

### Ziza® Interior Lighting Package Installation Procedures



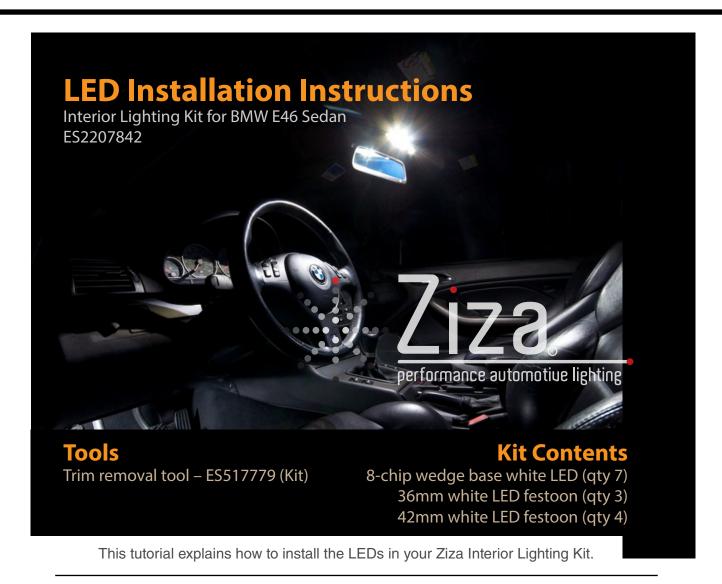
for BMW E46
Sedan

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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Fits BMW E46 Sedan





Make the job easier and prevent damage to headliners and other interior trim with ECS Tuning Trim and Molding Removal Tool Sets: ES2500877 and ES517779.



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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 that 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.

**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.

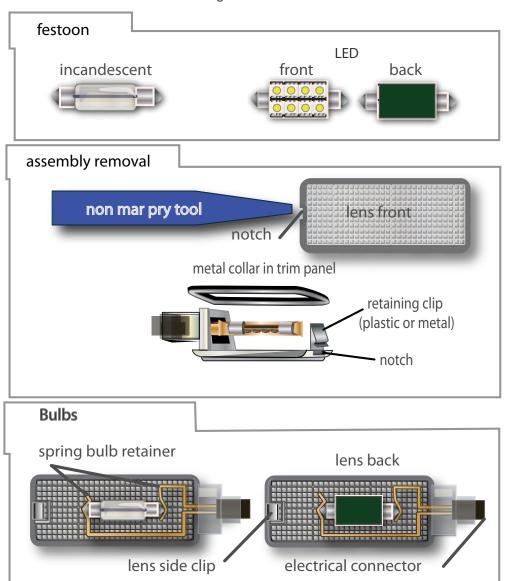




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#### **General Tips**

- 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.

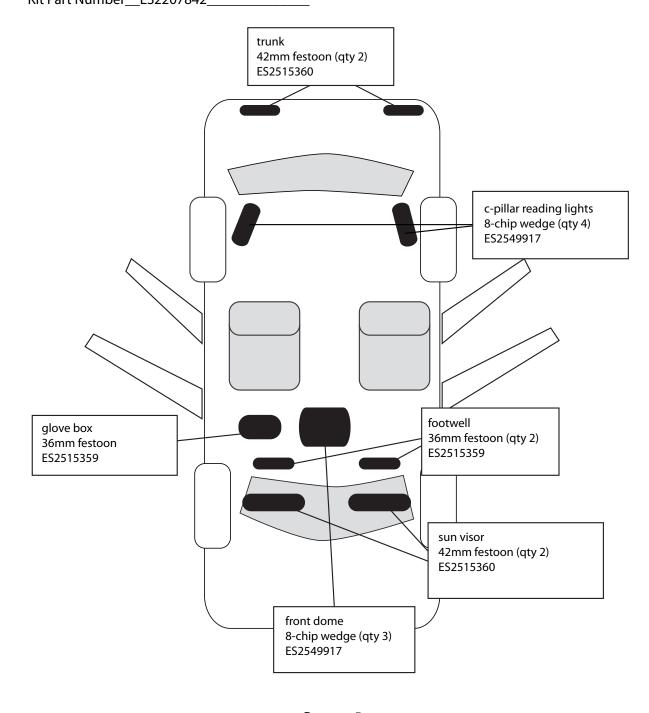


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#### **Ziza Interior Lighting Kit Locations**



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# Complete Vehicle LED Installation



#### Front Dome - Step 1

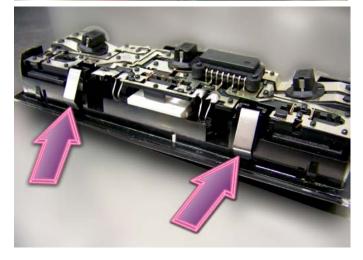
Use the trim removal tool to pry down on the rear of the console in the areas indicated by our arrows.

Drop the light assembly down.



### Front Dome - Step 2

This photo shows you the exact location of the metal spring clips you must compress to lower the dome light assembly.



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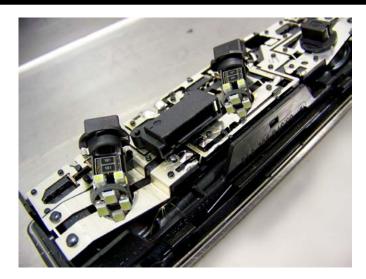


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#### Front Dome - Step 3

There are three wedge base bulb holders in the back of the light assembly.

