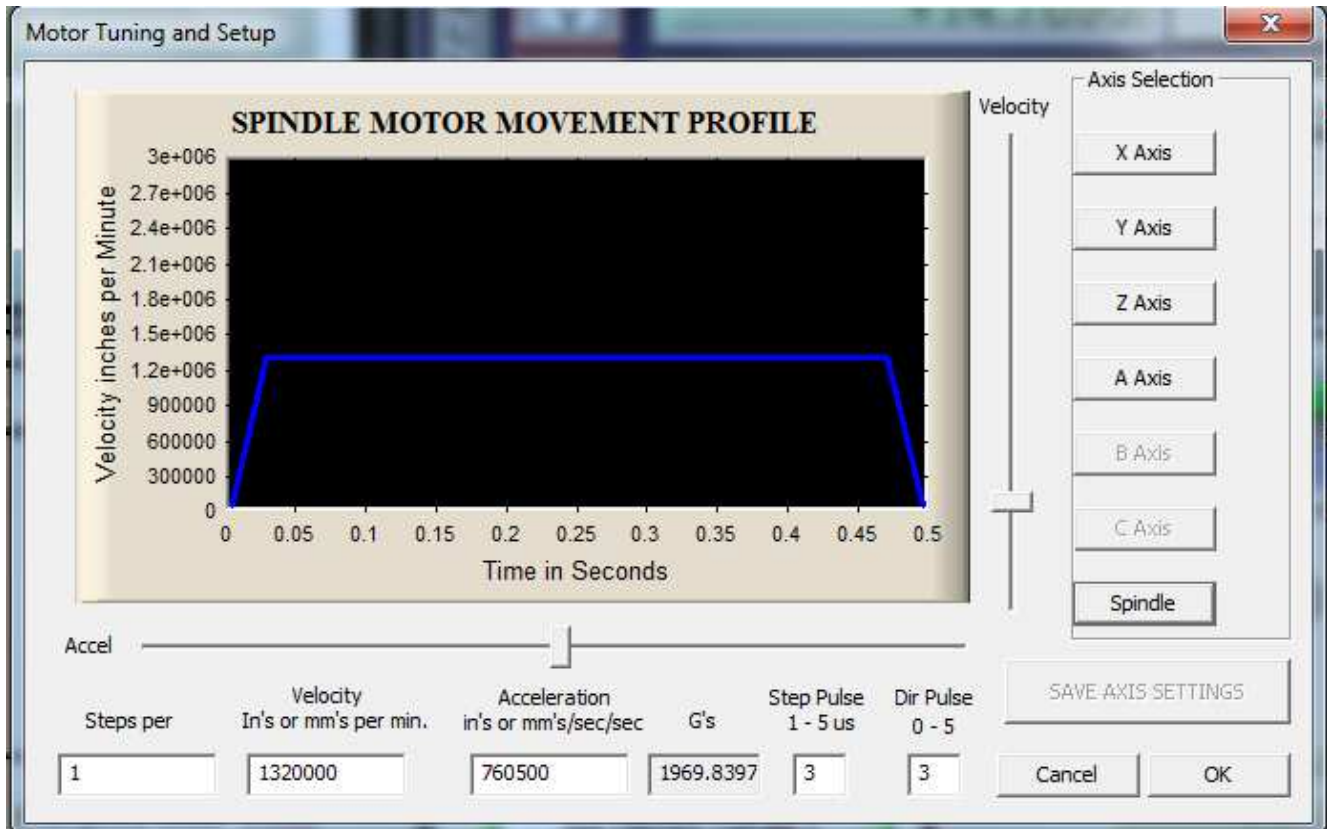


# CNC Milling Spindle - Mach 3 Setup

1: Motor tuning page: Spindle tuning



2: Pulley Selection

The 'Pulley Selection' dialog box contains the following fields:

Current Pulley	Min Speed	Max Speed	Ratio
Pulley Number 1	0	7000	1

Reversed

OK

### 3: Ports and Pin 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	Step Pin#	Dir Pin#	Dir LowActi...	Step Low A...	Step Port	Dir Port
X Axis	<input checked="" type="checkbox"/>	2	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	1
Y Axis	<input checked="" type="checkbox"/>	4	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	1
Z Axis	<input checked="" type="checkbox"/>	6	7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	1
A Axis	<input checked="" type="checkbox"/>	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	1
B Axis	<input checked="" type="checkbox"/>	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0	0
C Axis	<input checked="" type="checkbox"/>	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0	0
Spindle	<input checked="" type="checkbox"/>	14	16	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	1

Engine Configuration... Ports & Pins

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

**Relay Control**

Disable Spindle Relays

Clockwise (M3) Output #

CCW (M4) Output #

Output Signal #'s 1-6

**Motor Control**

Use Spindle Motor Output

PWM Control

Step/Dir Motor

PWMBase Freq.

