

Ezlo 100 Guide

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About This Guide

This document is intended as a description and user manual of the Ezlo 100, the USB-powered Z-Wave home automation hub and contains the information for end users of the Ezlo 100.

Ezlo 100 hub is a minimalistic controller for smart plugs and switches. It is a security-enabled Z-Wave Plus product that is able to use encrypted Z-Wave Plus messages to communicate with other security enabled Z-Wave Plus products.

Overview

The Ezlo 100 has been created to revolutionize the home automation market as the first smallest, high-performance home automation hub of its kind. Through innovation, the Ezlo 100 is capable of supporting full home automation in a pocket-sized device while still excelling in the smart home market in both performance and capability. The Ezlo 100 is fully compatible with many Z-Weave devices of the supported categories.

Note: Secure Z-Wave data exchange is possible only if both interacting devices support it.

Use the eZLO app to:

- Share home locations with other users
- Share rooms with family members
- See 'What happened' in your home
- Manage your 'Favorite' devices from the same screen

Package Content

The Ezlo 100 is supplied as a complete unit requiring no additional hardware or accessories. Each Ezlo 100 is shipped under a unique serial number shown on the packaging. Please retain the packaging for reference.

Z-Wave Protocol Description

Z-W ave is today's leading wireless home control technology. This international standard currently covers over 1700 smart living solutions for controlling home and office safety, energy, heat, HVAC, and lightcontrol.

Unlike other rival technologies, Z-Wave:

Works on a quiet frequency Z-Wave operates at 865-922 MHz, so you can be sure that
no other devices will interrupt or distort the signal — this is not necessarily the case
with other protocols that work on a crowded 2.4 GHz frequency.

- Ensures interoperability Z-Wave products from different manufacturers and categories can be a part of the same Z-Wave network.
- Uses a source-routed mesh network architecture
- Every non-battery powered Z-Wave device (including your eZLO hub) works as a repeater in addition to its primary functionality. If a battery-powered Z-Wave device has a listening mode, it can also work as a repeater. So the more devices you connect to your network, the stronger and more dependable the Z-Wave signal in your apartment is going to be, and therefore the data exchange between devices becomes much more reliable.

The eZLO hub allows connecting to any Z-Wave device which operates using Z-Wave frequency standard for your region and coincide with the operating frequency of your eZLO hub.

IMPORTANTNOTES: If your Z-Wave device does not meet these requirements you will be unable to add it to the eZLO hub. For the best results only use a Z-Wave certified device.

eZLO Software

The Ezlo 100 is used with either the eZLO Web Application or eZLO Mobile Application. Before using the Ezlo 100 to control your smart home devices, connect it to the web or mobile application and configure it for use via your local Wi-Fi network.

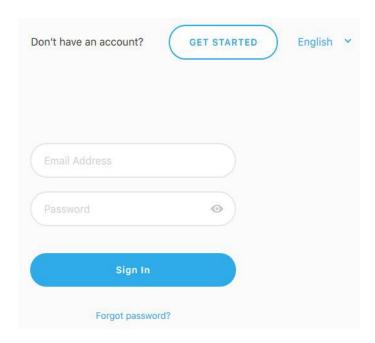
Ezlo 100 Use via Web Application

eZLO web application is a convenient and intuitive dashboard giving you complete control over your smart home. All browsers are supported, which means that you can manage your smart home from any workstation. The only requirement is connection to Internet.

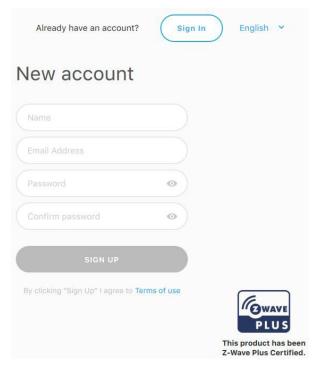
To access the eZLO web application, use the direct <u>link</u> to the application or follow the Sign In link from the <u>eZLO website</u>.

eZLO Account

eZLO account is your point of access to both web and mobile applications. When you follow the link to the web application, you are directed to the sign-in page.



If you are using the eZLO web application for the first time, you need to create an account. Click **Get Started** to set up your eZLO account.



1. In the **New account** screen, enter your name under which you will appear in the user list, your email and yourpassword.

Make sure that your email address satisfies the following conditions:

 The format of email addresses is local_part@domain where the local_part must be up to 64 characters long, the domain name – up to 252 characters, and the entire email address – up to 254 characters.

- The local-part of the email address may use any of the following ASCII characters:
 - Uppercase and lowercase Latin letters (A-Z, a-z) (ASCII: 65-90, 97-122)
 - Digits 0 to 9 (ASCII:48-57)
 - Special characters: !#\$%&'*+-/=?^_`{||}~ (ASCII: 33, 35-39, 42, 43, 45, 47, 61, 63, 94-96, 123-126)
 - Character . (dot), ASCII 46, provided that it is not the first or last character in the email address, and provided also that it does not appear consecutively (e.g. John..Doe@example.com is not allowed).
- The domain name part of an email address has to conform to strict guidelines: it must match the requirements for a hostname: consisting of letters, digits, hyphens and dots Choose a Password and identical (repeat) password that is:
 - At least 8 characters long
 - Maximum 100 characters
 - Containing only uppercase and lowercase Latin letters (A–Z, a–z), digits 0-9 and special characters \$@^`,|%;.~()/{}:?[]=-+_#!
 - Combining letters and numbers
- 2. Click **Sign up**.

Successful user creation is confirmed with the "User Added" message.

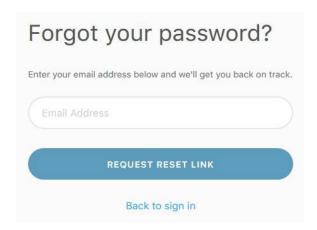
Note: If you enter an invalid password, or two different passwords in the **Password** and **Confirm Password** fields, a warning notification is displayed. In this case, re-enter the password. Make sure that the password meets the requirements listed above.

- Check your inbox for a Confirm Email Address message from the eZLO application.
 This message should be received within 10 minutes. If no message is received, check your Spam folder.
- 4. Follow the link in the email message to confirm your user registration in the eZLO application. You will be redirected to the **Sign in** page.
- 5. Enter your email and password and click **Sign in**. By clicking **Sign in**, you accept the eZLO application Terms of Use.

