

BUICK

Buick All Models (Exc. Skyhawk)

NOTE — For Skyhawk, see General Motors "H" Body in this section.

DESCRIPTION & OPERATION

Fuel Gauge — System consists of dash and tank units which are energized only with the ignition "ON". A balanced gauge pointer is moved by the changing resistance in the tank variable rheostat float mechanism, through a resistor, empty coil, full coil and bucking coil to ground.

Oil & Temperature Indicators — Indicator circuits are open until oil pressure switch or coolant temperature switch completes the circuit to ground. Oil indicator will be switched on if oil pressure drops below a safe level and temperature indicator will be turned on with coolant temperature above 258°F.

Alternator Indicator — Indicator light should be on with ignition turned to "ON" and before the engine is started. Once engine is started and is accelerated above 900 RPM, light should go off and remain off.

TESTING

FUEL GAUGE

Use a suitable Gas Gauge Tester (J-22344 or equivalent). Disconnect Tan wire from the gas gauge tank terminal and connect one test lead to the wire and ground the other lead. Switch tester to "Empty" and "Full" positions and fuel gauge should read the same as the tester. If not, proceed with the following tests with ignition in "On" position.

Gauge Never Reads Empty or Reads Full At All Times — Check for disconnected or loose tank unit feed wire at tank. If good, check for proper connections at the printed circuit.

Gauge Always Reads Empty — Disconnect tank unit feed wire and gauge should indicate full. If not at "Full" position, check connections to printed circuit or for an open in the printed circuit.

Gauge Never Reads Full — Check system with Gas Gauge Tester, positioned in line between Tan wire and tank terminal. If gauge reads full, fill the gas tank. Using an ohmmeter, check resistance of tank sending unit which should read between 88 and 92 ohms. If ohm reading is low, check tank mounting area for damage. If gauge does not read full, check connections to printed circuit or for an open within the printed circuit.

Gauge Dead — Check feed wire voltage to the tank which should read 3-4 volts. If it does not, check for open on hot side of the gauge, or proper connections at the printed circuit. If voltage is correct, remove and check fuel gauge.

OIL PRESSURE INDICATOR

Indicator light is inoperative with ignition switch on and engine not running. Check for burned out bulb, open light circuit or defective oil pressure switch. Indicator light is on and engine is running, indicates low oil pressure, defective oil pressure switch or short between light and switch.

TEMPERATURE INDICATOR

If "Hot" indicator light is inoperative when cranking engine, check for burned out light bulb, open in light circuit or a defective ignition switch. When light is on with engine running, check for coolant temperature above 258°F., short between light and switch, defective temperature or ignition switch.

CHARGING SYSTEM INDICATOR

If light is inoperative with ignition in "On" position before starting engine, check for burned out bulb or short in wiring. If light is on with engine running, check for loose or missing belt, or short in the circuit. If good, check alternator (generator) and regulator for proper output.

ADJUSTMENT

STOP LIGHT SWITCH

Skylark — With pedal depressed $\frac{3}{8}$ to $\frac{5}{8}$ " from released position, adjust switch in or out to obtain electrical contact.

All Others — With pedal in released position, adjust switch in or out so switch plunger is fully depressed against brake pedal arm.

REMOVAL & INSTALLATION

WINDSHIELD WIPER AND WASHER SWITCH

Century, Regal & Skylark — Using one or two narrow bladed screw drivers, insert blade into each of the two slots within the switch immediately above the knob. Bend retaining clips downward and break off. Rotate top of switch outward to remove. To install, reverse removal procedures.

Le Sabre, Riviera & Electra — Remove left trim plate and screws securing switch to panel. Pull switch assembly outward and disconnect connector. To install, reverse removal procedures.

Skylark — Remove harness connector from rear of switch. Remove screws and switch. To install, reverse removal procedures.

HEADLIGHT SWITCH

Century Series, Regal & Skylark — Remove negative battery cable and if equipped with air conditioning, remove left A/C duct from under instrument panel. Pull out switch knob to last notch and remove knob by depressing button on side of switch. Remove electrical connector and escutcheon from switch and remove switch.

