ROVER 2000 AUTOMATIC

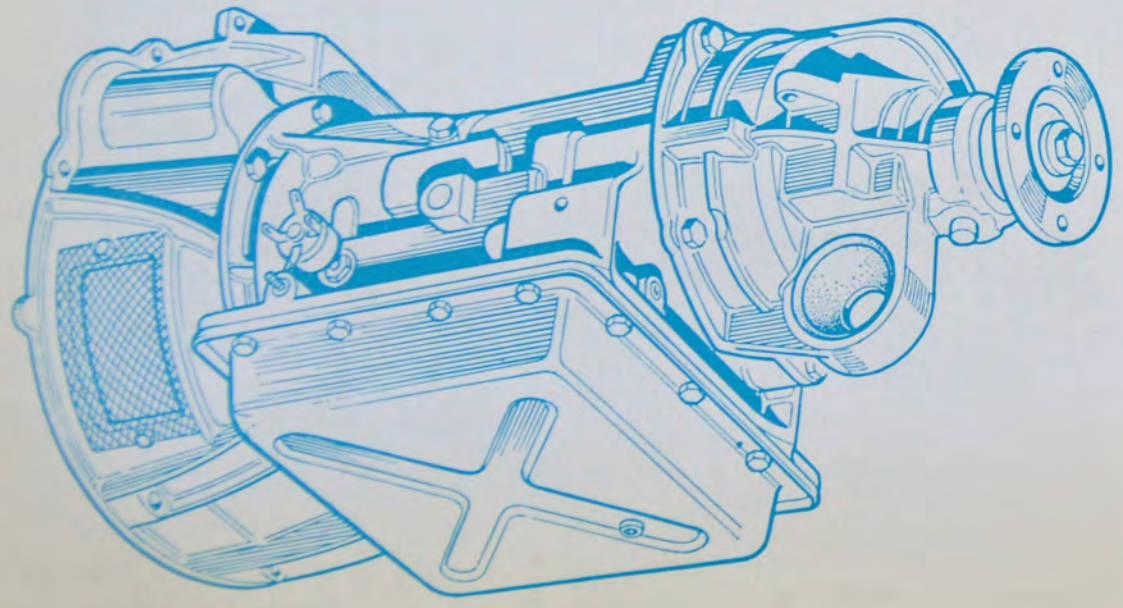
Many motorists prefer to have their gear changing done for them and so make driving under all conditions the simplest possible operation. The addition of an automatic transmission model to the 2000 range now gives these drivers the opportunity of joining many thousands of others who are already enjoying the special Rover style of motoring.

