

Mini 1.3 OLED ZUMspot

The Mini 1.3 OLED ZUMspot kit is a low power simplex digital mode hotspot. It supports DStar, DMR, Fusion, NXDN, P25 and POCSAG.



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ZUMspot board specifications:

- ZUMspot board fully assembled and tested
- High performance 32-bit ARM processor
- Supports DMR, P-25, D-Star, System Fusion, NXDN and POCSAG
- Onboard LEDs to show status (Tx, Rx, PTT, Mode)
- Up to 10mW RF power
- SMA antenna connector, UHF antenna included
- The firmware is pre-loaded and is easily upgraded via software

Kit includes:

- ZUMspot RPi UHF Board
- Raspberry Pi Zero WH board
- Custom case
- 3A power supply
- 1.3" OLED screen
- UHF Antenna
- Pre-Imaged 16 GB MicroSD Card with Pi-Star Software
- 1 Year Warranty

Setup:

- Make sure the SD card is installed in the Raspberry Pi Zero WH board
- Install the antenna onto the RF connector



Powering up:

- Plug in the USB micro power cable to the right-hand USB connector on your Mini 1.3 OLED ZUMspot kit. Then plug the cable into the 5V/3A wall adapter and insert that into an AC outlet.

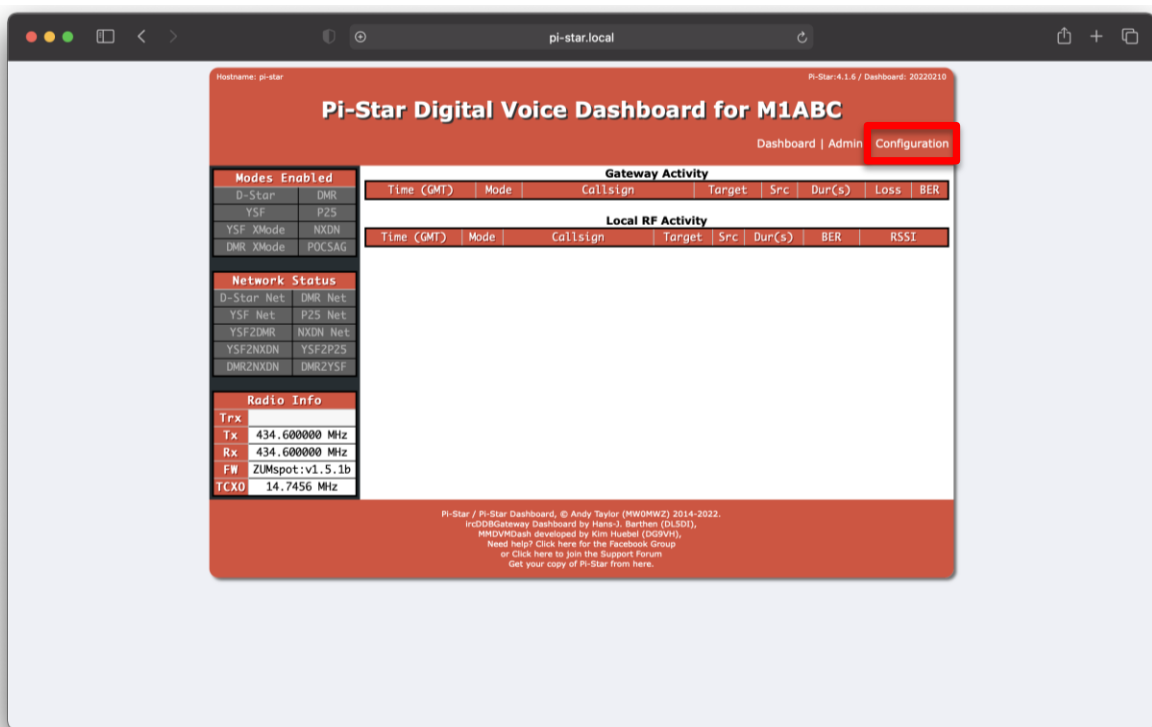


- If the Mini 1.3 OLED ZUMspot kit doesn't power up, then press the switch on the cable and it should power up now.

