

This kit enables you to build one 4 aspect O Gauge model signal head for modellers wishing to make their own gantries or bracket signals. Different target boards allow a choice of three versions and an assortment of ID plates are included. Longer 60cm wires are fitted to the LED's. Operation is by 12VDC. A 4 way switch will be required to operate the signal.

The kit is designed to be assembled with adhesive. Use superglue or 5 minute epoxy to attach the target board to the front plate. The LED cluster is pre-wired but you will need to solder the wires to resistors and the 12V DC supply.



SUGGESTED TOOLS

Needle nose pliers Flush cutters Solder Paint Etching cutters Soldering iron miniature screw-driver Needle files emery paper 240 grit Fine steel wool Superglue - ROKET HOT 5 Minute Epoxy

PREPARATION

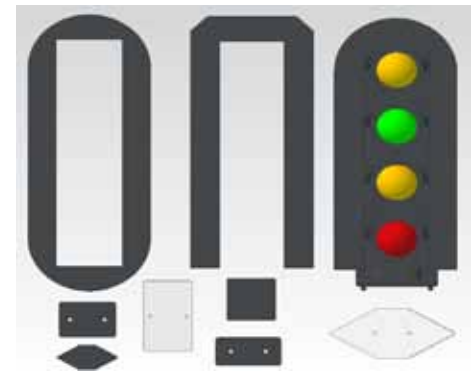
Preparation and cleaning of all parts will improve glue, solder and paint adhesion. Clean off flash and debris Clean metal parts by first washing in warm water and detergent to remove surface contaminants and etching residue. I recommend **CARRS SURFACE CONDITIONER** for a final clean of metal parts as this will remove the invisible oxide layer and greatly improve paint and glue adhesion.

PAINTING AND ASSEMBLY SEQUENCE

Fix the desired target board to the Front plate with adhesive. Whether you hand paint or airbrush, I recommend spraying a priming coat of Halfords Matt Black. All painting should be completed before dealing with the LEDs

*Route*mex

O Gauge 4 Aspect Signal Head



12V DC Makes One Signal Head

*Contains small parts
Unsuitable for children under 14*



Contents

- Back box - *pre-threaded*
- Front plate
- Target board and ID fret
- 12BA screws x 4
- LED Assembly - prewired 60 cm
- Resistors x 4
- Diode

LEDs

Insert the LED wires into the head box and then fix the front plate with the supplied 12BA screws. **DO NOT OVERTIGHTEN THE SCREWS**

Solder the supplied resistors to the wires - colour indicates LED colour. A 4 way switch will be required to operate the signal.

The Black wire on the LED cluster should be soldered direct to the Negative 12V DC. The Coloured wires should be soldered to the resistors and then to the POSITIVE 12V DC supply. A diode should be soldered between the two yellows BEFORE the resistors as shown - It's best done on the switch

DO NOT CONNECT THE 12V DC SUPPLY TO LED WIRES UNLESS RESISTORS ARE CONNECTED AS THE LEDS WILL FAIL IMMEDIATELY

DIGITAL CONTROL UNITS

There should be no difficulty using these units with Routemex signals but you should use the supplied resistors in addition. The resistors supplied have been chosen to achieve a correct level of illumination and crucially to balance the light output between colours. Digital units will usually only have the minimum resistor value to protect the LED from damage.

