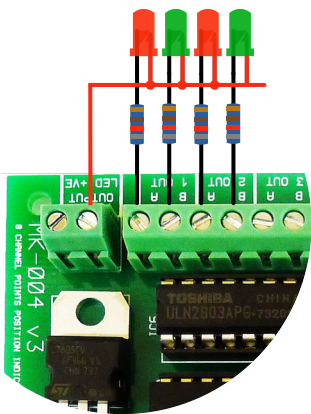
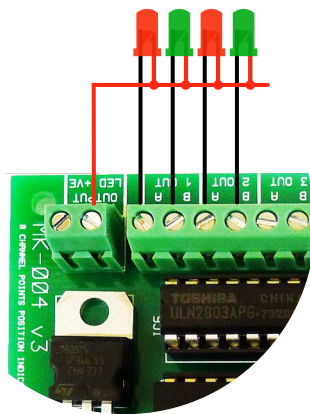


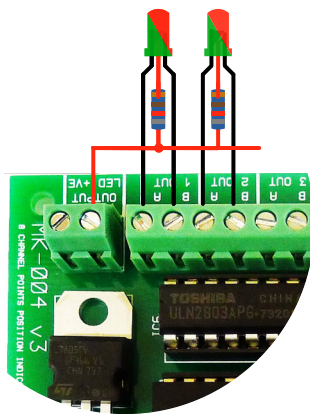
### Standard LEDs



### Pre-Wired LEDs



### Bi-Coloured LEDs



### Connecting the LEDs

To the left are the connections for the different types of LED output options. Connections are shown for outputs 1 and 2. The remaining outputs should be repeated in the same way. The **Output LED +Ve** connections are shown in **Red**, note that these are shown connected into just one of the two terminals, however both or either can be used. Individual connections are shown in **Black**.

### Connecting Standard LEDs

The shorter LED lead (shown in **Black**) should be connected to one end of a resistor. The other end of the resistor is connected into either the **A** or **B** output terminal. The long leads (shown in **Red**) are connected together into one or both of the **Output LED +Ve** terminals.

### Connecting Pre-Wired LEDs

The **Red** LED wires should all be connected into either of the **Output LED +Ve** terminals. The Black wires are connected into the individual **A** or **B** output terminals.


### Connecting Bi-Coloured LEDs

The centre pin (longest lead) shown in **Red** should be connected to one end of a resistor. The other end of the resistor is connected into either of the **Output LED +Ve** terminals. The shortest lead (LED glows Green) is connected to either the **A** or **B** output terminal. Connect the middle length lead (LED glows Red) into the remaining **A** or **B** terminal.

Note. The bi-coloured LEDs supplied with this unit are Common Anode.

### Connecting the Power

The Points Position Indicator board operates from 12V DC with at least 1A capacity. The unit may not operate correctly with any other power supply. Ensure that the power supply used has the marking shown below. Connect the power supply 0V and +12V to the **0V** and **+12V** terminals on the PPI board as shown.

 For correct operation this symbol must be displayed on the PPI Power Supply label.

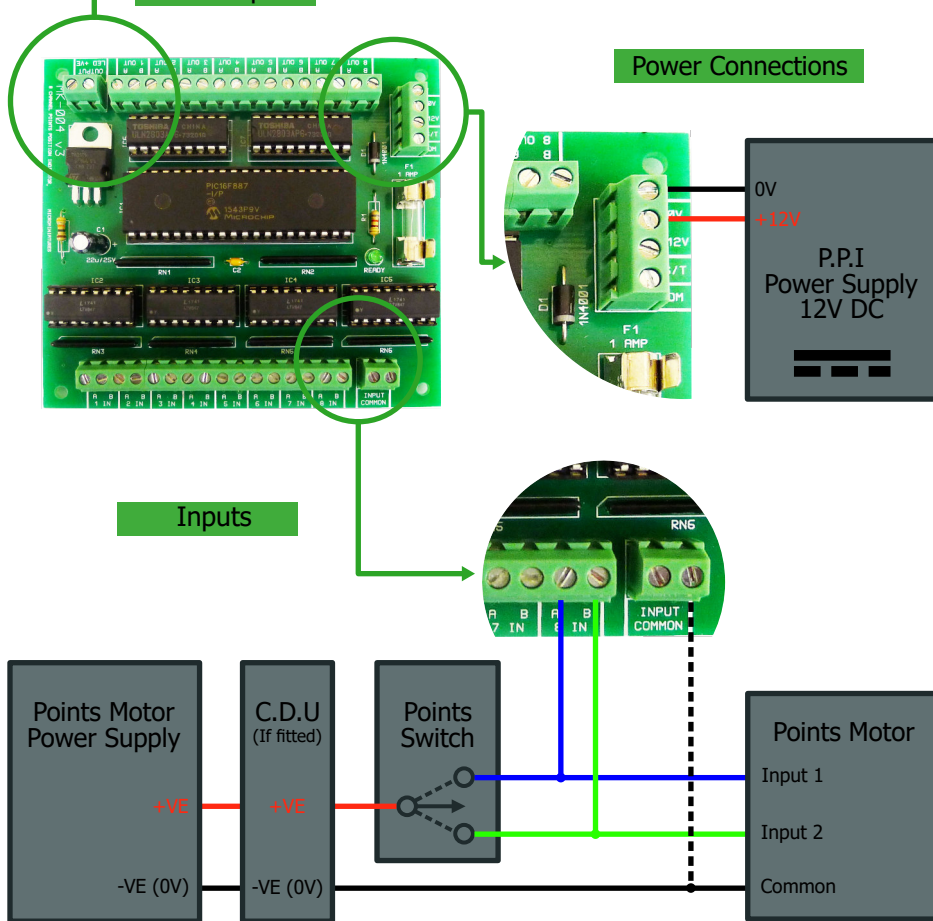
### Connecting the Input Signals

The connections for input 8 on the P.P.I board are shown to the left. The remainder of inputs should be wired the same. However (assuming only one CDU and Points Motor Power Supply are used for all 8 inputs) then only 1 of the -VE (0V) wires (shown dotted) needs to be connected to the PPI Input Common.

### LED Outputs

### Power Connections

### Inputs



### Common Problems

Points Position Indicator Power LED doesn't illuminate	Check the power supply and the fuse. Only use a 1A Fast Blow Fuse as a replacement.
All PPI LEDs including the power LED are flashing	The PPI power supply is not suitable. Use a different power supply.
The points operate okay but the PPI LEDs are not changing	The switching connections are back to front or the Input Common is not connected correctly. Refer to the Inputs section and ensure that the +VE and -VE are correctly wired through.

### Important

The screw terminals used on this unit are an efficient modern type which clamp upwards. Ensure that the screw are fully open (turned anti-clockwise) before inserting the wire.

Do not use an AC power supply to power the PPI. This could damage the unit.

Avoid shorting any of the outputs. Make connections to the PPI with the power off.

### Part Numbers

**MRPCI-01688** Supplied with 8x Red LEDs, 8x Green LEDs and 16x resistors

**MRPCI-01689** Supplied with 8x Common Anode bi-coloured LEDs and 8x resistors

**MRPCI-01690** Supplied with 8x Pre-wired Red LEDs and 8x Pre-wired Green LEDs

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