

ECS **TUNING™**

Installation Procedures

Ziza Interior Lighting Package Installation

ES2562191 - without panoramic roof

ES2538472 - with panoramic roof

for BMW E91



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Fits BMW E91

LED Installation Instructions

Interior Lighting Kit for BMW E91
ES2562191 - without panoramic roof
ES2538472 - with panoramic roof



Ziza
performance automotive lighting

Tools

Trim removal tool – ES517779 (Kit)

Kit Contents

5 chip wedge base white LED (qty 9)
9 chip wedge base white LED (qty 4)
36mm white LED festoon (qty 1)
42mm white LED festoon (qty 3)

The Ziza Premium Interior Lighting package for BMW E91 adds crisp, white interior illumination at all interior lighting locations.

The LEDs in the kit are direct fit replacements for the stock incandescent bulbs.

This tutorial explains how to access and replace bulbs all interior light locations.

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What are LEDs?

LEDs are Light Emitting Diodes, solid state devices that emit light when connected to electrical current. They have no moving parts or wire filaments to burn out. They emit a whiter light, run cooler, and last longer than the incandescent (filament style bulbs) we are replacing in this tutorial.

Unlike filament bulbs, LEDs are polarity sensitive. They have plus and minus (positive and negative) electrical terminals that must match the polarity of the applied voltage. Installing the bulbs “backwards” in the light bulb sockets (with reversed polarity) will not harm them, but they will not light. Flipping the bulb 180 degrees in the electrical connector cures this problem.

Bulb Types

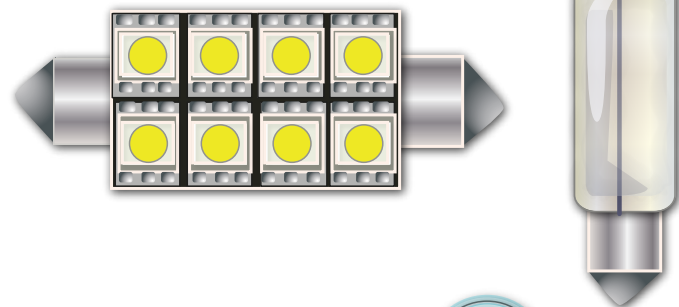
This kit includes two bulb types, classified by their general shape.

FESTOON - Conventional incandescent **festoon** bulbs have a shape and general appearance that is similar to a glass fuse.

Metal caps attached to both ends of a glass tube are sealed to the tube and attached to the bulb filament. End caps mount the bulb in its holder and also conduct electrical current.

LED festoon lights have the same pointed end caps, but are attached to a bank of LEDs instead of a filament tube.

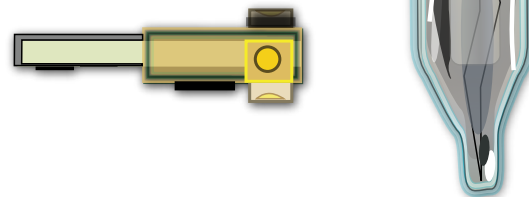
festoon



WEDGE - Wedge style bulbs get their name from the shape of the bulb base. The tapered end of the bulb “wedges” into the bulb socket.

LED wedge lights fit the bulb socket like a filament bulb, but are commonly polarity sensitive.

