

# AmigaOne - Linux - Debian Woody Install

The [AmigaOne Debian Woody Linux Install Guide](#) that was prepared by Ross Vumbaca in 2003 is comprehensive and easy to follow but hasn't been updated to include the changes that have occurred with the AmigaOne since then. We have therefore reproduced a condensed version here that includes the appropriate modifications. We recommend that you read each step carefully and don't respond intuitively to what is displayed on the screen.

## Assumptions

1. These instructions only apply where Debian Woody is being installed on a separate hard disk and should **NOT** be used where it is to be installed on the same hard disk as AmigaOS 4.0. For instructions on how to install Debian Woody in a dual booting you should follow [these instructions](#) instead.
2. You have successfully configured the U-Boot parameters as detailed in the section on [U-Boot](#).
3. You will be using CDs rather than interactively over the Internet. This means that you will need a set of the 7 CDs that comprise the Woody distribution. They can no longer be downloaded, but library copies of the distro can be obtained from Amiga Auckland's Librarian and these can be freely copied.

## Pre-requisites

The pre-requisites that we have identified for installing Woody are:

- The first step is to decide what partition sizes you require for your hard disk(s). Debian requires the following:
  1. **Prep Partition** (Separate disk only - not required for same disk)
    - 15-20MB - contains the kernel image for booting Linux.
  2. **Linux Root Partition**
    - 1-10GB (or more) - contains the Linux Operating System, installed packages, and optionally data files.
  3. **Linux Swap Partition**
    - at least 1GB - contains the Linux page file and as a general rule should be 2-4 times the size of your main memory allocated to Linux. Since there seem to be problems allocating more than 800MB of which typically 32MB is static and used for graphics memory, it should never need to be more than 2GB.
  4. **Linux User Partition** (Optional and not part of the install process - done later)
    - as large or small as you wish - contains all user data files rather than store them in the Linux Root Partition. This can be a useful way to localise possible file system corruption problems when fsck does its scan.

If you are installing to a separate disk, the first three can be created during the install process. If you are installing to the same disk as AmigaOS 4.0, the required partitions must be created using Media Toolbox prior to running the Debian install.

- Obtain the vertical and horizontal scan rates, and maximum resolution specifications for your monitor, and record it on the Install Guide you printed above for future reference. You will need this during your X-Windows setup.
- If you plan on connecting to a Network, you should figure out your IP address and any other

values such as IP Gateway, SSH etc. If you wish you can bypass this step during the install process and perform it later.

- During the install process it will create the "root" user, and give you the option of creating a "user" account, but the installation guide suggests leaving until later> We recommend that you create yourself a user account.
- During the install process it will want to configure your keyboard, mouse, languages etc. you should choose the US option to get the \$ sign etc matching the keyboard.

## Installing Debian Linux

1. Turn on your AmigaOne and as soon as the U-Boot Initialisation screen appears, press <Esc>. As soon as U-Boot has checked the IDE and SiL devices, it will stop with a "]" prompt.
2. Insert the AmigaOne Installer CD in your CDROM drive.
3. At the prompt, type `ide reset` to force U-Boot to re-check all of the IDE and SiL devices and stop with a "]" prompt. Above that it will show all of the devices found, one of which will be the CDROM drive containing the CD you just inserted. Take note of the "Device #" down the left hand side next to the CDROM entry. You will need this device number in the next step.
4. You are now ready to boot from the CDROM where "#" is the device number from step 3.
  - If your CDROM is connected to the VIA 686 controller (standard), then at the prompt, type `diskboot 500000 #:0 0`
  - If your CDROM is connected to the SiL0680 controller, then at the prompt, type `diskboot 500000 #:0 1`
5. The CDROM will load for a short while as it boots Debian Woody from the CDROM.
6. If you have a Voodoo 3/4/5, ATI Radeon or ATI Rage 128 video card, you will be asked to "Choose The Language". Use the down arrow key to select `en` for English if that is the desired language and press <Enter>. If you do not have one of the above cards it assumes basic VGA and you will not get this option.
7. After selecting the language (assuming English was selected otherwise this screen is not displayed) you will be asked to "Choose Language Variant" and `English (United States)` will be highlighted. Select the variant you desire and press <Enter>.
8. You will be greeted with a welcome message. Press <Enter> to continue.
9. The installation of Debian is made up of a number of steps. Each step of the way, you can proceed to the next step, or you can step back, or take alternative choices. The most logical next step is always shown first.
10. **Next : Configure the Keyboard**  
Press <Enter> to configure the keyboard. Note that you can reconfigure the keyboard later by running "`dpkg-reconfigure console-data`" from a Shell. Select `qwerty/us` at the top the list, unless you have a non-US keyboard, and press <Enter>.
11. **Next : Partition your Hard Disk**  
Press <Enter> to select this option. This will start the "cfdisk" program that enables you to partition your hard disk. When it loads, the existing partitions (if any) are listed together with details about their type, size, etc at the top of the screen, with a number of options displayed at the bottom of the screen. On a factory new hard disk all you should see is just "Free Space". You need to set up three partitions - a boot partition, a root partition, and a swap partition as discussed in the pre-requisites section.

