

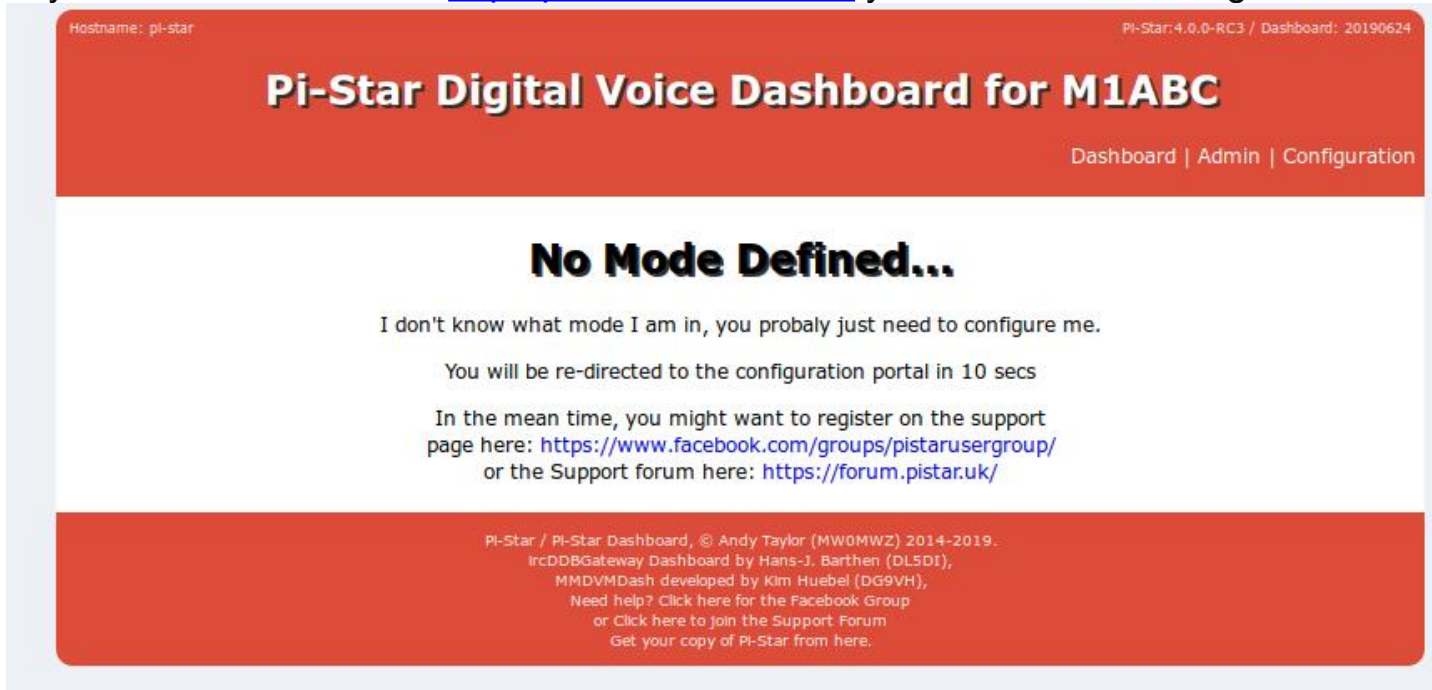
# Pi-star simplex configuration for the VK DMR network

## Downloading Pi-Star

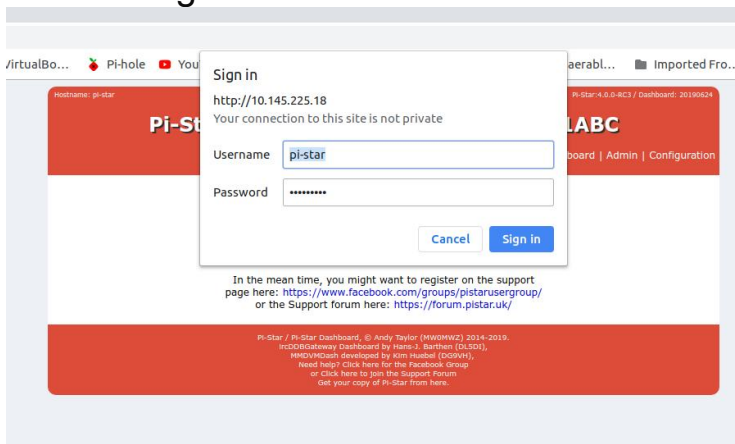
1. Download the Pi-Star image by clicking [here](#) most will use Pi-Star\_RPi\_
2. Burn it to the SD card by using etcher <https://www.balena.io/etcher/>
1. [Video on making a SD card by Glenn VK4NGA](#)