wedge



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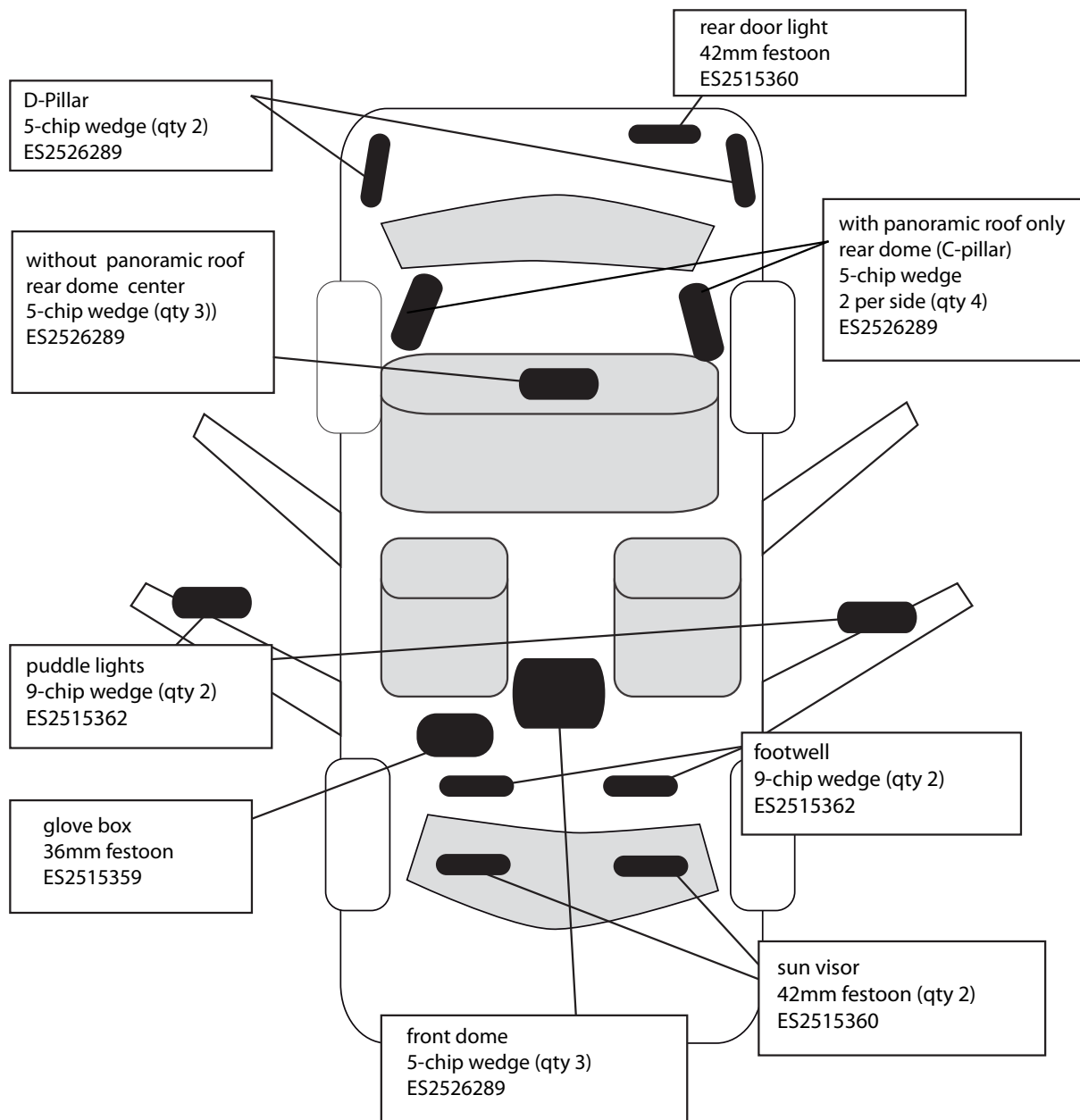
Ziza Interior Lighting Kit Locations - BMW E91 Wagon

