

**AUTOMATIC TRANSMISSION (A340E, A340F)**

SS053-05

**SERVICE DATA**

Line pressure (Wheel locked) (3RZ-FE)	Engine idling	
	D position	382 - 441 kPa (3.9 - 4.5 kgf/cm <sup>2</sup> , 55 - 64 psi)
	R position	539 - 637 kPa (5.5 - 6.5 kgf/cm <sup>2</sup> , 78 - 92 psi)
	at stall (Throttle valve fully opened)	
	D position	1,098 - 1,235 kPa (11.2 - 12.6 kgf/cm <sup>2</sup> , 159 - 179 psi)
	R position	1,382 - 1,716 kPa (14.1 - 17.5 kgf/cm <sup>2</sup> , 201 - 249 psi)
(5VZ-FE)	Engine idling	
	D position	382 - 441 kPa (3.9 - 4.5 kgf/cm <sup>2</sup> , 55 - 64 psi)
	R position	588 - 686 kPa (6.0 - 7.0 kgf/cm <sup>2</sup> , 85 - 100 psi)
	at stall (Throttle valve fully opened)	
	D position	1,089 - 1,226 kPa (11.1 - 12.5 kgf/cm <sup>2</sup> , 158 - 178 psi)
	R position	1,461 - 1,794 kPa (14.9 - 18.3 kgf/cm <sup>2</sup> , 212 - 260 psi)
Engine stall revolution (D and R positions)	3RZ-FE	2,000 ± 150 rpm
	5VZ-FE	2,250 ± 150 rpm
Time lag	N → D position	Less than 1.2 seconds
	N → R position	Less than 1.5 seconds
Engine idle speed (A/C OFF and N position)		700 ± 50 rpm
Extension housing oil seal drive in depth from flat end		0 - 0.3 mm (0 - 0.012 in.)
Throttle cable adjustment (Throttle valve fully opened)		Between boot end face and inner cable stopper 0 - 1 mm (0 - 0.04 in.)
Drive plate runout	Max.	0.20 mm (0.0079 in.)
Torque converter runout	Max.	0.30 mm (0.0118 in.)
Torque converter installation distance	3R-FE	More than 31.75 mm (1.2500 in.)
	5VZ-FE	More than 17.95 mm (0.7067 in.)

SERVICE SPECIFICATIONS - AUTOMATIC TRANSMISSION (A340E, A340F)

Lock-up point (NORM and PWR pattern) (3RZ-FE / A340E) D position (Throttle valve opening 5%)	Tire size: P265 / 70R16  Lock-up ON Lock-up OFF	82 - 86 km/h (51 - 53 mph) 75 - 79 km/h (47 - 49 mph)
(3RZ-FE / A340E) D position (Throttle valve opening 5%)	Tire size: P225 / 75R15  Lock-up ON Lock-up OFF	83 - 87 km/h (52 - 54 mph) 76 - 81 km/h (47 - 50 mph)
(3RZ-FE / A340F) D position (Throttle valve opening 5%)	Tire size: P265 / 70R16  Lock-up ON Lock-up OFF	76 - 81 km/h (47 - 50 mph) 70 - 75 km/h (44 - 47 mph)
(3RZ-FE / A340F) D position (Throttle valve opening 5%)	Tire size: P225 / 75R15  Lock-up ON Lock-up OFF	78 - 83 km/h (48 - 52 mph) 72 - 77 km/h (45 - 48 mph)
(5VZ-FE / A340E) D position (Throttle valve opening 5%)	Tire size: P265 / 70R16  Lock-up ON Lock-up OFF	73 - 78 km/h (45 - 48 mph) 66 - 71 km/h (41 - 44 mph)
(5VZ-FE / A340E) D position (Throttle valve opening 5%)	Tire size: P225 / 75R15  Lock-up ON Lock-up OFF	71 - 76 km/h (44 - 47 mph) 64 - 69 km/h (40 - 43 mph)
(5VZ-FE / A340F) D position (Throttle valve opening 5%)	Tire size: P265 / 70R16  Lock-up ON Lock-up OFF	73 - 78 km/h (45 - 48 mph) 66 - 71 km/h (41 - 44 mph)
(5VZ-FE / A340F) D position (Throttle valve opening 5%)	Tire size: P225 / 75R15  Lock-up ON Lock-up OFF	71 - 76 km/h (44 - 47 mph) 64 - 69 km/h (40 - 43 mph)

