Home Assistant Connect ZBT-2

User Documentation

This publication is specific to Home Assistant Connect ZBT-2 and a supplement to the Home Assistant User Documentation on https://www.home-assistant.io and https://support.nabucasa.com.

It is a pre-release DRAFT publication. The official documentation will be published at product launch on https://support.nabucasa.com.

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About Home Assistant Connect ZBT-2

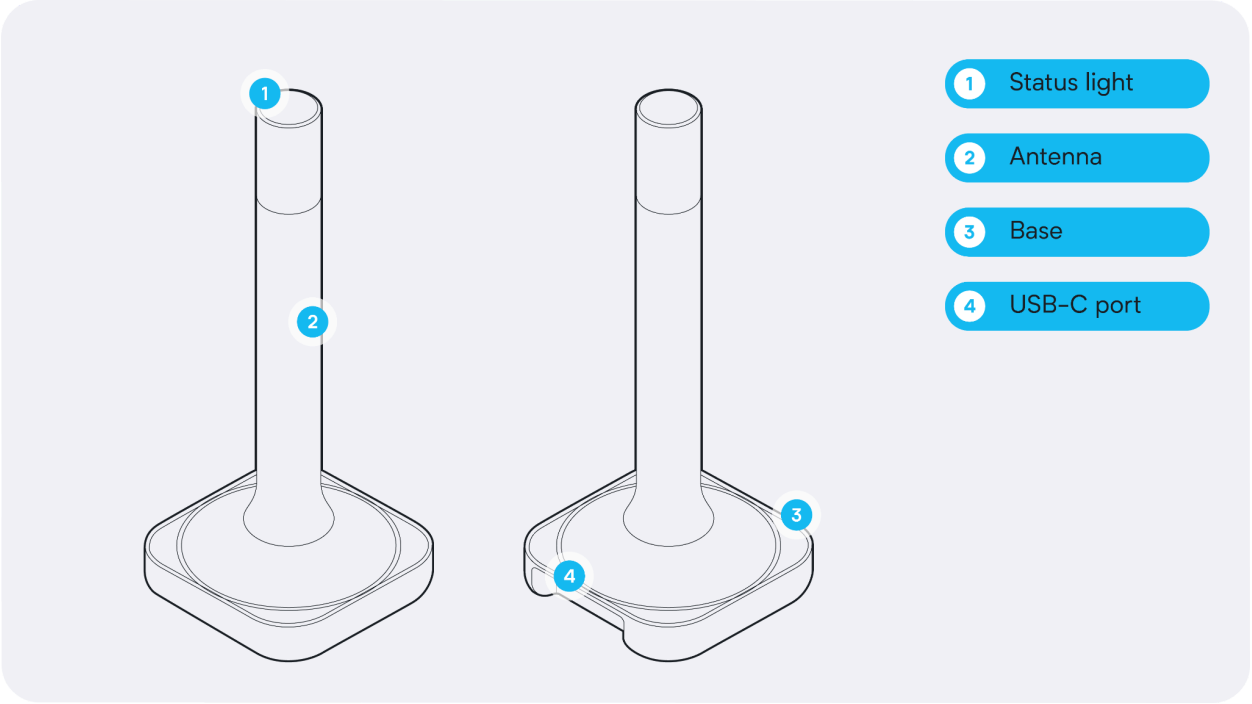
Home Assistant Connect ZBT-2 connects to your Home Assistant system via USB, allowing it to build either a Zigbee or a Thread network via the built-in Zigbee or Thread integrations. Home Assistant Connect ZBT-2 is not a standalone product. It requires Home Assistant installed on a smart home hub (such as Home Assistant Green) and Zigbee or Thread end devices. A few characteristics are listed below:

- Home Assistant Connect ZBT-2 features an optimized, large antenna to achieve the best possible connection to Zigbee or Thread devices.
- 4 times faster than Home Assistant Connect ZBT-1

Related topics

- Zigbee Home Automation integration documentation
- Thread integration documentation
- Matter integration documentation
- Home Assistant documentation

