



# Halogen Headlight Light Tube Kit

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Version Date 20FEB2018

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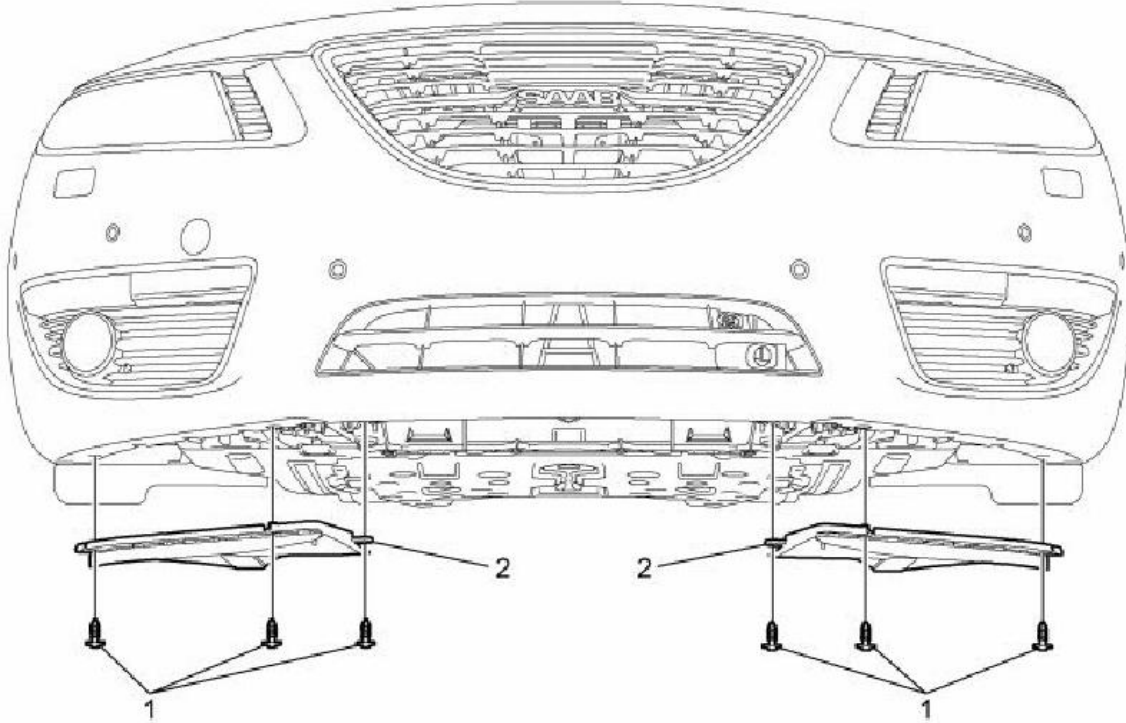
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## Tools

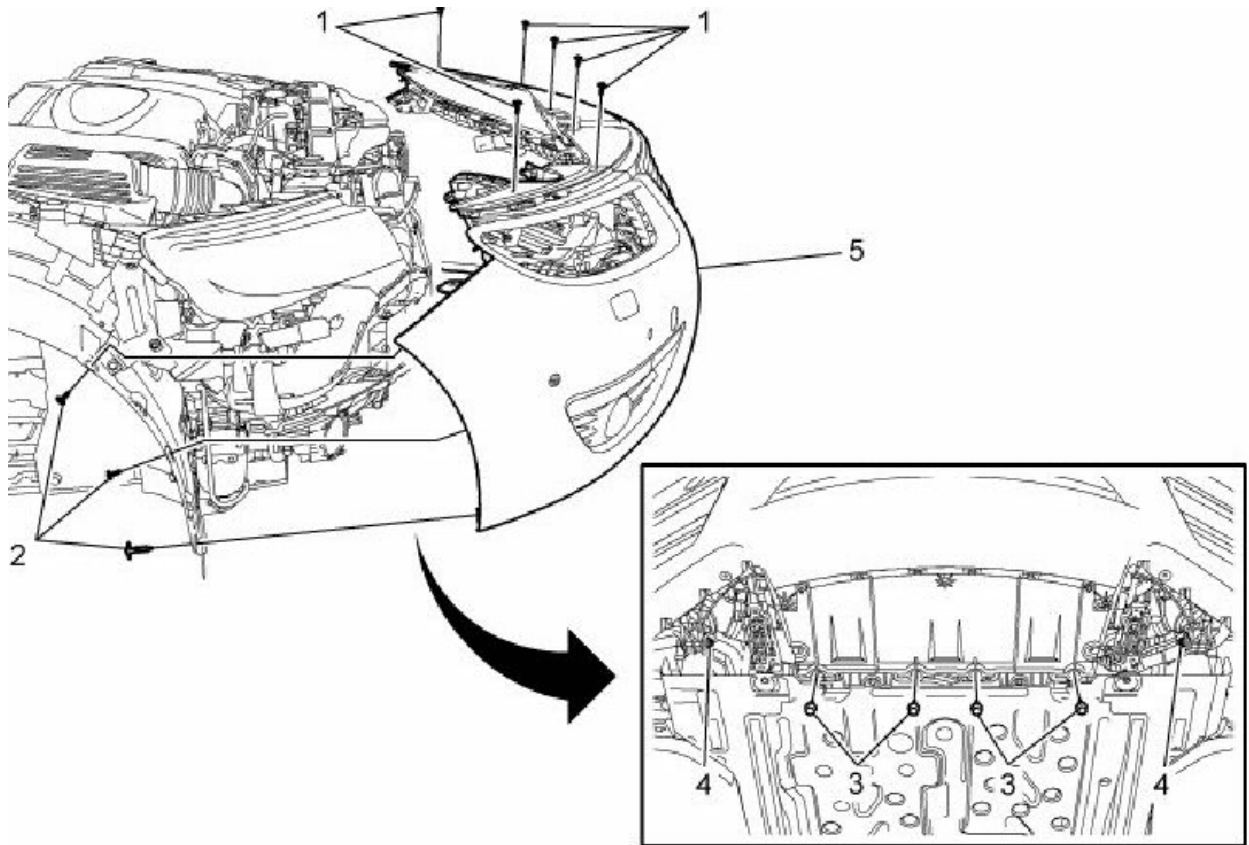
- Handheld Rotary Multitool such as a Dremel
- Socket Wrench set
- Torx head driver set
- Masking tape