Make ___ BMW _____

Model ___ E91 _____

Kit Part Number ___ ES2562191 - without panoramic roof ___

___ ES2538472 - with panoramic roof ___



Ziza Interior Lighting Package Installation

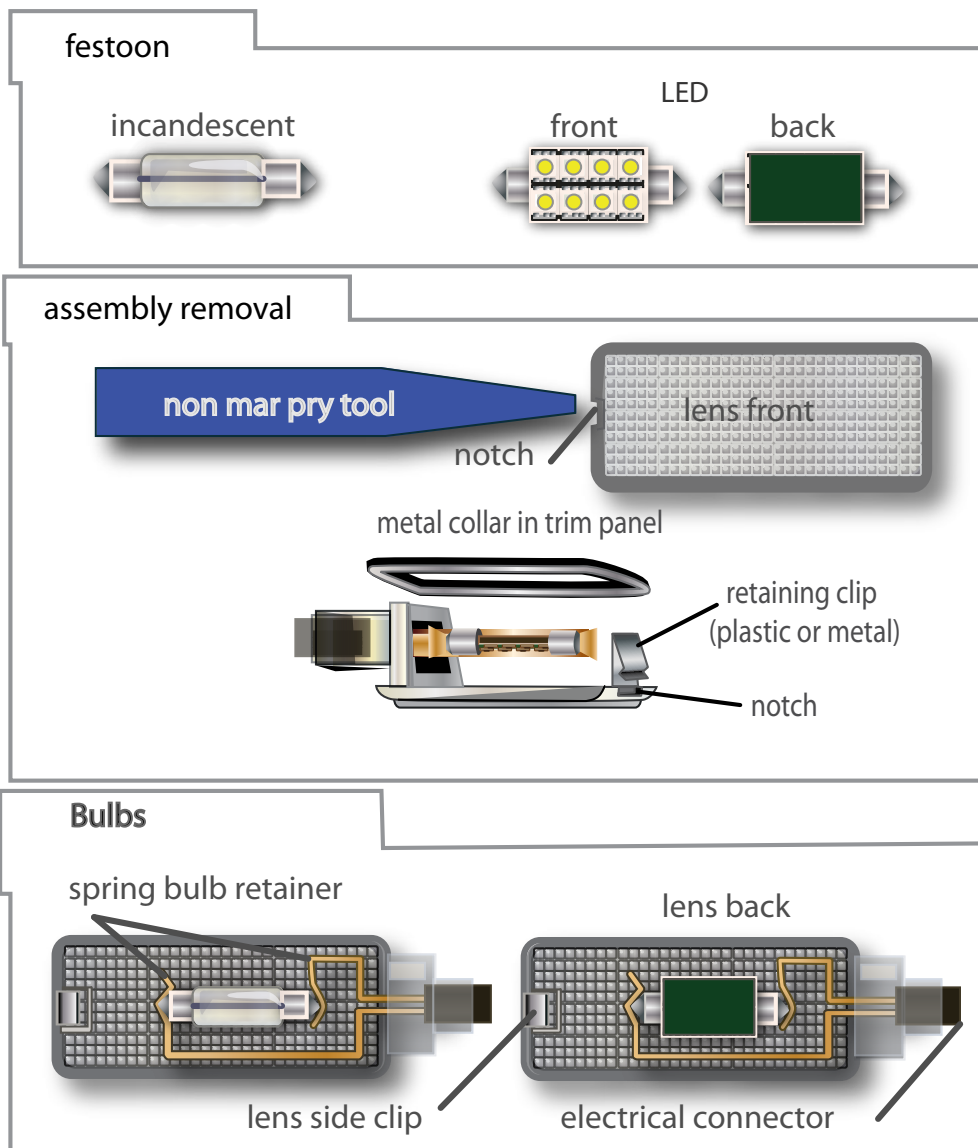
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General Tips

- When prying down on the assemblies to remove them, pry on the notched end of the lens. Insert the narrow tool tip **between** the lens plastic and any metal collar used to reinforce the lens mounting hole. Push in on the retaining clip first to compress and release it. Then pry down.
- The spring bulb retainer is also the circuit conductor. If necessary, gently bend the metal retainer so it holds the bulb tight. This will help prevent intermittent or flickering LED operation caused by a loose connection.
- Install the bulbs with the LEDs facing toward the lens.