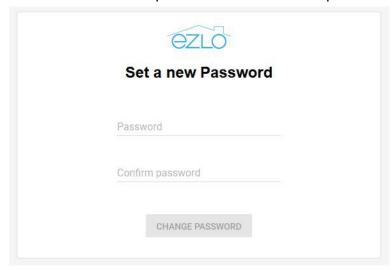
Resetting the Password

If you forget your password, you can reset it as follows:

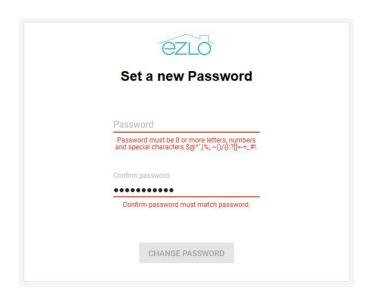
- 1. Click Forgot password? on the Sign in screen.
- 2. Enter your email address on the **Forgot your password?** screen



- Enter your email address in the Provide your email dialog box and click OK. The
 app sends instructions on how to reset the password for the email address
 provided.
- 4. Check your mailbox for the message containing the **Reset password** link or URL. This message should be received within 10 minutes. If no message is received, check your **Spam** folder.
- 5. Click on the Reset password link or URL to open the **Set a new password** page.



6. Enter the new password in the first field, and repeat in the field below to confirm. The original password and the confirmation password must be identical, and the password must conform to the password requirements (see above). If the password you entered does not fit the requirements or if the passwords entered in the **Password** and **Confirm password** fields do not match, the application responds with an error message.



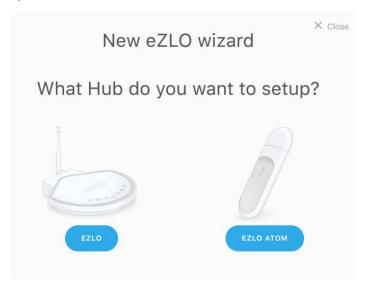
- 7. Click Change password.
- 8. Return to the **eZLO Sign in** page and enter your email address and the new password. After the successful sing-in, the eZLO app main menu is displayed.

Connecting Ezlo 100 to Web Application

Once you have logged in to the eZLO web application, you can start managing eZLO hubs.

Note: to connect to the Ezlo 100, the following pre-requisites must be fulfilled:

- your PC or laptop must have the built-in Wi-Fi module. Otherwise, you need an external Wi-Fi adapter
- a local Wi-Fi network must be available
 - 1. If this is the first time you are using eZLO products, there are no hubs connected to your account. In this case, the application opens with the **New eZLO wizard** screen allowing to set up one or several eZLO hubs.



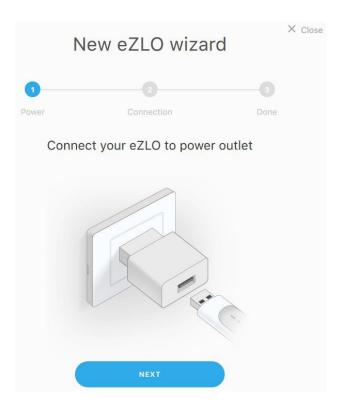
- 2. The wizard offers to select the type of eZLO hub to set up:
 - **eZLO** a standalone eZLO smart homehub
 - **Ezlo 100** a USB-connected smart home hub

Note: the wizard continues in a separate window. If the wizard window is not opened, allow popups for the www.ezlo.com website in your browser settings.

- 3. Select Ezlo 100 to set up your Ezlo 100 hub
- 4. Connect your Ezlo 100 to a power outlet.

Note: the Ezlo 100 is powered from any device having a USB 3.0 port. To turn the Ezlo 100 on, plug it in the USB 3.0 port of the device connected to the power network. The blue LED indicator shows that the Ezlo 100 is on.

Click **Next** to continue setup.



5. At this point, switch to the Wi-Fi settings of your computer to connect to the Ezlo 100 via Wi-Fi.

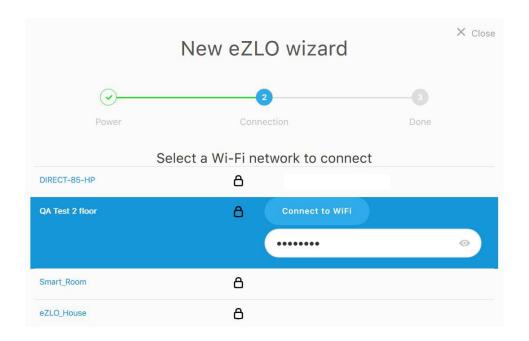


Note: as soon as the eZLO 100 is powered up, it becomes a Wi-Fi access point. It shows in the list of available Wi-Fi networks under the eZLO_XXXXXXXX name where XXXXXXXX is the eZLO 100 access point number.

6. Connect to the Ezlo 100 using the following default password: **test4321**. As soon as you are connected, the Ezlo 100 will be no longer shown in the list of available networks.



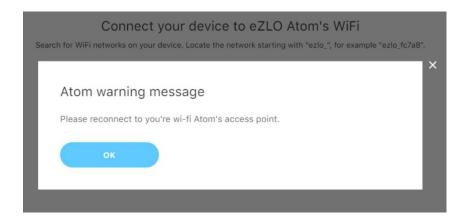
7. Return to the eZLO web application to connect the Ezlo 100 to your home Wi-Fi network. The application will open the **SelectaWi-Fi network to connect** screen listing all Wi-Fi networks found in the vicinity. Connect the Ezlo 100 to your network by selecting it from the list and using the network password.



8. The application confirms successful connection of the Ezlo 100 to your local Wi-Fi network and suggests that you connect your PC or laptop to the same network. Switch to the Wi-Fi settings and connect to the local network. If your PC or laptop is connected via Ethernet, it will reconnect automatically, and the window will be closed upon reconnection.



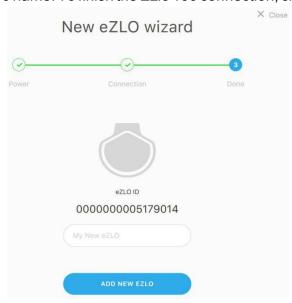
Note: it may happen that at this point you will need to reconnect to the 100 Wi-Fi access point. In this case, the following window will be displayed:



Click **OK** to proceed. The Wi-Fi network selection window will be displayed:

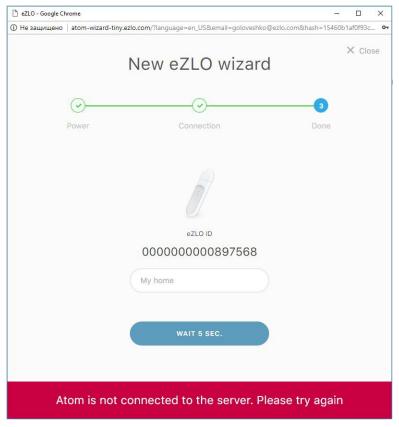


- 9. Reconnect to your Ezlo 100 access point as described above.
- 10. After the successful connection, the system confirms Ezlo 100 setup completion by displaying its automatically generated serial number. In the same window, you can change the Ezlo 100 name. To finish the Ezlo 100 connection, click **Add new eZLO**.

