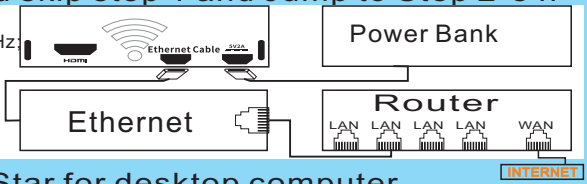
MMDVM HKCNMA.COM Manual

★ Fast booting ups Pi-Star for Ethernet

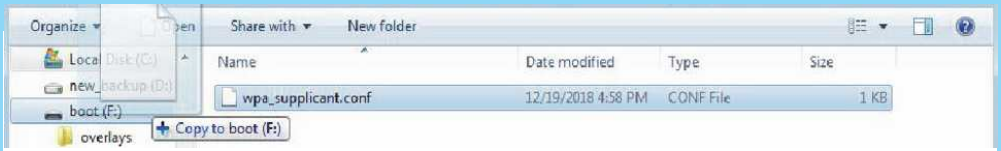
Do the fast booting ups and skip step 1 and Jump to Step 2-e II

1. Please set your RADIO RX frequency to 433.000MHz and TX frequency to 433.000MHz;
2. Plug Ethernet Cable in the Hotspot's Ethernet Cable port;
3. Power on, Wait for 2 minutes.
4. Jump to Step 2-e II) to Configuration view in the manual.



★ Step 1: Booting up Pi-Star for desktop computer

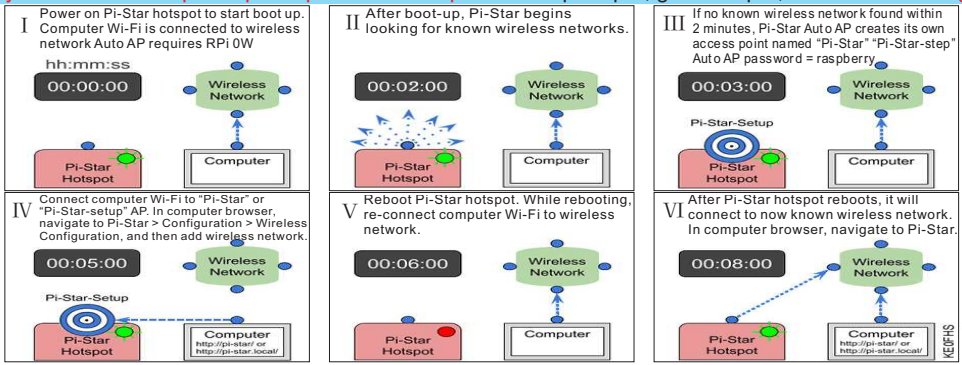
If you need to configure a new WiFi network using Auto AP please skip step1 and go to step2, you need a wireless internet computer.



Go to www.pistar.uk/wifi_builder.php SSID: Type WiFi name, PSK: Type the wireless network Password , Submit, the file "wpa_supplicant.conf"is generated, Drag the file "wpa_supplicant.conf" onto the "Boot" volume of your Pi-Star TF card. And then, plug the TF card into your HOTSPOT and power up, Please wait for 2 minutes.
Then we go to http://pi-star.local open the HOTSPOT settings page.

★ Step 2: Booting up Pi-Star for laptop computer(wireless internet computer)

If you use a desktop computer please do Step1 and skip step 2, go to step 3, read the Warning



★ Step 2-a: For all boot-ups

1) Power on your hotspot.

2) Wait for Pi-Star to boot up, which normally takes two minutes or so

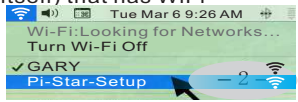
★ Step 2-b: Using Auto AP and setting up a new WiFi connection

Perform this step when you start Pi-Star for the first time or when you need to connect to a new WiFi network, for example, when traveling. When Pi-Star doesn't find a known network within two minutes after boot up completes, Auto AP will automatically activate its own access point, and you'll use that to connect to Pi-Star in order to configure WiFi settings.

1) Wait at least two more minutes for Auto AP to activate its access point.

2) On a Windows, Mac, or Linux-based computer (not the hotspot itself) that has WiFi enabled, look in the WiFi settings to find the Pi-Star access point, and then select it to connect to it:

If you're starting Pi-Star for the first time, it'll be named "pi-star" or "Pi-Star-Setup." This is what it looks like on a Mac:



3) Enter the Pi-Star-Setup network security password: raspberry.

Note: Depending on your computer, the network password may be called the WPA2 password (lower case letters)·, the Network Security Key, or something else. You may need to enter the password a few times.

★ Step 2-c: For all boot ups

On a Windows, Mac, or Linux-based computer (not the hotspot itself) that has WiFi enabled, open a browser window and navigate to:

1)Windows: http://pi-star/configure.php or http://pi-star.local/configure.php

2)macOS,iOS,etc. (also works on my Windows10 laptop)http://pi-star.local/configure.php

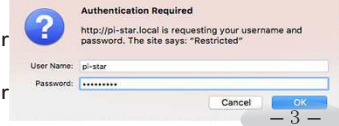
Note: On some mobile devices, the url won't work. In that case, you can try the Auto AP mobile IP address: 192.168.50.1

★ Step 2-d: If starting Pi-Star for the first time (Frist boot after Factory Reset or ReWrite TF card)You'll be greeted by a "No Mode Defined" screen, which is normal because you haven't yet configured the mode to use.

If you just opened the box and did not operate the factory Reset or ReWrite TF card, you'll be greeted by a Dashboard screen, Because we set some parameters for you, especially the screen settings, the HOTSPOT'S display will on after booting.

1)At this point, you can either click the Configuration link or wait 10 seconds to be redirected automatically to the Configuration page.