## Excerpt from WIS: How to Remove the Headlights



G801R609

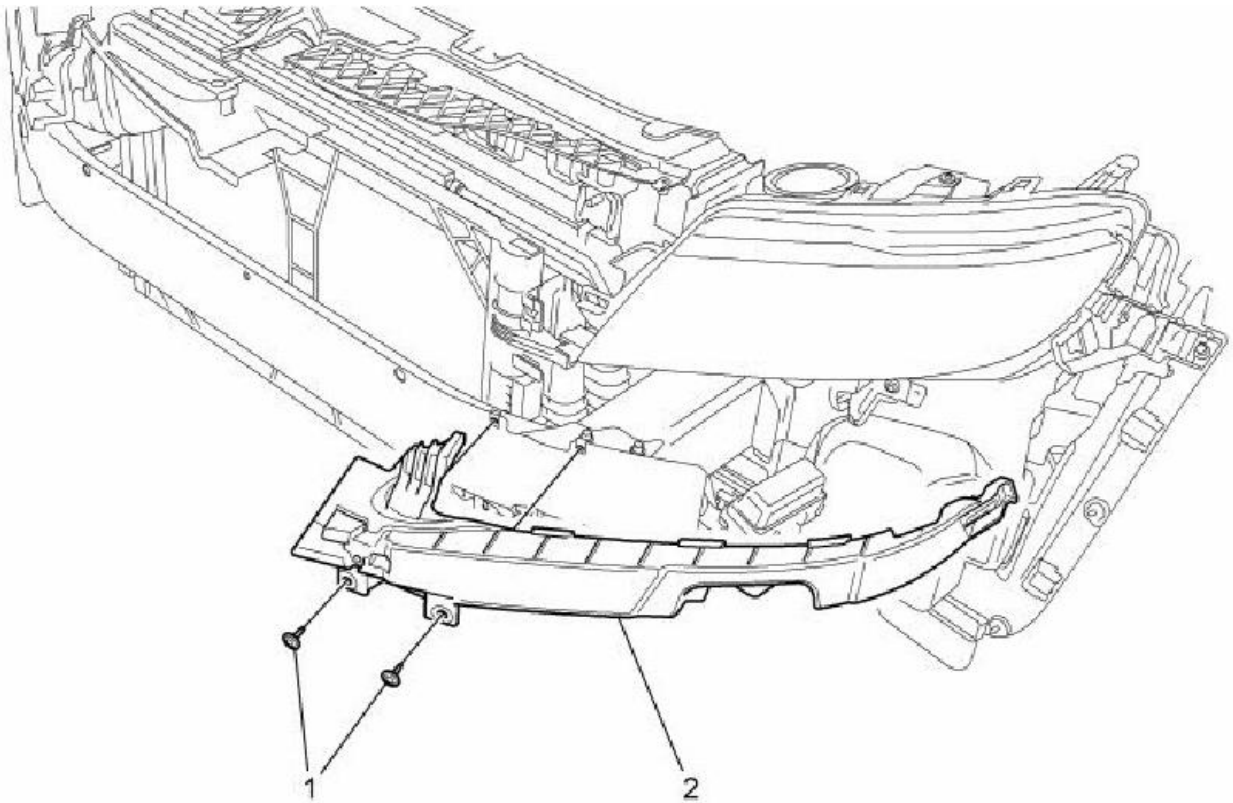
Callout	Component Name
<p><b>Preliminary Procedure</b></p> <p>Raise and support the vehicle. Refer to <a href="#">Lifting and Jacking the Vehicle</a>.</p>	
<p>1</p>	<p>Front Compartment Splash Shield Fastener (Qty: 3)</p> <p>Refer to <a href="#">Fastener Caution</a>.</p> <p><b>Tighten</b></p> <p>3 Nm (27 lb in)</p>
<p>2</p>	<p>Front Compartment Splash Shield</p>



