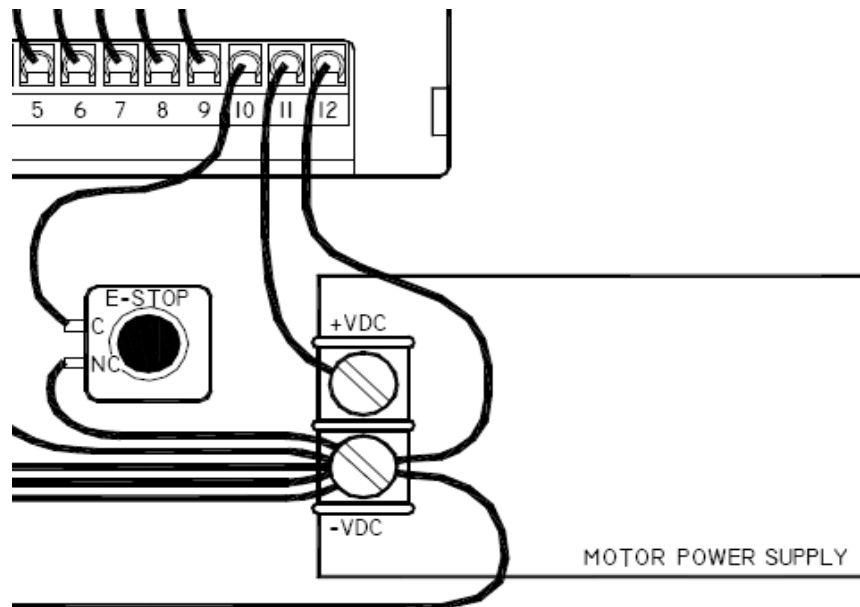


This is a quick guide to setting up your G540 for the first time to eliminate any setup headaches you may have.

Step 1: Determine that the ENABLE pin is connected.

The first thing you should do is to connect your ENABLE pin (Pin 10) to GND (Pin 12). The section of the diagram concerning that is shown below, with the ENABLE hooked up to an emergency stop switch. If this is not done, then the G540 will not come out of FAULT mode.



Step 2: Make sure your parallel port is set to EPP mode.

Your parallel port must be set to EPP mode in BIOS for the parallel port to work correctly with the G540. If it is not in EPP mode some functions of the G540 will not work.

To do this, you must do the following:

On startup of your computer, push either DEL, F1, or Insert to access the BIOS screen. Go to *Peripherals* or *Integrated Peripherals* and scroll to the *Parallel Mode* option. Use either the +/- or Page Up/Page Down to change the mode.

