

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.

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:

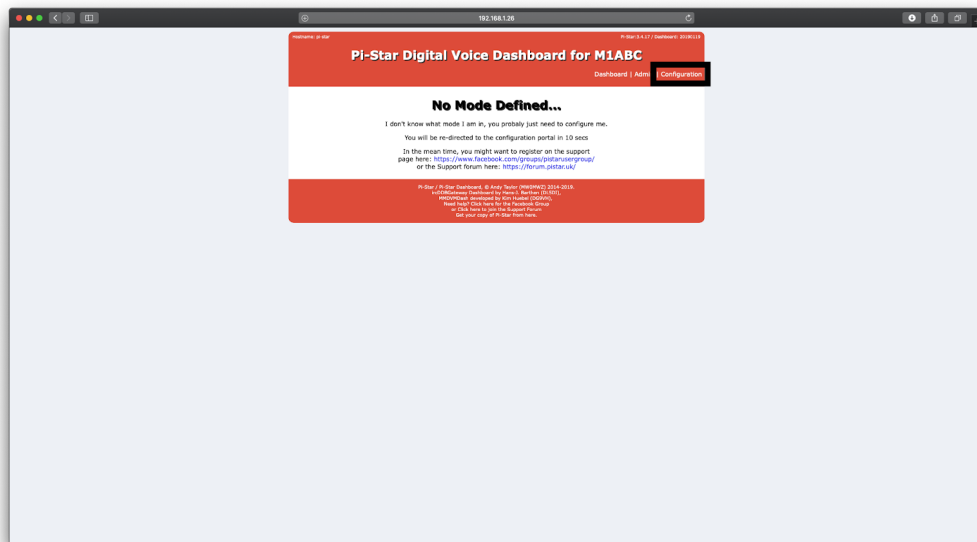
- Plug in the USB micro power cable to your Nextion Kit. Then plug the cable into the wall adapter and insert that into an AC outlet.
- If the Nextion Kit doesn't power up, then press the switch on the cable and it should power up now.



Setup Pi-Star:

WiFi:

- Power up the Nextion Kit.
- After 3 minutes, scan for WiFi 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> (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 “**raspberrypi**”

- Select **“Configure WiFi”** and then click on **“Scan for Networks (10 secs)”**

The screenshot shows the Pi-Star web interface with the following sections:

- Node Configuration:** MIABC, Radio Frequency: 438.800.000 Mhz, Latitude: 50.00, Longitude: -3.00, Town: , Country: , URL: http://www.mw0mez.co.uk/pi-star/, Radio/Modem Type: --, Node Type: Private, System Time Zone: America/Los_Angeles, Dashboard Language: english_us.
- Firewall Configuration:** Dashboard Access: Private, IRCDB Gateway Remote: Private, SSH Access: Private, Auto AP: On, uPNP: On.
- Wireless Configuration:** Contains buttons for Refresh, Reset WiFi Adapter, and **Configure WiFi** (highlighted with a red box).
- Wireless Information and Statistics:** Interface Name: wlan0, Interface Status: Interface is down, IP Address: , Subnet Mask: , Mac Address: b8:27:eb:1b:b1:b9.
- Remote Access Password:** User Name: pi-star, Password: , Confirm Password: , Set Password.

The screenshot shows the Pi-Star web interface with the following sections:

- Node Configuration:** MIABC, Radio Frequency: 438.800.000 Mhz, Latitude: 50.00, Longitude: -3.00, Town: , Country: , URL: http://www.mw0mez.co.uk/pi-star/, Radio/Modem Type: --, Node Type: Private, System Time Zone: America/Los_Angeles, Dashboard Language: english_us.
- Firewall Configuration:** Dashboard Access: Private, IRCDB Gateway Remote: Private, SSH Access: Private, Auto AP: On, uPNP: On.
- Wireless Configuration:** Contains buttons for Scan for Networks (10 secs) (highlighted with a red box), Add Network, and Save (and connect).
- Remote Access Password:** User Name: pi-star, Password: , Confirm Password: , Set Password.

