BUICK

Buick, All Models

DESCRIPTION & OPERATION

Fuel Gauge – The system consists of a tank sending unit and dashboard gauge, which operate only when the ignition is "ON". The variable resistance sending unit controls voltage to the gauge and is moved by the fuel in the tank. An optional economy indicator contains two lights which are mounted in the fuel gauge, a vacuum switch, and a vacuum line. The green lamp glows when engine vacuum is high; the amber lamp glows when vacuum and economy drop.

Oil & Temperature Indicators – Indicator circuits are open until coolant temperature or oil pressure switch completes circuit to ground. Oil indicator will come on if pressure falls below 4-6 psi, and temperature indicator will come on when coolant is above 258°F.

Engine Indicator Light (V6 Engine) – The oil pressure light has been changed to an engine light on Century, Regal, LeSabre, Skylark and Estate Wagon. The light now indicates low oil pressure or a defective electric choke.

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

Turbo-Power Indicator – The turbo-power indicator consists of two lights in the instrument cluster. A yellow light glows during moderate acceleration, and an orange light glows during heavy acceleration. No lights illuminate during economical driving.

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

If indicator is inoperative with ignition "ON" and engine not running, check for burned out bulb, open sender wire, or defective sending unit. If bulb is on with engine running, check oil pressure with mechanical gauge, check for short in sender wire, or replace sender.

TEMPERATURE INDICATOR

If "HOT" indicator is inoperative with ignition "ON" and engine not running, check for burned out bulb, open sender wire, defective sender or defective ignition switch. If lamp is on with engine running, check for overheated condition, short circuit in sender wire, defective sender or defective ignition switch.

ALTERNATOR 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.

ENGINE INDICATOR

If light is inoperative with ignition in "ON" position before starting engine, check for disconnected choke at carburetor, blown fuse, defect in bulb or wiring, and bad sender. If light remains "ON" with engine running, check oil pressure with a mechanical gauge, check for open circuit between sender and dash, or for defective pressure sender unit.

ADJUSTMENT

STOP LIGHT SWITCH

Skylark – With pedal depressed 3/8 to 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

NOTE – *Windshield wiper switch procedures are described in the appropriate Wipers/Washers article in this Section.*

HEADLIGHT SWITCH

Removal (Electra, LeSabre, Skyhawk) – Disconnect battery and remove air duct on Skyhawk (if equipped). Pull knob out, press release button on switch, and remove knob and shaft. On Electra and LeSabre, remove trim plate. Remove retaining nut, wiring connector, and switch.

Installation – To install, reverse removal procedure.

BUICK (Cont.)

Removal (Century, Regal, Riviera, Skylark) – Disconnect battery. Pull knob out and press retainer tab on rear of knob to remove. Remove switch bezel ring and trim plate, then remove 2 screws and headlight switch.

Installation – To install, reverse removal procedure.

TOP COVER

Removal (Electra, LeSabre) – Disconnect battery. Remove 1 screw at each end of cover, then remove 5 screws at lower edge and 6 screws at upper edge of cover. Remove illumination lights and cover.

Installation – To install, reverse removal procedure.

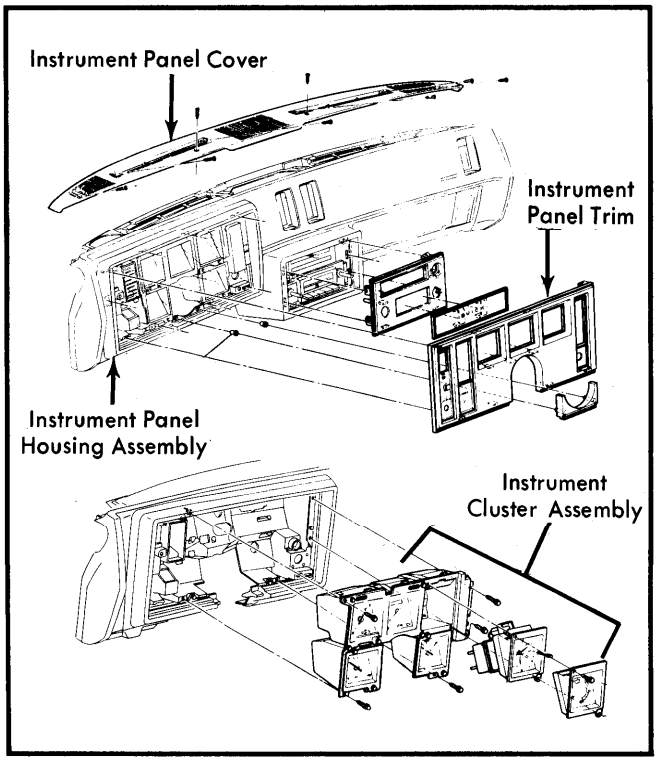

Fig. 1 Century & Regal Instrument Panel Assembly

Removal (Century, Regal) – Disconnect battery. Remove glove box door, glove box, and 2 screws securing cover from inside glove box opening. Release retainer clip inside glove box opening. Remove 4 screws across front of cover. Pull cover free from clips, disconnect speaker wires, and remove.