To use the program, use the <left> and <right> cursor keys to highlight an option, and <Enter> to choose an option. DO NOT use the <up> and <down> cursor keys to choose an option, <up> and <down> are used to highlight partitions on the hard disk (on a clean hard disk there will be none). In accordance with the environment variables that we set in U-Boot previously, you should make the boot partition come first, followed by the root partition, and then the swap partition.

- To create the **PPC Prep Boot** (boot) partition:
  - Press <right> to highlight "New" and press <Enter>.
  - Select "Primary" and press <Enter>.
  - Enter the size for the Boot partition in Megabytes and press <Enter>.
  - Select "Beginning" when asked for the position and press <Enter>.
  - The partition will now show as "hda1" at the top section of the screen.
  - Press <right> to highlight "Type" and press <Enter>.
  - Overtyping the filesystem type at the bottom left-hand corner with "41" for PPC Prep Boot, and press <Enter>.
- To create the **Linux** (root) partition:
  - Press <down> on the cursor keys to select the free space
  - Press <right> to highlight "New" and press <Enter>.
  - Select "Primary" and press <Enter>.
  - Enter the size for the Root partition in Megabytes and press <Enter>.
  - Select "Beginning" when asked for the position and press <Enter>.
  - The partition will now show as "hda2" at the top section of the screen.
  - The filesystem type will default to "83" for Linux, so don't change it.
- To create the **Linux Swap** partition:
  - Press <down> on the cursor keys to select the free space
  - Press <right> to highlight "New" and press <Enter>.
  - Select "Primary" and press <Enter>.
  - Enter the size for the Swap partition in Megabytes and press <Enter>.
  - Select "Beginning" when asked for the position and press <Enter>.
  - The partition will now show as "hda3" at the top section of the screen.
  - Press <right> to highlight "Type" and press <Enter>.
  - Overtyping the filesystem type at the bottom left-hand corner with "82" for Linux Swap, and press <Enter>.
- To save the changes:
  - Press <right> to highlight "Write" and press <Enter>.
  - Press <right> again to highlight "Quit" and press <Enter>.

12. **Next : Initialize and Activate a Swap Partition**

Press <Enter> to select this option. You are then asked if the **/dev/hda3** partition should be scanned for bad blocks. Simply choose the <No> option, which will already be selected for you. Press <Enter> again when you're asked if you're sure you want to format **/dev/hda3** as the swap partition.

13. **Next : Initialize a Linux Partition**

Press <Enter> to select this option. You will be asked if you want to use "Ext2" which is the traditional GNU/Linux filesystem, or "Ext3" which is the next generation of Ext2, which supports journaling, making it a lot more reliable. **Ext3** is the recommended choice. As with the initialising of the swap partition, when you are asked if you want to perform a bad block scan, select <No>, and if you are sure you want to initialise **/dev/hda2** – select <Yes>. Some text describing the initialisation process will appear on screen as the partition is initialised. Once the initialisation is complete, you will be asked if you wish to mount the partition as your Root Filesystem. Select <Yes>.

14. **Next : Install Kernel and Driver Modules**

You are now up to the stage of installing the kernel driver modules to your hard drive. The AmigaOne Installer CD should still be in your CD-ROM drive, so press <Enter> to select this

option. Next you will be asked which medium you want to install from, press <Enter> to select **cdrom**. If you have more than one CD-ROM drive, you will be asked which CD-ROM drive to look in, select the appropriate one, and press <Enter> to continue. A message will appear asking you to "Please place the first Debian CD-ROM in the CD-ROM drive" – ignore this message and press <Enter> to continue. You will now be asked if you want the installer to look for the modules on the CD ("list"), or to enter it manually. Select **list** (it will probably already be selected), and press <Enter> to continue. You will be asked to select the directory from a list of one item, simply press <Enter> again to proceed. Several screens will flash by and then you will be returned to the Installation Menu. The kernel modules have now been installed.

