



Fixing Z-Wave Problems with Z-Way Tutorial (problem solving)

The Z-Way Smart Home User Interface gives some step-by-step guidance how to include a new Z-Wave device and get it up and running. However there are a few reasons why the usage of a Z-Wave device with Z-Way may fail.

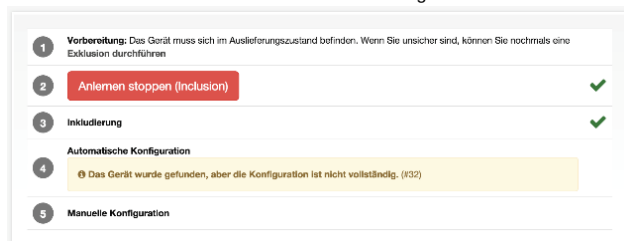
Inclusion fails

As first step the new Z-Wave device must be included into the Z-Wave network. For this the controller must be turned into the so-called inclusion mode and some action on the device must happen to confirm the inclusion process. The inclusion process will stop when a new device was included successfully. The following problems can happen here.

1. > 90 % of all inclusion problems are caused by devices that were already included. In this case they must be reset or excluded first. The step-by-step dialog for the inclusion in Z-Way reminds you of this fact and offers an inclusion. In case of doubt, better exclude. You can't do wrong by this.
2. All contemporary devices support a so-called network wide inclusion. This means that the new device must be in wireless contact with at least one mains powered device. Older models require direct wireless proximity to the gateway as such. If the inclusion fails please move the device closer to the gateway.
3. Most devices require a manual action on the device to include it. Some devices support the so-called auto-inclusion and will include themselves into the first network that appears. So it's not unreasonable that your device is already included. One other problem may be that there is no unified inclusion button for all Z-Wave devices but each manufacturer chooses its own method of the manual action needed. A single click or a triple click on a button (check, which one!) are the most common actions but some devices may require special action the Inclusion dialog of Z-Way gives you advise what do to but it may make sense to refer to the original device manual for further information.

Interview fails

Z-Wave Devices are able to declare their functions wirelessly. This means that the gateway needs to interview the new device right after inclusion in order to detect their function. Depending on the functions of the device this can be a very complex process that needs to be executed sequentially. In case only one question is not answered no new question is issued. Particularly in large networks with a lot of other traffic or in case of bad wireless connection between the device and the controller this process may stop. An incomplete interview may result in missing some functions of the device. After 10 seconds the controller will issue a warning if the interview was not completed.



The controller will continue to finish the interview but there are ways to speed up this process:

Refer to the Z-Wave expert UI `/expert/configuration` and pick the ID of the device just included. You find this in braces behind the warning message of the Inclusion dialog.

Device Id	13
Device Name	CP Fanster
Brand	Fakro
Device type	Motor Control Device (B)
Interview-Status	Device interview stage is not complete +...+ ++++++
Wireless Activity	✓ active
Application version	3.10
SDK version	4.54.01
Command Class	Basic, SwitchBinary, SwitchMultilevel, SwitchAll, ManufacturerSpecific, PowerLevel, Protection, Association, Version, Security,
Security interview	⊘

Call for NIF Force Interview View Interview Result Select Device Description

Now you will see the status of the interview and you can review the different steps of the interview by clicking the button "Show Interview Results". This dialog lists all functions and shows what part of the interview was finished or not. It is possible to force the unfinished parts to speed up the process. Please note that battery operated devices must be woken up in order to accept more interview commands.

Remark: The interview of the Version Command Class is usually the biggest hurdle because it's interviewed first and the interview itself involved a lot of questions.

There are various reasons why the controller can't finish the interview:

1. There were too much traffic to handle during the inclusion and the battery-operated device already went into deep-sleep. Just wake up the device to continue. The Inclusion dialog gives advise how to do this.
2. The device has a malfunction that prevents from finishing interview. Every Z-Wave device is tested during certification to pass the interview but occasionally devices with preliminary firmware are sent out by vendors for test and evaluation. Consult the usual online forums and resource for more information.

Problems during operation

Once the device was interviewed successfully and has passed the interview only few reasons exists why a device will not function anymore.

1. The battery of a battery-operated device is empty. Just change the battery.
2. The device was moved to another place or some other wireless obstacle appeared (furniture, ...). Modern Z-Wave networks have various ways to redetect a device and heal network problems automatically without any user-interaction. Nevertheless it is possible that some wireless problems block further communication. The expert UI gives some valuable information on [/expert#/network/timing](#) about the current health status. A manual network reorganization on [/expert#/network/reorganization](#) may help.
3. The device is broken

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Phone: +44 (0) 20 7419 5726
eMail: info@popp.eu
Web: www.popp.eu