

Nextion Kit Quick Start Guide

The Nextion Kit has all of the capabilities of the ZUMspot all packaged up in a nice clear case with a Nextion display on top.



Specifications:

- High performance 32-bit ARM processor
- ZUMspot Board Fully Assembled And Tested
- 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
- Mounted on Raspberry Pi 3B
- The firmware is pre-loaded and is easily upgraded via software.
- Built-in 2.4" Nextion display
- 2.4A power supply
- 1 Year Warranty
- Open source firmware (MMDVM) and board design
- Open source 3D printable case available

The ZUMspot RPi Nextion 2.4 Kit Package Includes:

- ZUMspot Pi UHF Board
- Raspberry Pi 3B
- C4 Lab case
- 2.4A power supply
- 2.4" Nextion Enhanced display
- UHF Antenna
- Pre-Imaged 16 GB MicroSD Card with Pi-Star Software

Setup:

- Make sure the SD card is installed in the Raspberry Pi 3B
- Install the antenna into the RF connector. There is an opening on the top which is where the antenna goes.

Here is a completely setup Nextion Kit



Powering up:

- Plug in the USB micro power cable to your Nextion Kit. Then plug the cable into the wall adapter and insert that into an AC outlet.
- If the Nextion Kit doesn't power up, then press the switch on the cable and it should power up now.



Setup Pi-Star:

Wi-Fi:

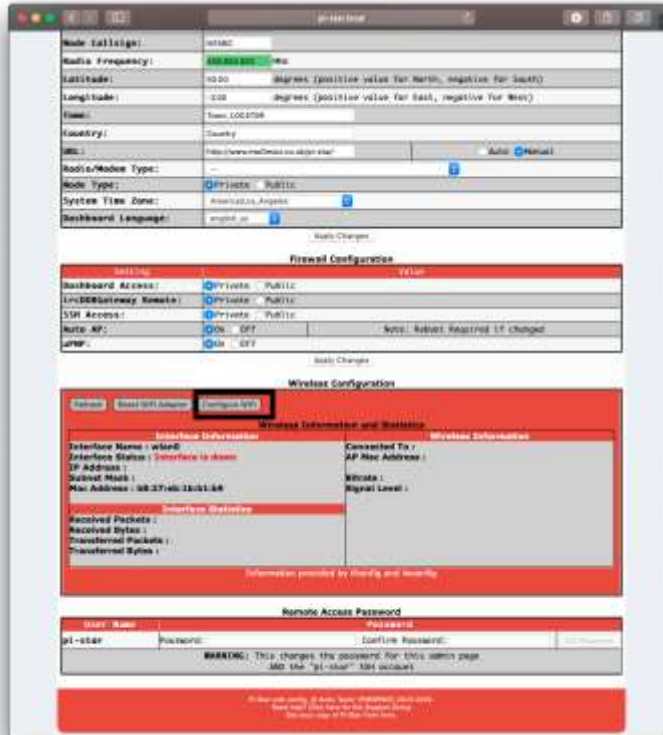
- Power up the Nextion Kit.
- After 3 minutes, scan for Wi-Fi access points from your phone or laptop. One should appear with the name “**Pi-Star-Setup**”
- Connect to it. When asked for the Wi-Fi password type in: raspberry
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the website:
<http://pi-star> or <http://192.168.50.1> (for Windows, Linux and Android devices)
<http://pi-star.local> or <http://192.168.50.1> (for OS X and iOS devices)

- You should see this page.

