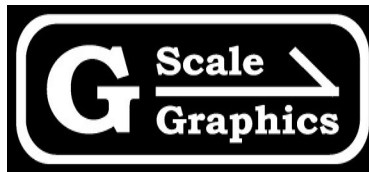
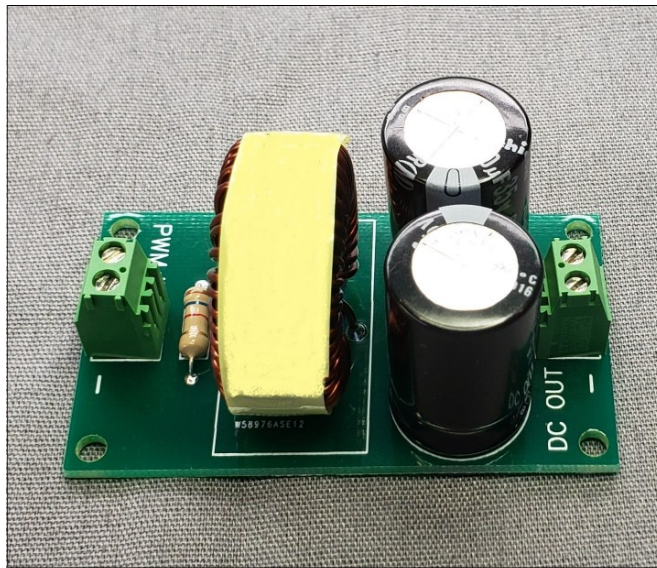


# PWM to DC Converter

Operation and Installation Manual



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## Overview

The PWM to DC Converter filters the output of a Pulse Width Modulation motor/track driver into a linear DC voltage. PWM is the easiest and most efficient way to drive the brushed motors in our model trains. It also provides excellent low speed control. But this oscillating signal can cause problems with the factory electronics in some models. DCC decoders, even though in analog mode, still try to interpret the PWM signal as DCC, so nothing works. It can also cause flickering lights. If you are experiencing any of these problems, the PWM to DC converter will fix it.

## Installation

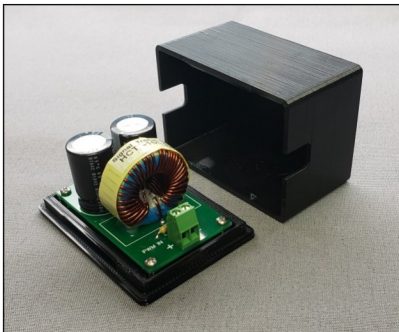
To access the wiring terminals, remove the snap-on cover. The output of your PWM device connects to the PWM In terminals. Connect the DC OUT terminals to your track or motor circuit. Even though there are polarity markings on the circuit board, it really doesn't matter.

### Wiring

Always use stranded wire and tin the ends with solder prior to making any connections. Wiring between the Track Throttle and your power supply should be at least 16 AWG. Output wiring to your track, the bigger the better to reduce voltage drops. 16 AWG or heavier (smaller AWG number).

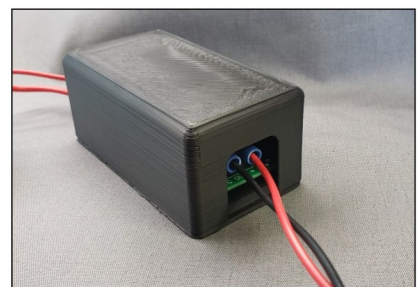
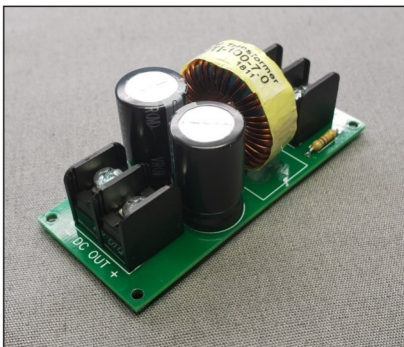
### **Screw Terminal model**

Wire connections can be made with 26-20 gage wire. 20 gage (the heaviest) is recommended.



### **Barrier Terminal Strip model**

Wire connections can be made with tinned 12-22 gage wire, but spade lugs (No. 5-6 stud) are recommended with 20-16 ga. Wire.



# PWM to DC Converter

## Mechanical

BS box (Barrier Strips)

3.8"L x 2.0"W x 1.6"H

4.0 oz.

Barrier Terminal Strip: 12-22 AWG wire

ST box (Screw terminals)

2.8"L x 2.0"W x 1.6"H

3.7 oz.

Screw Terminals: 26-20 AWG wire

PWM In: Connects to the output of the power source to be filtered.

DC Out: Connects to your track or motor.

Remove the snap-on cover to access wiring terminals.

## Electrical

25V,10A max

## Environmental

Control must be protected from the weather.

Neither the printed circuit board, nor the box assembly are weather proof.

