

**1. No output:**

If the bulb does not light up, disconnect the electrical connector and flip it 180°, then reinstall.

**2. Incorrect beam pattern:**

If the beam pattern does not appear correct, or is skewed, carefully inspect the mounting and position of the bulb in the headlamp. In most cases, this is due to misalignment or a problem with rotation. Make sure the bulb is vertically aligned in the socket, and adjust the rotation if necessary using the steps on page 3.

**3. Flickering:**

If you experience flickering while the vehicle is running, or a bulb out error, you may need Anti-Flicker modules for your vehicle's electrical system. Contact Diode Dynamics for assistance.

**4. Fitment:**

If the bulb does not seem to fit properly in the headlamp socket, check to confirm the SL1 bulb size matches that of your original bulb. If it seems too tight in the socket, carefully align the bulb so it is completely straight with tabs in the correct position, push the bulb evenly and firmly into the socket, then apply adequate rotational force to lock the bulb in place. If you experience trouble, you may adjust or remove the red rubber o-ring and attempt reinstall. Contact Diode Dynamics if you still experience any trouble.

**5. Fitment:**

While Diode Dynamics has tested hundreds of headlamps for compatibility and fitment, in certain vehicles, the SL1 bulb may not fit due to overall constraints in size and space, especially for some vehicles with dust caps. Please contact Diode Dynamics for assistance if it does not appear that the SL1 will fit properly in your vehicle.

**NEED MORE HELP?**

Scan the QR code to link to our YouTube Channel!

Follow along with one of our many installation videos for the SL1 bulb. We are constantly adding more installation videos for different makes and models.

YouTube



**This installation guide is for the following SKU:**

- DD0215P H8 SL1 LED (pair)
- DD0216P H10 SL1 LED (pair)
- DD0217P H11 SL1 LED (pair)
- DD0218P 9005 SL1 LED (pair)

- DD0219P 9006 SL1 LED (pair)
- DD0220P H9 SL1 LED (pair)
- DD0323P 9012Ram SL1 LED (pair)
- DD0340P 9012 SL1 LED (pair)

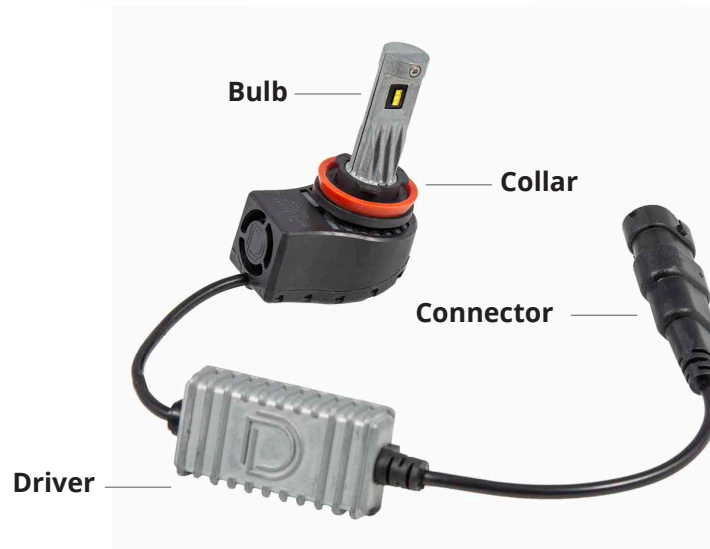


Installation Instructions

Thank you for your purchase of the new SL1 LED from Diode Dynamics! These LEDs are a direct plug-and-play replacement for your factory bulbs.

**Features**

- Correct optical focus for Street Legal photometric output
- Engineered and manufactured in USA
- Zinc die-cast heatsink and active cooling system for high reliability
- 5700K modern white color
- Copper core PCB for maximum heat transfer
- Rotatable collar



**Important Notes**

- The SL1 LED bulb should only be used with 12V systems.
- When operating, the integrated Sunon® MagLev active cooling fan will produce noise. This is normal.
- When operating, the exposed metal areas of the bulb and driver box will become warm. This is normal.
- Do not look directly at the LED emitters during operation, as they are of extremely high intensity.

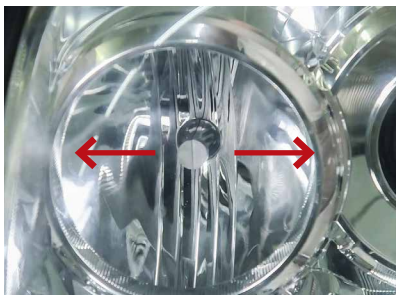
## Installation



**1. Referencing your vehicle's user manual or online resources, locate and remove your factory bulb.** In most cases, the bulb must be disconnected from the factory electrical connector, and turned counterclockwise to remove.

**2. Install the SL1 LED bulb into the bulb socket, and turn to lock into position.**

**NOTE:** In some applications, the fitment may be extremely tight. Ensure the tabs are aligned properly, push the bulb evenly and firmly into the socket, then apply adequate rotational force to lock the bulb in place. If you experience trouble, you may adjust or remove the red rubber o-ring and attempt reinstall.



**3. Check to make sure the bulb is aligned so that light is shining out to the sides horizontally. Adjust rotation if necessary.**

If the SL1 is tilted at an angle when installed on your vehicle, correct this by adjusting the rotatable collar. See collar adjustment instructions on page 3.



**4. Plug the SL1 connector into the factory electrical socket.**

**NOTE:** If your order included Anti-Flicker modules to correct power signals on certain vehicles, plug the Anti-Flicker module in to the factory socket first, then connect the SL1 to the Anti-Flicker module.

**5. Power the SL1 bulb to test function.**

**NOTE:** If the bulb does not illuminate, unplug the connector, flip 180°, and re-connect. The bulb requires correct polarity, and will only illuminate with the connector in one orientation.

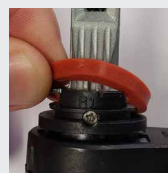
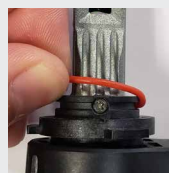
**6. Tuck all wiring.** If your headlamps use dust caps, the driver and wiring can be tucked into the headlamp and sealed inside using the original dust cap. The SL1 bulb and driver have been designed to operate in a sealed environment.

**7. Confirm the alignment of your headlamps by following headlamp aiming procedures in your vehicle manual.** Enjoy the increased output and modern LED appearance from your new SL1 LEDs!

## Collar Adjustment

**H10, 9005,  
9006, 9012**

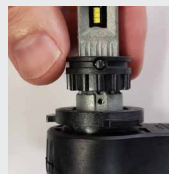
**H8, H9, H11**



**1. Remove the red o-ring.**



**2. Use a small Philips screwdriver to remove the collar screw.**



**3. Pull the inner collar up and off the bulb. Take note of how the inner and outer collar interlock with each other. If the two parts are tightly joined, remove both and pull apart.**



**4. Rotate the collar with the tabs to the required position to achieve vertical positioning once installed.**

**5. Reassemble the two pieces together, and place back onto bulb, making sure the hole is aligned for the screw to fit in place.**

**6. Fasten in place with the screw, then reinstall red o-ring. Test and re-adjust as necessary.**

*See back for troubleshooting instructions.*

**YouTube** **WATCH ON**  
**YOUTUBE!**  
Scan QR code on pg. 4