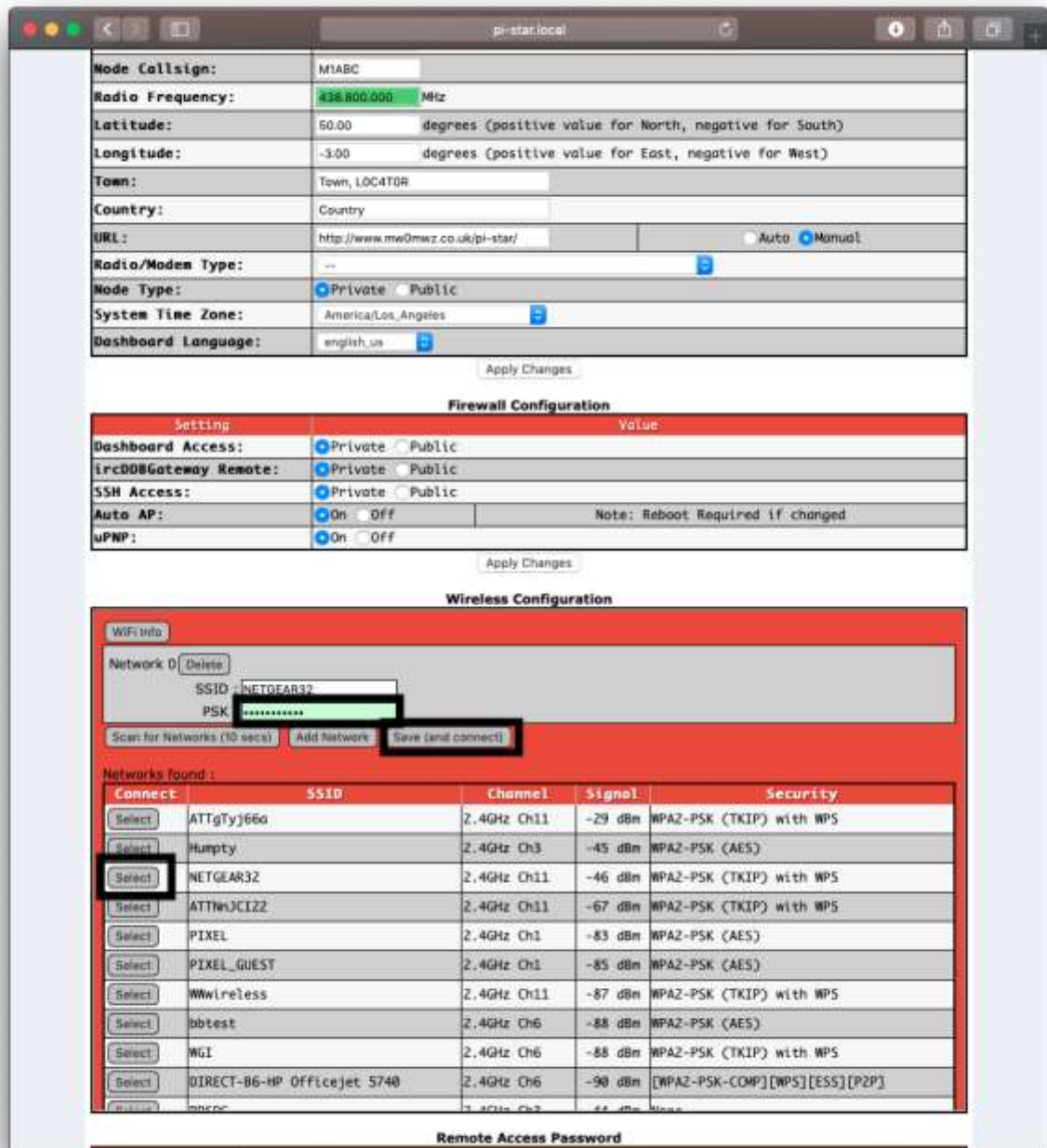


- Go to **Configuration**
 - You will be asked to put in the default username which is “**pi-star**” and the default password which is “**raspberry**”

- Select **“Configure Wi-Fi”** and then 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



- Reboot your Nextion Kit
- Now you can continue on the **“Configuration”** section below.

Ethernet:

- Connect Ethernet cable to the Nextion Kit and then turn on the power.



