

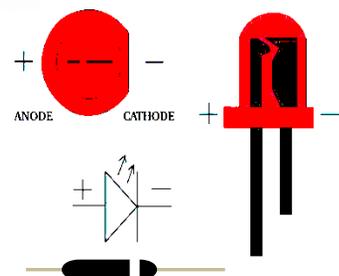
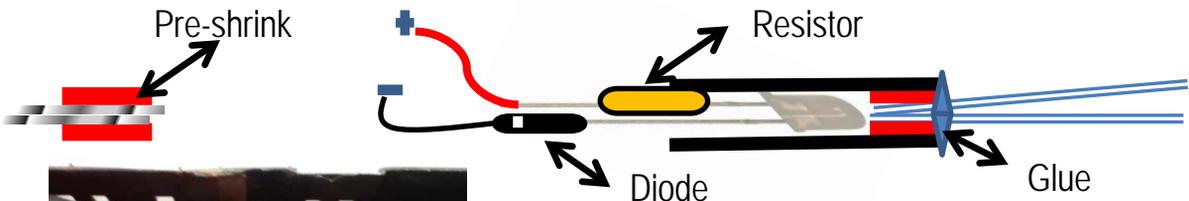
# Brake Van Lights



Turn your van on DCC layouts from this to this!



- Using a pin vice and a number drill to suit the diameter of your optical fibre, from the outside drill out the lens from the brake van's moulded light fixture/s. Using 50 mm length/s shear cut fibre to size with scissors not side cutters.
  - Pre-shrink 1.5mm heat shrink tube over two 22 AWG wires. When cold remove wire/s from tube and firmly slide in the end of the light fibre/s. Note that excessive heat on light tubes will distort same.
  - Insert the opposite end of the optical fibre/s from the inside of the van through the hole and glue in place with Selleys 5 minute Araladite™ or Super Glue™.
  - Observing the polarity of the LED, solder a 1K5 ohm ¼ watt resistor to LED +ve lead. Solder flexible lead wires to resistor and LED as shown. Place two heat shrink tubes (not shown) over resistor and lead then over LED negative lead, including diode if used (see note below).
  - Using 3 mm black PVC (non-heat shrink) insulated tube, heat one end until soft then slide tightly over LED and lead assembly.
  - Insert light tube assembly and glue in place using Selleys Plio-bond™. Paint glue with black paint to minimise internal van illumination.
  - For light flash option fit a Ring Engineering End-of-Train® device (MRRC at Blacktown P/N EOT-33 or 36) and connect lead wires without diode to the new truck.
  - For continuous lighting option, use International Hobby Corp's *Sprung Wheel Trucks P/N 4220* with electrical pick-up wiper (Woodpecker at Pendle Hill). Reverse wheel sets to contact opposite tracks.
- If using wheel trucks only or concern exists of LED reverse voltage limit (4 to 5 volts), it is suggested a protection diode be wired as shown to block reverse polarity and voltage spikes on DCC on layouts.*



Jaycar Part Nos.

- |         |   |
|---------|---|
| ZD-0106 | Red <u>7000 mcd LED with water clear lens</u> |
| RR-0578 | 1K5 ohm resistor ¼ watt                       |
| ZR-1004 | 1N4004 standard diode (400v PIV)              |