

# DATSUN 240Z AUTOMATIC



*The 3-speed automatic  
blends in nicely*



**T**HERE WAS NEVER any question in our minds that the 240Z would take nicely to an automatic transmission. Very simply, it has enough "cubes" to handle one. A torque converter may multiply torque, but in accelerating hard from rest it only multiplies for the first 200 feet or so,



PHOTOS BY GORDON CHITTENDEN

and after that it's left to whatever gears there are in the transmission. Since there are usually fewer gears in an automatic than in the manual transmission for a given car, maximum performance usually suffers.

Thus many cars that work very well with their manual 4-speed gearboxes just don't make it with an automatic. Take away a gear, subtract a few horsepower for slippage loss and the hydraulic system of an automatic gearbox and what was a fairly spunky little car can become a slug. But the 240Z doesn't have that problem. With about a liter of engine displacement per 1000 lb of curb weight, its 6-cylinder, overhead-cam engine has enough torque and power to give the car sparkling performance with the 4-speed and more than adequate performance with the automatic.

The automatic is a perfectly conventional 3-speed, torque-converter unit produced by the new transmission plant of Nissan, Toyo Kogyo and Ford in Japan. Blending with the super-smooth 240Z engine, the transmission is also smooth, with silky upshifts and responsive "torque-demand" downshifts that don't necessarily require a floored throttle. But there are whirring noises on accelerating from rest and occasional slippage and whirring on upshifts from 2nd to 3rd. The final drive ratio is changed from 3.36:1 to 3.55:1 for the automatic version, and apparently the speedometer gearing had not been correspondingly changed on our test car; it was the first 240Z we'd driven with an optimistic speedometer and odometer.

The upshifts under wide-open throttle acceleration also occur too soon: at 5000-5100 rpm, well below the engine's power peak and not nearly high enough to extract maximum performance. Letting the unit do its own thing we measured 11.9 sec to get to 60 mph and 18.2 sec to cover the standing-start 1/4-mile. But holding the gearbox manually in 1st and 2nd to 6500 rpm (where the yellow sector of the tach begins) gets figures substantially better. Here's how the automatic affects acceleration and economy.

	0-30 mph, sec	0-60 mph, sec	1/4 mile sec @ mph	Fuel Economy, mpg
Automatic Transmission	4.3	10.4	17.6 @ 82.0	19.0
Manual Transmission	3.2	8.7	17.1 @ 84.5	21.0

It's difficult to drive the 240Z Automatic any way but briskly; its throttle linkage is just too eager. When moving off from rest the first bit of accelerator-pedal movement gets too much response from the engine and the car leaps ahead. One doesn't always want to drive this way, so we learned to carefully modulate the pedal to get a smooth start. The linkage isn't any "quicker" in the automatic car than in the manual, but one doesn't have a clutch to help smooth out things in the automatic so smooth starts become difficult. This problem, the slippage and whirring, and the too-low upshift points need correcting. A problem in the first Z automatics to come off the line—some driveline vibration—was solved by the addition of a vibration damper. In other words, the 240Z Automatic basically works very well, but little problems remain to be worked out. Nothing serious and presumably nothing that will cause the owner mechanical problems, but little imperfections in behavior that the Nissan engineers will want to eliminate as soon as possible.

Otherwise the 240Z's character is unaffected. The gearing lowers maximum speed a bit and there's no noticeable increase in engine noise at cruising speeds. There is still a manual choke, which these days seems to be a better way of getting going on a cold morning than an automatic one. The automatic transmission costs only \$190 extra—a price as reasonable as the Z's basic price—and for those who like the unique combination of sportiness, style, compactness and performance the Z offers but don't like to shift, we can only say Go Ahead.

## ROAD TEST RESULTS

### PRICE

List price	\$3596
Price as tested	\$3861

### PERFORMANCE

Top speed, high gear, mph	120
Acceleration, time to distance, sec:	
0-100 ft	4.3
0-250 ft	6.7
0-500 ft	9.6
0-750 ft	12.4
0-1000 ft	15.0
0-1320 ft (1/4 mile)	17.6
Speed at end, mph	82
Time to speed, sec:	
0-30 mph	4.3
0-40 mph	5.9
0-50 mph	7.9
0-60 mph	10.4
0-80 mph	16.5
0-100 mph	32.5

### ENGINE & DRIVE TRAIN

Engine	sohc inline 6
Bore x stroke, mm	83.0 x 73.3
Displacement, cc/cu in.	2393/146
Compression ratio	9.0:1
Bhp @ rpm	150 @ 6000
Equivalent mph	115
Torque @ rpm, lb-ft	148 @ 4400
Equivalent mph	83
Transmission	3-sp automatic
Gear ratios: 3rd (1.00)	3.54:1
2nd (1.46)	5.16:1
1st (2.46)	8.70:1
1st (2.46 x 2.0)	17.4:1
Final drive ratio	3.54:1

### GENERAL

Curb weight, lb	2405
Weight distribution (with driver), front/rear, %	50/50
Wheelbase, in	90.7
Track, front/rear	53.3/53.0
Overall length	162.8
Width	64.1
Height	50.6
Steering	rack & pinion
Turns, lock to lock	3.5
Brakes: 10.7-in. disc front, 9.0 x 1.6-in. drum rear, vacuum assisted.	

### ACCOMMODATION

Seating capacity, persons	2
Seat width	2 x 21.0
Head room	36.5
Seat back adjustment, degrees	10

### BRAKE TESTS

Panic stop from 80 mph:	
Max deceleration rate, % g	84
Stopping distance, ft	287
Control	excellent
Fade test: percent increase in pedal effort to maintain 50% g deceleration rate in six stops from 60 mph	10
Overall brake rating	very good

### HANDLING

Speed on 100-ft radius, mph	32.9
Lateral acceleration, g	0.723

### SPEEDOMETER ERROR

30 mph indicated is actually	27.0
40 mph	36.0
60 mph	57.0

### CALCULATED DATA

Lb/hp (test weight)	18.3
Mph/1000 rpm (high gear)	18.8
Engine revs/mi	3200
Piston travel, ft/mi	1540
R&T steering index	1.10
Brake swept area, sq in/ton	236

### FUEL

Type fuel required	premium
Fuel tank capacity, U.S. gal	15.9
Normal consumption, mpg	19.0

### ACCELERATION

