Hubitat: Remove Ghost Instructions

Friday, August 28, 2020 11:16 AM

Using UZB 7 Stick to remove Ghost devices from C7 hub (Will also work for previous hub versions.)

This doc assumes you've been having issues w/your Z-Wave devices and confirmed that you have Z-Wave device "ghost" on your Z-Wave details page on your hub. A Ghost is a device that failed to pair properly w/your hub. It may affect other devices or bring your entire Z-Wave network to a standstill, with nothing working.

In some cases a ghost entry may remain after removal in the PC Control program, but will disappear after a full shut down, pull power for a minute, and then restart. Most of the time it will disappear as soon as removed. If you are outside the US, see the FAQ at the end for **important regional settings.**

1. Get a UZB 7 Z-Wave controller stick. Silicon Labs (the vendor that makes the PC Controller software) has a UZB 700 stick that is reasonably priced (less than $30 delivered:

   Mouser.com - Silicon Labs SLUSB001A Z-Wave 700 UZB-7 USB Stick

2. Next you need the PC Controller software (requires Win10, can be run in emulation on Apple). Install the "Simplicity Studio" suite from Silicon Labs site, and then use the suite to download and install the PC Controller SW.

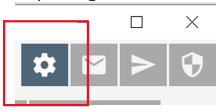
   Silicon Labs Simplicity Studio Download link - You will need to create an account on the Silicon Labs site to download the software, but there is no charge to download or use the software. The PC Controller software is under **Tools** in the Simplicity Studio.

3. Plug the UZB stick in to the USB port on a windows machine - you should hear a couple happy boops/beeps to confirm it's connected.

4. Check in the Ports (COM and LPT) section in Device Manager to confirm that the stick was recognized. recognized. The driver version info is below. The driver .INF file is stored in the Bin\ZW050x_USB_VCP_PC_Driver folder under the PC Control app folders after they are unzipped, but you should not have to do anything with it.

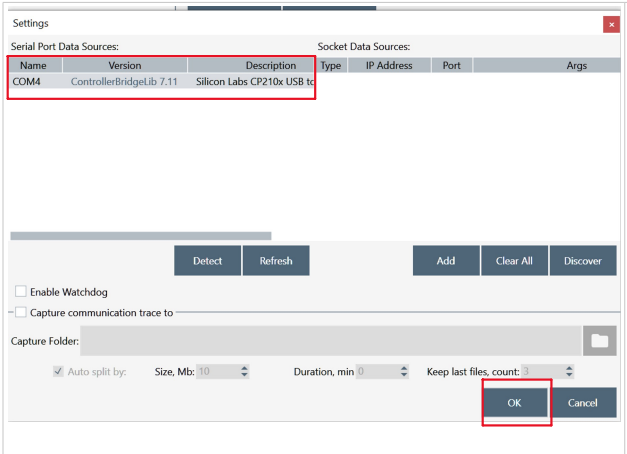
5. Open the Z-Wave PC Controller app

6. Tap the gear icon in the upper right corner of the app.



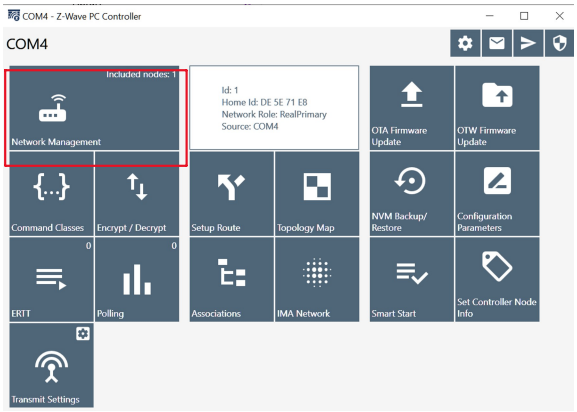
7. The UZB stick should appear in the middle of this screen below. If the Version info doesn't fill in you can tap Detect, Refresh, or Discover.

   Select the UZB stick and tap **OK**. In my case when the UZB stick appeared on this screen, I had to try repeatedly to get this part to work. When I hit **OK** I would return to the app home screen with an error (see screen on the right, below). I just kept going back to the selection screen and trying again. You can also try removing and re-inserting the UZB stick. Eventually it will work. :)



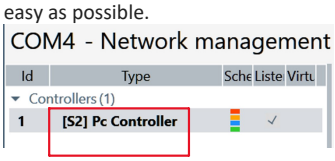
When it fails it looks like this. Go back to the Settings screen and try again.

