

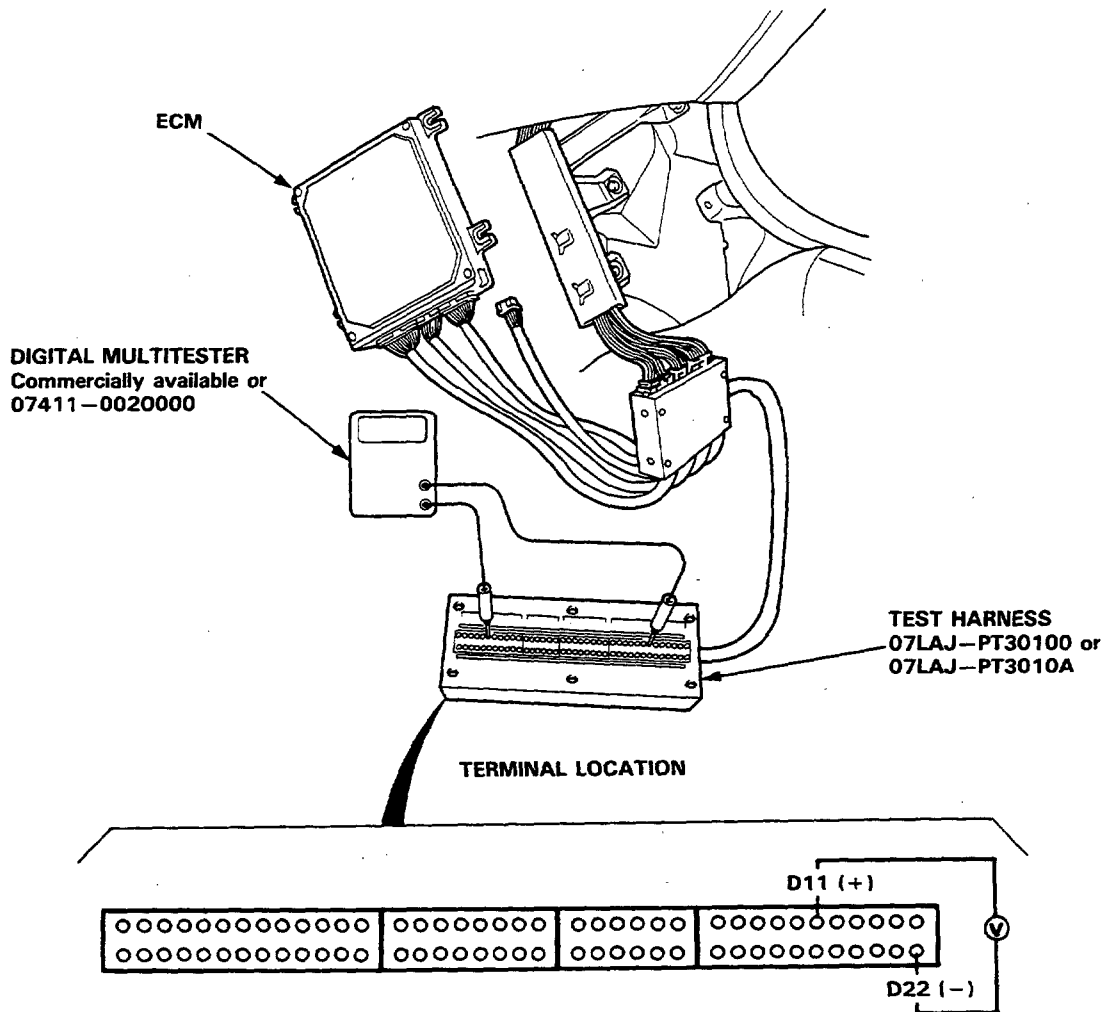
# Road Test

NOTE: Warm up the engine to operating temperature (the cooling fan comes on).

1. Apply parking brake and block the wheels. Start the engine, then move the shift lever to **D<sub>4</sub>** position while depressing the brake pedal. Depress the accelerator pedal, and release it suddenly. Engine should not stall.
2. Repeat same test in **D<sub>3</sub>** position.
3. Shift the shift lever to **D<sub>4</sub>** position and check that the shift points occur at approximate speeds shown. Also check for abnormal noise and clutch slippage.

NOTE: Throttle position sensor voltage represents the throttle opening.

- 1. Connect the Test Harness between the ECM and connector (see section 11).
- 2. Set the digital multimeter to check voltage between D11 (+) terminal and D22 (–) terminal for the throttle position sensor.