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

The screenshot shows the pi-star.local configuration interface. The top section contains various system settings, followed by Firewall Configuration, and then the Wireless Configuration section. In the Wireless Configuration section, a list of detected networks is shown, with 'NETGEAR32' selected. The 'Save (and connect)' button is highlighted.

System Settings:

Node Callsign:	M1ABC
Radio Frequency:	438.800.000 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, LOC4TOR
Country:	Country
URL:	http://www.mw0mwz.co.uk/pi-star/ <input type="radio"/> Auto <input checked="" type="radio"/> Manual
Radio/Modem Type:	--
Node Type:	<input checked="" type="radio"/> Private <input type="radio"/> Public
System Time Zone:	America/Los_Angeles
Dashboard Language:	english_us

Firewall Configuration:

Setting	Value
Dashboard Access:	<input checked="" type="radio"/> Private <input type="radio"/> Public
ircDDBGateway Remote:	<input checked="" type="radio"/> Private <input type="radio"/> Public
SSH Access:	<input checked="" type="radio"/> Private <input type="radio"/> Public
Auto AP:	<input checked="" type="radio"/> On <input type="radio"/> Off Note: Reboot Required if changed
uPNP:	<input checked="" type="radio"/> On <input type="radio"/> Off

Wireless Configuration:

WiFi Info

Network 0

SSID: NETGEAR32

PSK:

Networks found:

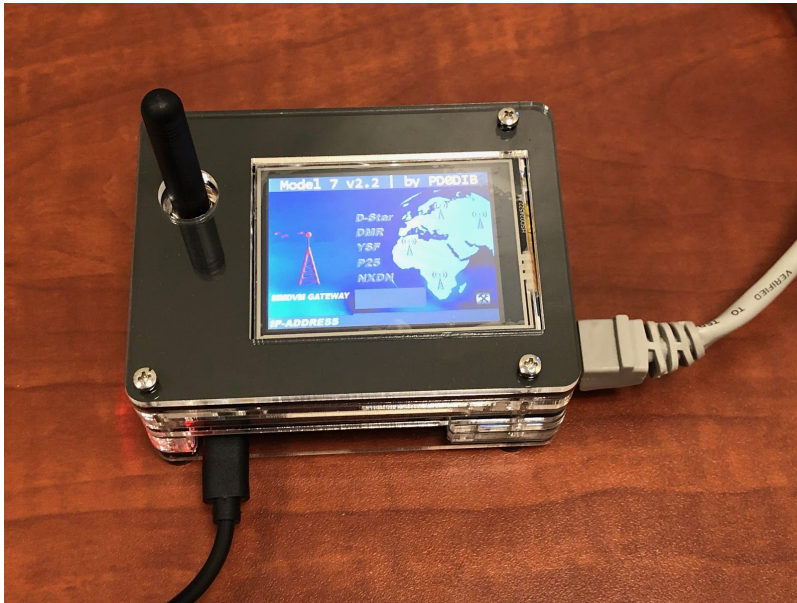
Connect	SSID	Channel	Signal	Security
<input type="button" value="Select"/>	ATTgTyj66a	2.4GHz Ch11	-29 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	Humpty	2.4GHz Ch3	-45 dBm	WPA2-PSK (AES)
<input checked="" type="button" value="Select"/>	NETGEAR32	2.4GHz Ch11	-46 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	ATTNnJCI22	2.4GHz Ch11	-67 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	PIXEL	2.4GHz Ch1	-83 dBm	WPA2-PSK (AES)
<input type="button" value="Select"/>	PIXEL_GUEST	2.4GHz Ch1	-85 dBm	WPA2-PSK (AES)
<input type="button" value="Select"/>	WWireless	2.4GHz Ch11	-87 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	bbtest	2.4GHz Ch6	-88 dBm	WPA2-PSK (AES)
<input type="button" value="Select"/>	WGI	2.4GHz Ch6	-88 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	DIRECT-B6-HP Officejet 5740	2.4GHz Ch6	-90 dBm	[WPA2-PSK-COMP] [WPS] [ESS] [P2P]
<input type="button" value="Select"/>	RFRC	2.4GHz Ch3	-44 dBm	None

