ROVER
3 Litre
MK I, MK IA and MK II

OWNER'S INSTRUCTION MANUAL

SALOON AND COUPÉ

Part No. 605900

ROVER
3 Litre

MK I, MK IA and MK II

OWNER'S INSTRUCTION MANUAL

Saloon and Coupé

By Appointment to Her Majesty Queen Elizabeth II

Manufacturers of Motor Cars and Land-Rovers

By Appointment to Her Majesty Queen Elizabeth the Queen Mother

Suppliers of Motor Cars and Land-Rovers

THE ROVER COMPANY LTD

SOLIHULL
WARWICKSHIRE
ENGLAND

October, 1967

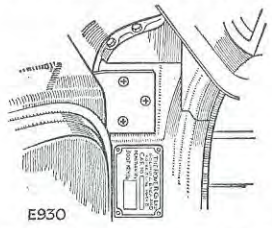
Part No.
605900

INTRODUCTION

This book, together with the Maintenance Schedule Book, has been prepared, to present to you as clearly as possible, information necessary for the efficient care and maintenance of your car.

Careful running-in is of great importance; high speeds and harsh driving for the first 500 miles can cause unnecessary wear in the engine and transmission and so shorten the life of the car.

Although the instructions have been made as simple and clear as possible, there may be occasions when further information is required; in such cases you are advised to see your local Rover distributor or dealer, or, if necessary, you can write direct to The Rover Company's Technical Service Department.

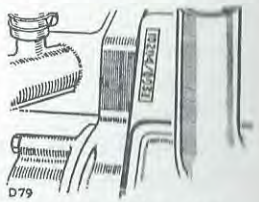


Car serial number, ignition and boot lid number plate

It is important in your own interests, that you should fill in and return to The Rover Co. Limited, the Guarantee-Warranty.

The car serial number will be found on a plate attached to the left-hand front door hinge post, visible when the door is open.

The full car serial number must be quoted in all correspondence; the registration number of the car is no use whatever to us. The engine serial number, which need not be quoted in correspondence unless specifically asked for, is stamped on the left-hand side of the cylinder block at the front.



Engine serial number

Ignition and boot key numbers

For security reasons the key numbers are no longer stamped on the barrel locks. Owners are advised therefore, in case of loss, to record the ignition and boot key numbers; these will be found stamped on the car serial number plate, attached to the left-hand front door hinge post.

It is important that you should recognise the necessity of using only genuine Rover Parts or Rover Approved Parts when repair or maintenance work is being carried out on your car.

Rover parts are produced to the same high standard as those parts built into the car in its original production and it is in your best interests that you should insist that only genuine Rover Parts or Rover Approved Parts are fitted to your car.

It will be realised that from time to time alterations in design and in the make of various accessories occur and this instruction manual, while up-to-date as far as possible, is not to be taken as a standard specification. The specification may be altered at any time, without incurring any obligation to incorporate such alteration in cars already delivered.

Glass breakages

Glass breakages can occur for a variety of reasons; however, a simple form of insurance can be taken out to cover this for a small annual premium.

It has the advantage that should a claim be made any "no claim bonus" which may exist in respect of the insurance on the car itself will be unaffected.

The Rover Company or any of its Distributors or Dealers will be glad to provide details of such insurance.

For ease of reference the book has been divided into three parts.

Part One gives all the information needed about handling the car.

In Part Two will be found full details of the lubrication and maintenance needed. If you do not wish to service the car yourself you are advised to consult your Rover Distributor or Dealer and arrange a regular maintenance schedule with him, using the Maintenance Schedule Book provided for this purpose.

Part Three covers the specification of the car and also includes a general index to the whole of the book.

