Instructions (version 12.10.2009)

Type 1 - Single filament HID kit

H1, H3, H7, H8, H9, H10 (9140, 9145), H11, H12 (9040, 9045, 9055), 5202 (9009, H16), 880, 9005, 9006

These bulbs are used for low beam, high beam and fog light applications on vehicles.

Items included in HID kit:
(2) HID bulbs,
(2) Digital Ballasts,
(1) Instruction Booklet.

NOTE: Extra parts and Labour Required if:

- All Chrysler & European Vehicles; Required parts;
  - 2x HID LCM per kit (LCM= load control module)
  - 1x UPGRADE HARNESS per kit, see chart below. Exception; if you are only doing low beam and DRL is on high beam
  - 1x HID-TPVR (variable resistor) used only for high beam
- DRL (daytime running light) on high beam
  - 1x UPGRADE HARNESS per kit, see chart below
  - 1x HID-TPVR (variable resistor) used only for high beam

- Example; if you have a Dodge car with quad light system AND the DRL is on high beam and you want HID on both low and high beam (2 kits); you will need; 4x LCM, 2x upgrade harness and 1x TPVR to complete the install.

BEFORE YOU BEGIN

- If you are unsure of the installation or have problems, please contact your BEAMERS HID representative or have your BEAMERS HID kit installed by a professional.
- Use dielectric grease on ALL connections. Some connections will have to be unplugged first.
- **Mount the ballast and or control module/relay pack so that they are not exposed to excessive moisture or hot / moving parts inside the engine compartment**

Optional Upgrade Wiring Harness Chart

Only required if you have a problem (See FAQ's) or if you have DRL's on high beam and you are installing HID on high Beam (See Addendum 1 & 2 for wiring instructions).

Part Number	Description
HID-WH-1	HID UPGRADE HARNESS SINGLE H1, H3, H8, H9, H10 (9140, 9145), H11, H12 (9040, 9045, 9055) 5202 (9009), 880
HID-WH-2	HID UPGRADE HARNESS SINGLE H4 (9003)
HID-WH-3	HID UPGRADE HARNESS SINGLE 9004, 9007
HID-WH-4	HID UPGRADE HARNESS SINGLE 9005, 9006
HID-WH-5	HID UPGRADE HARNESS SINGLE H7
HID-WH-6	HID UPGRADE HARNESS SINGLE H13 (9008)

Step 1 Daytime Running Lights (DRL)

a.) Determine what type of DRL you have in your vehicle.
(1990 – Later vehicles have DRL's).

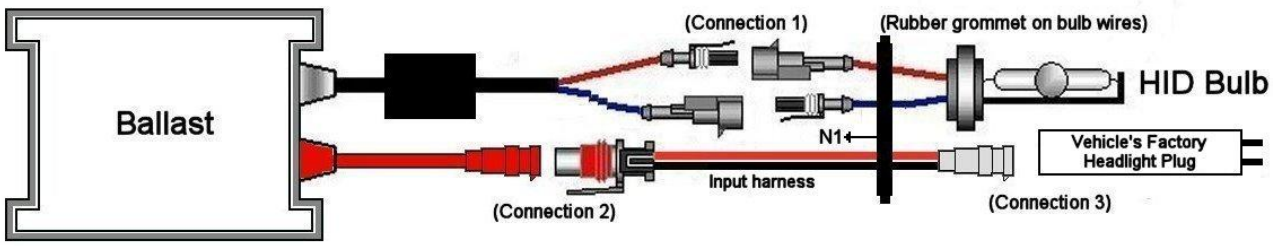
i) High beam (reduced voltage).
Or
ii) Low beam

b.) If you are installing low beam only and the DRL is on the high beam circuit of the vehicle, go to **STEP 2**. *(Ballast and HID Bulb Installation Diagram.)*

c.) If you are installing Low beam and the DRL is on the Low beam circuit of the vehicle, go to **STEP 2**. *(Ballast and HID Bulb Installation Diagram.)*

d.) If you are installing High beam and the DRL is on the High beam circuit, Go to Addendum 2.

Ballast and HID Bulb Installation Diagram



Step 2 Installation of the HID bulbs

Remove factory bulbs from headlight housing and install HID bulbs into headlight housing. Be careful not to touch the glass part of the HID bulbs, the oil from your finger tips will cause the HID bulb to burn out.

