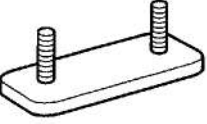

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STANDARD BOLT

HOW TO DETERMINE BOLT STRENGTH

SS00F-01

	Mark	Class		Mark	Class
Hexagon head bolt	 Bolt head No. 4- 5- 6- 7- 8- 9- 10- 11-	4T	Hexagon flange bolt	 4 Protruding lines	9T
		5T	w/ washer hexagon bolt		
		6T	Hexagon flange bolt	 5 Protruding lines	10T
		7T	w/ washer hexagon bolt		
Hexagon flange bolt w/ washer hexagon bolt	 No mark	8T	Hexagon flange bolt	 6 Protruding lines	11T
		9T	w/ washer hexagon bolt		
		10T			
		11T			
Hexagon head bolt	 2 Protruding lines	4T	Stud bolt	 No mark	4T
Hexagon flange bolt w/ washer hexagon bolt	 2 Protruding lines	5T			
Hexagon head bolt	 3 Protruding lines	6T		 Grooved	6T
Hexagon head bolt	 4 Protruding lines	7T			
Hexagon head bolt		8T	Welded bolt		4T

SPECIFIED TORQUE FOR STANDARD BOLTS

Class	Diameter mm	Pitch mm	Specified torque					
			Hexagon head bolt			Hexagon flange bolt		
			N·m	kgf·cm	ft·lbf	N·m	kgf·cm	ft·lbf
4T	6	1	5	55	48 in·lbf	6	60	52 in·lbf
	8	1.25	12.5	130	9	14	145	10
	10	1.25	26	260	19	29	290	21
	12	1.25	47	480	35	53	540	39
	14	1.5	74	760	55	84	850	61
	16	1.5	115	1,150	83	—	—	—
5T	6	1	6.5	65	56 in·lbf	7.5	75	65 in·lbf
	8	1.25	15.5	160	12	17.5	175	13
	10	1.25	32	330	24	36	360	26
	12	1.25	59	600	43	65	670	48
	14	1.5	91	930	67	100	1,050	76
	16	1.5	140	1,400	101	—	—	—
6T	6	1	8	80	69 in·lbf	9	90	78 in·lbf
	8	1.25	19	195	14	21	210	15
	10	1.25	39	400	29	44	440	32
	12	1.25	71	730	53	80	810	59
	14	1.5	110	1,100	80	125	1,250	90
	16	1.5	170	1,750	127	—	—	—
7T	6	1	10.5	110	8	12	120	9
	8	1.25	25	260	19	28	290	21
	10	1.25	52	530	38	58	590	43
	12	1.25	95	970	70	105	1,050	76
	14	1.5	145	1,500	108	165	1,700	123
	16	1.5	230	2,300	166	—	—	—
8T	8	1.25	29	300	22	33	330	24
	10	1.25	61	620	45	68	690	50
	12	1.25	110	1,100	80	120	1,250	90
9T	8	1.25	34	340	25	37	380	27
	10	1.25	70	710	51	78	790	57
	12	1.25	125	1,300	94	140	1,450	105
10T	8	1.25	38	390	28	42	430	31
	10	1.25	78	800	58	88	890	64
	12	1.25	140	1,450	105	155	1,600	116
11T	8	1.25	42	430	31	47	480	35
	10	1.25	87	890	64	97	990	72
	12	1.25	155	1,600	116	175	1,800	130

CLUTCH

SERVICE DATA

SS02L-02

Pedal height from asphalt sheet	4A-FE, 7A-FE Engine LHD	139.7 – 149.7 mm (5.499 – 5.893 in.)
	RHD	148.7 – 158.7 mm (5.854 – 6.248 in.)
	3S-FE, 2C-TE, 2C-T Engine LHD	148.3 – 158.3 mm (5.838 – 6.232 in.)
	RHD	157.4 – 167.4 mm (6.196 – 6.590 in.)
Pedal freeplay		1.0 – 5.0 mm (0.039 – 0.197 in.)
Push rod play at pedal top		5.0 – 15.0 mm (0.197 – 0.591 in.)
Clutch release point from pedal full stroke end position		25 mm (0.98 in.) or more
Slotted spring pin protrusion	RHD	1.5 – 3.5 mm (0.059 – 0.138 in.)
Disc rivet head depth	Min.	0.3 mm (0.012 in.)
Disc runout	Max.	0.8 mm (0.031 in.)
Flywheel runout	Max	0.1 mm (0.004 in.)
Diaphragm spring finger wear	Max. depth	0.5 mm (0.020 in.)
Diaphragm spring finger wear	Max. width	6.0 mm (0.236 in.)
Diaphragm spring tip non-alignment	Max.	0.5 mm (0.020 in.)