15. **Next : Configure Device Driver Modules**

You now have to select which modules (if any) you wish to use. Press <Enter> to select that option, and press <Enter> again when "Note about loaded drivers" appears. You now have a list where you can select any modules (drivers) that you would like your Linux system to load on boot up. If you do not wish to load any modules, simply press <Enter> to select **Exit**. Otherwise, scroll down with the cursor keys and select any modules that you would like, such as modules for your sound card, or modules for your network card. Remember that "module" is just another word for a hardware driver.

16. If you have a **Creative Sound Blaster Live** sound card, select **kernel/sound/pci/emu10k1** and then select **snd-emu10k1**. Accept **<Yes>** to the install message by pressing <Enter>, and when it asks you to "Enter Command-Line Arguments", simply press <Enter>, and then press <Enter> to continue when asked. You will then need to select **Exit** and press <Enter> to return to the module list.

17. If you have a **Creative Vibra/PCI128** sound card, select **kernel/sound/pci** and then select **ens1371**. Accept **<Yes>** to the install message by pressing <Enter>, and when it asks you to "Enter Command-Line Arguments", simply press <Enter>, and then press <Enter> to continue when asked. You will then need to select **Exit** and press <Enter> to return to the module list.

18. After loading the appropriate sound card module, select **kernel/sound/acore/oss** and then select **snd-pcm-oss** and repeat the steps above. There are also modules for other hardware that more advanced users may make use of. The step of configuring modules can be repeated in future at any time on your Debian Linux system, by entering "modconf" at a shell prompt. When you have completed the module configuration step, select **Exit** and press <Enter> to return to the Installation Menu.

19. **Next : Configure the Network**

Press <Enter> to select that option. You will be asked to choose a host name for your machine. Think of a unique, short name for your machine to use on the network. If you're not sure what to use, you could use **AmigaOne**. You will then be asked if you wish to use DHCP or BOOTP to automatically configure the interface. If you have a DHCP server available on your network, select **<Yes>**, otherwise select **<No>**. If you select not to use DHCP, you will then have to manually enter an IP address, subnet mask, name server IP address for the network, Domain Server name and DNS Server Address. (Windows machines with internet connection sharing, home routers, and cable modem internet, all typically offer DHCP services. If you are unsure of what to do, ask someone that is familiar with your network).

If you are not using a network at all, then after selecting to not use DHCP, you can enter any values that you please, but it is best to use the default IP address of "192.168.1.1", subnet mask of "255.255.255.0" and no name server address (use backspace to delete the default value of "192.168.1.2"), no Domain Server Name and no DNS Server address. These can be changed in future if you connect your AmigaOne to a network.

20. **Next : Install the Base System**

Press <Enter> to select this option. Next you will be asked which medium you want to install from, press <Enter> to select **cdrom**. If you have more than one CD-ROM drive, you will be asked which CD-ROM drive to look in, select the appropriate one, and press <Enter> to continue. A message will appear asking you to "Please place the first Debian CD-ROM in the

CD-ROM drive", so you should remove the "AmigaOne Installer CD", and insert the first Debian CD-ROM into your CD-ROM drive, and press <Enter> to continue. The CD will be scanned, and you will be asked to select where you want to install from. You will be given only one choice (which refers to the `instmnt` directory on the CD), press <Enter> again to proceed. The system will then begin installing the base system, with the process taking several minutes, depending on the speed of your CD-ROM drive, hard disk, and CPU.