G845R516

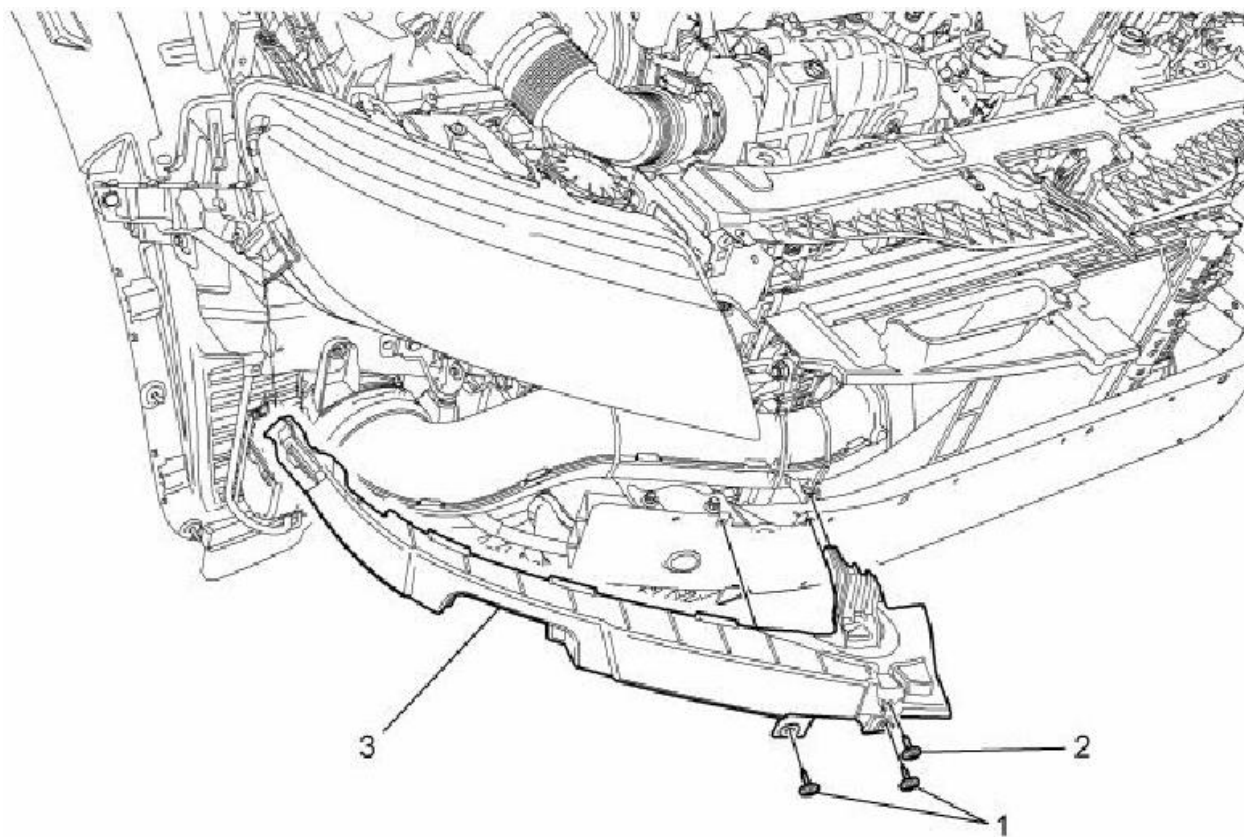
Callout	Component Name
<p><b>Preliminary Procedure</b></p> <ol style="list-style-type: none"> <li>Remove the splash shields. Refer to <a href="#">Front Compartment Splash Shield Replacement</a>.</li> <li>A20NFT/LHU Bio Power: Disconnect engine heater cable and ground cable.</li> </ol> <p><b>Note</b> Cover the head lamps to avoid scratches.</p>	
1	Front Bumper Fascia Fastener (Qty: 6)
2	Front Bumper Fascia Fastener (Qty: 6)
3	Front Bumper Fascia Plastic Retainer (Qty: 4)
4	<p>Front Bumper Fascia Fastener (Qty: 2)</p> <p>Refer to <a href="#">Fastener Caution</a>.</p> <p><b>Procedure</b></p> <p>Loosen the fastener to release the fascia.</p> <p><b>Tighten</b></p> <p>25 Nm (18 lb ft)</p>

5	<p>Front Bumper Fascia</p> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>Disconnect any electrical connectors.</li> <li>Disconnect hose to headlight nozzle if needed.. Plug the hose.</li> <li>Transfer components as necessary.</li> </ol> <p><b>Note</b> Be careful in the headlight area. The headlight molding comes off with the fascia.</p>
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G845R518