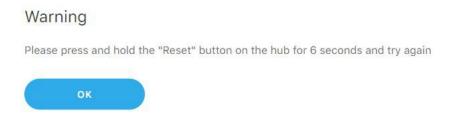


Note: At any stage of the eZLO 100 setup, you can cancel it by clicking the icon in the top right corner of the screen. You will exit the wizard, and all previously made eZLO 100 settings will be deleted.

11. If at this stage the Ezlo 100 is not yet connected to the server, the application alerts you about it with the following message:

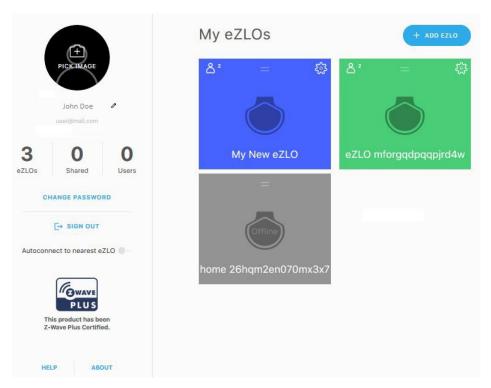


- 12. Click **Wait 5 sec.** to try reconnecting to the server in 5 seconds. You will have two more attempts to connect the Ezlo 100 to the server. After you click **Wait 5 sec.** the button starts the countdown until reconnection. During the countdown the button is inactive.
- 13. In case your Ezlo 100 fails to connect to the server, you need to reset it. The application will notify you of the connection failure with the following message:



14. Click **OK**, press and hold the **Reset** button on your Ezlo 100 for 6 seconds. After it has been reset, repeat the connection procedure from the beginning to connect it.

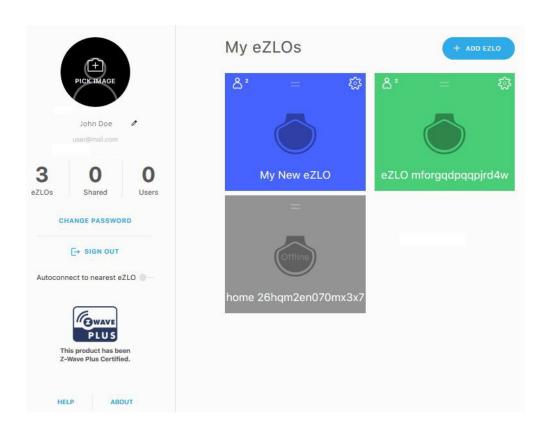
15. When you click **Add new eZLO**, the wizard closes, and you are redirected to the main eZLO dashboard where you can find your new Ezlo 100 in the list of available hubs. It will be shown under the default name "My New eZLO" or the name you have assigned to it.



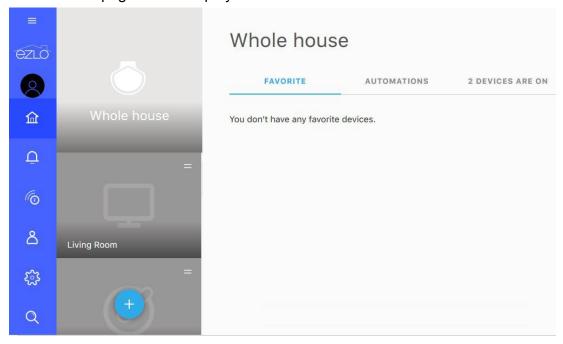
Setting Up Ezlo 100 Details

Once your Ezlo 100 is successfully connected, its properties – name, cover image and geographical location – can be customized.

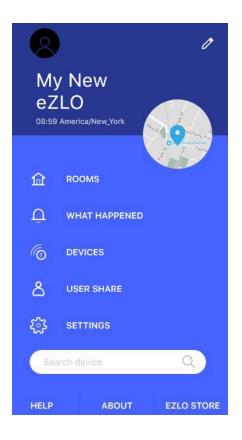
1. To modify the Ezlo 100 properties, click the **My new eZLO** card on the dashboard.



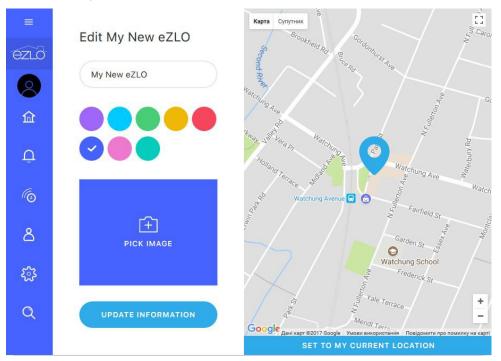
2. The Ezlo 100 page will be displayed



3. Click the icon in the top left corner of the screen to open the Ezlo 100 details.



4. To edit the Ezlo 100 details, click the opens the **Edit My New eZLO** screen.



- 5. To change the Ezlo 100 name, overwrite "My New eZLO" with the name of your choice. Your Ezlo 100 will appear in the list of eZLO hubs under that name.
- 6. To change the Ezlo 100 color theme, choose one of the available color options.

- 7. Click **Pick image** to set an image as your Ezlo 100 cover. You can browse your computer to select the image file to upload.
- 8. To update the Ezlo 100 location, click **Settomy Current Location**. The application resolves the user's current location from the GPS coordinates, and adjusts its clock accordingly.

Note: If you use proxy software, your actual location may differ from the one that the geolocation functionality reports.

Alternatively, change your location directly on the map. Drag and drop the location marker to set a new location. Use the zoom feature to find and select your precise location.

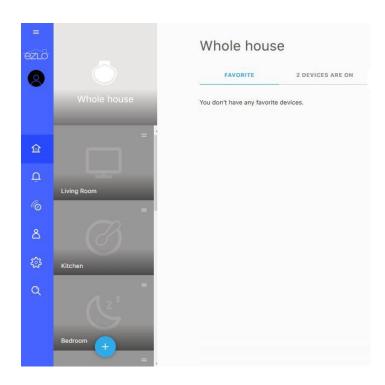
9. After you have completed the Ezlo 100 details configuration, click **Update information**to apply your changes.

Managing Rooms via Ezlo 100

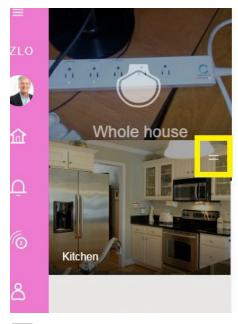
Home automation is done by virtual rooms which may correspond to the actual rooms in the house or apartment or be assigned according to other principles. In order to be managed via an eZLO hub, each smart device must be assigned to a certain room.

