



Installation Instructions for Philips Integral Beam Headlights: H6024LED, H6054LED, H4651LED, and H4656LED



Philips Integral Beam Headlights are universal LED replacement upgrades for vehicles with H6024, H6054, H4651, H4656 halogen sealed beam headlights. In some vehicles, the existing headlight wiring harness will plug directly into the Philips Integral Beam LED Headlights and the headlights will work normally.

In other vehicles, a wiring harness adapter may be necessary.

Here's when that's necessary:

• Case 1

Your vehicle's headlight harness may have a connector that's not compatible with the connector terminals on the back of the LED headlights. The Integral Beam Headlights are compatible with H4 type connectors (female). If, for example, your vehicle wiring harness has an H13 style connector, you'll need to purchase H4 (female) to H13 (male) wiring harness adapters.

• Case 2

Your vehicle's headlight harness connector may be compatible with the connector terminals on the back of the Integral Beam Headlight, but the headlights don't work normally when the harness is plugged in. For instance the high beam may come on when the headlight control is in the low beam position, or the headlights may not come on at all. In this case, you'll need to purchase wiring harness adapters that have an H4 connector (female) on one end and spade terminals on the other end. This will allow you to connect each wire from the Integral Beam Headlight into the appropriate slot on the vehicle wire harness connector.

If you need wiring harness adapters, purchase two (one for each headlight). The adapters are inexpensive and can be found online by searching online for: Adapter wiring harness sockets.

Pre-installation steps:

- Put the headlight controls in the off position.
- Disconnect the headlight wiring harness from one headlight. You may have to temporarily remove items such as the battery or fluid tank to gain access to the headlight.
- Next, determine if the vehicle headlight wiring harness connector plugs directly onto the Philips Integral Beam Headlight, and if so, whether it provides correct headlight operation for high beam, low beam, and off positions. If the slots in the vehicle wiring harness connector do not line up with the electrical connectors on the Philips Integral Beam LED Headlight, or if they line up but do not deliver normal headlight function, you'll need to purchase two wiring harness adapters as explained above. Depending on your vehicle, you'll perform one of the three installations shown on the next page.

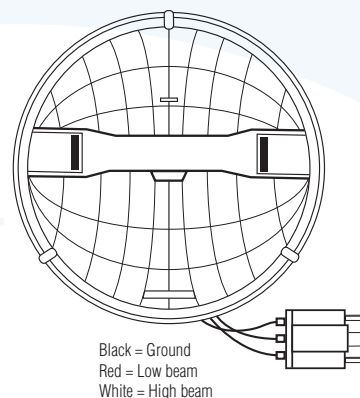


Troubleshooting tip: If the LED lights flash or flicker when you turn them on, you may need to install a Philips CANbus Adapter. In some modern vehicles, LED bulbs can appear to flash because many auto manufacturers use Pulse Width Modulation (PWM) to precisely control the voltage to the headlights to improve bulb life. These quick, voltage pulses (PWM) don't give a halogen bulb filament time to cool down and dim, so for halogen bulbs the pulses are not noticeable. However, with an LED light, these pulses are enough to turn the LEDs off and on very quickly, which results in a flashing of the light. If your LED lights flash or flicker after installation, installing a Philips CANbus Adapter solves this problem, and installation takes only minutes. Philips CANbus Adapters can be found at many online automotive retailers.

