PNWSpot Remote Screen Setup Guide

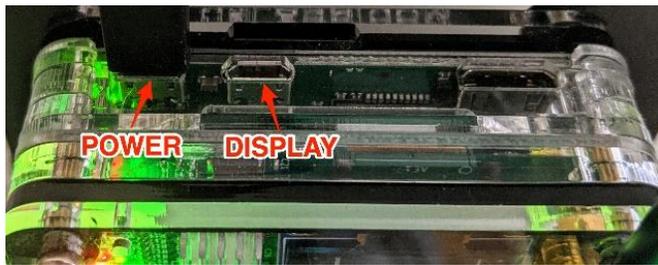|	
Please Note: First, this guide was made using Pi-Star version 4.1.3. Older or newer versions may behave somewhat differently. Second, there are two options for using your external Nextion display. The first method uses default, "basic" drivers that will display information on the screen but will not allow for touchscreen functionality. The second, more involved method includes installing a more advanced driver, called NextionDriver, which allows for touchscreen functionality. Steps 1-3 are the same for both methods. Steps 4-8 are for the basic method Steps 9, 10 – end are for the advanced method.	
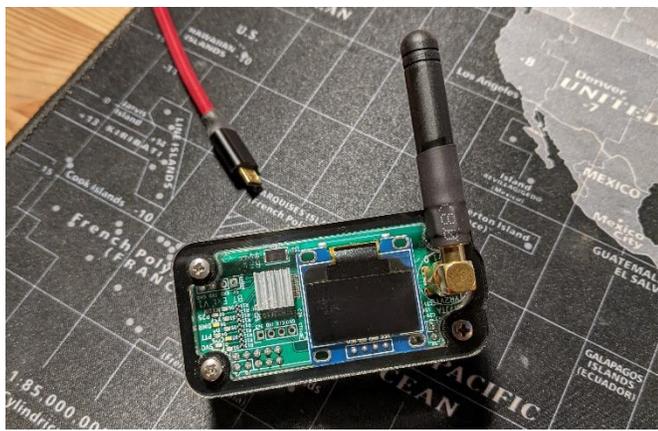
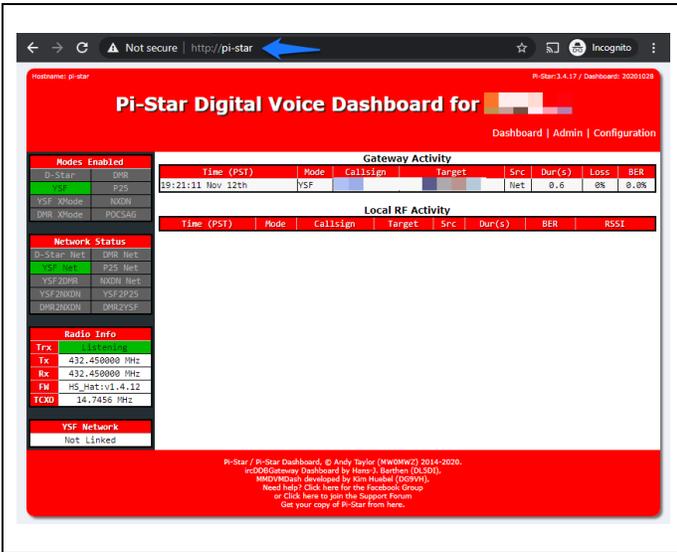|	
	1. Start off with your PNWSpot unplugged.
	2. Plug in your Nextion screen to the inside MicroUSB connector.
	3. Plug your PNWSpot in. Initially, the screen will be blank, and the red SVC light will be blinking slowly. Once booted, the red SVC light will be blinking quickly.

