

# Allstar Allmon3 Install Setup Instructions

After you have downloaded you Allstar Image, download the Raspberry Pi Imager. Both of these can be found on my website <https://zl1rjs.co.nz> under the Allstar project. MAKE SURE you note down all of your passwords as you will need these later during the install.

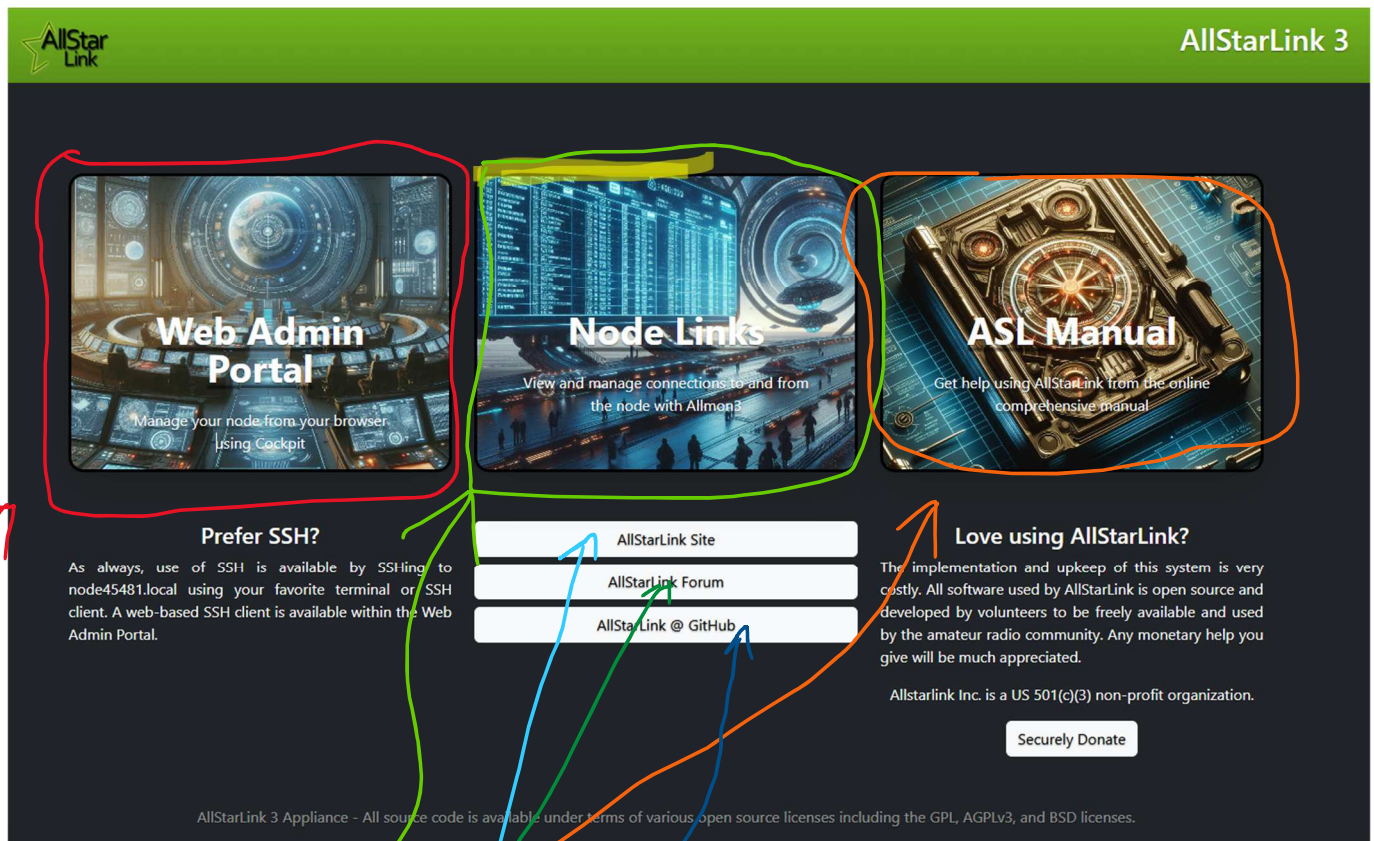
Install the program to flash the microSD card with the latest image of Allstar. Details are given on how to do this etc, and I suggest to read my write up.

Once you are at this step and have the microSD card plugged in, switch on and give it time to boot up. If you have followed the setup procedure above exactly the same, then everything will flow without any problem.

To access to set-up, open your web browser and type in “node45481.local (45481 is my node number, so you would put your node number in place of mine.) press return or enter.