8. When it connects properly the PC Control app home screen will look like below. Click on **Network Management**.

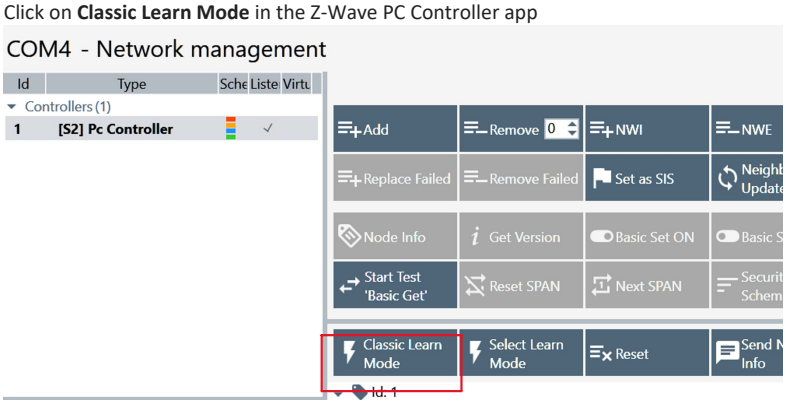


9. Now it's time to pair the stick with your hub. Return to your hub and put it into Z-Wave inclusion mode…

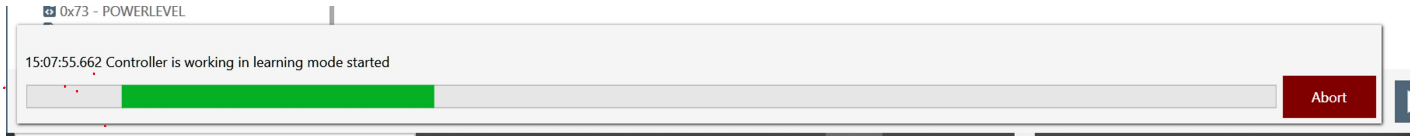
10. In the Z-Wave PC Controller app, click on your UZB stick - it will look something like this. Move as close to your hub as you can before the next step, to make pairing as easy as possible.



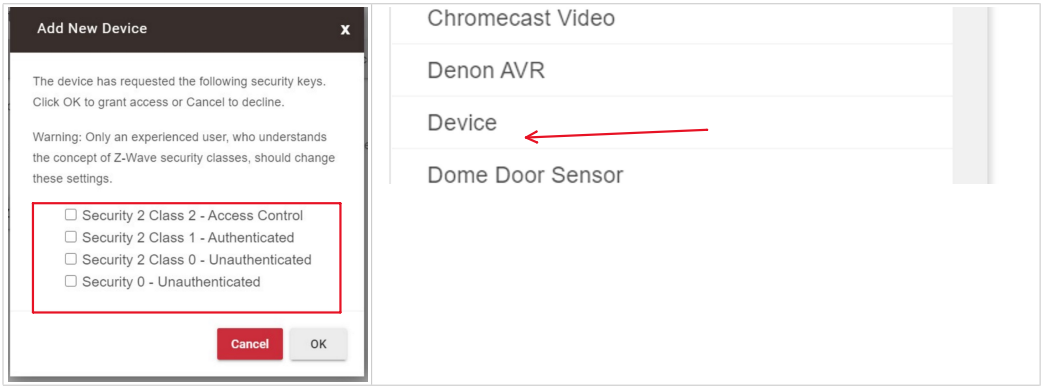
11. Click on **Classic Learn Mode** in the Z-Wave PC Controller app



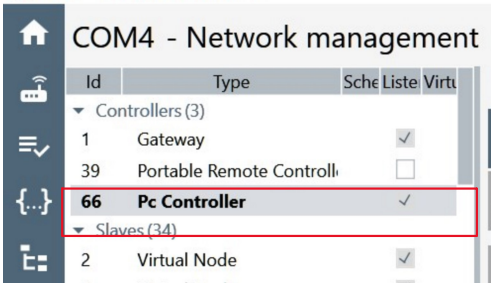
12. You'll see a pairing status bar moving along the bottom of the Z-Wave PC Controller app:



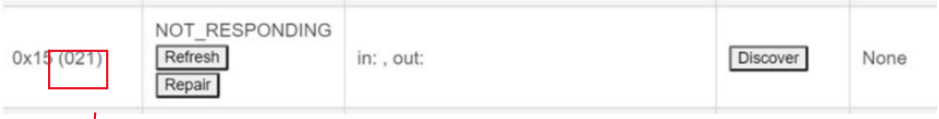
13. Pair in unsecure mode (uncheck all boxes in the dialog below). If things go well you'll pair w/the Hu . If you don't pair on the first try, like any other device try again. For some reason mine paired as a **Generic Zwave Dimmer.** I saved it, and then changed it's driver to simply "Device" on the stick's device page after pairing.



