Professional installation is recommended. ALL HID KITS ARE INSTALLED AT YOUR OWN RISK! OPT7 and its affiliates will not be held liable for any damage or cost associated with installation or hardware.
GETTING STARTED

Please make sure all parts are included in your HID kit.

Bulb x2

Ballast x2

Ignitor x2

Zip Tie x2

Bolts x4

Vehicle Connection A x2

Vehicle Connection B x2

For H1,H3,H4,H7,H16 (5202) bulbs

Control Wire x1

Bi-Xenon Kit

Relay x1

Capacitors x2

Relay Bundle

Relay x1

TIPM Resistors x2

TIPM Bundle

Support available at www.opt-7.com/support or contact us at support@opt-7.com
SAFETY CHECK AND TIPS

Make sure headlights and ignition are off (allow engine time to cool)

REQUIRED: Keep your original bulbs in a safe place (DO NOT DISPOSE)

Oils from skin can damage HID bulbs. Do not touch xenon bulbs with bare hands. Wear gloves and safety glasses during installation.

Inspect each component to ensure it is undamaged. New bulbs may have a discoloration on the bulb that makes it appear used or burnt out. This discoloration will fade after the bulb has been activated.

When ready to install, unclip or unscrew the dust cover on the HID bulb.

Resistors and capacitors get very hot. Make sure they are not in contact with any surface other than metal. These components can easily melt wires.

Recommended: If possible, test your HID kit before installing into headlight housing. Especially if installing requires removal of parts.

Support available at www.opt-7.com/support or contact us at support@opt-7.com
**STEP 1**

**Installing HID Bulb(s)**

1. Access and remove original bulbs (refer to your vehicle owner’s manual for vehicle specific assistance)
   1.1 If your headlight bulb is completely covered by a dust cover, you will need to make a 25mm hole in the center of the dust cover to allow the HID bulb wiring to pass through.

2. On the HID Bulb, remove the protective bulb cover by unscrewing or unclipping.

3. Feed the HID bulb through the dust cover.

4. If a 25mm hole was required, be sure to seal it with the rubber grommet included with the HID bulb.

5. Install the HID bulb into your housing, ensure it is secure just like the original bulb.

Follow the connection guide that matches the bulb type you ordered.

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at support@opt-7.com
STEP 2 Connecting your Kit

**Single Beam Bulbs**
H1, H3, H7, H10, H11, 9005, 9006, 5202, H11b, 9012, & 880 Series

- Standard Install Page 5
- Install with TIPM Resistors Page 6
- Install with Relay/Capacitors Page 7
- Install with Relay/TIPM Resistors Page 8

**Hi-Lo Bulbs (Xenon Low beam, Halogen High beam)**
H4, H13, 9004, 9007

- Standard Install Page 5
- Install with TIPM Resistors Page 6
- Install with Relay/Capacitors Page 9
- Install with Relay/TIPM Resistors Page 10

**Bi-Xenon Bulbs (Xenon low and high beam)**
H4, H13, 9004, 9007

- Standard Install Page 11
- Install with TIPM Resistors Page 12

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at support@opt-7.com
**STEP 2A Single and Hi-Lo Bulbs**

*Some bulbs may not have a plug connection. Instead, 2 spade prongs must be inserted into the vehicle power plug.*

**Legend**

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Xenon Bulb</td>
<td>E. Vehicle Connection B</td>
</tr>
<tr>
<td>B. Ignitor</td>
<td>F. Rubber Grommet</td>
</tr>
<tr>
<td>C. HID Ballast</td>
<td>G. OEM Headlight Plug</td>
</tr>
<tr>
<td>D. Vehicle Connection A</td>
<td></td>
</tr>
</tbody>
</table>

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at support@opt-7.com
**STEP 2B** Single Beam or Hi-Lo Bulbs with TIPM Resistors

*Some bulbs may not have a plug connection. Instead, 2 spade prongs must be inserted into the vehicle power plug.*

**Legend**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Xenon Bulb</td>
</tr>
<tr>
<td>B</td>
<td>Ignitor</td>
</tr>
<tr>
<td>C</td>
<td>HID Ballast</td>
</tr>
<tr>
<td>D</td>
<td>Vehicle Connection A</td>
</tr>
<tr>
<td>E</td>
<td>TIPM Resistor</td>
</tr>
<tr>
<td>F</td>
<td>Vehicle Connection B</td>
</tr>
<tr>
<td>G</td>
<td>OEM Headlight Plug</td>
</tr>
<tr>
<td>H</td>
<td>Rubber Grommet</td>
</tr>
</tbody>
</table>

H1, H3, H7, 5202 uses spade connector

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at support@opt-7.com
STEP 2C Single Beam Bulbs with Relay or Capacitors

Single Beam HID Installation Diagram and Instructions with Relay

Support available at www.opt-7.com/support or contact us at support@opt-7.com
STEP 2D  Single Beam Bulbs w/Relay and TIPM Resistors

- **Relay**
  - a. Relay Bracket
  - b. Positive Line (Connect to Battery)
  - c. Negative Line (Connect to Chassis)
  - d. Relay Fuse
  - e. HID Relay-Ballast Power Polarity Connection
  - f. Vehicle Connection

- **HID Kit**
  - A. Xenon Bulb
  - B. Ignitor
  - C. HID Ballast
  - D. Vehicle Connection A
  - E. TIPM Resistor
  - F. Vehicle Connection B
  - G. Original Vehicle Headlight Power Source
  - H. Rubber Grommet

