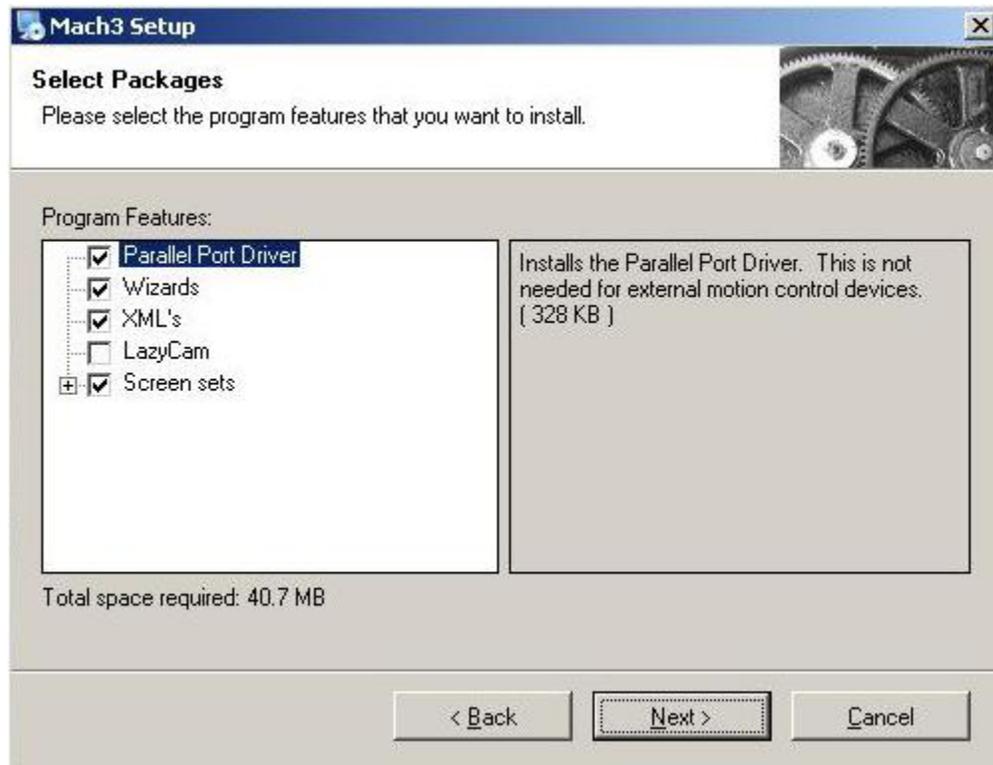


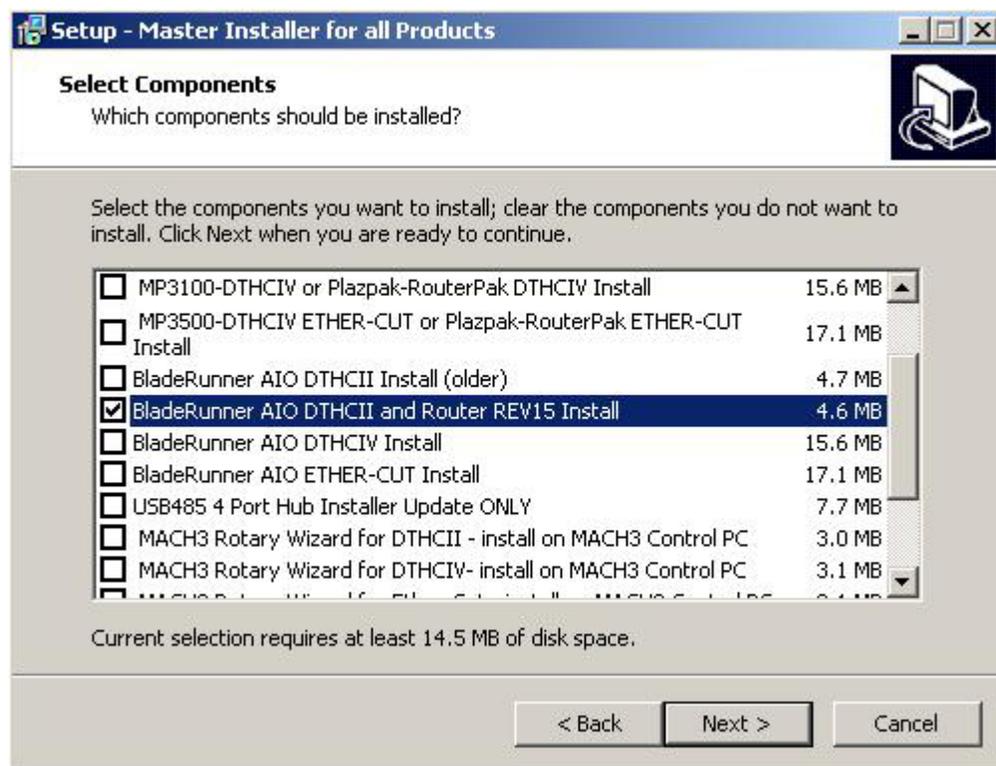
Heavy Duty Gantry Quick Start Guide

Starting with a desktop computer with a serial and parallel port running windows XP, boot up into the CMOS and set the parallel port to EPP mode (enhanced parallel port). Save configuration and boot to Windows XP.