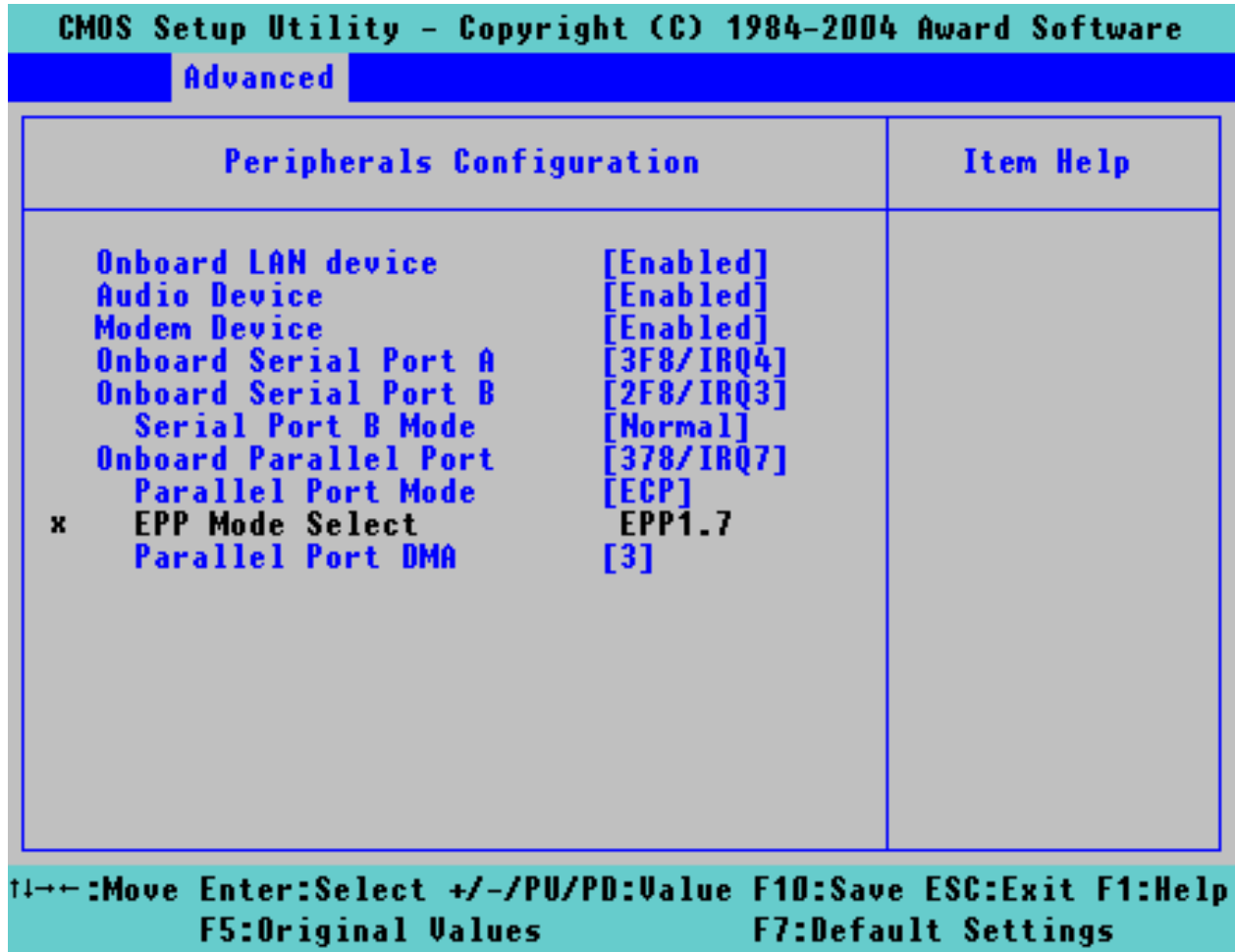
This is illustrated in the screenshot on the next page.



G540 INITIAL SETUP GUIDE

COMPUTER AND HARDWARE SETTINGS

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Step 3: Verify that you are sending the G540 a charge pump signal.

The G540 will not come out of FAULT mode unless there is a charge pump (watchdog timer) signal present. The charge pump sends a 10kHz signal to the G540 on pin 16, and must be enabled for the indicator LED to come out of FAULT mode. To do this, you must:

- 1.) In Mach3 go to Ports and Pins, which is located in the *Config* menu.
- 2.) Select the *Output Signals* tab.
- 3.) Enable the Charge Pump feature and designate it to output to pin 16.

Instead of doing this, you can load the XML file located on our website in either "Application Notes" or on the G540 product page.

Engine Configuration... Ports & Pins

Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

Signal	Enabled	Port #	Pin Number	Active Low
Output #2		1	0	
Output #3		1	0	
Output #4		1	0	
Output #5		1	0	
Output #6		1	0	
Charge Pump		1	16	
Charge Pump2		1	0	
Current Hi/Low		1	0	
Output #7		1	0	
Output #8		1	0	
Output #9		1	0	

Pins 2 - 9 , 1, 14, 16, and 17 are output pins. No other pin numbers should be used.

NOTE: If you are not using Mach3 and do not have access to a charge pump, you can disable this option. If you remove the cover of the REV1 G540 there is a switch located on the underside near the 12-position header; this switch is accessible through a cutout on REV3 and above G540s. Move the slider towards the edge of the board or where it says "OFF" to disable the charge pump. Push the slider in or slide it to where it says "ON" to enable this feature.

Step 4: Hook up your motors to the G540 using the DB9 solder cup connectors.

Proceed to this step only if you have a green LED! A G540 with a red FAULT LED lit will absolutely not run!

Solder your motor leads into the solder cup connectors according to the manual. Connect your motors to the G540 by screwing the DB9 motor connector into the mating half located on the G540 itself. Connect one axis at a time and verify you have a green light after each axis has been attached.

NOTE: If you have a motor wired incorrectly, the G540 will not exit FAULT mode. Connecting the motors one at a time will help identifying which motor in particular is wired incorrectly if it enters FAULT mode at this step.



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G540 CUTOUT DIAGRAM

This drawing is to scale. Use it as a guide for mounting your G540.

