devicebook DH100 Z-Wave Gateway

devicebook DH100 Z-Wave Gateway User Manual

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Introduction

Devicebook Hub is a Z Wave™ gateway, which can control a Z Wave network. The Devicebook Hub controlled Z Wave network works with all Z Wave-certified devices from all manufacturers. All mains-operated nodes within the network will act as repeaters regardless of vendor to increase the reliability of the network.

Supported Command Classes

Devicebook Hub supports the following command classes:

Command Class	Version
ZWAVEPLUS_INFO	2
TRANSPORT_SERVICE	2
CRC_16_ENCAP	1
APPLICATION_STATUS	1
SUPERVISION	1
INCLUSION_CONTROLLER	1
TIME	1
MULTI_CMD	1
SECURITY	1
SECURITY_2	1

Secure Command Class	Version
VERSION	3
NETWORK_MANAGEMENT_INCLUSION	4
NETWORK_MANAGEMENT_PROXY	4
NETWORK_MANAGEMENT_BASIC	2
POWERLEVEL	1
MANUFACTURER_SPECIFIC	2
NETWORK_MANAGEMENT_INSTALLATION_MAINTENANCY	4
INDICATOR	3
NODE_PROVISIONING	1
FIRMWARE_UPDATE_MD	5
ASSOCIATION	3
MULTI_CHANNEL_ASSOCIATION	4
ASSOCIATION_GRP_INFO	3
DEVICE_RESET_LOCALLY	1

Controlled Command Classes

Command Class
ANTITHEFT_UNLOCK
ASSOCIATION
ASSOCIATION_GRP_INFO
BASIC
BATTERY
CENTRAL_SCENE
CONFIGURATION
CRC_16_ENCAP
DOOR_LOCK
FIRMWARE_UPDATE_MD
INDICATOR

METER
MULTI_CHANNEL_ASSOCIATION
MULTI_CHANNEL
NOTIFICATION
SECURITY
SECURITY_2
SENSOR_BINARY
SENSOR_MULTILEVEL
SWITCH_BINARY
SWITCH_MULTILEVEL
THERMOSTAT_MODE
THERMOSTAT_SETPOINT
USER_CODE
VERSION
WAKE_UP

Association Group Information

Devicebook Hub supports Association Group 1 with a maximum of 1 node. Devicebook Hub will send Command Class DEVICE_RESET_LOCALLY to the Lifeline before reset to factory defaults.

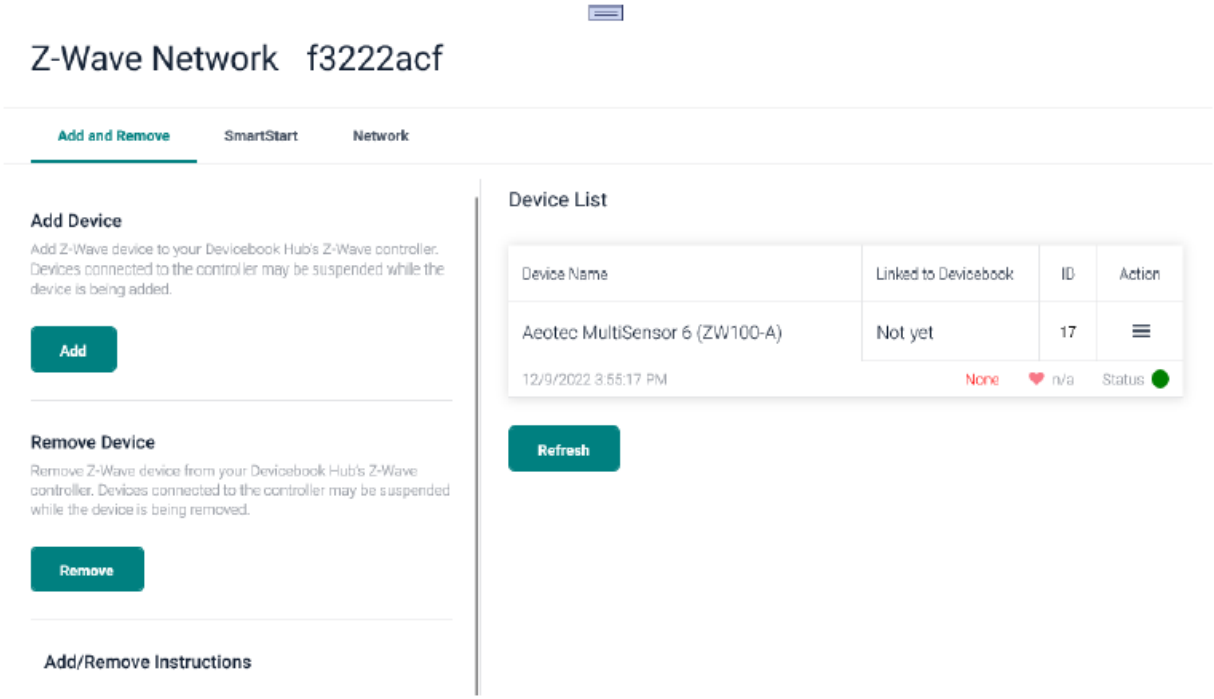
Group ID	1
Group Name	Lifeline
Maximum Nodes Supported	1
Profile	0x0001
Command Class and Command	0x5A01

