DATA SHEET

Level Crossing Control Module LC-001

The LC-001 level crossing control module provides flashing level crossing lights for your model railway track system. The module allows for double or single track level crossings and can detect trains running in either direction. The LC-001 is designed to work with crossing lights that have Light Emitting Diode (LED) lamps fitted. It also provides the voltage required for operation of the LEDs in the crossing lights.

- Controls two, two light level crossing indicator
- Input Voltage – 12 – 14 Volts DC
- Sensors – Light Dependant Resistors (two in each track)
- Lights - LED
- Maximum Output Current – 10 mA per LED

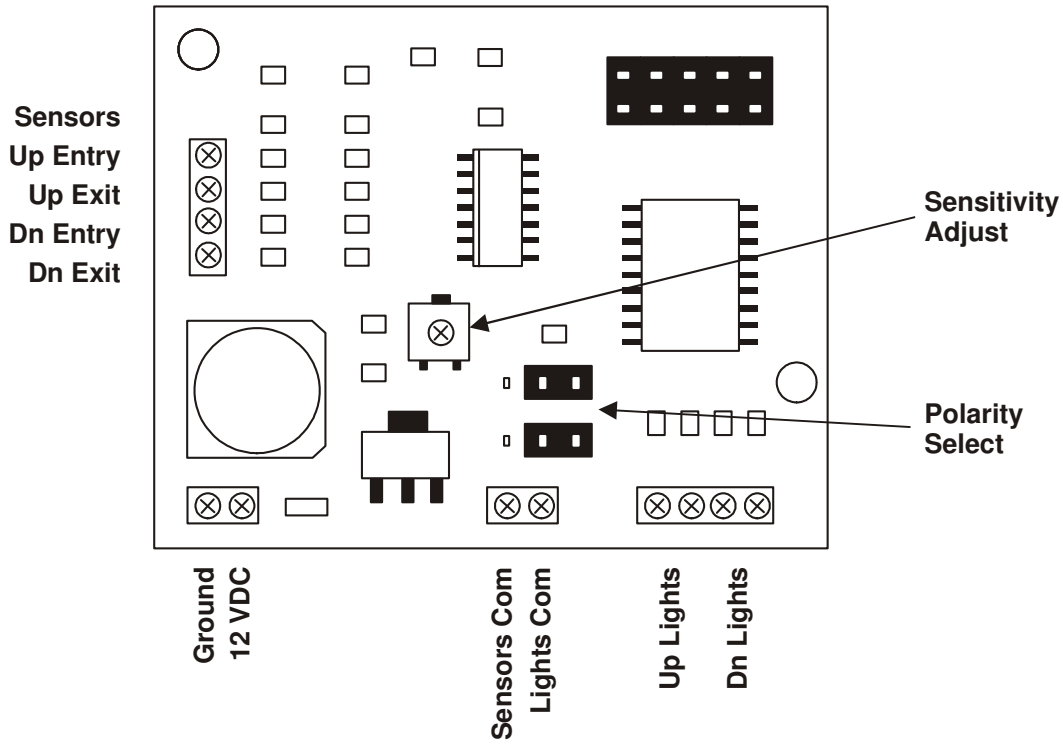

Figure 1 Level Crossing Control

INSTALLATION

Mount the Module in a position near the signal to be controlled. Use the screw holes provided in the board to mount it but do not fix the screws too tightly or the board may be damaged.

The use of spacers as shown in Figure 2 is recommended.

Caution – Do not connect more than one signal to each signal module output or use filament (grain of wheat) light bulbs. This will permanently damage the module.

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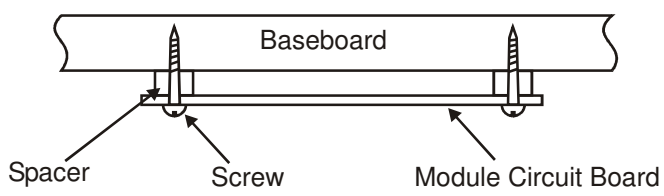

Figure 2 Module Mounting

Connect the wire from the green LED to the terminal designated Green, as shown in Figure 1. Also refer to Figure 4.