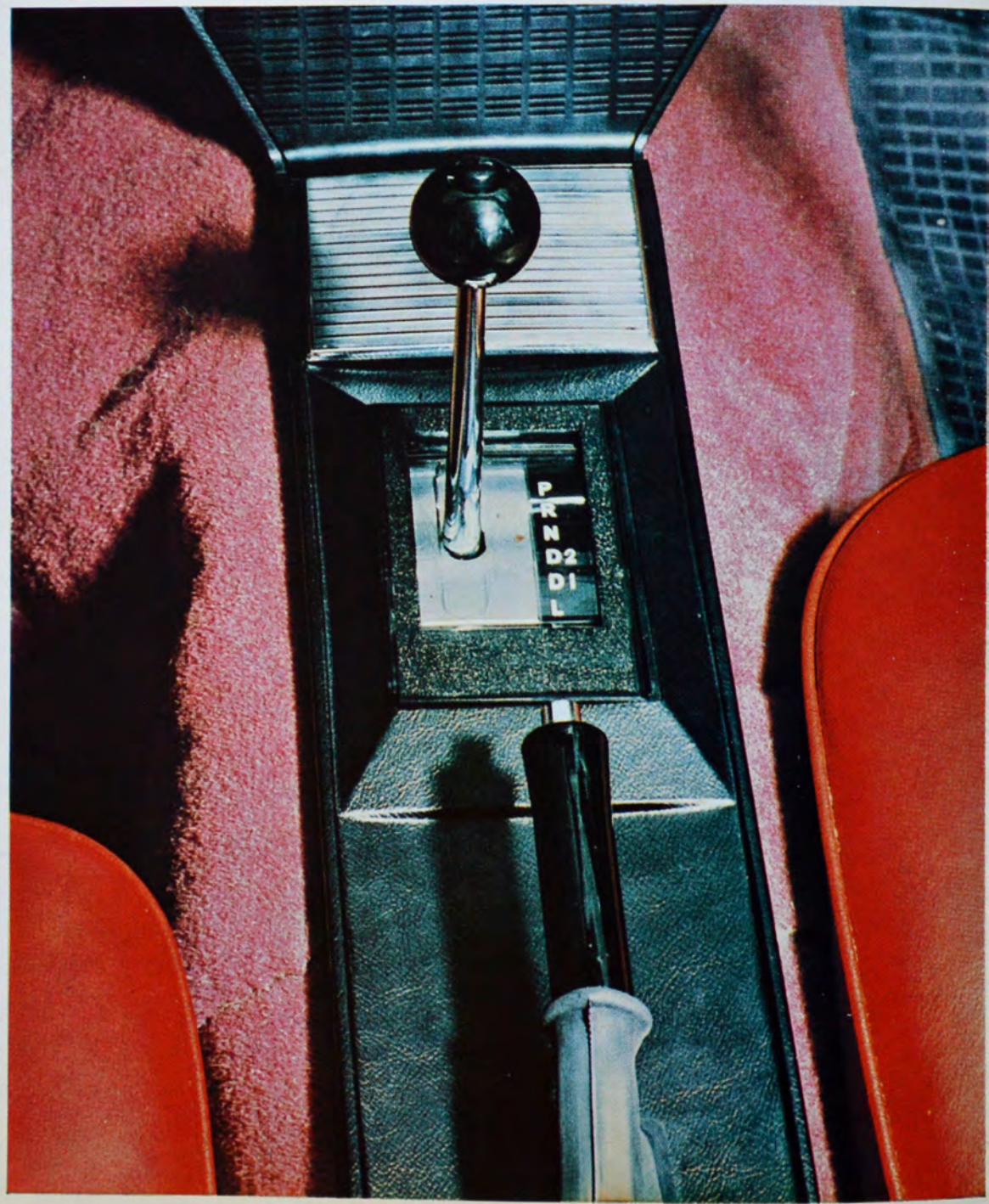
How does automatic transmission work? Basically it consists of an epicyclic gear train driven through a torque convertor. The correct gear ratio to meet the driver's demands is selected hydraulically and because the gear trains are always in mesh the selection is done precisely and noiselessly. What about the clutch? There isn't one. The drive from the engine is transmitted through the torque convertor, quite literally by a cushion of oil.

Simplicity is the hall-mark of automatic transmission; no complicated controls to be learnt, just a smooth-foolproof progression. There are only two controls to concern the driver: the selector lever and a kick-down device under the accelerator pedal, which comes into operation when the pedal is fully depressed. The selector lever, located on the transmission tunnel, is easy to reach, clearly marked and simple to operate. A safety button in the centre of the selector knob makes sure that you cannot accidentally move the lever from 'drive' to 'reverse' or 'park' when the car is moving. It is also used to engage 'lock-up' and move out of 'park'. At night the positions of the selector quadrant are illuminated.

The purpose of the accelerator kick-down device is to allow you to automatically select a lower gear when you want to accelerate for overtaking or hill climbing. Simply depress the accelerator pedal fully and the transmission will do the rest, including changing back up when you reach the maximum safe speed in the lower gear.

The Borg Warner type 35 fitted to the Rover 2000 Automatic is manufactured to very exacting Rover standards and includes a number of special features to meet Rover requirements.





P

When you have parked, move the selector lever to *PARK* and the transmission will be locked mechanically. An important safeguard on steep hills. Never select this position when the car is moving.

R

The *REVERSE* position (not to be engaged when the car is moving forward) gives the driver complete control even in confined spaces, with full engine braking if you need it.

