



# SLC V3 LED Headlights for C5 Corvette

## Installation Guide

# Tools list

## Required tools

- - Philips head screwdriver
- - Torx 15 screwdriver
- - Torx 20 screwdriver
- - 8mm open end wrench
- - 9mm open end wrench
- - 10mm, wrench or socket
- - 1/2" socket
- - socket extension (6" suggested)
- Drill with 3/16" and 1/2" drill bit

## Suggested Tools

- WD-40, Liquid wrench or similar
- Large Towel
- Needle nose pliers
- Marker or pen
- Masking or painter's tape

# Parts list

- Main Lenses
- SLC V3 Shrouds
- Aluminum Frames
- 55w HID kit with ballasts bulbs (installed) and mounts
- Halogen High beam (for base kit)
- Hi-4 harness
- High beam connector harness
- (12) 2.5" 8-32 bolts (later kits will have 2" bolts)
- (12) 8-32 nuts
- (12) 8-32 lock washers
- (24) 8-32 nylon locking nuts (later kits will have flange nuts)
- (4) 6-32 5/8" bolts
- (2) 6-32 3/4" bolts
- (6) 6-32 nylon locking nuts
- (2) Turnbuckles
- (2) 45" tubular weather strip
- (2) 3/4" thick weather strip
- (2) 3/8" thin weather strip

# Phase 1: removal of old headlights:

1. Raise your headlight using the manual crank. You'll see three Philips head screws that hold the plastic trim bezel in place. remove these screws and the bezel



2. Remove the 4 torx 15 screws that hold the headlight cover in place. 2 are on the back and there's one on each side. Remove these and the headlight cover. Be sure not to lose the plastic or metal sleeve for the bolts.