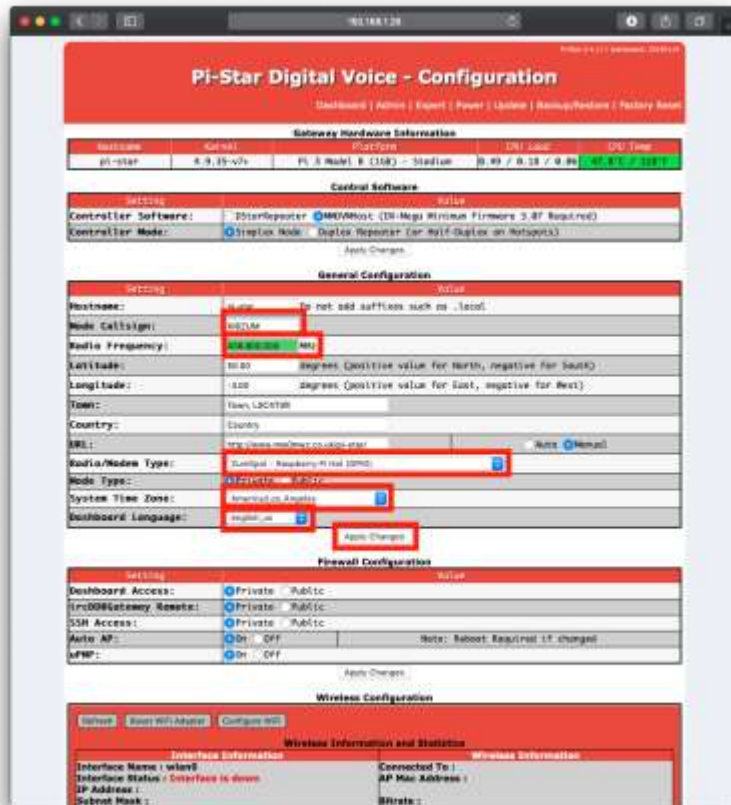
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the website:
<http://pi-star> (for Windows, Linux and Android devices)
<http://pi-star.local> (for OS X and iOS devices)
- You should see this page.



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

Configuration:

- Change the Node Callsign to your own, set the “**Radio/Modem Type**” to “**ZUMspot - Raspberry Pi Hat (GPIO)**”, set the “**System Time Zone**” to your timezone, and set the “**Dashboard Language**” to the language you prefer.



- Click “**Apply Changes**” when you are done
- When everything reloads, you will need to re-set the “**Radio/Modem Type**” to “**ZUMspot - Raspberry Pi Hat (GPIO)**” and click “**Apply Changes**” again.

Configuration (example to enable D-Star):

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

Pi-Star Digital Voice - Configuration
Dashboard | Admin | Expert | Power | Update | Backup/Restore | Factory Reset

Gateway Hardware Information

Hostname	Kernel	Platform	CPU Load	CPU Temp
pi-star	4.9.35-v7+	PI 3 Model B (1GB) - Stadium	0.17 / 0.13 / 0.08	43.5°C / 110.3°F

Control Software

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

Apply Changes

MMDVMHost Configuration

Setting	Value
DMR Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
D-Star Mode:	<input checked="" 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:	Nextion <input checked="" type="radio"/> Part: Modem <input type="radio"/> Nextion Layout: ONTLOS LB <input type="radio"/>

Apply Changes

General Configuration

Setting	Value
Hostname:	pi-star Do not add suffixes such as .local
Node Callsign:	K1SZUM
Radio Frequency:	434.800.000 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, LOCATOR
Country:	Country
URL:	http://www.m0mwz.co.uk/pi-star/ <input type="radio"/> Auto <input checked="" type="radio"/> Manual
Radio/Modem Type:	ZumSpot - Raspberry Pi Hat (GPIO) <input type="radio"/>
Node Type:	<input checked="" type="radio"/> Private <input type="radio"/> Public
System Time Zone:	America/Los_Angeles <input type="radio"/>
Dashboard Language:	english_us <input type="radio"/>

Finished:

Once you have completed the Pi-Star configuration you can start using the Nextion Kit to connect to DSTAR, DMR and other networks.



There is more information on configuring and using Pi-Star in this document.

https://amateurradionotes.com/images/1-Playing_with_Pi-Star.pdf

Support:

MMDVM Yahoo group:

<https://groups.yahoo.com/neo/groups/mmdvm/conversations/messages>

Pi-Star support forum:

<https://forum.pistar.uk/>

Pi-Star Facebook support group:

<https://www.facebook.com/groups/pistar/>

Pi-Star Wiki:

<http://wiki.pistar.uk>

ZUM Radio Facebook group:

<https://www.facebook.com/groups/249802742395450/>