THE ROVER CO. LTD.,
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SHEldon 4242

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Rovrepair. Solihull, England

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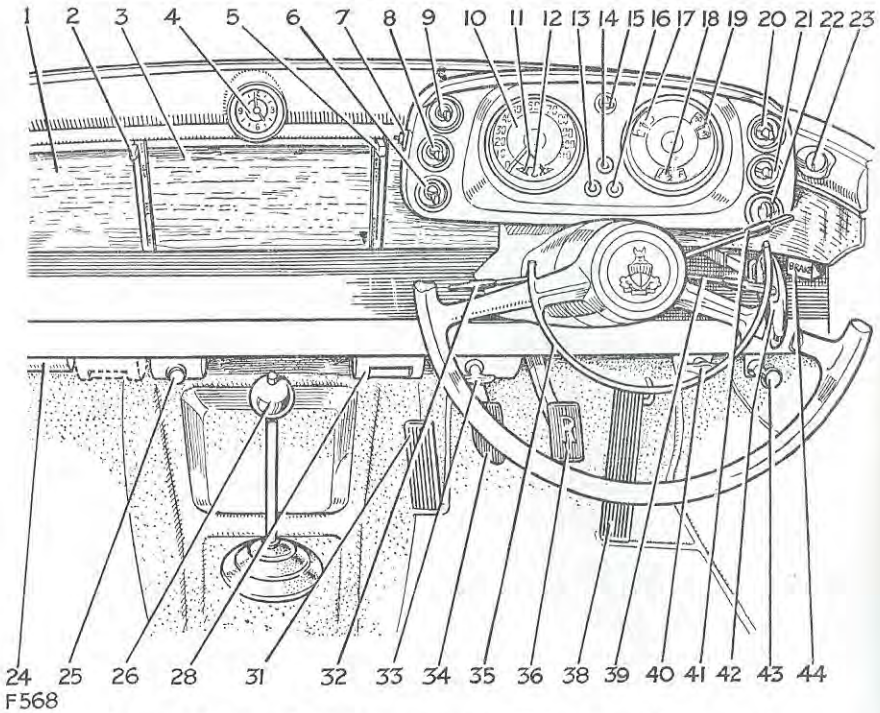
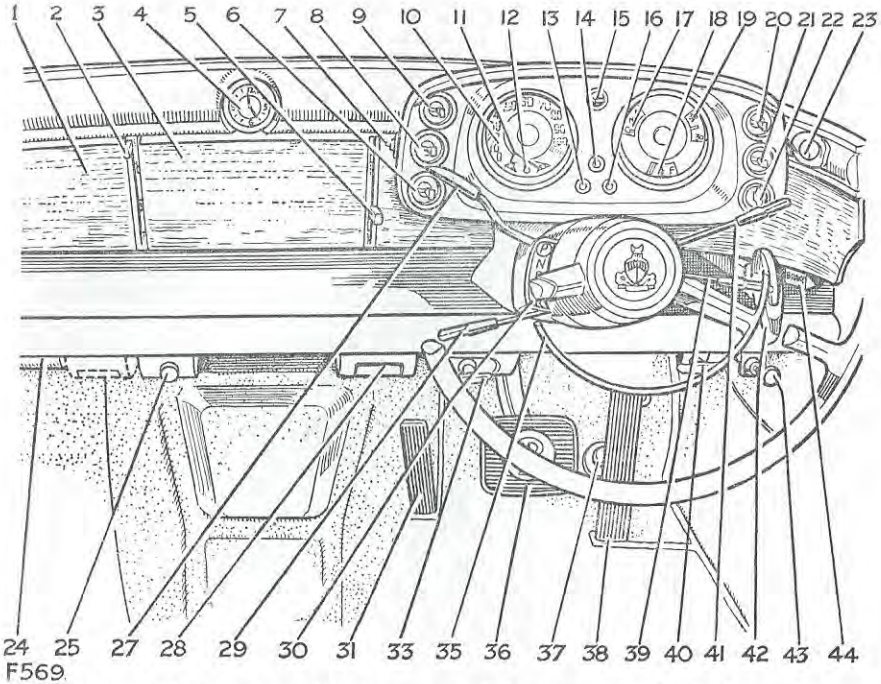
Rovrepair, Wesphone, London



Layout of controls and instruments—Saloon models, 4-speed gearbox with Overdrive—Late MK II models illustrated. Others are similar.

