

HEADLIGHT RELAY KIT INSTALLATION INSTRUCTIONS

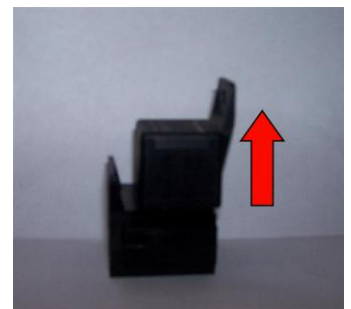


DO NOT do any of this work until the battery cables are disconnected!

Tips & Notes;

- I highly suggest using dielectric grease on all connections.
- It is easier to work with the wire if it is warm. Warmer wire is more flexible.
- 70-71 A-bodies were used for all pictures. Other model years may have variations. The only areas that I've currently observed are the pass side ground location and style of wire harness tabs running across the yoke. There may be other small variations.
- Take a zip tie and make a loose loop through the hole in each relay tab. Take a second zip tie, looping it through first, and attach it to the battery tray support bracket. Think of it as positively attaching the relays to the car. That way, if the relays happen to pop out of their mounting blocks, unlikely, they won't disappear. The relays should be, at worst, hanging by the zip ties.
- It normally takes about 2 hours to install the kit working at a reasonable pace.
- This kit is designed for 1967-1976 A bodies.

1. Disconnect positive and negative battery cables.
2. Remove battery if placing the relays under the battery tray.
3. Remove relays from mounting blocks by pulling unit straight up from mating surface.



4. Remove the 3 battery tray bolts and remove tray.



5. Flip tray over and select location for the relay connector blocks. Be careful with your selected location. Make sure the relays are accessible, preferably not pointing towards the inner fender. Take care regarding the wire length of the fuse holders, so they are readily accessible and do not interfere with the support bracket running from tray to inner fenderwell. The battery tray in the picture showing, the bottom edge is the engine side. Some ideas for the location:

- 1) Directly on the battery tray (shaded area),
- 2) Make a mounting bracket attached to the rear two battery tray bolts,



- 3) On the sloped area of the inner fenderwell.



6. The relay blocks are pictured at the right to show placement (blue high beam, black low beam). Try to not place mounting blocks more than 7" from the battery trays rear edge. Any further forward than 7" and fuse holders may be under the tray and difficult to access.



7. If you use the bottom of the tray, where the battery is supported/sits, attach the blocks with pan-head style machines screws, preferably the thinnest head you can find. Make sure you place some type of pad on the tray so the screw heads do not press directly on the battery, potentially deforming the case.

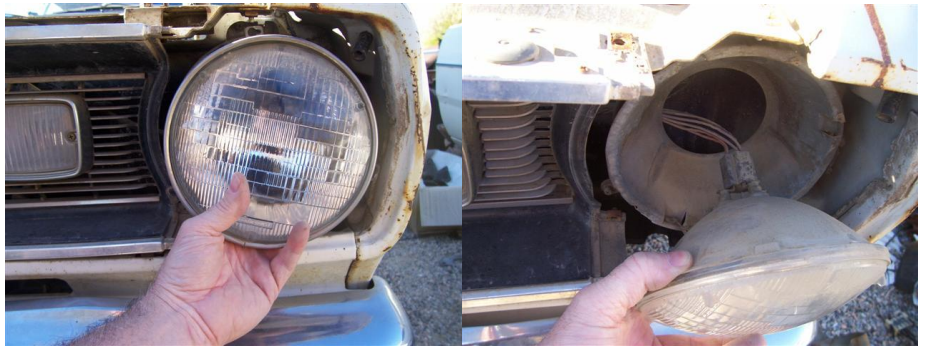


8. Drill two holes up to 3/16" diameter, approximately 1 3/16" spacing on centers for the relay mounting blocks. Measure the block mounting hole spacing to verify.
9. Secure relay mounting blocks to the battery tray using your desired hardware (ny-lock style nuts are a good idea if they fit). Please note the length of the bolts cannot be excessive, otherwise interference with the relay may occur. There is approximately 5/16" distance from the backside of the relay mounting block to the relay. Use a bolt/machine screw with a maximum length of 3/8". May require a washer on the head side to gain clearance. If using the sloped area of inner fender, put the machine screw in with the head towards the relay.
10. Reinstall relays in the mounting blocks. Be aware they fit into the relay blocks only one way. Make sure relay blades are aligned properly with mounting block slots. Alignment is correct when relay mount tab is opposite block mount surface (see picture in step #3). Push relay straight down until it bottoms on mounting block.

11. Remove headlight bezels. Loosen (do not remove) Phillips head headlight retaining rings screws a couple of twists. Lightly twist retaining ring, in this case, clockwise to remove. On this side the screws are located in the following approximate positions 11:30, 3:00 and 8:00.



12. Be careful with your headlight, let it lean forward and hold it.



13. Disconnect the wiring harness headlight plug.



14. Place headlight and retaining ring in a safe location.

15. Feed the disconnected driver side headlight plug back through the bucket opening. Bring the connector to the top of the yoke on the driver side (you'll need it later). Feed pass side headlight plug back through the bucket opening and let it hang or tie it back on itself. Both plugs need to be out of the bucket area.