## Step one of setting up Pi-Star

2. Logging in the Pi-Star
3. In your web browser enter <http://pi-star.local/admin/> you will see the flowing



- 4.
5. Click configuration and enter the username and password



6. Username = Pi-star
7. Password = raspberry

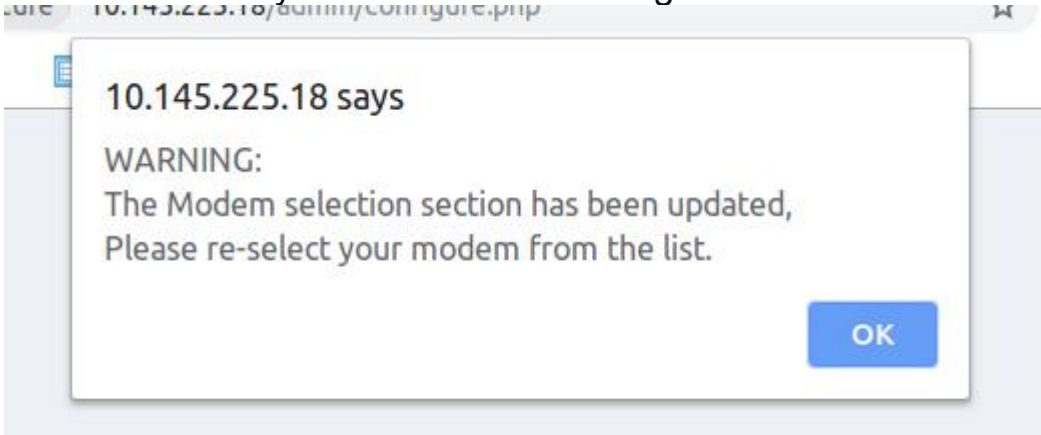
**NOTE THE PASSWORD IS CASE SENSITIVE**

this will bring to the the flowing screen

8. Enter your call sign,
9. Radio Frequency example 439.150  
**PLEASE STAY OUT OF THE SATELLITE BAND  
435.000 - 438.000**  
your perty free on the rest of 70cms
10. Latitude longitude, Town  
Lat example (-33.87)  
Lon example (151.208)  
town example (Sydney, QF56od)
11. URL you can pick auto
12. Radio/modem  
note most Chinese jumbospots will be STM32-DVM/mmdvm\_HS - Raspberry Pi Hat
13. Mode Type Private
14. APRS Host as use the drop down menu and select aunz.aprs2.net
15. Time zone pick the **time for your QTH**
16. Dashboard Language = English\_us unless your using a different keyboard lay out
17. Click apply changes
18. Congratlions you have completed part 1 of the setup of Pi-star :)

## Pi-Star stage 2 of configuration

19. When it reloads you will see this flowing



click ok the you will see the flowing page

#### Gateway Hardware Information

| Hostname | Kernel   | Platform                  | CPU Load           | CPU Temp       |
|----------|----------|---------------------------|--------------------|----------------|
| pi-star  | 4.14.79+ | Pi Zero W Rev 1.1 (512MB) | 2.65 / 0.87 / 0.44 | 42.8°C / 109°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 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: | None Port: /dev/ttyAMA0 Nextion Layout: G4KLX             |

