

Switches & Instrument Panels

CHRYSLER CORP. IMPORTS

DESCRIPTION & OPERATION

All models have an instrument cluster with speedometer, fuel gauge and temperature gauge. The fuel gauge has a built-in voltage limiter to keep the supply voltage to the gauges at 7 volts.

Some models may also have a shunt type ammeter, oil pressure gauge and tachometer. The pressure gauge is the bimetal type and uses full battery voltage. Control switches are located on the steering column for Challenger and Sapporo. Champ, Colt and Pickup models use dashboard switches.

TESTING

VOLTAGE LIMITER

Unplug the fuel or temperature sending unit connector. Connect a voltmeter between the sending unit wire and ground. With the ignition on, voltage should swing between 1 to 7 volts. If not, fuel gauge/limiter must be replaced.

NOTE: Voltage limiter must be securely grounded or it will be ruined when vehicle is started. Ensure ground connection is tight when installing fuel gauge.

FUEL GAUGE

1) Disconnect fuel gauge sending unit wire. On Colt and Champ models, connect a 17 ohm resistor between wire and ground. On all other models, ground sending unit wire. Fuel gauge should read full.

NOTE: Keeping the wire grounded too long can damage coils in gauge. Perform test as quickly as possible.

2) On Colt and Champ models, connect a 120 ohm resistor between sending wire and ground. On all other models, connect a 95 ohm resistor between sending wire and ground. Gauge should read empty.

FUEL SENDING UNIT

Connect ohmmeter between gauge terminals. On Colt and Champ models, resistance should be 17 ohms with tank full, or 120 ohms with tank empty. On all other models, resistance should be 1-5 ohms with tank full and 103-117 ohms with tank empty. If not, replace sending unit.

TEMPERATURE GAUGE

Unplug temperature sender wire at sending unit. Connect a 70 ohm resistor between wire and ground. Gauge should indicate about 176° F (80° C). DO NOT connect sender wire directly to ground. If gauge tests okay, remove sending unit and place in hot water. Resistance should measure 69 ohms with water at 176° F (80° C).

OIL PRESSURE GAUGE

1) Unplug sending unit wire. Battery voltage should be present between wire and ground with ignition on. If not, check fuse. On Challenger and Sapporo, connect a 100 ohm resistor between wire and ground. Gauge should indicate about 85 psi (6 kg/cm²).

2) On all other models, connect a 14 volt, 1.4 watt bulb between connector terminal and ground. Bulb should light and gauge should read around 60 psi (4.2 kg/cm²). On all models, if gauges do not have psi marks, needle should point at the second of the 2 center marks.

AMMETER

On Challenger and Sapporo, check ammeter fuse in box at left front fender panel. On all models, remove ammeter. Connect a 3.4 watt bulb (or 60 ohm resistor) in series with a battery and ammeter. If ammeter indicates about 6 amps, it is working correctly. Ammeter is a shunt type that normally passes one-thirtieth of the current being used in vehicle. Do not allow more than 1 amp to pass through ammeter.

REMOVAL & INSTALLATION

INSTRUMENT CLUSTER

Removal & Installation (Arrow & Ram-50 Pickups)

1) Disconnect battery ground. Remove heater and radio knobs. Remove 2 screws under upper edge of cluster. Remove 2 screws inside ashtray opening. Remove 4 screws at corners of cluster. Unplug wiring and speedometer cable and remove cluster.

2) To remove console gauges, remove console floor screws on each side. Pull console back. Remove console gauge mounting screws from inside console. Push gauges toward front of vehicle, unplug wiring and remove. To install, reverse removal procedure.

Removal & Installation (Challenger & Sapporo)

Disconnect battery ground. Remove 4 cluster hood screws. Remove 4 cluster screws. Pull cluster out slightly, then unplug wiring and speedometer cable. Remove cluster. To install, reverse removal procedure.

Removal & Installation (Champ & Colt)

1) Disconnect battery ground. Remove instrument cluster hood mounting screws. Leave switch connectors plugged in. Remove lower left corner panel of dashboard. Pull out instrument cluster hood main connector and unplug it.

2) Remove cluster hood and switches. Remove instrument cluster screws and pull cluster back. Unplug wiring, remove speedometer cable and remove cluster. To install, reverse removal procedure.

COMBINATION SWITCH

Removal (Challenger & Sapporo)

Disconnect battery ground. Remove steering wheel. Tilt wheel to lowest position and remove column cover. Remove column switch screws. Take off wiring clamp, unplug wiring and remove switch.

Installation

To install, reverse removal procedure. Ensure that turn signal cancel cam pins fit into steering wheel holes.