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Front Dome and Vanity LED Installation



Front Dome

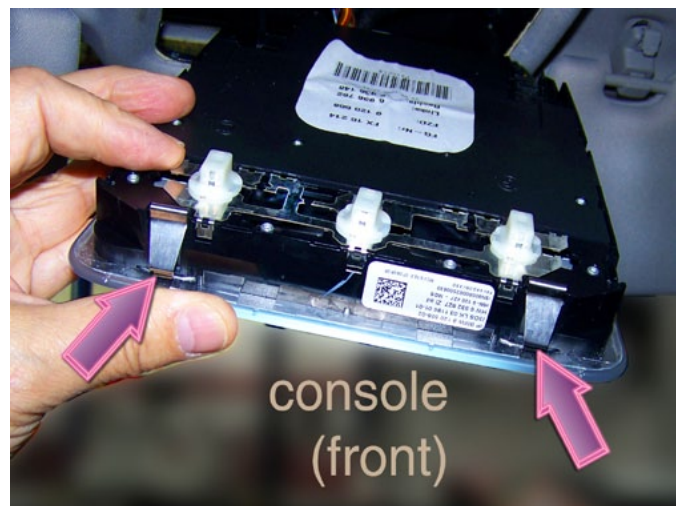
The front dome light console is secured in the headliner by plastic tabs at the rear and by a pair of metal spring clips at the front. The metal clips snap against the edge of the headliner to hold the console in place.

The arrows indicate the general location of the retainer clips, which cannot be seen with the console installed.

To give you a better idea what the metal spring clips look like, and where they are located, here is a shot of the console after it has been removed.

The spring clips (arrows) must be compressed to release the console.

We could insert a thin tool between the front edge of the console and the headliner and fish around until we compress the clips. This option risks damaging the console or headliner material, so we will also show an alternate method.



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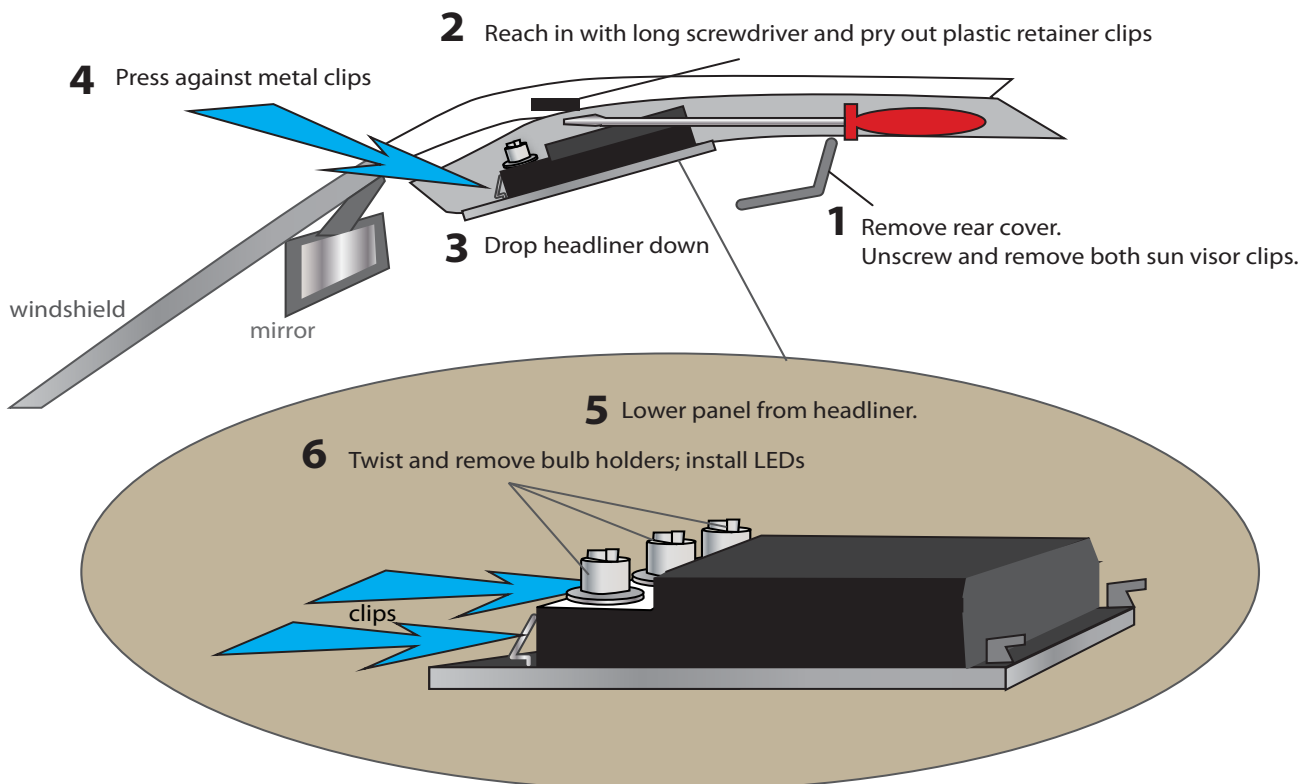


