

AUTOMATIC TRANSMISSION

SERVICE DATA

SSOCS-08

Europe (2JZ-GE)		
Line pressure (Wheel locked)	Idling	
	D range	395 – 455 kPa (4.0 – 4.6 kgf·cm ² , 57 – 65 psi)
	R range	0
	Stall	
	D range	1,200 – 1,360 kPa (12.2 – 13.8 kgf·cm ² , 174 – 196 psi)
	R range	1,655 – 1,960 kPa (16.9 – 19.8 kgf·cm ² , 240 – 282 psi)
Engine stall revolution (D range)		2,700 ± 150 rpm
Time lag	N → D range	Less than 1.2 seconds
	N → R range	Less than 1.5 seconds
Engine idle speed (N range and A/C OFF)		700 ± 50 rpm
Drive plate runout	Max.	0.20 mm (0.0079 in.)
Torque converter sleeve runout	Max.	0.30 mm (0.0118 in.)
Torque converter installation (Correct distance)		More than 0.1 mm (0.004 in.)
Extension housing oil seal drive in depth from flat end		2.0 mm (0.079 in.)
Shift schedule (NORM and PWR mode)		
Differential gear ratio 3.916		
D, M range		
(Throttle valve fully opened)	1 → 2	57 – 67 km/h (35 – 42 mph)
	2 → 3	88 – 99 km/h (55 – 61 mph)
	3 → 4	134 – 150 km/h (83 – 93 mph)
	4 → 5	190 – 209 km/h (118 – 130 mph)
	5 → 4	184 – 199 km/h (114 – 123 mph)
	4 → 3	121 – 133 km/h (75 – 82 mph)
	3 → 2	67 – 74 km/h (42 – 46 mph)
	2 → 1	37 – 42 km/h (23 – 26 mph)
	4 → 5	42 – 48 km/h (26 – 30 mph)
	5 → 4	24 – 29 km/h (15 – 18 mph)
(Throttle valve fully closed)		
3 range		
(Throttle valve fully opened)	1 → 2	57 – 67 km/h (35 – 42 mph)
	2 → 3	88 – 99 km/h (55 – 61 mph)
	4 → 3	139 – 152 km/h (86 – 94 mph)
	3 → 2	67 – 74 km/h (42 – 46 mph)
	2 → 1	37 – 42 km/h (23 – 26 mph)
2 range		
(Throttle valve fully opened)	1 → 2	57 – 67 km/h (35 – 42 mph)
	3 → 2	93 – 101 km/h (58 – 63 mph)
	2 → 1	37 – 42 km/h (23 – 26 mph)
L range		
(Throttle valve fully opened)	2 → 1	17 – 22 km/h (11 – 14 mph)

Shift schedule (SNOW mode)		
Differential gear ratio 3.916		
D, M range		
(Throttle valve fully opened)	1 → 2	45 – 61 km/h (28 – 38 mph)
	2 → 3	73 – 92 km/h (45 – 57 mph)
	3 → 4	111 – 139 km/h (69 – 86 mph)
	4 → 5	159 – 194 km/h (99 – 120 mph)
	5 → 4	84 – 116 km/h (52 – 72 mph)
	4 → 3	44 – 61 km/h (27 – 38 mph)
	3 → 2	21 – 35 km/h (13 – 22 mph)
	2 → 1	4 – 9 km/h (2 – 6 mph)
(Throttle valve fully closed)	4 → 5	42 – 48 km/h (26 – 30 mph)
	5 → 4	24 – 29 km/h (15 – 18 mph)
3 range		
(Throttle valve fully opened)	1 → 2	45 – 61 km/h (28 – 38 mph)
	2 → 3	73 – 92 km/h (45 – 57 mph)
	4 → 3	139 – 152 km/h (86 – 94 mph)
	3 → 2	21 – 35 km/h (13 – 22 mph)
	2 → 1	4 – 9 km/h (2 – 6 mph)
2 range		
(Throttle valve fully opened)	1 → 2	45 – 61 km/h (28 – 38 mph)
	3 → 2	93 – 101 km/h (58 – 63 mph)
	2 → 1	4 – 9 km/h (2 – 6 mph)
L range		
(Throttle valve fully opened)	2 → 1	17 – 22 km/h (11 – 14 mph)
Lock-up point (Differential gear ratio 3.916)		
(Throttle valve opening 5 %)		
5th gear (D range)	Lock-up ON	64 – 71 km/h (40 – 44 mph)
	Lock-up OFF	63 – 69 km/h (39 – 43 mph)
4th gear (4 range)	Lock-up ON	69 – 76 km/h (43 – 47 mph)
	Lock-up OFF	63 – 69 km/h (39 – 43 mph)
Flex lock-up point (Differential gear ratio 3.916)		
(Throttle valve opening 3 %)		
D range (When accelerating)		
5th gear	Lock-up ON	42 – 48 km/h (26 – 30 mph)
	Lock-up OFF	41 – 47 km/h (25 – 29 mph)
4th gear	Lock-up ON	32 – 37 km/h (20 – 23 mph)
	Lock-up OFF	30 – 36 km/h (19 – 22 mph)
4 range (When accelerating)		
4th gear	Lock-up ON	32 – 37 km/h (20 – 23 mph)
	Lock-up OFF	30 – 36 km/h (19 – 22 mph)
(Throttle valve fully closed)		
D range (When deceleration / A/C ON)		
5th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	34 – 58 km/h (21 – 36 mph)
M range (When deceleration / A/C ON)		
4th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	25 – 44 km/h (16 – 27 mph)
D range (When deceleration / A/C OFF)		
5th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	34 – 40 km/h (21 – 25 mph)
M range (When deceleration / A/C OFF)		
4th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	25 – 31 km/h (16 – 19 mph)