21. **Next : Make System Bootable**  
This step will copy the Linux kernel to the boot partition. Press <Enter> to continue. The installer will check that a boot partition has been defined and that it is large enough. If these two conditions are not satisfied, an explaining the problem will appear.
22. **Next : Reboot the System**  
After the kernel has been copied to the boot partition, press <Enter> to reboot the system. The AmigaOne will reboot after a short while.
23. As long as the U-Boot environment variables have been set up correctly, your AmigaOne will automatically boot into Linux.
24. Your AmigaOne should now boot from the hard drive and the first screen that you see should say "**Congratulations, you have successfully installed Debian!**". Note that if you have chosen an 800x600 resolution the background to the screen may be distorted - this does not matter and can be put right later. You can rerun the base system configuration at any time by logging in as "root@" at a Shell and typing `/usr/sbin/base-config`. Press <Enter> to continue with the installation.
25. The next screen **Time Zone Configuration** displays the hardware clock details and asks "**Is the hardware clock set to GMT?**"  
Select `<No>` and press <Enter>.  
"**What area do you live in?**"  
For New Zealand you must select `Pacific Ocean` and press <Enter>.  
It will then give you a list of places to choose - select `Auckland` and press <Enter>.
26. The next screen **Password setup** discusses password rules and asks "**Shall I enable md5 passwords?**".  
We recommend that you select `<Yes>` and press <Enter>.  
It then discusses shadow passwords and asks "**Shall I enable shadow passwords?**"  
We again recommend that you select `<Yes>` and press <Enter>.  
It then asks you to "**Enter a password for root**".  
Type your root password (nothing will display on the screen) and press <Enter>.  
Next it asks "**Re-enter password to verify**" which you must do and press <Enter>.  
If you make a mistake and the two passwords are different you are asked to try again.  
It continues by asking "**Shall I create a normal user account now?**".  
We recommend that you select `<Yes>` and press <Enter>.  
Enter the username for your account following the rules on the screen and press <Enter>.  
Next enter the full name for the new user you have just created and press <Enter>.  
Then enter a password and re-enter it just as you did for the root user above.
27. The next screen **Debian System Configuration** discusses PCMCIA and asks "**Shall I remove the pcmcia packages?**".  
We recommend that you select `<Yes>` and press <Enter>.  
It then asks "**Do you want to use a PPP connection to install the system?**".  
Since you can only use CDs select `<No>` and press <Enter>.
28. The next screen **Apt Configuration** discusses the Debian archive and asks you to choose the method apt should use to access the Debian archive. Make sure that the first Debian CD-ROM is in the CD-ROM drive and press <Enter> to select `cdrom`. If you have more than one CD-ROM drive, you will be asked which CD-ROM drive to look in, select the appropriate one, and press <Enter> to continue. It will scan the CD looking for packages and after a short period it will ask if you want to scan a another CD.

If you do not have other disks in the Woody distro or your next project is to update to "Sarge" (recommended), select **<No>** and press <Enter>. However, if you have other disks for the Woody distro but you do not intend to update to "Sarge" yet, then select **<Yes>** and scan them all. Select **<No>** after the last one.

29. Next, **Apt Configuration** asks if you want to **add another apt source?** Since Debian Woody is no longer available on-line, select **<No>** and press <Enter>. Finally, it asks if you want to **use security updates from security.debian.org?** Again select **<No>** and press <Enter>.
30. **Debian System Configuration** resumes and asks if you want to **Run tasksel?** Select **<Yes>** and press <Enter>. A task selection screen will appear. Use the up and down arrow keys to move the cursor, and the space bar to select tasks to be installed. Select **"X window system"** and **"desktop environment"**. Use <Tab> to highlight **<Finish>** and press <Enter>.
31. **Debian System Configuration** continues and asks if you want to **Run dselect?** Select **<No>** and press <Enter>.
32. At this point the Installer lists all of the packages it is about to install, with summary of upgrades, installs, deletes, etc, and the amount of disk space required. Type "Y" and press <Enter> to continue. It then asks you to insert the first Woody Install CD in the CD-ROM drive. It should already be there, so press <Enter>.
33. A **Configuring Binutils** screen warning about possible kernel link failure comes up next. Press <Enter> to continue.
34. Next, the **Configuring Less** screen asks **Add a mime handler for "application/\*"**?. Select **<No>** and press <Enter>.
35. On the **Configuring Locales** screen <Tab> to **<Ok>** and press <Enter>. On the next screen **Leave alone** should be highlighted. Press <Enter> to continue.
36. On the **Configuring Mfs-common** screen simply press <Enter>.
37. On the **Configuring Ssh** screen it asks if you want to **Allow SSH protocol 2 only.** Select **<Yes>** and press <Enter>, press <Enter> again at the next screen, for **suid** select **<Yes>** and press <Enter>, but for **sshd server** select **<No>** and press <Enter>.
38. A **Configuring Psfontmgr** screen then asks **Do you have a PostScript Printer?** Select the appropriate answer and press <Enter>.
39. A **Paper Size Configuration** screen then asks **Which papersize should be the default?** Select **a4** and press <Enter>.
40. A **Configuring Gdm** screen then asks you to **Select the desired default display manager.** Select **kdm** and press <Enter>.
41. A **Configuring Kdm** screen then explains some of the restricted functions which have been configured at this time. Press <Enter> to continue. Further information is then displayed about Kdm's dpi settings. Again press <Enter> to continue. Even more information about Kdm and TCP ports. Again press <Enter> to continue.
42. A **Configuring Mozilla-browser** screen asks **Do you want FreeType2 support on Mozilla?** Select **<Yes>** and press <Enter>. Next it asks you to choose your **sound daemon's dsp wrapper.** Select **auto** and press <Enter>.
43. A **Configuring Xserver-common** screen asks if you want to

**Manage X server wrapper configuration file with debconf?.**

Select **<Yes>** and press <Enter>.