Insert the Bladerunner CD and find the Mach Installer folder. Install Mach 3 as well as the parallel port driver.



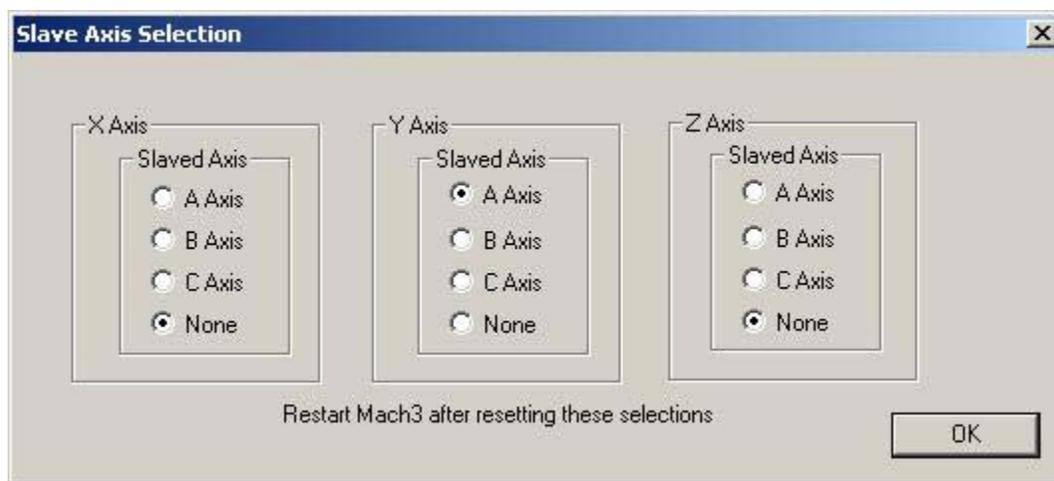
Once the computer reboots, return to the CD and run the Master Installer. You will select the Bladerunner AIO with DTHCII to match the controller.