When you start using an Ezlo 100, it has a number of pre-defined rooms. You can use the existing rooms, edit or delete them and add new rooms.

To manage your virtual rooms, click the icon on the eZLO application sidebar to open the **Whole house** menu. The menu lists the available rooms.



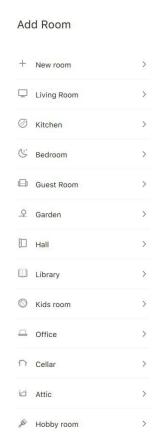
To change the positions of the room cards in the list:



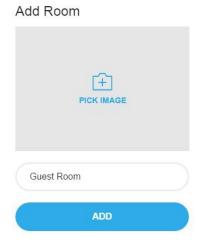
- 1. Move the cursor over the icon in the top right-hand corner of the room card.
- 2. The icon changes into a move cursor, and it is now possible to drag the room card to a higher or lower position in the My eZLOs sidebar hierarchy.

To add or delete a room:

1. To add a room, click the icon on the **My eZLOs** sidebar. The **Add Room** menu will be displayed.



2. Select a room from the list or choose **New room** to create a custom room. The **Add Room**dialog box is displayed.



- 3. Click **Pick Image** to browse the files on your computer and select an image to associate with this room.
- 4. For a custom room, enter the room name.
- 5. Click Add.

The room is displayed on the My eZLOs sidebar.

You can assign devices to the new room, manage devices in the room, share the room, or use any of the other functions available in this room.

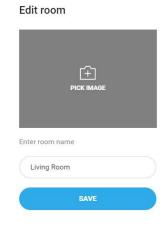


6. To delete a room, select the room and click in the room menu.

If this room contains Ezlo 100 devices, the application issues a warning when a delete request is made.

To edit room images and titles:

- 1. Click the room card on the dashboard to open the room screen.
- 2. Click . The **Edit room** menu is displayed.



- 3. Click **Pick image** to change the image associated with this room.
- 4. Select a graphic image to add to the eZLO app room.
- 5. Change the room name in the **Enter room name** field.
- 6. Click Save.

Adding Z-Wave Device to Ezlo 100

The Ezlo 100 supports more than 20 device connections at the same time. The list of supported devices includes dimmers, switches, multi-switches, door & window sensors, multi-sensors etc. The basic addition and removal procedure is the same for all eZLO hub types, however, every connected device should be managed according to its specific instructions.

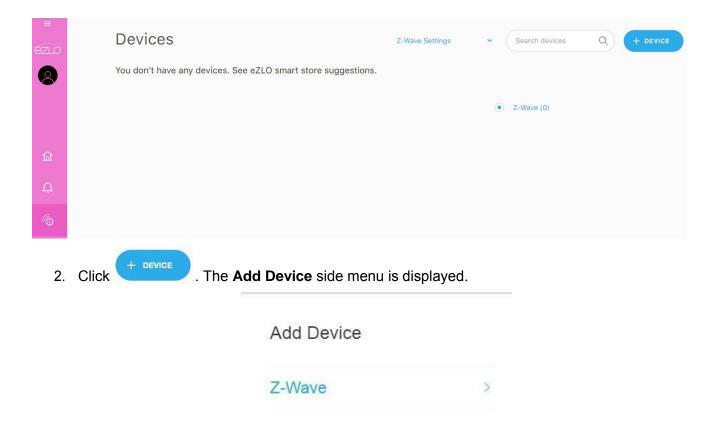
Where to find Ezlo 100-compatible devices:

- 1. Click the icon on the eZLO application sidebar to open the **Ezlo 100** menu.
- 2. Click **Ezlostore** at the bottom of the menu. You will be redirected to the eZLO website where you can find the complete list of compatible devices.

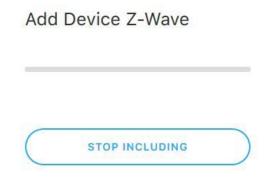
Note: Ezlo 100-compatible devices can be found in a variety of stores. While selecting a device for your smart home system, check that the device is Z-Wave certified. All compatible devices bear Z-Wave labels.

To add single or multiple Z-Wave devices:

1. Click the 6 icon on the sidebar. The Devices page will be displayed.



- 3. Press the button on the device to make it discoverable.
- 4. Click **Z-Wave**. The eZLO app shows a Z-Wave device addition in progress. The device is discovered automatically.



5. If the device to be added supports the Security2 (S2) authentication, the system offers the option of connecting the device with or without the S2 Authentication. If the device does not support the S2 authentication, skip to **Step 8**.



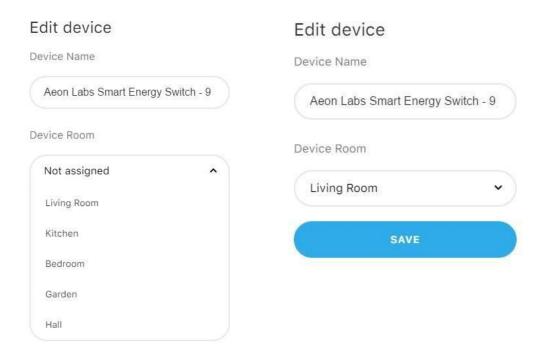
6. If you wish to connect the device using the S2 authentication, choose the corresponding option (S2 Access or S2 Authenticated) and click Continue.

Note: if you select **S2 Unauthenticated** and then click **Continue without security**, the device will be connected without the S2 authentication procedure. The S2 authentication can be aborted at any stage.

 Once you have selected the S2 authentication, you need to enter the first 5 digits of the DSK key of your device. You can find the DSK key either on the device packing or on the device itself.



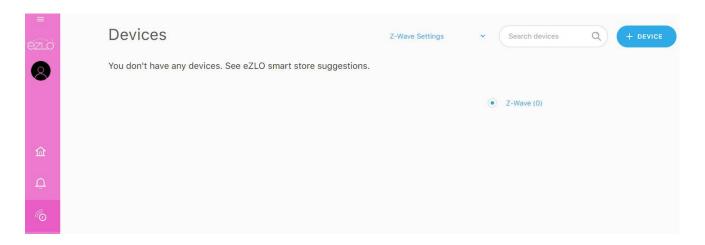
- 8. After the successful S2 authentication, follow the procedure described in the device user instructions to add it to the Ezlo 100. The progress bar will indicate the process of Z-Wave device addition.
- When the addition has been completed, a notification appears on the screen to confirm that the device was added to the Ezlo 100. The device is identified by its default name.
- 10. You can cancel device addition by clicking **Stop including**.
- 11. The device name is populated automatically from the data received from the devices during the inclusion. You can change the default name to a custom one by typing it in the **Device Name** field.
- 12. Once the device is added, it is not assigned to any room. To assign the device to a specific room, open the **DeviceRoom**drop down menu and select the room to which the device is to be assigned.