Electra Series, Le Sabre Series & Riviera — Remove negative battery cable and left instrument panel trim plate. Remove three switch bracket retaining screws, lift switch out and remove electrical connector. Pull out switch knob to last notch and remove knob by depressing button on side of switch. Remove escutcheon and switch-to-bracket retaining nut and separate switch from bracket.

BUICK (Cont.)

INSTRUMENT PANEL & CLUSTER

Century Series & Regal – Disconnect battery ground cable and tape end. Remove glove box door, glove box, and right trim plate. Remove four instrument panel housing-to-cover screws. Disconnect front speaker connector from radio. Pull instrument panel cover rearward on left side to disengage retaining clips. On right side, cover must be pulled downward while pulling rearward. Pry cluster trim plate from panel if equipped. Disconnect heater-air conditioning cables and connections from control head. Disconnect speedometer cable and necessary wiring connectors. Remove radio knobs and two retaining nuts. Remove instrument panel housing screws and remove panel. To install, reverse removal procedure.

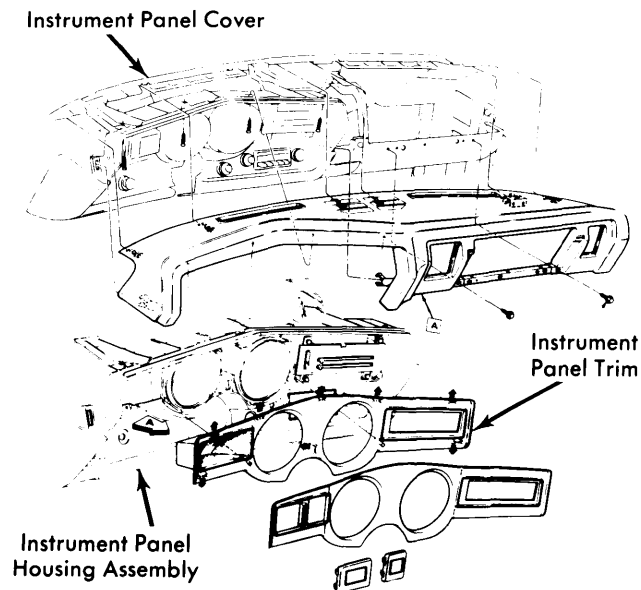


Fig. 1 Century, Regal Instrument Panel Assembly

Skylark – Disconnect battery ground cable. Remove glove box. Remove upper air conditioner extension and lower outlet at center of panel; remove upper center outlet nozzle, adapter, and flex hose to right side outlet (if equipped). Remove panel pad nuts above glove box and ash tray; remove right side pad screw near pillar post. Remove upper carrier screws and left side carrier screw near left pillar post. Remove steering column cover, disconnect shift quadrant indicator cable at shift bowl (if automatic transmission). Remove steering column nuts at panel and lower carrier screws. Remove radio knobs, bezels and nuts. Remove two lower heater or air conditioner control screws. Remove toe plate cover and toe plate-to-cowl screws and lower steering column. Disconnect speedometer cable and pull carrier assembly rearward. Separate cluster from carrier as required. To install, reverse removal procedure.

Electra Series, LeSabre Series & Riviera – Remove glove box door hinge screws, six glove box retaining screws and glove box. Remove trim plates by prying them out after sliding rubber fill ring up onto steering column. To remove panel cover, disconnect negative battery cable, remove one screw at

