

Press any key to enter the menu

ramesh@va3uv.com

Booting CentOS (2.6.18-274.3.1.el5) in 0 seconds... █



This document is for those users that have an existing CENTOS 5.x installation – e.g., an existing Allstar box, an existing PC with a fresh copy of CENTOS, etc.

The process described in this Quick Install Guide sets up one RF module – either one GMSK modem OR one sound card module. Additional modules can be added later – please refer to the FREE STAR* Admin Manual for details. For the GMSK modem option, the script assumes that the default PID address of the GMSK modem is set to 0x300.

Getting Started...

We strongly recommend setting a static IP address (edit the file ‘ifcfg-eth0’ found in /etc/sysconfig/network-scripts).

An example ifcfg-eth0 file is shown below:

```
# Intel Corporation 82573E Gigabit Ethernet Controller (Copper)
DEVICE=eth0
BOOTPROTO=none
BROADCAST=192.168.1.255 ← The 1st 3 octets are the same as the static IP and the 4th is 255
HWADDR=00:10:C6:BB:0E:6C ← MAC address of your NIC Adapter (it will be different!)
IPADDR=192.168.1.20 ← Set your static IP address here (192.168.1.20 in this example)
NETMASK=255.255.255.0
NETWORK=192.168.1.0 ← Note the first 3 octets are the same as your IP, and the 4th is 0
ONBOOT=yes
GATEWAY=192.168.1.1 ← This is your router address
TYPE=Ethernet
```

Next, edit the file /etc/resolv.conf and be sure that a nameserver is specified – example below:

```
nameserver 192.168.1.1 ← This is the address of your router
nameserver 8.8.8.8 ← This is the address of the Google public DNS
```

Save / Quit

Now type in `service network restart` to restart the network service and apply the above changes.

Confirm that your static IP address has been set by typing in:

```
ifconfig eth0
```

Test your connectivity with a ping test:

```
ping www.yahoo.com
```

<Ctrl> C to stop!

Change the SSH Port:

By default, the SSH Port is set to port 22. We strongly recommend changing this to, for example, port 222. Follow these steps to change the SSH port:

```
cd /etc/ssh
```

```
nano -w sshd_config
```

Look for the line that has: #Port 22. Edit the line to Port 222 (note remove the # at the beginning).

Save / Quit.

Now restart ssh:

```
service sshd restart
```

Make sure that ssh is set to start automatically:

```
chkconfig --add sshd
```

```
chkconfig sshd on
```

Next set the system clock to your timezone:

Find your timezone file in /usr/share/zoneinfo and copy to /etc/localtime

Example:

```
cp /usr/share/zoneinfo/EST5EDT /etc/localtime
```

stop ntpd with:

```
service ntpd stop (do not worry if you get a FAILED message)  
ntpdate pool.ntp.org
```

Check with the `date` command. Then restart ntpd with: `service ntpd start`

Now watch it for a while with: `ntpq -p`

Then set the hardware clock as follows:

```
hwclock --systohc
```

Make sure that ntpd is set to start automatically:

```
chkconfig --add ntpd  
chkconfig ntpd on
```

Forward the following ports on your router / firewall:

```
TCP 222 (used for SSH as described earlier)  
UDP 20001  
UDP 30001  
UDP 40000
```

Now you are ready to start configuring the FREE STAR* software...

Download the free-star-setup.sh script from the VA3UV website and execute it as follows:

```
cd /tmp  
  
wget www.va3uv.com/hp/free-star-setup.sh  
  
chmod +x free-star-setup.sh  
  
./free-star-setup.sh
```

The free-star-setup script will start the process of downloading the various FREE STAR* software packages and the dependencies required. During the course of the installation, you will be prompted for things like your gateway (repeater) callsign, ircddb password, your static IP address (as added in the ifcfg-eth0 file earlier), your personal callsign, repeater band (A, B, or C), full duplex or half duplex and the interface type (i.e., GMSK modem or sound card). Answer these questions as promoted.

If you are prompted to replace any files (such as a License, etc., select 'A' for All).

This process takes somewhere between 30 and 45 minutes (depending on the speed of your machine and Internet connection)

Please refer to the FREE STAR* Repeater Owners' Admin Manual for further information on configuring g2_ircddb for DPRS support and reporting to the ircddb mapping page.

If you selected to install the pcrepeater (sound card) software, refer to the FREE STAR* Repeater Owners' Admin Manual for information on how to setup the sound card. NOTE – that the soundcard on the HP clients does not work for D-STAR. You will need to use an external USB fob as recommended by the FREE STAR* team (<http://www.dealextreme.com/p/c-media->

[cm108-virtual-7-1-surround-usb-2-0-external-sound-card-with-hardware-volume-control-and-mute-21812](#))

Monitor the log files to ensure that everything is working:

```
tail -f /var/log/g2_ircddb.log (for g2_ircddb)
```

```
tail -f /var/log/g2_link.log (for g2_link)
```

```
tail -f /var/log/rptr.log (for rptr) or for example: DStarRepeater_VE3RSD-B-2011-09-30.log  
(for pcrepeater).
```

It can take g2_ircddb a few seconds before it connects to the ircddb servers.

We strongly recommend running your Gateway in text mode (disabling the GUI):

Edit the inittab file in the /etc directory as follows:

```
Set id:3:initdefault:
```

instead of

```
id:5:initdefault:
```

Reboot into non-GUI (command line mode).

That's it – welcome to the FREE STAR* project.

Please drop me a note (Ramesh@va3uv.com) so that I can add you to my mailing list for system updates, notices, etc.