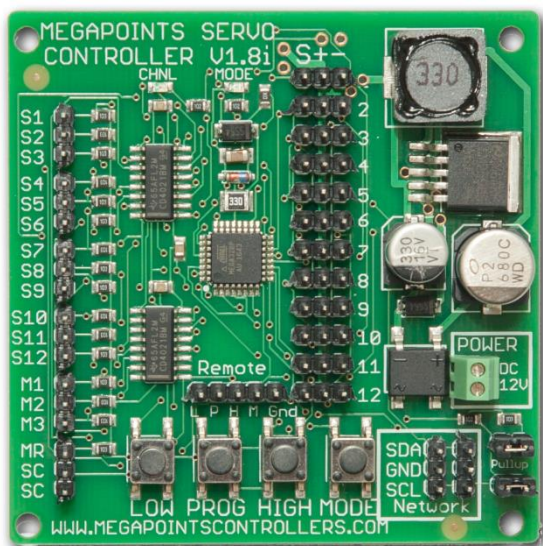


MegaPoints Controllers Starter Kit (servo) Quick Start Guide (rev 9)

For version 2.1 plug-n-play MultiPanel Processors

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



In the box you'll find the following items:

- 1 x MultiPanel Processor (*plug-n-play*)
- 2 x Servo Controllers (*24 points*)
- 24 x LED cable packs (*2 x LEDs per channel*)
- 24 x MultiPanel button cables
- 2 x Network cables (*50cm*)
- 4 x Pullup jumpers

Additional items

Before starting you'll need the following additional items:

Power supply

12 volt (max 13.8V) with minimum 5 amps to drive two servo controller boards. **This must be a regulated power supply.** See the FAQ section of our web site for recommendations. Please do not use transformers or the DC output of train controllers. They lack the required power and are generally not regulated.

Servos

We recommend the HK-15178 from Hobby King. Our website contains links to recommended servos (*FAQ page*).

Getting started

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

Before starting, fit a pair of pullup jumpers to each of the first two servo controller boards. These locate to the pair of pins in the lower right corner of the servo controller board. Once fitted, you can now 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 servo controller 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.

MultiPanel switch hook-up

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

MultiPanel 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.

First time switch on.

Hook up your regulated 12 volt power source to the MultiPanel processor and to each servo controller.

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The very first time we fire up a servo controller we need to set it to SLAVE MODE so that it will take instructions via the network cable you just connected. To do this, hold down the left button (marked **LOW**) on the Servo Controller while applying power. You will observe both servo controller LEDs flash alternately followed by the left LED flashing twice before entering its heartbeat flash to show all is well.

Pressing the button plugged into channel #1 on the MultiPanel Processor will toggle the servo connected to board #1 channel #1 and flash the connected LEDs.

Adding the second servo controller

Before we can use the second servo controller we must set it to SLAVE mode and change its slave address to #3 (*the first servo controller is address 2*) so that it will respond channels 13-24 on the MultiPanel.

Repeat the steps above to set slave mode.

Press and hold the **HIGH** button for about 1 second to increment the network address. You'll observe the LEDs both illuminate then alternate flash for a few seconds before the network address is flashed out on the **CHNL** LED. You can count these to confirm it's set to three. The above steps make the servo controller respond to channels 13 – 24 on the MultiPanel.

Connect the second 50 cm cable (*same plug both ends*) from one of the unused network connectors on the first servo controller and the other end to the second servo controller. Observe correct polarity.

By moving the switch and LED to channels 13-24 on the MultiPanel Processor you'll observe the corresponding servo channels on board #2 toggle any connected servos from end to end.

Congratulations, you just set up a control system for 24 points using low cost servos.

The servo controller pop-on board can be used to directly control servos with the switches. Before they will operate, the servo controller must be set to master mode so that it stops listening for network commands and reads the switches instead. To set master mode, press and hold down the **HIGH** button while applying power. When in master mode the servo controller will immediately start with the left LED flashing the heartbeat approx. once per second.

Factory reset

If you aren't sure which mode the servo controller is in, or just want to reset the board back to the same settings it was shipped with, hold down both **PROG** and **HIGH** buttons while applying power. You will see the RED LED flash for about five seconds before the unit restarts. In this mode the board will read the pop-on switches and makes a great quick test circuit.

Further information

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

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