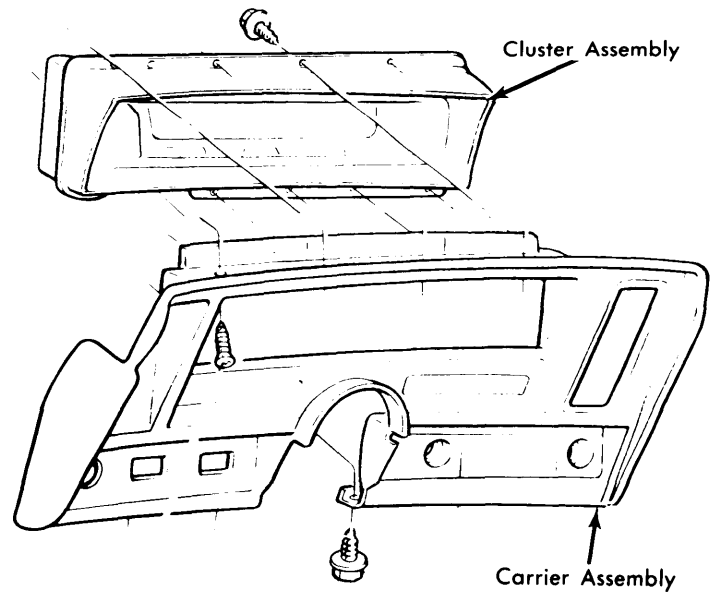


Fig. 2 Skylark Instrument Panel

each end of cover, six screws along lower edge of cover and two top outboard cluster bezel-to-cover screws. Reach through glove box opening, disconnect hose to air conditioning aspirator (if equipped) and glove box lamp, then release right cover-to-cowl clip, lift and pull cover outward. Disconnect speaker wire and remove cover assembly. To install, reverse removal procedure.

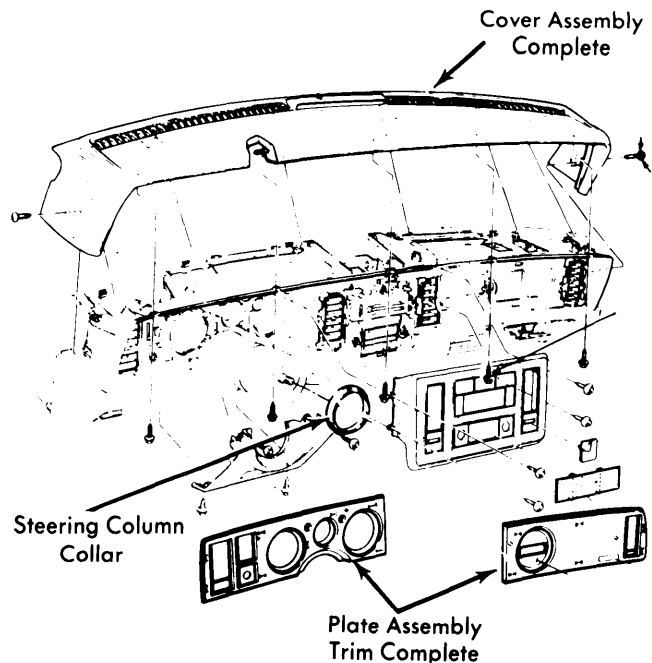


Fig. 3 Electra, LeSabre Instrument Panel Assembly

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GAUGES & SPEEDOMETERS

Century Series & Regal — Position shift lever in "L" and disconnect shift indicator cable from steering column. Carefully pry out trim plate. Remove gauge or speedometer retaining screws, disconnect speedometer cable and/or disconnect wire connectors. To install, reverse removal procedure.

Skylark — With instrument cluster removed, remove screws retaining cluster assembly rear cover. Bend ground strap away and remove from cover. Remove speedometer retaining screws and remove speedometer from cover. To install, reverse removal procedure.

Electra Series, Le Sabre Series & Riviera — Remove screws along top and bottom of cluster bezel and two screws from lens. Remove speedometer by removing retaining screws and pulling speedometer head out of cluster housing. Shift quadrant can be removed after removing right trim panel, speedometer and shift quadrant cable. Fuel gauge can be removed after speedometer is removed by removing screws retaining fuel gauge and pulling gauge from cluster housing.

PRINTED CIRCUITS

Century & Regal — Remove speedometer or fuel gauge. Remove the speedometer cluster printed circuit. Remove eight nuts, one or three resistors (as equipped), two screws and four light sockets to remove the tell-tale and fuel gauge cluster printed circuit. To install, reverse removal procedure.

Skylark — Remove instrument cluster, and illumination and indicator lights from cluster housing. Remove fuel gauge and clock terminal nuts securing printed circuit to housing. Remove four screws retaining printed circuit to cluster housing and remove printed circuit. To install, reverse removal procedure ensuring all attaching screws are replaced, so grounding circuit will be secured.

Electra Series, Le Sabre Series & Riviera — Remove instrument panel cover and disconnect wire connectors from rear of cluster housing. Remove fuel gauge, shift quadrant and cluster housing insert. Remove printed circuit. To install, reverse removal procedure.