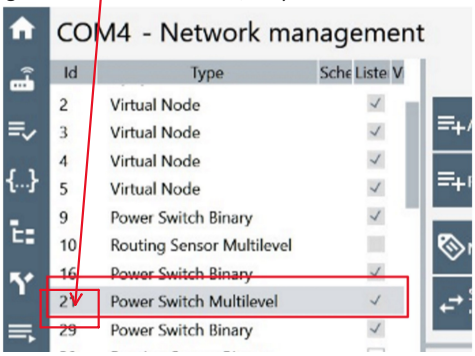
14. Once you're paired, click on the **Pc Controller** entry in the upper-left pane of the Z-Wave PC Controller app , and a list of devices will appear in in the lower left pane. The PC Controller is selected below (the "Portable Remote Controller" in my list is a Minimote button device that I also happened to have paired to my hub.)



An example Ghost is shown below in the Z-Wave Details screen on the hub. The device number (021) corresponds to device 21 in the PC Controller app list.



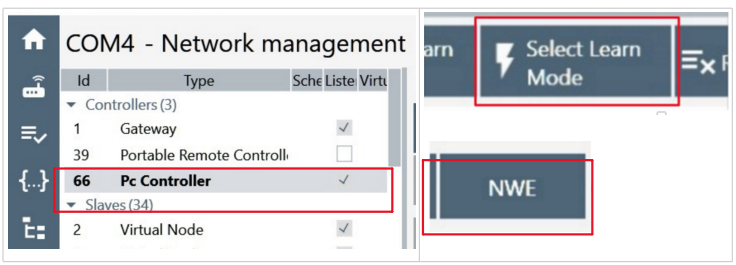
Ignore the "0x15" numbers, they are not relevant to this task. Just use the device numbers in the parentheses.



General info: 1) Regarding the check marks on the list: The devices that are "listening" get a check. The ones without are probably battery powered or other low reporting devices. 2) Do **not** touch nodes 1-5, they are your Hub and internal nodes used by the Z-Wave chip in the hub.

15. To exclude your Ghost device(s):
    a. Find and click on your "ghost" device. In the picture above, device 21 is the ghost device.
    b. Click on **Is Failed** in the upper right pane - hopefully it will mark the device as failed, and turn the device text red.
    c. Then click on **Remove Failed**
    d. If the ghost is not removed, try clicking on **NOP** and maybe **Is Failed** again a few times to see if that works to get it into **Is Failed** status.

16. When Done, you can exclude your UZB stick so it doesn't hang around as a "Dead" device after you shut down the app and remove the stick from your computer.
    a. Put your Hubitat hub in exclusion mode
    b. In the Z-Wave PC Control app click on the **Pc Controller** entry
    c. Then click on **Select Learn Mode** and then **NWE** to exclude your UZB stick from the hub



Congratulations. All your ghosts are now belong to you. ;-) You should be pretty much done!

FAQ

What if I still see the ghost entries in my hub after the removal?

- If you still see the ghosts in your list on the Z-Wave Details page:
  - Shut down you hub
  - When the red light appears, pull power from the hub and wait a minute
  - Reconnect power to restart your hub

What if the ghosts are still there after a shut down/reboot:

- Even if you do see the ghosts in your Z-Wave Details page, if the following are true, your ghost is no longer a actual functional issue for you, even if one or more remains in your Z-Wave details list.
  - You do not see any routing in the last column of the Z-Wave Details page
  - No routing appears when you select the Refresh and Discover buttons for that device
  - You do not see Busy messages from your hub in the Logs screen

- If you still have entries after completing the steps you can try repeating the removal process in the PC Controller app again if you want to try to completely remove them from your list. But if above are true there should be no further impact on your Z-Wave mesh and device from those "de-fanged" ghosts.

Should I do a Z-Wave repair after removing the ghost?

- Generally no, unless you have a problem w/one or more devices not performing properly.
- The current advice from HE staff is:
  - C7 hub: Don't do global Z-Wave repairs - use the individual **Repair** buttons provided for each device on the Z-Wave Details page
  - All hubs: **Important:** If it ain't broke, don't fix it. Don't do Z-Wave repairs "just in case" - only do them if you device is exhibiting a problem
  - If you have a device that you think it taking a ridiculous route and it's not working well, do **single node repairs** on the nodes in the route, and on the **final node**

Should I leave the UZB stick paired w/my hub after I'm done?

- No clear "Yes" or "No" on this. @erktrek noticed some problems (UZB stick), see below. Others have not had problems (Aeotec stick) leaving their stick paired.

  @erktek: "Ran into a problem where the UZB-7 stick was actually inhibiting node repairs, kept getting messages like following until I excluded the stick itself:

  `2020-09-02 04:23:21.998 pm warnZ-Wave Node 49: Repair failed node neighbor discovery (report failed)`
  So maybe at least for now it is better to NOT leave the stick paired while trying to include/repair other nodes etc.

