

HomeSeer Z-Troller Z-Wave Computer Interface Installation guide



HomeSeer®

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Description

Thank for your purchase of Z-Troller Z-Wave computer interface. The Z-Troller is an advanced Z-Wave computer interface that provides 2-way control of Z-Wave devices.

System Requirements

Compatible with HomeSeer Version 2.1.104. Version 2.1.143 or later is required in order to take advantage of the advanced features of the Z-Troller such as network optimization and the creation of secondary controllers.

Installation

Adding Z-Wave devices to the Z-Troller

NOTE: If are already using a Z-Wave computer interface and already have your devices configured in HomeSeer, see the FAQ section for information on learning those devices to the Z-Troller without deleting the devices from HomeSeer.

A handheld remote is not required in order to add Z-Wave devices to your system. Insert 2 AA batteries in the Z-Troller. Pay close attention to the proper orientation of battery terminals. To add a device:

1. Disconnect the Z-Troller from the serial connection on your PC and bring the controller over to your Z-Wave device, such as lamp module or wall switch.
2. Hold down the "ADD" button, then press the button on the device you want to add. If the device is a wall switch, tap the top or bottom of the switch.

NOTE: If the device was previously added to a remote, or the device is not recognized, the Z-Troller display will not change. In this case hold down the "Del" button and press the button on the device. This will reset the device and you can use the "Add" button to add the device.

3. After the device is added, the display on the Z-Troller will show the node ID of the device. The node ID is a unique number in the range of 1 to 232. Write down this number as you will need to know it later when the device is added to HomeSeer. If you were previously using a different PC interface, you will need to reset all your devices and re-add them to the Z-Troller.
4. If you need to obtain the node number of the devices you have added in the future, see the "Signal Monitor" feature under "Advanced Operations".

NOTE: When adding devices to the Z-Troller, you need to be within one foot of the device. The Z-Troller is portable and may be carried around the home in order to add your devices.

NOTE: When the Z-Troller is disconnected from its power adapter it is running on batteries. If left on batteries, it will exhaust the batteries in a couple of days. When not adding devices, keep the Z-Troller connected to its power adapter, or remove the batteries. The display will flash "b" while the unit is on batteries as a reminder.

Adding Z-Wave devices to HomeSeer

After adding all your Z-Wave devices to the Z-Troller, you can now transfer the devices to HomeSeer. Follow these steps:

1. Connect the Z-Troller to a free serial port on your computer. The Z-Troller is shipped with 2 cables. A shorter PS/2 to 9 pin serial cable is first connected to the Z-Troller. Connect the PS/2 connector to the PS/2 connector on the Z-Troller. This is the round connector. You may connect the other end of this cable to a free 9 pin serial port on your computer. Optionally, you may connect the longer extension cable which will allow you to place the Z-Troller in a more accessible location.
2. Start HomeSeer, click on the Setup button, then the Interfaces tab. Select the drop list under "Z-Wave Interface", select "Com Port", and enter the port number you connected the Z-Troller to. Click on the "Save" button to save the setting.
3. Check the HomeSeer event log for any errors. HomeSeer should find and initialize the interface.
4. Click on the Setup button again, then the Interface tab, then the "Manage" button.
5. Now click on the "Load Devices" to load all of your Z-Wave devices into HomeSeer. HomeSeer will attempt to contact each device and obtain information about the device type, etc. You can check the event log for progress messages. Note: This button may be labeled "Reload Devices" on some versions of HomeSeer.
6. Click on the Status button to view your devices. Click on the "Location" drop list and select "Z-Wave Interface" to view all the Z-Wave devices that have been added.
7. Edit each device by clicking on its name. To find out which device you are editing, look the "Z-Wave Node Number". Match this with the node number that was displayed on the Z-Troller when you added the node. For example, if the Z-Troller displayed "5" when you added the kitchen light, then look for the device in HomeSeer that has the Z-Wave Node Number of 5. Then name this device "Light", and set its location to "Kitchen". If you don't know the node numbers of your devices, bring

the Z-Troller over to the device and tap the "Add" button on the Z-Troller. Now press the button on the device. The node number will be displayed for you.

8. You can now control all your devices using HomeSeer.

Advanced Operations (HomeSeer 2.1.143 or later required)

Creating Secondary Controllers (handheld remotes)

If you would like to use handheld Z-Wave remotes, you need to copy Z-Wave information from the Z-Troller to your handheld remote. In HomeSeer, click on Setup, then Interfaces, then the Manage button. Click on the "Create Secondary Controller" button. HomeSeer will begin sending information. On your remote, start it receiving information. Add devices to your remote's buttons following the instructions that came with your remote. You may create as many secondary remotes as you like.

Signal Monitor

After installing all of your Z-Wave devices, you may have the need to find out the Z-Wave node numbers of your devices. For example, you added all of your Z-Wave devices to the Z-Troller, but did not write down the node number that was shown on the display. To retrieve the node number, position the Z-Troller within a one foot of the Z-Wave device in question, then press and release the "Add" button. Dots will scroll across the display. Now press the button the Z-Wave device (or tap the paddle if the device is a wall switch). The Z-Troller will display the node number of the device. It is a good idea to make sure you do not have more than one device with the same node number. If you notice that you have multiple devices with the same node number, use the "Del" button on the Z-Troller to reset all of the devices in question, then re-add them using the "Add" button. Note this feature will only display node numbers for devices that are in the same Z-Wave network as the Z-Troller (that have the same Home ID). You cannot retrieve node numbers from devices that have been learned to another primary controller.