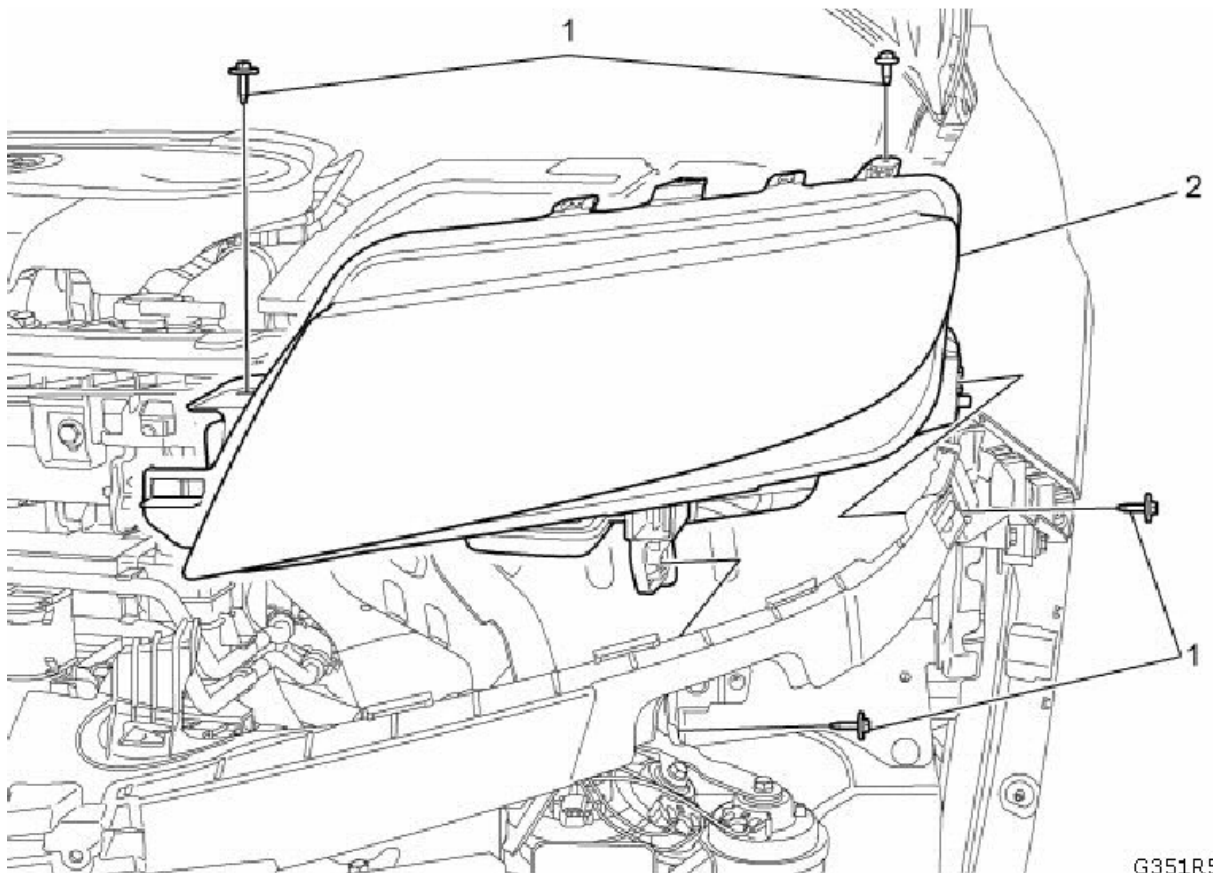
Callout	Component Name
<p><b>Preliminary Procedure</b></p> <p>Remove the front bumper fascia. Refer to <a href="#">Front Bumper Fascia Replacement</a>.</p>	
1	<p>Front Bumper Fascia Support Fastener (Qty: 2)</p> <p>Refer to <a href="#">Fastener Caution</a>.</p>
2	<p>Front Bumper Fascia Support</p> <p><b>Note</b></p> <p>There is a guide on the inner side of the lamp and a hook on the guide that must be attached to the bracket on the outside of the lamp.</p>



G845R522





Callout	Component Name
<p><b>Preliminary Procedure</b></p> <p>Remove the front bumper fascia. Refer to <a href="#">Front Bumper Fascia Replacement</a>.</p>	
1	<p>Front Bumper Fascia Support Fastener (Qty: 2)</p> <p>Refer to <a href="#">Fastener Caution</a>.</p>
2	<p>Air Intake Fastener (Qty: 1)</p>
3	<p>Front Bumper Fascia Bracket Support</p> <p><b>Note</b></p> <p>There is a guide on the inner side of the lamp and a hook on the guide that must be attached to the bracket on the outside of the lamp.</p>



G351R545



Callout	Component Name
Refer to <a href="#">Halogen Bulb Warning</a> .	<div data-bbox="243 289 935 680"><b>Warning</b><p>The high intensity discharge system produces high voltage and current. In order to reduce the risk of severe shocks and burns, the battery negative cable must be disconnected any time service work is being performed on or around the high intensity discharge system.</p></div> <div data-bbox="243 722 935 1285"><b>Warning</b><p>The high intensity discharge system produces high voltage and current. To reduce the risk of severe shocks and burns:</p><ul style="list-style-type: none"><li>• Never open the high intensity discharge system ballast or the arc tube assembly starter.</li><li>• Never probe between the high intensity discharge system ballast output connector and the arc tube assembly.</li></ul></div>