- 13. Click **Save** to store the device name and room assignment.
- 14. To view and manage the device, click the icon in the sidebar to display the list of rooms. Choose the room to which the new device has been assigned. All devices assigned to the selected room will be displayed. You can select any of the devices to view its details or manage it.

Alternatively,

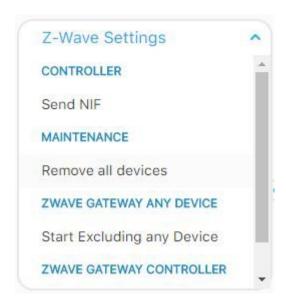
Click the icon on the sidebar to display the list of all included devices and find your device to manage it.



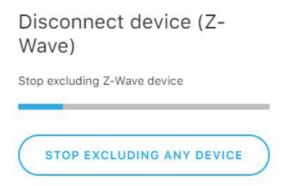
How to Remove a Z-Wave Device from an Ezlo 100

If you have previously added a Z-Wave device to an Ezlo 100, and now you want to add it to another eZLO hub, you must first of all exclude it from the Ezlo 100. To do this, follow these steps in the eZLO application:

- 1. Sign in to the eZLO app and select the Ezlo 100 from which you want to disconnect your device.
- 2. Click to display the Devicespage.
- 3. Click **Z-Wave** to open the list of connected Z-Wave devices (your device will be visible in the list).
- 4. Open the **Z-Wave Settings** dropdown menu and select **Start Excluding any Device**. This enables the exclusion mode on your current Ezlo 100.

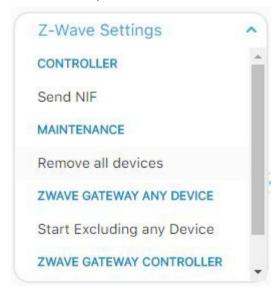


5. After the device exclusion process is started you need to complete the procedure by excluding it from the current network. Follow the steps described in the device instructions. This enables the Ezlo 100 to locate your Z-Wave device and disconnect it from its network.



When this procedure is completed, you can add your Z-Wave device to the desired eZLO hub as explained in How to Add a Z-Wave Device to the eZLO Hub.

6. If you need to remove all devices from the Ezlo 100 (reset Z-Wave side of the Ezlo 100), select the Remove All Devices option from the Z-Wave Settings menu.



- If an eZLO 100 becomes an Inclusion controller, its Z-Wave Settings options are different from those available for an eZLO SIS Controller.
- The eZLO 100 just controls Basic Command Class, so it can receive Basic ON/OFF commands and ignores them.

How to Manage your Z-Wave Device

The eZLO app provides users with real-time information on device status and allows easy management of the Z-Wave devices. This section describes how to:

- Find out to which room a certain device is assigned
- Change a device's room assignment
- Manage a device
- Exclude a device
- View full device information
- Remove a Failed device
- Replace a Failed device

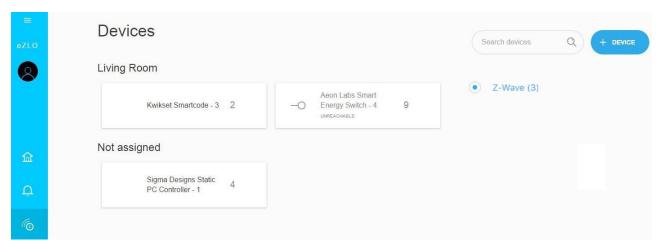
To find out to which eZLO room a certain device is assigned: If you do

not immediately see a particular device in the room:



Click on the My eZLOs sidebar. The **Devices** page is displayed.

Select to view all Devices or only Z-Wave devices.



Alternatively,

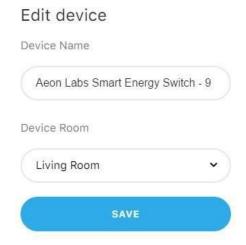
• Enter the name of the device in the **Search devices** field and click on the magnifying glass symbol.

To assign a device to a different room:

1. Select the device and click the icon (right-side menu).



2. The **Edit device** dialog box is displayed.



- 3. From the **Device Room** drop-down list select another room, for example, the Bedroom.
- 4. Click **Save** to assign the device to the selected room. The device disappears from its original room and reappears in the new room. The device settings, for example, temperature or brightness, remain unchanged.

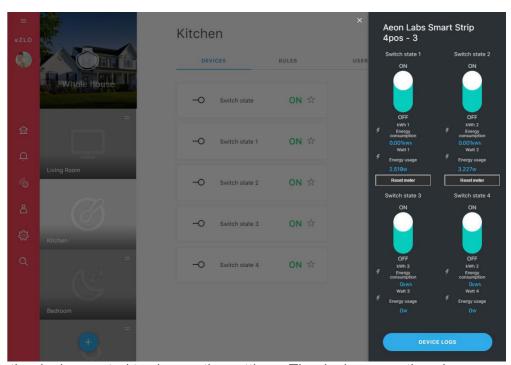
To manage adevice:

The Ezlo 100 device controls change in response to user actions in the application, or at physical device locations. For example, the virtual controls displayed in the eZLO app pages enable a user to increase or reduce a dimmer's light power by turning the device control between its maximum and minimum brightness settings, or they could click on switch controls to turn on and off a four-position smart switch.

The application display also changes if a user alters the physical device settings. For example, if they press the button on a switch to turn it off, the eZLO app display changes to show its virtual controls in an OFF position.

To change device settings:

1. Go to the room where the device is located and click on the device label.

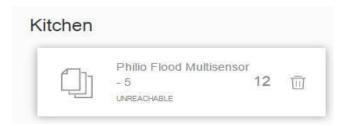


2. Click on the device control to change the settings. The device operation changes as the control is moved.



Note: If you switch off the device and switch it on again, it remembers its last eZLO app power setting.

To exclude adevice:



- 1. Go to the room where the device is located, select the device, and click the icon. The **Devices** page is displayed.
- 2. Follow the procedure described in the device user instructions to exclude it from the Ezlo 100.

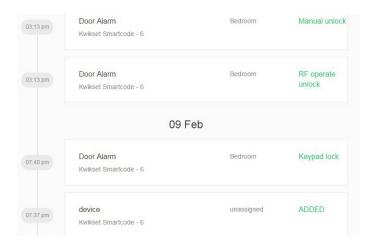
The device is excluded from the Ezlo 100 and is no longer displayed in the eZLO application.

To view full device information:

Go to the room where the device is located, select the device, and click The **Device log** is displayed.



It includes device status details, and information on multiple instances of the same device (for example, a four-position smartswitch.)