Shift schedule (NORM and PWR pattern)		
(3RZ-FE / A340E)	Tire size: P265 / 70R16	
D position		
(Throttle valve fully opened)	1 → 2	58 - 63 km/h (36 - 39 mph)
	2 → 3	107 - 114 km/h (66 - 71 mph)
	3 → O/D	141 - 149 km/h (88 - 93 mph)
	O/D → 3	135 - 142 km/h (84 - 88 mph)
	3 → 2	98 - 106 km/h (61 - 66 mph)
	2 → 1	46 - 51 km/h (29 - 32 mph)
(Throttle valve fully closed)	3 → O/D	34 - 38 km/h (21 - 24 mph)
	O/D → 3	25 - 30 km/h (16 - 19 mph)
2 position		
(Throttle valve fully opened)	1 → 2	58 - 63 km/h (36 - 39 mph)
	3 → 2	112 - 119 km/h (70 - 74 mph)
	2 → 1	46 - 51 km/h (29 - 32 mph)
L position		
(Throttle valve fully opened)	3 → 2	95 - 103 km/h (59 - 64 mph)
	2 → 1	54 - 58 km/h (34 - 36 mph)
(3RZ-FE / A340E)		
		Tire size: P225 / 75R15
D position		
(Throttle valve fully opened)	1 → 2	58 - 64 km/h (36 - 40 mph)
	2 → 3	107 - 116 km/h (66 - 72 mph)
	3 → O/D	144 - 152 km/h (89 - 94 mph)
	O/D → 3	137 - 145 km/h (85 - 90 mph)
	3 → 2	98 - 108 km/h (61 - 67 mph)
	2 → 1	46 - 52 km/h (29 - 32 mph)
(Throttle valve fully closed)	3 → O/D	35 - 39 km/h (22 - 24 mph)
	O/D → 3	26 - 30 km/h (16 - 19 mph)
2 position		
(Throttle valve fully opened)	1 → 2	57 - 61 km/h (35 - 38 mph)
	3 → 2	114 - 121 km/h (71 - 75 mph)
	2 → 1	45 - 49 km/h (28 - 30 mph)
L position		
(Throttle valve fully opened)	3 → 2	97 - 105 km/h (60 - 65 mph)
	2 → 1	55 - 59 km/h (34 - 37 mph)
(3RZ-FE / A340F)		
		Tire size: P265 / 70R16
D position		
(Throttle valve fully opened)	1 → 2	54 - 59 km/h (34 - 37 mph)
	2 → 3	99 - 108 km/h (62 - 67 mph)
	3 → O/D	132 - 140 km/h (82 - 87 mph)
	O/D → 3	126 - 134 km/h (78 - 83 mph)
	3 → 2	91 - 100 km/h (57 - 62 mph)
	2 → 1	43 - 48 km/h (27 - 30 mph)
(Throttle valve fully closed)	3 → O/D	32 - 36 km/h (20 - 22 mph)
	O/D → 3	24 - 28 km/h (15 - 17 mph)
2 position		
(Throttle valve fully opened)	1 → 2	54 - 59 km/h (34 - 37 mph)
	3 → 2	104 - 112 km/h (65 - 70 mph)
	2 → 1	43 - 48 km/h (27 - 30 mph)
L position		
(Throttle valve fully opened)	3 → 2	89 - 97 km/h (55 - 60 mph)
	2 → 1	50 - 55 km/h (31 - 34 mph)

SERVICE SPECIFICATIONS - AUTOMATIC TRANSMISSION (A340E, A340F)

(3RZ-FE / A340F)	Tire size: P225 / 75R15	
D position		
(Throttle valve fully opened)	1 → 2	56 - 61 km/h (35 - 38 mph)
	2 → 3	102 - 111 km/h (63 - 69 mph)
	3 → O/D	135 - 144 km/h (84 - 89 mph)
	O/D → 3	129 - 138 km/h (80 - 86 mph)
	3 → 2	94 - 103 km/h (58 - 64 mph)
	2 → 1	44 - 49 km/h (27 - 30 mph)
(Throttle valve fully closed)	3 → O/D	33 - 37 km/h (21 - 23 mph)
	O/D → 3	24 - 29 km/h (15 - 18 mph)
2 position		
(Throttle valve fully opened)	1 → 2	56 - 61 km/h (34 - 38 mph)
	3 → 2	107 - 116 km/h (66 - 72 mph)
	2 → 1	44 - 49 km/h (27 - 30 mph)
L position		
(Throttle valve fully opened)	3 → 2	91 - 100 km/h (57 - 62 mph)
	2 → 1	52 - 56 km/h (32 - 35 mph)
(5VZ-FE / A340E)	Tire size: P265 / 70R16	
D position		
(Throttle valve fully opened)	1 → 2	58 - 63 km/h (36 - 39 mph)
	2 → 3	109 - 117 km/h (68 - 73 mph)
	3 → O/D	147 - 156 km/h (91 - 97 mph)
	O/D → 3	140 - 149 km/h (87 - 93 mph)
	3 → 2	100 - 109 km/h (62 - 68 mph)
	2 → 1	46 - 50 km/h (29 - 31 mph)
(Throttle valve fully closed)	3 → O/D	42 - 47 km/h (26 - 29 mph)
	O/D → 3	22 - 27 km/h (14 - 18 mph)
2 position		
(Throttle valve fully opened)	1 → 2	58 - 63 km/h (36 - 39 mph)
	3 → 2	116 - 125 km/h (72 - 78 mph)
	2 → 1	46 - 50 km/h (29 - 31 mph)
L position		
(Throttle valve fully opened)	3 → 2	99 - 107 km/h (62 - 68 mph)
	2 → 1	56 - 61 km/h (35 - 38 mph)
(5VZ-FE / A340E)	Tire size: P225 / 75R15	
D position		
(Throttle valve fully opened)	1 → 2	56 - 61 km/h (35 - 38 mph)
	2 → 3	105 - 114 km/h (65 - 71 mph)
	3 → O/D	142 - 152 km/h (88 - 94 mph)
	O/D → 3	135 - 145 km/h (84 - 90 mph)
	3 → 2	97 - 106 km/h (60 - 66 mph)
	2 → 1	44 - 49 km/h (27 - 30 mph)
(Throttle valve fully closed)	3 → O/D	41 - 46 km/h (25 - 29 mph)
	O/D → 3	22 - 26 km/h (14 - 16 mph)
2 position		
(Throttle valve fully opened)	1 → 2	56 - 61 km/h (35 - 38 mph)
	3 → 2	112 - 121 km/h (70 - 75 mph)
	2 → 1	44 - 49 km/h (27 - 30 mph)
L position		
(Throttle valve fully opened)	2 → 1	95 - 105 km/h (59 - 65 mph)
	2 → 1	54 - 59 km/h (34 - 37 mph)

(5VZ-FE / A340F)	Tire size: P265 / 70R16	
D position		
(Throttle valve fully opened)	1 → 2	58 - 63 km/h (36 - 39 mph)
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