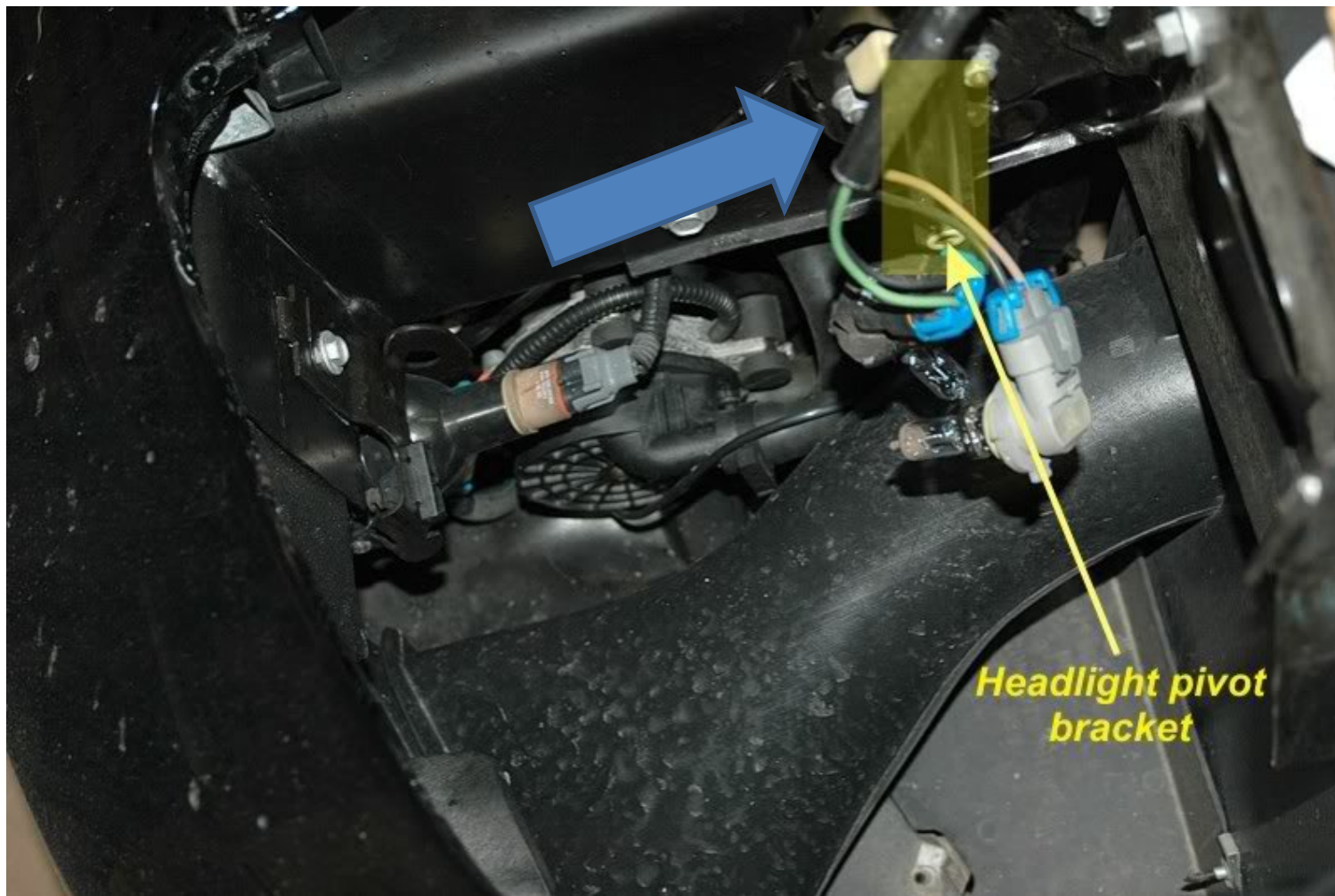


3. Remove the 2 Torx 20 bolts/8mm nuts that are the headlight hinge joint. (It may be beneficial to spray these with WD-40 or similar as they are installed with Blue Lock tight from the factory)

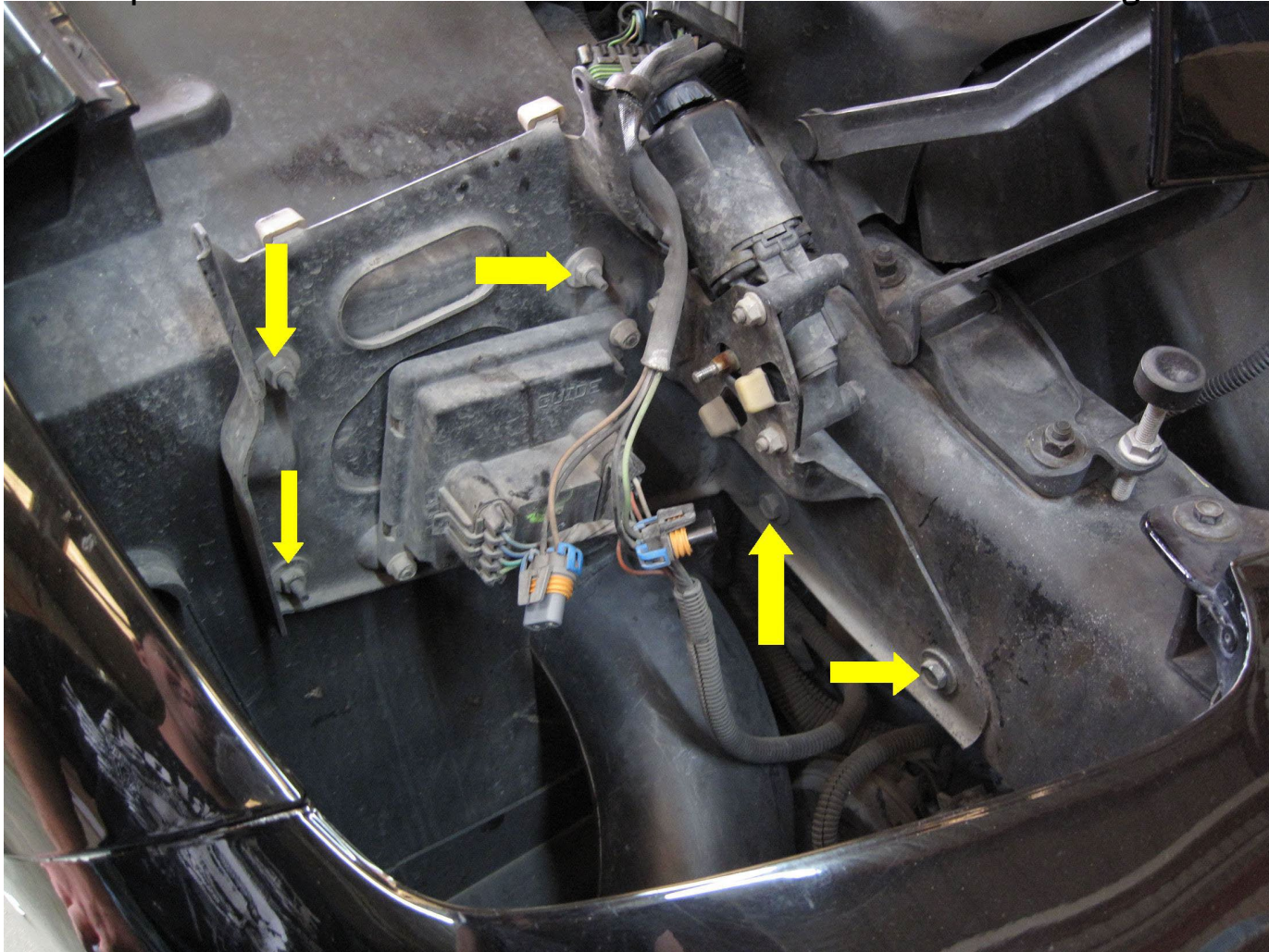




4. With the headlight tilted down, remove the 10mm nut that holds the headlight lifting arm to the headlight motor. Disconnect the headlight bulb sockets and remove the headlight (picture shows the placement of the nut without the headlight).



