

Raxiom Projector Headlight for 1994-1998 Mustang:

Intro:

Replacing the aged and yellow factory headlights with projectors is a common and cost- effective method for a great appearance upgrade. The projector headlights bring a modern look to the Mustang. The Raxiom headlights are well made and the installation is not complicated, if you take your time and follow these detailed instructions.

I chose to upgrade the included bulbs with Sylvania ZXE Silver Star 9005 (high beams) and Luminics H3 (low beams).



Soon these yellowed and dated headlights will bring a new life, look, and safety to this 'stang.

Included in Package:

- ✓ (2) headlight assemblies – driver and passenger side

Required Tools (shown left to right in the picture below):

- ✓ Sylvania ZXE and Luminics light bulbs (optional)
- ✓ 12 volt test lamp
- ✓ Soldering iron
- ✓ Heat shrinkable tubing
- ✓ Dremel tool with plastic cutting bit (or similar tool)
- ✓ Flat head screwdriver
- ✓ Wire cutters
- ✓ Wire strippers
- ✓ Marking pen
- ✓ Lighter
- ✓ Solder
- ✓ (4) Solderless wire taps
- ✓ 13mm socket
- ✓ Pliers
- ✓ Silicone

Time Required: Approximately 2 hours



Before Beginning:

Disconnect the car battery, just to be safe.

Removing the stock headlights:

1. Begin by removing the 13mm nut that holds the side marker light in place. Remove the side marker light and disconnect the connector. Ours was stuck due to age and took a little effort to get it to “pop” loose.



2. Rotate the headlight bulb retaining collar counter-clockwise to release it. Pull out the bulb and unplug from the connector.



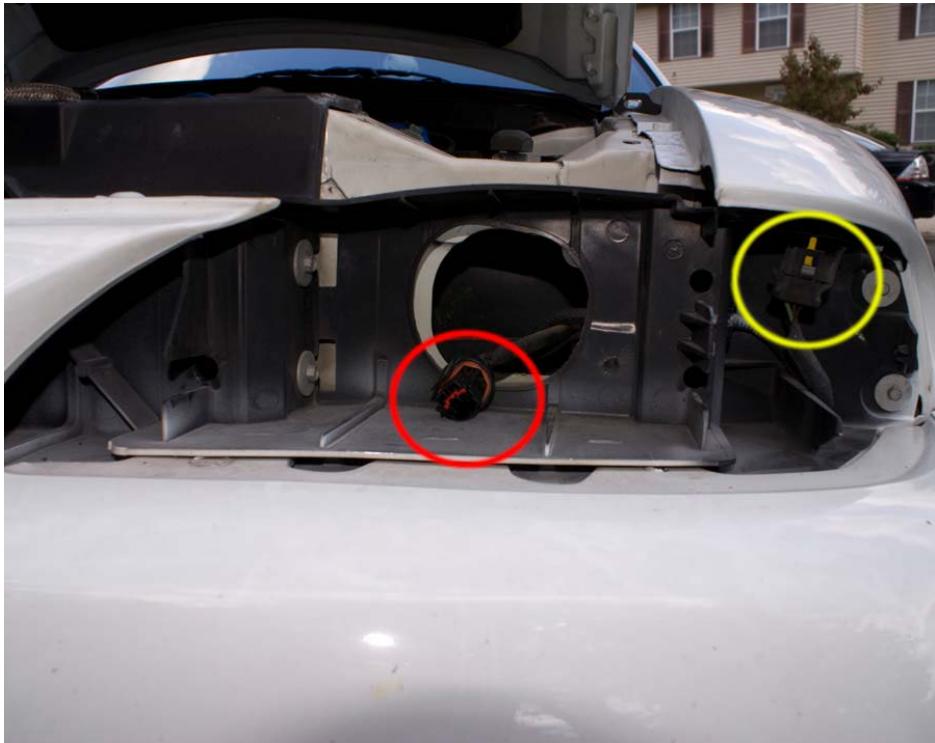
3. Next, take your fingers or a pair of needle-nosed pliers and remove the "L" shaped clip that holds the upper adjustment screw. Pull up on the clip to remove.