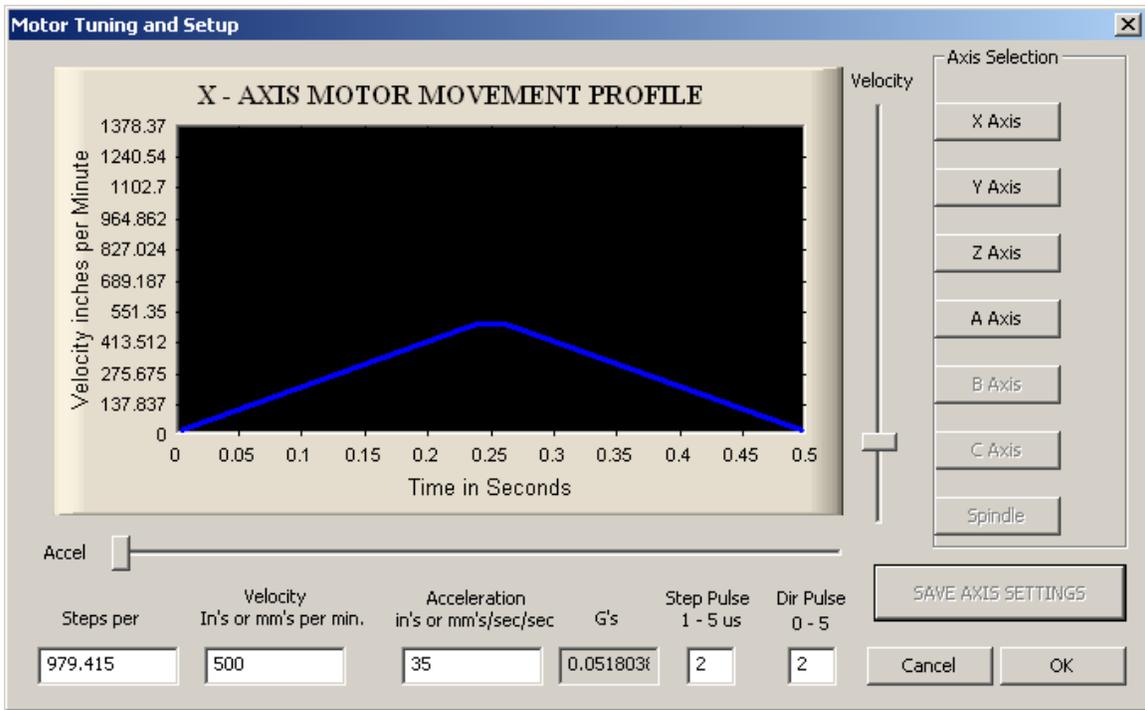
Go to the Sheetcam install folder on the CD and install Sheetcam. Go to the Sheetcam Candcnc Support folder on the CD and install the Sheetcam support update. You will also find a file called "WHAT TO DO-READ" file for more detailed instructions.

Start MACH 3:

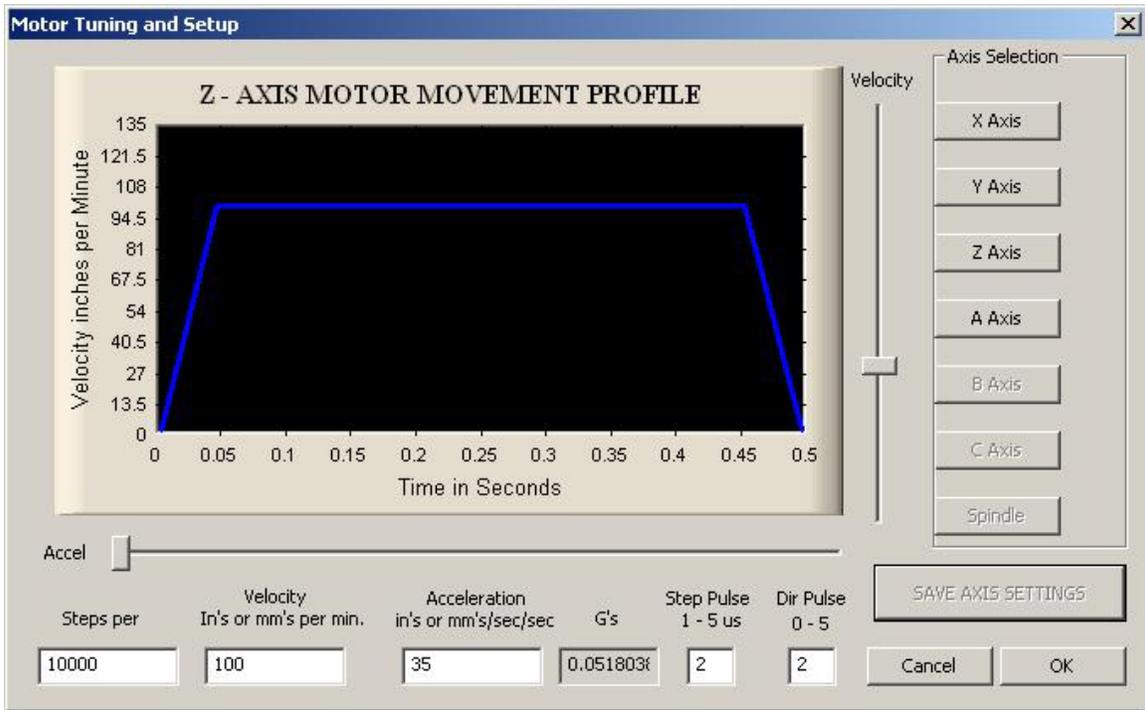
Go to Config on top, and select slave axis. Since the gantry has 2 motors, the A motor needs to be slaved to the X or the Y. You decide if you want the gantry or the carriage to be X or Y and wire and configure accordingly.



