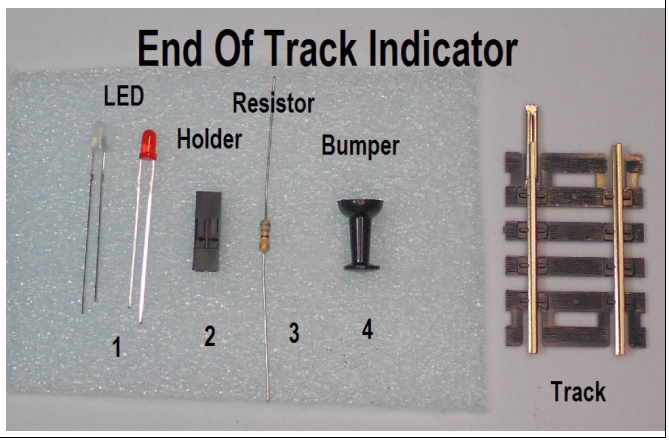
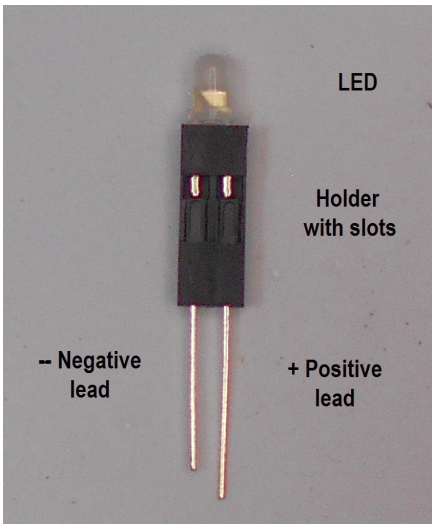
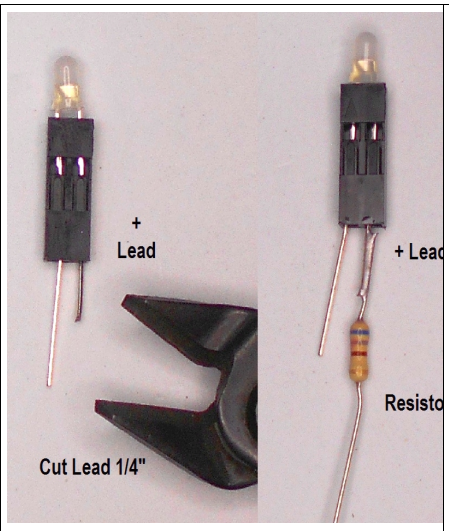
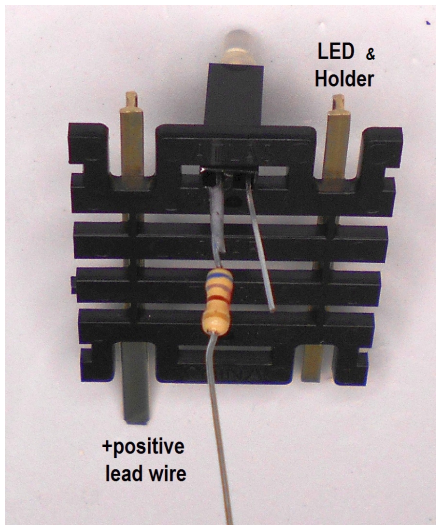
LED Lit HO End Of Track Indicator

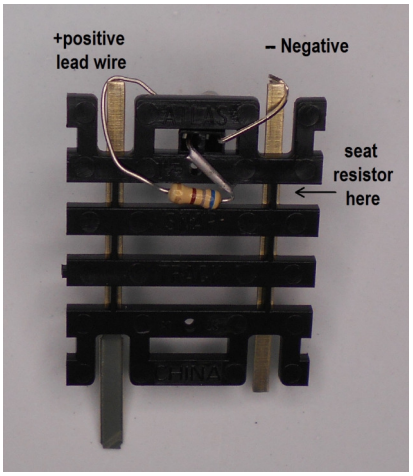
modeltrainsounds.com (June 2023)

A simple End of Track Indicator (EOTI) can be prepared using a Red LED or a Bidirectional Red/Yellow LED mounted in a LED holder and connected to a short piece of HO track added to your layout. If required the body of a black bumper can be glued to the LED holder to create a lighted bumper. The system is designed to work primarily in DC mode but can also work in DCC mode.With AC current in DCC mode both LEDs remain illuminated in both directions.