You should see the Allstar Link3 Landing page up on the screen. (Sometimes it can take a few seconds to show.)

Just a few notes first to explain what you are seeing




You have three picture links.

- “Web Admin Portal” - Known as the “Cockpit” and to access “Terminal”
- “Node Links” - This is where we access Allmon3
- “ASL Manual” - This is a “Online Manual”

The three-white links under the picture will take to other links.

- Allstar Link Site - This is the Allstar main webpage
- Allstar Link Forum - This will take you to the Community Forum.
- Allstar @ GitHub - This will take you to the official repository for Allstar software.

Once you click on the “Cockpit” it may come up with a warning



## Your connection isn't private


Attackers might be trying to steal your information from **node45481.local** (for example, passwords, messages, or credit cards).

NET::ERR\_CERT\_AUTHORITY\_INVALID

Advanced Go back

Click on advance to proceed.

As we know the source it is safe to continue.



## Your connection isn't private

Attackers might be trying to steal your information from **node45481.local** (for example, passwords, messages, or credit cards).

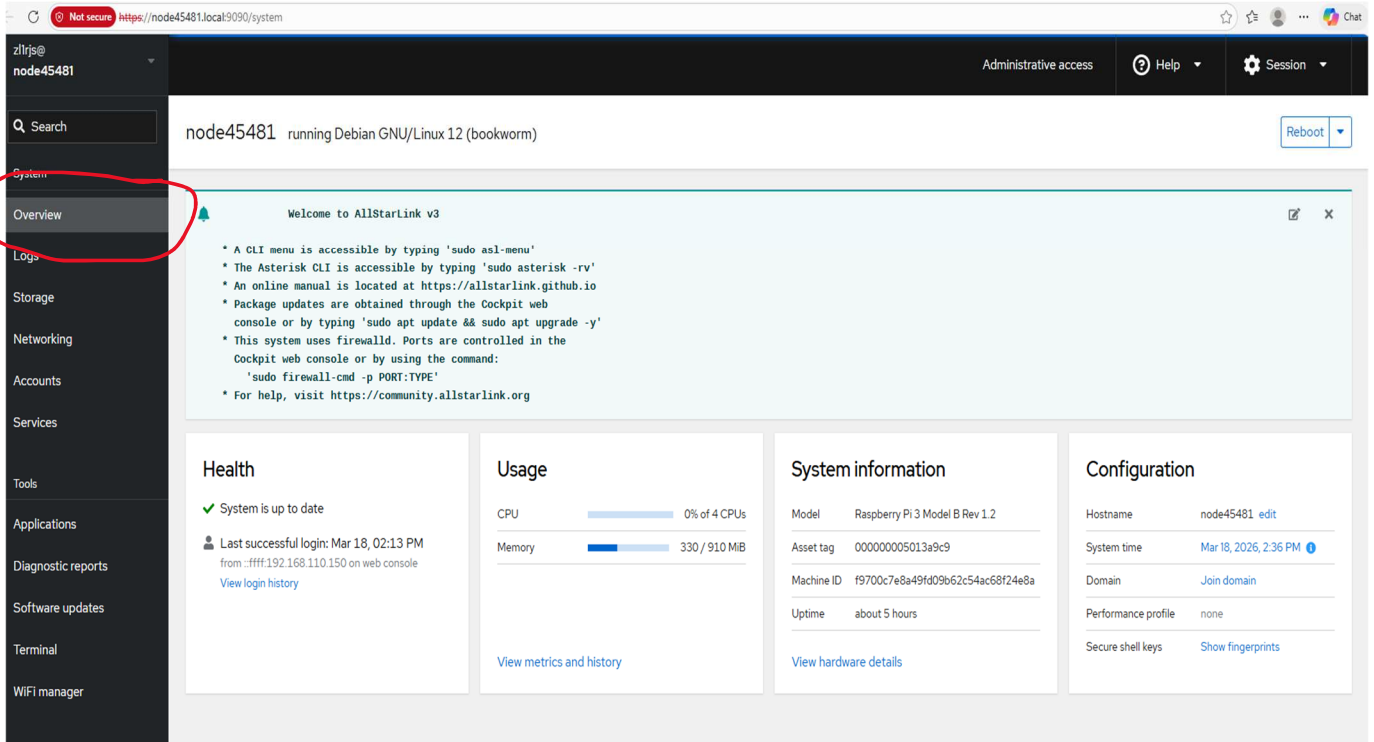
NET::ERR\_CERT\_AUTHORITY\_INVALID

Hide advanced Go back

This server couldn't prove that it's **node45481.local**; its security certificate is not trusted by your computer's operating system. This may be caused by a misconfiguration or an attacker intercepting your connection.

