CNC4PC

Manual

BIDIRECTIONAL BREAKOUT BOARD Rel. 7

Overview

This card provides an easy way of interfacing your inputs and output from you parallel port.

Features

- ***Buffered inputs and outputs.***

Outputs are buffered through integrated circuits, allowing the card to output the signals without using the power from the parallel port.

- ***Has the option of using pins (2-9) for input or output.***

By selecting the appropriate jumper setting you can use pins these for input or output.

- ***Output pins 1,2,3,4,5,6,7,8,9,14,16,17. Or 1, 14,16,17.***

- ***Input pins 10,11,12,13,15. Or 2,3,4,5,6,7,8,9,10,11,12,13,15.***

- ***Input and output pins with close by ground connections.***

Forget about grounding problems. Easily connect your pin using your close by ground connection. You do not need to be en electronics expert to ground all your stuff.

- ***Easy installation of an On/Off switch. You can control the card externally.***

An On/Off switch or a Safety Charge Pump can easily be installed, to enable or disable the card. CNC machines could be dangerous equipment, and remember, safety comes first. The option of having en external enable pin gives you the ability to turn on or off communications between your system and the PC.

- ***All TTL 5VDC signals.***

Interface directly with parallel port interface products and other CNC4PC cards. 5VDC (TTL) signals are very common among automation devices.

- ***All inputs are outputs are tied to pull-down resistors.***

Pins are never in the air open to noise. If you leave a pin in the air you will get a LOW or 0. If you input a ground you will get a LOW and a 3 or 5 vdc signal will deliver a HI.

- ***Works directly with popular CNC hardware and software.***

Such as Geckodrive, DeskCNC or Rutex, and parallel port control software, such as mach2, Linux EMC, TurboCNC, CNCPlayer, CNCZeus and others. (Not all tested)

- ***Screw-On connections for all terminals.***

You only have to screw-on the wires to make all your connections.

Installation

Requirements:

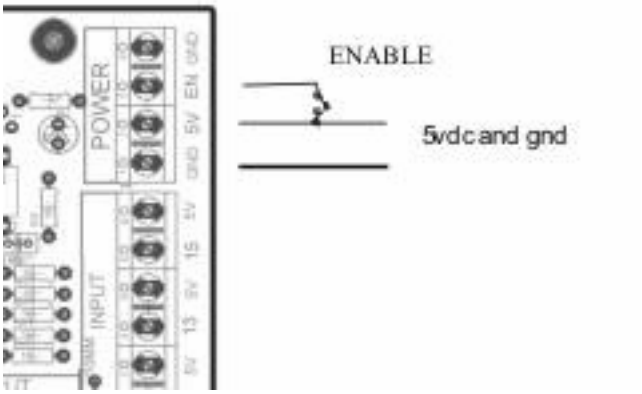
It requires a 5VDC @ 400 milliamps power supply to operate.

Jumper:

For using pins (2-9) for input, select the jumper on position (2-3), for using these pins for output, place the jumper on position (1-2).

Enable Pin:

The card must be provided with a 5VDC signal to enable operation. This feature has been added to enable you to control externally the status of the card. You can add en external switch or a Safety Charge Pump to provide the enabling signal. When the enable signal is not enabled, the communication with the computer is interrupted. If you need the communication to be enabled at all times you can provide the 5 volts directly from the source that is powering the card.



