

Z-Wave™ general info

The [SmartThings Hub](#) is a Z-Wave-certified central static controller. It can be included in any Z-Wave network and operate with Z-Wave certified devices from other manufacturers. To add a Z-Wave device to the Hub's network or copy network information to another controller, check out our [guide to connecting and configuring new devices](#). To control an included device, find the device in the My Home section under Things, and tap on its name to see the device detail view.

All non-battery-operated Z-Wave devices within the network will act as Z-Wave repeaters—regardless of vendor—to increase reliability of the network.

The SmartThings Hub is a security-enabled Z-Wave product. When a security-enabled Z-Wave device is added to the Hub's network, its secure communication will be 128-bit AES encrypted.

The SmartThings Hub has support for the Association Command Class—it has one association group, the "Lifeline" group, which supports sending associated devices reset notifications when the Hub is factory reset.

The SmartThings Hub does not map the Basic Command Class to any functionality. It ignores Basic Get requests, though in some cases of legacy support for older Z-Wave sensors it may interpret Basic Set commands as sensor activation events.

To find the DSK of the SmartThings Hub open the SmartThings app and go to the settings of your SmartThings Hub. Then open the tab "Z-Wave Extras" and guide to to the section "More Information". Then you can see the DSK written in the App.

Because the Hub is a certified Z-Wave device, you can add it to another Z-Wave network. Note that you can only add a Hub to a different Z-Wave network if no Z-Wave devices have been added. Otherwise, you should remove all Z-Wave devices from the Hub first by putting them through a [device exclusion](#). When the SmartThings Hub is used as a secondary controller on a Z-Wave network, it may not receive notifications from some battery-operated devices. SmartThings Technical Support does not provide assistance to consumers using the Hub with other Z-Wave central controllers. Here are the steps to put the Hub into learn mode to receive network information from another Z-Wave controller:

1. Prepare the other Z-Wave controller to copy its network information to the Hub. This may be called include, add, transfer, shift, copy, or replicate mode
2. In the SmartThings Classic app, tap the menu (Android) / More (iOS) 
3. Tap the Hub
4. Tap Z-Wave Utilities
5. Tap Add Hub to an existing Z-Wave network
6. Tap OK

This will start learn mode on the Hub. It may take longer to receive all the network info and load all the devices. Check the other controller for confirmation of whether the transfer was successful.

Depending on the other controller, it may not have transferred the primary controller role to the SmartThings Hub, and the Hub may not be able to add new devices. To remove the Hub from the other network and reset it to default, follow the same steps above, but put the other controller in remove or exclude mode instead.

How to connect and configure new devices

Use this process to connect new ZigBee or Z-Wave devices to your SmartThings Hub.

To connect a device:

In the SmartThings Classic app, follow these steps to connect or include a new device:

1. Tap [My Home](#) 
2. Under Things, tap Add a Thing at the bottom of your Things list
3. The app will say Looking for devices...
4. While the Hub searches, perform the connection/inclusion process specific to that device
5. o Consult the device's manual for instructions 5. When the device is discovered, it will be listed at the top of the screen
6. Tap the device to rename it and tap Done
7. When finished, tap Save
8. Tap Ok to confirm your paired devices

Alternatively, you can also explore and connect third-party devices that work with SmartThings, or look for a specific device you want to connect:

1. Tap [My Home](#) 
2. Under Things, tap Add a Thing at the bottom of your Things list
3. Tap Add device manually
4. Tap a device category (e.g., from Light Bulbs, Locks, Outlets, Thermostats, etc.) to see a list of related SmartThings devices and [third-party devices that work with SmartThings](#)
5. Select your device
6. Tap Connect Now
7. The app will indicate that it's looking for the device
8. While the Hub searches, perform the connection/inclusion process specific to that device
 - o Consult the device's manual for instructions

9. When the device is discovered, it will be listed at the top of the screen
10. Tap the device to rename it and tap Done
11. Tap Done again
12. Tap Save
13. Tap Ok to confirm your added devices

OR:

1. Tap Marketplace 
2. Under Things, tap a device category (e.g., from Light Bulbs, Locks, Outlets, Thermostats, etc.) to see a list of related SmartThings devices and [third-party devices that work with SmartThings](#)
3. Select your device
4. Tap Connect Now
5. The app will indicate that it's looking for the device
6. While the Hub searches, perform the connection/inclusion process specific to that device
 - Consult the device's manual for instructions
7. When the device is discovered, it will be listed at the top of the screen
8. Tap the device to rename it and tap Done
9. Tap Save
10. Tap Ok to confirm your added devices

If you're having trouble connecting your device, it may need to be reset. Consult the device's manual for reset instructions or visit our [Support Help Center](#) for information about how to reset compatible devices.

To view your connected devices:

In the SmartThings Classic app:

1. Tap My Home 
2. Tap [Things](#)
3. All your connected devices will list here
4. Select a device to see more details, like its current status, recent activity, and associated SmartApps

After selecting a device, tap the gear icon to  edit, configure, or remove the device.

