



Headlights

– How the Circuit Works

WARNING

A transient high tension (25,000 V) occurs at the bulb sockets of the high intensity discharge (HID) lamps when the combination light switch is turned ON. It may cause serious electrical shock or electrocution if you do not observe the cautions below.

CAUTION

- Never turn on the combination light switch before fitting the HID bulbs to their bulb sockets and completing the reassembly of the headlight assembly.
- Do not service the headlight assembly in wet conditions, such as rain or snow, near a sprinkler system, or when your hands are wet to prevent electrocution.
- Do not touch the surface of the HID bulbs with your bare hands and do not stain it with any oils or fats.
- Do not disassemble the inverter unit and the igniter unit.
- Do not turn on the HID bulb by using a power source other than the battery mounted on the vehicle.

Daytime Running Lights

When you turn the ignition switch to ON (II) with the parking brake released, the daytime running lights control unit supplies about 6 volts to the RED/BLU wire (cavity 10), about 12 volts to the YEL/BLU wire (cavity 1), and ground to the RED/BLU wire (cavity 11). This provides about 6 volts to both high beam headlights, causing them to come on at reduced brightness. If you apply the parking brake, ground is applied to the daytime running lights control unit at the GRN/WHT wire. If the parking brake is applied before you turn the ignition switch to ON (II), the daytime mode will remain off until you release the parking brake. Once the high beams are in the daytime mode, applying the parking brake will not turn them off. When you switch to low beam, high beam, or flash-to-pass operation, ground is applied to the daytime running lights control unit through the PNK wire, and the control unit then turns off the daytime running lights mode.

Low Beams

The headlight low beam and high beam relays receive battery voltage at all times. When you turn the headlight switch to the HEAD position with the dimmer switch in LOW, ground is applied through the BLU/RED wire and lighting diode to the coils of the headlight low beam and high beam relays. This energizes the relays, applying battery voltage to the left and right low beam headlights through fuses 46 and 45, which are grounded by G301 and G201 respectively.

High Beams

When you pull the dimmer switch to HIGH with the low beams already on, ground is applied to the dimmer relay from the dimmer switch. This energizes the dimmer relay, applying ground through the RED/BLU wire to the daytime running lights control unit (cavity 10). The control unit applies voltage to the high beam bulbs and high beam indicator, which turns on the high beams and indicator light. The low beam headlights go off because their ground path is interrupted by the activated dimmer relay.

Flash-to-Pass

When you hold the flash-to-pass switch in the ON position, ground is applied through the BLU/RED wire and the lighting diode to the coils of the headlight low beam and high beam relays and through the RED/BLU wire to the coil of the dimmer relay. This energizes the headlight low beam and high beam relays, applying battery voltage to the low beam bulbs and the daytime running lights control unit, and to the dimmer relay. The dimmer relay is energized, applying ground through the RED/BLU wire to the daytime running lights control unit. The control unit applies voltage to the high beam bulbs and high beam indicator, which turns on the high beams and indicator light. The low beams go off because their ground path is interrupted by the activated dimmer relay.