N

NEUTRAL is the transmission disengaged position. As a safety measure an isolation switch ensures that the starter will not operate unless the selector is in N or P.

D2

This is one of the two *DRIVE* positions available and is intended for leisure driving or town conditions where first gear is not required and smoothness of operation is more important than acceleration. This position should also be used when driving on slippery surfaces.

D1

DRIVE. This position will give you a first gear start and provides all facilities for using the full performance of the car.

L

The *LOCK-UP* position makes it possible to change down to second and to hold the car in either first or second gear—in effect, to drive the car in manual control if so desired. The maximum permissible speed in this position is marked on the speedometer and is about 70 m.p.h.

OVERTAKING

If you want to overtake and your road speed is below 55, simply press hard on the accelerator pedal and the gearbox will change down to give you all the acceleration you need. Alternatively, you can select L and hold intermediate gear for as long as you like up to the marked limit on the speedometer.

STOPPING

Simply tread on the brake pedal and the gearbox will change down automatically. You don't have to worry about stalling the engine.

HILL CLIMBING

The automatic transmission will always select the appropriate ratio no matter how steep the gradient but if you want to dictate the pace select L which will hold the gear you want.

TRAFFIC

In traffic the automatic really comes into its own. All you have to do is watch the road. No bother, no fuss, you are always in the right gear. Press the accelerator to go and the brake pedal to stop, the Rover 2000 Automatic does the rest.

This leaflet is intended only as an introduction to the Rover 2000 Automatic. For actual operating instructions you must refer to the Owners Instruction Manual.

GENERAL SPECIFICATION

ENGINE 4 cylinders. Bore 3·375 in. (85·7 mm.); stroke 3·375 in. (85·7 mm.); cubic capacity 120·8 in³. (1978 c.c.). Compression ratio 9:1; maximum Gross B.H.P. 99 at 5000 rev/min; maximum torque 121 lb. ft. at 3600 rev/min. Single overhead camshaft type, the camshaft being driven in two stages by Duplex chains, each stage having an hydraulically operated automatic tensioner. Valve actuation is via inverted bucket type tappets direct to the overhead valves, tappet adjustment being made by shimming. The camshaft is carried in a separate bearing block and runs in 6 white-metal bearings each bearing being pressure lubricated; cam lubrication being by splash. The cylinder head is made of aluminium alloy with water-heated integral inlet manifold which incorporates a small exhaust-heated hot spot to aid rapid warm up. The extremely efficient combustion chambers are fully machined in the piston crowns. The crankshaft runs in 5 overlay copper-lead lined steel shell bearings and is fitted with a torsional vibration damper. A large capacity oil pump delivers oil under pressure to crankshaft main and big-end bearings, camshaft bearings and timing chain tensioners. A full flow oil filter is fitted. The cylinder block is integral with the crankcase and is designed to keep weight to a minimum.

FUEL SYSTEM A 12 gallon (14 U.S. gallons) (55 litres) tank is located behind the rear seat, sealed from the car interior by a steel bulkhead and from the boot by a trimmed partition. A 1¼ gallon (1½ U.S. gallons) (6 litres) reserve supply is controlled by a knob situated on the console. An A.C. mechanical petrol pump is fitted in conjunction with a single S.U. carburettor.

GEARBOX Automatic transmission. Type 35 Borg Warner design and manufacture with special features to Rover requirements, has D1 drive range for normal driving and D2 range for slow traffic conditions. The control lever is mounted on the gearbox tunnel and has an illuminated indicator plate. An oil cooler is fitted to prevent overheating of gearbox oil.

GEAR RATIOS High 1·0:1. Intermediate 1·45:1. Low 2·39:1. Reverse 2·09:1. Torque convertor stalled ratio on intermediate, low and reverse gears 2·1:1.

OVERALL RATIOS High 3·54:1. Intermediate 5·13:1. Low 8·46:1. Reverse 7·39:1.

FINAL DRIVE The hypoid differential is rubber-mounted on to the base unit. The final drive ratio is 3·54:1.