Minimum PWM  %

**Special Functions**

Use Spindle Feedback in Sync Modes

Closed Loop Spindle Control

P  I  D

Spindle Speed Averaging

**Flood Mist Control**

Disable Flood/Mist relays

Mist M7 Output #  Delay

Flood M8 Output #  Delay

Output Signal #'s 1-6

**General Parameters**

CW Delay Spin UP  Seconds

CCW Delay Spin UP  Seconds

CW Delay Spind DOWN  Seconds

CCW Delay Spin DOWN  Seconds

Immediate Relay off before delay

**Special Options, Usually Off**

HotWire Heat for Jog

Laser Mode .freq I

Torch Volts Control

Torch Auto Off

**ModBus Spindle - Use Step/Dir as well**

Enabled Reg  64 - 127

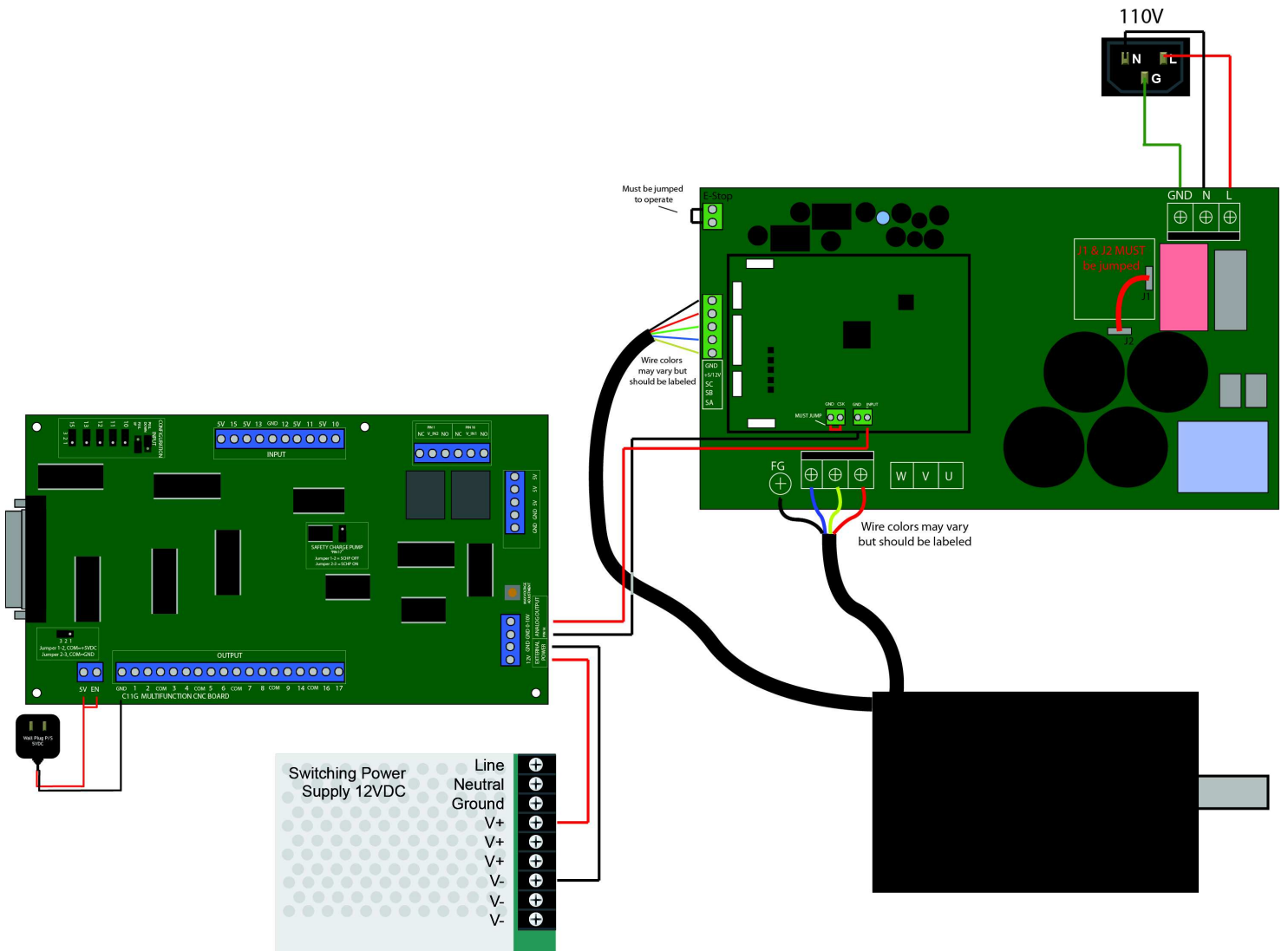
Max ADC Count

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
Enable2		1	2	
Enable3		1	3	
Enable4		1	4	
Enable5		1	0	
Enable6		1	0	
Output #1		1	0	
Output #2		1	1	
Output #3		1	14	
Output #4		1	16	
Output #5		1	0	

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



The PDF file of this image can be found here:

<https://www.automationtechnologiesinc.com/products-page/cnc-milling-spindle/milling-spindle-1100w-1-5hp-max-6000rpm-brushless-motor-and-driver>