4.
Once booted, open your browser and head to:
http://pi-star OR **http://pi-star.local**

This will open the PNWSpot's dashboard
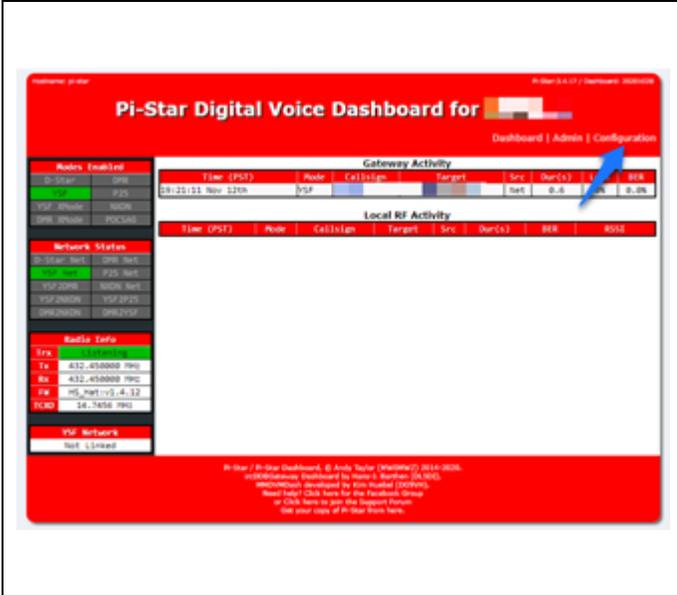
5.
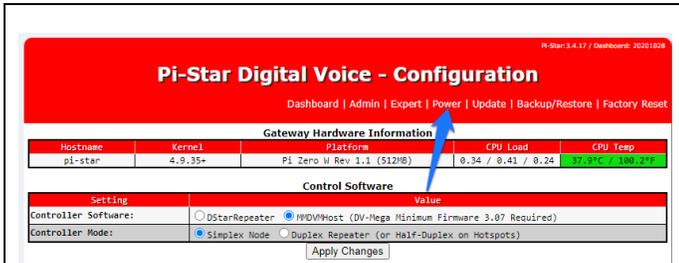Click "Configuration" to open the configuration page.

If prompted to login, login using:
Username: pi-star
Password: raspberry
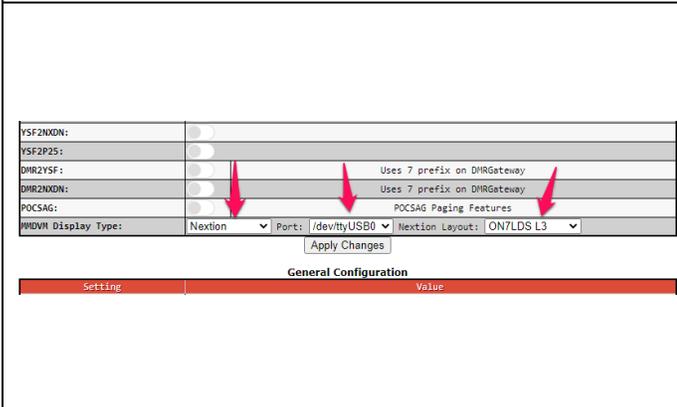
6.
On the configuration page, scroll down to the MMDVMHost Configuration section, and set MMDVM Display Type Settings as follows, and apply changes:
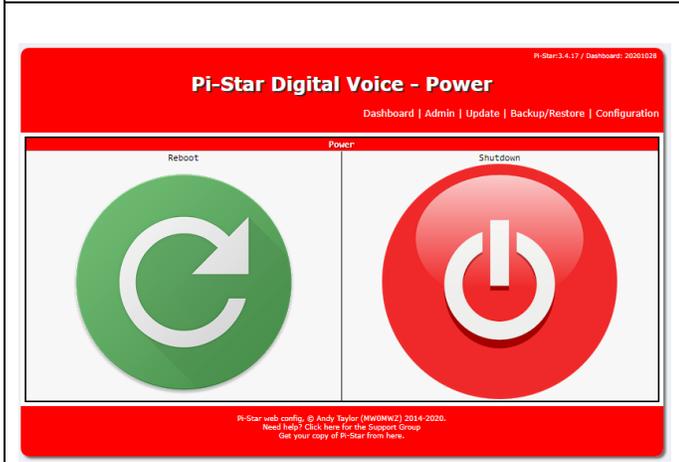
MMDVM Display Type: Nextion
Port: /dev/ttyUSB0
Nextion Layout: ON7LDS L3

7.
After applying changes, you may need to reboot the hotspot using the Power menu, at the top of the configuration page.