Step 3 Connect HID bulb to ballast,

See **CONNECTION 1** on *(Ballast and HID Bulb Diagram.)*

Step 4 Connections 2 and 3

1.) Confirm the polarity of the **INPUT harness (Connection 3**) and the factory headlight plug, confirm that the 12V HID kit power matches 12V on the factory headlight plug and the ground matches the HID kit to ground on the vehicle's factory headlight plug.

2.) Connect INPUT harness to the ballast and to the vehicle factory headlight plug, see **CONNECTION 2 and 3** on Ballast and Bulb diagram.

***NOTES**:*

*a.) In some instances it will be more convenient to separate the **INPUT harness** from the rubber grommet. Cut rubber grommet at **N1** location. See Diagram for location of **N1**. Be careful not to cut into the wires of the HID bulb and the **INPUT harness.***

*b.) For 9005, 9006, on some vehicles the **INPUT harness** can be eliminated entirely to make the installation simpler.(eg.Plug Factory headlight harness into ballast)-**(CONNECTION 2).***

c.) *Due to variance in manufactures, situations can arise where you have the correct application yet the factory headlight plug may not match the **INPUT harness (Connector 3).** In these situations you will have to hard wire (Solder) 12V HID kit power to 12V on the factory headlight plug and the ground of the HID kit to ground on the vehicle's factory headlight plug.*

Step 5

After all connections are connected turn on your HID kit to insure they are functional before continuing the installation process. If there is a problem with the HID kit not turning on please go back to **Step 1** and recheck installation and connections or refer to the FAQ section for solutions. If they do turn on and are functional continue with installation.

Step 6 Installation of Ballast

Please ensure that all connections are soldered and connected. Mount the ballast so that they are not exposed to moisture or hot / moving parts inside the engine compartment.

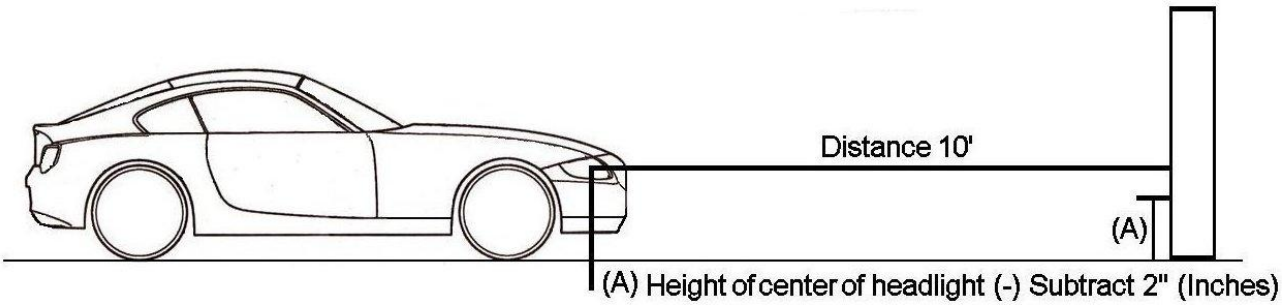
Step 7 Headlight Adjustment

1.) Park the vehicle on a level surface in front of a wall or solid object large enough to see the aim of the headlights.

2.) Adjust the headlight assembly by carefully adjusting the vertical and horizontal headlight adjustment knobs. *(Note: Every vehicle has different adjustment knobs, refer to vehicles owners' manual for further information on location of the adjustment knob.)*

3.) Adjust the headlight beam until each headlight beam lines up vertically and horizontally. *(See Headlight Adjustment Diagram below)*