SERVICE SPECIFICATIONS – AUTOMATIC TRANSMISSION

Australia (2JZ-GE)		
Line pressure (Wheel locked)	Idling	
	D range	395 – 455 kPa (4.0 – 4.6 kgf·cm ² , 57 – 65 psi)
	R range	0
	Stall	
	D range	1,200 – 1,360 kPa (12.2 – 13.8 kgf·cm ² , 174 – 196 psi)
	R range	1,655 – 1,960 kPa (16.9 – 19.8 kgf·cm ² , 240 – 282 psi)
Engine stall revolution (D range)		2,700 ± 150 rpm
Time lag	N → D range	Less than 1.2 seconds
	N → R range	Less than 1.5 seconds
Engine idle speed (N range and A/C OFF)		700 ± 50 rpm
Drive plate runout	Max.	0.20 mm (0.0079 in.)
Torque converter sleeve runout	Max.	0.30 mm (0.0118 in.)
Torque converter installation (Correct distance)		More than 0.1 mm (0.004 in.)
Extension housing oil seal drive in depth from flat end		2.0 mm (0.079 in.)
Shift schedule (NORM and PWR mode)		
Differential gear ratio 3.916		
D, M range (Throttle valve fully opened)	1 → 2	52 – 62 km/h (32 – 38 mph)
	2 → 3	81 – 91 km/h (50 – 57 mph)
	3 → 4	123 – 138 km/h (76 – 86 mph)
	4 → 5	176 – 193 km/h (109 – 120 mph)
	5 → 4	170 – 183 km/h (105 – 113 mph)
	4 → 3	111 – 123 km/h (69 – 76 mph)
	3 → 2	62 – 69 km/h (38 – 43 mph)
	2 → 1	34 – 39 km/h (21 – 24 mph)
	4 → 5	39 – 45 km/h (24 – 28 mph)
	5 → 4	22 – 27 km/h (14 – 17 mph)
(Throttle valve fully closed)		
3 range (Throttle valve fully opened)	1 → 2	52 – 62 km/h (32 – 38 mph)
	2 → 3	81 – 91 km/h (50 – 57 mph)
	4 → 3	128 – 140 km/h (79 – 87 mph)
	3 → 2	62 – 69 km/h (38 – 43 mph)
	2 → 1	34 – 39 km/h (21 – 24 mph)
2 range (Throttle valve fully opened)	1 → 2	52 – 62 km/h (32 – 38 mph)
	3 → 2	86 – 93 km/h (53 – 58 mph)
	2 → 1	34 – 39 km/h (21 – 24 mph)
L range (Throttle valve fully opened)		
	2 → 1	16 – 21 km/h (10 – 13 mph)

