



# Exterior Lights

## – How the Headlights (Canada) Circuit Works

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### Low Beams

The headlight 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 to the coils of the headlight relays. The relays are then energized, applying battery voltage to the left and right high and low beam headlights through fuses 8 and 10 (in the under-hood fuse/relay box). The low beam filaments come on because they are tied to ground through the normally closed contacts of the low beam cut relay and the dimmer switch. The high beams and indicator remain off because the dimmer switch interrupts their ground path.

### High Beams

The headlight relays receive battery voltage at all times. When you turn the headlight switch to the HEAD position with the dimmer switch in HIGH, ground is applied through the BLU/RED wire to the coils of the headlight relays, and through the GRN/BLK wire to the DRL control unit. The relays are then energized, applying battery voltage to the left and right high and low beam headlights through fuses 8 and 10 (in the under-hood fuse/relay box). The high beam filaments and indicator come on because the control unit applies ground through the RED/BLU (cavity 1) and RED/BLK (cavity 11) wires. The low beams remain off because their ground path is interrupted by the dimmer switch.

### Flash-to-Pass

When you hold the flash-to-pass switch in the ON position, ground is applied through the BLU/RED wire to the coils of the headlight relays and through the GRN/BLK wire to the DRL control unit. The relays are then energized, applying battery voltage to the left and right high and low beam headlights through fuses 8 and 10 (in the under-hood fuse/relay box). The high beam filaments and indicator come on because the control unit applies ground through the RED/BLU (cavity 1) and RED/BLK (cavity 11) wires. The low beams remain off because their ground path is interrupted by the dimmer switch.

### Daytime Running Lights

When you turn the ignition switch to ON (II) with the parking brake released, the DRL control unit supplies about 6 volts to the RED/YEL wire (cavity 10), about 12 volts to the RED/BLU wire (cavity 1), and ground to the RED/BLK wire (cavity 11). The DRL relay is energized, providing about 6 volts to both high beam headlights, causing them to come on at reduced brightness. At the same time, about 12 volts energizes the coil of the low beam cut relay, removing the ground path to the low beams. If you apply the parking brake, ground is applied to the DRL control unit 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 DRL control unit through the BLU/RED wire, and the control unit then turns off the daytime running lights.

Refer to the Service Manual (Section 22, Body Electrical) for specific tests or troubleshooting procedures.