- Twist and pull to remove them. Pull the original filament bulbs from the holders.
- Install an 8-chip LED in each of the bulb holders.



#### Front Dome - Step 4

The LEDs are polarity sensitive. If they do not work when initially installed, remove the bulb holder and rotate it 180 degrees before reinstalling it.

With all LEDs installed and working, reinstall the light assembly in the headliner.



### Vanity Lights- Step 1

The two vanity lights are located in the headliner, above the sun visors. Pry at the long edge of the vanity light assemblies with your fingers or a trim removal tool to remove them.



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#### Vanity Lights - Step 2

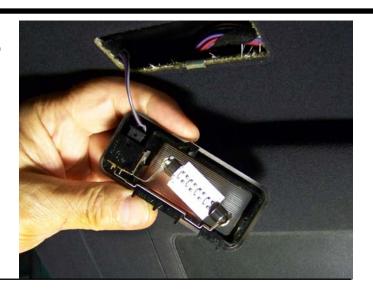
Remove the old filament style festoon from the bulb holder and install a 42mm festoon LED array in its place.

The light chips should face toward the lens, as shown.

The LED array is polarity sensitive. If it does not work initially, flip it end-for-end and retest.

Pop the light assembly back into the headliner.

Repeat this process at the other vanity light.



#### Footwell - Step 1

Locate the footwell lights in the panels beneath the dashboard.

Use a trim removal tool to compress the plastic retainer clip on the light assembly (arrow) and drop it down.

Note the metal heat shield over the bulb holder.



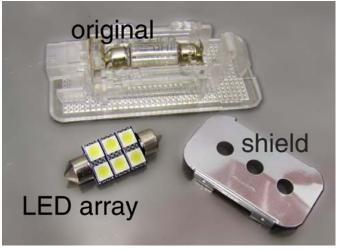
### Footwell - Step 2

Slide the heat shield off. **Careful:** The metal edges may be sharp, so use your trim tool to push if it won't slide easily.

Remove the original filament bulb and replace it with a 36mm festoon array. The LED chips should face the lens.

The LED array is polarity sensitive. If it does not work initially, flip it end-for-end and retest before snapping it back in place in the underdash panel.

Repeat this process on the opposite side.



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#### Glove Box - Step 1

Open the glove box. Use your trim tool to pry down on the right side of the light assembly (arrow).

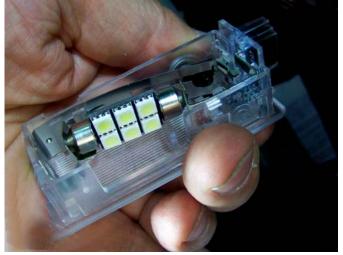
Pivot the light downward and remove the original festoon filament bulb.



#### Glove Box - Step 2

Install a 36mm festoon in the bulb holder. The LED chips—turned sideways so you can see them here—should be rotated to face the lens.

The LED array is polarity sensitive. If it does not work initially, flip it end-for-end and retest.



### **Glove Box - Step 3**

Align the control switch button on the light assembly with the notch in the glove box housing. Then pivot it upward until it snaps in place.



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#### **Rear Dome - Step 1**

Rear passenger lighting is provided by dome light assemblies located in both C-pillar trim panels.

Use the trim tool to pry the lights from the liner. Insert the tip of the tool and compress the spring clips holding the lights in place.

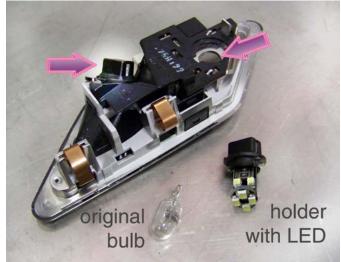


#### Rear Dome - Step 2

The rear dome light assemblies have two bulb holders (locations indicated by arrows). Twist and pull the bulb holders to remove them. Pull each wedge base original bulb from its holder, and insert an 8-chip LED in its place.

The LEDs are polarity sensitive. If either does not work initially, remove the bulb holder, rotate it, and reinsert it in its socket to get it working.

**Tip:** Note the location of the copper colored wire clips in this photo. These are the retainer clips that must be compressed to release the housing from the headliner.



### Rear Dome - Step 3

Snap the assemblies back into the headliner. Make sure all tabs and clips are fully engaged to hold it in place.

Repeat this process at the opposite side light.



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#### Trunk - Step 1

The trunk lights are located in the tail light housings.

Press against the release clip to remove the trunk light assembly.



### Trunk - Step 2

Pry the trunk light lens cover to remove it from the light housing.



#### Trunk - Step 3

Remove the original festoon filament bulb and install a 42mm festoon LED array in its place.

The LED chips should face upward as shown, toward the lens.



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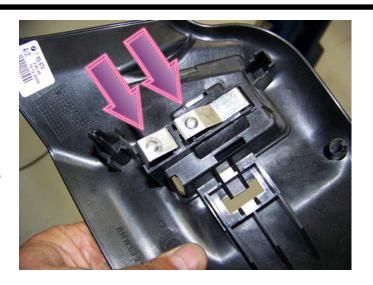


#### Trunk - Step 4

We suggest you bend the two electrical contacts upward (very slightly) to ensure a good electrical connection. Loose contacts can cause the trunk lights to flicker or go out.

Snap the assembly back in place at the rear of the tail light assemblies, and test the LEDs. The LED array is polarity sensitive. If it does not work initially, flip it end-for-end and retest.

Snap the lens cover back in place, and repeat the process at the trunk light on the opposite side.





This concludes the installation of the Ziza Interior Light Kit.