www.**simplyrail**.com.au

CDU 2

with high power switching.

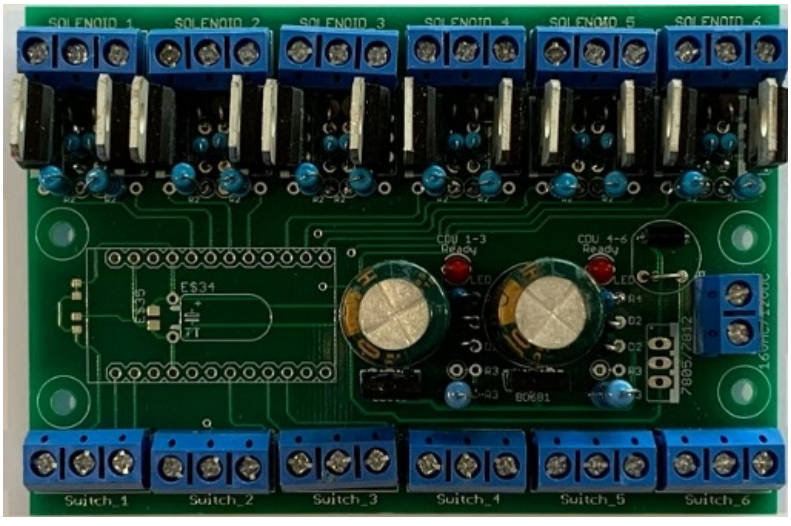
Solenoid point motor have been used for moving turnouts on model railways for a very long time.

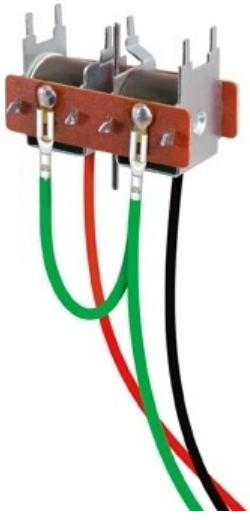
Capacitor Discharge Unit (CDU) are used to apply the current briefly, to safely operate the electromagnetic coil that makes up the Solenoid point motor.

The SimplyRail **CDU-2** provides additional features –

The on board **High Current switching** on the CDU-2 unit means you control switch has very low current and you can now use very light wires. Also you can have multiple momentary switches to control the points from several locations.

