

Daihatsu Charade Automatic



THE TROUBLE WITH SMALL AUTOMATICS is that they're often a lot slower off the mark than manual models and not very economical – just what you don't want from a small car.

Technically, the problem is twofold: first, the traditional (non-CVT) auto uses a torque converter – a cunning fluid drive which is very user-friendly, but fundamentally quite inefficient. In any case, this kind of 'box works best behind an engine that's lusty in pulling power lower down the rev range. This is a characteristic of diesel and six-cylinder engines, but not of revvy little tearaway motors like the Charade's.

When we sampled the manual model (see R9356), we reported the need to work the engine to 7000rpm to liberate the car's ultimate accelerative abilities. Nothing has been done to the engine of the automatic version to make it more compatible with the auto 'box. Admittedly, the electronic control of the gearshift is quite sophisticated; kickdown allows it to go to 69mph/6275rpm in second in full-bore acceleration, for example. Also, the transmission employs an anti-slip mechanical lock-up in both its third and its long-striding overdrive top ratios, in an attempt to achieve good economy when main road cruising.

However, our yardstick of a good automatic is that

it should be smooth and responsive in its shift pattern and closely match the manual equivalent's acceleration and fuel economy.

We think that Daihatsu has done well in terms of general smoothness, and the "mood change" switch beside the shift lever cleverly matches one's preferred driving style. "Easy" gives earlier, softer upshifts and pullaways from rest in second – slow but smooth indeed. The "power" mode speaks for itself – all urgency and revs. Normally, the middle position suits everyday driving, but it leans towards eager down-changes and protracted use of second, given half a chance; it can surprise you by making a surging first gear downshift on corners, as well.

Another button on the lever's flank prevents top gear engagement, which is more necessary than you would think, because this ratio is a true overdrive that gives easy motorway cruising but little urge. There are times when flooring the accelerator in top results in nearly two seconds delay while the 'box decides what to do; using the button avoids this. Note how much slower the top speed is, as well, compared with third. Both were attained in D and on full throttle, but with the extra pressure needed to operate the kickdown switch in third.

PERFORMANCE

Acceleration time in seconds

(using accelerator kickdown/manual hold)

STANDING START	0-30mph 5.0/5.0	0-60mph 15.1/14.7	1/4 mile 20.3/20.0
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mph	30	40	50	60	70
THROUGH THE GEARS	<div>3.6/2.4</div> <div>7.4/5.8</div> <div>11.5/9.8</div> <div>16.7/15.0</div>				

20 mph	30	40	50	60	70
SPEED RANGES USING KICKDOWN	<div>4.3</div> <div>7.9</div> <div>7.4</div> <div>9.3</div>				

Maximum speeds

(using accelerator kickdown/manual hold)

REVS PER MINUTE	1st/2nd	3rd	4th	
	6275/6750	5800	3700	
				kickdown manual
				NA 4 84
				97 3 97
				69 2 75
				37 1 40

FUEL CONSUMPTION

Fuel grade for tests: unleaded premium, 95 octane

Normal range	mpg
Hard driving, heavy traffic	29½
Short journeys in the suburbs	28
Motorway – 70mph cruising	34½
Brisk driving, mixed roads	36
Gentle driving, rural roads	42
Typical mpg overall	35½
Realistic tank range*	40 litres/312 miles

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

In terms of performance and economy, compared with the manual, this transmission fails to match Daihatsu's claim that it's "one of the most sophisticated available on any car."

An extra 15 per cent fuel thirst and 3½sec added to the best 30–70mph time, make indifferent showings against the five-speed manual and the acceleration is slower still if you just leave it in D. In fact, this model is no better than the old 75bhp Charade three-speed automatic, which produced very similar results with no overdrive top.

Full marks for a very precise shift quadrant and an excellent layout, with a convenient left footrest beside the double-width brake pedal – it's an ideal set-up for two-foot control (using left foot braking).

VERDICT

Details like those just mentioned could well sway anybody with some infirmity or disability towards this Charade. With its light power steering, equally effortless seat and mirror adjusters, as well as the central locking, there's a lot to commend it to such buyers.

However, purely on the basis of the transmission's performance, we think that it's now lagging behind the best available – especially those with CVT (continuously variable) transmissions.

TECHNICAL SPECIFICATION

Same as for 1.3GLXi manual (see R9351) except for:

TRANSMISSION

Type

4-speed automatic, with hydrokinetic torque converter, epicyclic gear set and lock-up clutch on upper two ratios.

Electronic shift control, with top gear inhibitor and three-mode "driving style" programme switch

Ratios

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

Final drive

ratio : 3.85:1

Mph per 1000rpm

22.8 in top, 16.7 in 3rd

Rpm at 70mph

3075 in top gear

Kerb weight

1940 lb

HOW IT COMPARES †

	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)
Daihatsu Charade	1296/84	97	16.7*	35½	92/26	41½	38½/26	3.2/31¼ (p)	147¾
Vauxhall Corsa LS	1389/60	91	19.5	34½	99/35	41	39¼/26½	2.7/33½ (p)	146¾
Ford Fiesta LX	1297/60	93	17.4	40½	105/50	40½	37¾/26¼	4.6/33	147½
Rover Metro L	1396/75	98	13.1	39	94/57	41	37½/24¾	3.6/32	138¾
Nissan Micra LX	1275/75	100	12.3	42½	88/33	40¼	37/26	3.7/31¾	145½
† all automatics			* 15.0 with manual hold			(p) power assisted			