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Front Dome - Console Removal Overview

An alternative is to drop the headliner down far enough to reach up and press against the metal clips with your fingertips to release the console from the headliner. Look at our illustration and then follow up with photos of the components on pages 8 and 9.

- 1) Unscrew and remove the sun visor attachment clips. Use a non-marring trim tool to remove the rear console cover.
- 2) Reach in with a long screwdriver and pop out the two plastic retainer pins securing the center of the headliner to its metal support bracket.
- 3) Gently pull down the front edge of the headliner.
- 4) Lower the headliner far enough to reach up and compress the two retainer clips on the front of the console.



- 5) Lower the console from the headliner.
- 6) Replace the original wedge bulbs with wedge base LEDs. Test all bulbs to be sure they work.
- 7) Replace the plastic retainer pins in the headliner support bracket removed in step 2.
- 8) Reinstall the console in the headliner.

Refer to the following photos for more information.

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Front Dome - Step 1

Remove the sun visor attachment clips. Use a T20 Torx® driver to remove the attachment screws.



Front Dome - Step 1a

Use a trim tool to remove the rear console trim cover.



Front Dome - Step 2

Peer in through the rear of the console opening and locate the two plastic retainer pins.

Reach in with a long screwdriver ; pop out the pins (inset photo).



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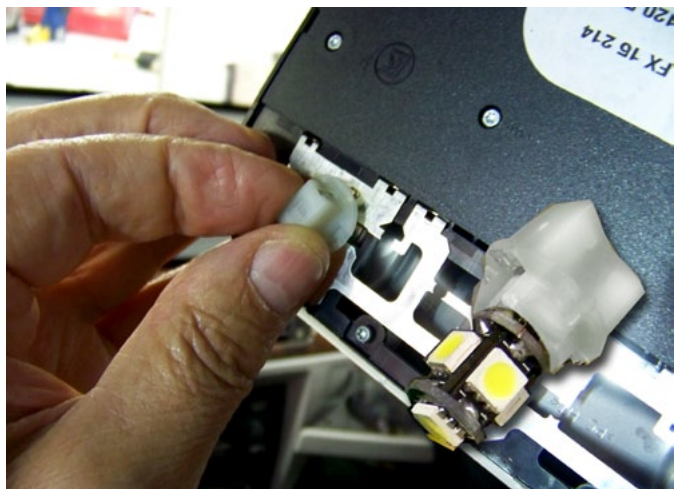
Front Dome - Steps 3, 4, and 5

- Pull down on the headliner. Gently.
- Reach up behind the front edge of the headliner and release the two steel retainer clips.
- Drop the console down.



Front Dome - Step 6

Twist out the bulb holders. Install new LEDs and test them. If any do not work, remove the LED from the holder and rotate it 180 degrees; reinstall it and test again.



