Troubleshooting guide

1) Common configuration problems within PiStar

Note: Testing should be done with a known good Raspberry Pi with a correctly configured image.

ZUMspot RPi:

A. Board not found in Pi-Star or not working in a particular mode.
- a. Go to *Configuration -> Modem* and make sure that "ZUMspot RPi GPIO" has been selected.
- b. Reflash firmware
    - i. Go to *Configuration -> Expert -> SSH*
    - ii. Login
    - iii. Run following command: sudo pistar-zumspotflash rpi
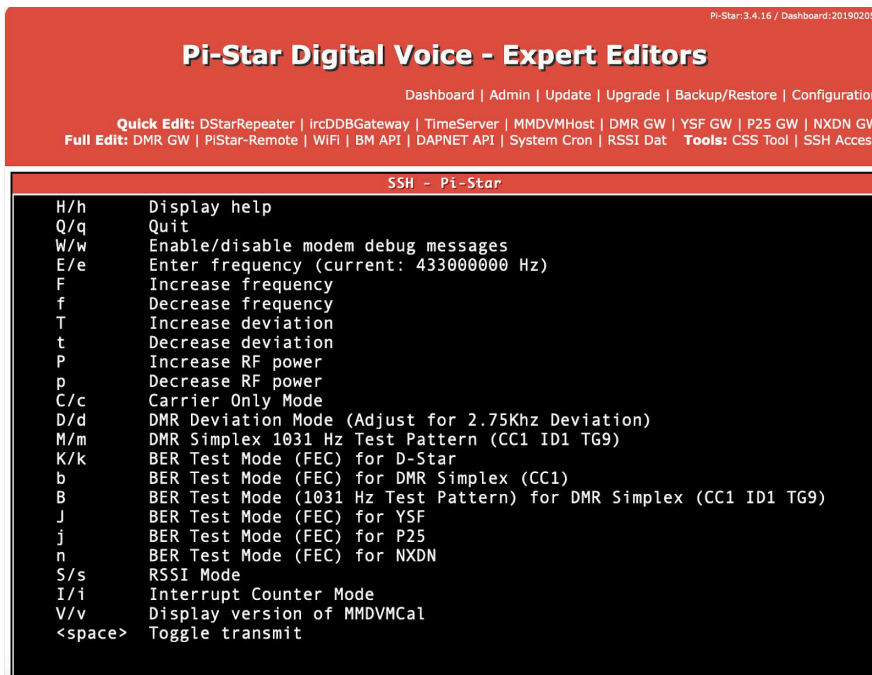- c. Test using MMDVMCal

ZUMspot USB:

A. No COM port found under Windows.
- a. Go to "Device Manager" and check for USB devices with an exclamation point next to it.
- b. Re-install Maple Drivers
B. Board not found in Pi-Star Suggestion 1.
- a. Go to *Configuration -> Modem* and make sure that "ZUMspot USB" has been selected.
C. Board not found in Pi-Star Suggestion 2.
- a. Go to *Expert -> SSH*
- b. Login to pi-star
- c. Type in "lsusb" in terminal
- d. If a device named "1eaf:0004" is listed, then the pi-star image has been corrupted
D. Board not working in a particular mode.
- a. Reflash firmware
    - i. Go to *Configuration -> Expert -> SSH*
    - ii. Login
    - iii. Run following command: sudo pistar-zumspotflash usb
- b. Test using MMDVMCal

MMDVM-Pi:

A. Board not found in Pi-Star or not working in a particular mode
   a. Go to *Configuration -> Modem* and make sure that "ZUM Radio-MMDVM for Pi (GPIO)" has been selected.
   b. Reflash firmware
      i. Follow instructions in the MMDVM-Pi Configuration Guide: https://www.hamradio.com/images_managed/misc/H0-016486_MMDVM-Pi_Configuration.pdf
   c. Test using MMDVMCal

2) **Using MMDVMCal to test ZUMspot RPi/USB and MMDVM-Pi boards**
   1. Turn on a radio and set it to 433.000 MHz and set it to analog mode.
   2. Boot up pi-star
   3. Go to *Configuration -> Expert -> SSH Access*
   4. Login to pi-star
   5. Type in the following command: sudo pistar-mmdvmcal
   6. You will see this menu

   7. Press the spacebar on your keyboard to do the transmit test
   8. The red PTT LED should turn on. You should hear a tone on the radio. This shows that the transmit function of the board is working
   9. Press the spacebar to stop the transmit test.
   10. Press the "s" key on your keyboard for the RSSI test

11. Press the PTT button on the radio.

12. You should see the RSSI drop to around 47-48. This shows that the receive function of the board is working.

13. Press the "q" key on your keyboard to exit out of MMDVMCal.

3) OLED display on ZUMspot RPi:

A. If you see **lines in the display**, then that means the OLED glass is broken. The image on the left has broken glass while the image on the right is working correctly.
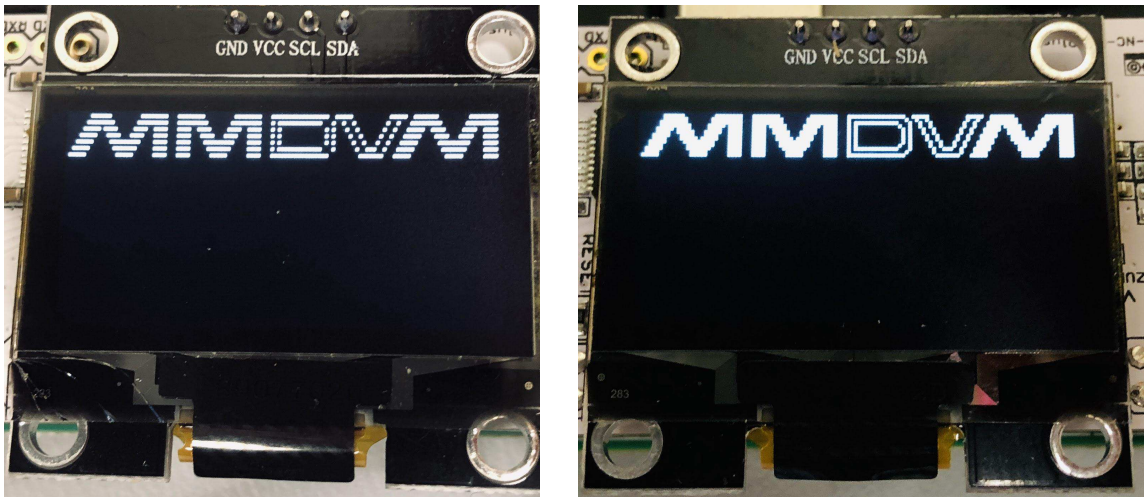
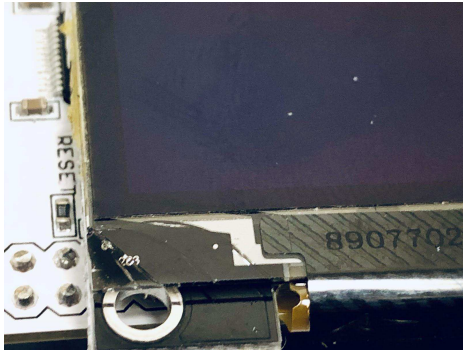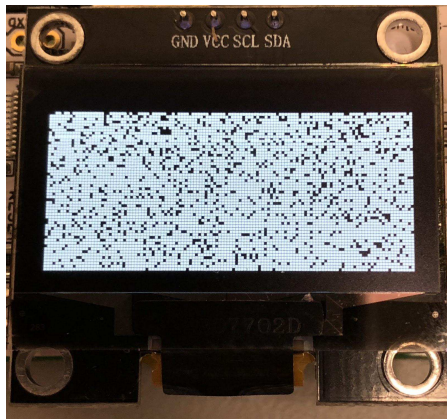Here is a close up example of broken glass:

B. If you see **dots on the display**, then that means that the settings in PiStar have not been configured correctly. Follow the directions in this setup document: https://www.hamradio.com/images_managed/misc/H0-016491_OLED_Configuration.pdf

C. If the display comes up **blank**:
   a. The settings in Pi-Star may have been configured incorrectly. Follow steps for "dots on the display"
   b. Make sure the correct ZUMspot modem has been selected under ***Configuration -> Modem***

4) **OLED/Shim Kit:**
   A. Lines on the display.
      a. See section for **OLED display on ZUMspot RPi**
   B. Dots on the display:
      a. See section for **OLED display on ZUMspot RPi**
   C. If the display comes up **blank**:
      a. The settings in Pi-Star have been configured incorrectly. Follow steps for "dots on the display"
      b. A wire has come loose on the back of the OLED or on the shim board.

5) **Bluetooth Boards:**
   A. BlueDV can't connect to ZUMspot after Bluetooth pairing.
      a. Connect ZUMspot to known good working pi-star setup. Then follow the steps in **ZUMspot RPi** section.

Customer Support

There are a number of ways for customers to get support in addition to HRO staff:

1. **MMDVM Yahoo group:** https://groups.yahoo.com/neo/groups/mmdvm/info
2. **ZUM Radio Facebook page:** https://www.facebook.com/groups/249802742395450/
3. **PiStar support forum:** https://forum.pistar.uk/
4. **PiStar Facebook page:** https://www.facebook.com/groups/pistarusergroup/
5. **Nextion/MMDVM Facebook page:** https://www.facebook.com/groups/Nextion/
6. **Hardware support email:** support@zumradio.com

Phone Support

ZUM Radio isn't set up for customer phone support at this time.