

AUTOMATIC TRANSMISSION (A340E, A340F)

SERVICE DATA

SS053-04

Line pressure (Wheel locked) (3RZ-FE)	Engine idling	
	D position	382 – 441 kPa (3.9 – 4.5 kgf/cm ² , 55 – 64 psi)
	R position	539 – 637 kPa (5.5 – 6.5 kgf/cm ² , 78 – 92 psi)
	at stall (Throttle valve fully opened)	
	D position	1,098 – 1,235 kPa (11.2 – 12.6 kgf/cm ² , 159 – 179 psi)
	R position	1,382 – 1,716 kPa (14.1 – 17.5 kgf/cm ² , 201 – 249 psi)
(5VZ-FE)	Engine idling	
	D position	382 – 441 kPa (3.9 – 4.5 kgf/cm ² , 55 – 64 psi)
	R position	588 – 686 kPa (6.0 – 7.0 kgf/cm ² , 85 – 100 psi)
	at stall (Throttle valve fully opened)	
	D position	1,089 – 1,226 kPa (11.1 – 12.5 kgf/cm ² , 158 – 178 psi)
	R position	1,461 – 1,794 kPa (14.9 – 18.3 kgf/cm ² , 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.)

Lock-up point (NORM and PWR pattern)		
(3RZ-FE / A340E)	Tire size: 31 x 10.5R15 or P265 / 70R16	
D position		
(Throttle valve opening 5%)	Lock-up ON	82 – 86 km/h (51 – 53 mph)
	Lock-up OFF	75 – 79 km/h (47 – 49 mph)
(3RZ-FE / A340E)	Tire size: P225 / 75R15	
D position		
(Throttle valve opening 5%)	Lock-up ON	83 – 87 km/h (52 – 54 mph)
	Lock-up OFF	76 – 81 km/h (47 – 50 mph)
(3RZ-FE / A340F)	Tire size: 31 x 10.5R15	
D position		
(Throttle valve opening 5%)	Lock-up ON	76 – 81 km/h (47 – 50 mph)
	Lock-up OFF	70 – 75 km/h (44 – 47 mph)
(3RZ-FE / A340F)	Tire size: P225 / 75R15	
D position		
(Throttle valve opening 5%)	Lock-up ON	78 – 83 km/h (48 – 52 mph)
	Lock-up OFF	72 – 77 km/h (45 – 48 mph)
(5VZ-FE / A340E)	Tire size: 31 X 10.5R15	
D position		
(Throttle valve opening 5%)	Lock-up ON	73 – 78 km/h (45 – 48 mph)
	Lock-up OFF	66 – 71 km/h (41 – 44 mph)
(5VZ-FE / A340E)	Tire size: P225 / 75R15	
D position		
(Throttle valve opening 5%)	Lock-up ON	71 – 76 km/h (44 – 47 mph)
	Lock-up OFF	64 – 69 km/h (40 – 43 mph)
(5VZ-FE / A340F)	Tire size: 31 X 10.5R15	
D position		
(Throttle valve opening 5%)	Lock-up ON	73 – 78 km/h (45 – 48 mph)
	Lock-up OFF	66 – 71 km/h (41 – 44 mph)
(5VZ-FE / A340F)	Tire size: P225 / 75R15	
D position		
(Throttle valve opening 5%)	Lock-up ON	71 – 76 km/h (44 – 47 mph)
	Lock-up OFF	64 – 69 km/h (40 – 43 mph)

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Shift schedule (NORM and PWR pattern)		
(3RZ-FE / A340E)	Tire size: 31 X 10.5R15 or 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: 31 X 10.5R15	
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)

(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: 31 X 10.5R15	
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)
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