4. On the lower adjustment bolt, there is a plastic retaining device that has two small “ears” on it. One on top and one on bottom. Take a flat-blade screw driver or your fingers and depress the top ear and bottom ear if you can. Pull the headlight assembly out. It may take a little work to get both ears depressed and the headlight removed. Be patient.



5. If you haven't done so already, unplug the side marker bulb connector. Take the side marker bulb out and put it in the new headlight assembly. Just to be safe, it is recommended that you replace these bulbs with new long life ("LL") bulbs available at any auto parts house.
6. The car should now look like the photo below. The red circle highlights the headlight connector. The yellow circle highlights the side marker connector. You will have to cut some of the plastic away from the headlight mount for the projector light housing.



7. Mark the area to be removed with a marking pen as shown. I used silver so it was easy to see.



8. Using a Dremel tool with plastic cutting tip, or similar tool, remove the plastic in the area shown. Make sure you wear safety glasses! Be careful not to cut into the wires behind the plastic.

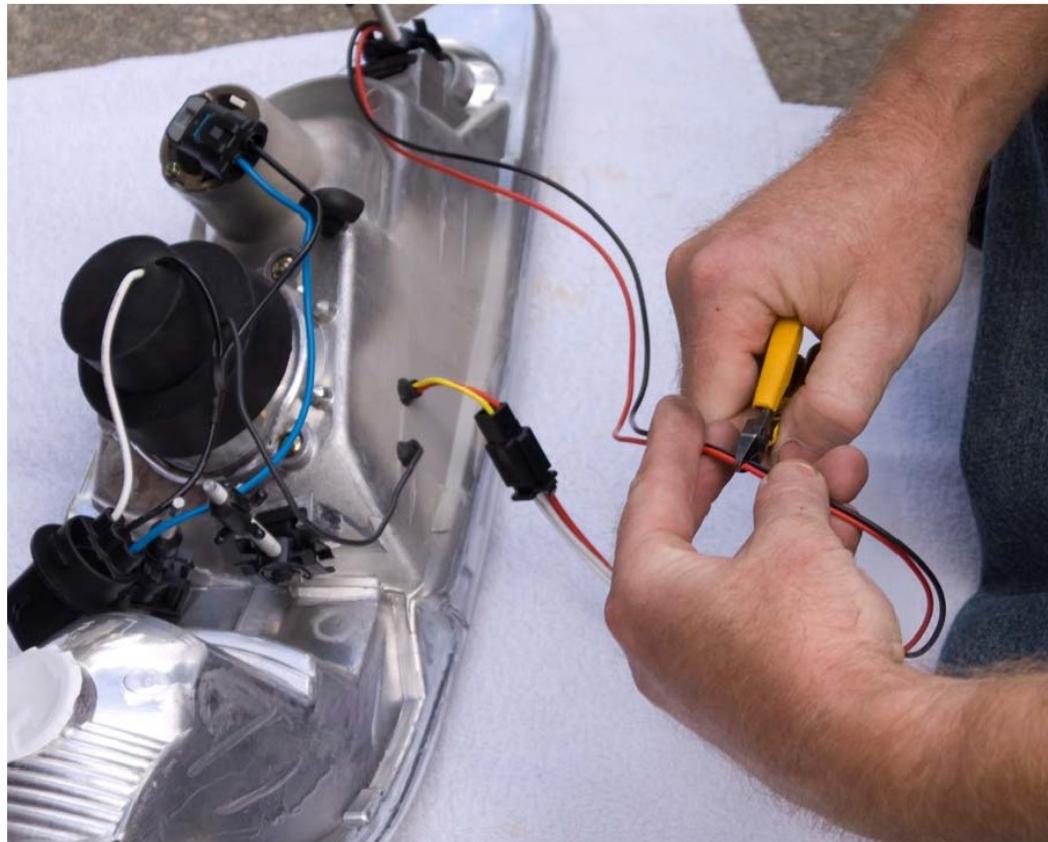


9. The finished cut should look as shown. Test fit the new headlight assembly and ensure there is no interference. Once complete and everything fits fine, remove the plastic shavings, if there are any.



