
Low Beam Headlamp Connector Inspection/Repair

Attention: This bulletin DOES NOT apply to vehicles equipped with High Intensity Discharge (HID) lamps.

Condition

Some customers may comment that the low beam headlamp is inoperative.

Inspection

Important: DO NOT replace the entire headlamp assembly for this condition.

Remove the back cover and the low beam bulb and inspect the connector following the procedure below.

1. Open the back cover and remove the headlamp bulb.
2. Inspect the connector.
 - If the connector is NOT discolored or damaged, replace the bulb only.
 - If the connector is discolored at the bulb interface, replace the connector (service pigtail listed below) and bulb.

Figure 1 Defective Connector



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Service Pigtail Installation

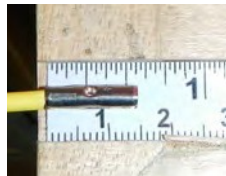
Procedure

1. Use the wire cutter to cut the wires of the connector approximately as show in table 1 from the connector in order to splice in the service pigtail connector.

Table 1 Cut Position for different headlamps

Part number	Distance from connector
P54-6102-10000 / P54-6102-10000R	10cm = 100mm = 4 inch
P54-6103-10000 / P54-6103-10000R	6.5cm = 65 mm = 2.5 inch
P54-6104-100 / P54-6104-100R	3cm = 30mm = 1.1 inch
P54-1059-100 / P54-1059-100R	3cm = 30mm = 1.1 inch

2. Use the butt splice to determine how much insulation to strip off both wire ends. There will always be a dimple in the middle of a butt splice. The wire should contact the dimples before the insulation contacts the end of the butt splice
3. Measure the length of the butt splice to determine the correct length of heat shrink to use
 - A. The heat shrink needs to extend past the butt connector a minimum of ½-inch.
 - B. Place the heat shrink over the wire before making the splice.

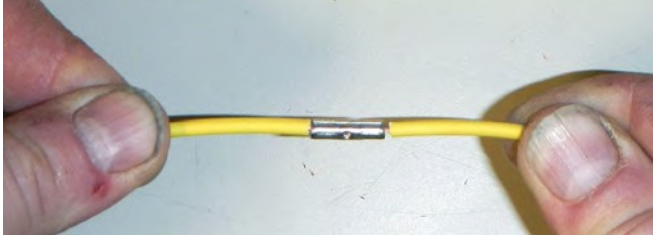


4. Insert the butt splice into the crimp tool. The crimping tool has two slots. Pick the slot that best fits the butt splice connector to ensure proper crimping. If the butt splice has a seam, place the V of the crimper on the opposite side of the seam. Insert the first wire end and start the crimp. Finish the crimp using both hands on the tool.

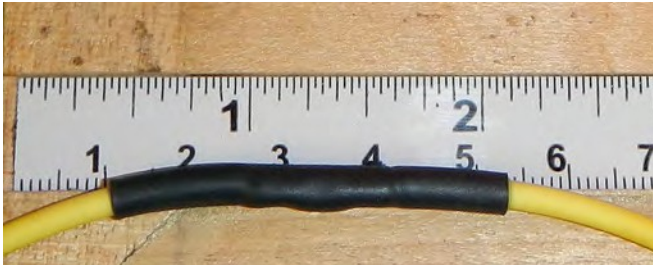


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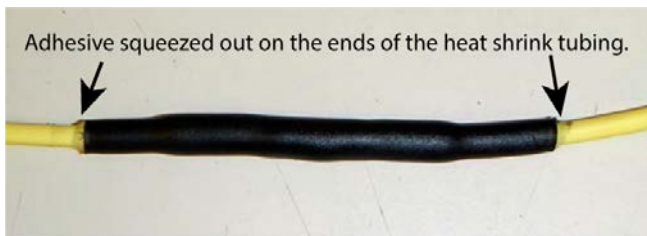
5. Do a two-finger pull test to make sure the crimps are good.



6. Move the heat shrink into place so it covers the splices.



7. Use a pen to mark ½-inch beyond the butt splice to position the heat shrink on the wire. If the wire is outside the cab, apply the second layer of heat shrink.
8. Position the heat shrink.



