

MIRROR-INSIDE REARVIEW

DESCRIPTION

The automatic day/night mirror uses a thin layer of electrochromic material between two pieces of conductive glass to form the face of the mirror. When the mirror switch is in the ON position, two photocell sensors are used by the mirror circuitry to monitor external light levels and adjust the reflectance of the mirror.

OPERATION

The ambient photocell sensor is located on the forward-facing (windshield side) of the rear view mirror housing, and detects the ambient light levels outside of the vehicle. The headlamp photocell sensor is located inside the rear view mirror housing behind the mirror glass and faces rearward, to detect the level of the light being received at the rear window side of the mirror. When the circuitry of the automatic day/night mirror detects that the difference between the two light levels is too great (the light level received at the rear of the mirror is much higher than that at the front of the mirror), it begins to darken the mirror.

The automatic day/night mirror circuitry also monitors the transmission using an input from the backup lamp circuit. The mirror circuitry is programmed to automatically disable its self-dimming feature whenever it senses that the transmission backup lamp circuit is energized.

The automatic day/night mirror is a completely self-contained unit and cannot be repaired. If faulty or damaged, the entire mirror assembly must be replaced.

DIAGNOSIS AND TESTING

AUTOMATIC DAY/NIGHT MIRROR

For complete circuit diagrams, refer to the appropriate wiring information.

1. Check the fuse in the junction block. If OK, go to Step 2. If not OK, repair the shorted circuit or component as required and replace the faulty fuse.
2. Turn the ignition switch to the ON position. Check for battery voltage at the fuse in the junction block. If OK, go to Step 3. If not OK, repair the open circuit to the ignition switch as required.
3. Turn the ignition switch to the Off position. Disconnect and isolate the battery negative cable. Unplug the wire harness connector from the automatic day/night mirror. Connect the battery negative cable. Turn the ignition switch to the ON position. Check for battery voltage at the fused ignition switch output (run/start) circuit cavity of the automatic day/night mirror wire harness connector. If OK, go to Step 4. If not OK, repair the open circuit to the junction block as required.
4. Turn the ignition switch to the Off position. Disconnect and isolate the battery negative cable. Check for continuity between the ground circuit cavity of the automatic day/night mirror wire harness connector and a good ground. There should be continuity. If OK, go to Step 5. If not OK, repair the circuit to ground as required.
5. Connect the battery negative cable. Turn the ignition switch to the ON position. Apply the parking brake. Place the transmission gear selector lever in the Reverse position. Check for battery voltage at the backup lamp switch output circuit cavity of the automatic day/night mirror wire harness connector. If OK, go to Step 6. If not OK, repair the open circuit as required.
6. Turn the ignition switch to the Off position. Disconnect the battery negative cable. Plug in the automatic day/night mirror wire harness connector. Connect the battery negative cable. Cover the forward facing ambient photocell sensor to keep out any ambient light. Turn the ignition switch to the ON position. Place the transmission gear selector lever in the Neutral position. Place the mirror switch in the ON (the LED in the mirror switch is lighted) position. Cover the forward facing ambient photocell sensor to keep out any ambient light.

NOTE: The ambient photocell sensor must be covered completely, so that no light reaches the sensor. Use a finger pressed tightly against the sensor, or cover the sensor completely with electrical tape.

7. Shine a light into the rearward facing headlamp photocell sensor. The mirror glass should darken. If OK, go to Step 8. If not OK, replace the faulty automatic day/night mirror unit.
8. With the mirror glass darkened, place the transmission gear selector lever in the Reverse position. The mirror should return to its normal reflectance. If not OK, replace the faulty automatic day/night mirror.