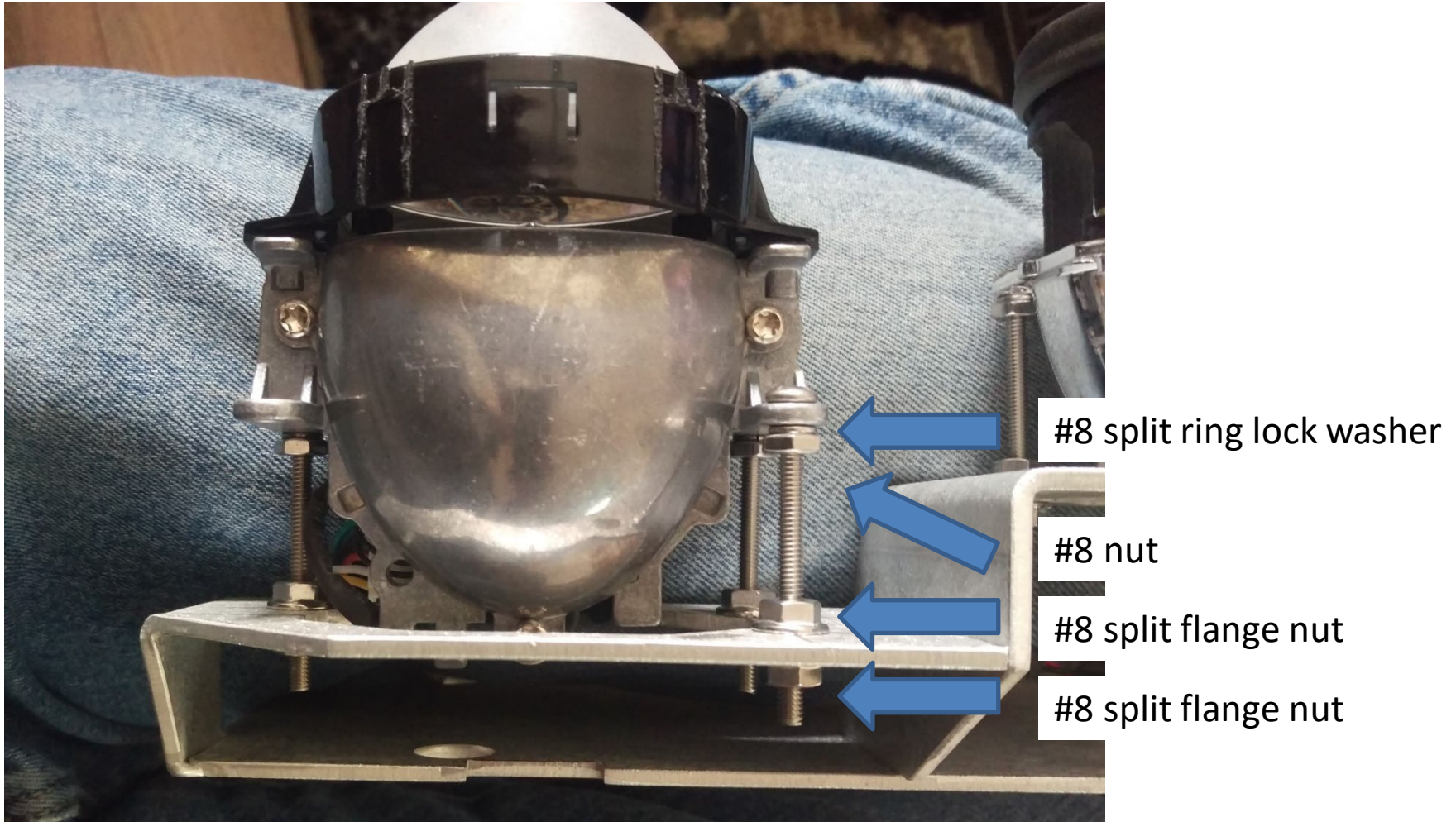
5. There are 5 mounting points that hold the frame in place (shown below) Three 10mm nuts on the wheel well and two 13mm bolts on the frame rail. Make sure to save these as they will be used to mount your new lights. Be Careful not to scratch your paint when removing the frame. (note: the 4"x4" headlight control box shown here bolted to the headlight frame will be removed and the harness connectors taped off. The control box will not be reused with the new lights.





