



# LED Tail Light Kit Installation Instructions TR2 TS1301 thru TR3B, MGA thru 1960, Jag XK140, Early XK150 & AH Bugeye Sprite MK1

PART # 143-810

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**NOTE 1:** *This kit is for negative ground cars (or cars converted to negative ground) only.*

**NOTE 2:** *This kit requires removing the tail lamp base and drilling out the rivets holding the bulb holder portion of the stock tail light base. If your tail lamp bases are damaged or pitted or their body mounting gaskets have perished, Moss offers the base as 159-300 and the body to base gasket as 159-400.*

**NOTE 3:** *On the MGA, if you may need to remove the tail lamp plinths from the rear fenders to make the wiring connections with the spade connectors or the bullet connectors. Optionally, you may solder the vehicle harness wires directly to the wires of the LED tail lamp circuit board, which leaves a smaller diameter bundle of wires and will not require removal of the tail lamp plinths.*

## Tools:

- Wire cutters
- Wire strippers
- Wire crimpers for spade connectors
- Flathead screwdriver
- Phillips-head screwdriver
- 7/32 or 1/4 inch drill bit and drill
- 3/8 inch open end wrench

## Optional Tools:

- Soldering Iron and Solder
- Electrical tape

## DISASSEMBLY:

1. Make sure that the light switch is in the off position. Then disconnect the battery. Again, this kit is for negative ground cars (or cars converted to negative ground) only.
2. For each tail lamp, use a screwdriver to remove the top and bottom mounting screws and the red tail lamp lens. Carefully remove the rubber gasket under each lens to avoid scratching the chrome of the tail lamp base. New lens gaskets are included in the kit.



Illustration 2



## Installation Instructions

3. For reference, the orange wire is the parking lamp wire. The white wire (MGA) or green/white-stripe wire (TR3) is the brake/stop lamp wire. The black wire (MGA) is ground. The TR3 grounds the tail lamp base through the mounting screws of the tail lamp base and does not have a black wire.
4. Open the trunk.
5. For TR3, remove the wires connected to the tail lamp base and pull them into the trunk and out of the way.

### MODIFICATION:

6. If you have a steady hand, use a handheld drill and the 7/32 or 1/4 inch drill bit to cut through the two rivets holding the bulb holder to the tail lamp base. If not, remove the two Phillips head screws that hold each tail lamp base onto the vehicle and take the tail lamp bases to a workbench or drill press. If the rivet spins in place while drilling, pressing slightly harder will help, but be prepared to stop drilling right away once the drill cuts through the rivet.



Illustration 6



### REASSEMBLY:

7. If you chose to remove the tail lamp bases from the car to work on them, put them in back into place on the car. **DO NOT INSTALL THE MOUNTING SCREWS YET.** Make sure that the body to tail lamp base gaskets are in place and that the gasket does not hang up on any body trim above or below the tail lamp. Confirm that the edge of the tail lamp base fits into the channel surrounding each tail lamp base gasket without pinching the edge, getting hung up or leaving any gaps. Gaps will allow moisture in the trunk and make it very hard to get the provided new, longer, tail lamp mounting screws started. If necessary, replacement body to tail lamp base gaskets area available as 159-400.



Illustration 7



8. Gather the two LED tail lamp panels and the four provided nylon spacers. Insert the nylon spacers into the two recesses on the back of each LED tail lamp panel. Apply your finger on the open space on the front of the board and press with your thumb. The spacer should snap into place with relatively light force. You may have to push the spacer with a little bit of side force as well. However, avoid heavy force that might break an LED or the circuit board itself. If you feel that you may break the board while inserting the spacers, sand down the nylon spacer's OD slightly where it enters the recess.



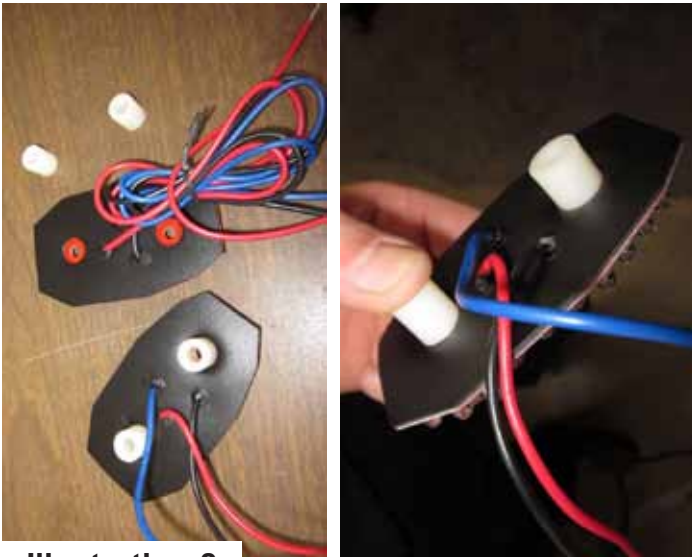
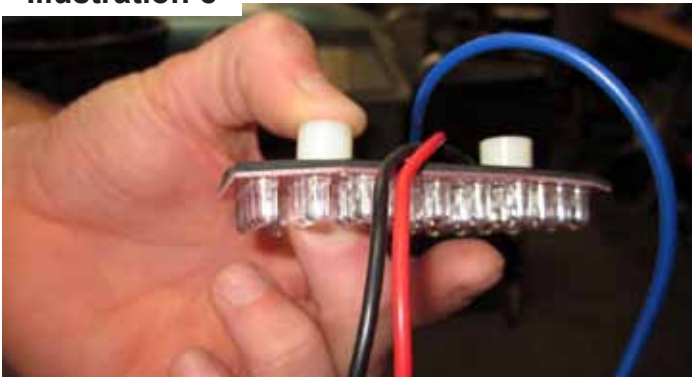


Illustration 8



9. For MGA, remove the tail lamp plinths from the rear fenders if you are going to make the wiring connections using the provided spade connectors or the provided bullet connectors. If you are going to solder the vehicle harness wires directly to the wires of the LED tail lamp circuit board then leave the tail lamp plinths in place.