1	<p>Headlamp Fastener (Qty: 4)</p> <p>Refer to <a href="#">Fastener Caution</a>.</p> <p><b>Tighten</b></p> <p>2.5 Nm (22 lb in)</p>
2	<p>Headlamp</p> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Pull up and forward in order to release the headlamp.</li> <li>2. Pull the headlamp assembly forward far enough to access the electrical connection.</li> <li>3. Disconnect the electrical connectors.</li> <li>4. Remove the headlamp assembly.</li> <li>5. Aim the headlamps after installation. Refer to <a href="#">Headlamp Aiming (Base)</a> <a href="#">Headlamp Aiming (Check and Adjust)</a>.</li> </ol>

## Headlight Layout

Each headlight contains a glass light tube and a spot to mount the LEDs on each end.



Figure 1: Headlight Layout

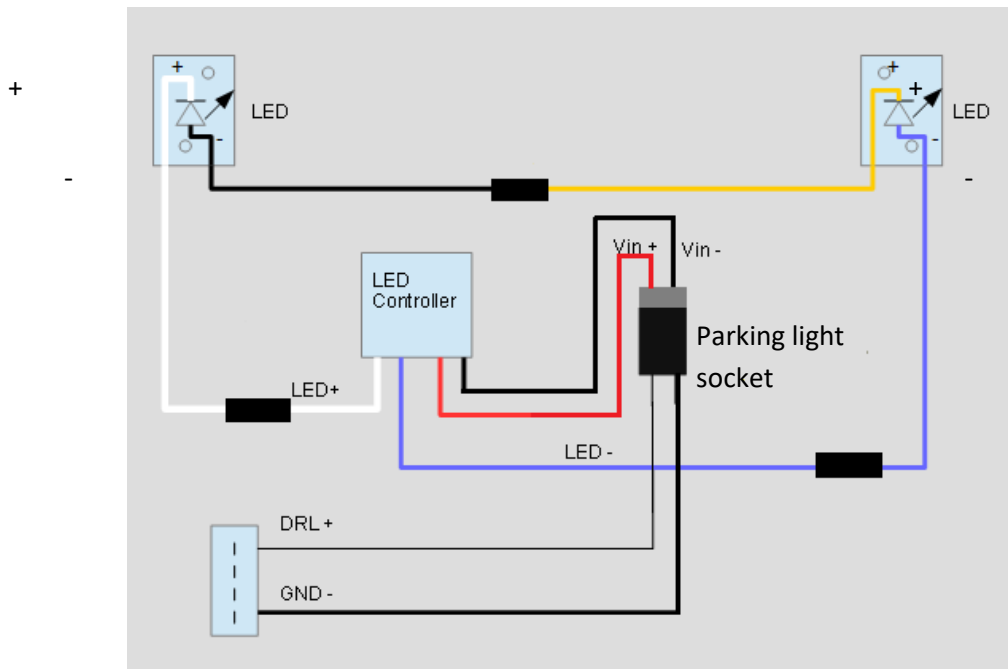


Figure 2: Wiring Diagram (Series)

Figure 2 shows a color coated wiring diagram. The wiring diagram is the same for each side

## Cut Open the Housing

1. Remove the 2 plastic headlight access covers (one on top and one behind)



Figure 3: Headlight Covers

2. Remove the headlight bulbs and PARKING LIGHT bulb for ease of access.
3. The outside edge cut out a window from the headlight housing as shown using a Dremel.



**Figure 4: Outside Access Window**

4. For the inside of the light strip cut out a window in the housing as shown. Be careful not to cut too low on this side of the housing as it is close to the electrical connector



Figure 5: Inside Access Window

### Identify the bracket and mounting location

5. Each part is labeled **Inside** for the inboard side of the light tube OR **Outside** for the outboard side of the light tube AND either **Passanger Side (R)** OR **Driver Side (L)** (where R and L are right and left sides )