Apply Changes

#### General Configuration

| Setting             | Value                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------|
| Hostname:           | pi-star Do not add suffixes such as .local                                                      |
| Node Callsign:      | VK2PWR                                                                                          |
| Radio Frequency:    | 442.225.000 MHz                                                                                 |
| Latitude:           | -33.97291 degrees (positive value for North, negative for South)                                |
| Longitude:          | 150.90164 degrees (positive value for East, negative for West)                                  |
| Town:               | Glenfield, QF56ka                                                                               |
| Country:            | Australia                                                                                       |
| URL:                | http://www.qrz.com/db/VK2PWR <input checked="" type="radio"/> Auto <input type="radio"/> Manual |
| Radio/Modem Type:   | --                                                                                              |
| Node Type:          | <input checked="" type="radio"/> Private <input type="radio"/> Public                           |
| APRS Host:          | aunz.aprs2.net                                                                                  |
| System Time Zone:   | Australia/Sydney                                                                                |
| Dashboard Language: | english_us                                                                                      |

repeat step 12

then click apply changes again :sigh:

20. Finally you pistar config page should look like

| Gateway Hardware Information |          |                           |                   |                  |
|------------------------------|----------|---------------------------|-------------------|------------------|
| Hostname                     | Kernel   | Platform                  | CPU Load          | CPU Temp         |
| pi-star                      | 4.14.79+ | Pi Zero W Rev 1.1 (512MB) | 2.6 / 1.14 / 0.73 | 43.3°C / 109.9°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)        |

| MMDVMHost Configuration |                          |                             |                                 |                                               |
|-------------------------|--------------------------|-----------------------------|---------------------------------|-----------------------------------------------|
| Setting                 | Value                    |                             |                                 |                                               |
| DMR Mode:               | <input type="checkbox"/> | RF Hangtime:                | <input type="text" value="20"/> | Net Hangtime: <input type="text" value="20"/> |
| D-Star Mode:            | <input type="checkbox"/> | RF Hangtime:                | <input type="text" value="20"/> | Net Hangtime: <input type="text" value="20"/> |
| YSF Mode:               | <input type="checkbox"/> | RF Hangtime:                | <input type="text" value="20"/> | Net Hangtime: <input type="text" value="20"/> |
| P25 Mode:               | <input type="checkbox"/> | RF Hangtime:                | <input type="text" value="20"/> | Net Hangtime: <input type="text" value="20"/> |
| NXDN Mode:              | <input type="checkbox"/> | RF Hangtime:                | <input type="text" value="20"/> | Net Hangtime: <input type="text" value="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:     | None ▾                   | Port: /dev/ttyAMA0 ▾        | Nextion Layout: G4KLX ▾         |                                               |

| General Configuration |                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------|
| Setting               | Value                                                                                           |
| Hostname:             | pi-star Do not add suffixes such as .local                                                      |
| Node Callsign:        | VK2PWR                                                                                          |
| Radio Frequency:      | 442.225.000 MHz                                                                                 |
| Latitude:             | -33.97291 degrees (positive value for North, negative for South)                                |
| Longitude:            | 150.90164 degrees (positive value for East, negative for West)                                  |
| Town:                 | Glenfield, QF56ka                                                                               |
| Country:              | Australia                                                                                       |
| URL:                  | http://www.qrz.com/db/VK2PWR <input checked="" type="radio"/> Auto <input type="radio"/> Manual |
| Radio/Modem Type:     | STM32-DVM / MMDVM_HS - Raspberry Pi Hat (GPIO) ▾                                                |
| Node Type:            | <input checked="" type="radio"/> Private <input type="radio"/> Public                           |
| APRS Host:            | aunz.aprs2.net ▾                                                                                |
| System Time Zone:     | Australia/Sydney ▾                                                                              |
| Dashboard Language:   | english_us ▾                                                                                    |

It Does thats is good news but if it doesnt please go over steps 3 to 18 again

21. Click the DMR Mode button

| MMDVMHost Configuration |                          |                             |                         |
|-------------------------|--------------------------|-----------------------------|-------------------------|
| 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:     | None ▼                   | Port: /dev/ttyAMA0 ▼        | Nextion Layout: G4KLX ▼ |
| Apply Changes           |                          |                             |                         |

if your hotspot has a display on it select the display type

22. Then click apply changes

23. Congrats you have completed stage 2 on the the fun stuff in stage 3

## Stage 3

24. Once the page has reloaded you pistar should look like the

Pi-Star:4.0.0-RC3 / Dashboard: 20190624

## 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  | 4.14.79+ | Pi Zero W Rev 1.1 (512MB) | 2.4 / 1.18 / 0.89 | 43.3°C / 109.9°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)        |

