

# Passenger Car LED Lighting Kit

The LED lighting kit is a set of components to allow you to easily upgrade your passenger cars to low current LED lighting. LED lighting offers a number of enhanced features over the incandescent lighting currently used in most production O-gauge passenger cars. This kit has been designed with command operation in mind. The lighting module works correctly when supplied with from 12 to 19 volts AC.

## Lighting Kit Features

- Requires a small fraction of the power of conventional lighting
- Provides evenly distributed lighting throughout the car
- Provides adjustable lighting intensity
- Storage capacitor on lighting module provides flicker-free operation
- MTH DCS compatible, will not degrade DCS track signal
- Provides for easy solderless installation

The regulator unit is fabricated on a printed circuit board with the dimensions of 1.1" x 0.55" in size. The overall regulator module height including components is approximately 0.8" tall.

The steps to install the kit are as follows.

1. Remove shell from passenger car.
2. Remove existing lighting components. If any posts run down the center of the car, they should be removed to allow positioning of the light strip.
3. Determine which end of the car the track power connection will be. This is the location of the lighting regulator module.
4. Clean the center of the shell top where the LED strip will be positioned with alcohol or naphtha.
5. Position the light strip in the car without removing the backing and decide if any trimming and how much will be required. There are cut lines about each 2 inches where the strips can be cut. The excess strip can be used in other projects or discarded.
6. Carefully peel the backing from the lighting strip and secure it to the ceiling of the shell with the power connector at the end where the lighting regulator module will be installed.
7. Using the double-sided foam tape supplied, position and install the lighting regulator module.
8. Plug the light strip connector into the lighting regulator module.
9. Connect the track power red & black wires from the lighting regulator board to the track power leads using the solderless bean connectors supplied in the kit.
10. Dress and secure all wires for appearance.
11. Reinstall shell on passenger car.

Before closing up the car, you may want to connect an 18 volt transformer to the track pickups of the car and adjust the lighting intensity using the small intensity adjustment potentiometer on the lighting regulator module. A fine tip screwdriver will be required for this step.

*It has been noted by some customers that sometimes the adhesive backing doesn't hold securely to all surfaces. In order to insure the light strip doesn't come loose, it is recommended you use a few spots of glue or hot glue to provide additional strength to the strip bond with the car ceiling.*

If you have any questions or comments, you can contact us at [lighting@will-enterprises.com](mailto:lighting@will-enterprises.com)

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