# Phase 2: Assembly of new headlights

6. Install the LED projectors on the outer portion of the brackets as shown below with the 2" #8 screws. The (2) 2.5" long screws will be used on the high beam projectors. Flange nuts should face each other.



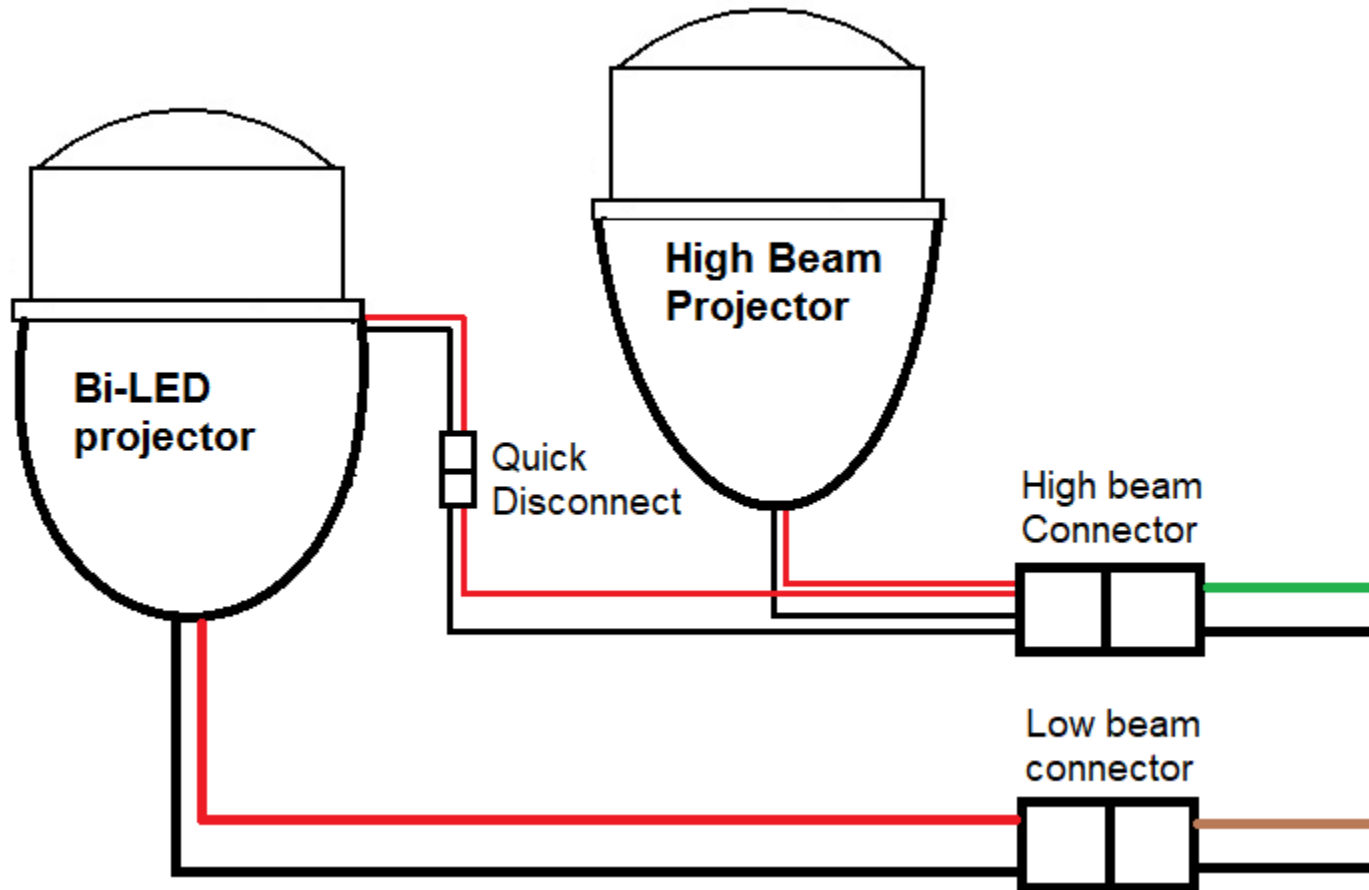


7. Install the High beam projector in the same manner as the Bi-LED projector. The 2.5" screw will be used in the lower mount furthest away from the Bi-LED projector
8. Install the Assembly using the OEM 10mm nuts and ½" frame bolt you removed earlier



9. Identify your low and high beam connectors and note the position of the black (ground) and colored (12v+) wire

10. Connect the Low beam connector to the Bi-LED projector, and the high beam connector to the high beam projector. Connect the quick disconnect between both projectors as shown below:

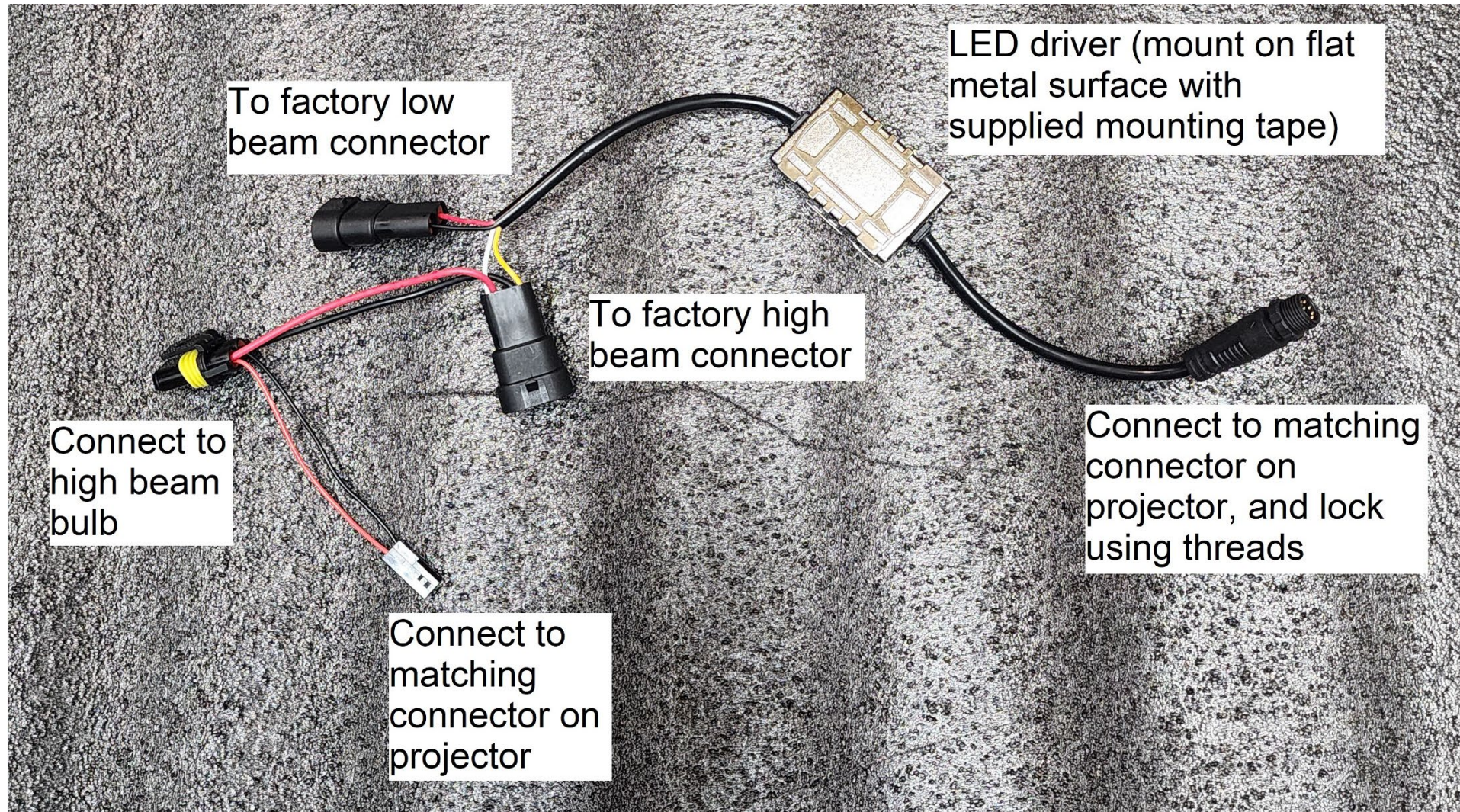




# Connections (Nova Edition)

Make the following connections as shown.

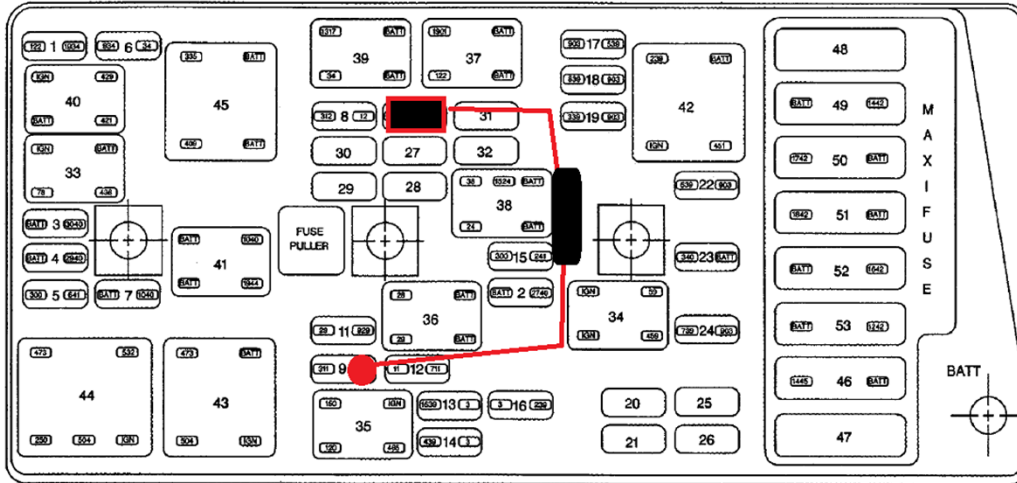
(Make sure the black wires line up)