[Continue to node45481.local \(unsafe\)](#)

Click on “Continue to nose45481.local (unsafe)” – As it is safe to continue for this...



You are now greeted in an overview page.

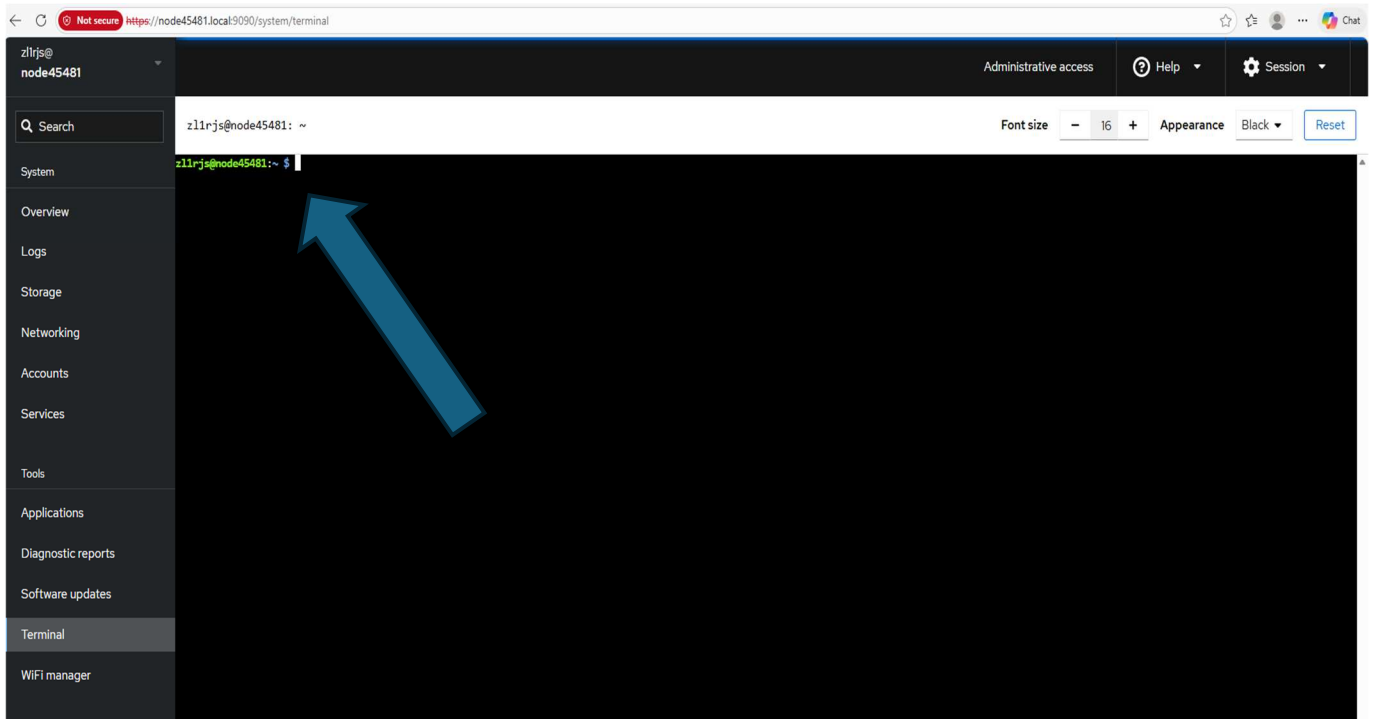
In the darker area on the left are your system files and tools.

The first thing you do is to click on “Software Updates” and carry out any updates.

if it finds any, then click on the reboot after updating which will reboot when finished.

This will log you out, so you need to follow all the above again to get back to here...