Setup Pi-Star:

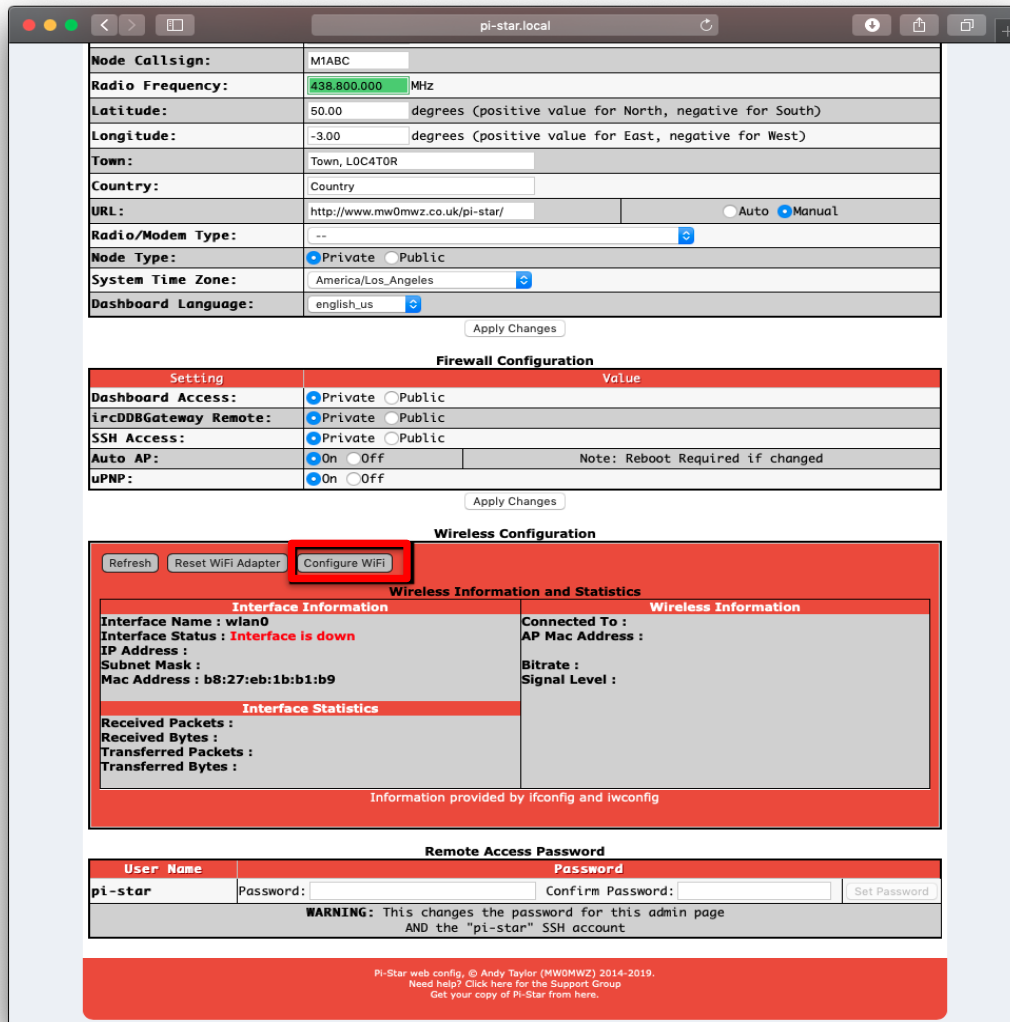
Wi-Fi:

- Power up the Mini 1.3 OLED ZUMspot kit.
- After 3 minutes, scan for Wi-Fi access points from your phone or laptop. One should appear with the name “Pi-Star-Setup”
- Connect to it. When asked for the Wi-Fi password type in: raspberry
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the Pi-Star page: <http://pi-star> (for Windows, Linux and Android devices)
<http://pi-star.local> (for OS X and iOS devices)
- You should see this page. If not click on “Configuration” at the top.