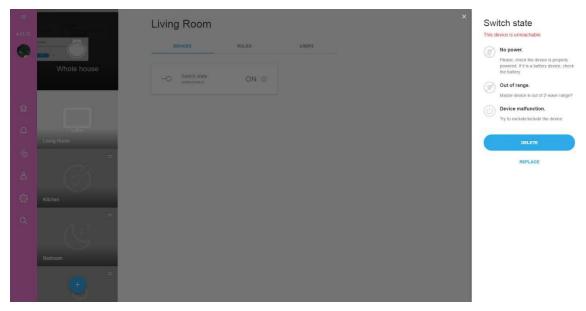
You can also organize the device details display according to date and rooms through the "What Happened" menu.

If Your Z-Wave Device Does Not Work

In certain situations, a device might fail, for example, if it is disconnected from its power source, if it is removed of the Ezlo 100 range, or if a failure occurs in the device. For about 30 seconds after failure the application tries to reach it and during this time the virtual device controls continue to operate. As soon as the application recognizes the device has failed, a "Device is Unreachable" notification is displayed when you click on this device icon.

To remove a failed device:

The failure notification gives access to the **Delete** and **Replace** options of the failed device.



Click **Delete** to remove the device. The Ezlo 100 removes the failed device from its device listing. There is no need to press any button on the actual device.

To replace a failed device:

You can replace a failed device in one room with another device of the exactly same model. To do so:

- 1. Click the **Replace** button on the "THIS DEVICE IS UNREACHABLE" notification.
- 2. Physically remove the failed device and replace it with an identical device.
- 3. Follow the replacement device user instructions to set it up. When the replacement device is connected, the Ezlo 100 will try to recognize it. If it succeeds, the "Device is successfully replaced" notification will appear on the screen.
- 4. Refresh the web page to see that the device is now reachable. The Ezlo 100 identifies it as the original device.

Maintenance

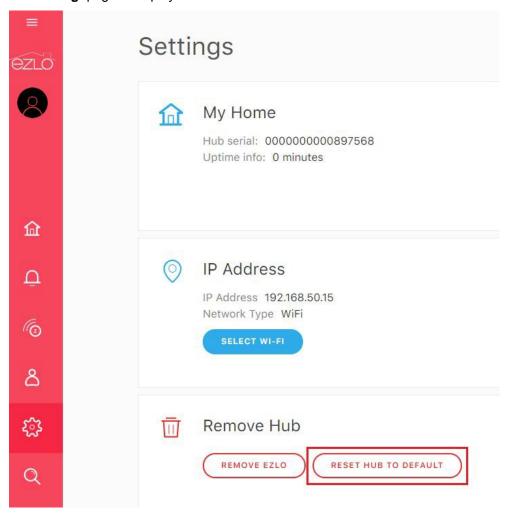
This section describes maintenance procedures that must be performed regularly (for example, firmware update) or might need to be done on occasion. The procedures described are:

- Cleaning an Ezlo 100
- Working with eZLO firmware
- Removing an eZLO

How to Reset an Ezlo 100 to Factory Settings

To return an Ezlo 100 to its factory default settings:

1. Click on the **My eZLOs** sidebar. The **Settings**page is displayed.



- 2. Click Reset hub to default.
- Click Yes when prompted to confirm, or No if you decide not to reset the Ezlo 100.
- If you confirm the Ezlo 100 reset request, the Ezlo 100 returns to its default settings. The My eZLOs page is displayed.
 The image of the reset Ezlo 100 now displays a default name and color.

5. Click on the Ezlo 100 image.
The rooms display no images, and there are no devices assigned to this Ezlo 100. There are five predefined rooms: Living room. Kitchen, Bedroom, Garden and Hall.

How to Work with Ezlo 100 Firmware

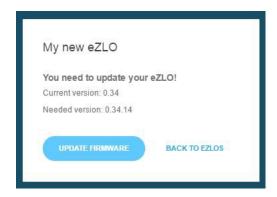
Regular firmware updates enable eZLO to enhance smart hub functionalities and operations and allow for quick fixes of any problems that might arise. The Ezlo 100 might have one of three types of firmware version:

- Up to date
- Outdated supported version
- Outdated unsupported version

How to Discover the Ezlo 100 Firmware Version

Open the eZLO web app and select the Ezlo 100:

• If you see a message asking you to update the device, the firmware version is outdated and may be no longer supported. In this case, you might not be able to manage this device from the web app until you update the firmware.



- If a newer firmware version is released while you have the eZLO app open, when you go to the **Settings** screen a message is displayed asking you to update firmware.
 - If you do not update the firmware, you may not be able to manage this device from the web app.

When you update the firmware, the app shows the update progress.



1. If the eZLO app main page is displayed, click on the sidebar. Check that the latest firmware version is installed.



2. Toggle the **Auto Update Firmware** switch to have the firmware automatically updated whenever an update is available.

If this option is enabled, you will always have an up-to-date version of the firmware. You can keep using your current version with auto updates disabled, but it is recommended to keep the firmware up to date and benefit from app enhancements.

How to Update Ezlo 100 Firmware Manually

The Ezlo 100 firmware is updated automatically or manually according to user preference. As explained above, if the user selects **Auto Update Firmware**, the application updates the firmware automatically without the need for further user intervention.

If the **Auto Update** option is disabled and the firmware is up-to-date, the user sees a notification saying that the latest firmware is installed.

If the firmware needs to be updated an "Update Firmware" warning with an Update Firmware button is displayed when you select an Ezlo 100 with an outdated, and maybe unsupported, firmware version; you must update the firmware to continue managing the Ezlo 100.

To update the unsupported firmware version:

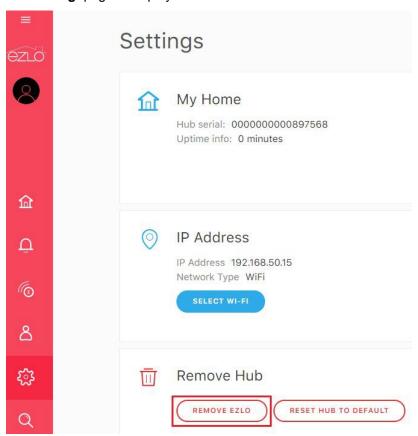
- 1. Press the **Update Firmware** button on the **Update Firmware** warning.
- 2. The first stage of the firmware update process begins.
- 3. The Ezlo 100 reconnects to the server when the firmware becomes supportable.
- 4. The application allows the user to access the Ezlo 100.

Note. It may take time (up to 2 minutes) to reconnect to the server.