9. Use a hot air gun to shrink the thermo-sensitive shrink tube on the butt splices. Do not overheat the heat shrink.



NOTE

Notice how the heat shrinks adhesive is squeezed from the ends. If adhesive is not seen, the heat shrink DOES NOT have adhesive and the repair **WILL NOT** be sealed. This image shows two layers of heat shrink used.

10. Shrink the longer heat shrink tubes over the butt splices. This seals the connection.

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Service Bulb Installation

1. Only use DOT approved bulbs H11 55W, preferred original Osram / Philips / General Electric / Federal Mogul Long Life bulb.

Figure 2 Preferred Bulbs



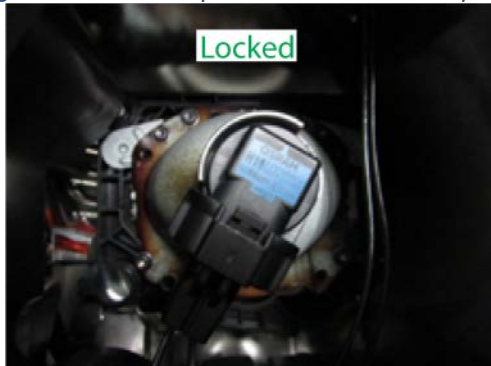
2. Install the new H11 headlamp bulb to the connector. Do not touch the glass of the bulb. Contaminants on the glass may shorten the life of the bulb. Then engage the red clip by pushing the red clip toward the bulb to make sure that bulb is correctly connected. **This is only possible if the bulb is correctly connected. In order to remove the bulb, first the red lock must be disengaged using a small key or small flat screw driver and at the same time pull back the red lock. Then the bulb can be unlocked.**

Figure 3 Clip not engaged / Clip engaged



3. Install connected bulb to the projector module; make sure that bulb is turned to full locking position.

Figure 4 Bulb locked position / Bulb unlocked position



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4. Close the back cover. Make sure that the back cover is turned to full locked position.

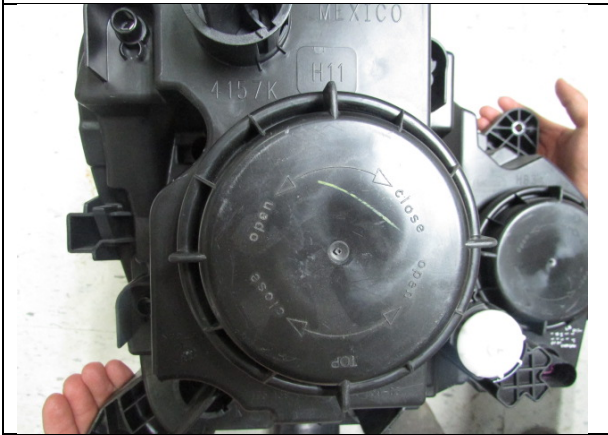
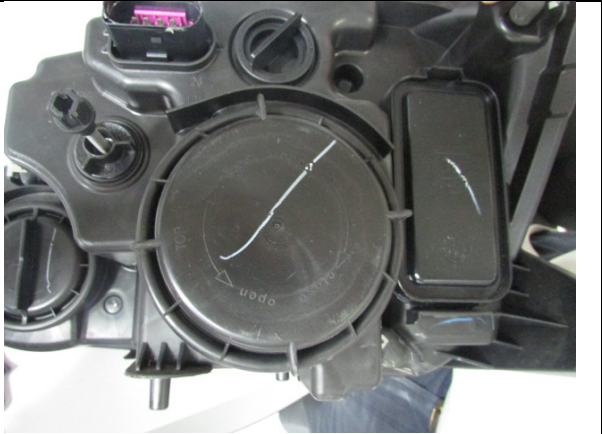
P54-6102-10000 / P54-6102-10000R 	P54-6103-10000 / P54-6103-10000R 
P54-6104-100 / P54-6104-100R 	P54-1059-100 / P54-1059-100R 

Table 2: Back Cover Locked Position for different headlamps

5. Verify that the headlamp is fully functional. The exterior light test can be used to check the functionality.