1 Outer glove box lid*
2 Heater control
3 Inner glove box lid
4 Clock
5 Demister control
6 Windscreen wiper switch
7 Push button, windscreen washer
8 Windscreen wiper speed control
9 Panel light switch
10 Speedometer*
11 Direction indicator arrows
12 Main beam warning light
13 Oil pressure warning light
14 Ignition warning light
15 Oil level and main/reserve pump switch
16 Cold start control warning light
17 Water temperature indicator*
18 Fuel and oil level indicator*
19 Ammeter*
20 Main light and parking switch
21 Two-speed heater fan control
22 Ignition and starter switch
23 Cool air control R.H. upper
24 Tool tray*
25 Cigar lighter
26 Gear change lever
28 Ash trays.* Alternative positions shown in dotted line
31 Headlamp dipper switch pedal*
32 Overdrive control switch*
33 Cold start control*
34 Clutch pedal*
35 Horn ring*
36 Foot brake pedal*
38 Accelerator pedal*
39 Headlamp switch*
40 Bonnet lock control
41 Direction indicator and headlamp flasher switch*
42 Hand brake lever*
43 Cool air control knob R.H. lower
44 Warning light, hand brake and brake fluid reservoir*

The instrument panel complete and the items marked * are transferred to the opposite side on left-hand drive cars.



Layout of controls and instruments—Saloon models Borg-Warner Automatic Transmission—Late MK II models illustrated. Others are similar.

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24 Tool tray*
25 Cigar lighter
27 Gear change selector*
28 Ashtrays*. Alternative positions shown in dotted line
29 Second gear hold switch*
30 Gear change quadrant*
31 Headlamp dipper switch*
33 Cold start control*
35 Horn ring*
36 Foot brake pedal*
37 Kickdown switch*
38 Accelerator pedal*
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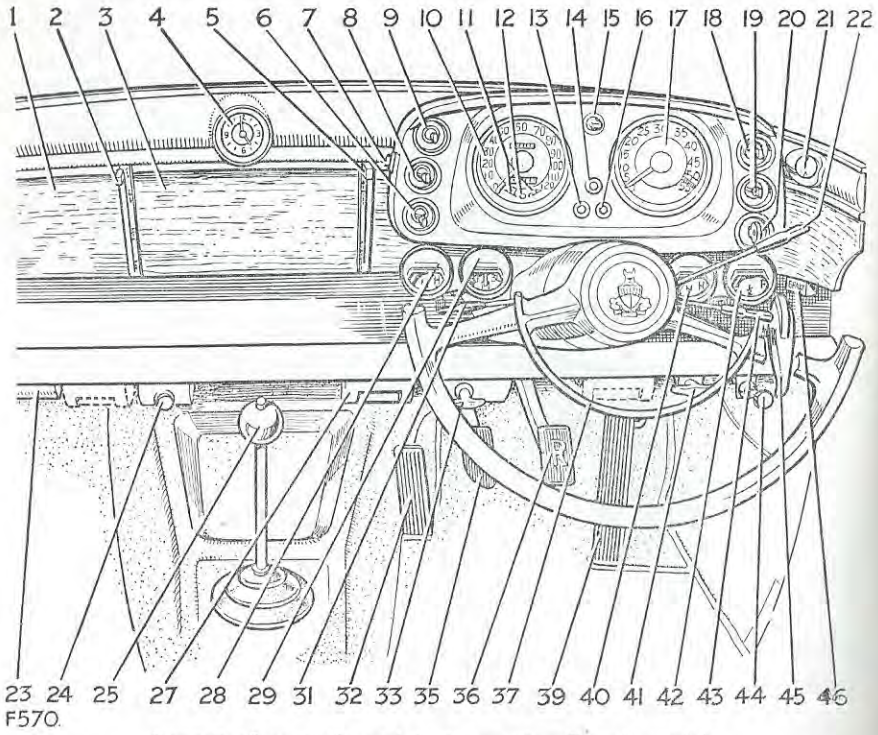

Layout of controls and instruments—Coupé models, 4-speed gearbox with Overdrive—Late MK II models illustrated. Others are similar.