Device overview



Status LED

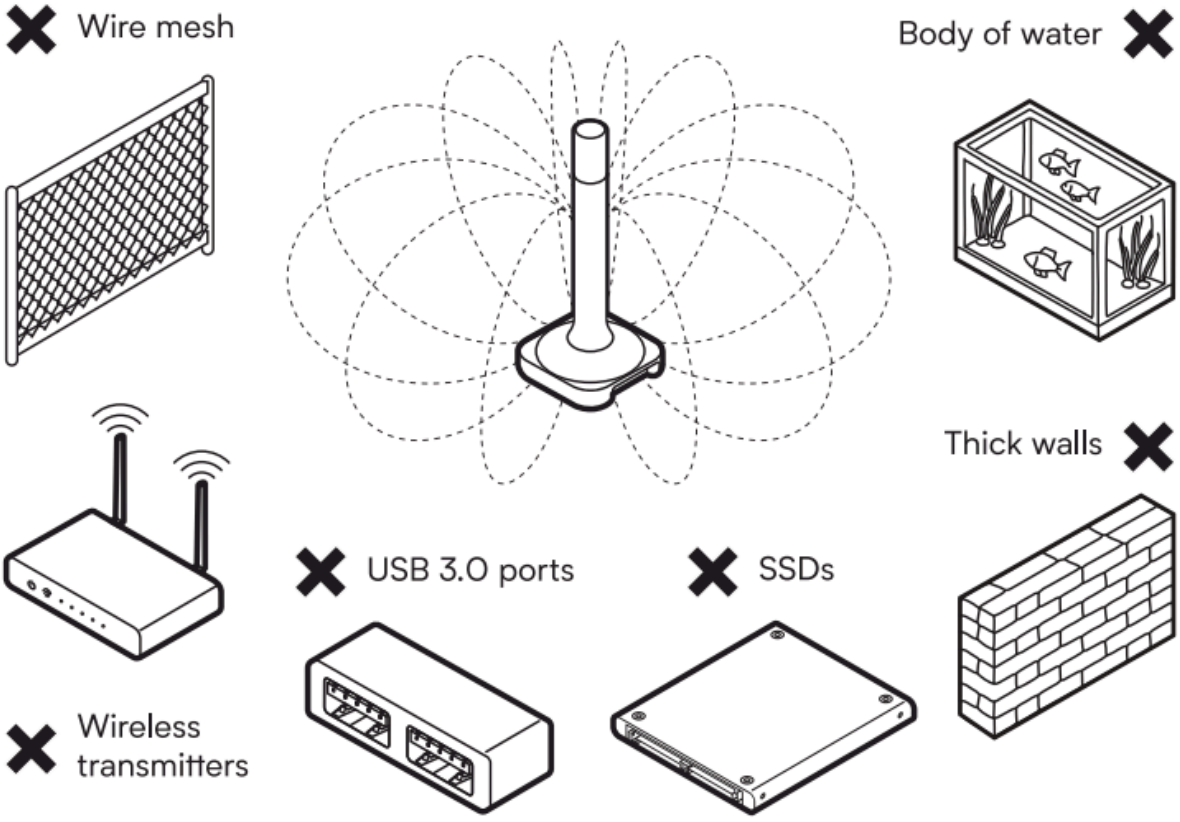
The status LED uses the following patterns to indicate a status:

Color pattern	Status
Pulsing	**Waiting for connection** Not connected yet to the Zigbee Home Automation or Thread integration
No light	**Connected** The device is connected to the Zigbee Home Automation or Thread integration.
Fast blinking	**Suboptimal antenna orientation** The device is not mounted correctly. Remount the device so that the antenna is in a vertical position, with the light pointing up or down (if mounted on the ceiling, for example).

Finding an installation location for the Home Assistant Connect ZBT-2

Before installing and using Home Assistant Connect ZBT-2, find a good spot for it.

- Some objects, such as thick walls, wire mesh, metal (such as server rack housings or wall mounting brackets), other transmitters (such as computers, routers, USB 3.0 ports), or even your aquarium, can cause interference or block signals.
- Place the device away from objects that may cause interference.



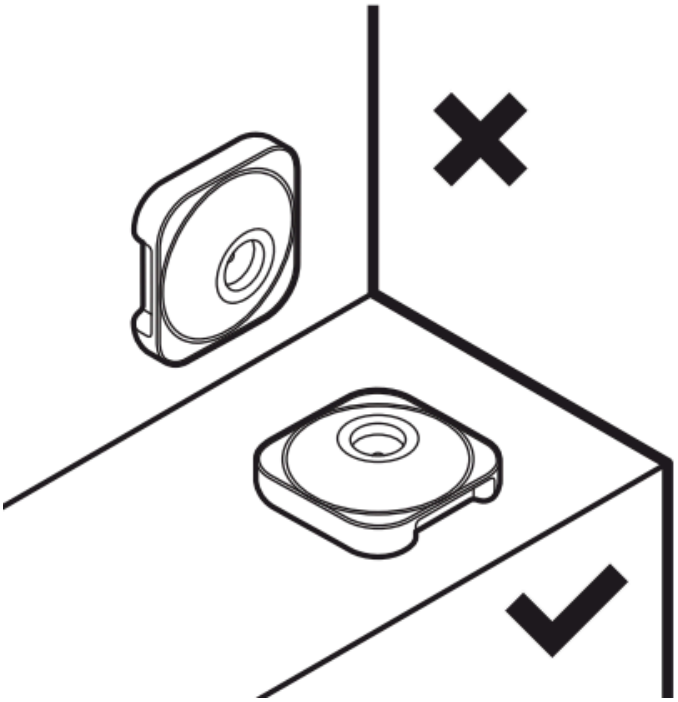
Installing Home Assistant Connect ZBT-2

Before connecting Home Assistant Connect ZBT-2 to Home Assistant, assemble it and install it in the location you want it to be.

1

Find a space where you can place the adapter upright.

Place the adapter in a vertical position. Do not mount on a wall sideways.



2

Screw the antenna to the base. Be careful not to overtighten, as this can damage the adapter beyond repair.