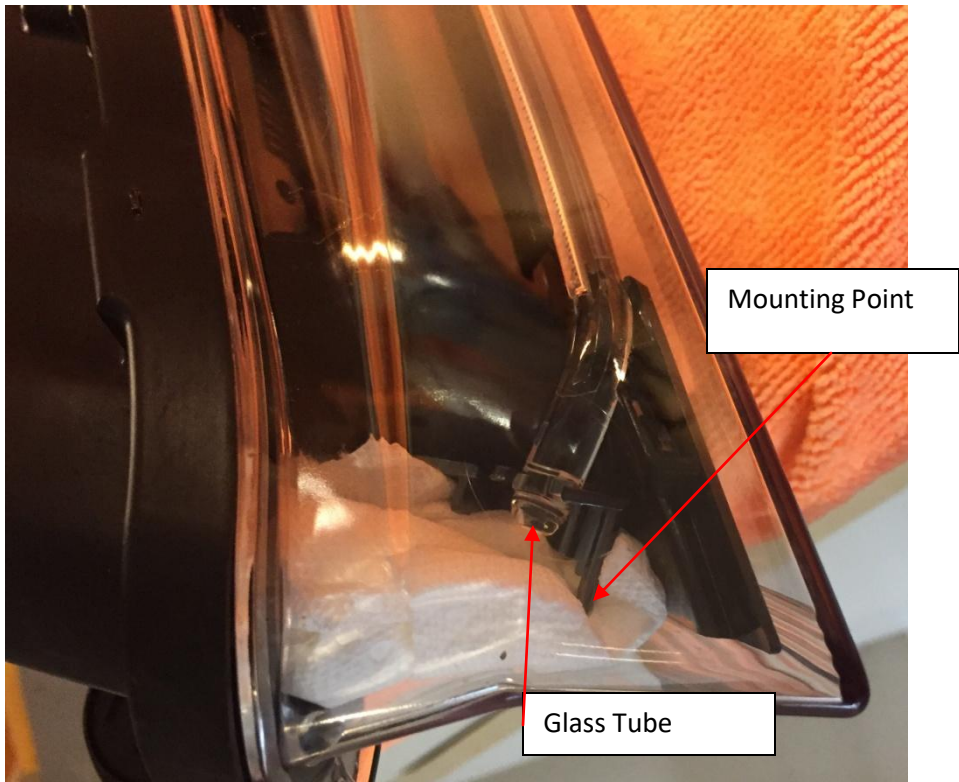
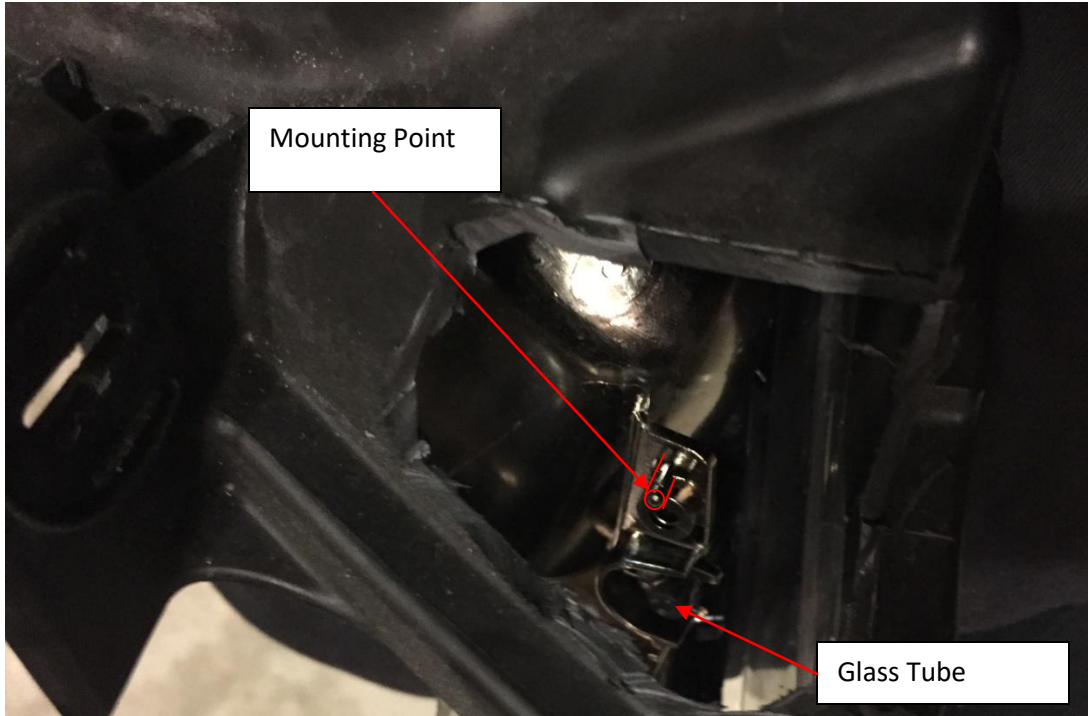