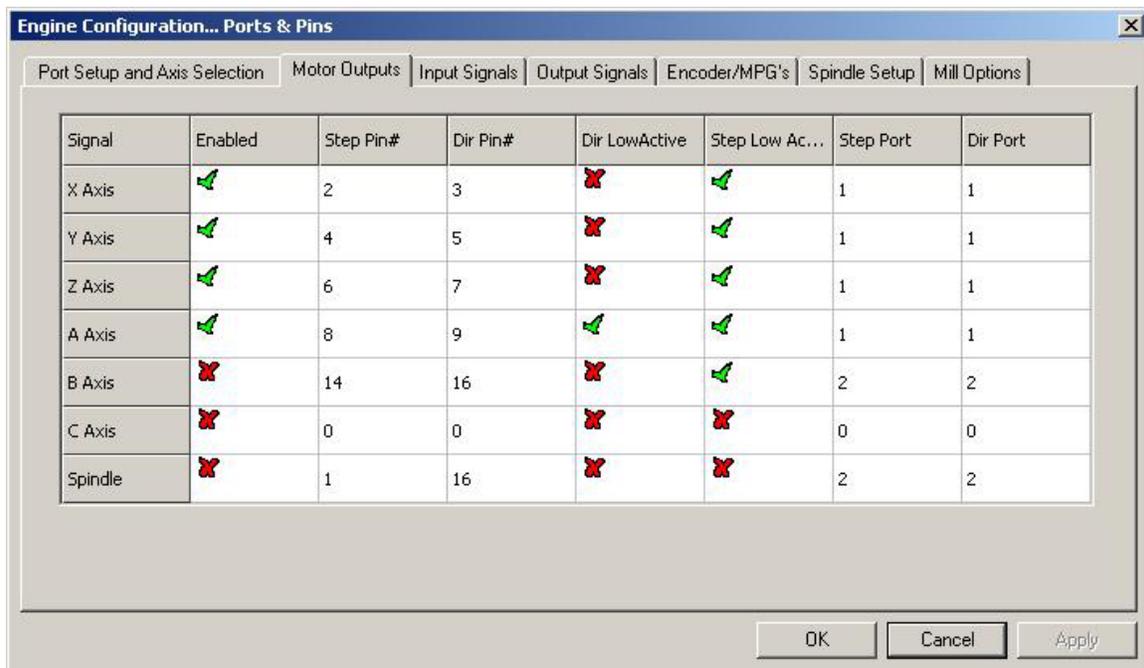
Go to Config on top and choose motor tuning. Use the following settings for X,Y and A.



Z axis



Go to Config, Ports and Pins, Motor Outputs.



If any axis is going the wrong direction when you press the arrow keys to jog the gantry, the direction is changed here. Click on Dir LowActive for any axis to change from a red X to a green check mark. This will change the axis direction. **NOTE: BE SURE TO ALWAYS HAVE THE A AXIS OPPOSITE THE SLAVED AXIS OR THE GANTRY WILL SKEW.**

Start SHEETCAM:

Set up Sheetcam according to this video:

<https://youtu.be/1w8GG15Hwj8>

You should already have the correct post (MP3000 DTHCII) and Hypertherm toolsets added when you loaded Sheetcam support above.

Hypertherm:

If you are using a machine torch, connect the plug on the CPC port on the back of the unit.

When using a Hypertherm hand torch in a cnc application, a jumper needs to be added to the torch or plasma unit. A jumper is built into a Hypertherm machine torch that is not on the Hypertherm hand torch for liability reasons. Without the jumper, the computer will not be able to fire the torch by use of the CPC port.

There are 3 methods to add a jumper.

1: Add a small jumper wires between the pins when plugging the torch into the plasma unit.



2: Dissassemble the plug of the hand torch and install an additional pin to make the connection.

