

GENERAL MOTORS "H" BODY

Buick Skyhawk
 Chevrolet
 Monza 2+2 & Coupe
 Vega
 Oldsmobile Starfire
 Pontiac
 Astre
 Sunbird

DESCRIPTION & OPERATION

Two instrument and gauge panels are used. A single piece speedometer and indicator warning light panel, with an attached fuel gauge is standard on Astre and Vega. Individual gauges (GT Cluster) are optional on Astre and Vega and are standard on all other models. All gauges are removed from the front of the instrument panel on either type.

Fuel Gauge — Circuit consists of an electromagnetic gauge in instrument panel and a fuel tank sending unit incorporating a float, linkage, movable contact arm and a rheostat. As fuel level lowers, a balanced gauge pointer is moved by the changing resistance in the tank variable rheostat float mechanism. The decreasing resistance to gauge circuit allows gauge pointer to move towards the empty position. With ignition off, gauge pointer may rest anywhere. With ignition on, gauge pointer should indicate the correct fuel level.

Temperature Indicator — If equipped with an indicator light, engine temperature sending unit will close circuit to ground when temperature reaches about 258°F. When the ground circuit is completed, the indicator light will come on. If equipped with a gauge, the variable resistance type sending unit will allow more or less current to flow through gauge, thus varying the gauge reading.

Oil Pressure Indicator — Indicator light is actuated by a pressure operated sending unit. If oil pressure drops below a safe level, the sending unit will be allowed to close, completing the indicator light circuit to ground, turning on the light.

Alternator Indicator — Indicator light should come on with ignition on and engine not running. Light should go out after engine is started and accelerated above 900 RPM. Gauge should indicate a charge condition (plus side of gauge) whenever engine is running above an idle. Gauge may read a slight discharge at idle, and also when ignition is turned on and the engine is not running.

TESTING

INDICATOR WARNING LIGHTS

Temperature Indicator — If light remains on, check coolant temperature, sending unit for a grounded condition, or for a shorted circuit between sending unit and firewall or firewall and printed circuit. If light fails to come on, check bulb, fuse, or circuit for an open condition.

Oil Pressure Indicator — If indicator light remains on, check for shorted sending unit or firewall connector. Also check for a short between printed circuit and fuse block. If light fails to come on, check bulb, fuse, circuit or printed circuit for an open condition.

Alternator Indicator — If indicator light fails to come on with ignition on and engine not running, check bulb. If bulb is good, or if indicator remains on after engine is started and accelerated above 900 RPM, test charging system. See *Delco-Remy Alternators in ELECTRICAL Section*.

GAUGES

Fuel Gauge — Use a suitable fuel gauge tester (BT-6508 or J-22344) to check gauge, circuit, and sending unit.

Temperature Gauge — If gauge fails to function properly, check cooling system and then check sending unit, gauge and circuit for an open or shorted condition.

Ammeter Gauge — If gauge fails to read correctly, test charging system. See *Delco-Remy Alternators in ELECTRICAL Section for testing procedures*.

STOP LIGHT SWITCH

If all stop lights fail to come on, or fail to turn off, check White wire terminal in turn signal connector using a test light, while depressing brake pedal. If test light fails to come on, check stop light switch adjustment. If adjustment is correct, replace stop light switch.

CLUTCH START SWITCH
(MANUAL TRANSMISSION MODELS)

If engine will not start with clutch fully depressed, check switch for proper installation. If switch is properly installed, check switch circuit for an open or grounded condition. If circuit is good, replace clutch start switch. No adjustment is required.

ADJUSTMENT

STOP LIGHT SWITCH

With brake pedal fully depressed, push switch forward until it stops against pedal arm. Pull pedal rearward as far as possible to properly adjust switch. Stop lights should come on with brake pedal depressed $\frac{3}{8}$ " to $\frac{5}{8}$ ".

REMOVAL & INSTALLATION

HEADLIGHT SWITCH

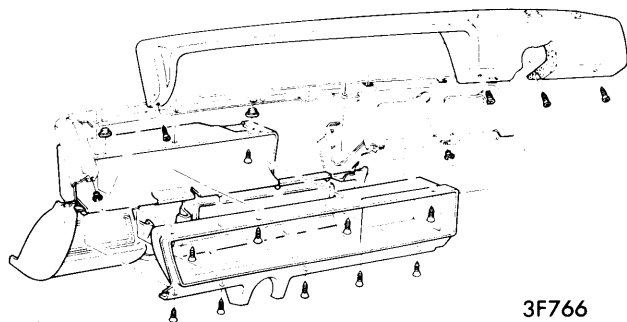
Disconnect ground cable at battery and pull switch control knob to "ON" position. Reach under instrument panel and depress switch control shaft knob. With a large bladed screwdriver, remove light switch ferrule nut from front of instrument panel. Disconnect connector from side of switch, and remove switch. To install, reverse removal procedure.

INSTRUMENT PANEL PAD

All Models (Exc. Monza Coupe & Sunbird) — Remove clock stem knob and instrument cluster bezel (nine screws on one piece cluster and six screws on GT cluster). Remove one screw at lower left edge of pad. Loosen three screws at lower right side of pad. Rapidly pull top of pad upward with hands to disengage the tabs and lips at top right of pad. To install, reverse removal procedure.