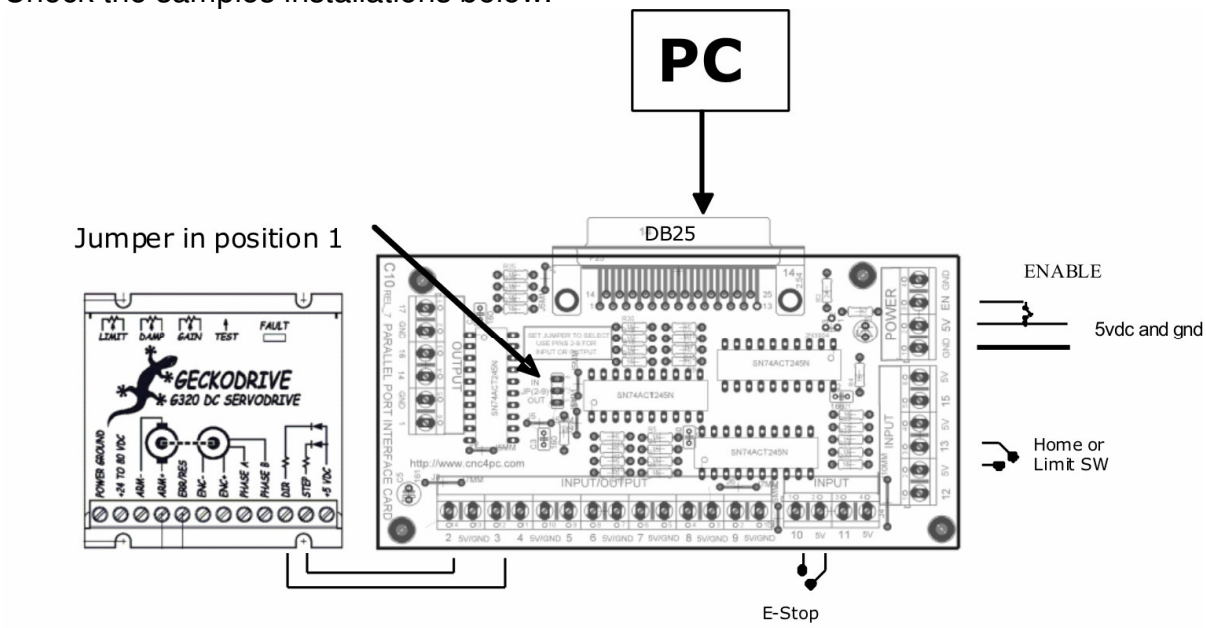
Wiring:

The Parallel Port Interface Card has a very basic design that provides the flexibility you look for on cnc projects.

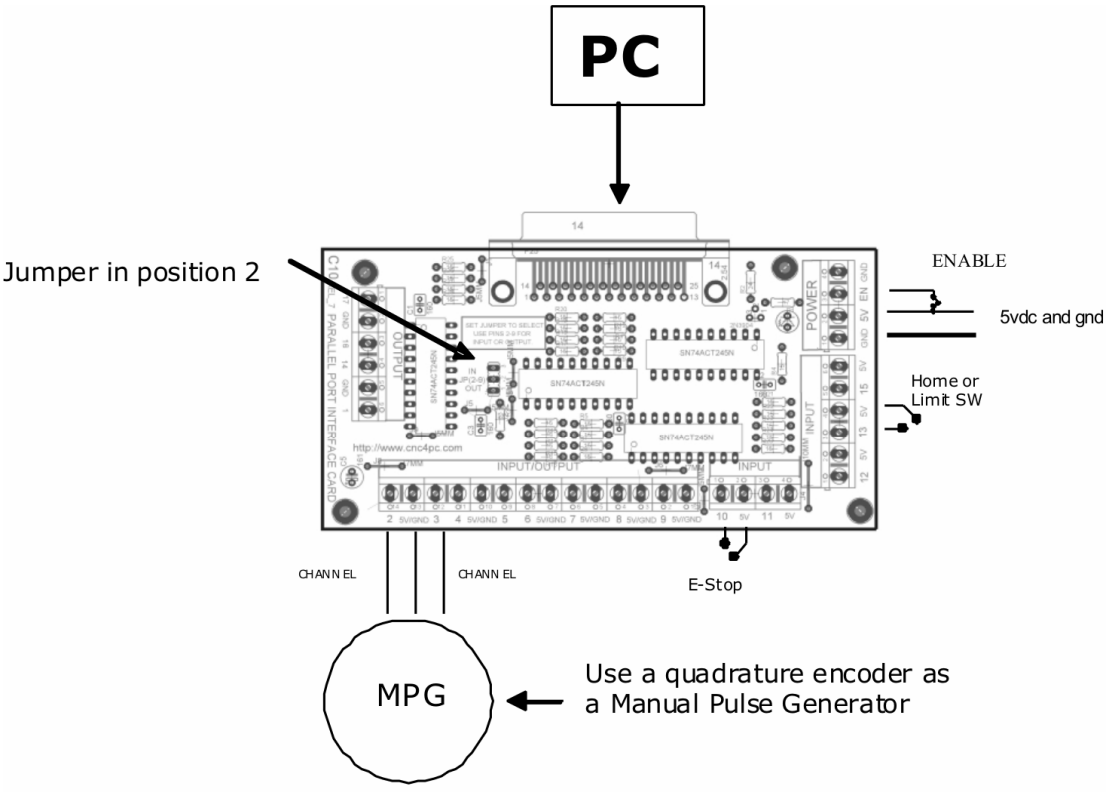
WARNING: This card must have the power supplied while it is connected to the PC. If power is removed to the card while it is connected to the PC, noise can be introduced to the output lines. This can create a dangerous situation as motors could start moving or relays