Z-Wave Device Management

All Z Wave-related features are under Z Wave Device Management page in Devicebook Desktop UI.

1. Go to Home/My Hubs.
2. Click Manage Devices on your Devicebook Hub card's Z Wave section.
3. Enter your Z Wave Device Management Password.
4. Z Wave Device Management page opens up.

Add and Remove Tab



Functions:

- **Title:** The hexadecimal number next to the page title is the Z Wave network Home ID.
- **Add button:** Start Z Wave device add sequence.
- **Remove button:** Start Z Wave device remove sequence.
- **Refresh button:** Reconstructs the list of devices.

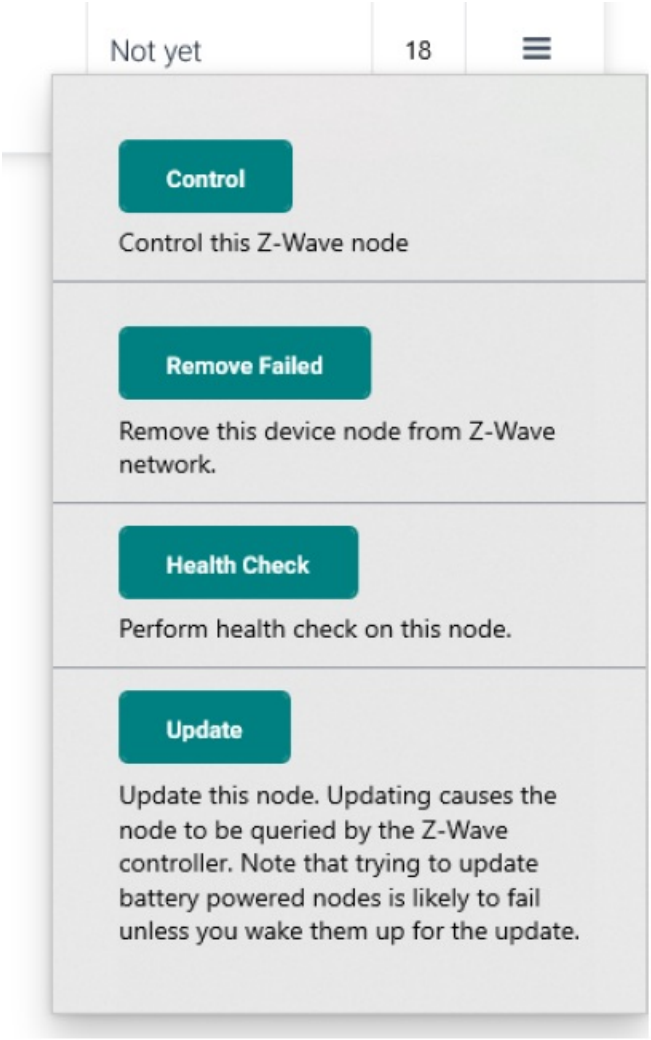
Device List items

- **ID:**Z Wave network node ID for the device.
- **Action:** Burger menu containing device-specific actions.

Status bar:

