CADILLAC

Cadillac, All Models

CAUTION — If equipped with Air Cushion Restraint System, turn ignition key to lock, disconnect battery ground cable and tape end before servicing instrument panel components. This must be done to prevent accidental release of A.C.R.S.

DESCRIPTION & OPERATION

Indicator Lights — Warning lights come on with the ignition in the "ON" and/or "CRANK" position, and go off when the engine has started. The "Coolant Temperature" indicator will come on and remain on when the coolant temperature is excessive. The "Stop Engine Temperature" indicator will be activated when the engine metal temperature is above 240°F and will be continuous above 320°F. The buzzer for the "Stop Engine Temperature" warning will also come on when the key warning buzzer sounds (key in lock, ignition off and drivers door open).

Fuel Gauge — Fuel gauge and bulb are energized through a separate connector on rear of gauge and is regulated by variable resistance to ground through the fuel tank sending unit.

TESTING

FUEL GAUGE

CAUTION — Do not introduce battery current into system by using a hot jumper lead.

1) Locate fuel tank sending unit lead (18 gauge Tan wire) at right side of trunk lock mechanism. Disconnect Tan lead from license plate side of connector. Jumper a good fuel tank float between body side of connector and ground. Slowly move float arm from full to empty.

2) If gauge fails to follow float, check continuity in Tan wire circuit at connections, fuse block and gauge. If circuit has no defects, replace gauge and retest.

3) If gauge follows float, fault is between trunk connector and sending unit ground. Check trunk connector terminal and Black ground lead. If problem still exists, check sending unit.

OIL PRESSURE INDICATOR

Ignition On, Lamp Off, Engine Not Running — Check fuse, then if necessary, disconnect sending unit wire and connect it to ground. If lamp comes on, replace sending unit. If lamp remains off, check for bad indicator bulb, bulb-to-printed circuit connector and for continuity between connector No. 5 terminal (Dark Blue wire) and sending unit. If continuity exists, replace printed circuit. If circuit is open, check engine harness connector.

Engine Running, Lamp On — Disconnect sending unit wire. If indicator lamp goes off, sending unit is grounded or engine has low oil pressure. Replace sending unit or check oil pressure as required. If lamp remains on, perform continuity checks as described under "Ignition On, Lamp Off, Engine Not Running."

COOLANT TEMPERATURE INDICATOR

Lamp Off During Cranking — Check fuse. If fuse is good, turn ignition on and disconnect Green wire to sending unit at connector near A/C compressor. Ground wire from dash connector. If light goes on, replace sending unit. If light remains off, check for burned out bulb. If bulb is good, check printed circuit connector. If lamp and connector are good, remove steering column-to-bracket retaining screws, allow column to drop and ground Dark Green wire at ignition switch. If lamp lights, replace ignition switch. If lamp remains off, check continuity in Dark Green wire between printed circuit No. 4 terminal and sending unit connector. If continuity exists, replace printed circuit.

Lamp On With Ignition On — Disconnect Dark Green wire to sending unit at connector near A/C compressor. If lamp goes out, replace sending unit. If lamp remains on, lower steering column and disconnect connector from ignition switch. If lamp goes out, replace ignition switch. If lamp remains on, perform continuity checks for ground as described under "Lamp Off During Cranking".

STOP ENGINE TEMPERATURE INDICATOR

Lamp Fails To Come On — Disconnect Light Green wire from sending unit at rear of left cylinder head. Ground wire, and if lamp comes on and buzzer sounds, replace sending unit. If lamp remains off, check for open horn circuit breaker. If circuit breaker is good, check for burned out indicator bulb. If bulb is good, check printed circuit connector and if necessary remove connector and check continuity between No. 6 terminal and sending unit. If continuity exists, check for voltage at No. 7 terminal (Orange/Black wire) at printed circuit connector. If voltage is present, Purple/White wire is open between No. 6 printed circuit connector and "DX" terminal and sending unit. If voltage is not indicated, Orange/Black wire is open between connector and fuse block.

Lamp Fails To Go Off — Disconnect Light Green wire from sending unit. If lamp goes out, replace sending unit. If lamp remains on, Light Green wire between sender and "DX" terminal of dash connector may be grounded, or Purple/White wire between "DX" terminal and No. 6 terminal on printed circuit connector may be grounded.

ALTERNATOR (GENERATOR) INDICATOR

Check for normal operation of indicator as follows: 1 — With ignition and engine off, lamp should be off. 2 — With ignition on and engine off, lamp should be on. 3 — With ignition on and engine running, lamp should be off.

If indicator operates properly, check battery for an under or over charged condition. If indicator does not operate as described, proceed as follows:

Switch Off, Lamp On — Disconnect wires at alternator No. 1 and No. 2 terminals. If lamp remains on, check for short between these leads. If lamp goes out and battery is low, check alternator rectifier bridge.

Switch On, Engine Stopped, Lamp Off — Check five ampere gauge fuse, indicator bulb and socket. Check Pink wire between ignition switch and fuse and between fuse and bulb. Check Brown wire between bulb and dash connector. An open alternator diode can also cause indicator not to light.

Switch On, Engine Running, Lamp On — Check fan belt, alternator No. 1 and No. 2 lead connections and alternator internal circuitry.

ADJUSTMENT

STOP LIGHT & CRUISE CONTROL SWITCHES

Push switch well into retaining clip. Pull brake pedal up to full stop position and this will adjust switch. Rotate each switch ½ turn counterclockwise to ensure vacuum switch will not hold brake pedal on after adjustment.

CADILLAC (Cont.)