How to Remove an Ezlo 100

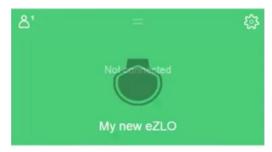
If you have a fully operating Ezlo 100 connected to the Internet, you can remove it from your eZLO app. To do so follow these steps:

1. Click on the **My eZLOs** sidebar. The **Settings**page is displayed.



- 2. Click Remove eZLO.
- 3. Click **Yes** when prompted to confirm, or **No** if you decide not to remove the Ezlo 100.

Note: If your Ezlo 100 is no longer available, it is displayed as **Not Connected**.



1. To remove the unconnected Ezlo 100, click on its eZLO web icon. The Offline options page is displayed.



- 2. Select REMOVE eZLO.
- 3. Click **Yes** when prompted to confirm, or **No** if you decide not to remove the unconnected Ezlo 100.

Note: Hub will be removed from account. Access point should be enabled for removed hub

How to reset Z-Wave settings to default

Z-W ave settings could be reset to default by different ways:

- 1. Via selecting "Remove All Devices" option in "Z-Wave Settings" list as described in "How to Remove a Z-Wave Device from an Ezlo 100" chapter, position 6
- 2. Via "Reset hub to default" option on "Settings" page as described in "How to Reset an Ezlo 100 to Factory Settings"
- 3. Via "Remove EZLO" option on "Settings" page as described in "How to Remove an Ezlo 100" chapter
- 4. Via pressing "Reset" hardware button for 5 seconds hub will reset to factory settings and will enable access point

Appendix 1: Terminology

Nodes, Controllers and Home Control Groups

Nodes are controllers or slaves based on their Role Type. The

term Unknown device refers to:

- 1) Devices that belong to a Home Control Group but are not supported by an Ezlo 100.
- 2) Devices that do not fit into any of the Home Control Groups managed by the Ezlo 100.
- 3) Devices that fit into any of the Home Control Groups managed by the Ezlo 100 but we don't know it's manufacturer.

As a Universal Controller, the Ezlo 100 controls Basic Command Class and thus it can send Basic ON/OFF commands to turn ON/OFF every individual Unknown Device.

Note: Unknown Devices can only be controlled with Basic ON/OFF commands.

<u>Note:</u> Controller devices can also be handled as Unknown Devices if they do not fit into any of the Home Control Groups managed by Ezlo 100.

Home Control Groups (HCG) are logical groups with various Z-Wave Plus Device Types mapped in them.

Controllers are designed to control one or more Home Control Groups. They are classified as either Dedicated or Universal.

- A Dedicated Controller must only control one Home Control Group. It may control Unknown
 Devices via the Basic Command Class, and the optional implemented controlled command
 classes in the controller.
- A Universal Controller controls multiple Home Control Groups. It MUST be able to control
 Unknown Devices with the Basic Command Class together with the optional implemented
 controlled command classes. It MUST provide individual control of Unknown Devices that have
 been included in the network.

Note: All controls for sending Controlled Commands are displayed in the eZLO 100 web interface according to the type/role the device reports to the eZLO 100. For example, for Switch devices the "Switch" control graphic is displayed, and for Dimmers - the "Dimmer" control graphic is displayed etc.

The **Static Inclusion Server (SIS)** enables other controllers to include/exclude nodes in the network on its behalf. The SIS is the main controller in the network because it has the latest update of the network topology and capability to include/exclude nodes in the network. When including additional controllers to the network they become **Inclusion controllers** because they have the capability to include/exclude nodes in the network on behalf of the SIS. The SIS cannot shift its role to other controllers in the network.

Note: Ezlo 100 automatically assigns SIS role to itself if it is the first controller in the network.

The **inclusion controller** has the capability to include/exclude nodes in the network on behalf of the SIS. The inclusion controller's network topology is dated from last time a node was included or it requested a network update from the SIS.

Controlled and Supported Command Classes

Command Class is a concept which describes how different Z-Wave devices should send commands to exchange (request/report/analyze) device functionality data, for example, commanding devices to turn On/Off, requesting temperature/humidity/voltage values from different sensors etc.

All commands are sent in a form of short frames with the following structure:

- <Command Class ID>
- <Command ID>
- <Specific Command data>

There are strict instructions which must be followed regarding particular Command Classes, so Z-Wave devices of different manufacturers can interact using these instructions without problems.

A device can support and/or control a given Command Class.

<u>If a Command Class is supported</u>, the node implements all the Command Class functionalities and it can be set and read back by other nodes. When a Command Class is supported, the whole Command Class has to be implemented.

<u>If a Command Class is controlled</u>, the node permits the exchange of data, the read function and/or set other nodes supporting the Command Class.

Nodes controlling Command Classes may use only a subset of the commands within a Command Class (for example, only Set commands). Even when using a Command Class partially for control, this usage must comply with the Command Class requirements.

Slave nodes may also control Command Classes. For example, a Set Command sent to Association Group destinations is a form of Command Class control.

When Command Class control is mandated by the Device Type, a controlling node must permit data exchange, the read function and set other nodes using the given Command Class. The controlling node must also be able to use all commands of the controlled Command Class.

An <u>Association Command Class</u> allows and defines communication between devices. It is also used for adding or removing nodes to/from an association group.

An <u>Association Group</u> is a group of multiple devices that is treated as a single device and thus controlled with a single command. Usually association groups unite similar devices as they all receive the same command. Each association group must include the following information:

- A grouping identifier
- A maximum number of devices that can be added to the group
- A description of how the association group is used and/or triggered by the product

Associations can be created via a central controller or an End Point. When creating an End Point association, the Association Set command is sent to the actual End Point; not to the Root Device (Controller).

The device can have a fixed number of nodes in their association group (not more than 5).

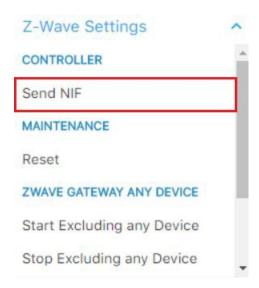
Association group 1 is always reserved for the Z-Wave Plus Lifeline service, and it should not be assigned for any other purpose. The actual Device Type of a given product specifies mandatory commands which the device must be able to send to a Lifeline group destination. A manufacturer may add support for additional commands that can be sent to the Lifeline group.

The Ezlo 100 supports and controls only the Lifeline Association group in the Association Command Class with the following parameters:

- Lifeline Group ID = 1
- Maximum number of devices that can be added to the group = 25
- The Ezlo 100 uses the Lifeline group to send the "Device Reset Locally" frames to the group members. Other than that, the Ezlo 100 does not send any information to Association groups.

A <u>Multi-Channel command class</u> is used to set communications between one or more items in a Multi device. An Ezlo 100 can control Multi-Channel devices, but it does not support Multi-Channel command classes. For example: if a slave device supporting a Multi-Channel command class has a few components (such as a smart strip with a few power outlets), Ezlo 100 will treat each channel as a device item and will send commands to each item. Each channel will be represented by an individual control in the UI.