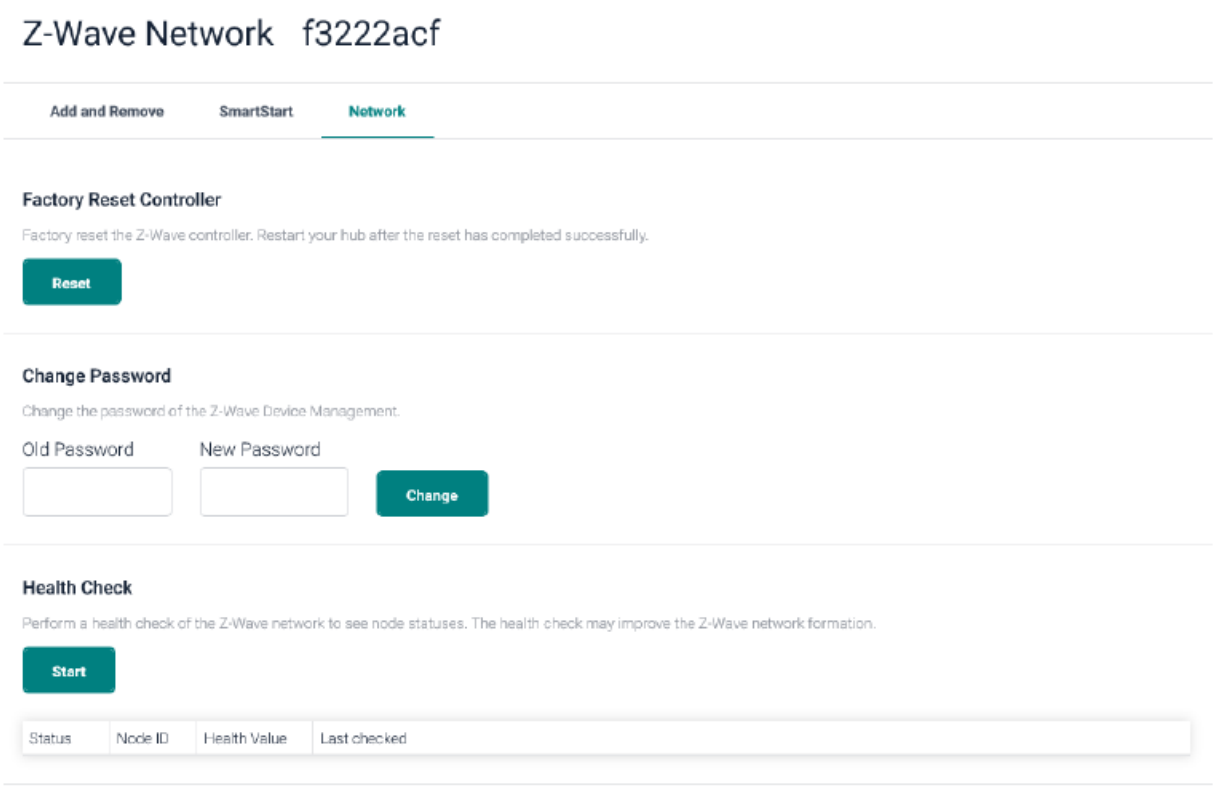
- **Date/time**: The date and time of the last event received from the device.
- **Security status**: Summary of the device security status, hover over to reveal more details.
- **Heart symbol**: The last health check status of the device, hover over to reveal more details.
- **Status circle**: The current status of the Z Wave device, hover over to reveal more details.

Z-Wave Device Node Menu
Opening the Z Wave device node burger menu reveals the following actions:



1. Control: Opens a page to control the device's command classes.
2. Remove failed: Starts sequence to remove a failed device.
3. Health check: Starts a health check routine for this particular device.
4. Update: Starts a query of the device Z Wave node's information. This is also known as a node interview.

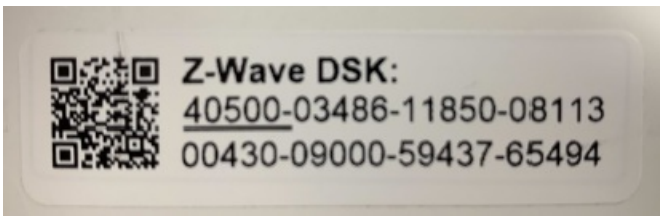
Network Tab
The network tab contains features that impact the entire Z Wave network.



1. Reset button: Reset Devicebook Hub Z Wave network to default factory settings.
2. Change password: Change the Z Wave Device Management password.
3. Health Check button: Perform Z Wave network-wide health check. Note that this only targets AC-powered devices. Health Check can fail, particularly on very large Z Wave networks.