REMOVAL & INSTALLATION

HEADLIGHT SWITCH

To remove switch, first disconnect battery ground cable. Remove lower steering column cover as outlined below. Disconnect headlight electrical connector and lower switch light. Pull headlight switch to "ON" position, depress spring loaded button on top side of switch and while holding button, remove knob, escutcheon and washer. Remove switch case to instrument panel support screw. Lower switch and disconnect upper light and remove switch. To install switch, reverse removal procedure.

STEERING COLUMN LOWER COVER

Remove four screws securing lower cover to lower steering column cover reinforcement. Remove four screws securing lower cover to instrument panel horizontal support. Remove lower cover. To install cover, reverse removal procedure.

INSTRUMENT PANEL PAD & AIR OUTLET GRILLES

Disconnect battery ground cable. Remove air outlet grilles using suitable remover-installer tool (J-21612) to compress release tabs; rotate grille upward to remove. Working through outlet openings, remove three fasteners securing pad to instrument panel support. Remove screws securing pad to instrument panel horizontal support.

INSTRUMENT PANEL TOP COVER

Remove instrument panel pad. Remove screws securing top cover to left and right side of instrument panel. Remove two top cover to horizontal support studs. Loosen, but do not remove, nut securing top cover to instrument panel brace on firewall. *NOTE — Nut is located forward and to the left of clock.* Working from under panel, disconnect radio front speaker connector at radio. Pull top cover straight out and lift slightly to gain access and disconnect the following connections as required: printed circuit connector, fuel gauge connectors and light, clock connector and light, climate control in-car sensor hose and twilight sentinel photocell. Remove top cover. To install top cover, reverse removal procedure.

INSTRUMENT PANEL CLUSTER & BEZEL

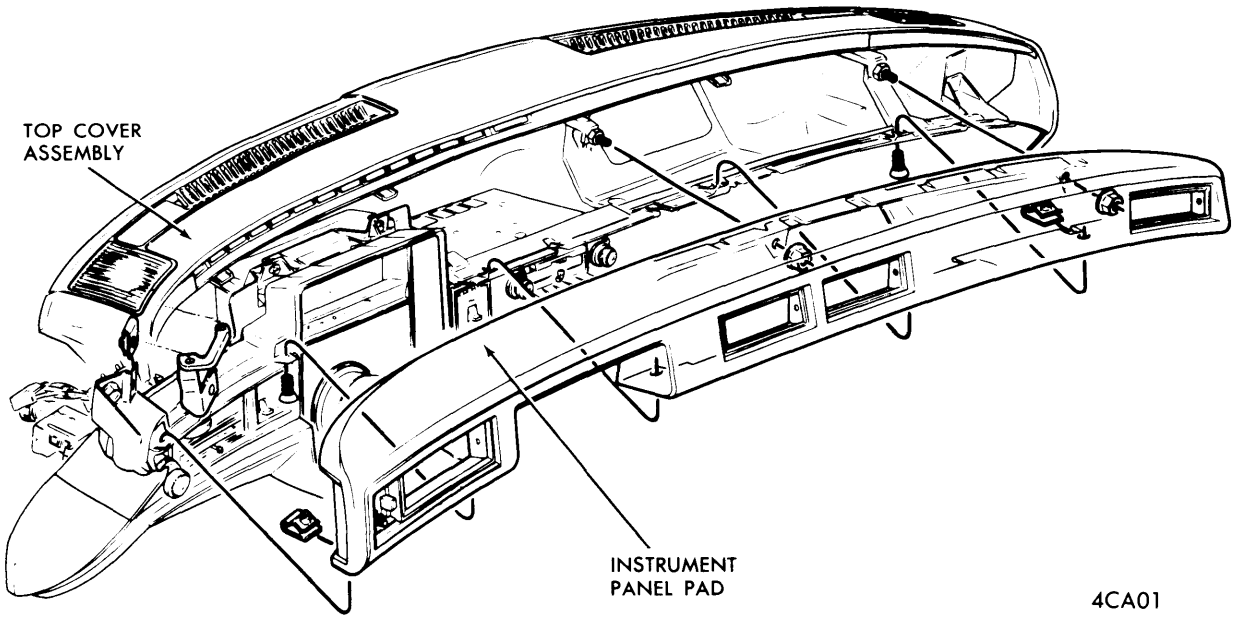
To remove bezel, remove six screws securing bezel to cluster. Bezel comes out in two pieces. Steering column seal is attached to bezel and split on lower surface for removal. Disconnect battery ground before removing cluster. With bezel removed, move shift lever to "P" and remove one screw securing shift indicator cable to steering column. Remove two upper screws securing cluster assembly to instrument panel horizontal support, then remove two lower inboard screws. *NOTE — Both outboard screws remain in place to rear speedometer cable mounting.* Pull cluster outward to disengage from speedometer cable, rotate top downward and disconnect printed circuit connector. Remove cluster. To install cluster, reverse removal procedure.

CLUSTER PRINTED CIRCUIT

Remove cluster and all sockets and lights from cluster case, then remove printed circuit. *NOTE — Do not repair printed circuit board, if defective, it should be replaced.* To install circuit board, reverse removal procedures.

SPEEDOMETER HEAD

To remove speedometer head, remove instrument cluster as previously outlined. Then remove four screws securing instrument cluster lens to cluster housing. Remove trip reset knob by turning counterclockwise. Hold shaft on flats under knob. Remove lens and face plate. Remove selector quadrant assembly from cluster housing by pulling straight out. Remove rubber mounted screws securing speedometer head assembly and remove from cluster housing. Remove screws securing dial to speedometer head and remove dial using care not to damage pointer. To install speedometer head, reverse removal procedures.



INSTRUMENT PANEL ASSEMBLY