# Phase 3: Installation of Hi-4 harness

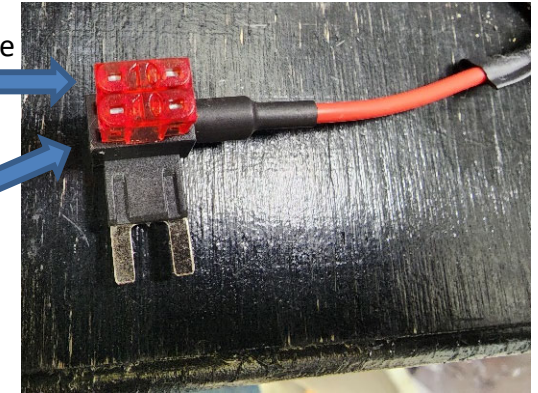
11. Remove the cover of the under-hood fuse box. Fuse 10 will be removed from the factory location and installed on the lower slot of the add-a-fuse. Add-a-fuse is installed in the #10 slot. Fuse # 9 is tapped with other side of harness



Included Fuse



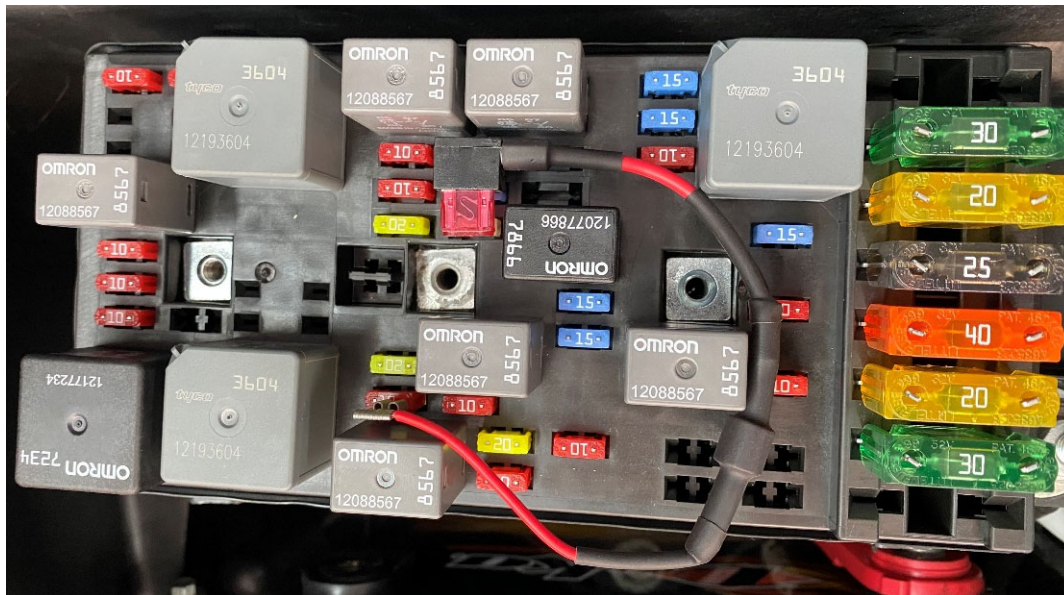
Factory #10 fuse goes in lower slot



Tap the fuse as shown using the fuse taps supplied with your harness. The leg of the fuse will slide through the tap and back into the fuse socket. The fuse may not seat completely, but as long as you have good contact it will work as intended. Fuse taps install like this:



Once installed, test your lights again to ensure full function. Your low beams should remain lit when in high beam mode.