Add a Z-Wave Device to the Network

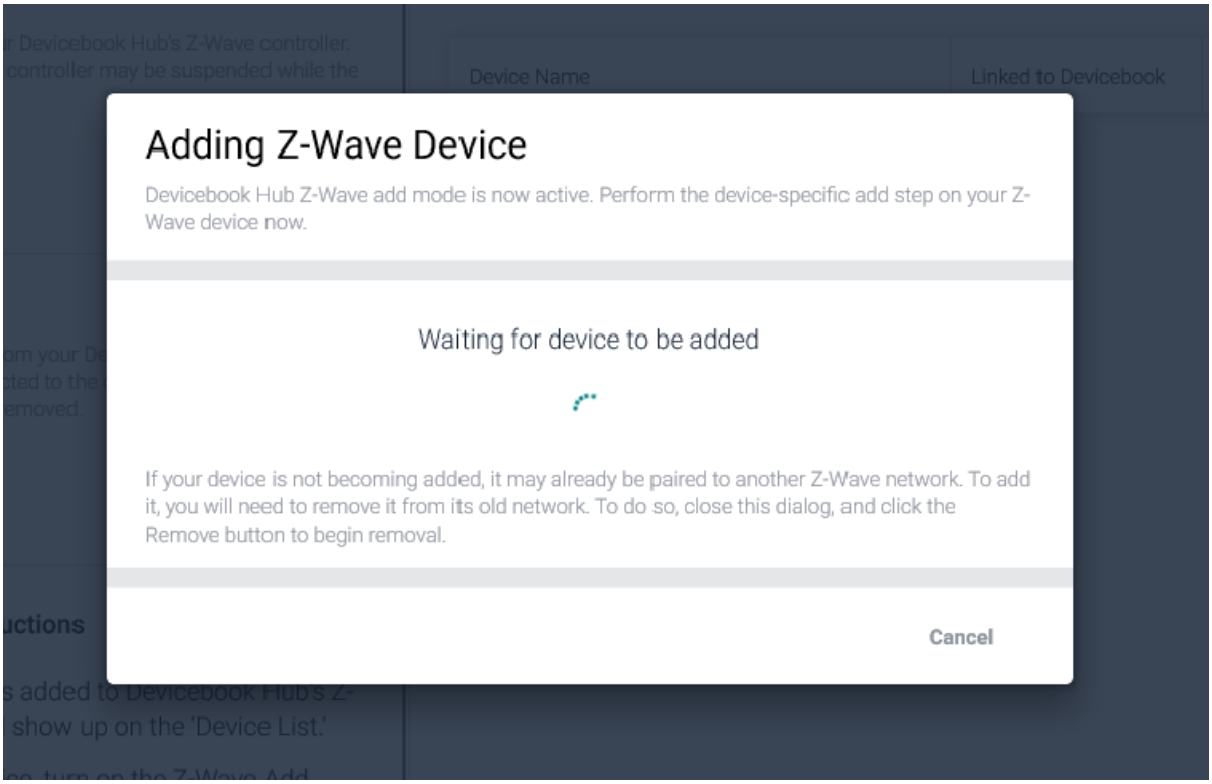
1. Go to Z Wave Device Management page.
2. Click Add button.
3. Put your Z Wave device into add/inclusion/learn mode. This is device specific and the details are described in the device's product manual.
4. If the added device is S2 Security enabled:
    1. S2 keys display: You should typically grant all requested S2 keys.
    2. PIN display: Enter the first 5 digits of the Device Specific Key DSK. This is typically present on the product packaging in full. Most devices also have a sticker with the first 5 digits. For example, the PIN code is the first 5 underlined digits:



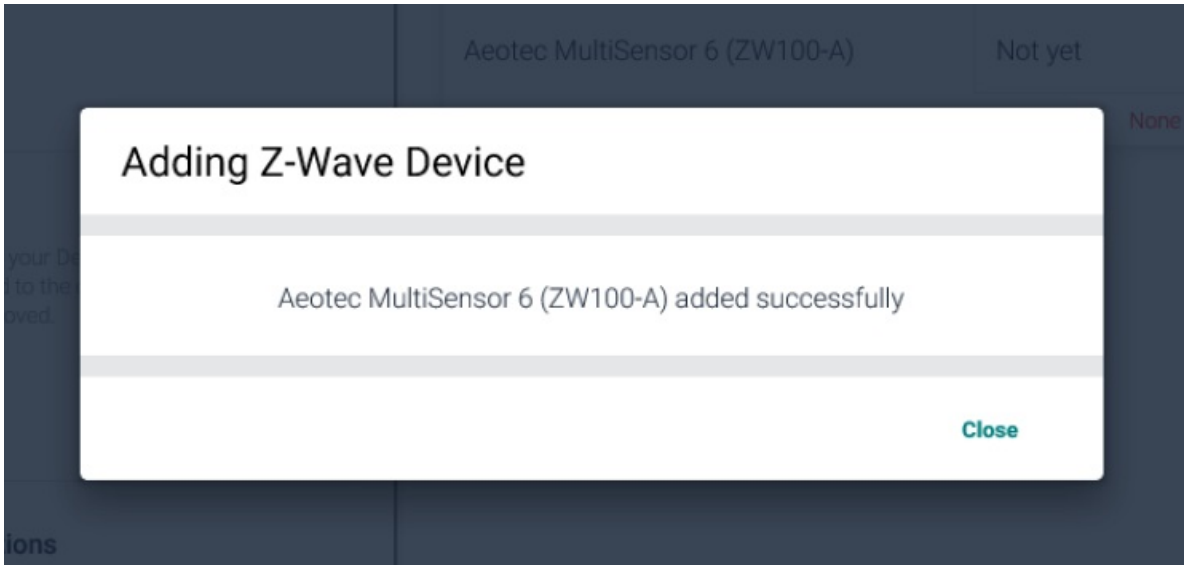
    3. Wait until the add succeeds.
    4. The added device appears on the Device List.