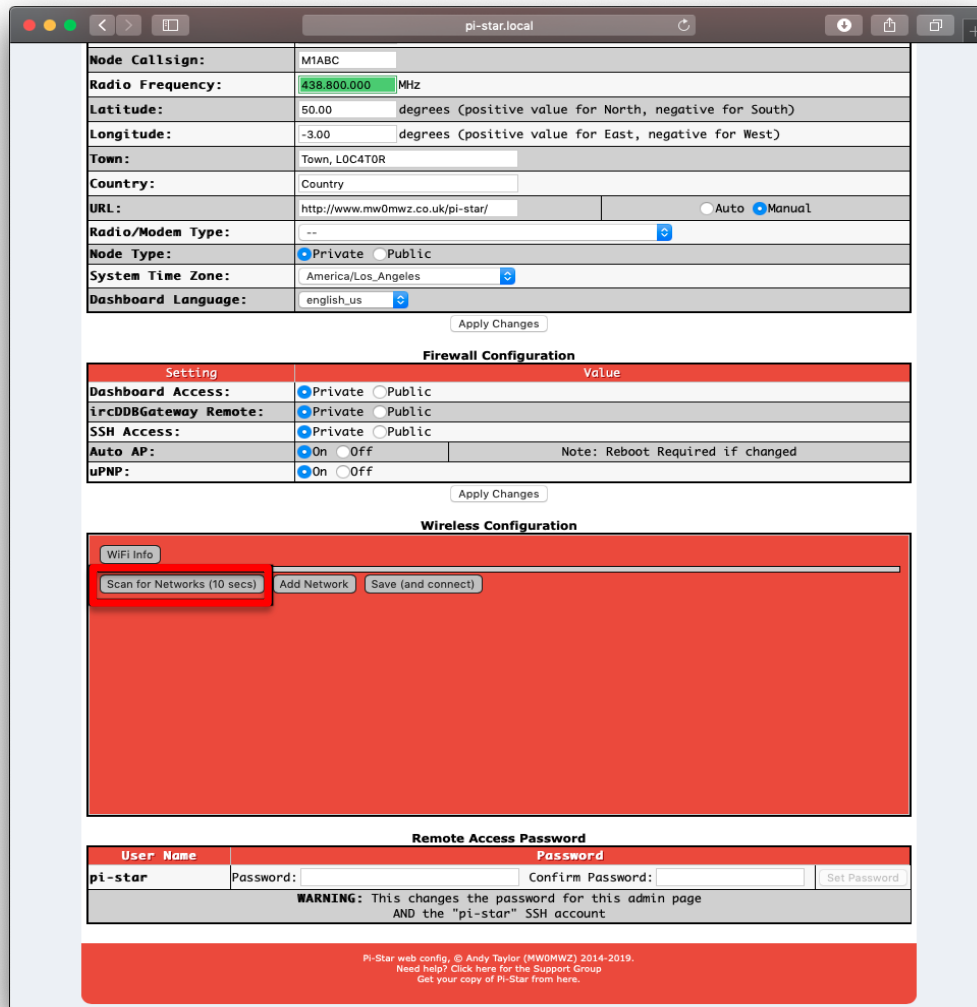


- Go to **Configuration**
 - You will be asked to enter the username which is “**pi-star**” and the password which is “**raspberry**”