Shift schedule (SNOW mode)		
Differential gear ratio 3.916		
D, M range		
(Throttle valve fully opened)	1 → 2	36 – 48 km/h (22 – 30 mph)
	2 → 3	57 – 73 km/h (35 – 45 mph)
	3 → 4	88 – 110 km/h (55 – 68 mph)
	4 → 5	126 – 154 km/h (78 – 95 mph)
	5 → 4	68 – 87 km/h (42 – 54 mph)
	4 → 3	40 – 53 km/h (25 – 33 mph)
	3 → 2	18 – 29 km/h (11 – 18 mph)
	2 → 1	4 – 8 km/h (2 – 5 mph)
(Throttle valve fully closed)	4 → 5	39 – 45 km/h (24 – 28 mph)
	5 → 4	22 – 27 km/h (14 – 17 mph)
3 range		
(Throttle valve fully opened)	1 → 2	36 – 48 km/h (22 – 30 mph)
	2 → 3	57 – 73 km/h (35 – 45 mph)
	4 → 3	128 – 140 km/h (79 – 87 mph)
	3 → 2	18 – 29 km/h (11 – 18 mph)
	2 → 1	4 – 8 km/h (2 – 5 mph)
2 range		
(Throttle valve fully opened)	1 → 2	36 – 48 km/h (22 – 30 mph)
	3 → 2	86 – 93 km/h (53 – 58 mph)
	2 → 1	4 – 8 km/h (2 – 5 mph)
L range		
(Throttle valve fully opened)	2 → 1	17 – 22 km/h (11 – 14 mph)
Lock-up point (Differential gear ratio 3.916)		
(Throttle valve opening 5 %)		
5th gear (D range)	Lock-up ON	55 – 62 km/h (34 – 38 mph)
	Lock-up OFF	54 – 60 km/h (33 – 37 mph)
4th gear (4 range)	Lock-up ON	55 – 62 km/h (34 – 38 mph)
	Lock-up OFF	54 – 60 km/h (34 – 37 mph)
Flex lock-up point (Differential gear ratio 3.916)		
(Throttle valve opening 3 %)		
D range (When accelerating)		
5th gear	Lock-up ON	39 – 45 km/h (24 – 28 mph)
	Lock-up OFF	38 – 43 km/h (24 – 27 mph)
4th gear	Lock-up ON	29 – 35 km/h (18 – 22 mph)
	Lock-up OFF	28 – 33 km/h (17 – 21 mph)
4 range (When accelerating)		
4th gear	Lock-up ON	29 – 35 km/h (18 – 22 mph)
	Lock-up OFF	28 – 33 km/h (17 – 20 mph)
(Throttle valve fully closed)		
D range (When deceleration / A/C ON)		
5th gear	Lock-up ON	92 – 103 km/h (57 – 64 mph)
	Lock-up OFF	32 – 54 km/h (20 – 33 mph)
4 range (When deceleration / A/C ON)	Lock-up ON	92 – 103 km/h (57 – 64 mph)
4th gear	Lock-up OFF	23 – 41 km/h (14 – 25 mph)
D range (When deceleration / A/C OFF)		
5th gear	Lock-up ON	92 – 103 km/h (57 – 64 mph)
	Lock-up OFF	32 – 37 km/h (20 – 23 mph)
4 range (When deceleration / A/C OFF)	Lock-up ON	92 – 103 km/h (57 – 64 mph)
4th gear	Lock-up OFF	23 – 28 km/h (14 – 17 mph)

SERVICE SPECIFICATIONS - AUTOMATIC TRANSMISSION

G.C.C. countries (2JZ-GE)		
Line pressure (Wheel locked)	Idling	
	D range	395 – 455 kPa (4.0 – 4.6 kgf·cm ² , 57 – 65 psi)
	R range	0
	Stall	
	D range	1,200 – 1,360 kPa (12.2 – 13.8 kgf·cm ² , 174 – 196 psi)
	R range	1,655 – 1,960 kPa (16.9 – 19.8 kgf·cm ² , 240 – 282 psi)
Engine stall revolution (D range)		2,700 ± 150 rpm
Time lag	N → D range	Less than 1.2 seconds
	N → R range	Less than 1.5 seconds
Engine idle speed (N range and A/C OFF)		700 ± 50 rpm
Drive plate runout	Max.	0.20 mm (0.0079 in.)
Torque converter sleeve runout	Max.	0.30 mm (0.0118 in.)
Torque converter installation (Correct distance)		More than 0.1 mm (0.004 in.)
Extension housing oil seal drive in depth from flat end		2.0 mm (0.079 in.)
Shift schedule (NORM and PWR mode)		
Differential gear ratio 3.916		
D, M range		
(Throttle valve fully opened)	1 → 2	57 – 67 km/h (35 – 42 mph)
	2 → 3	88 – 99 km/h (55 – 61 mph)
	3 → 4	134 – 150 km/h (83 – 93 mph)
	4 → 5	190 – 209 km/h (118 – 130 mph)
	5 → 4	184 – 199 km/h (114 – 123 mph)
	4 → 3	121 – 133 km/h (75 – 82 mph)
	3 → 2	67 – 74 km/h (42 – 46 mph)
	2 → 1	37 – 42 km/h (23 – 26 mph)
	4 → 5	42 – 48 km/h (26 – 30 mph)
	5 → 4	24 – 29 km/h (15 – 18 mph)
(Throttle valve fully closed)		
3 range		
(Throttle valve fully opened)	1 → 2	57 – 67 km/h (35 – 42 mph)
	2 → 3	88 – 99 km/h (55 – 61 mph)
	4 → 3	139 – 152 km/h (86 – 94 mph)
	3 → 2	67 – 74 km/h (42 – 46 mph)
	2 → 1	37 – 42 km/h (23 – 26 mph)
2 range		
(Throttle valve fully opened)	1 → 2	57 – 67 km/h (35 – 42 mph)
	3 → 2	93 – 101 km/h (58 – 63 mph)
	2 → 1	37 – 42 km/h (23 – 26 mph)
L range		
(Throttle valve fully opened)	2 → 1	17 – 22 km/h (11 – 14 mph)