Connect the wire from the red LED to the terminal designated Red, as shown in Figure 1. Also refer to Figure 4.

Connect the common wire to the terminal designated Common, as shown in Figure 1. Also refer to Figure 4.

Caution – Take care when making power connections as incorrect connection will permanently damage the module.

Caution – Only use a regulated power supply. Unregulated transformers and wall plug units can under certain conditions deliver far more that their rated voltage. Voltages in excess of that specified will permanently damage the module.

Connect power (12 – 14 V DC) to the power input terminals, refer to Figure 1, taking care to make sure that the positive and negative (ground) wires are inserted in the correct terminals.

INSTALLING THE SENSORS

Drill holes through the baseboard positioned in the middle of the track between the sleepers. Install in each track an entry sensor 600 mm to 900 mm from the crossing. Install in each track an exit sensor approximately 300 mm after the crossing.

Mount the sensor in the hole so that its top is approximately level with the top of the sleepers.

Seal under the sensor with 'Bluetack', or similar, to hold the sensor in place and block any light from entering underneath.

Connect wires from one leg of each sensor to the terminal block on the module to the correct the sensor terminal position. Join each of the other legs of the sensors together and connect to the sensor common terminal.

SETTING THE JUMPERS

Jumpers are provided on the module to allow it to be set to operate with common cathode or common anode wiring for the crossing lights. Figure 3 shows how to set the jumper for each wiring type.

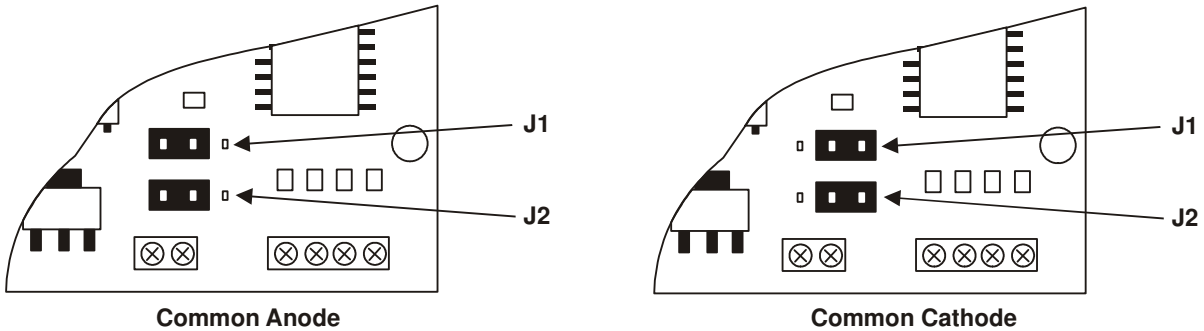

Figure 3 Setting the Jumpers

LED WIRING

The auto signal module is designed to operate with crossing lights that are fitted with LEDs wired with either common cathode or common anode. Figure 4 shows the wiring for each type. Jumpers are used to set the correct LED polarity.

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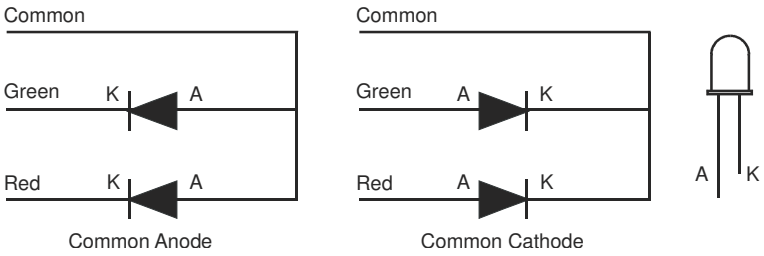

Figure 4 LED Wiring

SENSITIVITY ADJUSTMENT

Use a small screw driver to adjust the sensitivity adjuster so the crossing lights are not flashing. Place a piece of rolling stock on the track and push it over the entry sensor. If the lights do not start to flash adjust the sensitivity adjuster until they do. Move the rolling stock over the exit sensor and check that the lights stop flashing. There is a delay of approximately 10 seconds built in to allow time for the train to clear the crossing.
If the lights cannot be made to operate it may be necessary to increase or decrease the ambient light level.

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