So once you are in the overview page again, we can click on “Terminal”



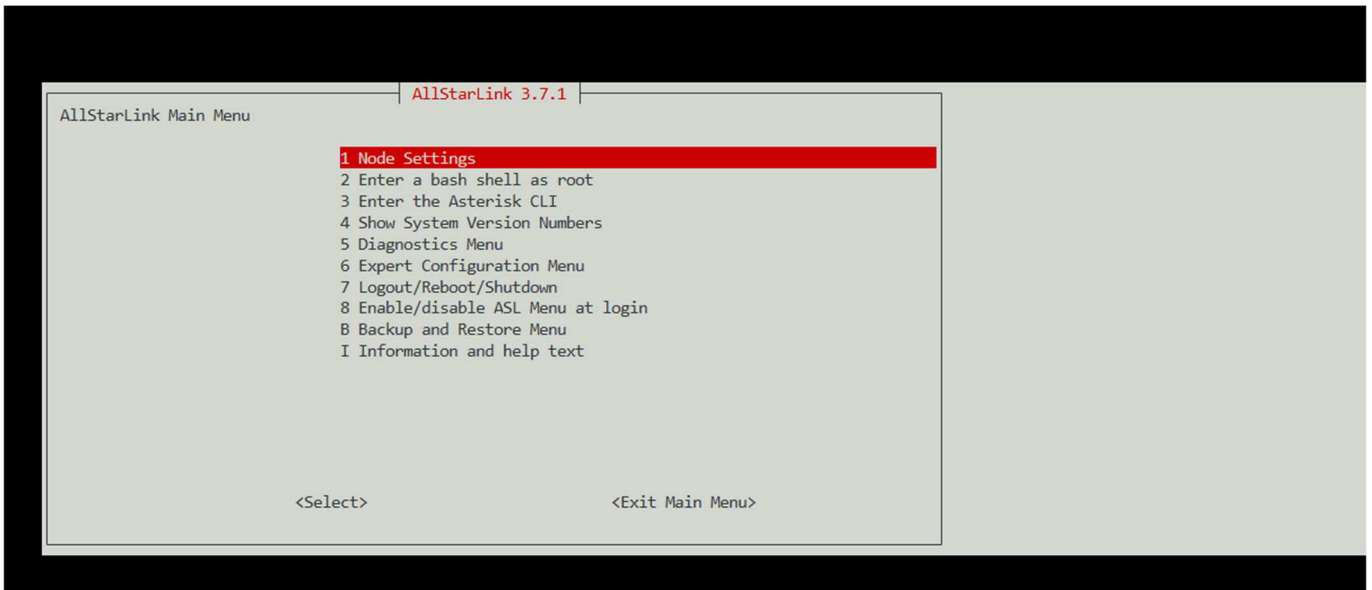
Depending on how fast you connection is, you may experience a small delay. Perfectly normal. You should see a green prompt.

We need to type in a command line to open the “ASL menu”

All lower case.

Type in: “**sudo asl-menu**” Hit enter.

This will bring up the Allstar Link Main Menu. We will need to change and add some details for passwords, callsign and radio details with your node number.



We need to go into node setting, so hit enter. (All ready highlighted in red)

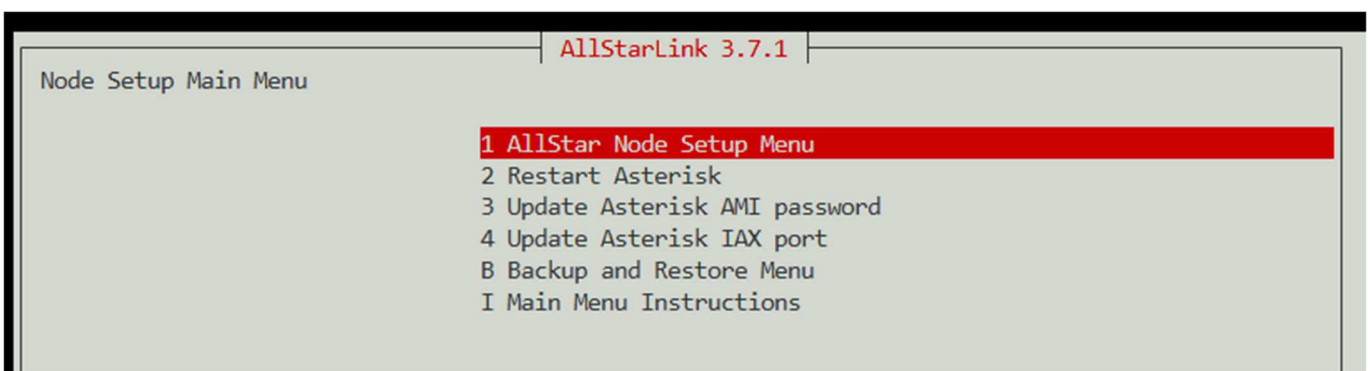
As this is Linux, you need to know a few commands to navigate around each menu.

These are the arrow keys **UP, DOWN, LEFT** and **RIGHT** and sometimes the **SPACE BAR** to move around, and the **TAB** key to move to the next menu and **ENTER** to execute Etc.