Shift schedule (SNOW mode)		
Differential gear ratio 3.916		
D, M range		
(Throttle valve fully opened)	1 → 2	39 – 52 km/h (24 – 32 mph)
	2 → 3	62 – 79 km/h (39 – 49 mph)
	3 → 4	95 – 119 km/h (59 – 74 mph)
	4 → 5	137 – 167 km/h (85 – 104 mph)
	5 → 4	63 – 82 km/h (39 – 51 mph)
	4 → 3	33 – 45 km/h (20 – 28 mph)
	3 → 2	13 – 23 km/h (8 – 14 mph)
	2 → 1	4 – 9 km/h (2 – 6 mph)
(Throttle valve fully closed)	4 → 5	42 – 48 km/h (26 – 30 mph)
	5 → 4	24 – 29 km/h (15 – 18 mph)
3 range		
(Throttle valve fully opened)	1 → 2	39 – 52 km/h (24 – 32 mph)
	2 → 3	62 – 79 km/h (39 – 49 mph)
	4 → 3	139 – 152 km/h (86 – 94 mph)
	3 → 2	13 – 23 km/h (8 – 14 mph)
	2 → 1	4 – 9 km/h (2 – 6 mph)
2 range		
(Throttle valve fully opened)	1 → 2	39 – 52 km/h (24 – 32 mph)
	3 → 2	93 – 101 km/h (58 – 63 mph)
	2 → 1	4 – 9 km/h (2 – 6 mph)
L range		
(Throttle valve fully opened)	2 → 1	17 – 22 km/h (11 – 14 mph)
Lock-up point (Differential gear ratio 3.916)		
(Throttle valve opening 5 %)		
5th gear (D range)	Lock-up ON	64 – 71 km/h (40 – 44 mph)
	Lock-up OFF	63 – 69 km/h (39 – 43 mph)
4th gear (4 range)	Lock-up ON	69 – 76 km/h (43 – 47 mph)
	Lock-up OFF	63 – 69 km/h (39 – 43 mph)
Flex lock-up point (Differential gear ratio 3.916)		
(Throttle valve opening 3 %)		
D range (When accelerating)		
5th gear	Lock-up ON	42 – 48 km/h (26 – 30 mph)
	Lock-up OFF	41 – 47 km/h (25 – 29 mph)
4th gear	Lock-up ON	32 – 37 km/h (20 – 23 mph)
	Lock-up OFF	30 – 36 km/h (19 – 22 mph)
4 range (When accelerating)		
4th gear	Lock-up ON	32 – 37 km/h (20 – 23 mph)
	Lock-up OFF	30 – 36 km/h (19 – 22 mph)
(Throttle valve fully closed)		
D range (When deceleration / A/C ON)		
5th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	34 – 58 km/h (21 – 36 mph)
M range (When deceleration / A/C ON)		
4th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	25 – 44 km/h (16 – 27 mph)
D range (When deceleration / A/C OFF)		
5th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	34 – 40 km/h (21 – 25 mph)
M range (When deceleration / A/C OFF)		
4th gear	Lock-up ON	100 – 111 km/h (62 – 69 mph)
	Lock-up OFF	25 – 31 km/h (16 – 19 mph)

