

# 3-54 Switches, Gauges & Instrument Panels

## MG

**CAUTION** — Disconnect battery ground cable prior to removal of instrument cluster.

### SPEEDOMETER

**MG Midget** — 1) Disconnect battery and speedometer cable from the speedometer. Remove center console retaining screws and move console back and aside toward the steering column.

2) Remove two knurled retaining nuts from behind speedometer and the knurled nut retaining the trip remote control in its bracket. Pull speedometer forward from dash.

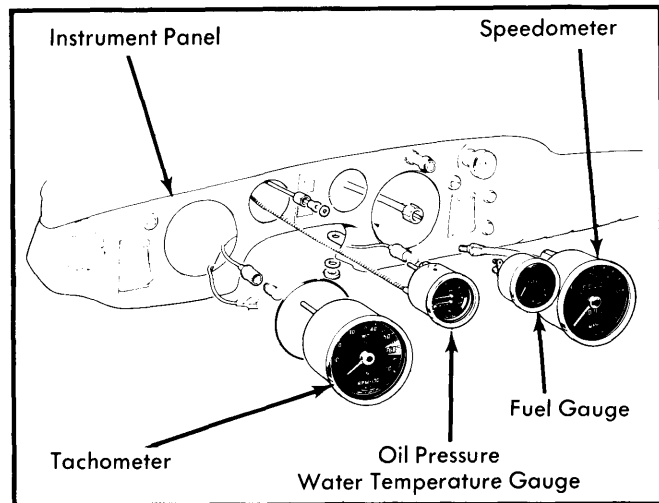


Fig. 3 MG Midget Instrument Cluster

**MGB** — 1) Disconnect the battery. Remove lower left hand instrument panel cover. Unscrew the knurled nut and disconnect speedometer cable.

2) Push in and turn speedometer clockwise for 30 degrees until the three studs located on the body of the speedometer are aligned with the cut-aways in the dash. Pull speedometer forward from the dash and disconnect wiring.

### TACHOMETER

**All Models** — Disconnect the battery and remove the lower left hand instrument panel cover. Push in and turn 30 degrees until the three studs on the body of the tachometer are aligned with the cut-aways in the dash. Pull tachometer forward from dash and disconnect the wiring.

### GAUGES

To remove fuel, oil pressure and temperature gauges, remove components listed below to gain access to unit, then unscrew knurled nuts. Pull instrument from dash and disconnect wiring.

#### To Remove

Fuel Gauge	
MG Midget .....	Speedometer
MGB .....	None
Oil Pressure Gauge (MGB) .....	None
Temperature Gauge (MGB) .....	Speedometer

#### First Remove

### STOP LIGHT SWITCH

**All Models** — Mechanical type mounted on brake pedal bracket. Free movement adjustment is .125" (3 mm).

## OPEL

**CAUTION** — Disconnect battery ground cable prior to removal of instrument cluster.

### INSTRUMENT CLUSTER

Disconnect battery ground cable and remove steering wheel. Disconnect speedometer cable, remove wing nut and instrument cluster retaining screws. Rotate cluster outward, disconnect two electrical connectors and remove instrument cluster. To install, reverse removal procedure.

### SPEEDOMETER & GAUGES

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

### STOP LIGHT SWITCH

Mechanical, mounted on brake pedal bracket.

## PORSCHE

**CAUTION** — Disconnect battery ground cable prior to removal of instrument cluster.

### INSTRUMENT CLUSTER

**928 Models** — Disconnect battery ground lead. Remove steering wheel, steering column switch and instrument cover mounting screws. Disconnect both 12 pin connector plugs at instrument cluster. Lift instrument cover carefully and tilt to rear. Unscrew mounting bolt and remove instrument cluster.

### SPEEDOMETER, TACHOMETER & GAUGES

**928 Models** — Instruments may be removed from assembly individually with cluster out of car. Use caution so that printed circuit board is not damaged when disassembling cluster.

**924 Models** — Disconnect battery. Put hand underneath instrument panel to back of instrument to be removed. Press instrument forward out of instrument panel. Disconnect wiring or speedometer cable.

**NOTE** — Remove tachometer and combination gauge before removing speedometer.

## PORSCHE (Cont.)

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

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.

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## RENAULT

**CAUTION** — Disconnect battery ground cable prior to removal of instrument cluster.

### INSTRUMENT CLUSTER

**Le Car** — Disconnect speedometer cable in engine compartment. Unclip instrument panel cowl and remove. Press left and right side clips until support plate is cleared and remove instrument panel. Disconnect 2 electrical junction blocks and speedometer cable.

### SPEEDOMETER & GAUGES

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

### STOP LIGHT SWITCH

Mechanically operated switch attached to the steering column

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## SAAB

**CAUTION** — Disconnect battery ground cable prior to removal of instrument cluster.

### INSTRUMENT CLUSTER

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

**900 Models** — Remove steering wheel. Remove 4 switch panel screws and properly mark location for reinstallation. Tilt switch panel back out of way. Remove left speaker and defroster grill. Reach behind instrument cluster and disconnect electrical connections and speedometer cable. Remove cluster retaining screws and remove cluster assembly.

### SPEEDOMETER & GAUGES

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

### TURN SIGNAL FLASHER

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

### STOP LIGHT SWITCH

Mechanical type mounted on brake pedal bracket.

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## SUBARU

**CAUTION** — Disconnect battery ground cable prior to removal of instrument cluster.

### INSTRUMENT CLUSTER

Remove instrument cluster cover screws and remove cover with rear window defogger switch. Remove cluster retaining screws and tip cluster out. Disconnect speedometer cable and wiring harness, then remove cluster.

### SPEEDOMETER & GAUGES

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

### 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.