TORQUE SPECIFICATION

Parttightened	N·m	kgf·cm	ft·lbf
Clutch line union	15	155	11
Master cylinder installation nut	12	120	9
Master cylinder x Clutch accumulator 2C-TE Engine RHD	32 (44)	330 (450)	24 (33)
Bleeder plug	8.3	85	74 in.·lbf
Release cylinder installation bolt	12	120	9
No.1 and No.2 air tube assembly	25	250	18
Clutch cover x Flywheel	19	195	14
Release fork support	4A-FE, 7A-FE Engine	37	27
	3S-FE, 2C-TE, 2C-T Engine	39	29

(): For use without SST

MANUAL TRANSAXLE (C50, C250)

SS02P-02

SERVICE DATA

Input shaft roller bearing journal diameter	Min.	24.970 mm (0.9831 in.)
Input shaft 3rd gear journal diameter	Min.	30.970 mm (1.2193 in.)
Input shaft 4th gear journal diameter	Min.	28.970 mm (1.1405 in.)
Input shaft 5th gear journal diameter	Min.	24.870 mm (0.9791 in.)
Input shaft runout	Max.	0.05 mm (0.0020 in.)
Output shaft roller bearing journal diameter	Min.	32.970 mm (1.2980 in.)
Output shaft 1st gear journal diameter	Min.	37.970 mm (1.4949 in.)
Output shaft 2nd gear journal diameter	Min.	31.970 mm (1.2587 in.)
Output shaft runout	Max.	0.05 mm (0.0020 in.)
Gear thrust clearance 1st	STD	0.10 – 0.40 mm (0.0039 – 0.0157 in.)
	Max.	0.45 mm (0.0177 in.)
Gear thrust clearance 2nd	STD	0.10 – 0.45 mm (0.0039 – 0.0177 in.)
	Max.	0.50 mm (0.0197 in.)
Gear thrust clearance 3rd	STD	0.10 – 0.35 mm (0.0039 – 0.0138 in.)
	Max.	0.40 mm (0.0157 in.)
Gear thrust clearance 4th	STD	0.10 – 0.55 mm (0.0039 – 0.0217 in.)
	Max.	0.60 mm (0.0236 in.)
Gear thrust clearance 5th	STD	0.10 – 0.57 mm (0.0039 – 0.0244 in.)
	Max.	0.65 mm (0.0256 in.)
Gear radial clearance 1st, 2nd, 3rd, 4th, and 5th	STD	0.015 – 0.058 mm (0.0006 – 0.0023 in.)
	Max.	0.070 mm (0.0028 in.)
Shift fork to hub sleeve clearance	Max.	1.0 mm (0.039 in.)
Synchronizer ring to gear clearance	Min.	0.6 mm (0.024 in.)
Drive in depth		
Control shaft cover oil seal		1.0 – 2.0 mm (0.039 – 0.079 in.)
Transmission case oil seal		2.4 ± 0.3 mm (0.094 ± 0.012 in.)
Transaxle case oil seal		2.4 ± 0.3 mm (0.094 ± 0.012 in.)
Select inner lever slotted spring pin		0 ± 0.5 mm (0 ± 0.020 in.)
No.1 shift inner lever slotted spring pin		0 ± 0.5 mm (0 ± 0.020 in.)
No.2 shift inner lever slotted spring pin		3.5 ± 0.5 mm (0.138 ± 0.020 in.)
Input shaft snap ring thickness		
No.2 clutch hub	Mark 0	2.30 mm (0.0906 in.)
	Mark 1	2.36 mm (0.0929 in.)
	Mark 2	2.42 mm (0.0953 in.)
	Mark 3	2.48 mm (0.0976 in.)
	Mark 4	2.54 mm (0.1000 in.)
	Mark 5	2.60 mm (0.1024 in.)
Rear bearing	Mark A	2.29 mm (0.0902 in.)
	Mark B	2.35 mm (0.0925 in.)
	Mark C	2.41 mm (0.0949 in.)
	Mark D	2.47 mm (0.0972 in.)
	Mark E	2.53 mm (0.0996 in.)
	Mark F	2.59 mm (0.1020 in.)