Optimizing the Z-Wave Network

The reliability of Z-Wave is due to the way it is able to route commands through other devices. For example, when the controller needs to turn on the living room lights, it may send the ON command through a light switch in the kitchen. The controller keeps a database of how devices can talk to one another. This is done by a process called "Neighbor Discovery". Whenever a new device is added it attempts to discover all the devices that are within its RF range. It then relays this information back to the Z-Troller. Problems arise

if a device fails, is unplugged, or is moved to a different location in the home. When this happens, the performance and reliability of the system is compromised.

To handle these issues, the Z-Troller has the ability to force a "Re-Discovery" of the Z-Wave network. This process will "optimize" the command routing and restore the reliability of the system. This is accomplished with two new commands that are available in HomeSeer:

1. In the properties of each Z-Wave device (click on the name of the device on the HomeSeer status page) there is a button labeled "Optimize Node". Clicking this button will instruct that one device to re-discover its neighbors. This will cause any previously learned neighbors to be removed. (This button may be labeled as "Repair Node")
2. Click on the Setup button, then the Interfaces tab, then click on the Manage button. Here there is a button labeled "Optimize Network". Clicking this button will instruct the Z-Troller to force ALL devices to re-learn their neighbors. This may take some time to finish, so be patient. The HomeSeer event log will display the progress of this command. This button may be labeled as "Repair Network".

Removing Failed Devices

On occasion a Z-Wave device may be removed from the home, or may have totally failed and needs to be replaced. Other devices will continue to use this failed device to route commands. This may cause a slow down in controlling devices. To fix this issue, click on the name of the device on the HomeSeer status page. This displays the properties of the device. Click on the "Remove Node" button. This will permanently remove the node from the Z-Troller so the Z-Troller will no longer attempt to send commands through it.

NOTE: If the device still exists, then this command fail. Only devices that cannot be contacted can be removed.

Z-Troller FAQ:

Q: I already have a Z-Wave system and am using HomeSeer, do I have to re-add all my devices if I install the Z-Troller?

A: Yes, but you will not lose your device and event configuration if you follow this procedure:

1. For each one of your devices, delete it using the "Delete" button on the Z-Troller, then re-add it using the "Add" button. Do this for all your devices. **Make sure you note the node number displayed on the Z-Troller when you add the device! You will need this later.** The Z-Troller now has knowledge of all your devices.

2. Plug the Z-Troller back into your computer and re-start HomeSeer. Configure the Z-Troller in Setup, on the Interfaces page. (click the Manage button)
3. Click the "Load Devices" button (may be labeled "Reload Devices"). This will load any new devices, but will not overwrite any existing devices.
4. All your devices will still exist, but the Z-Wave node numbers for each device will be wrong. So turning on the kitchen light might turn on the hallway light. To fix this, open the device properties for each device (click on the device name on the status page), and correct the node ID number. Select the drop list next to the Node ID and pick the new number that is assigned to this device. The node number is displayed when you add the device to the Z-Troller.

Q: How come I don't need a remote? I thought I had to learn devices to my remote, then copy them to the PC interface?

A: This is a cumbersome process and is no longer required. The Z-Troller is a portable primary Z-Wave controller and runs off of both batteries and/or a power supply. Simply carry the Z-Troller to your Z-Wave device and press the ADD button. The device is added and the node ID is displayed for you. Now plug the Z-Troller back into your PC, click the "Load Devices" button in HomeSeer, and your done!

Q: What is all this talk about Primary and Secondary controllers, and why should I care?

A: Many PC Z-Wave interfaces are Secondary Z-Wave controllers. This means they contain a copy of all the device information (information that tells the controller how to contact each device, also known as routing information). The main copy is in the Primary controller, which is the remote control you used to set up the system. The problem with Secondary controllers is that they are limited in what they can do. They cannot re-build the network, delete or add devices, and have other limitations. If you lose your remote, you are stuck. The Z-Troller is a Primary controller. It has total control over your devices. It can force devices to re-discover their neighbors, remove failed nodes, and more.

Q: I see an LED display on the Z-Troller, what is that for?

A: This displays information like the ID of the device when you add it. This allows you to find the device in HomeSeer. It will display "b" when its on battery power, A/C when its connected to its power adapter, "conn" when its connected to the PC serial port, "disC" when its disconnected from the serial port, and displays Add and Del messages when you are working with devices. When on batteries, it will display the amount of power left in the batteries.

Q: What is the Home ID and Node ID for?

A: The Home ID is a unique number that is assigned to every Z-Wave controller. This includes the Z-Troller and any remote control. It used by Primary controllers only. When a new device, such as a lamp module or wall switch is first installed, it does not have a Home ID or Node ID. When the device is added to the Z-Troller, the Home ID and a new Node ID is assigned to the device. This allows the device to participate in the Z-Wave network. The Home ID is a security feature. It is now impossible for any other controller to access the device, such as your neighbor next store.

Support

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