8.
Select Reboot and the hotspot will restart, using the external Nextion display instead of the internal OLED display.
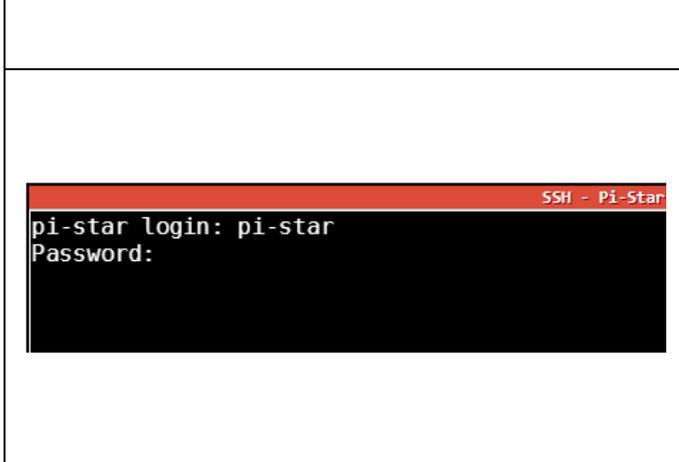
Until power is completely removed (unplugged) and re-applied, the internal OLED display may still show "close".

9.
To install the more advanced NextionDriver files, we must head to SSH Access.

SSH Access is located under Expert > SSH Access

10.
You will first be prompted to login to Pi-Star. Hit enter after entering each item.

Username: pi-star
Password: raspberry

Note: when entering password, nothing will show, this is normal. Just enter the password and hit enter.

11.
First, we need to delete any previous versions of NextionDriver.

Enter:
rpi-rw
and hit enter

You will now see "(rw)" at the end of the green text, letting you know you are now in "read-Write" mode, instead of "Read Only" mode (ro).

12.
Next, we will delete the NextionDriver files, if they exist.

Enter:
sudo rm /usr/local/bin/NextionDriver
and hit enter

13.
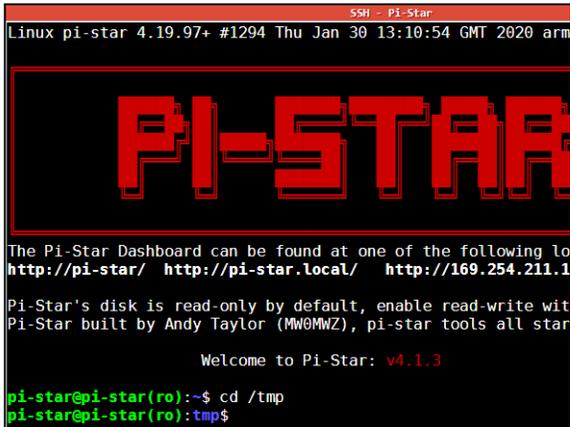This will occur very quickly, and once you see a third line of green text, it will be done.

At this point, go back to Configuration > Power and restart your hotspot.

You may get a warning that changes have not been applied, but this can be ignored.