16. Place wiring on the top side of the battery tray. To do so, leave enough slack from the loop sections so each Headlight plug and Main power wires can sit in the tray. Headlight plugs, Trigger and ground run over the angled edge. Main power feed over the rear side of tray, left edge in photo, and lay on top.



17. Replace the battery tray, keeping headlight, relay trigger and relay ground wires feeding into the driver side front corner of engine compartment. Confirm wires are not pinched between tray and panels. Tighten the 3 mounting bolts. Wires should come through where the headlight plug is located in picture.



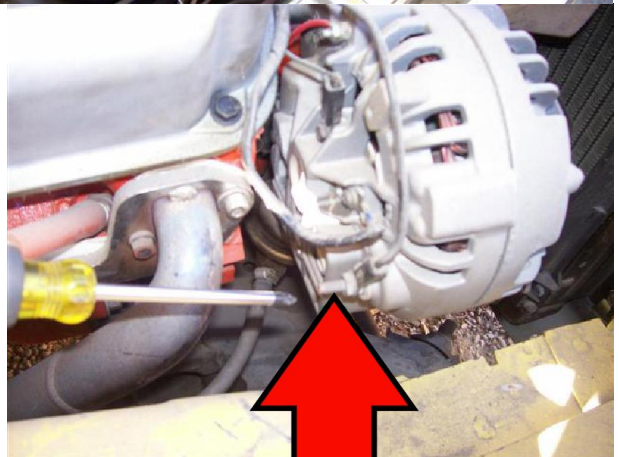
18. Unwind the main power wires. Support the wire where it exits over the rear edge of the battery tray. Be careful, if the wire is unsupported and they are pulled hard, damage to the relay blocks may occur. Best to bring wires forward to get the winding loops out. Once straightened, double the wiring back. Gently feed the wiring through the plastic fender harness straps.



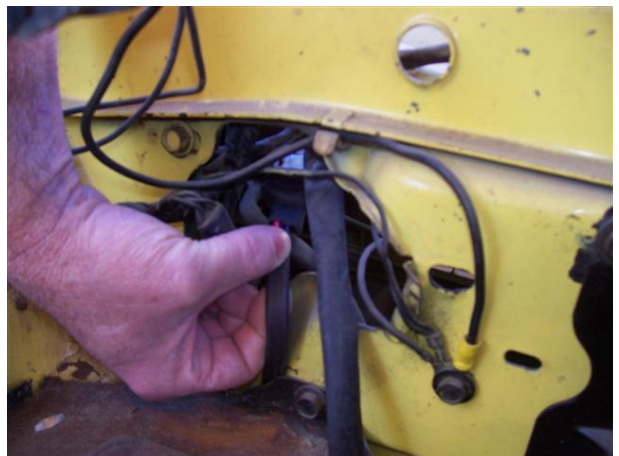
19. Continue routing main power wires across the firewall using the factory hold tabs. Bring wiring forward to the alternator following same route as the factory wiring. V8 applications route along the passenger valve cover, intake manifold side. Slant 6 applications route on the pass side of valve cover.



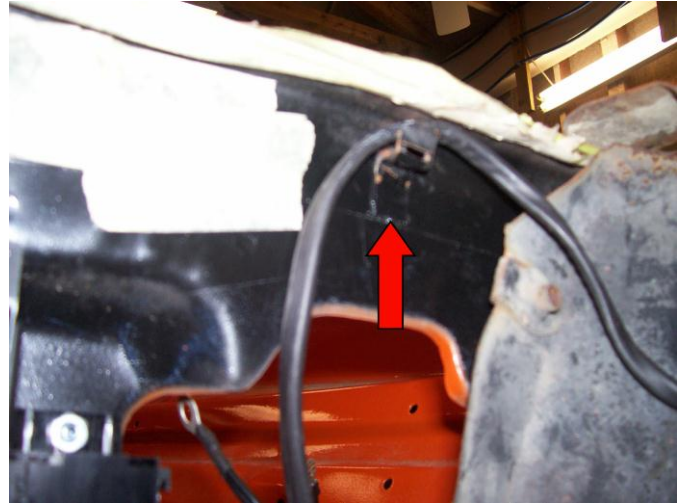
20. Remove battery charge wire nut from the alternator stud (see arrow in pic below). Attach the main power wire terminals (2) on the alternator stud. Reinstall nut and tighten. Don't forget dielectric grease. Some alternators/harnesses have a plastic protector sleeve which may require trimming. *Please note, if you have an aftermarket alternator, slight deviations may be required.*