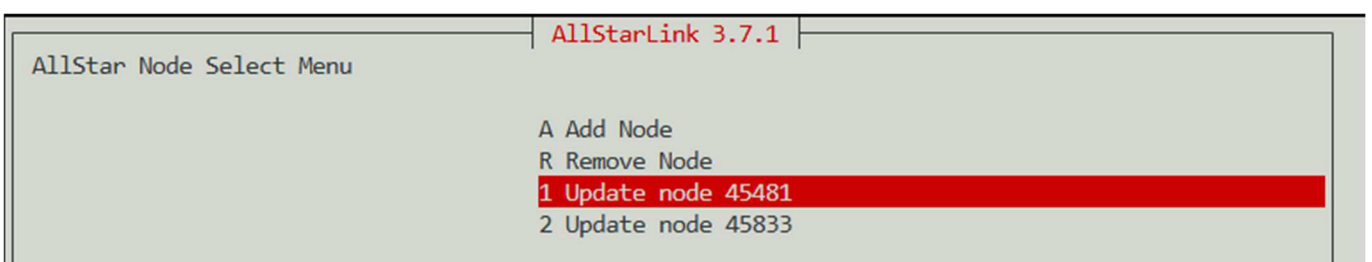
When you use the arrow keys you will see the red highlighted bar move, when you select the arrow keys.

Let's begin

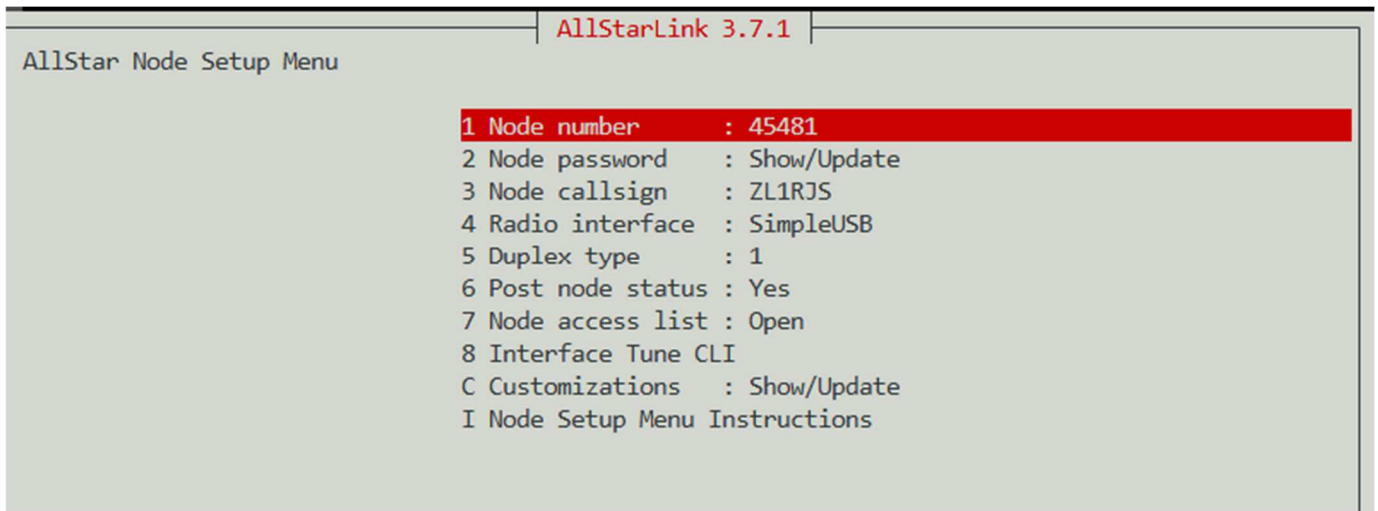
On the first screen Hit Enter to go into 1. Node Setting.



As **No 1. AllStar Node Setup Menu**, Is highlighted hit “Enter” to set up your node.



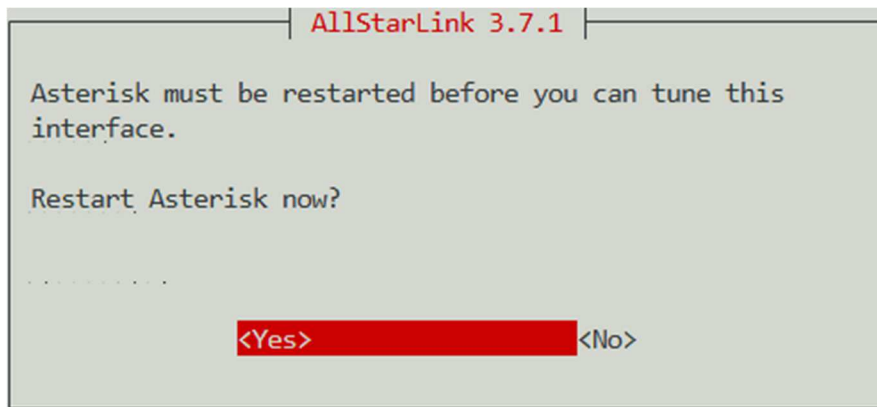
Here we need to add your node or if your node number is there click on 1. Update node.