Front Dome - Step 7

Push the headliner up to its normal location and reinstall the plastic retainer pins removed earlier.

Reinstall the light console and rear trim panel in the headliner.



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Vanity Mirror

Use the trim tool to pry the vanity mirror lights from the headliner.

Replace the original glass festoon bulb with a 42mm festoon LED. Install the LED array with the light chips facing the lens.

Test the lights before snapping the assemblies back into the headliner.

If either LED does not work when installed, flip it end-for-end and test again.



Glove Box - Step 1

Using a trim removal tool, pry down the glove box light assembly.

Pry on the side of the light assembly away from the light control switch rod; pivot the light downward.



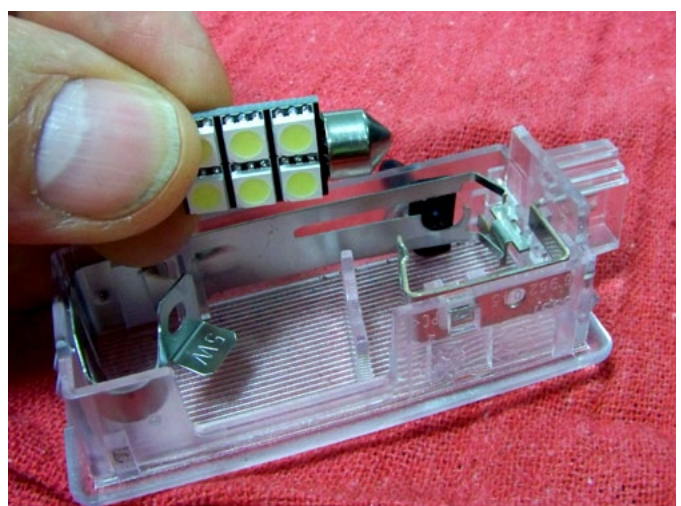
Glove Box - Step 2

Install a 36mm festoon LED in place of the original filament bulb.

Install the LED array with the light chips facing the lens.

Test the lights before snapping the assembly back into the glove box.

If the LED does not work when installed, flip it end-for-end and test again.



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Rear Dome with Panoramic Roof



Rear Dome Lights - Step 1

There are two rear dome light assemblies, one above each C-Pillar.

Pry at the front of each assembly, then tilt it down from the headliner.

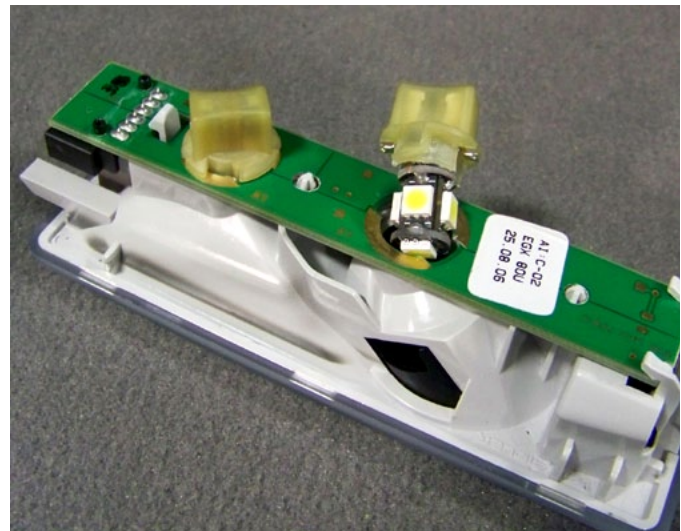


Rear Dome Lights - Step 2

Replace the original wedge base filament bulbs with LED 5-chip wedge replacements.

Test the lights and rotate them 180 degrees if they do not light when first installed.

Reinstall the light assemblies in the headliner.



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Rear Dome Without Panoramic Roof



Rear Dome - Step 1

Place your thumbs against the back edge of the rear dome light console and push toward the front of the car. This compresses the spring clips that retain the console in the headliner.

