

MG (Cont.)

TACHOMETER

All Models – On MGB & MGB GT models, remove lower left hand instrument panel cover. On all models, unscrew two knurled retaining nuts, disconnect ground cable and remove retaining brackets. Pull tachometer from dash and disconnect wiring.

GAUGES

To remove fuel, oil pressure and temperature gauges, remove components listed below 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

IGNITION SWITCH

MG Midget – Disconnect battery. Turn key to position "0". Disconnect wiring from switch and remove two screws securing switch to steering lock. Remove switch.

MGB & MGB GT – Pull off center motif from steering wheel, unscrew retaining nut and remove steering wheel using suitable tool. Remove three retaining screws from left switch cowl and remove cowl half. Remove screw retaining right cowl half and remove cowl. Unscrew four switch retaining screws, disconnect switch wiring at snap connectors and remove switch.

STOP LIGHT SWITCH

All Models – Mechanical type mounted on brake pedal bracket.

OPEL

All Models - 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.

Pull cluster right and left sides partially out and disconnect wires on back of cluster.

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

SPEEDOMETER & GAUGES

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

3) If equipped, pull heated rear window or fog light switch out of instrument housing and disconnect wires from switches.

STOP LIGHT SWITCH

Mechanical, mounted on brake pedal bracket.

PANTERA

SPEEDOMETER

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

to reach rear of gauge. Remove bulb sockets and wiring from gauge, unscrew retaining nut and remove gauge.

TACHOMETER

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

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.

GAUGES

Disconnect battery ground cable. Remove retaining screws from console panel and pull console panel forward and down

STOP LIGHT SWITCH

Hydraulic type mounted in pressure differential valve.

PORSCHE

INSTRUMENT CLUSTER

914 Models – Disconnect battery ground cable. Remove steering wheel and disconnect speedometer cable. Remove knob and jam nut from trip mileage reset cable. Remove four retaining screws and pull cluster away from panel. Disconnect wire and indicator lights and remove cluster.

SPEEDOMETER, TACHOMETER & GAUGES

914 Models – Speedometer, tachometer and all gauges may be removed after first removing instrument cluster.

911 Models – Connecting terminals and wires of all instruments are accessible from luggage compartment side of instrument panel after luggage compartment carpet is removed.

PORSCHE (Cont.)

1) Disconnect and detach all cables and wire from instrument that is to be removed. In case of speedometer, 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.

TURN SIGNAL FLASHER (911 MODELS)

Flasher is located adjacent to fuse block in luggage compartment, and is a plug in type.

STOP LIGHT SWITCH

To adjust switch, loosen jam nut and adjusting screw. Clamp a piece of sheet metal .16" (4 mm) thick between brake pedal lever and pedal stop at brake pedal center. Turn adjusting screw until brake lights operate. Remove switch and lock adjusting screw. Reinstall switch and check switch operation.

RENAULT

INSTRUMENT CLUSTER

R-12 Models — Disconnect battery and two junction blocks on cluster. Disconnect speedometer cable. Lift the two retaining clips and pull cluster out, freeing mounting lugs from holders.

R-15 & R-17 Models — Disconnect battery. Unscrew two knurled nuts on fuse block bracket and tilt it. Unscrew four retaining clip screws (located in each corner of cluster) by first

removing radio speaker grill to gain access to right hand screws. Insert a screwdriver between cluster and instrument panel to free inside clip located at bottom center of cluster. Pull out cluster and disconnect all wiring and speedometer cable.

SPEEDOMETER & GAUGES

Speedometer and all gauges may be removed after instrument cluster is removed.

SAAB

INSTRUMENT CLUSTER

99 Models — Remove safety padding. Remove four self tapping screws. Disconnect speedometer cable and wiring. Remove bulb holders. Lift out instrument cluster.

SPEEDOMETER & GAUGES

99 Models — Speedometer and all gauges may be removed after first removing instrument cluster.

All Exc. 99 Models — To remove speedometer, disconnect wiring and pull out lampholders. Disconnect drive cable,

loosen knurled nuts and remove speedometer. All other gauges may be removed by disconnecting wiring, removing retaining clip and removing unit.

TURN SIGNAL FLASHER

Located under instrument panel on left hand side of steering column.

STOP LIGHT SWITCH

Mechanical type mounted on brake pedal bracket.

SUBARU

INSTRUMENT CLUSTER

1) Remove radio knobs and nuts. Remove ashtray, then remove bolt in ashtray opening. Remove lighting and wiper switch knobs and nuts, heater shutter control knobs, heater control knobs and hanger spring for speedometer cable.

2) Disconnect speedometer cable and wiring harness plug from back of cluster. Disconnect wiring to cigarette lighter (if equipped). Remove cluster from instrument panel.

SPEEDOMETER & GAUGES

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

TACHOMETER

To remove tachometer, remove meter visor by removing two screws. Remove tachometer mounting screws, disconnect wiring harness and remove tachometer.

HAZARD WARNING & TURN SIGNAL FLASHER

Located under instrument panel.

STOP LIGHT SWITCH

Mechanical type mounted on brake pedal bracket. Adjust switch so there is .24-.55" (6-14 mm) free pedal movement before switch turns on brake lights.

TOYOTA

INSTRUMENT CLUSTER

Corolla — Disconnect battery and speedometer cable. Remove instrument panel center and right mouldings. Remove cluster securing screw and two nuts behind cluster. Slowly pull out instrument cluster and disconnect wiring.

Hi-Lux — Loosen steering column clamp bolts. Remove three screws securing cluster. Pull out cluster slightly and disconnect speedometer cable and wiring. Remove cluster.

Corona Mark II — 1) Remove steering column housing, heater and radio knobs. Loosen heater control illumination light and pull out slightly. Remove the nine screws securing cluster housing.

2) Push up and out on safety pad and pull out cluster housing slightly. Remove heater light from cluster housing and remove housing toward the left.