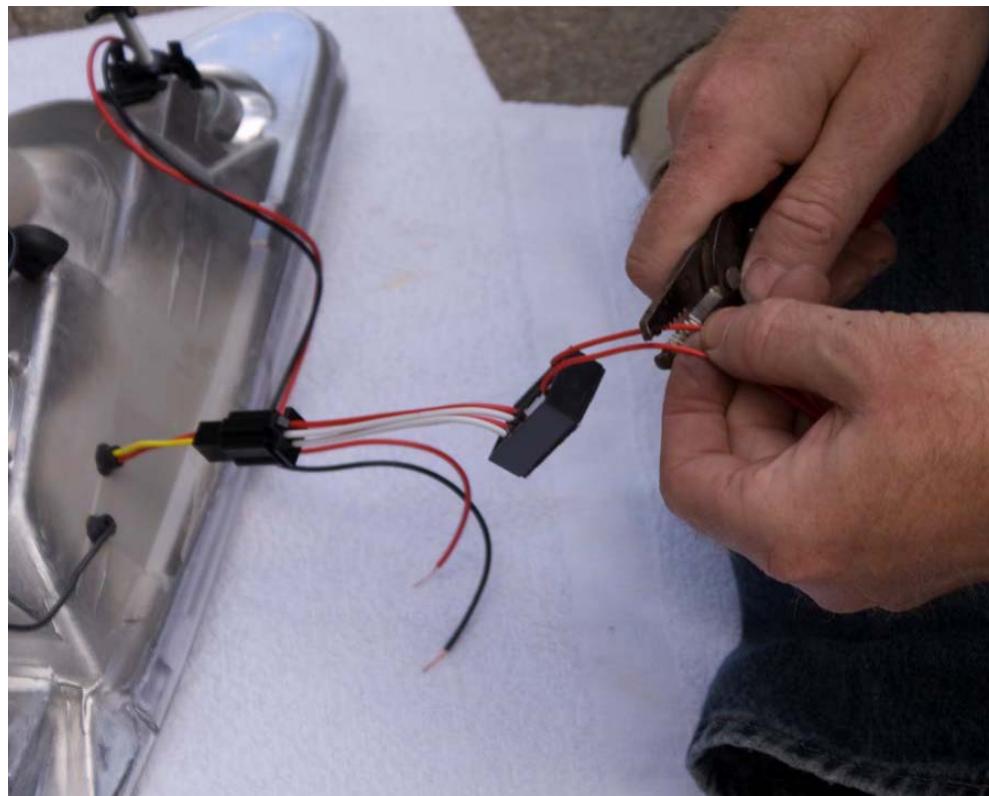
Running Light / Halo Light Wiring:

1. Take the black and red wires from the small running light and cut the wires about 12" from the running light. This allows for enough play in the wire so the light isn't pulled out when the assembly is mounted.