(Our photo shows the clips.)

Drop the front of the console down.



Rear Dome - Step 2

Use the same procedures used on the front dome light; replace the three original bulbs with 5-chip LEDs.

Test the LEDs. If one or more do not work initially, remove and rotate them 180 degrees to reverse their polarity.

Snap the console back into the headliner when all LEDs are working.



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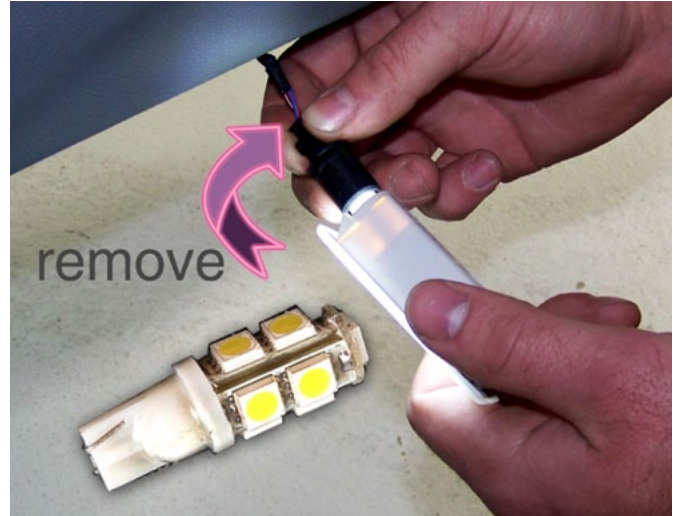


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Puddle Lights - Step 1

Use the trim tool to pry the puddle lights down from the bottoms of the front doors. Install new 9-chip wedge LED arrays in each light fixture.

Check operation and polarity. Reinstall the lights.



Tailgate Light - Step 1

Use the trim tool to pry the tailgate light assembly down from the bottom of the tailgate.

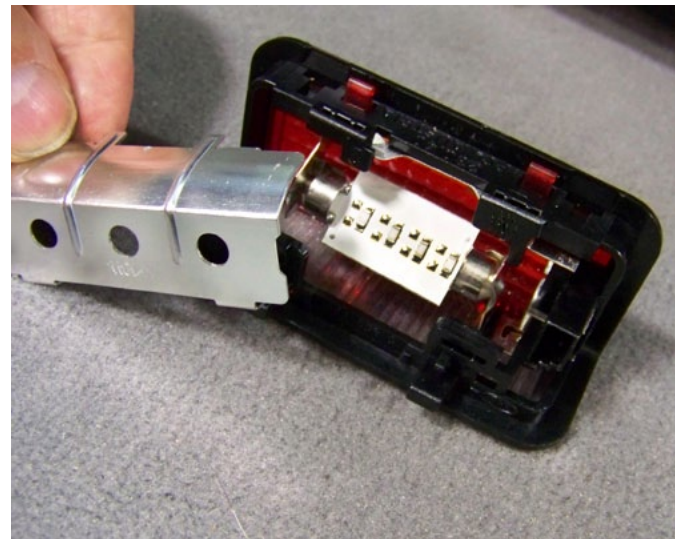


Tailgate Light - Step 2

Pry the metal heat shield from the light assembly.

Install a new 42mm festoon LED in the bulb holder with the light chips facing toward the lens.

Check operation and polarity. Snap the light assembly back in place.



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D-Pillar Lights - Step 1

Using the trim removal tool, pry the light assembly from each of the two D-Pillars.

Twist and pull to remove the bulb holders and install one new 5-chip wedge base LED in each light.

Test LED operation.

Snap the light assemblies back in place in the D-pillar trim panel.



Prevent damage to interior panels, the headliner, and trim.
Use a plastic, non-marring trim removal tool.
Two complete kits are available.

This concludes the installation of the Ziza Interior Light Kit.