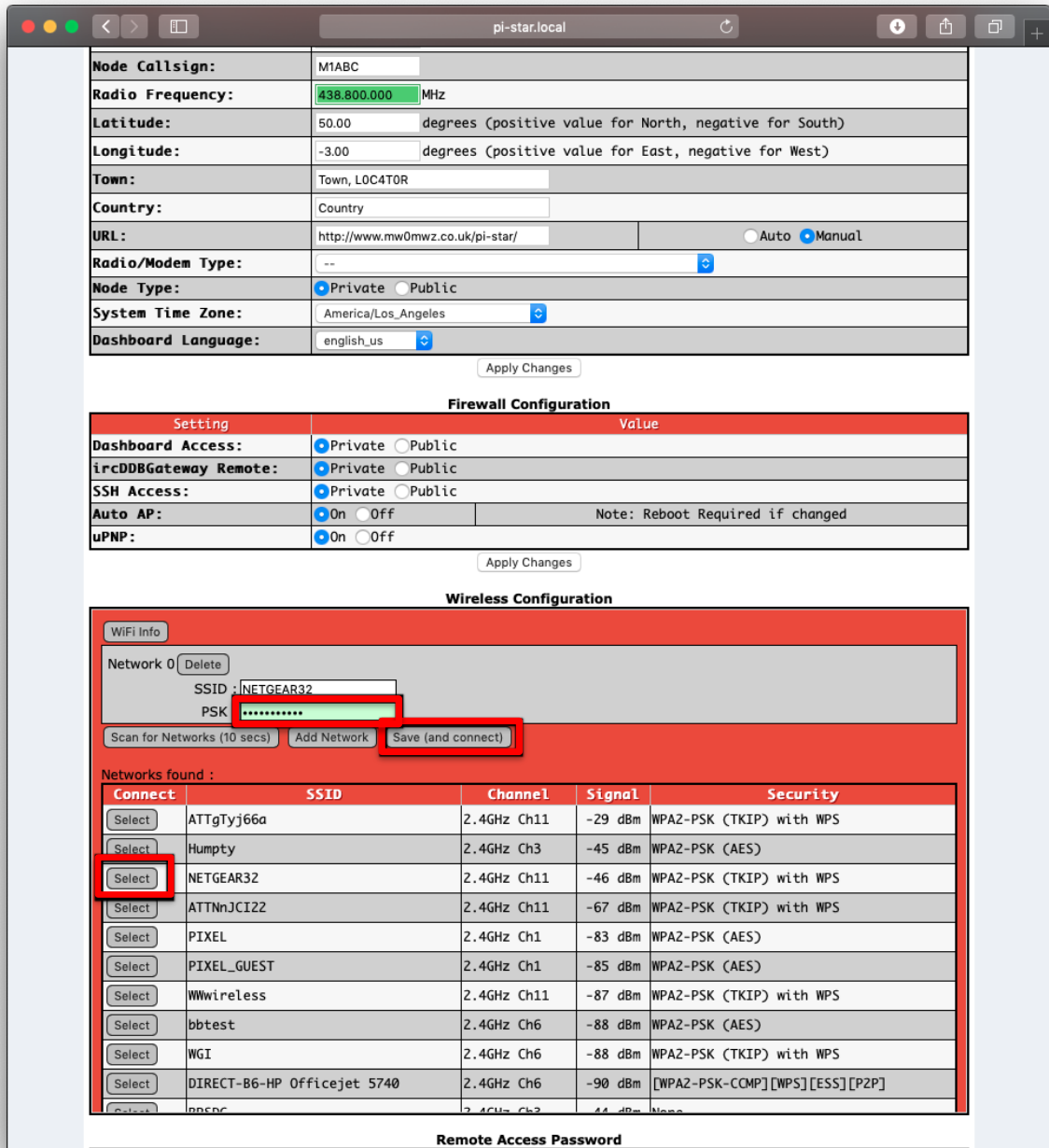
- Select “Configure Wi-Fi



- Click on “Scan for Networks (10 secs)”



- Select your Wi-Fi SSID and enter your password.
- Click on **“Save (and connect)”** to save the Wi-Fi configuration