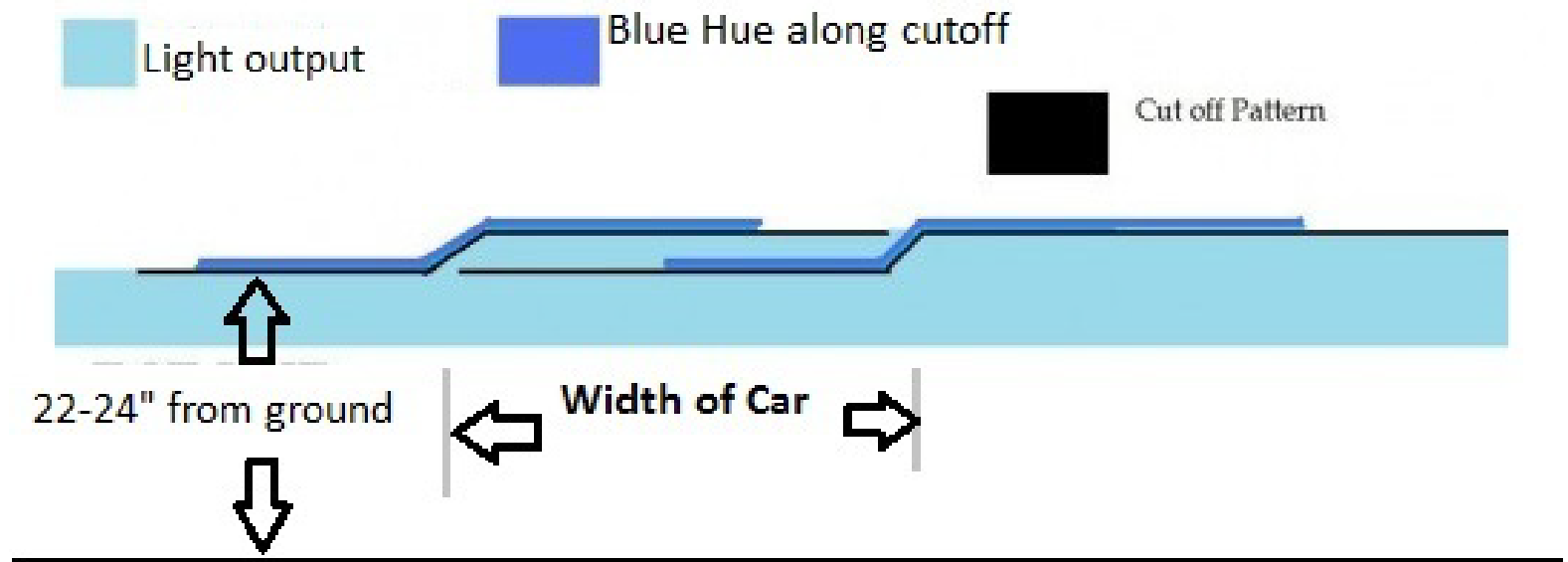


# Phase 4: Aiming.

12. Park your car on a level surface 15-20 feet away from a wall (preferably a white or light colored wall) You may need painter's/masking tape and a tape measure as well.

The lower (left) portion of the cutoff should be between 22 and 24" for a stock ride-height car. Lowered cars should be 21-22" from the ground.

The "step" in the cutoff pattern should shoot directly in front of each headlight roughly the width of the car. This way, the steps (which are the most intense part of the beam pattern) remain parallel down the road and never cross. This adjustment may need to be done several times to get it perfect and you'll know after you've driven the car at night for a while.



There are 3 types of adjustment: Rotation, Vertical and Horizontal. Vertical and horizontal adjustment are accomplished by loosening the flange nut on one side of the frame and tightening the one on the other side. Rotational ad

Rotational adjustment is accomplished by loosening the bolts on the diagonal and gently twisting the projector to achieve the desired rotation. When correctly adjusted both left and right sides of the beam should be level.

Horizontal and vertical adjustment is accomplished by loosening the flange nut on one side of the frame, and tightening the nut on the other side. When correctly adjusted, the “step” should appear directly ahead. To verify this, stand behind the outer tail light. The center of the step should form an imaginary straight line down to the low beam projector.

