

Ham 306 – AS3 App - Setup

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1. First things first. Register to get a node numbers for phone. Build the hardware with a Raspberry Pi 3B+ or later.
2. Follow the yellow brick road: www.AllStarLink.org > [AllStarLink Manual](#) > [ASL3 User Guide](#) > [What's New?](#) >

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1. *Raspberry Pi Image Install* (<https://allstarlink.github.io/user-guide/pi-detailed/#step-by-step-pi-appliance-setup>) guides the download of the image to a PC, set-up, and saving to a microSD card.
 2. Connect SD card to PC. Use >8, but <32GB.
 3. Download ASL3 image from <https://allstarlink.github.io/> to /downloads/.
 4. Download *Raspberry Pi Imager* from <https://www.raspberrypi.com/software/> to /downloads/.
 5. Launch. Select Raspberry Pi, OS image, and storage SD Card. Next. *Edit* settings.
 6. Give hostname as nodeNNNNN where NNNNN is your #, username is asl, hostname password.
 7. Check Configure wireless. Enter network name as SSID with network password.
 8. Set time zone. Save. Apply custom? Yes. Yes to continue write to card. It takes a couple of minutes.
 9. Remove SD card from PC. Install SD card into Raspberry Pi.



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1. After start, check if connection is complete. Connect screen to Pi to watch. Or, listen for Morse code. Otherwise, from PC *command prompt* type `ping -4 nodeNNNNN.local`.
 2. Power up Pi. Pi OS makes several restarts. Wait up to 2 -5 minutes.

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1. Open *Cockpit*. On PC, open browser to <https://nodeNNNNN.local:9090>. Use your node number for NNNNN. Use IP address rather than host, if Pi is on a remote network. This worked <https://192.168.1.xxx:9090>.
 2. It may take several times to get through the network. Setup up address in Router for faster access.
 3. Message says *Your connection isn't private*. That is ok.
 4. Click Advanced >Continue to node63001.local (unsafe). This must be done.

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1. Open *Cockpit*. Login. Select Administrative privileges. Click Software Updates on left. Refresh. Install all.
 2. Click View Update Log. Reboot.

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1. If no **:9090**, *AllStarLink Launchpad* displays on splash screen. Select *Web Admin Portal*. Click Advanced >Continue.
 2. *ASL Systems Manager* wants login with username asl and password. Login. Password again and authenticate.
 3. *Turn on administrative access*. Give password. Authenticate. Linux Debian uses password a lot for security.
 4. *Terminal* is a command line interface (CLI) for very basic control of OS. Instead of typing, where possible highlight the command. Press Ctrl-C to copy. Put mouse over where you need to type. But instead, right click. Voila no typos.
 5. Click *Terminal*. Terminal gives access to *AllStarLink* app, *Asterisk* phone system, and *Allmon* web management.
 6. Quick config for AllStarLink via `sudo asl-menu`.
Asterisk console via `sudo asterisk -rv`.
Allmon web-based management via `allmon3 / password`. Allmon must be modified for this to work. See details.

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1. Configure the hardware using AllStarLink menu. In *Terminal*, `sudo asl-menu`.
 2. *AllStarLink Main Menu* {# braces are menu options}. [#-brackets are submenu].
 3. {1-Node settings} [1-Allstar Node Setup Menu] Node, ASLpwd, call, SimpleUsb, type 1, Post yes, Access yes.
 4. [8-Tune] 1)select, I)invert, E)Echo, 2)Rx= 900, 3)TxA= 900, 4)TxB= 500, V)view, W)write, 0)exit, <Back>
 5. <Back> [2-Restart Asterisk] [B Backup and restore] <Back>
 6. When finished >Session >Logout

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1. Open *Cockpit*. Login. Select Administrative privileges. To right of node number, dropdown menu does shutdown etc.

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1. Add a network for WiFi: In *Terminal*. `sudo nmcli device wifi connect "MYNETWORK" password "MYPASSWORD"`
 2. Listing networks: `sudo nmcli device wifi list`
 3. If adding network for future, do not use rasp-config.
`sudo nmcli conn add type wifi con-name "MYNETWORK" ifname wlan0 ssid "MYPASSWORD"`
`sudo nmcli conn modify "MYNETWORK" wifi-sec.key-mgmt wpa-psk wifi-sec.psk "MYPASSWORD"`

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1. If problems with levels, open *AllStarLink Main Menu* {3 Asterisk CLI}. This displays what software interprets. Press keys on mic. If not display properly, go to {Node Setting}[8 Tune CLI] Adjust RX.
If near limits, adjust blue pot on board. If possible login with 2 computers, one on Asterisk CLI, one on tune.

Life is good. Enjoy.