Note: Adding a device can fail. Typically this results in the device identity or security status being incorrect. Such device should be removed and then added again until the add fully succeeds.

Pending add



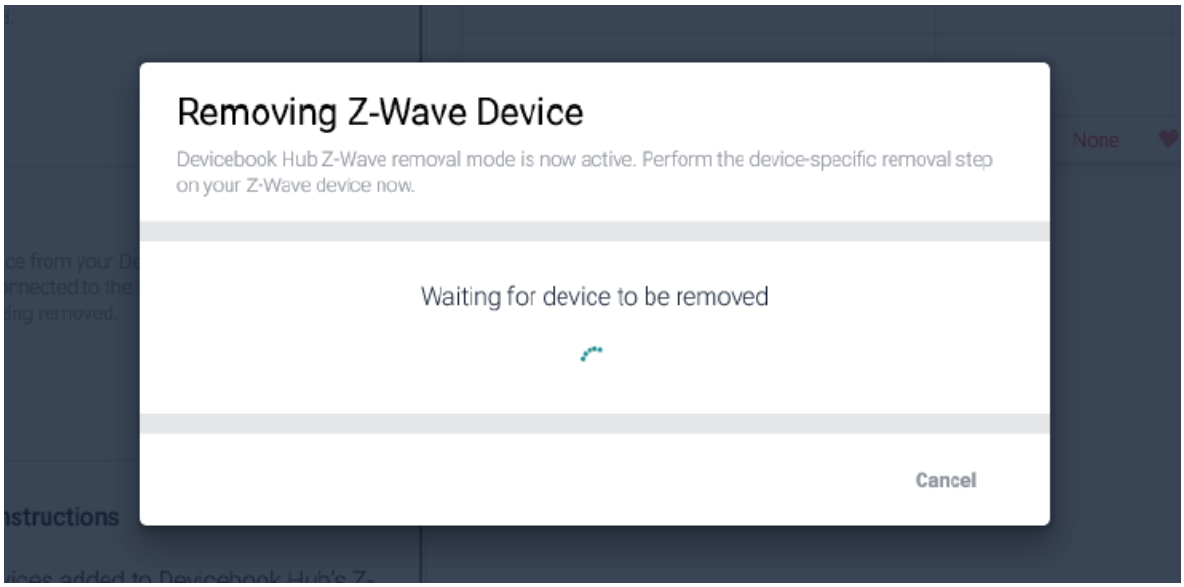
Completed add:



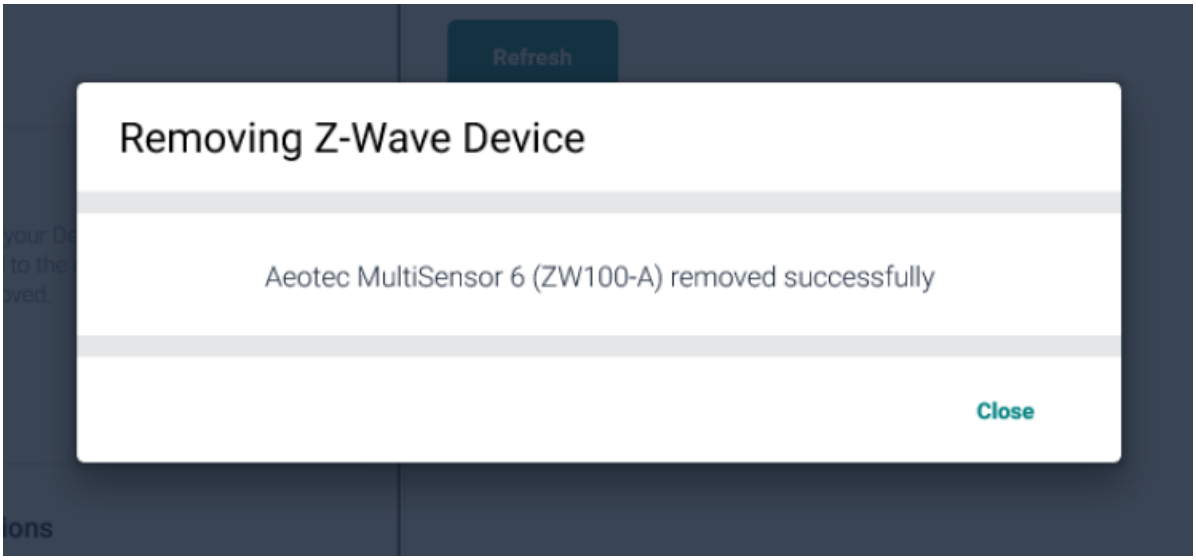
Remove a Z-Wave Device from the Network

1. Go to Z Wave Device Management page.
2. Click Remove button.
3. Put your Z Wave device into add/inclusion/learn mode. This is device specific and the details are described in the device's product manual.
4. Wait until the add succeeds.
5. The removed device disappears on the Device List.

Pending remove:



Completed remove:



Remove a Z-Wave Device from an Existing Network

Before adding a device to Devicebook Hub's Z Wave network, you need to remove such a device from any previous Z Wave network it was part of. You can do this by following the same steps as when removing devices from Devicebook Hub's Z Wave network; the previous controller is not needed to make a device to forget its previous network.

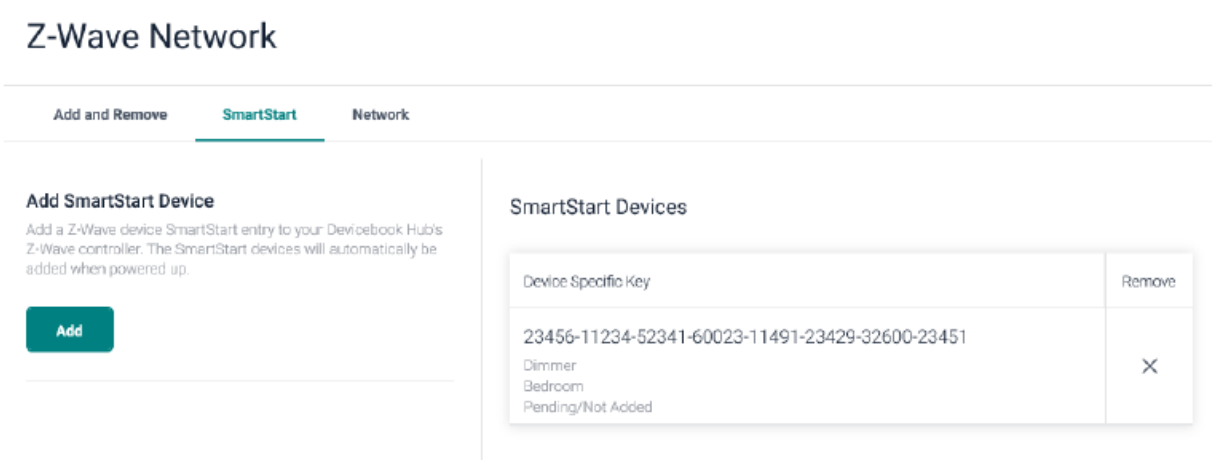
Z-Wave SmartStart

Devicebook Hub supports SmartStart-enabled devices, which can be added to a Z Wave network by entering the device DSK into the SmartStart provisioning list. No further action is required and the SmartStart device will be added automatically within 10 minutes of being switched on in the network vicinity.