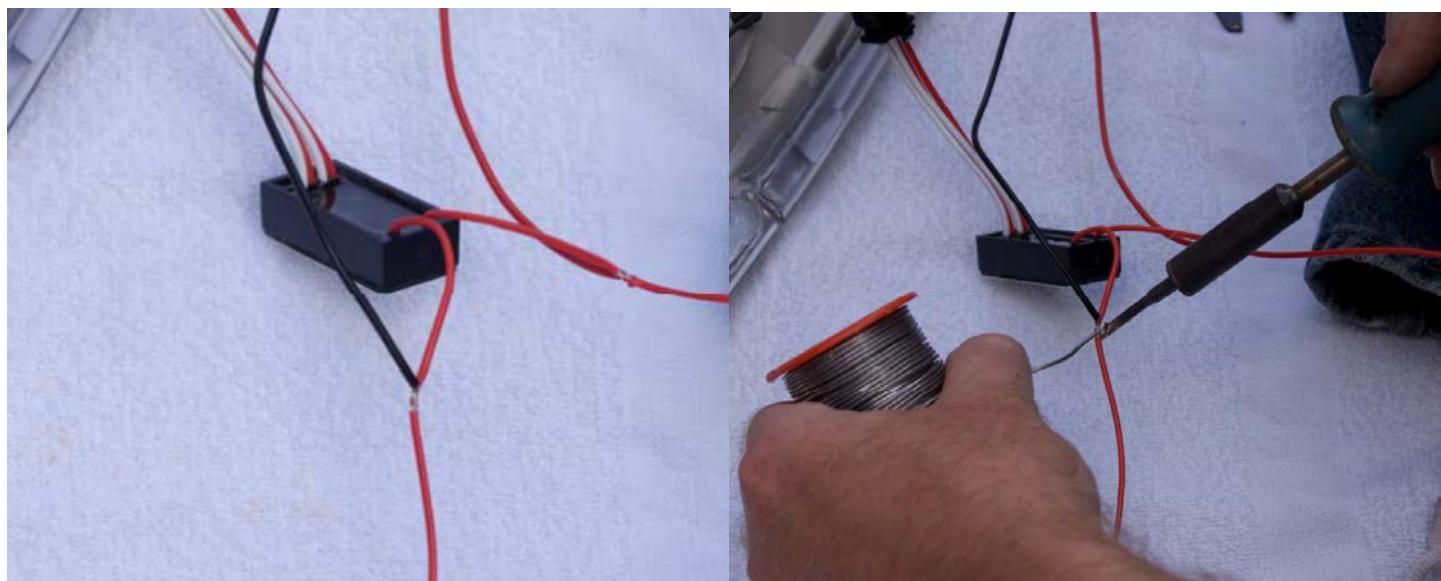


- Using wire strippers, carefully strip about $\frac{1}{2}$ " of wire about 3" from the small black voltage regulator module that feeds the halo LED. This must be done carefully so you do not nick the wires. If the wires accidentally get cut, don't worry, it will all be soldered together.