### MMDVMHost Configuration

| Setting             | Value                                                                                                                          |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------|
| DMR Mode:           | <input checked="" type="checkbox"/> RF Hangtime: <input type="text" value="20"/> Net Hangtime: <input type="text" value="20"/> |
| D-Star Mode:        | <input type="checkbox"/> RF Hangtime: <input type="text" value="20"/> Net Hangtime: <input type="text" value="20"/>            |
| YSF Mode:           | <input type="checkbox"/> RF Hangtime: <input type="text" value="20"/> Net Hangtime: <input type="text" value="20"/>            |
| P25 Mode:           | <input type="checkbox"/> RF Hangtime: <input type="text" value="20"/> Net Hangtime: <input type="text" value="20"/>            |
| NXDN Mode:          | <input type="checkbox"/> RF Hangtime: <input type="text" value="20"/> Net Hangtime: <input type="text" value="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: | None ▾ Port: <input type="text" value="/dev/ttyAMA0"/> ▾ Nextion Layout: <input type="text" value="G4KLX"/> ▾                  |

### General Configuration

| Setting          | Value                                                            |
|------------------|------------------------------------------------------------------|
| Hostname:        | pi-star Do not add suffixes such as .local                       |
| Node Callsign:   | VK2PWR                                                           |
| CCS7/DMR ID:     | 1234567                                                          |
| Radio Frequency: | 442.225.000 MHz                                                  |
| Latitude:        | -33.97291 degrees (positive value for North, negative for South) |
| Longitude:       | 150.90164 degrees (positive value for East, negative for West)   |
| Town:            | Glenfield, QF56ka                                                |
| Country:         | Australia                                                        |

25. In CCS7/DMR ID enter your DMR ID number

26. Once you have entered your DMR ID scroll down until you see the DMR configuration

27. In the pull down menu select DMR+\_IPSC2-Australia-DMO as seen below

| Setting               | Value                                                        |
|-----------------------|--------------------------------------------------------------|
| DMR Master:           | DMR+_IPSC2-Australia-DMO                                     |
| Hotspot Security:     |                                                              |
| BrandMeister Network: | Repeater Information   Edit Repeater (BrandMeister Selfcare) |
| DMR ESSID:            | None                                                         |
| DMR Color Code:       | 1                                                            |
| DMR EmbeddedLCOnly:   | <input type="checkbox"/>                                     |
| DMR DumpTADData:      | <input checked="" type="checkbox"/>                          |

Apply Changes

28. Yes you guessed it click apply changes

29. When pi-star reloads scroll down to the DMR configurationad copy and paste the flowing into DMR \_ Network

Options=

TS2\_1=4000;TS2\_2=505;TS2\_3=3802;TGRewrite1=2,3809,1,3809,2;TGRewrite2=2,5,1,5,2;TS1\_1=5;TS1\_2=3809;

Please change 3802 to you state

| Setting             | Value                                                                |
|---------------------|----------------------------------------------------------------------|
| DMR Master:         | DMR+_IPSC2-Australia-DMO                                             |
| DMR+ Network:       | Options=TS2_1=4000;TS2_2=505;TS2_3=3802;TGRewrite1=2,3809,1,3809,2;T |
| DMR ESSID:          | 5052252 None                                                         |
| DMR Color Code:     | 1                                                                    |
| DMR EmbeddedLCOnly: | <input type="checkbox"/>                                             |
| DMR DumpTADData:    | <input checked="" type="checkbox"/>                                  |

Apply Changes

30. Click apply changes again

31. When the page reloads

Yes your now finished

## Conflagrations and welcome to VK DMR on Pi-Star

Last thing is go to the Hot Spot dash board and look for your call sign

<http://hot.vkdmr.com>

Press CTRL + F in the search box type your call sign