Figure 6: Mounting Pin and Glass Tube End



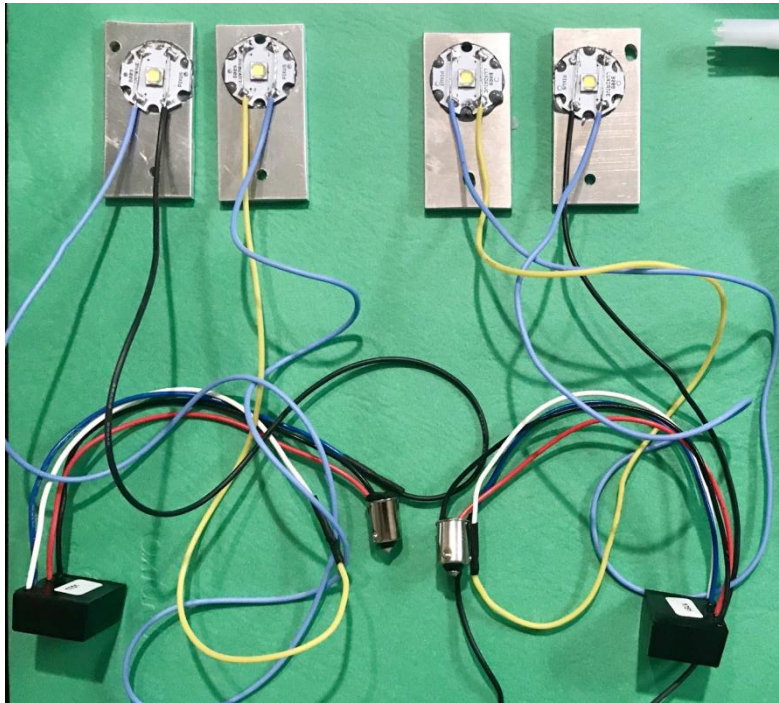


Figure 7: LED Mounting Configuration

### Install the inside brackets

6. Orient the headlight so that you can lower the bracket through the top dust cover port (where the parking light socket is located) (Figure 8)

**Be careful not to damage the LED lens Dome they are fragile**

7. Apply a generous amount of superglue to the mounting holes
8. Secure the Bracket and hold in place for at least 60 Sec  
RECOMMENDATION: Wait 5-10 min before attempting to install the other side on the same headlight.