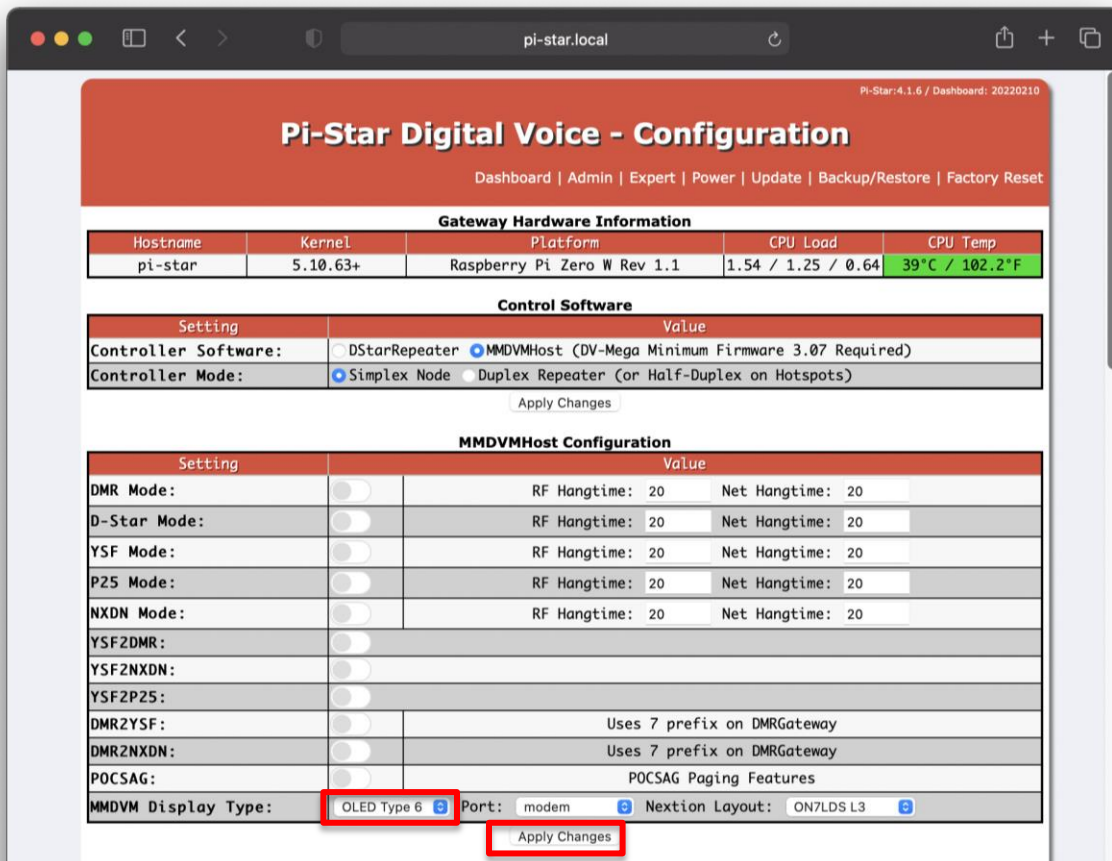
The screenshot displays the Pi-Star configuration web interface. The browser address bar shows 'pi-star.local'. The interface is divided into several sections:

- Node Information:** Fields for Node Callsign (M1ABC), Radio Frequency (438.800.000 MHz), Latitude (50.00), Longitude (-3.00), Town (Town, L0C4T0R), Country, URL, Radio/Modem Type, Node Type (Private selected), System Time Zone (America/Los_Angeles), and Dashboard Language (english_us). An 'Apply Changes' button is present.
- Firewall Configuration:** A table with columns 'Setting' and 'Value'. Settings include Dashboard Access, ircDDBGateway Remote, SSH Access, Auto AP, and uPNP, each with radio buttons for Private/Public or On/Off. A note states 'Note: Reboot Required if changed'. An 'Apply Changes' button is at the bottom.
- Wireless Configuration:** This section is highlighted in red. It includes a 'WiFi Info' box with 'Network 0' (Delete), SSID (NETGEAR32), and PSK (*****). Below are buttons for 'Scan for Networks (10 secs)', 'Add Network', and 'Save (and connect)'. A table titled 'Networks found:' lists detected networks with columns for Connect, SSID, Channel, Signal, and Security. The 'NETGEAR32' row is highlighted, and its 'Select' button is also highlighted.
- Remote Access Password:** A section partially visible at the bottom.

