

# Getting Started

## Initial power connection and test.

Connect the module to a suitable supply (8-24v, max 30v) with the Vin terminal to positive and Gnd to negative.

Note: the module now comes with a buck converter rather than the listed 7805.

A keypad can be attached and will allow you to check the functionality and familiarise yourself with the operation (refer to the manual on my website).

(There's no need to connect a stepper driver/motor at this point).

Apply power and the unit will power up; the screen should illuminate and momentarily display the welcome screen and then query for the profile.

The profile defaults to '1', simply press [G] to accept this and go to the main menu.

(If you only intend to have one profile you can remove this step in Setup)

## Keypad.

An 8 pin header is provided which will plug directly to the keypad.

If you are using the keypad I provide the orientation is correct with the wire coming out of the top of the keypad.

If you're using an alternative keypad then please consult the manual for details on configuring it.

## Using the controller, a Quick Guide

[G] behaves like an enter key, pressing it will enter the currently displayed value.

[C] behaves like a cancel or back button. Pressing it will reset a value you were changing or take you back to the previous screen.

If you're lost just keep pressing [C] until you get back to the main menu.

[<] and [>] keys behave like cursor keys allowing you to move back and forth along a number to change a digit in the value shown.

In division modes they rotate the table CCW and CW.

[STOP] is an 'emergency' stop.

[Speed] cycles through the 5 speeds (1=low, 5 = high) – but only when the table is stopped.

Whilst on the main menu press the required number key to enter the required mode.

## Separating the display from the controller.

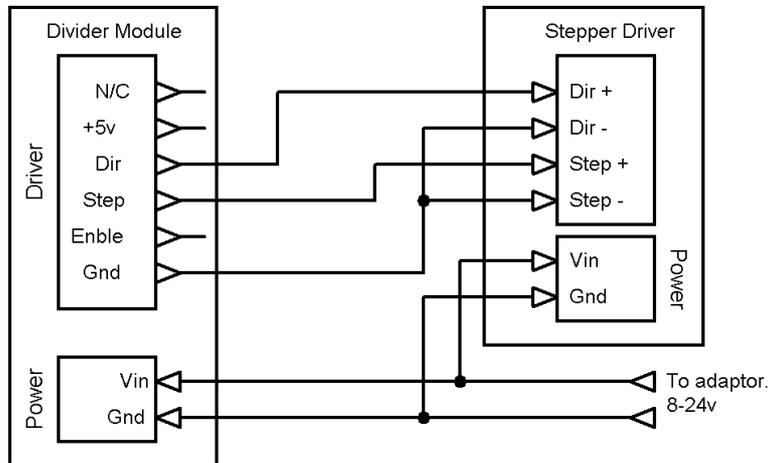
The LCD is connected to the PCB using a header and socket allowing them to be separated for ease of fitting into a case.

Once separated the LCD can be attached to the front panel using the provided screws and the controller PCB bolted back on.

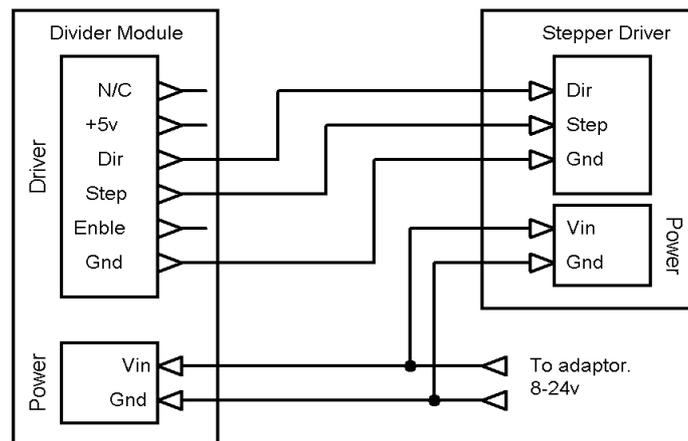
When reconnecting make sure the LCD and controller PCB are firmly seated together with the connector pushed fully home.

## Connecting the stepper driver to the controller.

The most common driver connections have separate negative lines for both step and dir. In this case connect the two negative lines as shown below and connect them to the Gnd connection on the module. Step+ and Dir+ can then be connected directly.



Some drivers only have a single Gnd line as shown below, these are simply connected one to one.



Note some drivers have different nomenclature for the connections.

e.g.

Dir may be CW, DR etc.