D14A2 engine: **D<sub>4</sub>** Position

● Upshift

Throttle Opening	Unit of speed	1st → 2nd	2nd → 3rd	3rd → 4th
Full-closed throttle	mph	15.2 – 19.2	36.7 – 40.7	49.7 – 53.7
	km/h	24.5 – 30.9	59.1 – 65.5	80.0 – 86.4
Throttle position sensor voltage: 1.27 V	mph	21.2 – 25.2	49.8 – 53.8	66.3 – 72.3
	km/h	34.1 – 40.6	80.1 – 86.6	107 – 116
Throttle position sensor voltage: 2.03 V	mph	26.1 – 34.1	60.8 – 72.8	83.4 – 95.4
	km/h	42.0 – 54.9	97.8 – 117	134 – 154
Full-opened throttle	mph	49.8 – 54.3	91.8 – 99.3	143.6 – 154.1
	km/h	80.1 – 87.4	148 – 160	231.1 – 248.0

● Downshift

Throttle Opening	Unit of speed	4th → 3rd	3rd → 2nd	2nd → 1st
Full-closed throttle	mph	8.9 – 12.9	28.7 – 32.7	—
	km/h	14 – 20.8	46.2 – 52.6	—
Full-opened throttle	mph	41.1 – 45.6	83.4 – 90.9	121.0 – 131.5
	km/h	66.1 – 73.4	134 – 146	194.8 – 211.6

● Lock-up

Throttle Opening	Unit of speed	<b>D<sub>4</sub></b> Position		<b>D<sub>3</sub></b> Position	
		Lock-up ON	Lock-up OFF	Lock-up ON	Lock-up OFF
Full-closed throttle	mph	15 – 17	14 – 16	60 – 64	57 – 61
	km/h	24 – 27	23 – 26	97 – 103	92 – 98
Throttle position sensor voltage: 2.03 V	mph	66 – 70	54 – 58	66 – 70	57 – 61
	km/h	107 – 113	87 – 93	107 – 113	92 – 98
Full-opened throttle	mph	88 – 91	85 – 88	82 – 86	78 – 82
	km/h	141 – 147	136 – 142	132 – 138	126 – 132

(cont'd)

# Road Test

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D16Y3 engine: **D<sub>4</sub>** Position

## ● Upshift

Throttle Opening	Unit of speed	1st → 2nd	2nd → 3rd	3rd → 4th
Full-closed throttle	mph	14.9 – 18.9	36.1 – 40.1	48.9 – 52.9
	km/h	24.0 – 30.4	58.1 – 64.5	78.7 – 85.1
Throttle position sensor voltage: 1.27 V	mph	19.9 – 23.9	47.7 – 51.7	62.0 – 68.0
	km/h	32.0 – 38.5	76.8 – 83.2	99.8 – 109
Throttle position sensor voltage: 2.03 V	mph	25.1 – 33.1	60.1 – 72.1	79.3 – 91.3
	km/h	40.4 – 53.3	96.7 – 116	128 – 147
Full-opened throttle	mph	53.1 – 57.6	99.8 – 107.3	146.3 – 156.8
	km/h	85.5 – 92.7	161 – 172.7	235.4 – 252.3

## ● Downshift

Throttle Opening	Unit of speed	4th → 3rd	3rd → 2nd	2nd → 1st
Full-closed throttle	mph	8.7 – 12.7	28.3 – 32.3	—
	km/h	14 – 20.4	45.5 – 52.0	—
Full-opened throttle	mph	35.5 – 40.0	89.8 – 97.3	124.8 – 135.3
	km/h	57.1 – 64.4	145 – 157	200.8 – 217.7

## ● Lock-up

Throttle Opening	Unit of speed	<b>D<sub>4</sub></b> Position		<b>D<sub>3</sub></b> Position	
		Lock-up ON	Lock-up OFF	Lock-up ON	Lock-up OFF
Full-closed throttle	mph	15 – 17	14 – 16	60 – 64	57 – 61
	km/h	24 – 27	23 – 26	97 – 103	92 – 98
Throttle position sensor voltage: 2.03 V	mph	66 – 70	54 – 58	66 – 70	57 – 61
	km/h	107 – 113	87 – 93	107 – 113	92 – 98
Full-opened throttle	mph	88 – 91	84 – 88	82 – 86	78 – 81
	km/h	141 – 147	135 – 141	132 – 138	125 – 131

4. Accelerate to about 35 mph (57 km/h) so the transmission is in 4th, then shift from **D<sub>4</sub>** position to **2** position. The car should immediately begin slowing down from engine braking.

**CAUTION:** Do not shift from **D<sub>4</sub>** or **D<sub>3</sub>** position to **2** or **1** position at speeds over 63 mph (100 km/h); you may damage the transmission.

5. Check for abnormal noise and clutch slippage in the following positions.

### **1** (1st Gear) Position

- 1. Accelerate from a stop at full throttle. Check that there is no abnormal noise or clutch slippage.
- 2. Upshifts should not occur with the shift lever in this position.

### **2** (2nd Gear) Position

- 1. Accelerate from a stop at full throttle. Check that there is no abnormal noise or clutch slippage.
- 2. Upshifts and downshifts should not occur with the shift lever in this position.

### **R** (Reverse) Position

Accelerate from a stop at full throttle, and check for abnormal noise and clutch slippage.

6. Test in **P** (Parking) Position

Park car on slope (approx. 16°), apply the parking brake, and shift into **P** position. Release the brake; the car should not move.