1. Node number: Now enter **YOUR** node number here, press enter e.g. 45481 Once done, press Tab and enter to go back to menu.



2. Node Password: This is your nodes password from Allstar – If you can’t remember it, then you can log into Allstar at <https://allstarlink.org>, then, log in, once logged in, click on “Portal” and under “Nodes” (see picture above) here you will see “Show” under Password. Click on “Show” to reveal the password. Copy the password and go back to the “Terminal’s Allstar menu” and enter it. Once entered, hit the “Tab” key, then enter to exit back to the menu.
3. Node Callsign: This is your Callsign. (All Capital Letters) Enter your Callsign. Tab and enter back to the Node Setup Menu.
4. Radio Interface: Simple USB is what we are using. 1. Simple USB. Tab and enter back.
5. Duplex type: set to No.1 (Here we will choose No.1 Half duplex...) Use the up or down key and space bar to except change. Once done, hit the tab key and enter to exit back.
6. Post node Status: Change to “Yes” – this is to let other hams know you there and that you are seen on the network and available.
7. Node access list: Open
8. Interface Tune CLI: Hit Enter to access this menu – we need to change a few things here.



If you get this screen then hit enter to Restart Asterisk now, as changes have been made.

Once Asterisk has restarted it will open this menu below.

```
Active Simple USB Radio device is [45481].
1) Select active USB device
2) Set Rx Voice Level using display (currently '650')
3) Set Transmit A Level (currently '600')
4) Set Transmit B Level (currently '600')
B) Toggle RX Boost (currently 'enabled')
C) Toggle Pre-emphasis (currently 'disabled')
D) Toggle De-emphasis (currently 'disabled')
E) Toggle Echo Mode (currently 'disabled')
F) Flash (Toggle PTT and Tone output several times)
G) Toggle PL Filter (currently 'enabled')
H) Toggle PTT mode (currently 'ground')
I) Change Carrier From (currently 'usb')
J) Change CTCSS From (currently 'no')
K) Change RX On Delay (currently '0')
L) Change TX Off Delay (currently '0')
P) Print Current Parameter Values
R) View Rx Audio Statistics
S) Swap Current USB device with another USB device
T) Toggle Transmit Test Tone/Keying (currently 'disabled')
V) View COS, CTCSS and PTT Status
W) Write (Save) Current Parameter Values
X) View Tx Audio Statistics
0) Exit Menu

Please enter your selection now: █
```

These are the setting we need to change to make things work.

You may notice several settings are different now but for the Baofeng 888 radio these are the setting required. ONLY CHANGE 2, 3, and 4 if your audio levels are low or too high.

You can leave these setting and come back to this menu later to adjust the levels.

You may need to adjust 2, 3 and 4 to your own voice levels but these are pretty close to being at a normal level. If you do find the audio levels high or low the you can adjust these higher or lower to suit.

Note, only check your levels, after you have changed all the setting to the above, you can check your levels. When changing these levels for example, enter the number e.g. 2 and hit enter. You will see this at the bottom of the screen.

```
Please enter your selection now: 2
RX VOICE DISPLAY:
v -- 3KHz          v -- 5KHz
█
```

You will see v -- 3khz and v -- 5khz

Start transmitting and when you talk your audio level should be in between these markers.

Do this for all the levels and if you need to adjust it again lower try value 600 and retest again etc.

Once happy with the levels hit enter and hit enter again to exit. Press **w** to write your setting to memory.

You can change these setting in any order. To modify, enter the letter or number and hit enter.

Any changes you make don't forget to save your changes. To do this put in "w" to write your changes.

Change all the setting above to the configuration that I have and go from there.

You can change any of the setting here anytime to your requirements by navigating back to this menu.

2 – Default is 500 change this to '600'

3 – TX A Level default is 500 change this to '600'

4 – TX B Level default is 500 change this to '600'

B – Toggle RX Boost, if disabled 'enable' it.

Check C, D, E and T are all 'disabled'. – If not enter that letter to toggle between states.