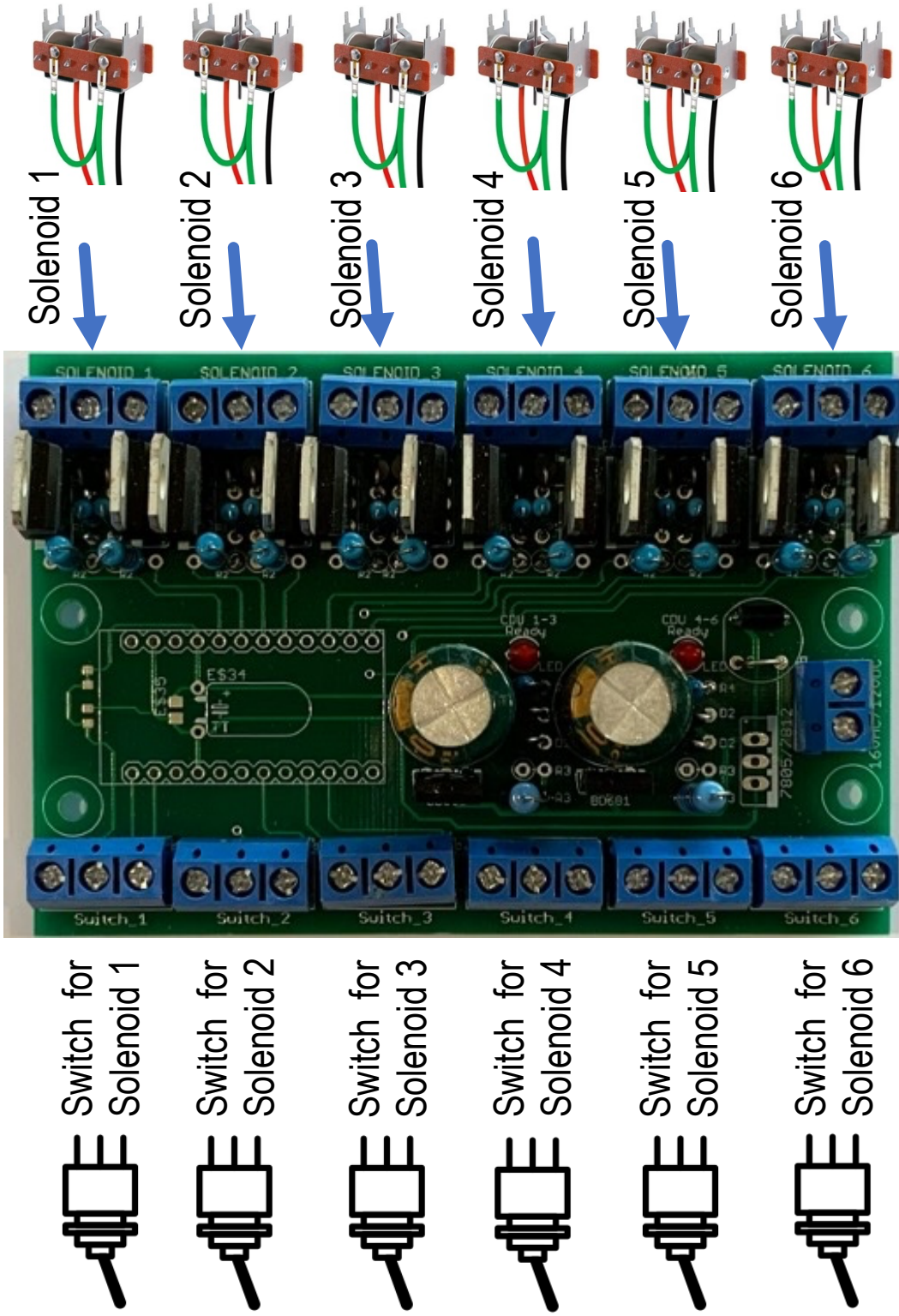
The CDU-2 has **two Capacitor Discharge Units** on the on the one board. This means you can now reliably operate two Solenoid point motor with the one switch. This is much more reliable than a larger capacity CDU as the Solenoid point motors may have different characteristics.

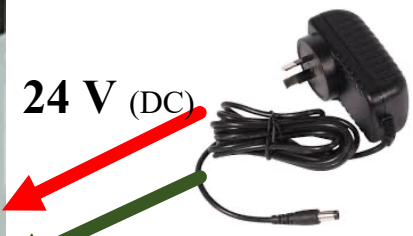




SimplyRail CDU-2 (page 2)

Setup Diagram





24 V (DC)

0 V (Ground)

Or

16 V (AC)

Often an output of older DC controller

Switches for solenoids

One three position On/Off/On momentary switch

or Two On/Off momentary switches

per solenoid (x6)

Setup instructions – Power Input

Power input can be either

24 Volts DC Polarity as per page 2
Available through SimplyRail

or

16 Volts AC This is often an output of older DC controllers.

Note: 12V DC will not charge the capacitors sufficiently to provide reliable operation

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Setup instructions - Solenoids

For 4 pin solenoids like the Peco shown
One side the wires (shown in Green) are joined together these are connected to the centre solenoid output pin.
The other 2 wires (shown in Red and Black) Are connected to the outside solenoid output pins. (They can be reversed to obtain the desired turnout position as required.)

For 3 pin solenoids like the Atlas shown
Please refer to manufacturer instruction on which wire is the common, these are connected to the centre solenoid output pin.

Setup instructions - Switches

One 3 position On/Off/On momentary switch is very easy to setup. The centre pin of the switch to the centre pin of the switch input.
The other 2 wires are connected to the outside switch input pins. (They can be reversed to obtain the desired turnout position as required.)

If using two 2 pin momentary switches as shown. One pin from both switches is connected to the centre pin of the switch input.
The other pins are connected to the outside switch input pins. (They can be reversed to obtain the desired turnout position as required.)

One switch can be used to activate more than one solenoid (point motor) this can be very useful for crossovers and three way turnouts.

If using one CDU-2 board, solenoids 1 to 3 are connected to one CDU and solenoids 4 to 6 are connected the other CDU. If you wish to operate two solenoid (point motor) from one switch ensure one is in the block 1-3 and the other is in the block 4-6, or use a second SimplyRail CDU with high power switching. For complex arrangements signal diodes may be required.