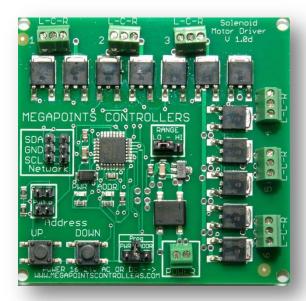
# MegaPoints Controllers Starter Kit (Solenoid) Quick Start Guide (rev 4)

For version 2.1 plug-n-play MultiPanel Processors

Congratulations on the purchase of your MegaPoints Controllers plug-n-play Starter Kit Solenoid Edition, where you'll find everything you need to control up to 24 solenoids for model railway use.



In the box you'll find the following items:

- 1 x MultiPanel Processor (plug-n-play)
- 4 x Solenoid Controllers (24 points)
- 4 x Solenoid Controller hook up cables
- 1 x MultiPanel LED cable (with 2 x LEDs)
- 1 x MultiPanel button cable
- 1 x MultiPanel panel mount button
- 4 x MultiPanel expansion board cables
- 1 x Network cable (50cm)
- 4 x Pullup jumpers

### Additional items

Before starting you'll need the following additional items:

## **Power supply**

MultiPanel Processor: 12 volt (13.8 v is fine) with minimum 2 amps to the MultiPanel Processor. This must be a regulated power

<u>supply. Do not connect to your solenoid</u> <u>power source.</u>

<u>Solenoid driver boards</u>: Any 16 – 18 volt AC or DC power supply capable of supplying a minimum of 2 Amps. WARNING: Do not connect this power supply to the MultiPanel Processor.

See the FAQ section of our web site for recommendations.

<u>Do not use a CDU</u> (*capacitive discharge unit*) in this circuit. It has been carefully designed to operate without.

#### **Solenoids**

Use any three wire solenoids that have a centre tapping.

## **Getting started**

Why not watch the MultiPanel Starter Kit solenoid edition video on our web site? It will walk you through this guide.

Attach a pair of pullup jumpers to the first two solenoid driver boards you plan to use. The pair of jumper pins are located just above the "UP" button. Once fitted you can forget about them.

Using one of the 50 cm leads (same plug on both ends) connect one end to the MultiPanel Processor network connector (bottom left) and the other end to a solenoid driver board taking care to ensure correct polarity (match the SDA and SCL connections both ends). This is the beginning of a MegaPoints network which can be extended with additional Servo Controllers, DCC modules and solenoid boards connected in a similar manner.

# Switch hook-up

Connect the switch cable to the supplied push button board using either of the connectors

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and orientation. The other end is connected to the lower row of the MultiPanel Processor channel #1 with the black wire facing the outer edge of the board.

## **LED hook-up**

Plug in the supplied LED cable to the top left LED pins channel #1. Ensure the black lead faces the outer edge of the board.

Connect a solenoid to output 1 (top left of board). Connect L & R screw terminals to connectors on either end of a solenoid. Connect the C terminal to the centre connector on the solenoid.

Hook up your regulated 12 volt power source to the MultiPanel processor.

Connect your solenoid power source to the solenoid POWER screw terminals (any polarity).

### First time switch on.

Pressing the button on channel #1 will fire the solenoid on board #1 channel #1. You'll also observe the LEDs connected to channel #1 swap places as one extinguishes and the other illuminates.

### Adding subsequent solenoid controllers

Add a second solenoid board and daisy chain the network connector to the first solenoid board observing correct polarity.

Move the RANGE jumper to the "HI" position.

The second board will respond to MultiPanel buttons 7-12.

### Solenoid controller #3

The third solenoid driver board should have its address changed to #3. To do this move the lower jumper (*next to the power connector*) to the two right hand pins labelled (*ADDR*). Press

the "UP" button once to increment the address to #3. Move the jumper back to the middle holding position. Ensure the "RANGE" connector is in the "LO" position. This will now accept commands from channels 13-18.

#### Solenoid controller #4

Repeat the above procedure for the fourth solenoid driver board changing the RANGE to "HI". This will now accept commands from channels 19-24.

### **Further information**

See the Solenoid User Guide on our web site for further information, changing the solenoid board network address and adjusting the power setting and performing a factory reset.

Go to our web site for troubleshooting, howto videos, the full documentation and links to the additional items you may need.

The plug-n-play MultiPanel processor accepts pre made and wired switch and dual LED cables available separately from our website.

Web site address: megapointscontrollers.com