H – Needs, to be set (Currently 'Ground')

I – Needs, to be set (Currently 'USB')

J – Change CTCSS (Currently 'no') – If you do NOT set this to "no" then your radio will not TX.

W write to memory (Saves) your current parameter values / changes. This you MUST do if you make any changes to your configuration.

When all changes have been made and saved, press 0 (Zero) to exit.

Once you have done this you can check your audio levels and adjust if necessary.

You can hear your audio level set by pressing "E" to toggle the echo mode.

Start transmitting and you should hear your transmission back. Adjust your levels as necessary.

I found that my setting above is just about right for my voice. If it is too loud for you, you can always either speak softer or hold the radio further away from the mic, but adjust your levels to suit...

Remember press **W** to write any changes before you exit and press zero to exit out of the CLI interface.

Press Tab and Tab again to exit out of this menu back into the "Node Setup Menu".

**No. 2 Restart Asterisk** – If it says It's Needed then hit enter. This will automatically update and return back to the Node setup Menu.

**No.3 Update Asterisk AMI Password.** - This is a long password, if you change this password then you need to change it in other places also, so it is best just to leave it. You can make a note of this password and store it safe. Press Tab and enter to exit back to the menu.

**No.4 Update Asterisk IAX port.** (IAX Stands for "Inter-Asterisk Exchange".) The default UDP port is 4569. Hit enter, Tab and Enter to exit out back to menu. You need to add this port into your Router port forwarding for AllStar to work.

**B Backup and Restore** – If you want to backup your nodes setting you can do it here. You can "Create", "Restore" and "Delete backup files if made etc. Press Tab, Tab and Enter to go back to menu.

**6. Expert Configuration Menu.** – This menu you can edit .conf files. You need to know what you are doing in modifying these files, but leave these alone for now.

**7. Logout/Reboot/Shutdown** – Here you can do everything it says.

**8. Enable/Disable ASL Menu at Login.** – If you enable this, it means that every time you go into your "Terminal" this ASL menu will pop up.

**Congratulations you have set up your Node.**

There are a couple of command line entries still to do before you can start using your node. We need to remove the Allmon3's password and enter a new password. To do this, go back into Terminal to the command prompt.

Type in:

Allmon3 - Run These First

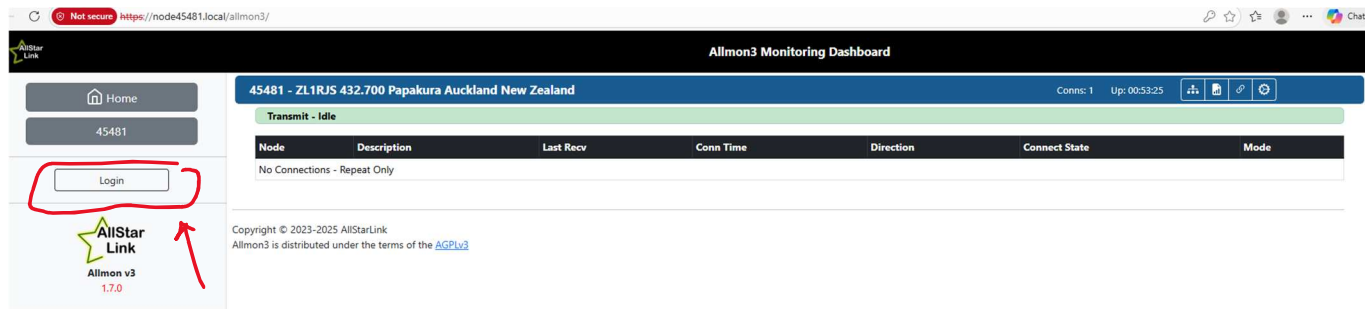
```
sudo allmon3-passwd --delete allmon3
```

```
sudo allmon3-passwd admin
```