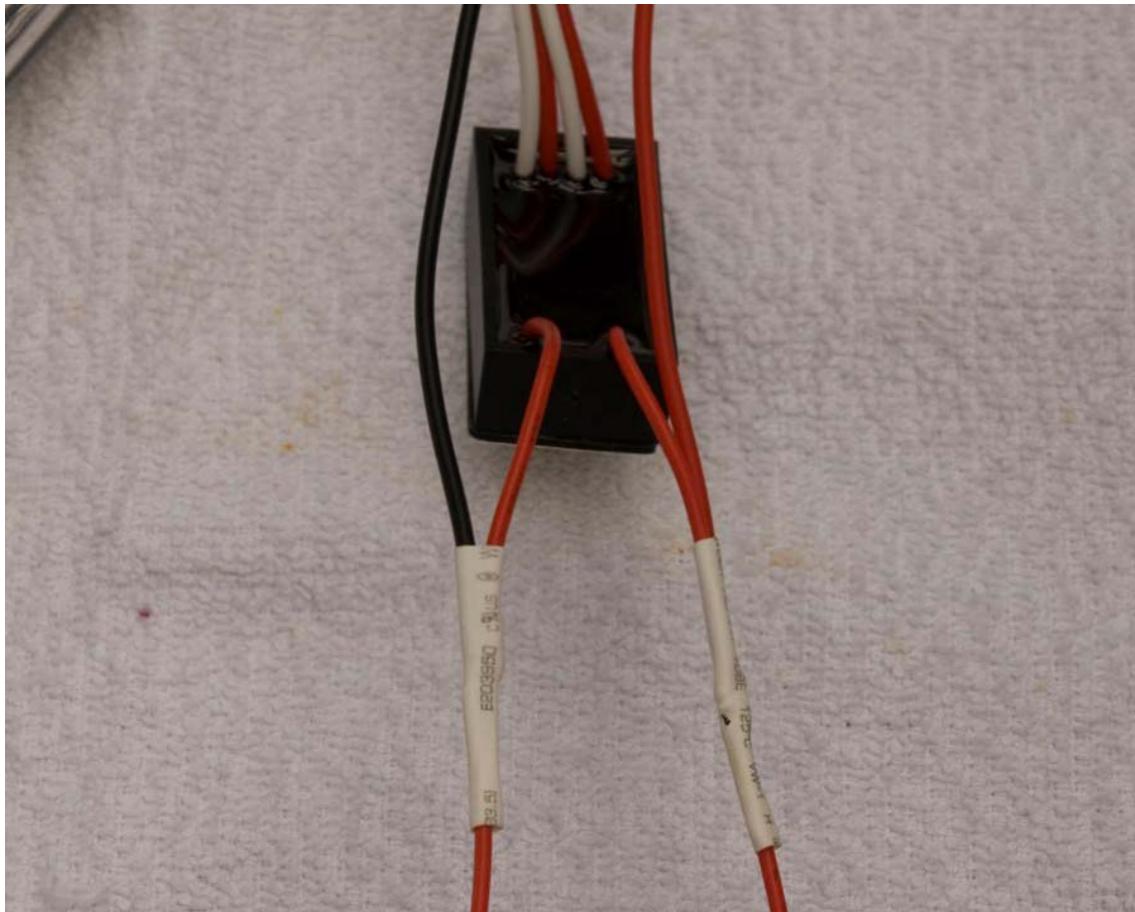
Note: If you don't know how to solder, an alternative method is to use crimp wire taps to join these wires rather than solder. Soldering is preferred because of reliability. How the wire taps are used is explained later in this procedure.