- Reboot your Mini 1.3 OLED ZUMspot kit
- Connect your phone/laptop computer to the same Wi-Fi access point as you just configured in Pi-Star
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the Pi-Star page:
 - <http://pi-star> (for Windows, Linux and Android devices)
 - <http://pi-star.local> (for OS X and iOS devices)

Configure display type:

- On the “Configuration” screen, look at the “MMDVMHost Configuration” section
- Make sure “MMDVM display Type” is set to “OLED type 6”



The screenshot shows the Pi-Star Digital Voice Configuration web interface. The browser address bar shows 'pi-star.local'. The page title is 'Pi-Star Digital Voice - Configuration'. The interface is divided into several sections:

- Gateway Hardware Information:** A table showing system details.
- Control Software:** A table showing software settings.
- MMDVMHost Configuration:** A table showing MMDVMHost settings, with 'MMDVM Display Type' set to 'OLED Type 6' and 'Apply Changes' button highlighted.

Gateway Hardware Information				
Hostname	Kernel	Platform	CPU Load	CPU Temp
pi-star	5.10.63+	Raspberry Pi Zero W Rev 1.1	1.54 / 1.25 / 0.64	39°C / 102.2°F

Setting	Value
Controller Software:	<input type="radio"/> DStarRepeater <input checked="" type="radio"/> MMDVMHost (DV-Mega Minimum Firmware 3.07 Required)
Controller Mode:	<input checked="" type="radio"/> Simplex Node <input type="radio"/> Duplex Repeater (or Half-Duplex on Hotspots)

Setting	Value
DMR Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
D-Star Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
YSF Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
P25 Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
NXDN Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
YSF2DMR:	<input type="checkbox"/>
YSF2NXDN:	<input type="checkbox"/>
YSF2P25:	<input type="checkbox"/>
DMR2YSF:	<input type="checkbox"/> Uses 7 prefix on DMRGateway
DMR2NXDN:	<input type="checkbox"/> Uses 7 prefix on DMRGateway
POCSAG:	<input type="checkbox"/> POCSAG Paging Features
MMDVM Display Type:	<input checked="" type="radio"/> OLED Type 6 <input type="radio"/> Port: modem <input type="radio"/> Nextion Layout: ON7LDS L3

- Click “Apply Changes” when you are done

Configuration:

- In the “General Configuration” section, change the “**Node Callsign**” to your own, set the “**Radio Frequency**” to match your radio. Make sure the “**Radio/Modem Type**” is set to “**ZUMspot - Raspberry Pi Hat (GPIO)**”. Set the “**System Time Zone**” to your time zone, and set the “**Dashboard Language**” to the language you prefer.