activated. If you are using a safety charge pump, please do not use it to interrupt power to the card. Use it to interrupt the signal you want to control, or the power to the relay board.

Check the samples installations below.



Sample wiring using pins 2-9 for output. Jumper must be in position 1.



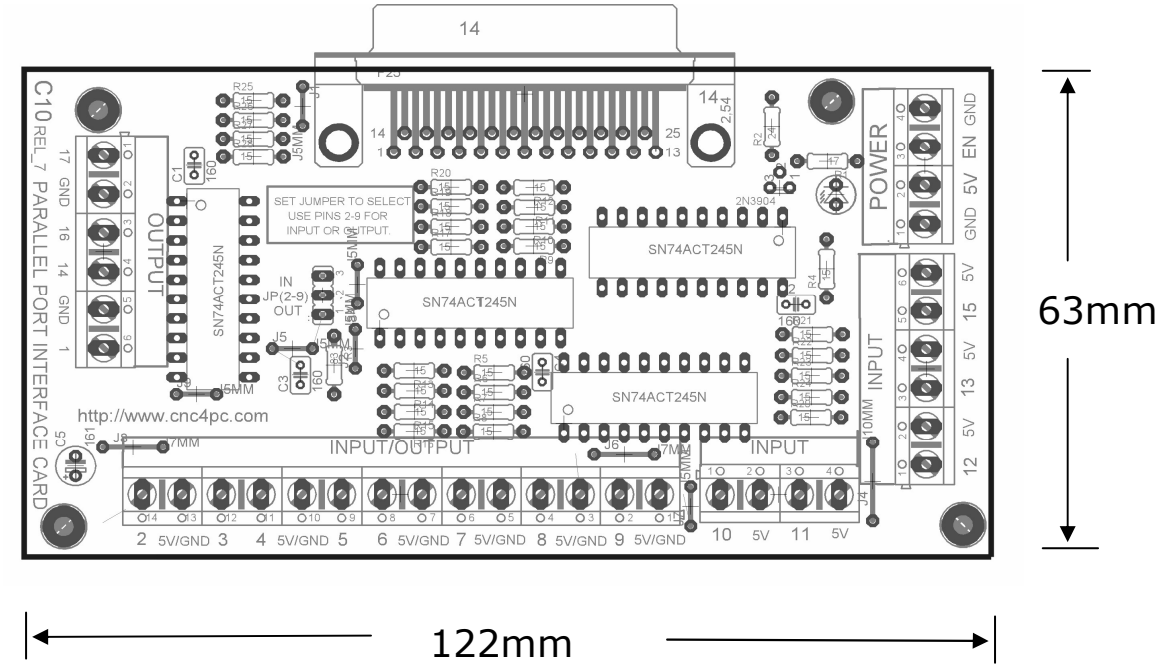
Sample wiring using pins 2-9 for input. Jumper must be in position 2.

Performance:

Max Speed	50Khz.
Voltage	5 VDC
Current	35 mA
Integrated Circuit	SN74ACT245N

For more information consult the circuit's Datasheet at:
http://cnc4pc.com/TechDocs/SN74ACT245.pdf

Dimensions:



This is the actual size of the card

Disclaimer:

Use caution, CNC machines are dangerous machines. DUNCAN USA, LLC or Arturo Duncan are not responsible for accidents caused by improper use of these devices.