  I was consistently getting that error in the logs on a node repair but when I excluded the stick it worked like right after that. It's possible that the change tweaked the routes enough to get things moving again I guess. Better to keep things simple and eliminate potential issues..

  @kahn-hubitat: "…I have the Aeotec no issues i left it paired"

Do I have to use a UZB/Z-Wave stick to remove my ghost?

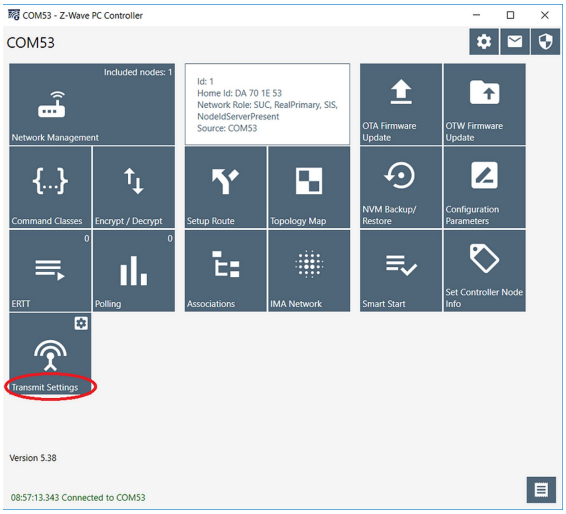
- Depends on your ghost, some get removed by the firmware, some not. One thing you can try (from @datavortex) is below:

  - Had to pull the air gap on the Inovelli dimmer, wait several minutes, reboot the hub, and then use the "Remove" button to remove it. I had not previously killed the power to the device, which left it in "OK" mode and prevented it from getting the boot.

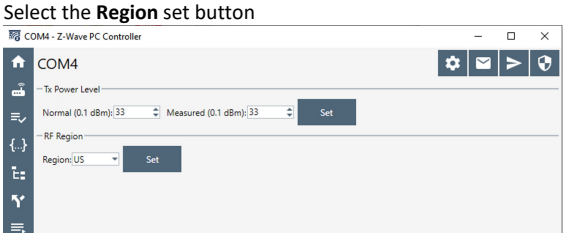
What I'm in another region (not US)?

- The PC Controller app defaults to US region settings. To change this follow steps below. (Credit to @lewis.heidrick for documenting this process.)

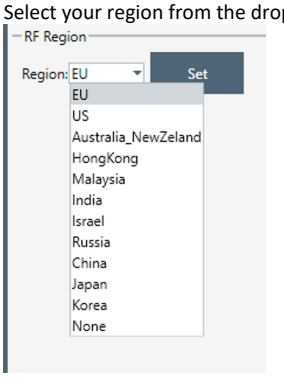
  Select **Transmit Settings**



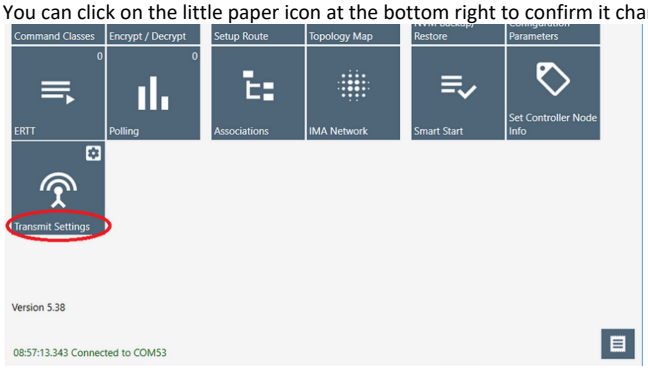
Select the **Region** set button

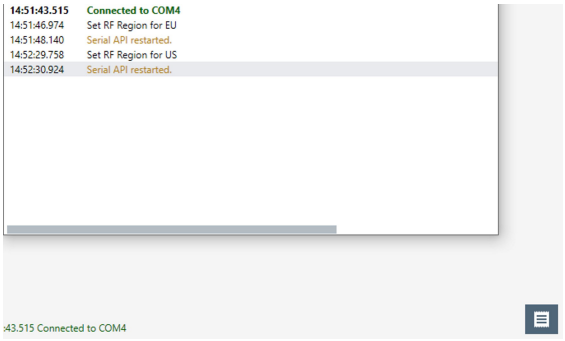


Select your region from the drop down. Your region should change when set. If not close the app, reboot, and check/try again.



You can click on the little paper icon at the bottom right to confirm it changed.





Thanks to @erktrek who went above and beyond answering many, many questions as I was trying to figure out how this worked. And of course thanks to the many forum members who have provided the information and guidance in this area for all of us.