SmartStart Tab

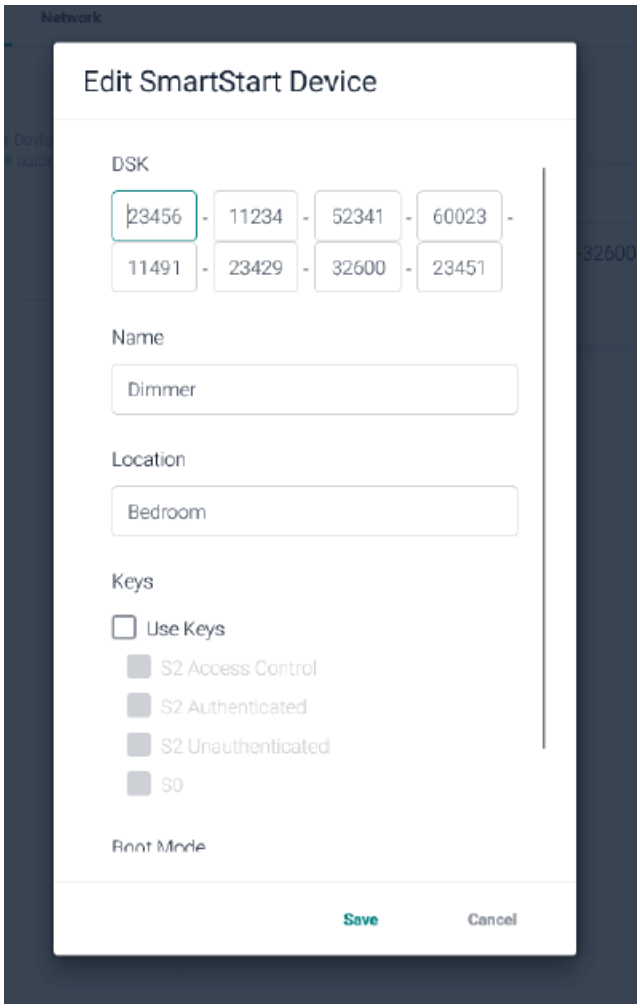
1. Go to Z Wave Device Management page.
2. Select SmartStart tab.

SmartStart tab:



SmartStart Edit Dialog

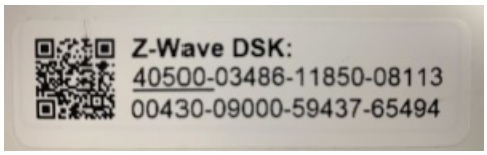
SmartStart Edit Dialog is shown when adding new SmartStart items or when editing existing SmartStart items:



Add a SmartStart Device

1. Go to the Z Wave Device Management page.
2. Open the SmartStart tab.
3. Click the Add button.

4. Enter the added device's Device Specific Key DSK. You can find the DSK on the product packaging. It is an 8-segment sequence of numbers, as shown on this example:



5. Click Save button.
6. The newly added item appears on the SmartStart Devices list.
7. Power up the device. Typically this is done by pulling the battery tab.
8. As the device powers up, it will be automatically added to the Z Wave network. This can take minutes.

Note: QR code scanning is not supported by Devicebook UI.

Remove a SmartStart Device

1. Go to Z Wave Device Management page.
2. Open SmartStart tab.
3. Click on the cross button on the SmartStart item to be removed.
4. The removed item disappears from the SmartStart Devices list.

Modify an Existing SmartStart Device

1. Go to Z Wave Device Management page.
2. Open SmartStart tab.
3. Click on item on the SmartStart Devices List.
4. Modify the information and click Save.

Update a Z-Wave Node

1. Go to Home/My Hubs.
2. Under the Z Wave section of your hub card, click Manage Devices.
3. Enter your Z Wave Device Management password.
4. Under Add and Remove tab, find your device node from the Device List.
5. Open the device node burger menu, and click Update.

Note: Update can take a long time.
Note: If the updated device is battery-powered, you should wake up the device just before clicking Update since battery-powered devices don't automatically wake up for the Update.

Controlling Z-Wave Nodes

1. Go to Home/My Hubs.
2. Under the Z Wave section of your hub card, click Manage Devices.
3. Enter your Z Wave Device Management password.
4. Under Add and Remove tab, find your device node from the Device List.
5. Open device node burger menu, and click Control.

Note: If a device node has multiple endpoints, then each endpoint appears as a section on the Control page.

Remove a Failed Z-Wave Node

1. Go to Home/My Hubs.
2. Under the Z Wave section of your hub card, click Manage Devices.
3. Enter your Z Wave Device Management password.
4. Under Add and Remove tab, find your device node from the Device List.
5. Open the device node burger menu, and click Remove Failed.

If the removal fails, then you should try to remove the device using the normal removal method. If normal removal is not possible, then you may need to wait until Z Wave controller has concluded that the device has failed, before it can be removed as a failed node.

Factory Reset Z-Wave Controller

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 if the network primary controller is missing or otherwise inoperable.

The steps to factory reset Devicebook Hub

1. Go to Home/My Hubs.
2. Under the Z Wave section of your hub card, click Manage Devices.
3. Enter your Z Wave Device Management password.
4. Go to the Network tab.
5. Under the section Factory Reset Controller, click the Reset button.
6. Once the spinner on the button stops spinning, the factory reset is completed.

Note: Factory resetting the Z Wave Controller only affects Z Wave. No other protocols or functionalities of the Devicebook Hub are affected.