Output shaft snap ring thickness		
No.1 clutch hub	Mark A	2.50 mm (0.0984 in.)
	Mark B	2.56 mm (0.1008 in.)
	Mark C	2.62 mm (0.1031 in.)
	Mark D	2.68 mm (0.1055 in.)
	Mark E	2.74 mm (0.1079 in.)
	Mark F	2.80 mm (0.1102 in.)
No.3 clutch hub	Mark A	2.25 mm (0.0886 in.)
	Mark B	2.31 mm (0.0909 in.)
	Mark C	2.37 mm (0.0933 in.)
	Mark D	2.43 mm (0.0957 in.)
	Mark E	2.49 mm (0.0980 in.)
	Mark F	2.55 mm (0.1004 in.)
	Mark G	2.61 mm (0.1028 in.)
Differential side bearing preload (at starting)(For use with SST)		
New bearing		0.8 – 1.6 N·m 8 – 16 kgf·cm 6.9 – 13.9 in.-lbf
Reused bearing		0.5 – 1.0 N·m 5 – 10 kgf·cm 4.3 – 8.7 in.-lbf
Differential pinion to side gear backlash		0.05 mm – 0.20 mm (0.0020 – 0.0079 in.)
Differential side gear thrust washer thickness		0.95 mm (0.0374 in.) 1.00 mm (0.0394 in.) 1.05 mm (0.0413 in.) 1.10 mm (0.0433 in.) 1.15 mm (0.0453 in.) 1.20 mm (0.0472 in.)
Differential side bearing adjusting shim thickness		
	Mark A	2.10 mm (0.0827 in.)
	Mark B	2.15 mm (0.0846 in.)
	Mark C	2.20 mm (0.0866 in.)
	Mark D	2.25 mm (0.0886 in.)
	Mark E	2.30 mm (0.0906 in.)
	Mark F	2.35 mm (0.0925 in.)
	Mark G	2.40 mm (0.0945 in.)
	Mark H	2.45 mm (0.0965 in.)
	Mark J	2.50 mm (0.0984 in.)
	Mark K	2.55 mm (0.1004 in.)
	Mark L	2.60 mm (0.1024 in.)
	Mark M	2.65 mm (0.1043 in.)
	Mark N	2.70 mm (0.1063 in.)
	Mark P	2.75 mm (0.1083 in.)
	Mark Q	2.80 mm (0.1102 in.)
	Mark R	2.85 mm (0.1122 in.)
	Mark S	2.90 mm (0.1142 in.)
	Mark T	2.95 mm (0.1161 in.)
	Mark U	3.00 mm (0.1181 in.)