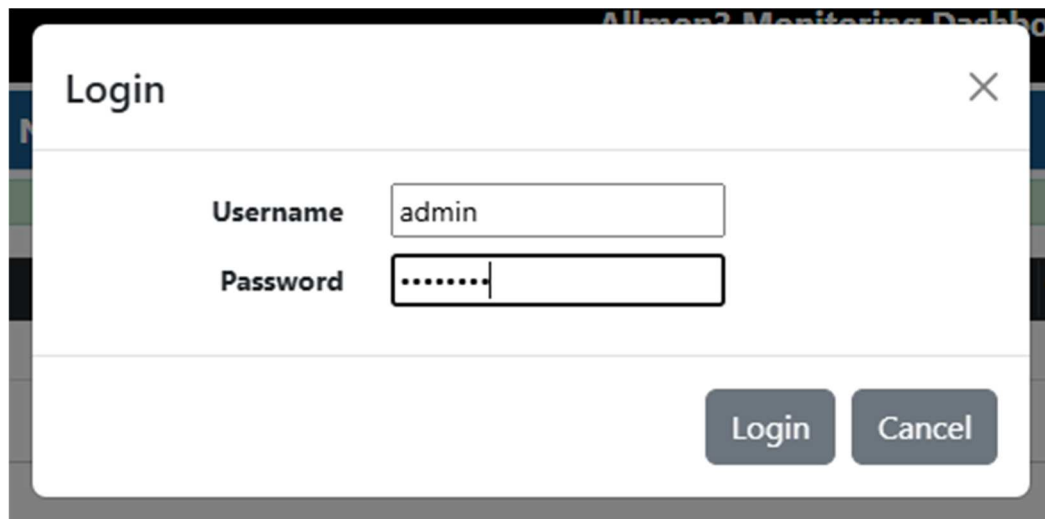
```
sudo systemctl restart allmon3
```

Once these have been changed, and you have entered your password, then you can now go back to the landing page.

Click on “Node Links” to bring up the “Allmon3 Monitoring Dashboard” (Below)



You need to now “Login” to use Allmon3. Click on the login.



It will bring up this window

Enter your username “admin” (lower case)

Enter your Password “\*\*\*\*\*” – This is the password that you have just setup for Allmon3.

**Note.** I used the same password to login for my node login zl1rjs and admin login.

Just not to confuse,

The password for zl1rjs is when you copied the image file onto the microSD card when you edited the user setting.

The password for admin is when you changed in the command line for Allmon3 (at the top of this page).

# TROUBLE SHOOTING

Problems encountered:

## 1. **Not registering your node on the AllStar Network.**

Check your password is correct and matches with Allstar.

Login to <https://allstarlink.org> and once you have logged in, click on the tab “**Portal**” and then on “**Node Setting**” you will see your node number and click on” **Show**” to reveal your password. Write down and keep in a safe place as we will need this in the next step.

Note: If you have more than one node, then click on the node number you are wanting the password for as these are different for each node. Also, here it shows “**Currently Registered**” and it should show “**Yes**” and not “**No**”.

Exit out of Allstar and go into terminal (via the landing page)

type in the command line **sudo asl-menu** (hit enter)

this should bring up the ASL menu. We need to check the password is correct.

Click on “**node setting**” (hit enter)

Allstar node setting (hit enter)

Update node number \*\*\*\*\* (hit enter) (\*\*\*\*\* is your node number)

Scroll down to Node password (hit enter)

Check that the password matches the Allstar link’s password and change if incorrect.

Press the “Tab” key once you are done and (hit enter) and exit out of the ASL-Menu back to command line. Do a system restart type in **sudo systemctl restart** (hit enter)

next restart Asterisk, now type in **sudo astres.sh** This should now restart.

Once everything has rebooted go back into <https://allstarlink.org> login again and click on “**Portal**”, “**Node Setting**” and see if it has changed to “**Yes**” under “**Currently Registered**” Hopefully this has fixed this issue.

## 2. **Shows Unavailable Node when in the Allmon3 dashboard.**

You are logged in to the Allmon3 dashboard but show your node is unavailable.

If this happens then the problem maybe in the “Allmon3.ini file and the AMI password is different or has been changed. We will need to check these passwords match.

Go back into Terminal (via the landing page) to the command line. type in the command line **sudo asl-menu** (hit enter) this should bring up the ASL menu.

Click on “**node setting**” (hit enter) then “**Node Setup Menu**” here scroll down to “**Update Asterisk AMI Password**” (hit enter) this should be a long password (around 16 characters) copy down this password and “Tab” out and exit the ASL menu back to the terminal

command line. To modify the allmon3.ini file we need to change directory.

Type in `cd /etc/allmon3/` (hit enter) if you type in “ls” this will show the files.

Type in `sudo nano allmon3.ini` (hit enter) This will open up this file so we can check the password is correct. Using the arrow keys to navigate around, press the down arrow right to the bottom of the list. See if the password is the same as the AMI password and change it, if necessary so it is the same.

pass=

Once done press “Control X” (that’s Ctrl + the letter X) then “Y” to save, then (hit enter) to exit and save. (If you did not make changes, the once you pressed “Control X” it will exit out.)

Do a restart and log back in to “Nodes List” and hopefully that fixes this issue.