Remote Access Password

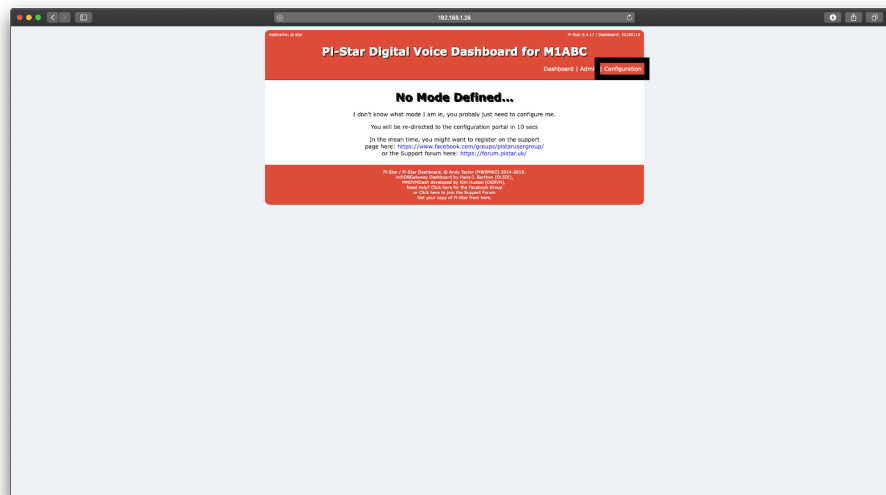
- Reboot your Nextion Kit
- Now you can continue on the **“Configuration”** section below.

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.

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	0.49 / 0.18 / 0.06	47.8°C / 118°F

Control Software

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)

General Configuration

Setting	Value
Hostname:	pi-star Do not add suffixes such as .local
Node Callsign:	K6ZUM
Radio Frequency:	146.800.000 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:	
URL:	<input type="text" value="http://www.m0mwz.co.uk/pi-star/"/> <input type="radio"/> Auto <input checked="" type="radio"/> Manual
Radio/Modem Type:	ZumSpot - Raspberry Pi Hat (GPIO)
Node Type:	<input checked="" type="radio"/> Private <input type="radio"/> Public
System Time Zone:	America/Los_Angeles
Dashboard Language:	english_us

Firewall Configuration

Setting	Value
Dashboard Access:	<input checked="" type="radio"/> Private <input type="radio"/> Public
ircDDB Gateway Remote:	<input checked="" type="radio"/> Private <input type="radio"/> Public
SSH Access:	<input checked="" type="radio"/> Private <input type="radio"/> Public
Auto AP:	<input checked="" type="radio"/> On <input type="radio"/> Off Note: Reboot Required if changed
uPNP:	<input checked="" type="radio"/> On <input type="radio"/> Off

Wireless Configuration

Wireless Information and Statistics

Interface Information	Wireless Information
Interface Name : wlan0	Connected To :
Interface Status : Interface is down	AP Mac Address :
IP Address :	Bitrate :
Subnet Mask :	

- 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”

192.168.1.34

Pi-Star:3.4.17 / Dashboard: 20190119

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="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)

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"/> POCAG Paging Features
MMDVM Display Type:	Nextion Port: Modem Nextion Layout: ON7LDS L3

Apply Changes

General Configuration

Setting	Value
Hostname:	pi-star Do not add suffixes such as .local
Node Callsign:	K16ZUM
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 - Raspberry Pi Hat (GPIO)
Node Type:	<input checked="" type="radio"/> Private <input type="radio"/> Public
System Time Zone:	America/Los_Angeles
Dashboard Language:	english_us

Finished:

Once you have completed the Pi-Star configuration you can start using the Nextion Kit to connect to D-Star, 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/>