

April 1994

Vauxhall Corsa 1.4LS Automatic



THE NEW CORSA JOINS THAT SELECT band of small hatchbacks that's available with automatic transmission. Unlike the Fiesta, Metro and Micra, with their continuously variable transmissions, the Corsa sticks to the more traditional technology – complete with torque converter. However, its sophisticated control mechanism includes “lock up” of both third and top gears (it's a four-speed unit, of course), as well as special S (sport) and * (winter) buttons around the control lever. The idea is to have a more responsive, revvy engine in sport mode, while the winter button gives a third-gear, ever-so-gentle pullaway from rest in treacherous conditions. This means that it's good for soggy gymkhana sites in high summer, too.

You soon realise that this 'box is unusually sensitive to mood and accelerator pressure, even in D. Clever electronic control ensures remarkably smooth shifting, both up and down, for most of the time, even though second gear is willingly selected on street corners and downchanges occur at 50mph halfway up

a main road hill. Indeed, there are times when you're given a downshift you weren't looking for. Nevertheless, we rate the Corsa's general “driveability” highly; in this respect, it's the best non-CVT small automatic currently on offer.

But was Vauxhall wise to stay with a non-CVT design? The psychology of “what you're used to” can't be overlooked, of course. Two-car families, where the other car is a big automatic, will be familiar with this Corsa's ways from day one. However, our carefully conducted performance and economy tests produced a set of figures that revealed that same old bugbear so apparent in all small autos in the past.

The facts are that a torque converter may be a very user-friendly device, but it also suffers from fundamental mechanical inefficiency, which even the Corsa's clever buttons and downshift sensitivity can't overcome. Indeed, the car is programmed to stay in second gear at any speed up to 30mph in the first half a mile away from a cold start (or 40mph in third). This is presumably aimed at getting the catalyser working in

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Vauxhall Corsa 1.4LS Automatic (5-door)

PERFORMANCE

Acceleration time in seconds
(using accelerator kickdown)

STANDING START	0-30mph	0-60mph	1/4 mile
	5.2	17.1	21.2

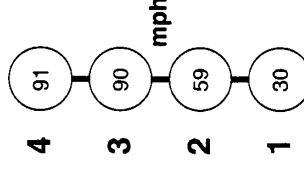
mph	30	40	50	60	70
THROUGH THE RATIOS		3.2	6.9	11.8	19.5

20 mph	30	40	50	60	70
SPEED RANGES USING KICKDOWN		5.5	6.9	8.6	12.6

Maximum speeds

(using accelerator kickdown)

REVS PER MINUTE	1st/2nd	3rd	4th
	5700/5850	5850	4350



FUEL CONSUMPTION

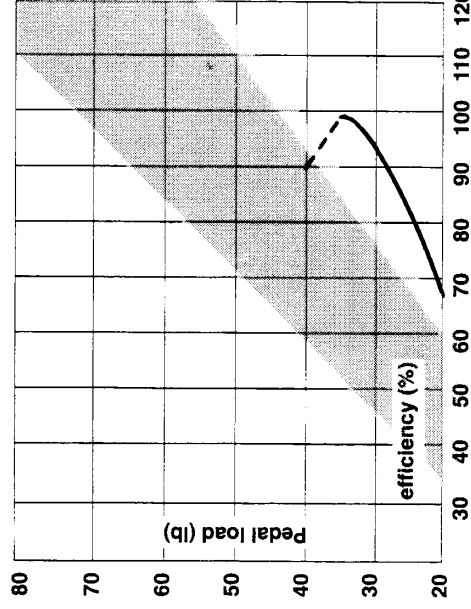
Fuel grade for tests: unleaded Premium, 95 octane

Normal range	mpg
Hard driving, heavy traffic	29 1/2
Short journeys in the suburbs	26 1/2
Motorway - 70mph cruising	36 1/2
Brisk driving, mixed roads	35
Gentle driving, rural roads	39
Typical mpg overall	34 1/2
Realistic tank range *	41 litres/310 miles

* based on fuel gauge/warning lamp and filling station experience

SAFETY

Brakes (without ABS) How pedal loads affect braking



Braking efficiency shown as a percentage of gravity (ie 100% = 1.0g). Ideally the braking curve should be a gentle sweep and lie within the shaded zone of this graph. If it's above, the brakes are too heavy; if it's below, they are too light - although this is more acceptable on cars with ABS. When the curve becomes broken, the wheels become skidding.

Safety check list

Steering	true 'feel' of the road?	☒
Brakes	powerful?	☒
	sensible effort?	☒
	fade resistant?	☒
Seatbelts	front - effective?	☒
	convenient?	☒
	rears - effective?	☒
	convenient?	☒
Head restraints	front - effective?	☒
	rear - effective?	☒
Interior	thoroughly padded?	☒
Fuel	(5-door only) shielded filler?	☒
	protected tank?	☒

50-0mph best stop 94% / 90ft

Handbrake only 30%

Fade test

How hard use affects braking (Ideal brakes show no change)