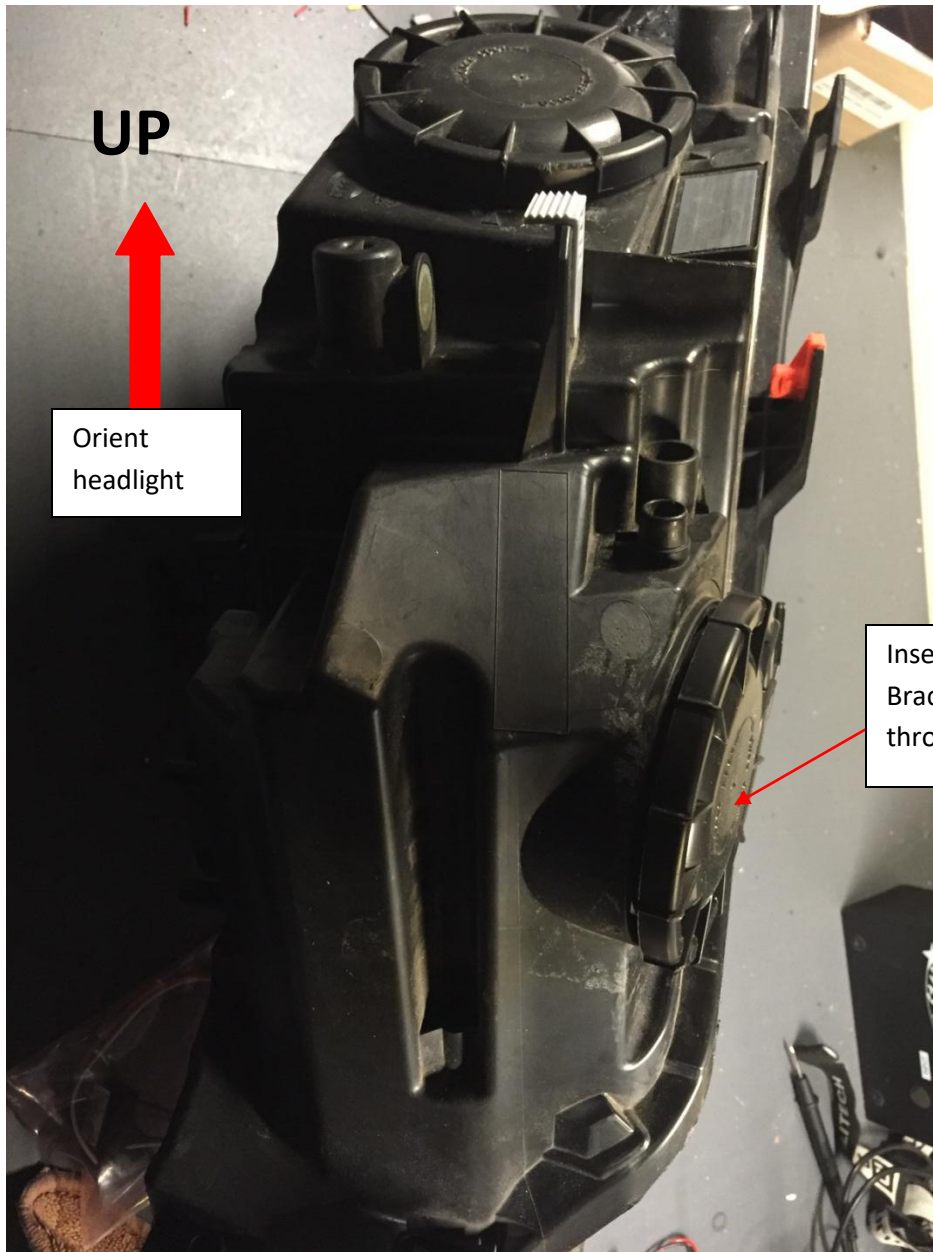


Figure 8: Install the Inside Brackets

## Install the outside brackets

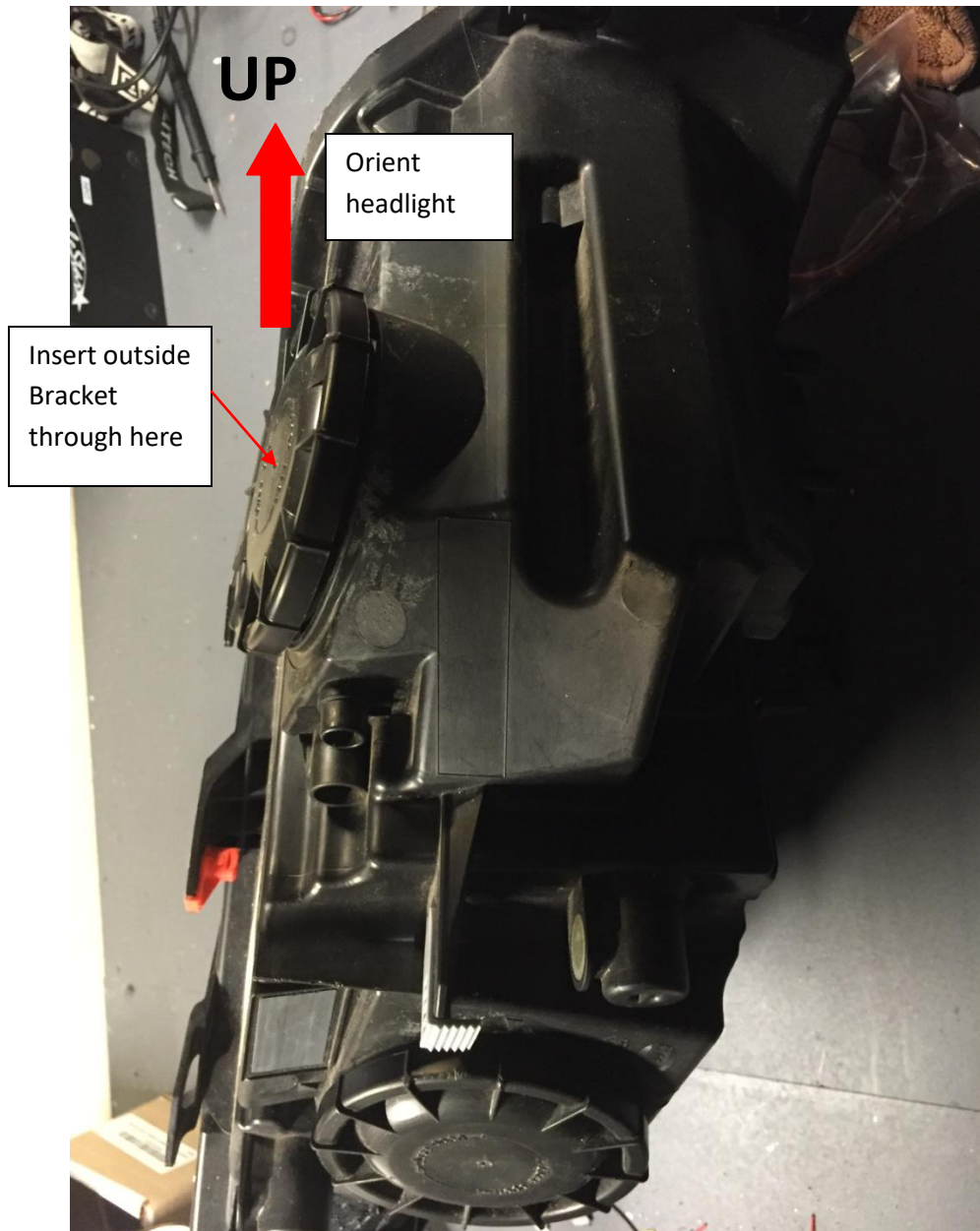


Figure 9: Install the Outside Brackets

9. Orient the headlight so that you can lower the bracket through the top dust cover port (where the parking light socket is located) (Figure 9)

**Be careful not to damage the LED lens Dome they are fragile**

10. Apply a generous amount of superglue to the mounting holes
11. Secure the Bracket and hold in place for at least 60 Sec

**RECOMMENDATION:** Wait 5-10 min before attempting to install the other side on the same headlight.

## Install the connector

12. Remove the parking light socket and bulb.
13. Install the connector into the bulb socket.

## Re Seal the housing


14. Clean the cutouts and housing along the cut surfaces and remove any loose debris.
15. apply the provided silicon and position the cutouts back into place

**TIP:** use painters tape or masking tape to secure the cutouts while the silicon dries

16. When dry, reinstall the dust covers in reinstall the headlights on the vehicle Following the WIS steps in reverse.

## Function and Operation

The LED accent lights work the same way in this kit as they do on the higher trim level vehicles. The

illuminate whenever the parking lights are on: 

They are also illuminated at night or whenever the Fog lights are on

They do not illuminate when automatic lighting is turned on during the day

## Support

For technical support please send questions to [lightbarkit95@gmail.com](mailto:lightbarkit95@gmail.com)