PROPELLER SHAFT Hardy Spicer one-piece propeller shaft of open type.

STEERING Adamant Marles hour glass, worm and roller follower type is used to give high overall efficiency. Sealed ball joints. Steering wheel diameter 17 in. Steering box ratio 20·3:1. 3¾ turns lock to lock. Turning circle 31·5 ft. Steering column adjustable for rake.

FRONT SUSPENSION Basically a double wishbone system but the top links are pivoted on a common axis across the car and so angled to resist weight transfer due to braking. The vehicle weight is taken through the king pins to the top links which apply it to the horizontally mounted coil springs. Sealed ball joints top and bottom. Hexagonal-section anti-roll torsion bar clamped to the top links. Control is by hydraulic telescopic shock absorbers which give efficient damping under all road and load conditions.

REAR SUSPENSION De Dion sliding tube type with faced jointed, fixed length drive shafts. The De Dion assembly is located by a Watts type linkage with the coil suspension springs fitted between the forward links and the base unit. Rubber bushes on all suspension link pivots. Control is by hydraulic telescopic shock absorbers.

BRAKES Girling disc brakes are fitted front and rear; mounted inboard on the final drive unit at rear. Servo assistance is provided for light pedal operation. The tunnel mounted hand brake mechanically operates the rear service brakes. A brake fluid level warning light, which also serves as a hand brake warning light, is provided.

WHEELS AND TYRES Easy clean wheels with attractive polished stainless steel trim covers. Tyres: Pirelli Cinturato or Dunlop S.P.41 tubeless size 165SR×14.

LIGHTING Quad Beam headlamps are mounted in the outer extremities of the radiator grille. Headlamp units are of the sealed beam type, the outer pair giving main and dipped beams, the inner pairs main beam only. The combined dip and headlamp flash switch is mounted below the steering wheel on the steering column. Headlamps are switched on by a toggle switch on the switch panel, this switch, which is mastered by the sidelamp switch, has a third position, for operation of a fog lamp (optional extra). Sidelamps and flasher lamps are mounted on the front wings. At the rear, combined tail, stop and flasher lamps are fitted, this unit also incorporates reversing lamps. There is provision for extinguishing all lamps except the offside side and tail lamps for parking purposes. Separate reflectors, boot, and number plate illumination lamps are also provided.

HEATING AND VENTILATING SYSTEM Fitted as standard equipment this system provides fresh air at any desired volume or temperature, all over the car interior. Air is fed to the heater from an opening below the windscreen where the intake of traffic fumes is minimized. Numerous slots at base of windscreen give good air distribution for demisting and defrosting. There are additional face level fresh air vents which can be adjusted as required.

WINDSCREEN WIPERS AND WASHERS Variable speed windscreen wipers are fitted. Electrically-operated windscreen washers are also provided as standard equipment.

BASIC CONSTRUCTION The body, excepting bonnet and boot lid, is of welded steel construction. The bonnet and boot lid are made in aluminium alloy. The construction is unusual in that it makes use of a base unit carrying all the mechanical parts and providing a chassis and body skeleton, to which all skin panels are applied as separate, painted units. The base unit and all exterior body panels are jig drilled and the latter are directly interchangeable in case of damage. The underside is painted in a slipper bath and then completely coated with an anti-corrosive sealing compound. In addition, all mating body panels up to a height of 15 inches are treated with zinc dust primer. All doors are hinged at their forward edge.