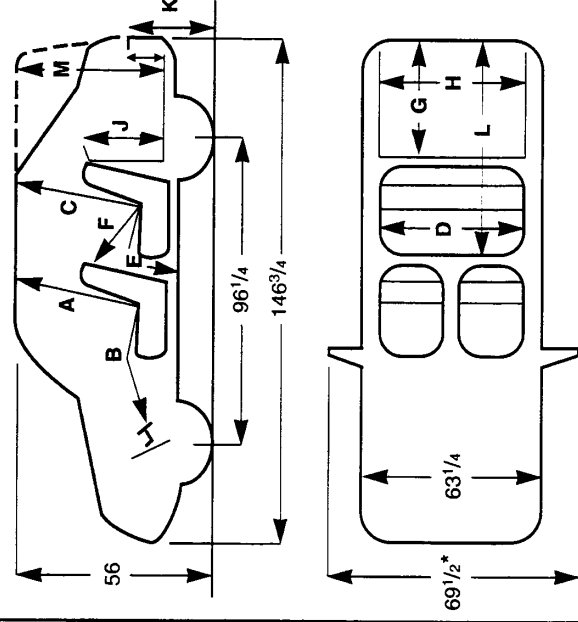
Pedal load needed for 75% stop (lb) 22

At start of test 24

After constant use 27

MEASUREMENTS

Dimensions (inches)



* mirrors don't fold easily

Kerb weight in lb (full of fuel) 2030

Inside (inches)

A Front headroom	38 1/2	G Load length	24
B Front legroom (min - max)	33 1/4-41	H Load floor width (min - max)	39 1/2-47
C Rear headroom	36 1/2	J Load height	21
D Back seat width (between armrests)	49 1/2	K Sill height (inner/outer)	9 1/2/26
E Typical rear * legroom	39 1/4	L Load length	45
F Typical rear * kneeroom	26 1/2	M Load height (to tailgate hinge)	34

* "Typical" represents the mean measurement behind the driver's seat set at 39in legroom and the passenger's seat set at 41in

the shortest time, but in the process it does no good at all to the car's fuel economy on short suburban runs.

In fact, there's a general tendency to use more fuel, – on longer runs, too. Compared with the manual version, there's a 7½mpg deterioration overall and in the suburbs, this automatic uses twice as much fuel as the turbo-diesel version. Our tables show that it's significantly slower and thirstier than the CVT duo, Metro and Micra, but of course, these both boast 15bhp more; at present, the 60bhp 1.4 Corsa power unit is the only one offered in the automatic.

The Corsa has been around for a year now and we detected some improvement in its suspension's spring and damper control – it flounces about less and the quicker power steering (an optional extra fitted to our test car) means that you can catch and correct its directional waywardness more easily. It's not particularly light in its responses into bends, however; at times, the standard manual set-up seemed to demand less effort. It's in parking manoeuvres that the driver really benefits from the power assistance.

Out on the open road, this Corsa automatic's engine runs at the same brisk speed as the manual's, pulling just 21.3mph per 1000rpm. CVTs have longer legs and feel less fussy when cruising at 70mph. Actually, this 'box is set to give its top speed in both third and fourth ratios, and will even respond to kickdown at 80mph, so it's a willing worker.

More prosaically, the accelerator is too high-set and heavy, but the double width brake pedal is ideal for left foot use, if preferred, and there's a lot of stretching space beside it, but no footrest.

No serious complaints about the shift quadrant, although it's easy to inadvertently touch the S button; fortunately, there's a facia warning lamp. If you're not all that tall, it might be worth having seat height adjustment as an optional extra on the LS – the seat is rather low and the fixed-height wheel is prominent. There's barely enough lower spinal support on the LS seats, either.

The GLS offers more and also has valuable deadlocks with central locking. The sill buttons on the LS five-door are very difficult to pull up as you stretch across the car, so that's another highly desirable optional extra. By the time you're finished, it's better to go for the GLS and get the financial benefit later in terms of enhanced resale value.

TECHNICAL SPECIFICATION

Same as for 1.4LS manual (see R9317) except for:

TRANSMISSION

Type automatic with hydrokinetic torque converter and epicyclic four speeds and reverse; lock-up clutch on upper two ratios. Electronic shift control with winter and sport buttons on selector

Ratios first 2.81, second 1.48, third 1.0, top 0.74 and reverse 2.77:1

Final drive 4.05:1, to front wheels

Mph per 1000rpm (theoretical) 21.3 in top, 15.7 in 3rd

Rpm at 70mph (observed) 3340 in top gear, cruising on level road

CHASSIS

Steering optional power-assisted rack and pinion on test car, with 2.7 turns between full locks. Turning circles average 33½ft between kerbs, with 45ft circle for one turn of the wheel

VERDICT

The Corsa five-door is a small car that isn't. Compared with most rivals, except the Punto, it scores on safety and superior space, both for passengers and luggage, making it viable as the sole family car.

It doesn't prove quite so big a car in its road manners, though – there are sharper-handling, smoother-riding and more mechanically refined alternatives in this class. It's not the automatic's fault – this is a user-friendly device that performs very smoothly. Nevertheless, our statistics reveal its limitations, in terms of performance and fuel thirst.

HOW THEY COMPARE

	Engine cap/power (cc/bhp)	Max speed (mph)	30-70mph through gears (sec)	Fuel economy (mpg)	Brakes best stop (%g/lb)	Maximum legroom – front (in)	Typical leg/kneeroom – rear (in)	Steering turns/ circle (ft)	Overall length (in)
Vauxhall Corsa 1.4LS Automatic	1389/60	91	19.5	34½	99/35	41	39¼/26½	2.7/33½ (p)	146¾
Rover Metro 1.4L Automatic	1396/75	98	13.1	39	94/57	41	37½/24¾	3.6/32	138¾
Nissan Micra 1.3LX Automatic	1275/75	100	12.3	42½	88/33	40¾	37/26	3.7/31¾	145½
Renault Clio 1.4RT Automatic	1390/80	100	15.0	37½	88/45	39½	36¼/25	3.4/33¼ (p)	146
Ford Fiesta 1.3 Automatic (CTX)	1297/60	93	17.4	40½	105/50	40½	37¼/26¼	4.6/33	147½
(p) power assisted									