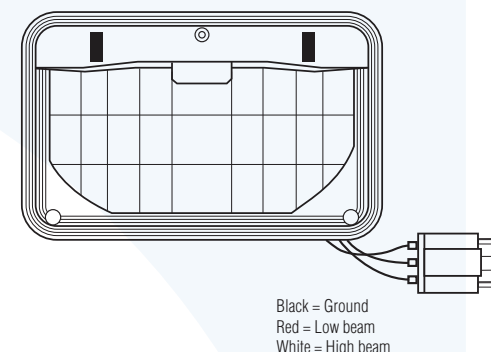
Installation items required:

- Tool(s) for headlight removal (usually a Phillips screwdriver)
- Corrosion protection tape
- Dielectric grease
- Voltage tester

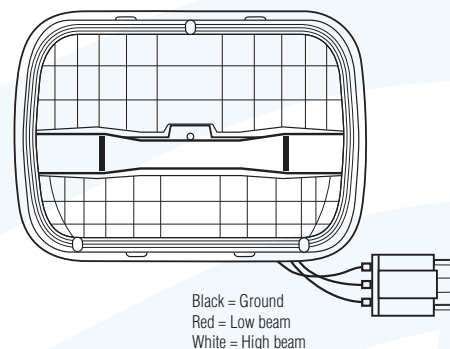
H6024



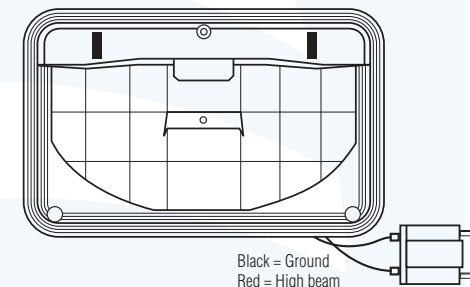
H4656



H6054



H4651



See next page for installation instructions.

Installation A:

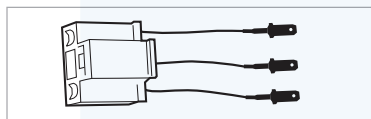
For a vehicle wiring harness that plugs directly onto the Integral Beam Headlight and provides normal headlight operation:

1. Put the headlight controls in the off position. Disconnect the vehicle wiring harness from the old headlight (if not already removed).
2. Remove the existing headlight (procedures vary by vehicle; search online for how-to videos for your vehicle).
3. Fill the vehicle wire harness connector slots with dielectric grease to seal the connection.
4. Plug the vehicle wiring harness onto the Integral Beam Headlight.
5. Using the headlight controls, confirm that the Integral Beam Headlight operates normally.
6. If operation is normal, install the Integral Beam Headlight in place of the standard headlight. If operation is not normal, follow Installation B below.
7. Repeat the procedure for the other headlight.

Installation B:

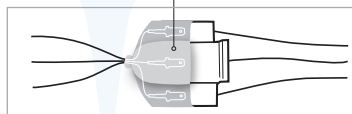
For a vehicle wiring harness that plugs directly onto the Integral Beam Headlight but does not provide normal headlight control operation:

1. Purchase two wiring harness adapters that have an H4 connector (female) on one end and spade terminals on the other end.



2. Put the headlight controls in the off position. Disconnect the vehicle wiring harness from the old headlight (if not already removed).
3. Remove the existing headlight (procedures vary by vehicle; search online for how-to videos for your vehicle).
4. Fill the slots on the wiring harness adapter connector with dielectric grease to seal the connections.
5. Plug the wiring harness adapter onto the back of the Integral Beam Headlight.
6. Put the headlight controls in the low beam on position. Use the voltage tester to determine which slot in the vehicle wiring harness connector corresponds with low beam power.
7. Put the headlight controls in the high beam on position. Use the voltage tester to determine which slots in the vehicle wiring harness connector correspond with high beam power and ground.

8. Fill the slots on the vehicle wire harness connector with dielectric grease to seal the connections.
9. Plug the adapter wiring harness spade terminals into the vehicle wiring harness connectors so that the vehicle wiring harness is connected to the appropriate low, high, and ground wires from the Integral Beam Headlight (**see diagrams to the right**).
10. Use the vehicle headlight controls to confirm that the Integral Beam Headlight operates normally. If it does not operate normally, use the voltage meter to recheck the vehicle wire harness connector slots for correct low beam, high beam, and ground.
11. When correct operation is confirmed, wrap the spade / connector connection with **corrosion protection tape** to protect the electrical connection.