TORQUE SPECIFICATION

Parttightened		N·m	kgf·cm	ft·lbf
Clutch line bracket x Transaxle		12	120	9
Clutch release cylinder x Transaxle		12	120	9
Starter x Transaxle		39	400	29
Transaxle x Engine	17 mm head	64	650	47
	14 mm head	46	470	34
Rear end plate x Transaxle (7A-FE Engine)		43	440	32
Stiffener plate set bolt (4A-FE Engine)		43	440	32
Engine left mounting bracket x Transaxle		52	530	38
Engine left mounting bracket x Insulator		87	890	64
Front wheel		216	2,200	159
Filler and Drain plugs		39	400	29
Front exhaust pipe x Exhaust manifold		62	630	46
Center exhaust pipe x Tail exhaust pipe		43	430	32
Front transport hook x Engine mounting center member		39	400	29
Engine mounting center member (See page MX-3)	Bolt A	73	740	54
	Bolt B	72	730	53
Engine rear mounting bracket x Insulator		87	890	64
Shift lever assembly x Body		12	120	9
Shift cable grommet retainer x Body		4.9	50	43 in.·lbf
Transmission control cable bracket x Body		4.9	50	43 in.·lbf
Transmission case x Transaxle case		29	300	22
Transmission case x Transmission case cover		18	185	13
Output shaft front bearing lock plate		11	115	8
Straight screw plug (Reverse restrict pin)		13	130	9
Straight screw plug		25	250	18
Transaxle case receiver x Transaxle case		11	115	8
Differential case x Ring gear		77	790	57
Reverse shift arm bracket set bolt		17	175	13
No.1, No.2, No.3 shift forks and shift head set bolt		16	160	12
Lock ball assembly		39	400	29
Reverse idler gear shaft lock bolt		29	300	22
Rear bearing retainer x Transmission case		27	280	20
5th driven gear lock nut		118	1,200	87
Shift and select lever shaft assembly x Transmission case		20	200	14
Shift and select lever shaft assembly lock bolt		29	300	22
Front bearing retainer x Transaxle case		11	115	8
Control lever housing support bracket x Transaxle case		11	115	8
Oil receiver pipe set bolt		17	175	13
Selecting bellcrank assembly x Transmission case		25	250	18
Back-up light switch		40	410	30
Speed sensor lock plate set bolt		11	115	8
Clutch release fork support		37	375	27

MANUAL TRANSAXLE (S50, S54)

Gear thrust clearance 3rd

STD

0.10 – 0.25 mm (0.0039 – 0.098 in.)

SS09M-02

SERVICE DATA

Input shaft roller bearing journal diameter	Min.	29.970 mm (1.799 in.)
Input shaft 3rd gear journal diameter	Min.	33.090 mm (1.3028 in.)
Input shaft 4th gear journal diameter	Min.	32.470 mm (1.2783 in.)
Input shaft 5th gear journal diameter	Min.	26.970 mm (1.0618 in.)
Input shaft runout	Max.	0.05 mm (0.0020 in.)
Output shaft roller bearing journal diameter	Min.	31.970 mm (1.2587 in.)
Output shaft 1st gear journal diameter	Min.	37.970 mm (1.4949 in.)
Output shaft 2nd gear journal diameter	Min.	31.990 mm (1.2594 in.)
Output shaft runout	Max.	0.05 mm (0.0020 in.)
Gear thrust clearance 1st	STD	0.10 – 0.29 mm (0.0039 – 0.0114 in.)
	Max.	0.35 mm (0.0138 in.)
Gear thrust clearance 2nd	STD	0.20 – 0.44 mm (0.0079 – 0.0173 in.)
	Max.	0.50 mm (0.0197 in.)
MANUAL TRANSAXLE (S50, S54)		
	Max.	0.30 mm (0.0118 in.)
Gear thrust clearance 4th	STD	0.20 – 0.45 mm (0.0079 – 0.0177 in.)
	Max.	0.50 mm (0.0197 in.)
Gear thrust clearance 5th	STD	0.20 – 0.40 mm (0.0079 – 0.0157 in.)
	Max.	0.45 mm (0.0177 in.)
Gear radial clearance 1st, 2nd, 3rd and 4th	STD	0.009 – 0.053 mm (0.0004 – 0.0021 in.)
	Max.	0.070 mm (0.0028 in.)
Gear radial clearance 5th	STD	0.009 – 0.050 mm (0.0004 – 0.0020 in.)
	Max.	0.070 mm (0.0028 in.)
Shift fork to hub sleeve clearance	Max.	1.0 mm (0.039 in.)
Synchronizer ring to gear clearance 1st, 3rd and 4th	Min.	0.6 mm (0.024 in.)
Synchronizer ring to gear clearance 2nd	Min.	0.7 mm (0.028 in.)
Differential case side bearing preload (at starting)(For use with SST)		0.8 – 1.6 N·m (8 – 16 kgf·cm, 6.9 – 13.9 in.-lbf)
Differential pinion to side gear backlash		0.05 – 0.20 mm (0.0020 – 0.0079 in.)
Drive in depth		
Input shaft front oil seal		0 – 0.5 mm (0 – 0.020 in.)
Slotted spring pin for reverse restrict pin		13.5 ± 0.5 mm (0.531 ± 0.020 in.)
Shift and select lever shaft slotted spring pin		23.5 ± 1.0 mm (0.925 ± 0.039 in.)
Differential side gear thrust washer thickness		0.95 mm (0.0374 in.) 1.00 mm (0.0394 in.) 1.05 mm (0.0413 in.) 1.10 mm (0.0433 in.) 1.15 mm (0.0453 in.) 1.20 mm (0.0472 in.)