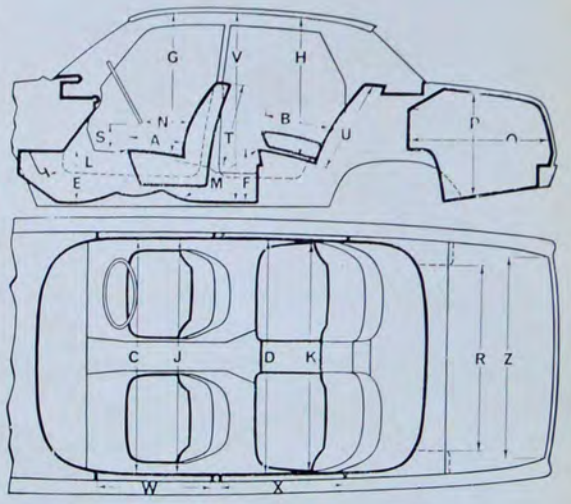
BODY INTERIOR The seat cushions and squabs are faced in prime quality hide. Individual, fully adjustable, bucket seats are fitted as standard in the front. The backrest can be adjusted to any angle between upright and fully reclining. Door pulls and armrests are mounted in doors. Front and rear headrests are available as an optional extra. The individual rear seats have a wide centre-folding armrest. Heavy pile carpets with felt underlays are fitted. Interior equipment includes: front and rear courtesy lights, operated either by opening the doors or by independent switches; ashtrays on transmission tunnel; twin collapsible sun visors are fully adjustable and give coverage to front doors; electric clock with frontal hand-set; cigarette lighter; full-width parcel shelf, front and rear; two spacious glove boxes; provision for radio and rear extension speaker.

OPTIONAL EXTRAS Electrical immersion heater for cylinder block, exhaust tailpipe finisher, floor mats, floor rugs, fog lamp, headrests for rear seats, headrests for front seats, reading light for rear passenger on front headrest, heated rear window, laminated windscreen, mat for parcel shelf, wing mirrors, mud flaps—front and rear, radio, roof rack, seat harness—front and rear, spare wheel carrier on boot lid, spot lamp, towing attachment, tyre pump. (See price list and separate booklet for details.)

COLOURS AND TRIMS

Exterior Colour	*Interior Trim Colour*
Rover White	Sandalwood, Toledo Red Ebony
Brigade Red	Buckskin, Sandalwood, Ebony, Toledo Red
Burnt Grey	Buckskin, Sandalwood, Toledo Red, Ebony
Zircon Blue	Buckskin, Sandalwood, Ebony
Arden Green	Buckskin, Sandalwood, Ebony

OVERALL DIMENSIONS Wheelbase 103·375 in. (2·63 m.); track, front 53·375 in. (1·35 m.); track, rear 52·5 in. (1·33 m.); overall length 178·5 in. (4·53 m.); overall width 66 in. (1·68 m.); overall height 55·25 in. (1·40 m.); ground clearance 9 in. (0·229 m.). Boot capacity 16¼ ft³. Weight with 5 gallons of petrol 2793 lb (1262 kg)



INTERIOR DIMENSIONS

		inches	*metres*
A	Front to Rear of Front Cushion	19	0·482
B	Front to Rear of Rear Cushion	17¾	0·450
C	Width of Body at Front of Front Seat	55½	1·409
D	Width of Body at Front of Rear Seat	55¾	1·416
E	Top of Front Cushion to Floor	13½	0·342
F	Base of Rear Cushion to Floor	14½	0·368
G*	Headroom—Front Seat	34½	0·876
H*	Headroom—Rear Seat	33	0·838
J	Width of Body at Rear of Front Seat	56½	1·428
K	Width of Body at Rear of Rear Seat	55½	1·409
L	Front Cushion to Accelerator pedal	20	0·508
M	Rear Cushion to Foot Rest	21	0·533
N	Front Squab to Steering Wheel	16½	0·419
O	Locker Depth	34	0·863
P	Locker Height	26	0·660
R	Locker Width (min.)	37	0·939
S	Top of Front Cushion to Steering Wheel	7	0·177
T	Front Squab Height	20	0·508
U	Rear Squab Height	23	0·584
V	Height of Interior of Body	46½	1·181
W	Width of Front Door at Waist	27	0·685
X	Width of Rear Door at Waist	30	0·762
Z	Minimum External Width of Boot Opening	45¼	1·149

**With a person of average weight the headroom at the front will increase by 3 inches and at the rear by 4 inches. Measurements are taken with seat in central position. Total adjustment of driver's seat fore and aft is 8⅜ inches (5⅜ for passenger).*

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Manufacturers of Motor Cars and Land-Rovers
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