To remove a device:

1. Tap My Home 
2. Tap Things
3. Tap the device you wish to remove

4. Tap the gear icon 
5. Tap Remove
6. Confirm removal (this cannot be undone)

Tip: When connecting ZigBee and Z-Wave devices, start with the powered devices (repeaters) nearest the Hub and then work your way out. Next, connect battery-powered devices working from the Hub out. This will create the ideal [mesh network](#).

How to exclude Z-Wave devices in SmartThings Classic

Z-Wave devices require a separate command and physical confirmation from the device itself (usually a button press) in order to be reset (or "excluded") and removed from a controller (like the SmartThings Hub).

Before removing a Z-Wave device, make sure you've uninstalled any configurations or SmartApps associated with the device.

Note: In order to exclude a Z-Wave device, you must have the physical device with you and be within range of the SmartThings Hub.

Removing and excluding a device that is already connected

Your Hub will enter exclude mode automatically when you remove a Z-Wave device via the [Things](#) page (iOS and Android only). When prompted, execute the required button press or exclusion process as outlined by the device's user guide.

In the SmartThings Classic app:

1. Tap My Home 
2. Tap Things
3. Tap the device you wish to remove
4. Tap the gear icon 
5. Tap Remove
6. Confirm removal of the device
7. When prompted, execute the exclusion procedure to remove the device

from the mobile app and from the SmartThings Hub

Excluding or resetting a device that is not yet connected to SmartThings (General Device Exclusion)

Perhaps you're having trouble adding a Z-Wave device that was previously in use by a SmartThings Hub or another type of Z-Wave controller. Or maybe your new device won't connect after several attempts. Sometimes a device partially connects, or is partially removed, behind the scenes. Resetting/excluding the device through the General Z-Wave Device Exclusion process will likely fix these problems. Then, you will be able to connect the device as usual.

Here are the steps to perform a General Z-Wave Device Exclusion in the SmartThings Classic app:

For iOS users:

1. Tap More 
2. Tap the Hub
3. Tap Z-Wave Utilities
4. Tap General Device Exclusion
5. Tap Remove
6. When you see the message "Please follow manufacturer's instructions to

remove the Z-Wave device from My SmartThings," perform the required exclusion process (e.g., pressing a button on the device)

For Android users:

1. Tap the menu 
2. Tap the Hub
3. Tap Z-Wave Utilities
4. Tap General Device Exclusion
5. When you see the message "Please follow manufacturer's instructions to

remove the Z-Wave device from My SmartThings," perform the required exclusion process (e.g., pressing a button on the device)

If the reset is executed successfully, you will see a message that says the device has been successfully removed from SmartThings. You will then be free to connect the device by following [these steps](#).

Z-Wave factory reset

To reset your Hub's Z-Wave system to factory default settings, you must factory reset the entire Hub. You can factory reset your Hub with steps found below.

NOTE: Resetting the Hub will restore factory settings. All device connections, automations, rules, configurations, and SmartApps associated with that Hub will be lost in the reset. All devices connected to your Hub will have to be reset or excluded before they can be reconnected. The steps for resetting and reconnecting each smart device differ. After resetting, you can visit our [Things](#) category, find the devices you wish to set up, and follow the guides provided. Remember that you will likely need to reset or “[exclude](#)” every device before connecting.

A physical factory reset is only possible for the Hub v2 with firmware 17.11 and up. If you have a Hub v1 or a Hub with firmware below 17.11, you can reset your Hub by deleting the Location it is connected to with [these steps](#) instead. Need to check your Hub’s firmware version? Find out how [here](#).

Follow these instructions to [reboot the Hub](#) instead, without doing a full factory reset.

To factory reset the Hub:

1. Make sure the Hub is plugged in with the included power and network cables
2. Press and hold the red recessed button on the back of the Hub for 30 seconds. When the LED on the front switches from flashing yellow to solid yellow, release the button

- Note: If you do not release the button within a few seconds after the LED switches to solid yellow, the Hub may not begin the reset

The Hub will take 10-15 minutes to fully factory reset. Once the LEDs on the Hub turn solid green, you should then be able to [connect your Hub](#) again. If you lost your original 6-character Welcome Code or are encountering other problems, [these articles may help](#).

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.

To delete a Location and reset the Hub in the SmartThings Classic app

In the SmartThings Classic mobile app:

1. Tap the menu (Android) / More (iOS) 
2. Tap the gear icon beside the Location with the Hub you wish to reset 
 - To choose a different Location, tap the dropdown arrow and then tap the gear icon for the Location

3. Tap Remove Location

4. Confirm deletion by tapping Delete (IMPORTANT: deleting a Location cannot be undone)

You should then be able to [connect your Hub](#) again. If you are encountering other problems, [these articles may help](#).