14.
After reboot, head back to SSH Access and login again.

15.
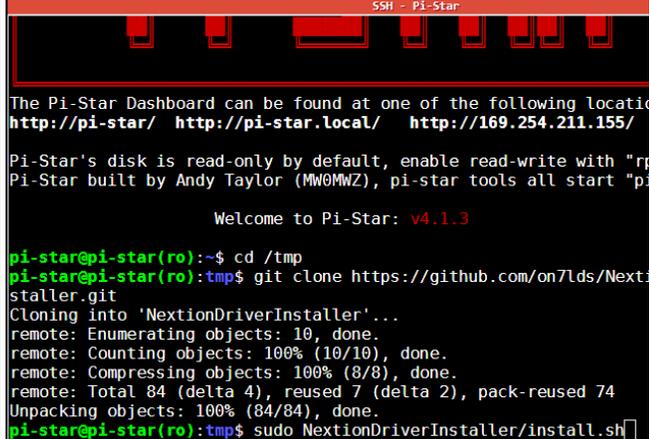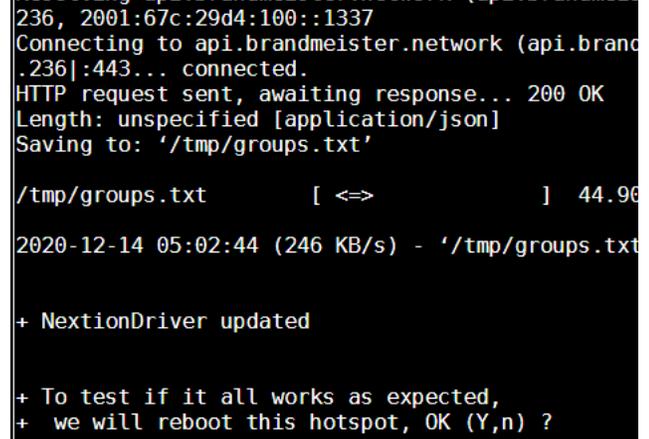Next, we need to change to the temporary directory.

Enter:
cd /tmp
and hit enter

The green prompt changes to include "tmp$" which tells us it has changed to the tmp directory as we instructed.
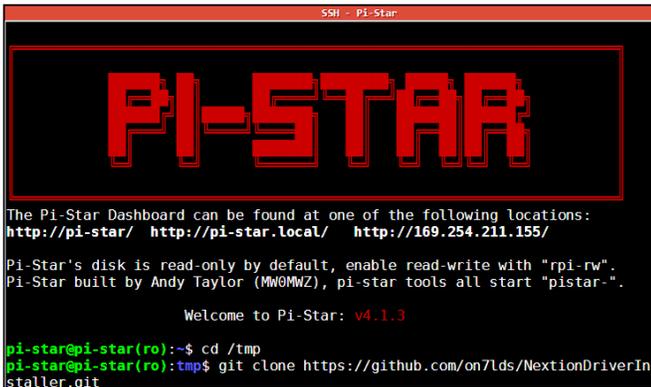
16.
Now, we must download the driver to the tmp directory.

Enter:
git clone https://github.com/on7lds/NextionDriverInstaller.git
And hit enter

17.
When completed downloading the driver to the temporary directory, you will again be met with a green prompt.

18.
Next, we need to tell it to install the driver we just downloaded into the temporary directory.

Enter:
sudo NextionDriverInstaller/install.sh
And hit enter

19.
Once installed, we will be given the option to reboot.

Enter:
Y
And hit enter

20.
The hotspot will now reboot.

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	21. Once rebooted, we need to ensure settings are correct for using the screen. First, on the configuration page, make sure the MMDVM Display Type is set to: Type: Nextion Port: /dev/ttyNextionDriver Layout: ON7LDS L3 Change and apply changes if needed.
	22. Next, we need to change the port that NextionDriver uses, to the USB port. Access the Expert menu (at the top) and the MMDVMHost Page
	23. Scroll Down to the NextioNDriver section, and ensure that Port is set to /dev/ttyUSB0 Enter this if needed, and apply changes.
	24. Once applied, head back to the power menu and restart the hotspot. After a reboot, you may need to physically pull and re-apply power to do a full restart.

Guide last updated 01/04/21