- Twist the red and black wire to the stripped area of the two red wires coming out of the voltage regulator. Solder the wires. If you do not use solder, use the crimp wire taps.



4. After the wires are soldered, protect the connections by using heat shrinkable tubing or electrical tape wrapped around the connections.
5. Make this same connection on both headlight assemblies.

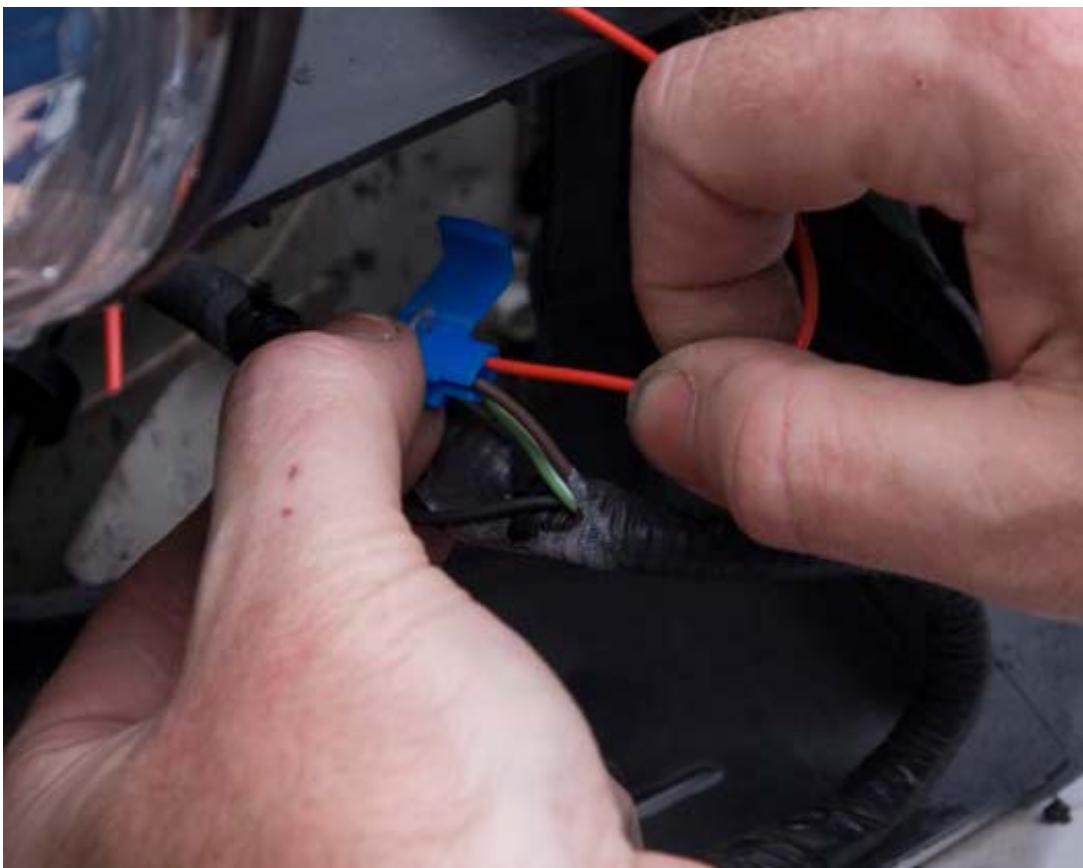


Connection to the Car's Side Marker Light:

1. Take the side marker light connector out of the side of the car's headlight mount and pull it through the main headlight opening so it is easier to work on. Carefully cut the electrical tape that is wrapped around the wire loom, exposing the three wires inside the loom.
2. On this car (98 V6) there is a black, green, and brown wire. The black wire is the ground. The green wire is the turn signal and the brown wire is the side marker light.
3. Check the circuit by placing the ground lead of the test light to a good chassis ground. Turn on the car's parking lights (you may have to reconnect the battery) and carefully probe either the connector or the wire with the test light. The light should glow when it contacts the conductor of the brown wire. We'll assume it's the brown wire.
4. Separate the black and brown wires.



5. Take the wire taps and place one on the brown wire and one on the black wire.
6. Next, place the red wires in the wire taps and secure them. You may need to use pliers to close the wire taps and push the metal blade through the wires. Make sure the red wires are seated against the stops in the taps so the wire is penetrated by the blade and you have a good electrical contact. I chose not to solder these in case the headlights needed to be removed. It would be easier to remove the taps rather than to have to cut the soldered wires. But, you can solder these connections if you desire.



7. Finished wire taps should look like this:



Testing all lights:

1. Connect the "D" shaped headlight connector and the side marker (parking) light connector to the headlight assembly.
2. Now is a good time to test the side marker light, turn signal, headlight, high beam, and halo. Make sure they all work correctly. If any of the lights don't work, check your wiring connections and your bulbs. Also, make sure all of your connectors are seated properly. Do not proceed until all lights work correctly.

Re-assembly & installing projector headlights:

1. Now it's time to re-assemble the headlight. Gently slide the headlight into place on the car. Ensure that the wires are not pinched and the voltage regulator block isn't interfering.
2. The (3) adjustment bolts should penetrate the holes in the car's plastic headlight mount. Two (2) of the adjusters will "snap" into place.
3. You may have to put a moderate amount of pressure on the assembly to get the adjustors to snap into place. If the assembly doesn't fit properly, check to see what is causing the interference. On ours, the corner of the front quarter panel had to be lifted about 1/8" to get the headlight assembly to seat properly.
4. If the assembly requires more than a moderate amount of force, find the source of the interference and fix it. Remember these assemblies are plastic and will break easily.
5. The adjuster "ears" should snap in place.



6. The third, the one on the top nearest the fender of the car, will need to have the "L" shaped bracket replaced to hold it in place. This may require the use of pliers or other strong tool if you can't replace with your fingers. The adjustor is shown below prior to installing the "L" shaped bracket.



7. This is a good time to check the silicone water sealant. Raxiom brand headlights do not require silicone sealant to be applied prior to installation, but it is always a good idea to check the seal and make any repairs necessary. In our installation, the corner of the fender knocked some off and we had to replace it.



8. Repeat this entire process for the opposite side.



9. Once the headlights are installed, check all operation again. If everything works correctly, enjoy your new look!
10. The headlights will most likely need to be properly aimed. Refer to a shop manual to aim the headlights or take it to a local shop.

FINISHED PRODUCT:



Installation Instructions written by AmericanMuscle customer Scott Robinson 9.23.11