Operation is by 12V DC SAFETY

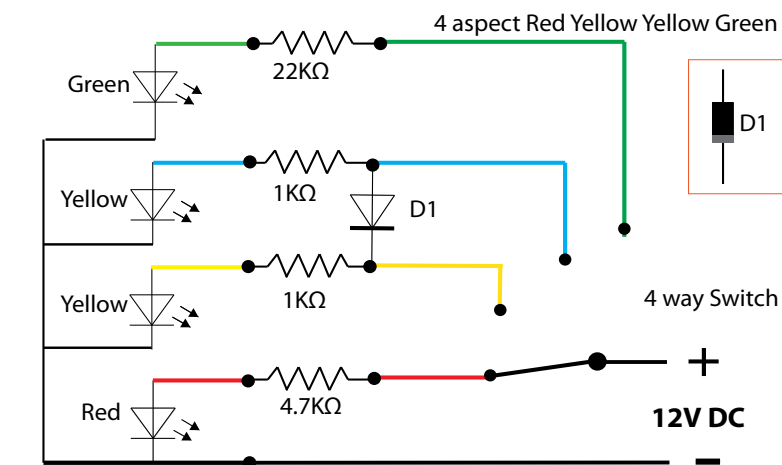
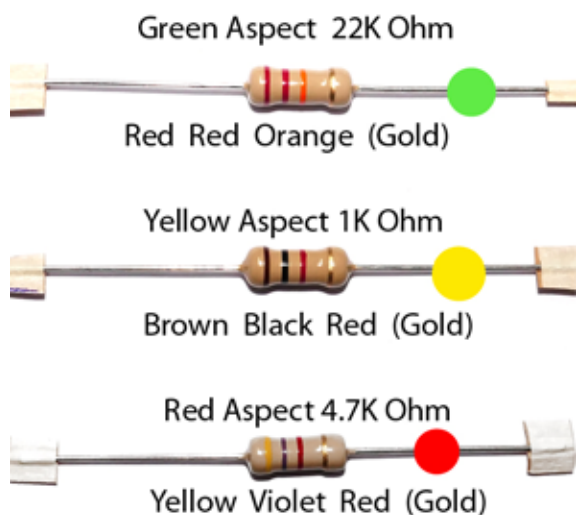
DO NOT, under any circumstances connect LEDs without the specified resistor.

This kit uses resistors rated at 1 watt. Do not use a resistor with a lower power rating as it may overheat.

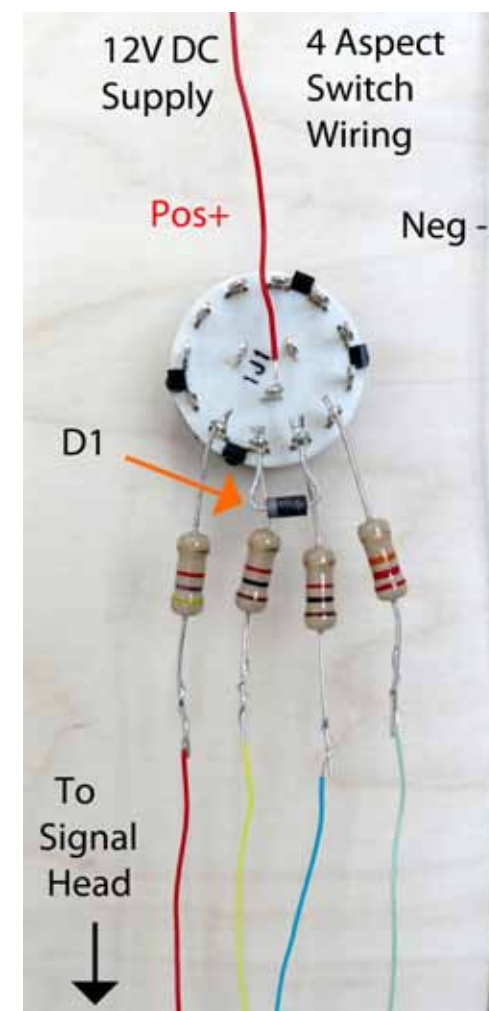
Please ensure you use the correct resistors for each kit otherwise the LED's will fail.

DO NOT, under any circumstances use batteries to test LEDs without a resistor – The application of batteries of even low voltage can cause the LED to explode and cause injury.

DO NOT Stare directly into an LED



This schematic shows the switching sequence not the order of the lights in the signal
Lights will display Green - Double Yellow- Single Yellow- Red



Contains Small Parts

Unsuitable for children under age 14