<http://www.digikey.com/product-detail/en/0/A99521-ND>

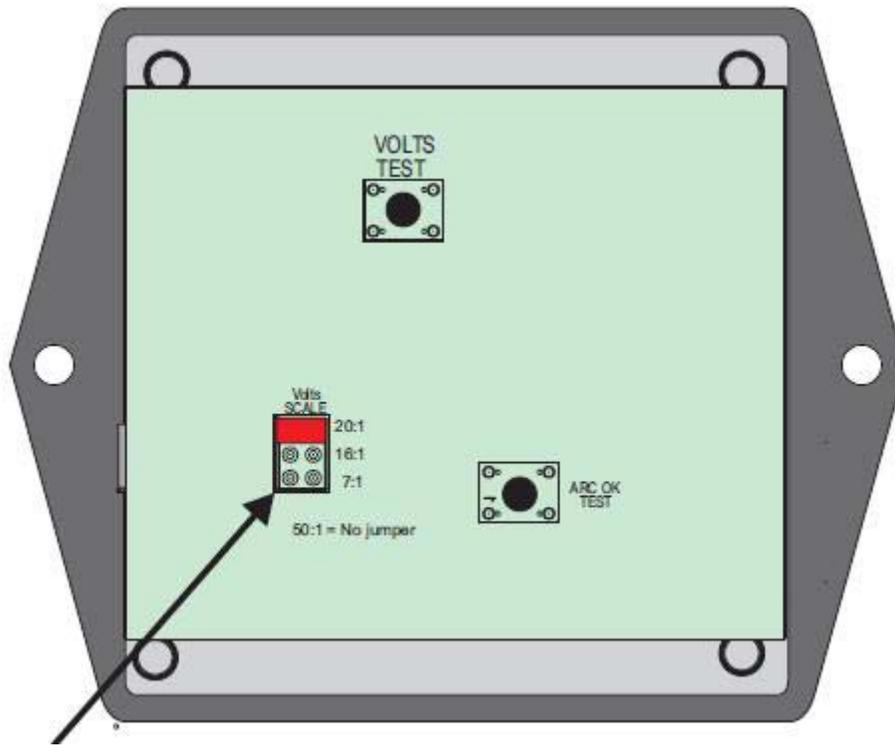
3: Remove the cover and jumper the wires on the back side of the plug on the plasma unit. You need to make a connection between the orange and yellow wire.



Any of the above methods will result in the computer being able to fire the torch from the CPC port.

PWM Module:

Hypertherm 45 plasma cutters have a 50:1 voltage divider and is also included with the CPC port option on the 65/85. The PWM module needs to have the jumper on the back removed to match the 50:1 voltage divider.



Torch Switch:

Connect the center and terminal opposite the roller (C and NO pins) to the Z home terminals in Bladerunner control box.



Go to the diagnostics page of Mach 3 and you will see the INPUT STATUS in the upper right hand corner. Lift the torch to trigger the switch and the indicator next to the ZHOME should turn yellow.

Switch travel: (switchOffset)

The distance the torch moves before it triggers the switch needs to be measured. You can get close using allen wrenches to determine which one is the closest. Lower the torch to a piece of material and raise the torch until it triggers the input. Find the closest size allen wrench that matches the gap.

Run the Sheetcam setup wizard.(help/setup wizard) Make sure you have selected the MP3000 post processor and edit the post to change to the switch offset that you have measured.

```
C:\Program Files\SheetCam TNG\Posts\MP3000-DTHCII+scriber2.scpost - Editor
File Edit View Search Tools Insert Preferences Window Debug
MP3000-DTHCII+scriber2.scpost
|--*****
--*** Set these values up to suit your machine ***
|--*****

--this is the distance between each torch reference in MILLIMETRES
refDistance = 250

--this is the reference feed rate in mm/min
refFeed = 500

--Put your switch offset value here in MILLIMETRES
switchOffset = 1.5

--Scriber X,Y,Z offsets in MILLIMETRES. Do not use inches here even
--For the marker use the scribe Z as the offset from Z zero you wa
Line 1 of 377, Col 1, Chars 11237 [INS]
```

Installing Mach 3 and Sheetcam licenses:

For Mach 3, simply copy your license file into the Mach 3 directory and restart Mach 3 for it to take effect. For Sheetcam, choose help/Install license file.

Here is a link to videos to show you how to run your table.

<https://arclightcnc.com/cnc-videos/>

YOU ALSO HAVE A FULL SET OF MANUALS ON THE CD FOR YOUR REFERENCE AND ADVANCED FUNCTIONS.