Headlight Adjustment Diagram

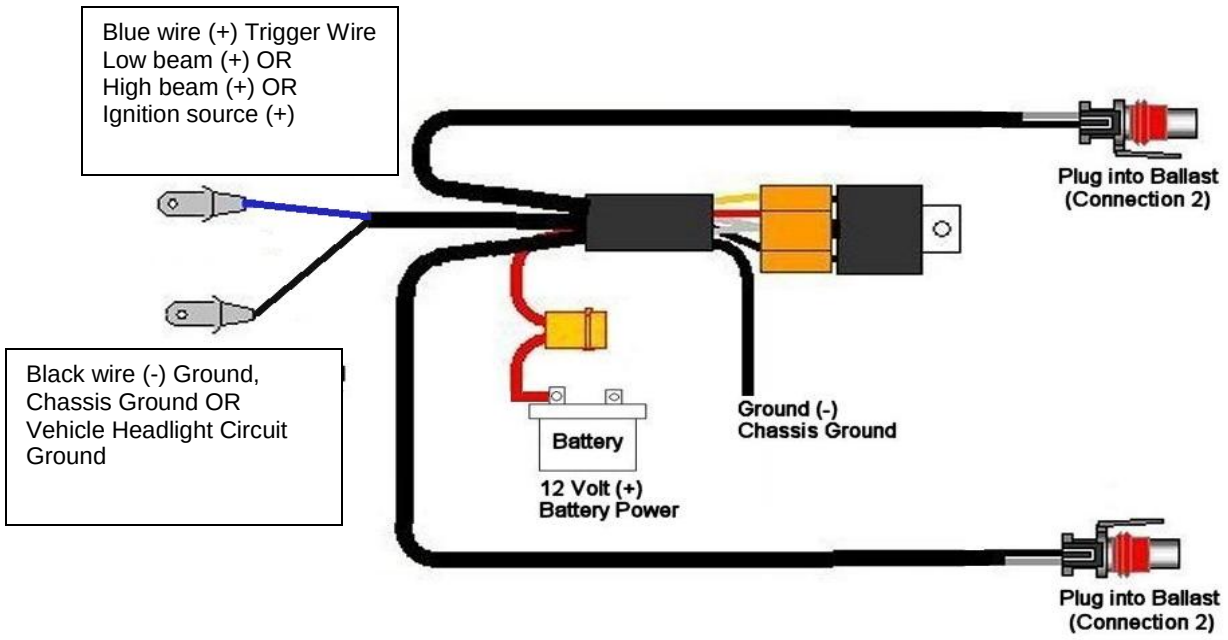


ADDENDUM 1

Optional Upgrade Harness Installation Diagram

Used for:

a. Increasing power supply to ballasts. If ballasts are starving for electricity at time of start-up they may not ignite. Installing an upgrade harness will increase power supply to ballasts and reduce failed start-ups. NOTE: Only use an upgrade harness if you encounter problems.

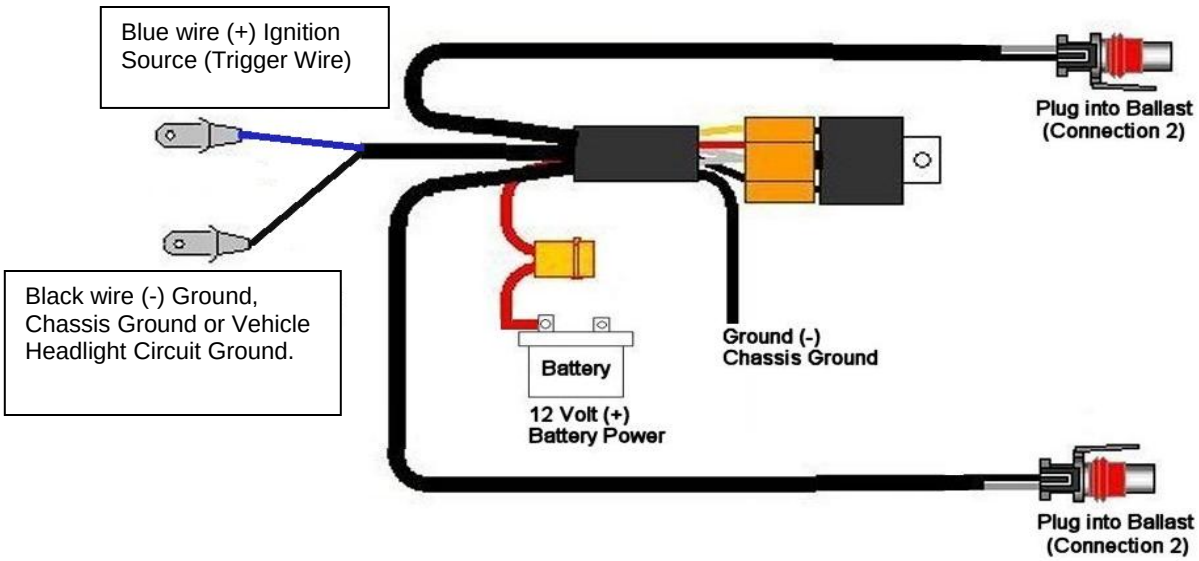


ADDENDUM 2

DRL on High beam at reduced voltage.