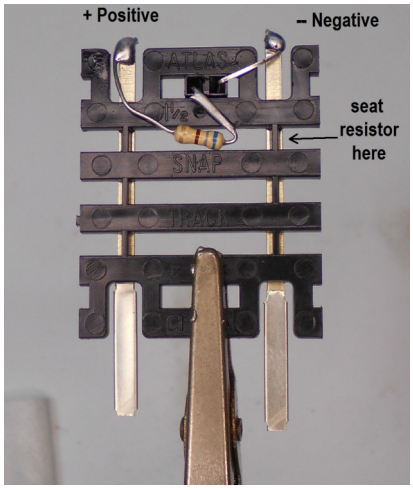
Components needed include 1. A bidirectional Red/Yellow 3mm LED or unidirectional Red LED (lights only one way) 2. An LED holder 3. A 680 ohm resistor 4 A black plastic bumper 5 A piece of short HO track with the joiners removed from one end. Tools used include a solder iron and solder, wire cutters and small pliers. A 9 Volt battery to test the lighting and CA super glue.	

Preparation

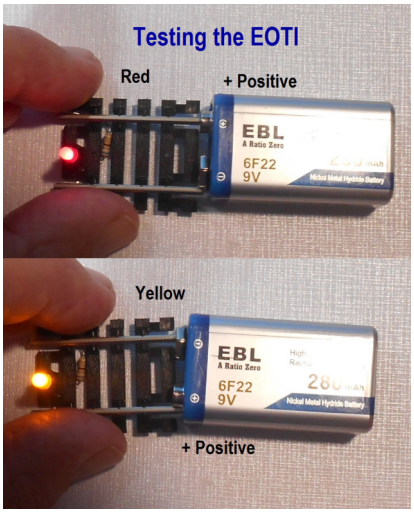
		
Insert the LED into the top of the LED holder's small holes, with the Positive long lead set to the right when looking at the holder with the vertical slot openings facing you.	Cut off the positive lead to leave about 1/4" exposed. Cut off one lead of the resistor leaving around 3/8" from the body. Solder the cut lead of the resistor to the positive lead of the LED.	Insert the LED holder into the middle of the last rail gap with the slots facing forward so that the positive (resistor) side is on the right side when upright. The holder should seat firmly with or without gluing required



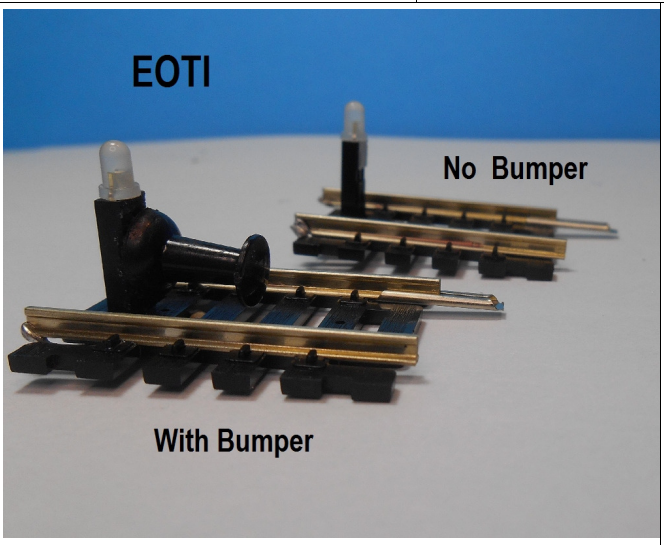
Bend the resistor wire forward and then to the left when looking from the bottom and seat the body of the resistor in the gap between the ties. Twist the ends of the lead wires around the end rails as shown.



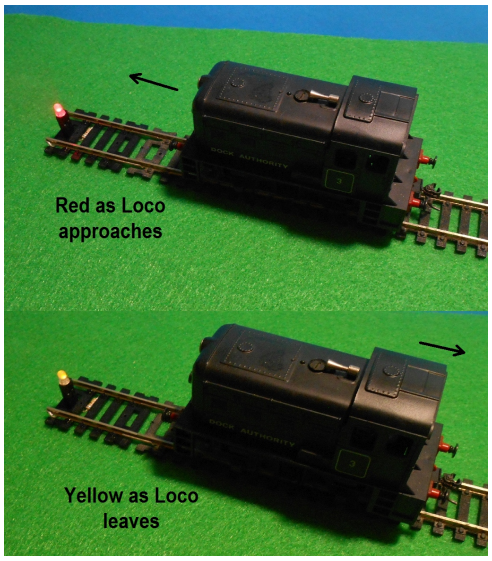
Make sure the wires do not touch each other to avoid a short circuit.
Carefully solder the wires to the end of the rails.
Snip off the excess wire extending from the solder joint.



Test the LEDs using a 9V battery touching the track. The wiring is set up to NRMA standards so that in DC mode the RED lights when the train approaches and OFF or YELLOW, when it leaves if the bidirectional LED is used. *



The black bumper can be attached by glueing it to the front of the holder using CA super glue. This creates a buffer stop..



The EOTI is attached to the track and will light when current flows and voltage is above 3 volts.

A Kit containing 4 sets of the 4 components except the track used may be purchased at our website . Completely assembled EOTI units are also available with the Bidirectional LED option used..
See ***www.modeltrainsounds.com Project 22***

For Auto Reversing EOTI's the wiring requires a by pass wire that links to the track beyond the insulation and diode setting. A separate Kit with instructions are available for this use.