



**Train-Tech**  
Model Technology Made Easy

## COACH LIGHTING

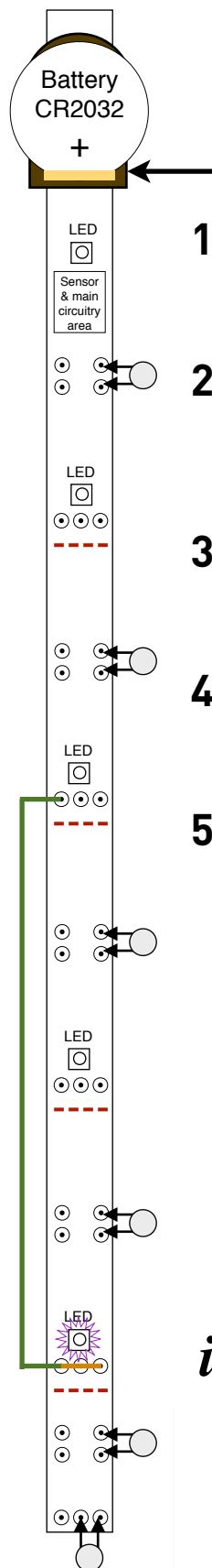
### CL32 Coach Lighting: Warm white + faulty flickering tube light

Easy fit automatic lighting for OO/HO coaches & multiple units  
Senses movement and turns the lights on & off automatically!

- Easy and quick to fit
- No wires or pickups
- Lights automatically
- One light flickers like a faulty fluorescent tube!



## Fitting instructions



### Setting up - Fitting the battery

Slide battery (+ side up) in under gold contact first, then push down. Once the battery is fitted the LED's should light - the slightest movement automatically switches them on.

- 1 Remove the roof from your coach**  
Tip - Sometimes the roof and body are all one piece and unclip/unscrew from chassis or roof comes off on its own.
- 2 Fit the lighting strip into the roof**  
You can use Bluetack or sticky pads etc to hold the strip in place. Note that the last LED light furthest from the battery is light that flickers like a faulty tube.
- 3 Refit the roof**  
You have completed installation! Lights will switch off automatically four minutes after the last movement.
- 4 Battery** When lights become dim or intermittent replace with a standard CR2032, available from many retailers and Train-Tech dealers as part BAT1.
- 5 Moving the faulty tube flicker effect**  
The last light in the strip is wired to flicker, but this light may be connected back to normal and a separate effect white flickering LED (not supplied) can be fitted in a toilet, guards area etc.  
**See Left:** To return last LED to normal carefully cut out the wire link marked in **orange**, then add a fine wire link where the **green** wire is shown (left). You can then solder a separate white 'flicker' effect LED to any of the pairs of contacts marked on the left.  
**Important:** Note that this modification requires fine soldering and wiring and may invalidate your warranty.

### *i* Other coach lighting strips

Cool or warm white LEDs plus extra effects like tail light, electric spark effects & amber door lights available.

**Ask for a free Train-Tech brochure!**

**CR 2032 Battery included**

#### DCP Microdevelopments Limited

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#### CL32 Warm White Coach Lighting strip with faulty fluorescent light flicker





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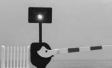
<b>Track Tester</b>	DC & DCC	O & G Gauge	OO HO	N Gauge
 <ul style="list-style-type: none"> <li>Quickly checks track for power faults</li> <li>Small &amp; Larger Versions - for N gauge to G gauge!</li> <li>Multicolour LED Indicates the DC polarity, or DCC, or a fault</li> </ul>				


<b>Buffer Lights</b>	WIRE FREE	DC & DCC	O Gauge	OO HO	N Gauge
 <ul style="list-style-type: none"> <li>Realistic stop light for any siding - fits most buffer stops</li> <li>Simply clips onto track - No wires!</li> <li>On DCC both lights are on constantly</li> <li>On DC one light is on &amp; varies with speed</li> </ul>					


<b>DCC Fitted Digital Signals</b>	DCC	WIRE FREE	OO HO	
 <ul style="list-style-type: none"> <li>Signal with DCC decoder built in - No CV programming</li> <li>Easy to fit and use - can just plug direct into track - no wires!</li> <li>Wide range available - also available with Feathers and Theatres</li> </ul>				

<b>One-Touch DCC™ Point Controllers</b>	DCC	ANY GAUGE
 <ul style="list-style-type: none"> <li>Control points and uncouplers using DCC</li> <li>Work with most solenoid point motors - Built in CDU</li> <li>Just connect 2 wires to DCC rails - No CV Programming!</li> <li>Easy screw terminals - no soldering</li> </ul>		

