

Download the to iso images from <http://www.haystack.edu/tech/vlbi/mark5/downloads.html> and burn them onto to CDs.

Note: If your system has more then 1G of RAM, the default kernel being installed will only see 1G. To make use of the additional memory you will have to build a new kernel. Please send an email to chester at haystack dot mit dot edu. I will help you with the compiling process.

Also, we have highlighted in **Yellow** places where you will have to take some action, either selecting specific features, or inputting data.

1. Get Configuration Information

you should ask your network system administrator for the following information.

- Your host name (e.g. Mark5-11)
- Your domain name (e.g. mit.haystack.edu)
- How your Mark5's IP network interface should be configured (static configuration or DHCP)
 - * If DHCP the appropriate network information will be provided for you.
 - * If Static you will need:
 - IP Address:
 - Netmask:
 - Default Gateway:
 - DNS Servers IP address
- root password

2. Replace the old HDD

- Store the old one in case of problems.

3. If your system does not have a CDROM attached please see the instructions at the end of the notes.

4. Installation of new operating system

- Boot up system
- Insert the CD Labelled "Debian Net Install cd", or what you called the first iso image burned.
 - * You will see the Debian Splash Screen
- Press **ENTER** to boot
- Choose Language
 - **Select:** English
- Choose Country or region
 - **Select:** United States
- Select a Keyboard layout
 - **Select:** American English
- > Detecting Hardware - Scanning cd-rom - Detecting network hardware -

NOTE: Debian Sarge defaults to trying to connect to a DHCP server for network information. If the method to configure the interface is static from step 1, make sure you remove the network cable from the Mark5. This will cause DHCP to fail, then it will ask you if you want to "Manually configure network interface" Select this option.

- Setup network?
 - * If static configuration, you **enter the information here**
- Configure the network
 - **Hostname**: <any>
- - Partitioning Setup
- Partition disks
 - **Select**: Erase entire disk
 - Partitioning Scheme
 - **Select**: All files in one partition
 - **Review and Select**: Finish partitioning and write changes to disk
 - Confirm write changes and **Select**: Yes
- - Creates ext3 FS and partitioning harddrive
- - Installing the Debian base system
- - Installing GRUB boot loader
 - Install the GRUB boot loader to master boot record?
 - **Select**: yes
- Finishing the installation
 - cd will eject, **Select**: Continue
- System Reboot
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- Debian base system configuration
 - Welcome to your new Debian system! **Select**: ok
- Time zone configuration
 - Is the hardware clock set to GMT?
 - **Select**: yes (is it?)
 - Select your time zone:
 - **Select**: Eastern
- Configuring passwd
 - Root password
 - **Enter** a secure password
 - **Re-enter** password to verify
 - Create a non-admin user (NOTE – if You select oper as the non-admin account, and you want the same configuration as the existing Mark5A, you will have to edit /etc/passwd and change the shell to “tsh” from the default bash).
 - **Enter** Full Name for the new user: oper
 - **Enter** a username for your account: oper
 - **Enter** a password for the new user: <password>
 - **Re-enter** password to verify: <password>
- Apt configuration
 - Archive access method for apt:
 - **Insert** the Mark5 distribution cd that came with Debian Net install cd
 - **Select**: cdrom

- Scan another CD?
 - **Select**: no
 - Additional packages will be installed from the Mark5 distribution cd.
 - Configuring Exim v4 (exim4-config)
 - **Select**: local delivery only; not on a network
 - **Root and postmaster mail recipient**: oper
 - Debian base system configuration
 - Thank you for choosing Debian!: ok
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- **Login** as root
 - **mount /dev/hdc /media/cdrom0** *** Need to test this, cdrom needs to be mounted (hd?)
 - **# cd /media/cdrom0**
 - **# ./install-additional-pkgs.sh**
 - installation of additional packages required for Mark5
 - Configuring xserver-cfree86
 - Attempt to autodetect video hardware?, **select** : yes
 - Please **select** the XKB rule set to use : xfree86
 - keyboard model description. Ok
 - Please **select** your keyboard model: pc104
 - Please **select** your keyboard layout: us
 - mouse model description: Ok
 - Please **choose** your mouse port: /dev/psaux
 - Please **choose** the entry that best describes your mouse: PS/2
 - Is your monitor an LCD device? : **Select**: No (Is it?)
 - monitor display description: Ok
 - Please choose a method for selecting your monitor characteristics: **Select**: Simple
 - Please choose your approx monitor size: **Select**: 17in (Is it?)
 - Select the video modes you would like the X Server to use: **Enable** 1024x768 then **Select**: Ok
 - Color depth description: Ok
 - Please **select** your desired default color depth in bits: **Select**: 24
 - Default printer resolution: **Default**: 600
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- OS installation All Done!

- Next Step:

If you want to check for updates to the packages just installed and you have a network connection you will want to:

1. **Update /etc/apt/sources.list**
2. **apt-get update**
3. **apt-get upgrade**

To update the sources.list you will need to find a debian mirror near you (<http://www.debian.org/mirror/list>) and edit the sources.list file with the following information. Note, please make sure your distribution points to either “oldstable” or “sarge”. Comment out the reference to the CDrom, by placing a “#” in front of the line. Then add, for example:

deb <http://debian.lcs.mit.edu/debian/> sarge main
deb-src <http://debian.lcs.mit.edu/debian/> sarge main
deb <http://security.debian.org/debian/> sarge/updates main

- If you installed an oper account as the first user account, I recommend editing the /etc/passwd and change the oper shell from /bin/bash to /bin/tcsh
 - Next Step: Mark5 software installation, please refer to the Mark5A software installation users guide.

Note 1: Mark5's without CDROMs.

- Attach CDROM to the cable that is connected for the secondary HDD.
- On power up, enter the bios settings.
 - A. Those that have the DELL Poweredge 500SC PIII motherboards
 1. Hit F2
 2. Set the secondary drive setting to AUTO
 3. Change the Bootup order by de-selecting Drive C.
 4. Save and exit
 - B. The system should now boot off of the CD installed in the CDROM drive
 - C. Proceed as normal until you "System Reboot"

Note 2: Mark5's without CDROMS

- After the base installation is installed and boot of the hard drive the first time, you will need to re-enter the bios settings.
 - A. Hit F2
 - B. Change the Boot up order so Drive C is first and select it.
 - C. Save and exit.
- Proceed with the "Welcome to your new Debian System .."