Option 1; **Requires** 1x Upgrade harness for low beam (see page 2 for applications)

1. Disable factory DRL by either;
   i. Remove DRL relay
   ii. Remove DRL fuse
   iii. Deprogram the DRL; this must be done at dealer. Often the dealership will then have to install the HID kit, so that the vehicle leaves their shop with functioning DRLs. If the dealership has questions they can call us at Beamers for tech support 780-436-2281 (Mon-Fri 9-6pm MST)
2. Convert DRL to Low Beam, wire as per diagram below

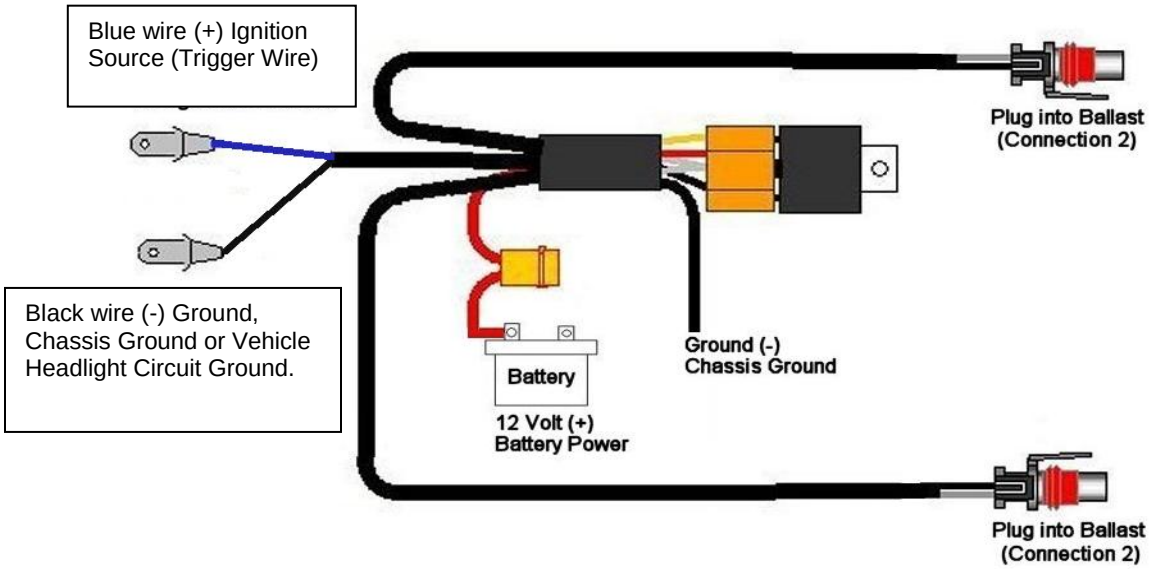


3. Continue to STEP 2 of main instructions.

Option 2; Requires: 2x Upgrade harness (1) for low beam, (1) for high beam (see page 2)
1x HID-TPVR (Variable Resistor – Used to block reduced voltage)

OBJECTIVE: On high beam/DRL wire block reduced voltage during DRL yet still allow full voltage through during high beam, all on same wire.

