

Dingo Servo Mounts

Simplex Control Board

Safety Precautions.

Before installing this product, make sure that you have read the full instruction guide and are comfortable with the requirements.

Make sure that all parts, especially plastic packets, are kept away from young children.

Only use certified power supplies for your region and **DO NOT** interfere with the Mains side of the power supply.

If you are unsure as to how to do the electrical connections, please consult with someone who has the required expertise or contact Dingo Servo Mounts for more information.

These units are not toys, but serious modelling parts.

These boards are still in a test phase of marketing and maybe subject to failure.

Description and Origin

There are many servo control boards on the market to-day which can be used for model railway point and signal operation.

Most are for multiple servos and offer all sorts of bells and whistles.

There are also a range of excellent kits available to members of the MERG group which offer a variety of control options.

I believe there is a need for a very simple board that offers easy setup and operation for model railway points or semaphore signals.

This is the reason behind the development of this particular board.

The Simplex Control Board is designed for use with standard 9g servos like the TowerPro SG90 Hobby King HK15178 or similar.

The Simplex Control Board has a preset slow speed to simulate real life point movement and there is no provision for adjusting the speed.

The two end positions are set very simply by means of an onboard setting switch and adjusting pot.

A simple single pole on/off switch is all that is required to move the servo from one position to the other.

Wiring up.

You will need a smoothed and regulated DC power supply of 9 – 12 V DC with a capacity of at least 1Amp for a single board.

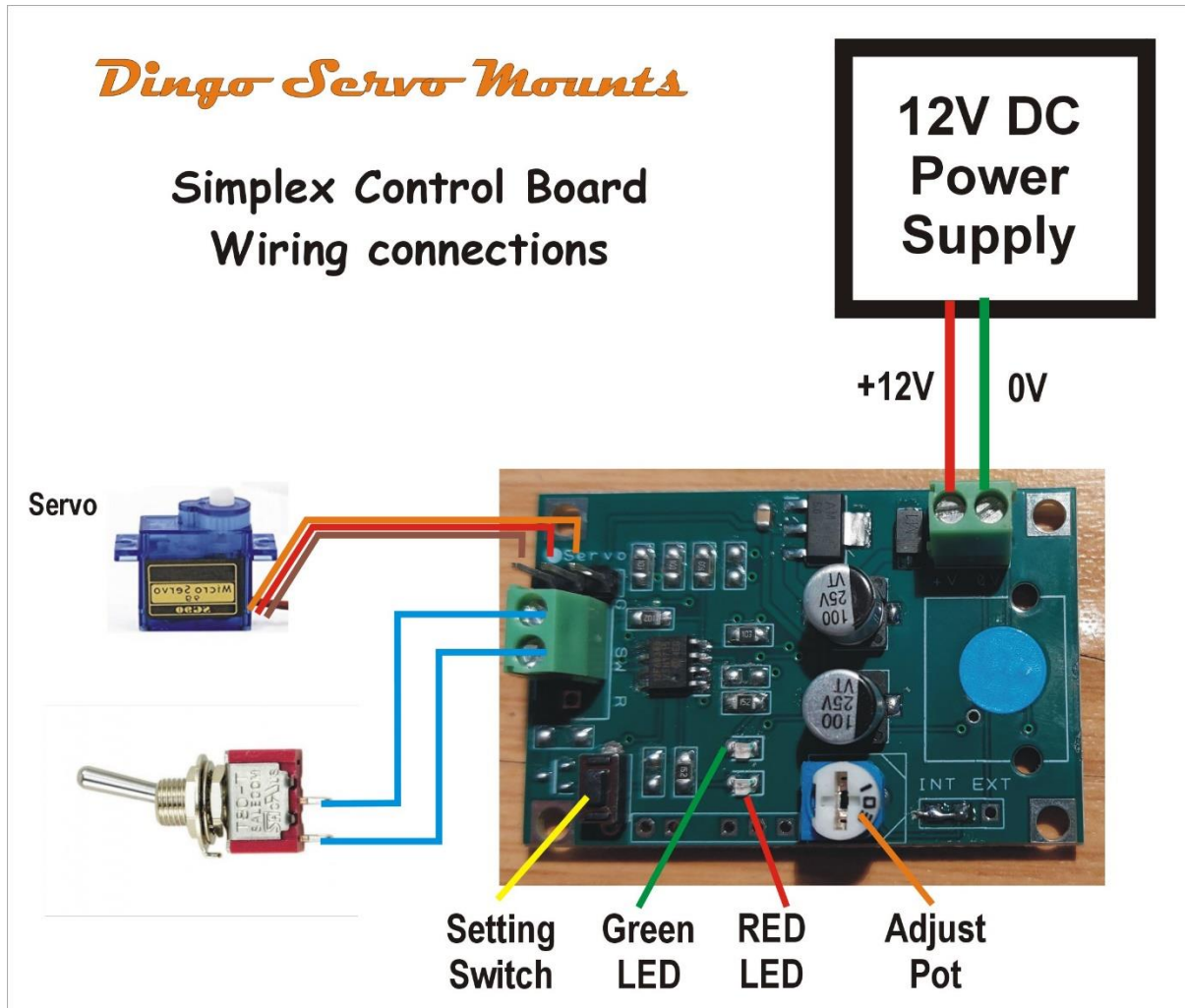
A standard 2A wall wart will be sufficient to drive quite a few boards as long as not more than 2 are actuated at the same time.

You will also need a SPST switch to control your board. (This may also be a set of relay contacts or similar from your layout control panel.)

Note a push button switch will not work unless it is self-latching.

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Wire up as per this diagram.

Note the polarity of the power supply is important. (If connected the wrong way around, the board will not work but will not be damaged.)

The servo needs to be connected with the black or dark brown lead towards the edge of the board. The switch simply shorts the two switch contacts together.

Note that the one nearest the servo plug is the earth or 0V contact and the bottom one is the "live" connection. (In most cases this is unimportant.)

It is advisable to test the servo and board before fitting the servo to the layout and advisable to use a setting box as outlined in the following section to centre the servo.

We always recommend using one of our Dingo Servo Mounts to get optimum performance from your servo on your layout.

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Setting up the end positions.

Once the unit is connected as described above, switch on the power and after a second or so one of the LED's will light to show that the board is in working order.

If the switch is open the **Green LED** will light.

When the switch is closed the **Red LED** will light.

Before setting the endpoints, make sure that the Adjusting pot is centred.

To set the end point - depress the setting switch once and soon both LED's will light.

Press the setting switch again and you will now be able to move the servo by adjusting the Pot with a small screw driver. Do this slowly so as not to overdrive the servo.

Once the servo is in the correct position, depress the setting switch once more and the position will be saved to the onboard chip.

Now change your switch and repeat the above process to set the other endpoint.

The board is now set and should continue to operate to the same endstops until reprogrammed.

Note: if at anytime you depress the setting switch it will automatically go into setting mode and any previous setting will be lost.

I hope that you will find this unit useful and as always I welcome any feedback.

Dave Ingoldby

Mobile 07754901324

dingoservo@gmail.com

www.dingoservo.co.uk

If you haven't already seen our amazing servo mounts in action, please check out the Video Links Page on our website.



Note: This board is compatible with the Ultra Micro Servos: HK5330 and HK282A as well as operating normal 9g servos. (HK15178, SG90, etc)