

## Servo - Analogue Converter Board Part # 1-905



Incorporate lighting control into your animatronic show. This servo-analogue converter board provides a two channel capability of converting standard R/C servo input pulses to 0-10V DC outputs- suitable for driving standard lighting dimmer packs.

### **Connections:**

Connect your servos inputs to the 2x 3-pin headers, ensure the polarity is observed (R-+5v, B-Ground, Y-Signal).

Analogue 0-10V DC output is available from the 4-way terminal block.

### **Power Supply**

No external power supply is required- the module takes its supply from the incoming servo drive connections.

### **Specifications:**

Servo inputs:

1-2msec pulses. 1msecs pulse gives 0V DC output, 2msecs pulse gives 10V DC output

Analogue output:

0-10V DC output in 80mV increments. Maximum drive current- 10mA

Board size:

92x27mm by 15mm high

## Changing the Voltage Output Range

The voltage output range may be modified from 5V up to a maximum of 10V.  
The output voltage is determined by the following equation:

$$\text{Maximum Voltage output} = 5 \times [1 + 10 / R_A]$$

Where  $R_A$  is expressed in k ohms

As supplied,  $R_A$  is 10k so the maximum output is 10V

Removing  $R_A$  will limit the maximum output to 5V.

Replacing  $R_A$  with a 20K resistor will limit the maximum output to:

$$5 \times [1 + 10/20] = 7.5V$$

$R_A$  for each channel is situated as shown below.

$R_A$  may be different for each channel.