2)Configuration requires authentication. The default user name is pi-star and the default password is raspberry. Case matters. You can change the default password later on in the configuration process. Mac screenshot:



★ Step 2-e: Using Auto AP and setting up a new WiFi connection

Perform this step when you start Pi-Star for the first time or when you need to connect to a new WiFi network, for example, when traveling.

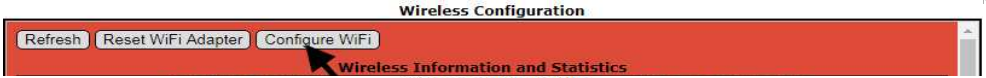
I)If you're not already in Configuration view, click the Configuration link and log in with your Pi-Star user name and password.

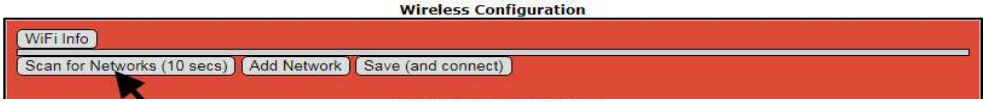
II)In the Configuration view, scroll down to the Wireless Configuration section.

III)To add or modify your WiFi network connections, click Configure WiFi.

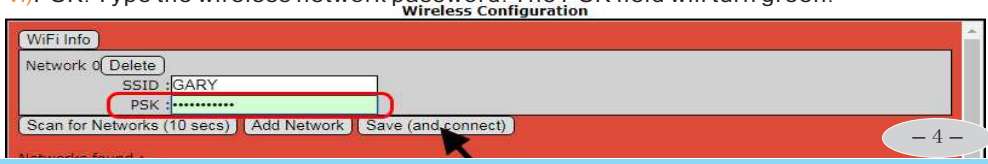
IV)Click Scan for Networks (10 secs). It won't look like anything is happening.

Note: If the scan doesn't find the network you want, you can add it manually, as discussed below:V)Wireless Configuration.Please view http://pi-star.local/configure.php





VI)PSK: Type the wireless network password. The PSK field will turn green.



Warning:

WiFi name and password can't contain spaces and special symbols and not be too long
The password type is WPA, only 2.4G is supported, and 5.8G is not supported.

VII) Click "Save (and connect)." When Auto AP is active, this step will only save; it won't connect. Wait a few moments for it to save (PSK field will turn white again), and then reboot Pi-Star. (If you're unable to reboot, power the hotspot off and back on again.)

VIII) While the hotspot is restarting, reconnect your computer to the regular WiFi network you're using.

IX) After the hotspot reboots, Pi-Star will connect to the new WiFi network you added. On a Windows, Mac, or Linux-based computer (not the hotspot itself) that has WiFi enabled, open the Pi-Star dashboard by navigating again to: http://pi-star/ or http://pi-star.local/.

If you can't re-open the dashboard, Please go to your router to check the IP address of pi-star, and go to http://IP/ (E.g: your Router say 192.168.0.20 go to http://192.168.0.20/)

If you have not operated "Factory Reset" or rewrite the TF card:
The Hotspot will be displayed on the screen for about 100 seconds. When listening the IP address will be displayed at the bottom of the screen. Please go to the IP address in your computer's browser. E.g: We see Hotspot say wlan0:192.168.0.20 , please go to http://192.168.0.20/

If you can't open the pi-star or IP address, and the router doesn't find pi-star, maybe the Hotspot didn't connect the WiFi successfully. Please return to the Manual first step to set it again, Please keep this in mind that this gadget only support 2.4 Gigahertz router and Password type is WPA, because Pi Zero W does not work with 5.8 Gigahertz router, and will NOT work with WEP.

If you open the dashboard. Congratulations! You've finished the most difficult part of setting up Pi-Star.

If your HOTSPOT is connected to your router, please skip steps 1-2.
If your HOTSPOT is not connected to your router, please start from step1

★ Step 3: Setting your MMDVM Hotspot

Go to : http://pi-star.local/admin/configure.php

1)Navigate to Pi-Star > Configuration , If you can't open it, Please go to your router to check the IP address of pi-star, and go to http://IP/ (Pi-star's IP in your Router)

Controller Software:	○ DStarRepeater ◉ MMDVMHost (DV-Mega Minimum Firmware 3.07 Required)			
Controller Mode:	○ Simplex Node ◉ Duplex Repeater (or Half-Duplex on Hotspots)			
DMR Mode:		RF Hangtime: 10	Net Hangtime: 10	
D-Star Mode:		RF Hangtime: 10	Net Hangtime: 10	

MMDVM Display Type:	OLED Type 3	Port: /dev/ttyAMA0	Nextion Layout:	G4KLX	

General Configuration

Setting	Value	
Hostname:	pi-star	Do not add suffixes such as .local
Node Callsign:	BD7OAY	
CCS7/DMR ID:	4600311	
Radio Frequency RX:	433.000.000	MHz
Radio Frequency TX:	433.000.000	MHz
Latitude:	285.67447	degrees (positive value for North, negative for South)
Longitude:	40.749802	degrees (positive value for East, negative for West)
Town:	Wilmington	
Country:	DELAWARE	
URL:	http://www.mw0mwz.co.uk/pi-star/	○ Auto ◉ Manual
Radio/Modem Type:	STM32-DVM / MMDVM_HS - Raspberry Pi Hat (GPIO)	
Node Type:	○ Private ◉ Public	

DMR Configuration

Setting	Value	
DMR Master:	BM_United_States_3101	
Hotspot Security:	••••••••••	
BrandMeister Network:	Repeater Information | Edit Repeater (BrandMeister Selfcare)	
DMR ESSID:	4600311 None	
DMR Color Code:	1	

FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.