Installation – To install, reverse removal procedure.

Removal (Skyhawk) – Disconnect battery. Remove glove box, then remove retaining nuts through opening. Use small screwdriver to remove clock knob. Remove 3 panel bezel screws, 2 screws at top of cluster, and 4 screws along panel edge. Remove cover.

Installation – To install, reverse removal procedure.

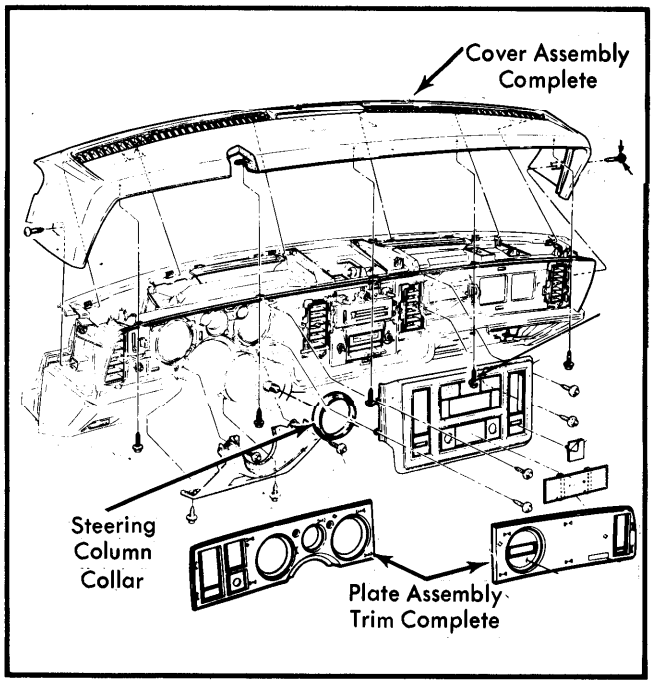

Fig. 2 Electra, LeSabre & Estate Wagon Instrument Panel Assembly

SPEEDOMETER, GAUGES, AND PRINTED CIRCUITS

Removal (Century, Regal) – Remove headlight knob. Carefully pry out trim plate, then remove 5 cluster lens screws and lens. Remove 2 speedometer screws, disconnect cable and wiring, then remove speedometer. Remove gauges as necessary. Disconnect 10 bulb sockets, 1 screw, and 6 clips from rear to remove printed circuit.

Installation – To install, reverse removal procedure.

Removal (Electra, LeSabre) – Remove instrument panel cluster bezel and lens. Remove 4 screws each on speedometer and fuel gauge to remove.

Installation – To install, reverse removal procedure.

Removal (Skyhawk) – Remove cluster bezel screws and bezel. Remove top cover and cluster lens. Remove 2 screws, pull speedometer forward and disconnect cable. Remove screws and gauges.

Installation – To install, reverse removal procedure.

Removal (Skylark) – 1) Disconnect battery. Remove all knobs and retaining nuts. Remove 3 screws at bottom of trim plate, place gear lever in "L", and remove trim plate. Remove 4 lens screws and lens, then 4 cover plate screws and cover plate.

2) Disconnect gear selector and slide out to right. Pull out cluster and disconnect speedometer cable. Remove 2 screws from rear of cluster and remove speedometer. Remove 8 screws and gauge cluster, then remove printed circuit.

BUICK (Cont.)

Installation – To install, reverse removal procedure.

Removal (Riviera) – **1)** Remove headlight knob and cluster trim plate. Disconnect speedometer cable at transmission. Remove 6 screws and lower dash trim panel, then disconnect parking brake release cable and lower air duct.

2) Disconnect shift indicator wire. Remove 2 nuts and lower steering column. Remove 4 screws and speedometer cable from cluster and remove cluster. Remove fuel gauge assembly, screws, and speedometer.

Installation – To install, reverse removal procedure.

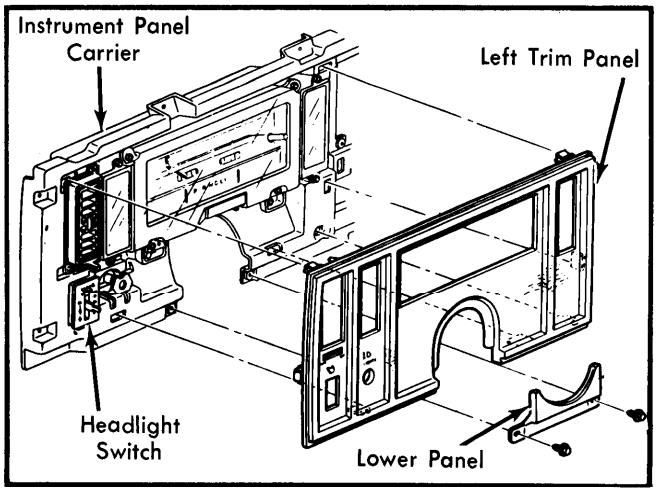

Fig. 3 Riviera Instrument Panel Assembly