



Truck Bed Lighting Kit - Standard

Application Guidelines

November 2009

Kit Contents

The following items are included in the 3M™ Truck Bed Lighting Kit:

- 3M™ Light-by-Wire (LBW) lighting strips and jumper wire
- Red battery wire (40 feet)
- 3M™ Adhesion Promoter 4298 (1 package)
- Fuse holder assembly

Tools

The following tools are recommended for installing the 3M Truck Bed Lighting Kit:

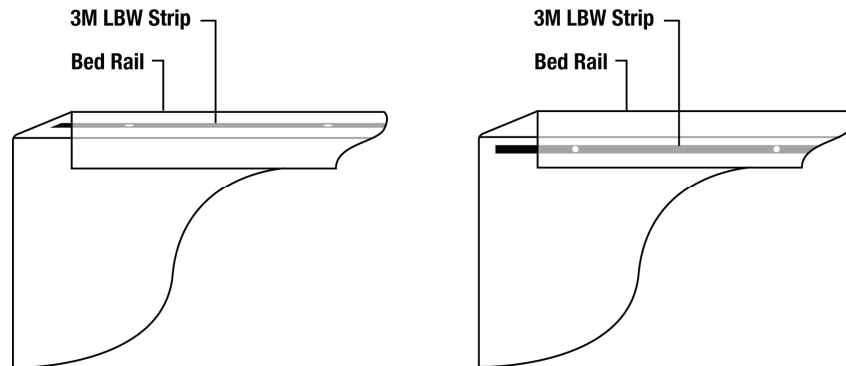
- Solder gun and solder
- 16 gauge wire strippers
- 8mm socket and/or 10mm socket
- 3/8 inch heat shrink tubing
- Electrical tape
- 8-inch cable ties (6)
- 1 bottle of isopropyl alcohol
- Lint free cloth or wipe
- Protective gloves

Temperature

The recommended temperature for both the vehicle surface and lights for installation is 15.6° - 43.3° C (60° - 110° F). Heat activation is not required for 3M pressure sensitive adhesive.

Location

Determine where to position the 3M LBW strip(s). Typically, the preferred location for mounting is on the vertical or horizontal walls of the bed under the bed rail. Actual location is optional.



1. Determine the location of the electronic switch light strip. The electronic switch is usually mounted under the lip of the bed rail on the driver's side near the tailgate.

*Note: For carpeted or fabric-based bedliners, 3M recommends 3M™ Dual Lock™ or 3M™ Scotchmate™ fastening products, available at local auto accessory, hardware or home supply stores.

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Wiring

After locating the position of the 3M™ Light-by-Wire (LBW) strip(s), connect the strip to the power source. The 3M LBW power strip has two wires to connect to the vehicle. The red wire is positive (+) and brown is ground (-).

Connect the brown ground (-) wire to the vehicle ground of the tail light or trailer harness assemblies:

1. If connecting to the vehicle ground of the tail light, use the 8mm or 10mm socket to remove the tail light assembly.
2. Find the ground (-) circuit in the tail light or trailer harness assembly.
3. Solder the brown ground (-) wire to the tail light or trailer harness ground (-) circuit and cover the solder joint with heat shrink tubing.
4. Reassemble the tail light assembly if necessary.

Connect the red positive (+) wire directly to the vehicle's battery or power distribution box (PDB).

1. Solder the 40-foot red battery wire to the 3M LBW red positive (+) wire and cover the solder joint with heat shrink tubing.
2. Route the red positive (+) wire behind the tail light assembly and continue under the vehicle body along the main vehicle wire harness to the battery or PDB.
3. Cut off the excess wire.
4. Secure the red positive (+) wire to the main vehicle wire harness with six 8" cable ties.
5. Solder the red positive (+) wire to the in-line fuse module lead and heat shrink.
6. Connect the in-line fuse module battery ring terminal to the B+ battery auxiliary terminal post or the B+ battery terminal post of the PDB.
7. Verify the operation of the 3M LBW strip(s) by activating the electronic switch.

Tape Liner Removal **The liner should not be removed until the part is going to be applied. Care must be taken to not touch or contaminate the tape adhesive.**

Cleaning

The vehicle surface to which the 3M™ Truck Bed Lights are to be applied must be clean. Lubricants, skin oil, airborne dust, etc., can contaminate the surface and reduce the adhesion performance of the tape to the vehicle. The vehicle surface should be cleaned with a 50/50 mixture of isopropyl alcohol^{2,3} and water with a non-abrasive cloth or similar product. The cleaning should remove all contaminations and leave no residue. To increase the robustness of the process, apply a thin coat of 3M™ Adhesion Promoter 4298 (included)¹ to the vehicle surface and allow it to dry for approximately 2 minutes before mounting the light strips. **Applying 3M Adhesion Promoter 4298 is absolutely necessary when mounting the light strips to polymer-based drop-in or sprayed-in bed liners.**

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Cleaning (continued)

- ¹ Note: 3M Adhesion Promoter 4298 is highly flammable, harmful by inhalation, irritating to eyes and skin. Extinguish all ignition sources, including pilot lights. Wear hand and eye protection.
- ² Note: When using any flammable solvent, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.
- ³ Note: Care should be taken to make sure the surface is clean and dry prior to application of the tape and to not saturate the tape with strong polar solvents, like alcohols, after initial application. After adhesion build, the tape is durable to typical automotive environmental conditions and chemicals and provides a robust attachment solution. If this is a concern, please contact your 3M Technical Representative.

Application

1. **Remove the liner on the 3M™ Light-by-Wire (LBW) electronic switch. Press the switch into place, firmly applying pressure for 5 seconds.** Be careful not to contaminate the adhesive before pressing into place.
2. Continue mounting the 3M LBW strip by repeating the step #1 for each successive piece, being careful not to strain the strip by pulling it too tightly.

3M LBW components must be located on the vehicle according to the design tolerances. If the part is not properly located, it could lead to poor wet out, higher residual stresses and premature electrical failure of the component. The components should be applied to the vehicle such that it is not distorted beyond its design tolerance. Examples of distortion are twisting or excessive tension on the flat cable, or bending the flat cable tighter than the recommended minimum bend radius.

Removal

Relocating a 3M LBW component once it has contacted the vehicle surface is not recommended. If a component must be relocated, follow these guidelines:

- The adhesive on the molding is not touched or contaminated in any way after the liner is removed.
- The component should be removed immediately after application.
- The component should be removed prior to applying firm pressure to the tape.

Never pull on the flat cable to remove a component from the vehicle. This can damage or break the assembly.

▲ CAUTION

To reduce the risk associated with intense LED light, which if not avoided may result in minor to moderate injury:

- Do not look directly into the LED light for more than a brief period of time.
- Keep children away from direct LED light.

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