

Safely replacing HID Bulbs

The replacement of HID Xenon bulbs is growing. Gas discharge bulbs have been in use since 1991. Initially reserved only for the luxury car market, they now appear as standard and options, in an increasing number of midsized cars.

A High Intensity Discharge (HID) lamp does not have a filament like halogen and older type lamps. Instead of supplying current to a filament to make it glow, an electrical arc is created between two electrodes within a xenon gas filled bulb. The lamp can only ignite when high voltage is applied. Igniting, heating and stabilizing the arc of an HID lamp requires electronic controls, consisting of an electronic igniter and ballast. As a result of the high voltages needed to operate HID bulbs, great care

should be taken when replacing them. HID lamps offer a number of advantages: they are brighter than halogen lamps, they produce less heat and provide a much longer lamp life. An Osram XENARC lamp generates twice as much light as a modern halogen lamp and still requires less energy. The light efficiency is 300% higher than conventional halogen lights, and provides improvements in driving safety. The colour of the light is much closer to that of natural daylight; it is

whiter and is therefore perceived as being brighter. Osram's XENARC® lamps have an average lifetime of 3000 operating hours, which normally covers the usual lifetime of a car. XENARC lamps are approved for use in special xenon headlights only. Headlights must be fitted with automatic levelling and cleaning systems.



Tips for the safe replacement of HID (High Intensity Discharge) Xenon bulbs

Safety should come first. HID bulbs produce a very bright light and require a high voltage for ignition. They also reach extremely high temperatures. Both of these facts requires some additional safety measures.

Please observe the following tips and information for your own safety.

-  • Replacement should be made by trained technicians.
-  • Do not touch the glass of the bulb.
-   • Wear safety gloves and goggles at all times.
-  • Never use a bulb with cracked glass.
-  • Caution: HOT! Let bulbs cool for about 5 minutes. Do not replace bulbs before they've cooled.
-  • HID Bulbs should only be used in headlights with protective covers.



A simple guide to changing HID bulbs successfully

Voltage Supply

Turn off the ignition and light switch. Remove the negative battery terminal after knowing and understanding the battery resetting procedure. Disconnecting the battery may result in incorrect operation of numerous systems on a vehicle. Without the correct resetting procedure, you can't restore the correct functions. After the battery is disconnected identify the HID ballast, normally a small metal box close to the headlight, and remove the plug from the ballast.



Determine the battery resetting procedures before disconnecting the battery

Cable Connections / Plugs

Remove the cover over the rear of the HID bulb, at the rear of headlight, and then unplug the connector from the HID bulb.

Replacing the Lamp

Remove the bulb from the reflector. The bulb will usually be held in place by a retaining ring that needs to be twisted to release the bulb. Identify the bulb type (D2S, D2R, D1S, D1R, D3S, D3R, D4S, or D4R) and replace with the same type. Replace bulbs in pairs to ensure colour match.



Do not handle the glass of the bulb

Checking the Plug Connections

After replacing the bulbs, plug the connector back on the bulb, ensuring that it is pushed fully home and locked in place. Replace the cover over the rear of the HID bulb.

Functional Test

Re-connect the plug into the ballast, ensuring that it is pushed completely into the socket. Replace the negative battery terminal and follow all of the battery resetting procedures. Switch on the lights and check for correct operation. Only light HID bulbs when they are installed in the headlight.



Success!