SERVICE SPECIFICATIONS - AUTOMATIC TRANSMISSION

3UZ-FE		
Line pressure (Wheel locked)	Idling D range R range Stall D range R range	395 – 455 kPa (4.0 – 4.6 kgf·cm ² , 57 – 65 psi) 0 1,200 – 1,360 kPa (12.2 – 13.8 kgf·cm ² , 174 – 196 psi) 1,655 – 1,960 kPa (16.9 – 19.8 kgf·cm ² , 240 – 282 psi)
Engine stall revolution (D range)		2,450 ± 150 rpm
Time lag	N → D range N → R range	Less than 1.2 seconds Less than 1.5 seconds
Engine idle speed (N range and A/C OFF)		750 ± 50 rpm
Drive plate runout	Max.	0.20 mm (0.0079 in.)
Torque converter sleeve runout	Max.	0.30 mm (0.0118 in.)
Torque converter installation (Correct distance)		More than 0.1 mm (0.004 in.)
Extension housing oil seal drive in depth from flat end		2.0 mm (0.079 in.)
Shift schedule (NORM and PWR mode)		
Differential gear ratio 3.266		
D, 4 range (Throttle valve fully opened)	1 → 2 2 → 3 3 → 4 4 → 5 5 → 4 4 → 3 3 → 2 2 → 1	62 – 71 km/h (38 – 44 mph) 93 – 103 km/h (58 – 64 mph) 145 – 160 km/h (90 – 99 mph) 212 – 227 km/h (131 – 141 mph) 204 – 216 km/h (126 – 134 mph) 136 – 147 km/h (84 – 91 mph) 80 – 86 km/h (50 – 53 mph) 42 – 47 km/h (26 – 29 mph)
(Throttle valve fully closed)	4 → 5 5 → 4	34 – 39 km/h (21 – 24 mph) 25 – 30 km/h (16 – 19 mph)
3 range (Throttle valve fully opened)	1 → 2 2 → 3 4 → 3 3 → 2 2 → 1	62 – 71 km/h (38 – 44 mph) 93 – 103 km/h (58 – 64 mph) 154 – 165 km/h (95 – 102 mph) 80 – 86 km/h (50 – 53 mph) 42 – 47 km/h (26 – 29 mph)
2 range (Throttle valve fully opened)	1 → 2 3 → 2 2 → 1	62 – 71 km/h (38 – 44 mph) 100 – 107 km/h (62 – 66 mph) 42 – 47 km/h (26 – 29 mph)
L range (Throttle valve fully opened)	2 → 1	39 – 44 km/h (24 – 27 mph)

Shift schedule (SNOW mode)		
Differential gear ratio 3.266		
D, 4 range		
(Throttle valve fully opened)	1 → 2	36 – 48 km/h (22 – 30 mph)
	2 → 3	59 – 75 km/h (37 – 47 mph)
	3 → 4	87 – 109 km/h (54 – 68 mph)
	4 → 5	136 – 176 km/h (84 – 109 mph)
	5 → 4	86 – 109 km/h (53 – 68 mph)
	4 → 3	57 – 73 km/h (35 – 45 mph)
	3 → 2	5 – 40 km/h (3 – 25 mph)
	2 → 1	5 – 10 km/h (3 – 6 mph)
(Throttle valve fully closed)	4 → 5	34 – 39 km/h (21 – 24 mph)
	5 → 4	24 – 30 km/h (16 – 19 mph)
3 range		
(Throttle valve fully opened)	1 → 2	36 – 48 km/h (22 – 30 mph)
	2 → 3	59 – 75 km/h (37 – 47 mph)
	4 → 3	154 – 165 km/h (95 – 102 mph)
	3 → 2	5 – 40 km/h (3 – 25 mph)
	2 → 1	5 – 10 km/h (3 – 6 mph)
2 range		
(Throttle valve fully opened)	1 → 2	36 – 48 km/h (22 – 30 mph)
	3 → 2	100 – 107 km/h (62 – 66 mph)
	2 → 1	5 – 10 km/h (2 – 6 mph)
L range		
(Throttle valve fully opened)	2 → 1	39 – 44 km/h (24 – 27 mph)
Lock-up point (Differential gear ratio 3.266)		
(Throttle valve opening 5 %)		
5th gear (D range)	Lock-up ON	59 – 65 km/h (37 – 40 mph)
	Lock-up OFF	55 – 61 km/h (39 – 43 mph)
4th gear (4 range)	Lock-up ON	140 – 151 km/h (87 – 94 mph)
	Lock-up OFF	133 – 143 km/h (83 – 89 mph)
Flex lock-up point (Differential gear ratio 3.266)		
(Throttle valve opening 3 %)		
D range (When accelerating)		
5th gear	Lock-up ON	47 – 53 km/h (29 – 33 mph)
	Lock-up OFF	45 – 51 km/h (28 – 32 mph)
4th gear	Lock-up ON	35 – 41 km/h (22 – 25 mph)
	Lock-up OFF	34 – 39 km/h (21 – 24 mph)
3rd gear	Lock-up ON	25 – 30 km/h (16 – 19 mph)
	Lock-up OFF	23 – 28 km/h (14 – 17 mph)