Identifying Devicebook Hub

Devicebook Hub can be identified using the INDICATOR command class with indicator ID 0 50. Devicebook Hub LED will blink three times when the following INDICATOR command is issued:

Field	Value
Command	0x01 (INDICATOR_SET)
Indicator 0 Value	0x00

Indicator object count	0x03
Indicator ID 1	0x50
Property ID 1	0x03
Value 1	0x08
Indicator ID 2	0x50
Property ID 2	0x04
Value 2	0x03
Indicator ID 3	0x50
Property ID 3	0x05
Value 3	0x06

Controlling Z-Wave Device Command Classes

To access the Z Wave device control UI, open a Z Wave device node's burger menu and click Control. A page opens up containing separate control sections for each controlled command class.

Anti-Theft Unlock
Anti-theft Unlock is different from all other command classes. If a device is in a restricted mode, an Anti-Theft unlock screen shows up instead of the device control UI. Such device must be unlocked first with the device specific unlock code. Enter the unlock code and click Unlock to access the full device control UI.

Basic

- Displays the current state of basic (on/off).
- Clicking On will set basic to on.
- Clicking Off will set basic to off.

Battery

- Displays current battery level.

Binary Switch

- Displays the current status of the binary switch (on/off).
- Clicking On will turn the switch on.
- Clicking Off will turn the switch off.
- Duration edit allows specifying how long the state transition takes:
    - 0:instantly.
    - 1 127: either seconds or minutes.
    - 255: device factory default.

Central Scene

- Displays scene count and statuses.
- Displays the attributes for each scene.
- Slow Refresh
    - **On:** Configures slow refresh of Key Held Down notification to “supported”.
    - **Off:** Configures slow refresh of Key Held Down notification to “unsupported”.

Configuration

- Displays the current configuration states.
- **Number:** Enter a valid configuration number in the edit box. Valid numbers are shown on the Number column.
- **Value:** Enter valid configuration value in the edit box. Valid value ranges are in range Min, Max], see the Min and Max columns for each configuration item.
- Click Set to apply the entered configuration value.
- Click Reset to Default to reset the entered configuration value to the default value. Click Reset All to Default to reset all configuration values to their default values.

If you are using a device with an old version of the Configuration command class, a reduced configuration UI will be shown; refer to the device’s user manual for the configuration value table.

Door Lock

- Displays current lock status.
- Click Lock to lock the lock.
- Click Unlock to unlock the lock.
- Set Mode: Use the dropdown menu to select a lock mode and click Set Mode to apply the mode.
- Lock Configuration:
    - Select a lock configuration.
    - Click Set Config to apply the selected configuration.

Indicator

- Click Identify to identify the device. Typically this results in a LED blinking on the device.

Meter

- Displays current meter values and units.
- Click reset to reset the accumulated data on the device.

Multilevel Sensor
Displays current sensor readings with their units.

Multilevel Switch

- Displays current switch type and level.
- Click Set to set the switch level.

    - Level edit allows specifying the desired level.
    - Duration edit allows specifying how long the state transition takes:
        - 0: instantly.
        - 1-127: either seconds or minutes.
        - 255: device factory default.
- Click Start to start a level transition.
    - Configure the starting levels, step sizes, and directions.
    - Level Duration uses the same value scheme as Set Duration above.
- Click Stop to stop the level transition.

Notification

- Displays notification targets and their current values and previous events.

Thermostat Mode

- Displays current thermostat mode.
- Click Set to set the thermostat mode to the selected mode.
- When setting Manufacturer Specific Mode, refer to the device’s owner manual forthe Manufacturer Specific Data values.

Thermostat Setpoint

- Displays current thermostat setpoint state.
- Click Set to set a setpoint to an entered Value as selected by the Type and Unitdropdowns.

User Code

- User Code
    - Click Set to set the user code status and code to the specified values.
    - Click Erase to erase the specified user code.
- User Code List
        - Click Start Query All to query all of the user codes.
        - Note that depending on a door lock, querying all user codes can take a very long time and can even overall fail.
    - Click Stop Query All to stop querying all of the user codes.
    - Click Erase All to erase all user codes.
- Master Code
    - Click Set to set the master code to the specified code.
    - Click Disable to disable the master code. Queried user codes will be shown on a list.
- Keypad Mode
    - Click Set to apply the selected keypad mode.

Comments

- https://support.devicebook.com/hc/en-us/articles/10883207853723

Documents / Resources

	devicebook DH100 Z-Wave Gateway [pdf] User Manual DH100 Z-Wave Gateway, DH100, Z-Wave Gateway, Gateway

References

- User Manual