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13 Oil pressure warning light
14 Ignition warning light
15 Oil level and main/reserve pump switch
16 Cold start control warning light
17 Tachometer*
18 Main light and parking switch
19 Two-speed heater fan control
20 Ignition and starter switch
21 Cool air control, R.H. upper
22 Direction indicator and headlamp flasher switch*
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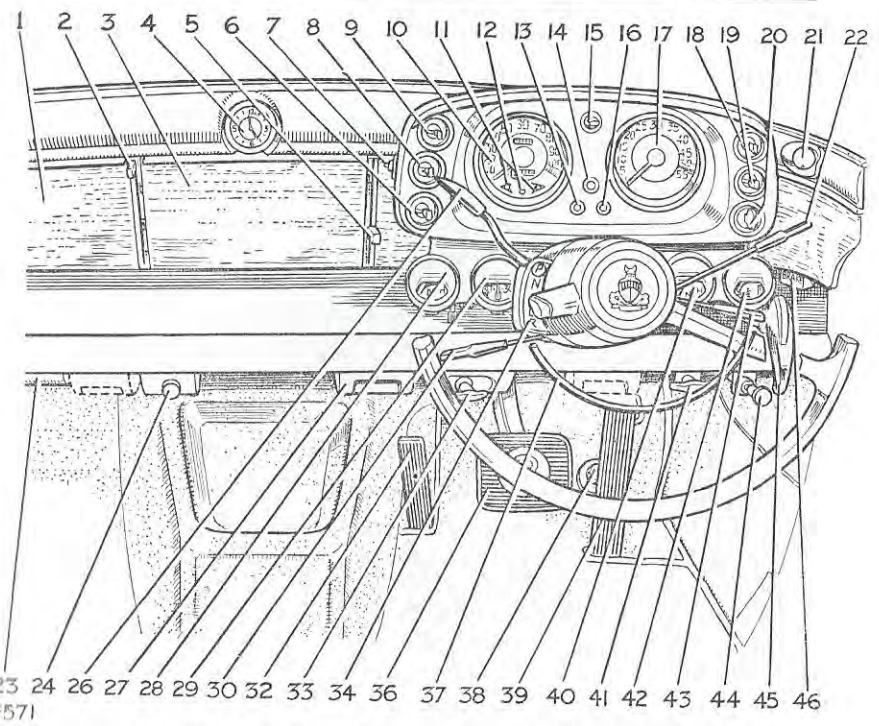

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PART THREE

GENERAL DATA, SALOON AND COUPÉ MODELS

Engine

Bore	3.063 in. (77,8 mm)
Stroke	4.134 in. (105 mm)
Number of cylinders	Six
Cylinder capacity	183 cu. in. (2.995 c.c.)
Compression ratio—	
4-speed models	8.75 : 1
Automatic transmission models	8:1, also 4-speed models for certain export territories only
BHP:	
8.75:1 compression ratio	134 at 5,000 r.p.m.
8.0:1 compression ratio	129 at 4,750 r.p.m.
Maximum torque:	
8.75:1 compression ratio	169 lb/ft. (23.37 mkg)
8.0:1 compression ratio	161 lb/ft. (22.25 mkg)
Firing order	1, 5, 3, 6, 2, 4
Sparking plugs—8.75 : 1	Champion N5 (14 mm with suppressors and waterproof covers)
Sparking plugs—8 : 1	Champion N5 (14 mm with suppressors and waterproof covers)
Sparking plug point gap	.029 to .032 in. (0,75 to 0,80 mm)
Distributor contact breaker gap	.014 to .016 in. (0,35 to 0,40 mm)
Ignition timing, static—full retard	3° B.T.D.C. 8.75 : 1 and 8 : 1 compression ratio
Tappet clearance—inlet	.006 in. (0,15 mm) (At running temperature)
Tappet clearance—exhaust	.010 in. (0,25 mm) (At running temperature)
Valve timing (No. 1 exhaust valve peak)—	
Mk I	102½° B.T.D.C.
Mk IA and Mk II	106° B.T.D.C.
Oil pressure	55 to 65 lb sq.in. (3,8 to 4,6 kg/cm²) at 30 m.p.h. (50 k.p.h.) in top gear with engine warm
Lubrication	Full pressure
Oil filter—internal	Gauze pump intake filter in sump
Oil filter—external	Full-flow