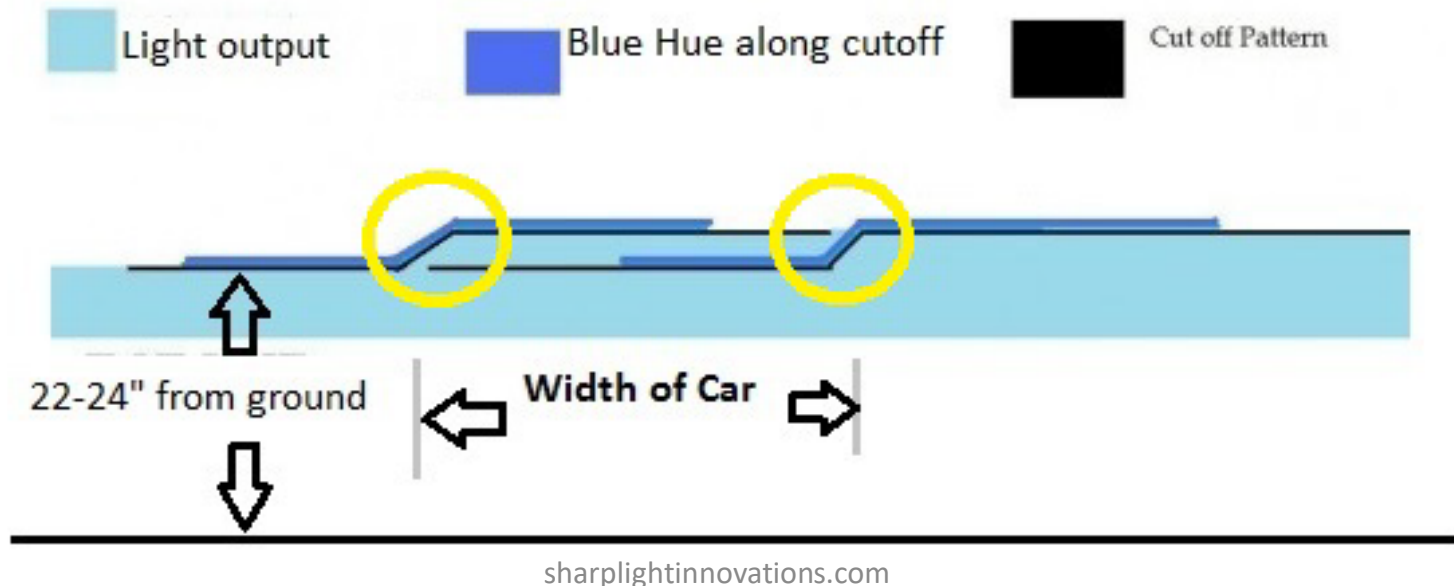
This should be the end result: Take your car for a short test drive to verify you have them aimed where you want them.





# “Night Saber” High beam aiming

- The Night Saber dedicated high beams have a concentrated beam pattern for maximum long-range visibility.
- To aim, disable the Bi-LED function by disconnecting it from the High beam projectors with the quick-connector.
- Aim the high beams as shown (yellow circles)
- Re-connect the Bi-LED projector to the high beam.



# Phase 5: Installing Shroud and Lens

13. Weather strip installation on the shroud - The shroud and lens assembly is completely separate from the headlights themselves allowing for the projectors to remain rigidly aimed while the shroud and lens can be adjusted for fit/finish.

Install the provided foam weather strip as shown.



14. Install the “D” profile weather strip around the main lens as shown





15. Remove the plastic push pin (or bolt on earlier models) and T-15 fender screw shown in the photo below: Install the shroud over the headlight projectors. DO NOT DRILL MOUNTING HOLES in the tabs yet.



19. Set the main lens over the shroud by tilting the front end of the shroud down so the leading edge of the lens lip hooks under the front bumper.

A video of this can be seen here: <http://www.youtube.com/watch?v=pLCy8AwwRGA>  
(note, the small tab on the lens that hooks under the fender is no longer present)

16. The Lens bolts to the shroud through 3 points shown in the following picture. You will need to drill these holes with a 3/16" drill bit and use the provided #6 screws, washers and locking nuts. This should be performed with the shroud and lens on the car to ensure the shroud and lens line up correctly when installed.

The 3/4" long #6 screw goes in the middle position



Tighten the nut onto the screw just enough so that the shroud and lens start to press together. Do not tighten any further.

17. Once the shroud is in a satisfactory position, note where the screws and push pins would go and mark where to drill mounting holes in the appropriate locations. (It is advised to remove lens and shroud from the car while doing this to avoid accidental damage caused by over-drilling)

18. Re-install the shroud and lens assembly. Then on the 2.5" high beam mounting bolt and  $\frac{3}{4}$ " #6 lens screw, install the supplied turnbuckles. Secure the turn buckles with the flange nut (photo shows nylon nut) on the #8 screw and #6 nylon locking nut on the #6 screw. Adjust the turn buckle and check that the inner trailing edge sits properly with the hood gently closed.





## Customer Painting:

Shroud painting: While the shrouds themselves are black, they do not quite match the black paint of the car and the surface may have minor scuffs from machining (inherent with production) shrouds can be painted with traditional spray paint if you're not trying to match a color code, however the best results are achieved with professional equipment.



Lens painting - When painting the lens, note how much area you'll need to get an effective beam pattern from the high and low beams. I suggest using painter's tape on the lens to mark this area. After painting, remove the painter's tape and shoot the entire lens (including the unpainted section) with clear-coat to minimize the possibility of flaking.



# OPTION: Angel eyes

Connect Angel eyes harness as shown to the Turn signal light circuit using the supplied T-taps , then connect outputs to angel eye pigtail connector. Each Angel eye has it's own controller, however the T-taps connect the wires from both controllers.