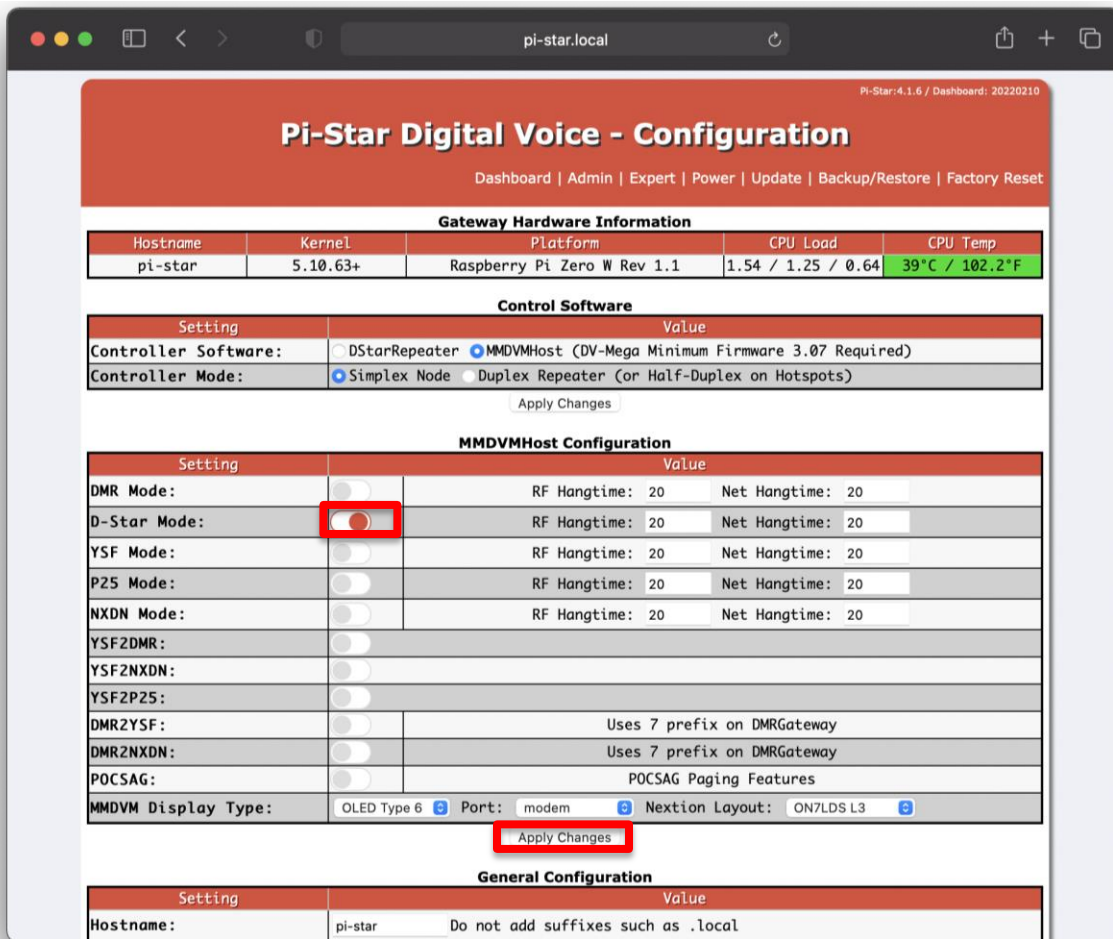
Setting	Value
Hostname:	pi-star Do not add suffixes such as .local
Node Callsign:	M1ABC
Radio Frequency:	434.600.000 MHz
Latitude:	50.00 degrees (positive value for North, negative for South)
Longitude:	-3.00 degrees (positive value for East, negative for West)
Town:	Town, LOC4TOR
Country:	Country
URL:	http://www.mw0mwz.co.uk/pi-star/ <input type="radio"/> Auto <input checked="" type="radio"/> Manual
Radio/Modem Type:	ZUMspot - Single Band Raspberry Pi Hat (GPIO)
Node Type:	<input checked="" type="radio"/> Private <input type="radio"/> Public
APRS Host Enable:	<input type="checkbox"/>
APRS Host:	euro.aprs2.net
System Time Zone:	Europe/London
Dashboard Language:	english_uk

Apply Changes

- Click “**Apply Changes**” when you are done

Configuration (example to enable D-Star):

- You can turn on D-Star by selecting the “D-Star Mode” switch and clicking “Apply Changes”



- You can then configure D-Star to set the “Default Reflector” and clicking “Apply Changes”