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at [support@opt-7.com](mailto:support@opt-7.com)
Hi-Lo bulbs with Relay or Capacitors

1. HID Ballast Power Polarity Connection
2. HID Capacitor
3. HID Ballast
4. HID Bulb-Ballast Connection

Capacitor Connection

- HID Ballast Power Polarity Connection
- HID Capacitor
- HID Ballast
- HID Bulb-Ballast Connection (May be directly attached to ballast)

HID Kit
A. Xenon Bulb
B. Ignitor
C. HID Ballast
D. Vehicle Connection A
E. Vehicle Connection B
F. Rubber Grommet
G. Original Vehicle Headlight

Power Source

Support available at www.opt-7.com/support or contact us at support@opt-7.com
STEP 2F  
Hi-lo bulbs w/Relay and TIPM Resistors

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at [support@opt-7.com](mailto:support@opt-7.com)
STEP 2G Bi-xenon Control Wire Relay with Capacitors (Anti-Flicker)

HID Kit
A. Xenon Bulb
B. Ignitor
C. HID Ballast
D. Vehicle Connection A

Control Wire
a. Relay Bracket
b. Relay Box
c. HID Relay-Ballast Power Polarity Connection
d. Negative Line (Connect to Chassis)
e. Wires
f. Vehicle Connection
g. Relay Fuse
h. Positive Line (Connect to Battery)

*Only use this diagram if your kit included a Control Wire

Support available at www.opt-7.com/support or contact us at support@opt-7.com
**STEP 2H**

Bi-xenon Control Wire Relay with Capacitors (Anti-Flicker)

- **HID Kit**
  - A. Xenon Bulb
  - B. Ignitor
  - C. HID Ballast
  - D. Vehicle Connection A

*Only use this diagram if your kit included a Control Wire*

**Control Wire**
- a. Relay Bracket
- b. Relay Box
- c. HID Relay-Ballast Power Polarity Connection
- d. Negative Line (Connect to Chassis)
- e. Wires
- f. Vehicle Connection
- g. Relay Fuse
- h. Positive Line (Connect to Battery)

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at support@opt-7.com
STEP 2I Connecting The TIPM Resistors

1. The gold TIPM resistors must be connected between the vehicle connection A and vehicle connection B.
2. WARNING: TIPM Resistor get very hot, do not allow them to come into contact with any surface other than non-moving metal.
3. Allow sufficient cooling time after use to handle or touch.

STEP 3 Mount the HID Ballast(s)

1. Mark and clean the area where you wish to mount your HID ballast(s).
2. Ensure HID bulb input and ballast output wiring are able to be connected.
   1.1 Make sure the ballast and wiring will not be touching any hot or moving parts of the vehicle.
3. Use the included mounting kit to mount your ballast.

Support available at www.opt-7.com/support or contact us at support@opt-7.com
STEP 4 Finishing Up

Testing your Kit

1. Activate headlight with the car “Off”
2. Check lights
3. Activate headlights with the car “On”

If you see anything other than beautiful non-flickering HID light, please see our troubleshooting guide.

For in-depth Troubleshooting 24/7, check out our automated troubleshooting guide by scanning the QR Code.

or visit www.opt-7.com/support

Support available at www.opt-7.com/support or contact us at support@opt-7.com
**TROUBLESHOOTING**

**Lights Flicker or Flash Intermittently**
Make sure the Relay Harness is installed correctly

**“Bulb Out Warning” Indicator Turns On**
Install the included OPT7 ECM Warning Capacitors between the ballasts and the HID bulbs

**Xenon HID Bulb Does Not Light Up**

- **Check Fuses:** The headlight fuse may be blown; if blown replace with a 15 amp fuse
- **Flip the Power Polarity:**
  - Disconnect the vehicle to ballast or relay to ballast input connection
  - Flip the ballast input connection 180 degrees
  - Re-connect (non-fastening side down)
  - Test

**One Side Works Correctly and the Other Does Not**

**Swap Test Step by Step**
Let’s find out which part is causing the issue and have it replaced under warranty

Start by swapping the bulbs to the opposite sides
If the issue moves, then the HID bulbs need to be replaced
If the issue stays on the same side, proceed to swap the main ballast
If the issue moves with ballast then that ballast needs to be replaced

Note the results and provide them to support@opt-7.com

Support available at www.opt-7.com/support or contact us at support@opt-7.com
Low or High Beam Does Not Activate (Bi-Xenon Kits)

- **Power Polarity Flip**
  Locate the power connection to the ballast, unplug it, flip it over, plug it back in, and try again. If successful, simply wrap the connection with electrical tape.

- **Polarity Manual Reconfiguration**
  All Dual Beam Power Harnesses have 3 terminals. One terminal for the low beam setting, one terminal for the high beam setting and one terminal for the ground.

While 99% of the time our configuration matches the OEM configuration, there may be times when they do not match. If that is the case, the symptom that presents will be the low beam operating normally while the high beams do not or vice versa.

*When switching from low to high beam the HID bulb will move in and out; if the bulb does not move when changing the settings from low to high beam or vice versa then the issue is likely related to the jump wire connection. The guide to re-configure the terminal position is detailed here:

Support available at [www.opt-7.com/support](http://www.opt-7.com/support) or contact us at [support@opt-7.com](mailto:support@opt-7.com)