

Installing or reinstalling Ubuntu Linux and EMC2

IMPORTANT—Installing Linux/EMC2 will completely overwrite your current operating system as well as all data and programs on your computer. The hard drive will be reformatted.

Ubuntu Installation with EMC2 v5.00

Computers with Windows® OS—Turn on your computer, open the DVD drive door and insert the Sherline installation DVD into your DVD-ROM drive. If the computer boots off the new Linux DVD, skip down to the “Starting with Ubuntu” section below. If it boots off the hard drive or other drive instead, you will have to enter the BIOS to change the boot device order so it boots off the DVD. With the DVD in the DVD-ROM, restart the computer and hold down the [F2] or [Delete] key while restarting to enter the BIOS. (Instructions on screen during the boot up process will tell you which key to hold down.)

Computers from Sherline with Linux OS—Installations from Sherline should already be set to boot off the DVD drive. If yours starts off the hard drive or other drive, reboot and hold down the [Delete] key to enter the BIOS.

Changing boot order in the BIOS—Once the BIOS is loaded, use your arrow keys to navigate and select “Advanced Bios Features.” Set the boot order to:

First Boot--DVD-ROM

Second Boot--HDD-0

Press the [F10] key and then pick “Save and Exit Setup.” Hit [Enter]. Hit “Y” for Yes and the hit [Enter] again.

Starting with Ubuntu

Live Mode—When your PC boots onto the Ubuntu disk you will see a screen that lists a series of options in text mode. If you wish to boot in “live” mode simply type “live” on the next line and press [Enter]. This will allow you to enter Ubuntu without completely installing the operating system. This has its advantages and disadvantages. If you choose to boot in “live” mode you can proceed with installation later by simply double clicking the install icon that appears on the desktop.

Installing Ubuntu/EMC2—To install Ubuntu on your PC, once the command prompt appears simply type “install” and press [Enter], and the installation will begin.

Welcome Screen—Here you can choose the default language for your installation. Select your language of choice and then click the forward button on the window to proceed.

Time Zone Selection—Here you can choose your location. This is used for determining your time zone. Select the major city closest to you that is in your time zone from the list. Use the mouse and click in the selected

city window, find the nearest major city and select it. Once you have selected your time zone click the “Forward” button to proceed.

Keyboard Layout—Here you can chose the language and layout of your current keyboard. Select the language by clicking it in the box on the left, then select your layout by clicking it in the box on the right. Once you have selected your language and layout, click the “Forward” button to proceed.

Partitioner—Here you will select your installation destination and size of install. Two options will appear. (If you have a multiple boot hdd you will see more.) Your options are:

- **Guided-Resize**—This is a good selection if you are currently running a different operating system and wish to just run this as a secondary.

- **Guided-Use entire disk**—This selection is ideal if you will only be running Ubuntu as your main operating system or if you have a Sherline computer. Click the bubble next to the selection and click on “Forward” to proceed.

Who Are You—Here you must set a root password and create a user account. The password must be at least six characters long, and the user password must be at least four characters. Enter “sherline” on each of the lines. (Ignore any warning messages about the password not having enough letters. When you enter the password and confirm it, your password will be accepted.)

The user account name should be all lower case letters. Note that passwords and accounts are all case sensitive.

NOTE: If you do not enter a user account, the system will not automatically launch you to the desktop. Instead, a login screen will appear, where you must enter “root” and the password you supplied earlier (“sherline” by default). It is strongly recommended you create a user account, as the root account has access to all vital system functions, which you may not wish to be logged into at all times. An inadvertant typing error here can do damage that can be difficult or impossible to repair. The EMC2 will function using either login. If you use a password of your own other than “sherline,” you must note or remember it for future use.

Ready to Install— This is the last chance to make any changes to the installation process to this point. After you click “Install” it will begin to automatically partition your system, and all data on that drive will be lost. If you are satisfied with your choices, click “Install” to proceed. Installation times will vary depending on the size of your hard drive. For example,

a 40Gb hard drive takes approximately 7 minutes to complete.

Installation Complete— Once the partitioner is finished installing the system, a pop-up will appear that states the installation is complete and you must reboot. Click the “Reboot” button, and in about 1 minute another Ubuntu screen will appear and your CD/DVD drive will automatically eject the disk. Remove the disk and press [Enter] to complete the installation.

To open EMC2 and begin working with CNC

On your desktop there should be four icons displayed that will say *CNC Sherline Benchtop Mill (Inch)*, *CNC Sherline Benchtop Mill (mm)*, *CNC Sherline Lathe (Inch)* or *CNC Sherline Lathe (mm)*. Click on the one that corresponds to your machine (mill or lathe) and leadscrew pitch (inch or metric). This will open the appropriate version of EMC2 so you can start working.

Complete instructions on how to use EMC2 and G-code can be found on the ***Instructions and Utilities*** CD in a folder labeled “Instructions.” Additional information and help can be found on-line at <http://www.linuxcnc.org>. You can also find the most current version of the instructions on the Sherline web site by going to ***www.sherline.com/CNCinstructions.htm***. Instructions can be viewed on Windows® or Linux machines in .PDF or .HTML formats. A DOC version for Microsoft Word® is also included. It can also be opened on your Linux machine using the OpenOffice word processing program included free with the Ubuntu version of Linux.