a. Install Low beam as per diagram below



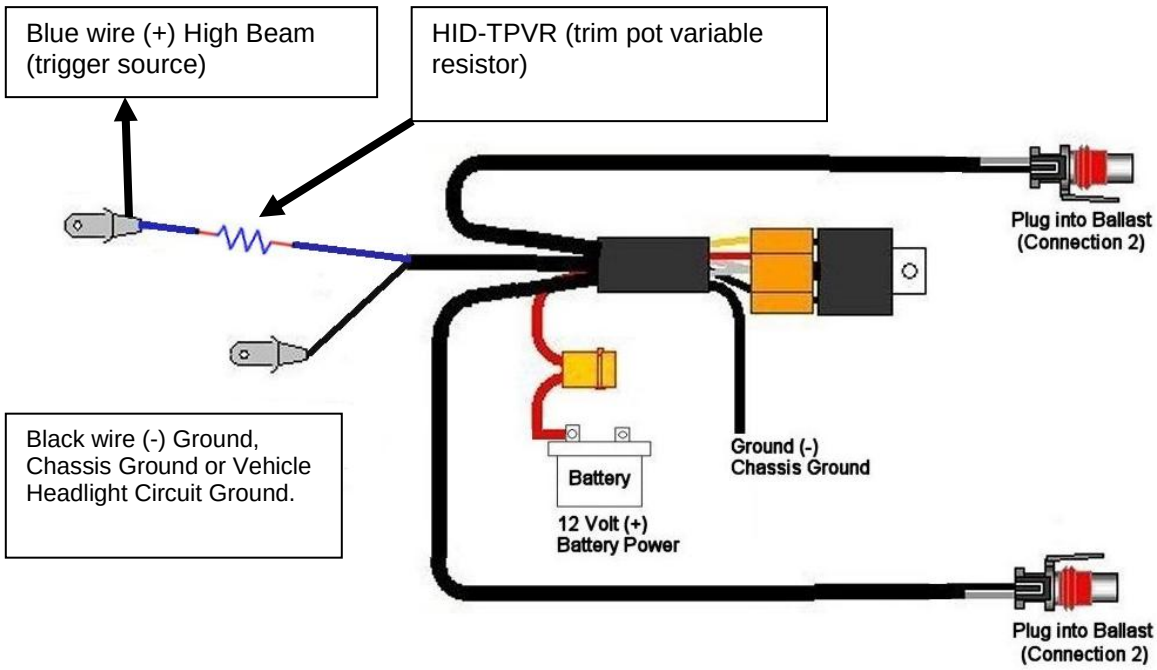
b. Install high beam with harness and HID-TPVR (Variable Resistor) as per diagram below.

1. With multi meter turn trim pot to a low ohmic value, ie 25-50 ohm
    a. The trim pot has a max of 20 turns, from the lowest to highest value.

2. Start vehicle and activate DRL. Some vehicles need to be put in gear to activate DRL; this will require 2 people to make the adjustment.
   Increase ohmic value until the disappearance of all 2 symptoms

    a. Vibrating/buzzing of relay pack
    b. Bulb turn off completely

3. Shut vehicle off and measure the ohms, right at the place where all symptoms in step 5 disappeared and increase trim pot by 5-10ohm
4. Start vehicle and test operation of DRL (DRL must not be on high beam) high beam and low beam. Go from high to low beam at least 5 times, If everything works you are done. If you have any problems you will have to readjust TPVR. The ideal range is fairly narrow.
5. Cover TPVR with dielectric grease (to keep out moisture) and install in a dry area



FAQ's Frequently asked questions and Problems

Add dielectric grease to ALL connections, this will prevent corrosion.

Q: Bulb too tight / will not fit into headlight housing.

A: The rubber gasket on HID bulb is slightly larger than some O/E bulbs, Solution: Exchange rubber gaskets from the O/E bulb to the HID bulb.

Q: One bulb occasionally does not turn on.

A: See Addendum 1, Install upgrade harness If problem persists check installations again to see if there is a loose connection and / or install the Upgrade wiring harness (not included), this will eliminate all power supply problems

Q: HID kit installed into a Chevrolet / GMC vehicle followed the instructions and plugged in and connections are all good, but my HID kit does not turn on.

A: Power and ground are reversed on the Chevrolet / GMC plug, Solution: is to reverse the wires on the HID Input harness. (Cutting / Soldering will be required)

Q: Lights do not turn on when HID kit is installed correctly

A: Check the polarity of the factory vehicle's plug to make sure it matches the polarity of the HID harness. Car manufactures have different wire configurations on the factory harness.

Lamp - out (Chrysler & European Vehicles)

Q: Hid kit installed correctly and is working properly, but I have a “Lamp out” light on my dashboard.

A: You will have to install the Load Control Module (Part Number: HID – LCM) to cancel the “Lamp Out” light on your dash. One will be required for each headlight circuit on your vehicle’s factory harness. The reason why this happens is the HID lights only have a current draw of 35 watts, but the factory circuit requires a 55 watt current. Hence a load control module is required to give an adequate current draw.

Flickering #1

Q: Lights flicker when turned on. (Pulsing)

A: Since the computer of the vehicle does not see enough current draw of the bulb, it will enter a protection mode which appears as the lights flickering. In order to stabilize the power a Load Control Module (Part Number: HID – LCM) must be installed.

Flickering #2

Q: There is a “flickering” problem even when the HID LCM’s are installed.

A: On certain vehicles the headlight circuit has a reference ground (not a true ground). In this case you will have to take the ground of the LCM and ground it to Chassis ground. (See Diagram Below)

HID LCM (Load Control Module) Installation Diagram

(Note: Only one side is shown only, BOTH sides must be installed)