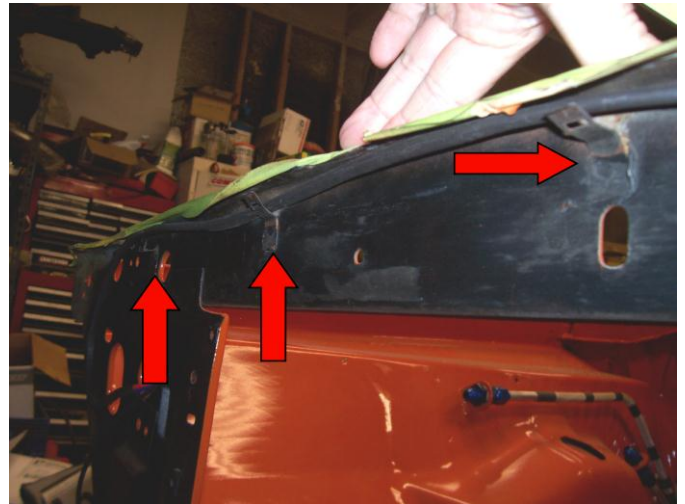
21. One at a time, unwind and feed headlight plugs and relay trigger connector through the radiator yoke opening as shown. Run relay trigger connector and short wire length headlight plug to driver side, longer length headlight plug to pass side. Make sure the driver side headlight ground wire remains in the engine compartment, to be secured later.



22. Use the factory hold tabs to route the headlight wiring, the original harness should be in this location. Tabs are located on the front of the yoke, just below the top edge, spaced about 9" apart. Route the drivers side headlight plug and relay trigger connector using hold tab above the large yoke hole, pictured below.



Then route passenger side headlight plug across yoke using the hold tabs.



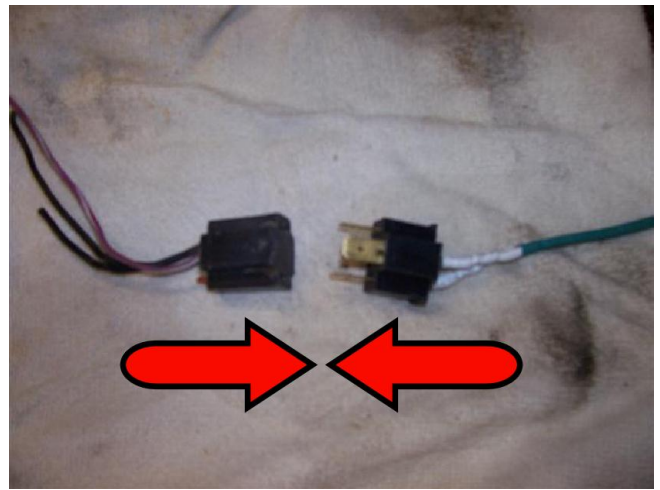
23. Feed headlight plug into the bucket on each side.



24. Bend the wires to position supplied plug. Wires should be pointing down with this style ceramic plug.



25. Using original drivers side headlight plug routed in step #14 above, insert the relay trigger connector into the headlight plug just as if attaching a headlight. Apply dielectric grease to the terminals.



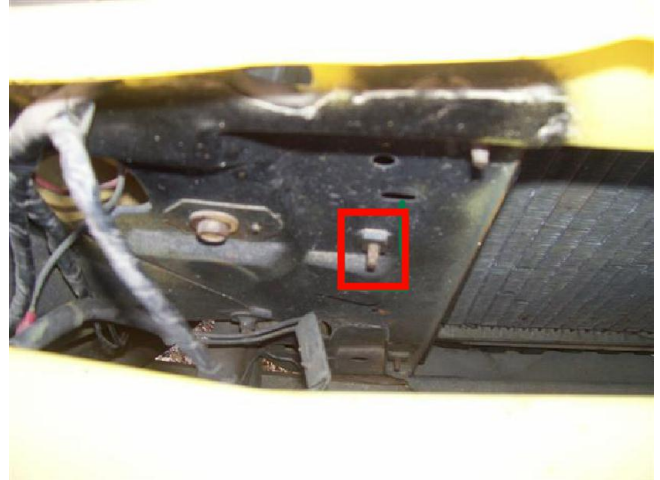
26. Remove the body ground bolt, highlighted in picture below. Attach the drivers side headlight ground wire (black wire with 1/4" ring terminal) and the relay ground wire (brown wire with 1/4" ring terminal). A good bare metal surface on the yoke is desired to promote sufficient ground paths. Apply a bit of dielectric grease on the yoke. Replace and tighten body ground bolt with new (2) and existing wires.



27. Remove the grounding bolt on pass side of radiator highlighted in picture to the right. Make sure it's bare metal on the yoke. Replace and tighten body ground bolt with new and existing wires.



Or you can clean to bare metal the front side of the yoke nut, highlighted in pictured to the right. Secure passenger side headlight ground terminal with a 1/4" nut. Use dielectric grease on yoke at chosen location.



28. Apply dielectric grease to terminals on headlights and attach headlight plugs.

29. Reinstall headlight and retaining ring. Rings only go on one way, make sure you align all three tabs in correct orientation. Twist ring correct direction to lock under screws and tighten 3 lock screws.
30. Install battery. If pan head screws were used to secure relay mounting blocks, you may need a rubber pad under battery due to interference.
31. Reconnect battery cables.
32. Test the headlights for proper operation, both low and high beam.
33. If all is good, install battery hold down.
34. Install headlight bezels.

The installation of your headlight relays is now complete. Enjoy brighter night driving!

Thank You!

WIRING DIAGRAM