<b>LFX Lighting Effect Controllers</b>	DC & DCC	ANY GAUGE
 <ul style="list-style-type: none"> <li>Easy way to add lighting effects to your layout</li> <li>Wires screw in - no resistors or soldering - LEDs included</li> <li>Powered by 9v battery, 8-16V DC or DCC</li> <li>On DC the effect is on when powered - On DCC it can be controlled</li> </ul>		

<b>Level Crossing - Ready Assembled</b>	DC & DCC	OO HO	N Gauge
 <ul style="list-style-type: none"> <li>Power from 9-16v DC, DCC or a 9v battery - available in single &amp; pairs</li> <li>Light and sound - all connections easy push fit</li> <li>Includes 2 x Peco static level crossing barriers</li> <li>Can be turned on automatically using a Track Sensor</li> </ul>			

<b>Traffic Lights - Ready Assembled</b>	DC & DCC	OO HO
 <ul style="list-style-type: none"> <li>Power from 9-16v DC, DCC or 9v battery - 2 Wire connection</li> <li>Realistic standard UK sequence and timing varies randomly</li> <li>Fully assembled - drill hole in baseboard &amp; connect to power</li> </ul>		


<b>Track Sensor</b>	DC & DCC	OO HO	N Gauge
 <ul style="list-style-type: none"> <li>Trigger level crossings and change semaphore signals</li> <li>Power from 12-16v smooth DC or DCC</li> <li>Can be used to trigger Sound Track, Smart Screen, Relays</li> <li>Four outputs for direct connection to LEDs for occupancy, FX</li> </ul>			

<b>Mimic Switches &amp; Lights</b>	DC & DCC	ANY GAUGE
<ul style="list-style-type: none"> <li>Make a mimic panel to control Layout Link items - Single wire to control</li> <li>Link to Track Sensors or Sensor Signals and LEDs show occupancy &amp; signal status</li> <li>Link to Sensor Signals to manually override and switch route indicators on/off</li> </ul>		


<b>Smart Lights - Easy to fit Lighting Effects</b>	DC & DCC	ANY GAUGE
 <ul style="list-style-type: none"> <li>Small - Just 1cm x 1cm x 0.3cm with 2 wires</li> <li>Power by 9-16v DC, 9v battery, or direct to DCC which can control some effects</li> <li>Just connect and go - no setting up required</li> <li>Disco / Emergency / Real Fire / TV / Welding / Random / Programmable</li> </ul>		


<b>Automatic Tail, Firebox &amp; Loco Lights</b>	DC & DCC	AUTO	WIRE FREE	ANY GAUGE
 <ul style="list-style-type: none"> <li>No switch - senses motion &amp; turns on!</li> <li>Turns off automatically 4 minutes after stopping</li> <li>No pickups, wires or soldering - LED just plugs in</li> <li>Fit in brake vans, coaches, loco, wagons etc</li> <li>Runs for ages on 2032 button battery - LEDs &amp; battery included</li> </ul>				

<b>Sound for your layout</b>	DC & DCC	AUTO	WIRE FREE	ANY GAUGE
<b>SFX Sound</b>	<ul style="list-style-type: none"> <li>Sound capsule with no wires - runs from a battery - built in speaker</li> <li>No connections to track so work with both DC &amp; DCC</li> <li>Motion activated - switches on when train moves! Real Sounds!</li> <li>Tiny - 25mm x 20mm x 12mm - N gauge fitting guide available</li> </ul>			
<b>Sound Track</b>	<ul style="list-style-type: none"> <li>Record your own sounds and play them back on your layout!</li> <li>Record 4 tracks upto 35 seconds each - Lock to protect favourites</li> <li>Portable - use with 9v battery to take out &amp; record sounds</li> <li>Power from DC or DCC - Use Track Sensors or DCC to trigger sounds</li> </ul>			
<b>Scenic Sounds</b>	<ul style="list-style-type: none"> <li>Background sounds for your layout - built in speaker &amp; volume</li> <li>Power from DC or DCC - on DCC sounds can be triggered</li> <li>Lineside • Station Steam • Station Modern • Urban • Rural</li> </ul>			

<b>Signal Kits</b>	DC & DCC	OO HO
 <p>Every kit includes the signal head, aluminium post &amp; base plus detailing kit</p> <ul style="list-style-type: none"> <li>Low cost - adapt to your own design</li> <li>Control by switches or signal controller</li> <li>LEDs are prefitted to a narrow PCB</li> <li>Ground signals - modern &amp; original</li> <li>Feather &amp; Theatre kits available</li> <li>Signal Head only for gantries etc</li> </ul>		

<b>Signal Controllers</b>	DC & DCC	AUTO	ANY GAUGE
<ul style="list-style-type: none"> <li><b>DCC Signal Controllers</b> - Wire in any LED signals to control from DCC accessory address</li> <li><b>Automatic Signal Controllers</b> - Make any LED signal kit into an Automatic Signal!</li> <li><b>Dapol Semaphore Controllers</b> - Control Dapol Semaphores by DCC or automatically</li> </ul>			