SERVICE SPECIFICATIONS – MANUAL TRANSAXLE (S50, S54)

Input shaft snap ring thickness		
No.2 clutch hub	Mark 1	1.95 – 2.00 mm (0.0768 – 0.0787 in.)
	Mark 2	2.00 – 2.05 mm (0.0787 – 0.0807 in.)
	Mark 3	2.05 – 2.10 mm (0.0807 – 0.0827 in.)
	Mark 4	2.10 – 2.15 mm (0.0827 – 0.0846 in.)
	Mark 5	2.15 – 2.20 mm (0.0846 – 0.0866 in.)
	Mark 6	2.20 – 2.25 mm (0.0866 – 0.0886 in.)
No.3 clutch hub	Mark 13	2.20 – 2.25 mm (0.0866 – 0.0886 in.)
	Mark 14	2.25 – 2.30 mm (0.0886 – 0.0906 in.)
	Mark 15	2.30 – 2.35 mm (0.0906 – 0.0925 in.)
	Mark 16	2.35 – 2.40 mm (0.0925 – 0.0945 in.)
	Mark 17	2.40 – 2.45 mm (0.0945 – 0.0965 in.)
	Mark 18	2.45 – 2.50 mm (0.0965 – 0.0984 in.)
	Mark 19	2.50 – 2.55 mm (0.0984 – 0.01004 in.)
	Mark 20	2.55 – 2.60 mm (0.1004 – 0.01024 in.)
	Mark 21	2.60 – 2.65 mm (0.1024 – 0.01043 in.)
	Mark 22	2.65 – 2.70 mm (0.1043 – 0.01063 in.)
	Mark 23	2.70 – 2.75 mm (0.1063 – 0.01083 in.)
	Mark 24	2.75 – 2.80 mm (0.1083 – 0.01102 in.)
Rear bearing	Mark 25	2.80 – 2.85 mm (0.1102 – 0.01122 in.)
	Mark 26	2.85 – 2.90 mm (0.1122 – 0.01142 in.)
	Mark 27	2.90 – 2.95 mm (0.1142 – 0.01161 in.)
	Mark A	2.15 – 2.20 mm (0.0846 – 0.0866 in.)
	Mark B	2.20 – 2.25 mm (0.0866 – 0.0886 in.)
	Mark C	2.25 – 2.30 mm (0.0886 – 0.0906 in.)
Differential side bearing adjusting shim thickness	Mark D	2.30 – 2.35 mm (0.0906 – 0.0925 in.)
	Mark E	2.35 – 2.40 mm (0.0925 – 0.0945 in.)
	Mark 1	1.90 mm (0.0748 in.)
	Mark 2	1.95 mm (0.0768 in.)
	Mark 3	2.00 mm (0.0787 in.)
	Mark 4	2.05 mm (0.0807 in.)
	Mark 5	2.10 mm (0.0827 in.)
	Mark 6	2.15 mm (0.0846 in.)
	Mark 7	2.20 mm (0.0866 in.)
	Mark 8	2.25 mm (0.0886 in.)
	Mark 9	2.30 mm (0.0906 in.)
	Mark 10	2.35 mm (0.0925 in.)
	Mark 11	2.40 mm (0.0945 in.)
	Mark 12	2.45 mm (0.0965 in.)
	Mark 13	2.50 mm (0.0984 in.)
	Mark 14	2.55 mm (0.1004 in.)
	Mark 15	2.60 mm (0.1024 in.)
	Mark 16	2.65 mm (0.1043 in.)
	Mark 17	2.70 mm (0.1063 in.)
	Mark 18	2.75 mm (0.1083 in.)
	Mark 19	2.80 mm (0.1102 in.)