Clutch, 4-speed gearbox

Type	Single dry plate, 10 in. diameter. Hydraulic operation
Adjustment	¾ in. (20 mm) free movement at pedal pad

Gearbox, 4-speed

Type	Single helical constant mesh with synchromesh on top, third and second speeds. Laycock De-Normanville automatic overdrive 1.286-1 ratio with Rover control

Automatic Transmission

Hydraulic torque converter with direct drive, followed by two planetary gear sets providing two indirect gear ranges and reverse

Propeller shafts

Type	Open type with centre bearing and support

Rear axle

Type	Spiral bevel with semi-floating shafts		
	Mk IA only with 4-speed box	With Overdrive	Automatic Transmission
Ratio	3.9:1	4.3:1	3.9:1

Gear ratios

Overdrive	—	.778:1	
Top	1.0:1	1.0:1	
3rd	1.377:1	1.377:1	
2nd	2.043:1	2.043:1	
1st	3.376:1	3.376:1	
Reverse	2.968:1	2.968:1	
High (top)	..	..	1.0:1
Intermediate (2nd)	..	..	1.435:1
Low (1st)	..	..	2.308:1
Reverse	..	..	2.009:1

Fuel system

Fuel pump	Electric, located in luggage boot behind rear trim panels
Carburetter	Single horizontal, dust-proof
Air cleaner:	
Mk I	Oil bath type
Mk IA and Mk II	Paper element type

Cooling system

Type	Pump, fan and thermostat, pressurised
Fan belt adjustment	$\frac{5}{16}$ to $\frac{7}{16}$ in. (8 to 11 mm) free movement
Dynamo belt adjustment	$\frac{5}{16}$ in. (8 mm) free movement

Electric system

Type	Positive earth
Voltage	12 v. — Battery located in luggage boot under metal cover at right-hand rear
Battery capacity	57 AH — Battery located in luggage boot under metal cover at right-hand rear
Ignition system	Coil
Charging circuit	Current-voltage regulator

Replacement headlamp units and bulbs

Headlamp units sealed beam:			
Mk I and Mk IA R.H.D.	Lucas No. 416	12v.	60/40 w.
Mk II R.H.D.	Lucas Sealed Beam	12 v.	60/45 w.
Side lamps	Lucas No. 222	12 v.	4 w.
Stop-tail lamps	Lucas No. 380	12 v.	21/6 w.
Direction indicator lamps	Lucas No. 382	12 v.	21 w.
Rear number plate lamp	Lucas No. 222	12 v.	4 w.
Instrument panel light	Lucas No. 987	12 v.	2.2 w.
Warning lights	Lucas No. 987	12 v.	2.2 w.
Interior lights, festoon bulb	Lucas No. 254	12 v.	6 w.
Automatic transmission selector indicator lamp	Lucas No. 280	12 v.	1.5 w.
Panel plate	Carr Fastener No. 82/036	12 v.	1.2 w.
Clock	Lucas No. 281	12 v.	2 w.
Reverse lamp	Lucas No. 382	12 v.	21 w.
Rear luggage boot lamp	Lucas No. 222	12 v.	4 w.
Handbrake warning light	Lucas No. 281	12 v.	2 w.
Bonnet lights, Coupé models	Tex SP No. 209	12 v.	6 w.

Suspension

Front	Laminated torsion bar
Rear	Progressive rate semi-elliptic leaf

Hydraulic dampers

Telescopic, anti-aeration, non-adjustable

Brakes

Foot brake	Hydraulic servo assisted, disc brakes at front, drum brakes at rear
	Some Mk I cars fitted with drum brakes at front
Hand brake	Mechanical linkage to rear wheels

Steering

Manual steering	Re-circulating ball worm and nut, variable ratio
Power assisted steering	Peg and camshaft assisted by piston and sleeve
Front wheel alignment	$\frac{1}{16}$ in. (1,5 mm) toe-in to $\frac{1}{16}$ in. (1,5 mm) toe-out