<u>NIF</u> (Network Information Frame) is a service frame which contains a list of Supported Command Classes. Sending it may be useful for advanced Smart Home users and can be initiated on the **Settings** page of an Ezlo 100. Open the **Z-Wave Settings** drop-down menu and select the **Send NIF** option.



Below is a full list of the Controlled and Supported Command Classes that the Ezlo 100 can receive and send:

Controlled command class	GUI representatio n	Descriptio n	Method/datatype	Interview type
Cc0x20Basic	On-Off switch	On-off-like actions for all devices (Unknown Devices)	basic	Automatic interview
Cc0x25SwitchBinary	On-Off switch	Sets siren on and off	siren	Automatic interview
	On-Off switch	Switches anything on and off	switch	Automatic interview

Cc0x32Meter	As rule block THEN	Resets meter (such as kWh)	reset_meter	Automatic interview
Cc0x73PowerLevel	Not used in UI	Pushes the powerlevel test with powerlevel	powerlevel_test	Automatic interview
Cc0x84WakeUp	Not usedin UI	Sets the wakeup time for sleeping device (fixed interval)	wakeup	Automatic interview
Cc0x85Association	Button with group add / remove (2 groups only)	Sets the association to group or removes association from group	association	Automatic interview
Cc0x59AssociationGroupInfor mation	Not used in UI	The Association Group Information (AGI) Command Class allows a node to advertise the capabilities of each association group supported by a given application resource		Automatic interview
Cc0x5ADeviceResetLocally	Not used in UI	The Device Reset Locally Command Class is used to notify central controllers that a Z-Wave device is resetting its network		Automatic interview

		specific parameters	
Cc0x72ManufacturerSpecific	Not used in UI	The Manufactur er Specific Command Class is used to advertise manufactur er specific information	Automatic interview
Cc0x8EMultiChannelAssociati on	Not used in UI	The Multi Channel Association Command Class is used to manage associations to Multi Channel End Point destinations as well as to NodelD destinations	Automatic interview
Cc0x86Version	Not used in UI	The Version Command Class, version 2 is extended to report the version of various firmware images such as a host processor firmware, etc. in addition to the firmware image running in the Z-Wave chip.	Automatic interview
Cc0x5E Z-WavePlusInfo	Not used in UI	The Z-Wave Plus Info Command Class is used to differentiat	Automatic interview

e between Z-Wave Plus, Z-Wave for IP and Z-Wave devices. Furthermor e this command class provides additional information about the Z-Wave Plus device in question. Cc0x56CRC-16Encapsulation Not used in UI The CRC-16 Automatic Encapsulati interview on Command Class is used to encapsulat e a command with an additional CRC16 checksum to ensure integrity of the payload. The purpose for this command class is to ensure a higher integrity level of payloads carrying important data using 9.6/40kbps communica tion, in case the **LRC** checksum (8 bits) provided

		on protocol level is not sufficient to ensure integrity.		
Cc0x60Multi-Channel	On-Off switch for sub devices	The Multi Channel command class is used to address one or more end points in a Multi Channel device. An application implementi ng this command class MUST set the Optional Functionalit y bit in the NIF.		Automatic interview
Cc0x98Security	Not used in UI	The Security Command Class is create the foundation for secure application communica tion between nodes in a Z-Wave network. This command class allows a sending requests to joined device with security level		Automatic interview
Cc0x9FSecurity2	Flow of adding the device	The Security 2 Command Class is a	security_2	Manual part of interview

		framework for allowing nodes to communica te securely in a Z-Wave network. This command class allows a sending requests to joined device with security level	
Cc0x6CSupervision	Not used in UI	The Supervision Command Class allows a sending node to request application- level delivery confirmatio n from a receiving node. The delivery confirmatio n includes relevant application- level status information in the confirmatio n message.	Automatic interview
Cc0x55TransportService	Not used in UI	The Transport Service Command Class supports the transfer of datagrams larger than the Z-Wave frame.	Automatic interview
Cc0x74InclusionController	Not used in UI	The Inclusion Controller	Automatic interview

Command Class is used after a node's network inclusion between the SIS and an inclusion controller to inform each other of the remaining setup required for the included node.

NIF Command Classes

Command class

Z-Wave Plus Info Command Class

Association Command Class

Association Group Information Command Class

Device Reset Locally Command Class

Manufacturer Specific Command Class

Version Command Class

CRC-16 Encapsulation Command Class

Security 0 Command Class

Security 2 Command Class

Supervision Command Class

Transport Service Command Class

Powerlevel Command Class

Inclusion Controller Command Class

Security S0 supported Command Classes

Command class

Association Group Information Command Class

Supervision Command Class

Powerlevel Command Class

Association Command Class

Version Command Class

Manufacturer Specific Command Class

Device Reset Locally Command Class

Security S2 supported Command Classes

Command class

Association Group Information Command Class

Supervision Command Class

Powerlevel Command Class

Association Command Class

Version Command Class

Manufacturer Specific Command Class

Device Reset Locally Command Class

The GUI representation column defines how command classes are seen in the eZLO app GUI. Some of them are not available in the UI and cannot be managed through the app; however, you can see the information provided by these commands. For example, you cannot manage a motion sensor, but you can see the data on motion tracked by this device. The values of such devices can only be managed through the device itself. For instance, opening and closing the door changes the status of the door sensor, and the remote control requires a physical pressing of its buttons to operate it.

Other command classes allow managing devices both through the eZLO UI and the devices themselves. Each such device has a visual control panel in the eZLO app (which appears after the device was included to the Z-Wave network and placed to any room in the eZLO app).

The Ezlo 100 can receive, interpret and display various reports. These include reports implemented in different Command Classes as well as Notification Command Class messages.

Appendix 2. Warranty

Appendix 3. How to Get Support

Please visit https://ezlo.com/support to explore our Knowledge Base, engage with our User Community, have a live chat with one of our representatives, leave feedback or file a ticket if you have faced a trouble.

You can also contact our technical support by calling +18622082085 via the phone or Skype.

FCC

Supplier's Declaration of Conformity 47 CFR 2.1077 Compliance Information

Model: Ezlo 100

Responsible Party – US Contact Information 1255 Broad Street, Clifton, NJ 07013 United States

https://ezlo.com/support

FCC Compliance Statement (Products subject to Part 15)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement, The device can be used in portable exposure condition without restriction.

FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for aClass B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada licence - exempt RSS standard(s). Operation is Subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES - 003.

Cet appareil numérique de la classe B est conforme à la norme NMB - 003 du Canada.