TORQUE SPECIFICATION

Parttightened		N·m	kgf·cm	ft·lbf
No.1 and No.2 air tube assembly (Diesel Engine)		25	250	18
Starter x Transaxle		39	400	29
Clutch release cylinder x Transaxle		12	120	9
Clutch line bracket x Transaxle (See page MX-3, MX-9)	Bolt A Bolt B	12 4.9	120 50	9 43 in.·lbf
Engine left mounting bracket x Transaxle		52	530	38
Engine left mounting bracket x Insulator		87	890	64
Transaxle x Engine (Diesel Engine) (See page MX-3)	Upper bolt Bolt A Bolt B Bolt C	64 46 29 25	650 470 300 250	47 34 22 18
Transaxle x Engine (Gasoline Engine) (See page MX-9)	Upper bolt	64 25	650 250	47 18
Stiffener plate x Transaxle (Gasoline Engine) (See page MX-9)	Bolt A Bolt B	43 21	440 210	32 15
Front wheel		216	2,200	159
Filler and Drain plugs		49	500	36
Front exhaust pipe x Exhaust manifold (Gasoline Engine)		62	630	46
Front exhaust pipe x Center exhaust pipe (Gasoline Engine)		43	440	32
Front transport hook x Engine Mounting Center Member		39	400	29
Engine Mounting Center Member (See page MX-3, MX-9)	Bolt A Bolt B	73 72	740 730	54 53
Engine rear mounting bracket x Insulator		87	890	64
Engine rear mounting bracket x Transaxle		64	650	47
Intake manifold stay (Gasoline Engine)		44	450	33
Shift lever assembly x Body		12	120	9
Shift cable grommet retainer x Body		4.9	50	43 in.·lbf
Transmission control cable bracket x Body		4.9	50	43 in.·lbf
Transmission case x Transaxle case		29	300	22
Transmission case x Case cover		29	300	22
Transmission case protector		18	185	13
Rear bearing retainer		42	430	31
Output shaft front bearing lock plate		18	185	13
Transaxle case receiver set bolt		7.4	75	65 in.·lbf
5th driven gear lock nut		123	1,250	90
No.3 shift fork x No.1 shift fork shaft		18	185	13
Reverse idler shaft lock bolt		29	300	22
Control shaft cover		37	375	27
Control shift lever x Lever shaft		6.4	65	56 in.·lbf
Ring gear x Differential case		83	850	61
Selecting bellcrank x Transmission case		37	380	27
Reverse shift arm bracket		18	185	13
No.3 shift fork x Shift fork shaft		18	185	13
Lock ball assembly		29	300	22
Back-up light switch		44	450	33

SERVICE SPECIFICATIONS – MANUAL TRANSAXLE (S50, S54)

Differential side bearing retainer	18	185	13
Release bearing retainer	7.4	75	65 in.·lbf
Straight screw plug	13	130	9
Speed sensor lock plate set bolt	5.4	55	48 in.·lbf
Clutch release fork support	39	400	29

AUTOMATIC TRANSAXLE (A241E)

