Browse... No file selected.

Managing WiFi connection

The Hub implements a secure MQTT API accessible to authorized, remote applications. To be made accessible to such remote applications, your Hub needs to be connected to the Internet.

The Hub connects to the Internet via a WiFi router.

ALLOY SmartHome System dashboard

Devices SmartStart Scenes Networks Help

Interfaces	Ethernet and WiFi
Current interface	WiFi
WiFi access	momo (very strong) <input type="button" value="Refresh"/> passphrase <input type="button" value="Select"/> <input type="button" value="Forget"/>
MQTT connection	is up
Networking status	hub ready

To connect the Hub to a WiFi router, select the **Networks** tab and follow these instructions:

- Next to “WiFi access”, the SSIDs of WiFi access points visible to the Hub will populate a drop-down menu. Look in this menu for the access point you want to connect to. If you do not see it, press the “refresh” icon until it appears.
- Select the desired SSID, enter its passphrase (be aware that no verification is made to ensure it is the correct one!), and press Select.
- You will be reminded that this will disconnect you from your Hub, and that you may need to reload the page after the Hub has completed reconfiguring its WiFi access.
- Assuming the passphrase was correct, your Hub will connect to your WiFi LAN via the access point you just selected. The LED light will turn green after approximately 10 to 20 seconds and start blinking. This indicates that connection to your WiFi LAN was successful². To continue use of the Alloy SmartHome Hub Web application, you will need to configure your computer’s WiFi access to the same SSID you set for your Hub.
- If the LED light remains orange, then connecting to your WiFi LAN was unsuccessful, possibly because you entered the wrong passphrase. If this happens, disconnect and reconnect the power supply to restart the Hub, and then redo the procedure to connect your computer to the Hub’s own access point (press the button under the steady orange LED for 5 seconds). When completed, reload the Web application, login, press the **Networks** tab and try again connecting to your WiFi LAN.
- You may need to wait up to two minutes for your computer to “see” the Web application over your WiFi LAN after switching your Hub to it.
- Windows computers need to have Apple Bonjour³ installed to see the Hub’s *srh<serial number>.local* domain over your WiFi LAN⁴. However, Bonjour is not needed if you know the IP address your WiFi router assigned to your Hub. You can then access the Web application using the Hub’s IP address as follows:
https://<ip address>:4443 (for example, *https://192.168.0.12:4443*).

Indicator

The Alloy SmartHome Hub identifies itself using its LED when sent the Indicator Set command from the Indicator command class with the Indicator ID 0x50 (identify).

² Note that if your LAN is not connected to the Internet, the Hub will reboot automatically after 15 minutes.

³ https://support.apple.com/kb/DL999?viewlocale=en_US&locale=en_US

⁴ The Alloy SmartHome Hub uses the mDNS protocol to make known its *srh<serial number>.local* domain name over the local network. The Windows 10 and prior versions require Apple Bonjour installed to properly understand the mDNS protocol.



The Hub rapidly cycles through green, orange and red (0.5 secs per color) until identification is stopped, also via the Indicator Set command.

SmartStart™

Z-Wave SmartStart automates the secure addition of devices to the Z-Wave network controlled by the Alloy SmartHome Hub.

By giving the Hub a list of provisioned devices, you are instructing it to automatically add matching devices to the Z-Wave network, if not already added, whenever they are detected by the Hub. Only one device can possibly match a given SmartStart provisioning.

SmartHome

System dashboard

Devices
SmartStart
Scenes
Networks
Help

40083...	Inovelli 4-in-1 sensor	Device not added
18235...	Yale Z-Wave Plus v2	Device 14 added

Refresh all

Add provisioning

DSK	18235-19681-17330-01535-50608-20542-60346-63375
Name	Yale Z-Wave Plus v2
mode	smart start
network status	included
node id	14
setting	pending

Remove

A device is provisioned first clicking on the "Add provisioning" button and then editing the details of its provisioning. This is done by entering its 40-digit secure device key (SDK), accompanied by a meaningful name. Note that the SDK is composed of eight 5-digit numbers separated by dashes. When done, press on the "Set" button.



To abandon the attempt at provisioning a device, don't press the "Set" button but press the "Refresh all" button instead. This will get rid of the "not set" device provisioning.

Once the device is provisioned, and assuming it has not yet been added to the Z-Wave network, turn it on and after a minute or so, assuming the DSK was entered correctly, it should then automatically appear in the list of devices (accessed by clicking on the Devices button).

The status of the provisioned device, once added, will change from "Device not added" to "Device added". You may want to refresh the list of provisioned devices to see the change of status.



If you remove a provisioned device without first removing its SmartStart provisioning, the device will automatically be added back after a short delay, assuming it has not been powered off right after removal. To remove a device provisioning, select it from the list and press the "Remove" button under its details.

Note that a device provisioning can not be modified once it is set. To correct it, you will need to remove it and add it anew with the desired modifications.

Devices that support SmartStart ship with an SDK printed on the device or its packaging. The SDK is either printed in full or is encoded as a QR code with a printed PIN, or both.

If encoded as a QR code only, you will need to use a QR code reader/decoder app. There will usually be a DSK printed below the QR code. The PIN is the first five digits of the DSK. In the decoded QR code, find the PIN and the following 35 digits. It is the DSK that you will need to enter in groups of 5 digits, with dashes in between, to provision the device.