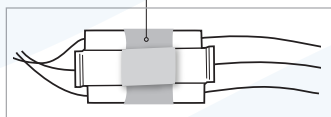
12. Install the Integral Beam Headlight in place of the standard headlight. Retest the headlight controls to check operation.
13. Repeat the procedure for the other headlight.

Installation C:

For a vehicle wiring harness that does not plug directly onto the Integral Beam Headlight:

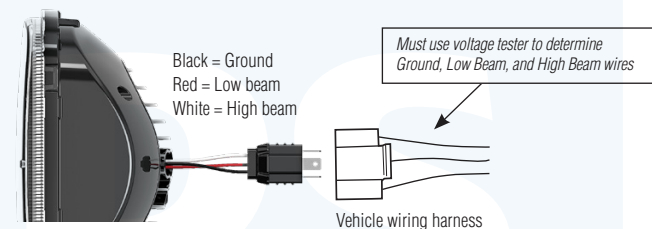
1. Purchase two of the required adapter wiring harnesses (**see Case 1 on previous page**).
2. Put the headlight controls in the off position. Disconnect the vehicle wiring harness from the old headlight (if not already removed).
3. Remove one existing headlight (procedures vary by vehicle; search online for how-to videos for your vehicle).
4. Fill the adapter wiring harness sockets' slots and the vehicle wiring harness connector with dielectric grease to seal the connections.
5. Plug the H4 socket from the adapter wiring harness onto the Integral Beam Headlight terminals.
6. Plug the other end of the adapter wiring harness into the vehicle wiring harness.

7. Use the vehicle headlight controls to confirm that the Integral Beam Headlight operates normally.
8. Wrap the connector connections with **corrosion protection tape** to protect the electrical connection.

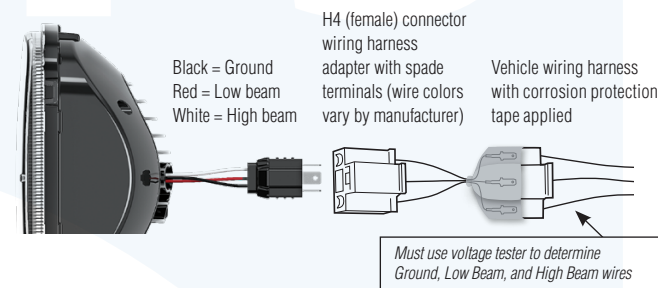


9. Install the Integral Beam Headlight in place of the standard headlight. Retest the controls to check operation.
10. Repeat the procedure for the other headlight.

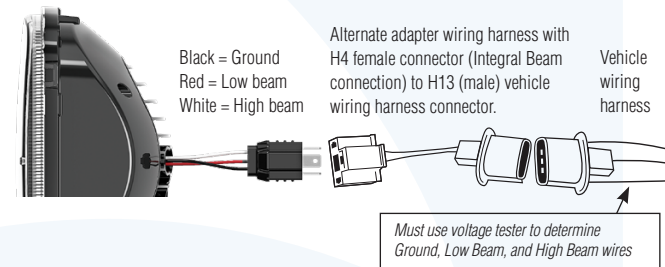
Installation A



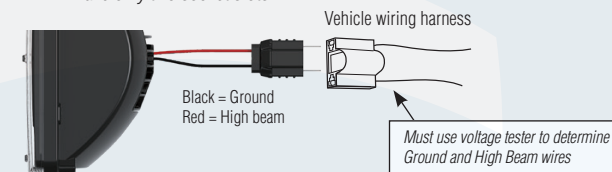
Installation B



Installation C



NOTE: The H4651 Integral Beam Headlight has only two wire connections, high beam power and ground and the vehicle wiring harness for an H4651 will have only two socket slots.



NOTE: It is recommended to always wrap the connector connections with **corrosion protection tape** to protect the electrical connection.