44. A **Configuring Xserver-xfree86** screen asks if you want to **Manage XFree86 4.x server configuration file with debconf?.**

Select **<Yes>** and press <Enter>.

It then asks you to **Select the desired X server driver** to suit your video card.

Choose **ati** for ATI Rage 128 or Radeon 7000-9000 cards

Choose **tdfx** for Voodoo 3/4/5 cards

Choose **fbdev** for any other card.

and press <Enter>.

PLEASE NOTE: Some ATI Radeon cards have been known to give problems using **ati**, in which case you should use **fbdev** instead, but you won't know until you find it doesn't work - see the end of this step for how to change it.

Once you have identified the driver type, you need to specify the location of your video card. Assuming it is an AGP card the address will be **PCI:1:0:0**. If is anything else, accept the default given and press <Enter>.

It will then ask if you want to **Use kernel framebuffer device interface?.**

Select **<Yes>** and press <Enter>.

Accept **xfree86** as the X-Windows keyboard rule set by pressing <Enter>.

Change the keyboard model to **pc104** for the USA (\$) keyboard or **pc105** for the international keyboard, and press <Enter>.

Unless you use a European keyboard, accept the default **us** layout, and press <Enter>.

Select the mouse port as **/dev/psaux** and press <Enter>.

Now select the type of mouse. Most mice will be **PS/2** but some mice with scroll wheels do not work well in this mode, and cause the cursor to lock up in the top right-hand corner of the screen. If you are using a mouse with a scroll wheel, we recommend that you use **ImPS/2** instead.

Next it asks **Is your monitor an LCD device?** If you select **<Yes>** it removes the "Simple" option from the next menu.

If you know the refresh rates (as suggested in the pre-requisites section) select **Advanced** and press <Enter>.

It will then ask you to **Enter your monitor's horizontal sync range**, i.e. **28-50** and press <Enter>.

It will then ask you to **Enter your monitor's vertical sync range**, i.e. **43-75** and press <Enter>.

It will then ask you to select the video resolutions that you would like X server to use. Use the up and down arrows move the cursor to the appropriate resolutions and press the space bar to select or de-select a resolution. Tab to **<Ok>** and press <Enter> when all resolutions have been selected.

You will then be asked to **Select your desired default color depth in bits.**

If there is no good reason why you shouldn't, we recommend you set it to **24** and press <Enter>.

If you later want to change any of the above settings, you can do that from a Shell, logged in as "root" by typing **"dpkg-reconfigure xserver-xfree86"**.

45. It will now spend several minutes again reading the CD-ROM and installing packages, showing its progress on the screen as it does so.

At one point it will stop and ask whether you want the **American or British dictionary for ispell** to which you must reply with either 1 or 2 and press <Enter> - the default is "1".

A bit later it will stop again reported that errors were encountered during unpacking. This is OK. Press <Enter> to continue. The install process will continue and a short time later another screen is displayed saying that one or more packages failed to install and asking if you want to retry. Select **<No>** and press <Enter>.

Then it introduces the **exim** mail system before asking a number of questions. In any case comprehensive information on configuring exim is in the eximdoc package and in /usr/share/doc/exim/spec.txt. Press <Enter>  
The options are then displayed. Type "5" and press <Enter> to bypass mail configuration at this time.

46. You should now be at the end of the install process "Have fun!"..... Press <Enter> to complete the install. You will be returned to the command line "Login:" prompt. Log in as "root" using you root password and at the next prompt type "halt" to shut the system down cleanly. Switch off at the 'power down' prompt.

## Post Installation

1. Switch on. Your system should reboot directly into "X windows" with a graphical log-in prompt. Log-in as "root" and KDE should load.
2. The KDE Desktop Settings Wizard can help you setup the KDE environment.
  - It will then ask you to choose you country and language. You'll will find New Zealand under "Asia & Oceania". The language can be left to default. Click on Next.
  - Next you must select System Behaviour - we recommend leaving it to default to KDE. Click on Next.
  - Eyecandy-O-Meter can be set to Fast to get more effects. Click on Next
  - Desktop Themes are your choice of KDE, Platinum, Redmond and Sunshine. Click on Next.
  - Instructions on how to change the settings just made. Click on Finish.
3. Our recommendation is that now you install [Debian Sarge](#) and after that enhance your system by installing some the available [Debian Packages](#).

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