10. For each tail lamp, install the new provided tail lamp lens gasket onto the tail lamp base. Then feed the three wires of the LED tail light panel into the open hole of the tail lamp base.



Illustration 10

11. Gather the four provided longer tail lamp mounting screws. Insert two screws through the two holes in each tail lamp panel. Then use a Phillips head screwdriver to tighten the screws. **DO NOT OVERTIGHTEN** to avoid damaging the LED board. Also, as noted before, if there is any gap between the body, the tail lamp base gasket and/or the tail lamp base, the new screws may not tighten up. The clip nuts that mount the base **ARE NOT** robust enough to simply pull the tail lamp base into place. You will need to press against the tail lamp base to make sure that it is flat against the body and not hung up on any body trim above or below the tail lamp base. Then use the screwdriver to start the screws. If the screws fail to engage the clip nuts, confirm that the tail lamp base has not pinched the body to tail lamp gasket and that the gasket is not hanging up on any body trim. **DO NOT OVERTIGHTEN** to avoid damaging the LED board.



Illustration 11

12. Connect the blue wire of the LED tail lamp circuit board to the orange parking lamp wire of the vehicle harness. Connect the red wire of the LED tail lamp circuit board to the white (MGA) or green/white-stripe (TR3) brake/stop lamp wire of the vehicle harness. We have provided male & female spade connectors as well as solder-style bullet connector wire tips (162-200) and bullet connector sleeves (162-000) in the kit so you can do this using either method. However, if you use the spade connectors, connect the FEMALE spade connectors to the wires of the LED circuit board so that if necessary you can more easily remove them through the hole in the tail lamp base.



Illustration 12

## Installation Instructions

13. For MGA, use the provided bullet or male/female spade connectors to hook the black ground wire of the LED tail lamp circuit board to the black wire of the vehicle harness. If you use the spade connectors, connect the FEMALE spade connector to the black wire of the LED circuit board. Then reinstall the tail lamp plinths onto the rear fenders.

14. For TR3, gather two 10-32 nuts, two male spade connectors, two female spade connectors, two ring terminals and the black wire all provided in the kit. Cut the black wire into two 12 inch long pieces and strip the ends. Crimp a ring terminal onto one end of the 12 inch black grounding wire and a MALE spade connector to the other end. Repeat for the second grounding wire. Then install the ring terminal of each grounding wire over the left and right mounting posts of the license plate lamp inside the trunk and secure each into place using one 10-32 nut. Install a FEMALE spade connector onto the black wire of the each LED circuit board. Then, connect the FEMALE spade connector of the grounding wire to the MALE spade connector of the LED circuit board.

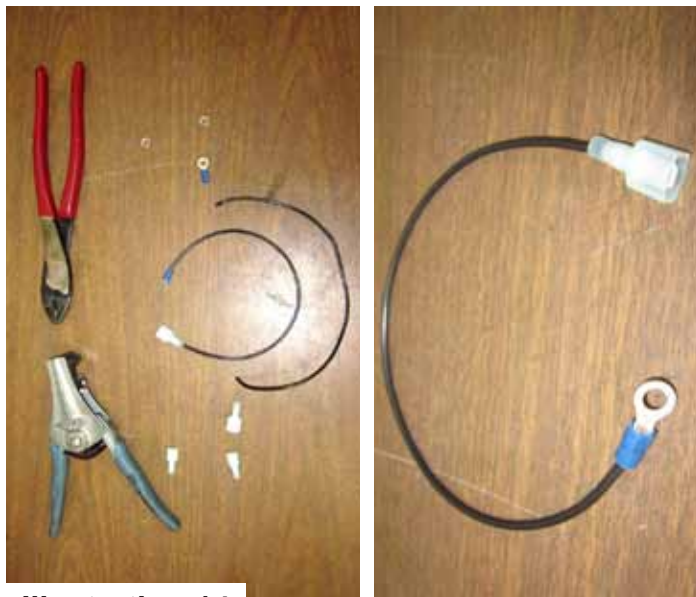


Illustration 14



15. Use the flat head screwdriver and the original bolts to reinstall the tail lamp lens. Snug the lens down evenly and very carefully to avoid cracking the plastic of the lens.

### SAFETY CHECKS:

16. Test the parking light. Then test the brake light. If they are functioning properly, turn the lights off and tuck the wires away under the carpeting and out of the way of shifting luggage.



Illustration 13



17. Close the trunk and go for a drive. Reconfirm continued proper function of the tail lamps. Also, check the trunk after the first rain to make sure that you have reinstalled the tail lamp components securely enough to be water tight. Enjoy your new LED tail lights. Please visit us at [MossMotors.com](http://MossMotors.com) for all your restoration, performance and accessory needs! aa