GENERAL MOTORS "H" BODY (Cont.)

Monza Coupe & Sunbird — *NOTE* — Pad can be removed without removing instrument cluster bezel. Remove eleven screws from around edge of pad. Disconnect left A/C duct (if equipped). Disengage clips at rear of pad by prying up on pad. Remove pad. To install, reverse removal procedure.



**ONE PIECE CLUSTER INSTRUMENT PANEL
(EXC. MONZA COUPE & SUNBIRD)**

INSTRUMENT CLUSTER & GAUGES (EXC. MONZA COUPE & SUNBIRD)

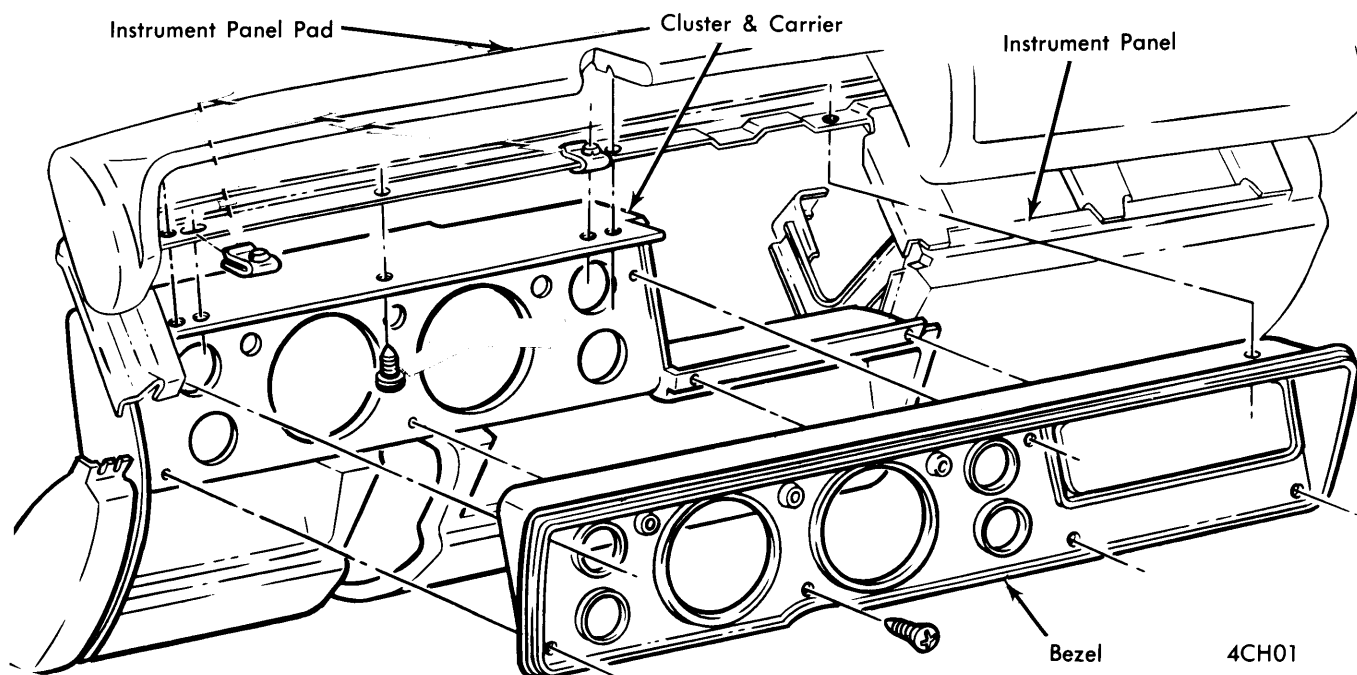
NOTE — On all models, instruments, gauges and speedometer cable are removed from front of instrument cluster.

Fuel Gauge & Speedometer (One Piece Cluster) — Disconnect battery ground cable, then remove cluster bezel and instrument panel pad. Remove cluster lens and light shield by removing two screws at top of lens and two screws at bottom of shield. Tip lens out and lift off. Remove clock set knob (if equipped). Remove two outer screws at bottom of speedometer face and lift out speedometer head. To remove fuel gauge, remove two screws retaining gauge to cluster and using a small screwdriver release locking tab while rocking gauge. Pull gauge straight out and disconnect electrical lead.

Gauges & Speedometer (GT Cluster) — All instruments are removed in the same way. Disconnect battery ground cable. Remove clock stem knob, cluster bezel and instrument panel pad. Remove six screws retaining light shield and lift shield straight out. Remove appropriate gauge retaining screws, pull gauge out, and disconnect electrical lead to gauge.

INSTRUMENT CLUSTER & GAUGES (MONZA COUPE & SUNBIRD)

All Gauges — Remove four screws retaining bezel and lens to instrument panel. Remove bezel and individual gauges from front of cluster. *NOTE* — Remove tachometer (if equipped) before removing fuel gauge.



**GT CLUSTER INSTRUMENT PANEL
(EXC. MONZA COUPE & SUNBIRD)**