

MR353 SIMULATED LONG TUNNEL

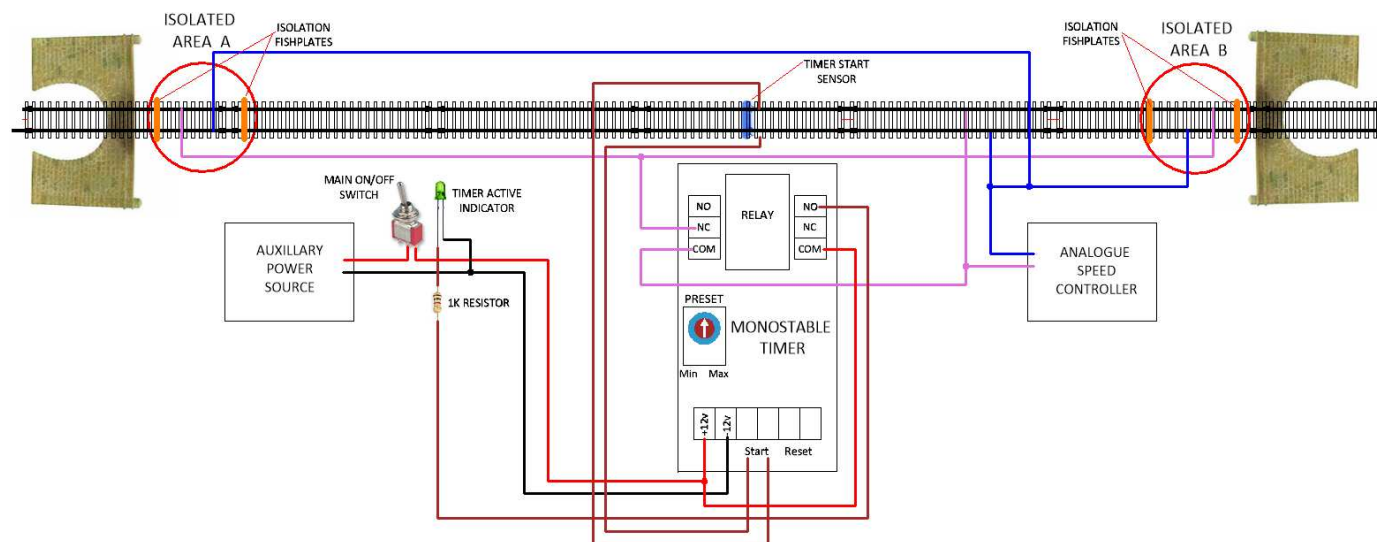
In this project we are using a MR350 Monostable timer to extend the time a train is in a tunnel, to give the effect of a longer tunnel.

In this layout the train enters the tunnel from either the right or left and energises the timer by passing over 'Timer Start Sensor'. The timer has now started so the relay on the timer has gone from 'Normally Closed' to 'Normally Open', thereby removing power from the tracks in the 'Isolation Area A & B'. When the train arrives at Isolation Area it will stop as there is no power on the tracks. To be effective the stopping area should be positioned so that the Train can not be seen from either end of the Tunnel entrances. When the timer has completed it's cycle the relay will be de-energised, putting power back on the track and the train will move out of the tunnel.

The timer is powered by 12v DC from your auxiliary Power Source. The positive feed should go through a Mini Toggle Switch at the Control Panel so you have an ON / OFF switch. Using the spare set of contacts on the relay you can wire a remote LED back at the control panel to show when the timer is active. (see drawing below). The Speed Control output is fed to the track as normal. A section of track will need to be isolated using plastic fishplates, and the feed from the speed controller will go to this section of track via the relay on the timer board, as shown.

The sensor can be one of many different types from Reed Switches to Infra-red switches. In this example we are using a Reed switch imbedded between the sleepers, and a small magnet on the underside of the Locomotive. Which ever method you use to initiate the timer it is important to remember the Start sequence only requires a short NEGATIVE PULSE.

Note: When you see Normally Closed (NC), or Normally Open (NO) for a relay or switch, this is the state the relay or switch is in with no external effects, or straight from your supplier.



KIT PARTS LIST

MR350	Timer	1
SW932	Neodymium Magnet 6mm x 2mm	1
SW927	SPNO Encapsulated Reed Switch 24VAC	1
SW305	ON – OFF Switch	1
SL101	Standard Green LED	1
RE137	Resistor 1/4w 1K	1