Tyres

Size	6.70" x 15". 7.10" x 15" optional on Mk I models only

Pressures:

6.70" x 15" tyres:				
Front	Normal use	24 lbs/sq.in.	1,7 kg/cm²	Mk I and Mk IA
	Fully laden	26 lbs/sq.in.	1,8 kg/cm²	Mk I and Mk IA
Rear	Normal use	22 lbs/sq.in.	1,5 kg/cm²	Mk I and Mk IA
	Fully laden	30 lbs/sq.in.	2,1 kg/cm²	Mk I and Mk IA
7.10" x 15" tyres:				
Front	Normal use	22 lbs/sq.in.	1,5 kg/cm²	Mk I only
	Fully laden	24 lbs/sq.in.	1,7 kg/cm²	Mk I only
Rear	Normal use	20 lbs/sq.in.	1,4 kg/cm²	Mk I only
	Fully laden	28 lbs/sq.in.	1,95 kg/cm²	Mk I only

6.70" x 15" tyres:

Front	Normal use	26 lbs/sq.in.	1,8 kg/cm²	Mk II
	Fully laden	26 lbs/sq.in.	1,8 kg/cm²	
Rear	Normal use	26 lbs/sq.in.	1,8 kg/cm²	
	Fully laden	30 lbs/sq.in.	2,1 kg/cm²	

When driving Mk I and Mk IA models for long periods at speeds in excess of 80 m.p.h. (120 k.p.h.) increase the above pressures by 4 lbs/sq.in. (0,3 kg/cm²). This also applies to Mk II 4-speed models when they are driven at speeds in excess of 105 m.p.h. (168 k.p.h.).

Capacities

Fuel tank	14 Imperial gallons (63½ litres) including a reserve of approximately 1½ gallons (7 litres)
Cooling system:	
Mk I and Mk IA ..	22½ Imperial pints (13,0 litres)
Mk II	24 Imperial pints (13,7 litres)
Engine oil	10 Imperial pints (5,5 litres) plus 1 pint (0,5 litre) after replacing filter element.
Gearbox only, Mk I ..	3½ Imperial pints (2 litres)
Gearbox and overdrive, Mk I and Mk IA ..	5 Imperial pints (3,0 litres)
Gearbox oil, 4-speed (Mk II)	3 Imperial pints (1,75 litres)
Overdrive (Mk II)	1½ Imperial pints (0,85 litres)
Gearbox oil, Automatic Transmission ..	15 Imperial pints (8,5 litres)
Air cleaner, Mk I ..	1 Imperial pint (0,5 litre)
Rear axle oil	3 Imperial pints (1,75 litres)
Power steering unit	3-3½ Imperial pints (1,75-1,8 litres)

Dimensions, all models

Overall length	186½ in. (4,74 m)
Overall width	70 in. (1,78 m)
Wheelbase	110½ in. (2,81 m)
Track, front	55 5/16 in. (1,4 m)
Track, rear	56 in. (1,42 m)

Ground clearance under rear axle:		Mk I and Mk IA
6.70" x 15" tyres ..	7⅞ in. (200 mm)	
7.10" x 15" tyres ..	8⅛ in. (206 mm)	
Ground clearance (under silencer)	6⅝ in. (168 mm)	Mk II
Turning circle	40 ft. (12,2 m), lock to lock 4½ turns	

	With 4-speed gearbox	With overdrive	Automatic transmission	
Weight—with water, oil and 5 gallons of fuel	3,400 lbs. (1.542kg)	3,442 lbs. (1.561kg)	3,521 lbs. (1.602kg)	Mk I

	4-speed gearbox with overdrive	Automatic transmission	
Weight—with water, oil and 5 gallons of fuel ..	3,612 lb. (1.638 kg)	3,640 lb. (1,651 kg)	Mk IA

Weight—with water, oil and 5 gallons of fuel:	4-speed gearbox with overdrive	Automatic transmission	
Saloon models	3,640 lb. (1.651 kg)	3,654 lb. (1.657 kg)	Mk II
Coupé models	3,727 lb. (1.690 kg)	3,741 lb. (1.696 kg)	

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