



## Sensa-Bloc Elite™

### Installation Instructions

***Please read these instructions completely before beginning your installation.*** For best results, use filtered, regulated, DC voltage. The Power Regulator Board is designed for this application.

The ***Sensa-Bloc Elite™*** is a low cost, high quality DCC current detector used to sense occupation of a block of track. It senses current flow from the throttle to the occupied block of track and uses this current flow to turn on an LED or other devices use in model railroad control. ***Sensa-Bloc Elite™*** is designed for DCC only.

Figure 1 shows the connections to the ***Sensa-Bloc Elite™***.



Figure 1.

## Attributes

The **Sensa-Bloc Elite™** has been designed with additional copper clad ground plane on the top and bottom of the printed circuit board. This is added protection from RF that is now common in a lot of DCC wireless throttle products. This prevents interference that can give false indications from the close proximity of the RF throttle.

## Adjusting Sensitivity

The **Sensa-Bloc Elite™** has an on board LED used for adjusting the sensitivity. Using a 10k ohm resistor, lay it across the rails of the track. Turn the sensitivity control until the LED on the **Sensa-Bloc Elite™** goes out. Now turn the control slowly the other way until the LED lights. Remove the resistor and the LED should go out. The **Sensa-Bloc Elite™** is sensitive enough to detect your finger on the rail. It is important that you adjust the **Sensa-Bloc Elite™** properly.

## Connections considerations

The output of the detector is an open collector. This means that there is no resistance in series with the output. There must be a resistor connected in series with the output at all times. If this is not practiced, the output transistor can be destroyed.

## Specifications:

**Board dimensions: 3.0" X 1.75" X 1.0" 76.2mm X 44.4mm X 25.3mm**

**Maximum Output current: .5 amperes or 500 milliamperes**

**Maximum input current: 15 amperes**

**Maximum current draw at 12 vdc input: .075 amperes or 75 milliamperes**

**Note:** The circuit described in this instruction sheet has been tested under a variety of conditions, however, it is impossible to foresee and test under all circumstances to which the circuit may be subjected. Furthermore, many performance aspects are directly linked to the physical layout of the components and the method of connections.