<b>Automatic Sensor Signals</b>	WIRE FREE	DC & DCC	OO HO
 <ul style="list-style-type: none"> <li>Detects train and changes signal automatically to red</li> <li>Used own &amp; signal changes back to green after train short time</li> <li>Or link to other Sensor Signals for fully automatic block signalling</li> <li>Can be used on both DC &amp; DCC - Feather &amp; Theatre versions</li> </ul>			


<b>Automatic Coach Lighting</b>	DC & DCC	AUTO	WIRE FREE	OO HO	N Gauge
 <ul style="list-style-type: none"> <li>Easy to fit - no wiring or switch - senses motion &amp; turns on!</li> <li>Turns off automatically - fits most coaches - may be cut down</li> <li>No pickups or wires so works on regular DC &amp; DCC</li> <li>Traditional warm white or modern cool white</li> <li>Also with tail light, sparking, door beeps and door light effects</li> </ul>					

<b>Servo Controller</b>	DC & DCC	ANY GAUGE
<ul style="list-style-type: none"> <li>Controls standard radio control servo from DCC, Track Sensor or Mimic switch</li> <li>Ideal for animating Level Crossing barriers / gates, Slow points or signals, Coal hopper</li> <li>Easy to wire and set up - connects directly to DCC or 8-16 volts smooth DC supply</li> </ul>		

<b>Relay Controller</b>	DC & DCC	ANY GAUGE
<ul style="list-style-type: none"> <li>Two channel Relay unit which can be controlled by Track Sensor, Sensor Signal or DCC</li> <li>Enables remote control of motors, solenoids, lamps etc</li> <li>Incorporates two heavy duty relays with changeover contacts rated at 8-24 volts at 3 A</li> </ul>		

<b>Automatic Train Control</b>	DC & DCC	ANY GAUGE
<ul style="list-style-type: none"> <li>Link Sensor Signals to Relay Controller for automatic trains which stop at red lights!</li> <li>Can be used on DC or DCC Layouts</li> <li>Easy wiring: Sensor Signal link with one wire and Isolated braking section two wires.</li> <li>Also supports ABC fitted DCC Loco's for gradual slow down and speed up with sound</li> </ul>		

<b>Tools, LEDs &amp; Accessories</b>	ANY GAUGE
<ul style="list-style-type: none"> <li>We offer a range of LED packs, battery holders, wire, switches &amp; terminals</li> <li>Also handy modelling tools including precision cutters, drill bits &amp; spare batteries</li> </ul>	

<b>Smart Screen</b>	DC & DCC	OO HO
 <ul style="list-style-type: none"> <li>Real working animated screen - customise with your messages</li> <li>Use DCC to program - then can be run on DC or DCC</li> <li>Trigger messages with DCC, switches, track sensors or just cycle</li> <li>Message can change with direction of train on both DC &amp; DCC</li> <li>Display upto 10 different messages - can also show real time clock</li> <li>Range of enclosure available - Programming service available</li> <li>Small - w 31mm x h 9.5mm x d 4.5mm</li> <li>Stationary top line - bottom line automatically scrolls</li> </ul>		

SEE [WWW.TRAIN-TECH.COM](http://WWW.TRAIN-TECH.COM) OR ASK FOR FREE COLOUR BROCHURE

## Coach Lighting Strip - additional information

### Cutting the lighting strip down

The strip may be cut down, either to fit it into a shorter coach or to split lighting inside a compartment to avoid obstacles such as a pillar, wall or a motor in a multiple unit for example. With care it may be cut at any of the four points indicated by a dotted line as shown right & overleaf. We suggest using fine sharp model or wire cutters to make a clean cut without getting too close to any silver circuit board 'pads' or twisting the strip. Remove the battery before you cut and smooth the edges with a fine file before using. If splitting the lighting strip you can reconnect part strips using wires to link any two rows of 3 silver pads together.

### Moving Tail, Spark or Door effect LEDs


If your lighting strip also has tail, spark or door light effects you can also move these either by moving the fitted socket(s) or connecting the LED's directly to the silver pads (this requires soldering). Note that all rows of the 2 and 3 silver pads on the lighting strip are connected together so any can be used either for effect LED's or connecting split strips together. The drawing on the right shows the many possible positions for the effect LED's.

*Note that modifications made to the strip are at the owners risk*

### How the automatic coach lighting strip works

The strip incorporates a special microchip and motion sensor which detects slight movement and turns on the lights, then keeps them on until four minutes after the last motion, so that the lights do not go out as soon as it stops at a signal or station.

[www.train-tech.com](http://www.train-tech.com)

 shows the many possible positions for effect LED's

