

MG (Cont.)

TEMPERATURE GAUGE

1963-67

MG Midget, MGB & MGB/GT — On models so equipped remove console. Remove nuts and brackets from back of instrument. Disconnect all wiring and pull gauge from instrument panel.

1969

MGC — Disconnect battery, remove lower left dash panel cover and heater air control. Unscrew nuts, remove retaining bracket, pull out temperature gauge and disconnect wiring.

FUEL, OIL & TEMPERATURE GAUGES

1968-73

All MG Models — To remove fuel, oil pressure and temperature gauges, remove components listed to gain access

to unit then unscrew knurled retaining nuts, pull instrument from dash and disconnect wiring.

To Remove

	First Remove
Fuel Gauge	
MG Midget.....	Speedometer
MGB & MGB GT.....	None
Oil Pressure Gauge (MGB & MGB GT).....	Tachometer
Temperature Gauge (MGB & MGB GT).....	Heater Control
Combination Gauge (MG Midget).....	Tachometer

CONSOLE

1963-67

MG Models (If Equipped) — Disconnect battery and remove screw securing left front end of parcel shelf. Remove console retaining screws and pull console to rear, tilting top forward to clear dash. Disconnect wiring and remove console complete with switches.

OPEL

INSTRUMENT CLUSTER

1966-70

GT — Remove two access hole covers in instrument panel padding. Through openings, remove attaching screws. Lower steering column to floor. Disconnect speedometer cable and remove flasher unit. Remove radio knobs, hex nuts and face plate. Remove cluster from instrument panel. To install, reverse removal procedure.

All Other Models — Disconnect speedometer cable. Reach under dash and apply equal pressure on instrument housing to compress the four retaining clamps. Tilt cluster out of housing toward rear of vehicle and disconnect all wires. Remove cluster complete. To install, reverse removal procedure.

1971

1100 — Disconnect speedometer cable. Reach under dash and apply equal pressure to instrument housing. With pressure applied to housing, remove four retaining clamps and tilt housing out of instrument panel toward rear of vehicle. Disconnect wires from terminals and remove cluster. To install, reverse removal procedure.

GT — Remove two access hole covers in instrument panel padding. Through openings, remove attaching screws. Lower steering column. Disconnect speedometer cable and remove flasher unit. Remove radio knobs and hex nuts from control shafts, remove radio face plate. Remove cluster from instrument panel. *NOTE* — Cluster is retained by push buttons on top and one nut at lower left corner. To install, reverse removal procedure.

1971-73

1900 — 1) Disconnect battery ground cable and remove headlight switch button. Remove plugs on cluster panel. Remove sheet metal screws behind plugs on cluster. Pull off heater control knobs.

2) Carefully pull instrument cover towards steering wheel and remove cover. Remove screws for lower housing attachment. Disconnect speedometer cable by turning coupling counterclockwise.

3) If equipped, pull heated rear window or fog light switch out of instrument housing and disconnect wires from switches. Pull cluster right and left sides partially out and disconnect wires on back of cluster.

GT — 1) Disconnect battery ground cable. Remove right and left access covers and remove screws. Remove flasher unit and position steering so that wheels are straight ahead.

2) Drill a $\frac{3}{16}$ " pilot hole in two tear bolts securing steering column to dash. Then, using a stud extractor, remove tear bolts. Disconnect ignition (white) and directional signal (black) wire set plugs. Support steering column and remove both hex-head bolts. Drop steering column to floor.

3) Remove six screws on instrument cluster and disconnect speedometer cable. Pull on cluster from top to remove, then pull cluster out and turn sideways to gain access to cluster components. Use new tear bolts when re-installing cluster.

SPEEDOMETER

1966-73

Speedometer and all gauges can be removed after first removing instrument cluster.

OPEL (Cont.)

IGNITION SWITCH

1966-69

Disconnect battery. Turn ignition switch to "ON" position. Using a suitable rod inserted into stop pin hole on side of steering and ignition lock, remove cylinder. Remove two screws securing switch to steering and ignition lock housing and remove switch.

STOP LIGHT SWITCH

1966-73

Switch is mechanical and is mounted on top of brake pedal in a bracket.

PANTERA

SPEEDOMETER

1973

Remove chrome nut securing odometer reset knob. Disconnect speedometer drive cable. Remove retaining screws from back of speedometer and remove speedometer.

GAUGES

1973

Disconnect battery ground cable. Remove retaining screws from console panel and pull console panel forward and down to reach rear of gauge. Remove bulb sockets and wiring from gauge, unscrew retaining nut and remove gauge.

TACHOMETER

1973

Disconnect negative battery cable. Remove nuts from back of tachometer and push tachometer out from dash. Remove bulb sockets and wiring from back of tachometer.

IGNITION SWITCH

1973

Disconnect battery ground cable. Remove retaining bolts from steering column and lower column. Remove retaining screws and steering column shroud. Remove retaining screws and wiring and remove ignition switch. To remove column lock, remove shear bolts with a screw extractor. Use new shear bolts when reinstalling column lock.

PORSCHE

INSTRUMENT CLUSTER

1963-65

Located on left side of instrument panel. Contains an oil temperature and fuel gauge, oil pressure indicator light and generator warning light. To remove, note wire positions and disconnect leads. Remove clamp nuts, pull out instrument lights and set out of way. Cluster can now be removed complete. To install, reverse removal procedure.

1970-73

4 Cylinder Models — Disconnect battery ground cable. Remove steering wheel and disconnect speedometer cable. Remove knob and jam nut from trip mileage reset. Remove four retaining screws and pull cluster away from panel. Disconnect wires and indicator lights and remove cluster. Push individual instruments out in a forward direction, making sure rubber retaining rings are not damaged. To install, reverse removal procedure.

911 6 Cylinder Models — Connecting terminals and cables of all instruments are accessible from luggage compartment side of instrument panel after carpet has been removed. To remove cluster, proceed as follows:

1) Disconnect all cables and wires from instrument that is to be removed. If speedometer is being removed, also remove drive shaft knurled nut and withdraw shaft from speedometer.

2) Remove small knurled nuts securing instrument, remove retaining clamp and take instrument out from passenger compartment side. To install, reverse removal procedure.

SPEEDOMETER & GAUGES

1963-65

To remove, pull instrument lights from sockets. Remove speedometer cable nut and pull cable from instrument. Remove clamp screws from back of speedometer. Remove clamp bracket and remove speedometer from instrument panel. To install, reverse removal procedure.

1970-73

4 Cylinder Models — Speedometer, tachometer and all gauges may be removed after first removing instrument cluster.

STOP LIGHT SWITCH

1963-65

Switch is hydraulic and is located at front of brake master cylinder.

1970-73

914 & 914/6 — Pull accelerator pedal out of thrust rod in rearward direction. Remove two nuts attaching floorboard and remove to side. Remove switch mounting screws and detach electrical leads before removing. To install, reverse removal procedure.