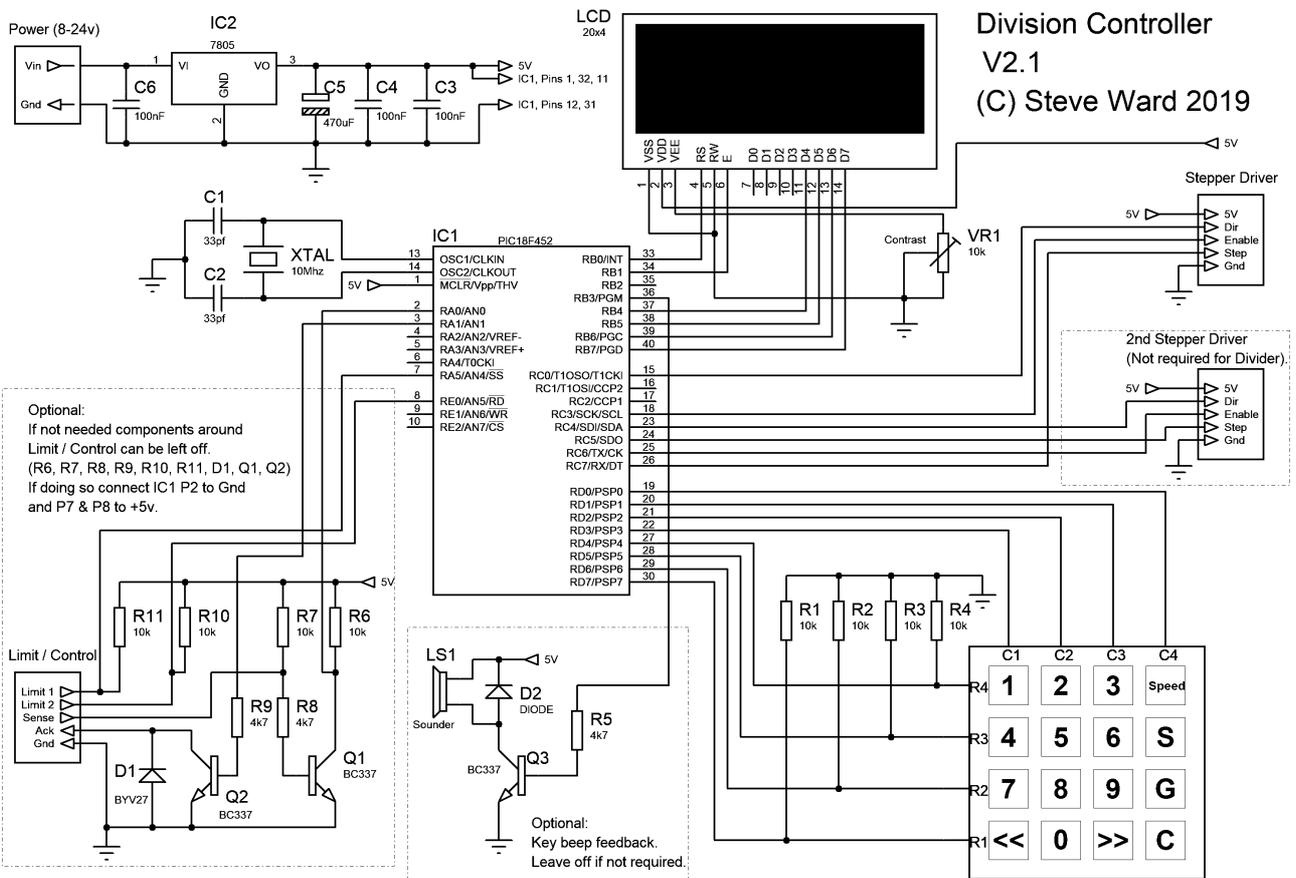
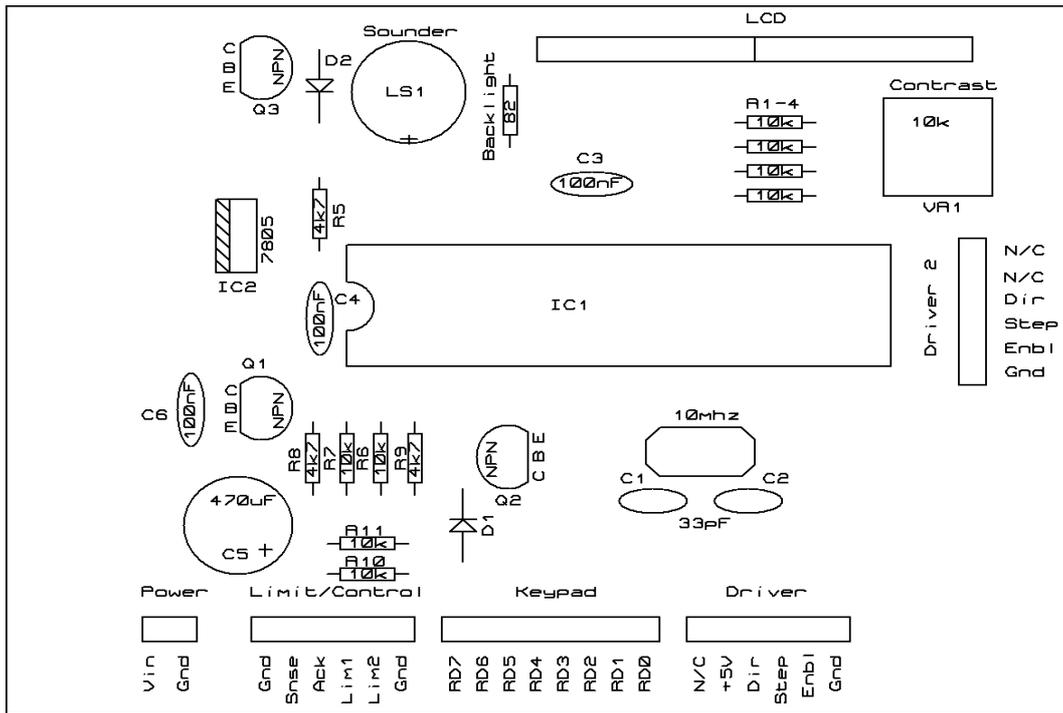
Step may be Pul, PU, CLK etc

If you have any questions please contact me via email.

Email: [steve@worldofward.com](mailto:steve@worldofward.com)

Website: [www.worldofward.com](http://www.worldofward.com)

# Component Layout & Circuit Diagram



Division Controller  
V2.1  
(C) Steve Ward 2019