Forming a new Zigbee network

Prerequisites

- Home Assistant smart home hub with a USB 2.0 port, for example, a Home Assistant Green, a Home Assistant Yellow, or a Raspberry Pi
  - If you do not have Home Assistant installed on the hub yet, refer to the installation page for instructions.
- Home Assistant 2025.10.1 or newer installed on your smart home hub
- Home Assistant Connect ZBT-2 with a USB-C to USB-A cable

To form a new Zigbee network

Follow the instructions on forming a new Zigbee network with Home Assistant Connect ZBT-1.
The steps are the same for Home Assistant Connect ZBT-1 and Connect ZBT-2.

Migrating an existing Zigbee network to ZBT-2

Follow the instructions on migrating an existing Zigbee network to Connect ZBT-1.

The steps are the same for Home Assistant Connect ZBT-1 and Connect ZBT-2.

Migrate a Zigbee2MQTT network using Zigbee Home Automation (ZHA)

Follow the instructions on Migrating a Zigbee2MQTT network using Zigbee Home Automation (ZHA).

The steps are the same for Home Assistant Connect ZBT-1 and Connect ZBT-2.

Migrating a deCONZ network using Zigbee Home Automation (ZHA)

Follow the instructions on Migrating a deCONZ network using Zigbee Home Automation (ZHA).

The steps are the same for Home Assistant Connect ZBT-1 and Connect ZBT-2.

Migrating an existing Zigbee Home Automation (ZHA) network via Zigbee2MQTT backup

Follow the instructions on Migrating an existing Zigbee Home Automation (ZHA) network via Zigbee2MQTT backup.

The steps are the same for Home Assistant Connect ZBT-1 and Connect ZBT-2.

Forming a new Thread network with Home Assistant Connect ZBT-2

Follow the instructions on forming a new Thread network with Home Assistant Connect ZBT-1.

The steps are the same for Home Assistant Connect ZBT-1 and Connect ZBT-2.

Switching from Zigbee to Thread with Home Assistant Connect ZBT-2

Follow the instructions on Switching from Zigbee to Thread with Home Assistant Connect ZBT-1.

The steps are the same for Home Assistant Connect ZBT-1 and Connect ZBT-2.

Adding a new device to the network

Once you have added Home Assistant Connect ZBT-2 to Home Assistant, you can add your devices to the network.

- Adding your Zigbee devices to your Zigbee network.
- Adding your Thread devices to your Thread network.

Updating the device firmware

Follow the steps in the Connect ZBT-1 documentation on updating the device firmware.

Turning the light on or off

For now, you can not turn the status light on or off manually. For more information on the different status indications, refer to the section on Status LED.

Data handling

What data is stored on Home Assistant Connect ZBT-2

If you use Home Assistant Connect ZBT-2 as a Zigbee adapter, it stores your Zigbee network information, including the private Zigbee network key.

If you use Home Assistant Connect ZBT-2 as a Thread adapter, it does not store network information. With Thread, all network information is stored on Home Assistant.

Home Assistant Connect ZBT-2 does not store any other user data.

About Zigbee or Thread backup

A backup only exports the Zigbee coordinator settings information.

A copy of the Zigbee adapter network settings is included in your Home Assistant backups. Home Assistant backs up every time you start ZHA and then every 24 hours automatically.

Resetting your Home Assistant Connect ZBT-2

The device is reset automatically during the migration process.
A functionality to reset the device in a few clicks will be implemented in a future release.

Removing Home Assistant Connect ZBT-2 from Home Assistant

- If you want to keep the network, but have it on another adapter: Migrate away from it
- If you don't want to keep the network,
  - Remove the hardware integration: stores no data.
  - Then, remove the ZHA integration.
    - Info: The device would not reset in that case

Troubleshooting

Enabling debug logs

For troubleshooting, it can be helpful to enable debug logs.

Specifications

Product

Model No.	NC-ZBT-9741
Conformity	CE, FCC, RCM
FCC-ID	2A8ZE04
Origin	Made in China

Product details

SoCs	Silicon Labs MG24 ESP32-S3 (USB-serial bridge)
Power and data	USB-C, 5 V DC, 500mA
Supported protocols	Zigbee 3.0, Thread

Antenna characteristics

The range between this unit and the receiver is measured in the open air.

Different building materials and placement of the unit will affect the wireless connectivity range.

Frequency range	2400-2483.5 MHz
Peak gain	4.16 dBi
Radiation pattern	Omnidirectional
Dimensions antenna	34 mm diameter, 164 mm height

Device characteristics

Product

Model No.	NC-ZBT-9741
Dimensions & weight	125x125x315 mm, 350 g | In box: 345x222x45 mm, 600 g
Material	Enclosure • Polycarbonate plastic • Colors: White and semi-transparent
Environmental conditions for operation	Indoor use only O °C to 65 °C (antenna -40 to +85 °C) 32 °F to 149 °F Humidity: non-condensing Keep in dry, not excessively dusty environment as this can cause damage to the unit. Do not leave the unit in direct sunlight or near any heat source, as this can cause overheating.