SS0J9-01

SERVICE DATA

Line pressure (Wheel locked)	Engine idling	
	D range	372 – 422 kPa (3.8 – 4.3 kgf/cm ² , 54 – 61 psi)
	R range	637 – 795 kPa (6.5 – 8.1 kgf/cm ² , 92 – 115 psi)
	AT stall (Throttle valve fully opened)	
	D range	715 – 863 kPa (7.3 – 8.8 kgf/cm ² , 103 – 125 psi)
	R range	1,333 – 1,579 kPa (13.6 – 16.1 kgf/cm ² , 194 – 229 psi)
Engine stall revolution	D and R ranges	2,050 – 2,500 rpm
Time lag	N → D range	Less than 1.2 seconds
	N → R range	Less than 1.5 seconds
Engine idle speed (A/C OFF)	N range	750 ± 50 rpm
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		More than 12.75 mm (0.502 in.)
Differential oil seal drive in depth	LH side	5.2 ± 0.5 mm (0.205 ± 0.020 in.)
	RH side	0 ± 0.5 mm (0 ± 0.020 in.)
Tire size: 185/65R14		
Shift point (NORM mode)		
D range (Throttle valve fully opened)	1 → 2	45 – 52 km/h (28 – 32 mph)
	2 → 3	84 – 91 km/h (52 – 57 mph)
	3 → O/D	122 – 133 km/h (76 – 83 mph)
	O/D → 3	115 – 125 km/h (71 – 78 mph)
	3 → 2	77 – 83 km/h (48 – 52 mph)
	2 → 1	40 – 46 km/h (25 – 29 mph)
	3 → O/D	30 – 35 km/h (19 – 22 mph)
	O/D → 3	17 – 22 km/h (11 – 14 mph)
2 range (Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 1	40 – 46 km/h (25 – 29 mph)
L range (Throttle valve fully opened)	2 → 1	48 – 54 km/h (30 – 34 mph)
Shift point (PWR mode)		
D range (Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 3	89 – 96 km/h (55 – 60 mph)
	3 → O/D	122 – 133 km/h (76 – 83 mph)
	O/D → 3	115 – 125 km/h (71 – 78 mph)
	3 → 2	82 – 89 km/h (51 – 55 mph)
	2 → 1	40 – 46 km/h (25 – 29 mph)
	3 → O/D	30 – 35 km/h (19 – 22 mph)
	O/D → 3	17 – 22 km/h (11 – 14 mph)
2 range (Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 1	40 – 46 km/h (25 – 29 mph)
L range (Throttle valve fully opened)	2 → 1	48 – 54 km/h (30 – 34 mph)

SERVICE SPECIFICATIONS – AUTOMATIC TRANSAXLE (A241E)

Lock-up point (NORM mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	83 – 90 km/h (52 – 56 mph) 75 – 81 km/h (47 – 50 mph)
O/D gear	Lock-up ON Lock-up OFF	63 – 69 km/h (39 – 43 mph) 60 – 65 km/h (37 – 40 mph)
Lock-up point (PWR mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	83 – 90 km/h (52 – 56 mph) 75 – 81 km/h (47 – 50 mph)
O/D gear	Lock-up ON Lock-up OFF	71 – 77 km/h (44 – 48 mph) 60 – 65 km/h (37 – 40 mph)
Tire size: 195/60R15 (LHD)		
Shift point (NORM mode) D range (Throttle valve fully opened)	1 → 2 2 → 3 3 → O/D O/D → 3 3 → 2 2 → 1	44 – 51 km/h (27 – 32 mph) 85 – 92 km/h (53 – 57 mph) 118 – 129 km/h (73 – 80 mph) 97 – 104 km/h (60 – 65 mph) 61 – 67 km/h (38 – 42 mph) 28 – 33 km/h (17 – 21 mph)
(Throttle valve fully closed)	3 → O/D O/D → 3	31 – 36 km/h (19 – 22 mph) 18 – 23 km/h (11 – 14 mph)
2 range (Throttle valve fully opened)	1 → 2 2 → 1	50 – 57 km/h (31 – 35 mph) 32 – 38 km/h (20 – 24 mph)
L range (Throttle valve fully opened)	2 → 1	50 – 56 km/h (31 – 35 mph)
Shift point (PWR mode) D range (Throttle valve fully opened)	1 → 2 2 → 3 3 → O/D O/D → 3 3 → 2 2 → 1	50 – 57 km/h (31 – 35 mph) 92 – 100 km/h (57 – 62 mph) 126 – 138 km/h (78 – 86 mph) 104 – 115 km/h (65 – 71 mph) 71 – 78 km/h (44 – 48 mph) 32 – 38 km/h (20 – 24 mph)
(Throttle valve fully closed)	3 → O/D O/D → 3	31 – 36 km/h (19 – 22 mph) 18 – 23 km/h (11 – 14 mph)
2 range (Throttle valve fully opened)	1 → 2 2 → 1	50 – 57 km/h (31 – 35 mph) 32 – 38 km/h (20 – 24 mph)
L range (Throttle valve fully opened)	2 → 1	50 – 56 km/h (31 – 35 mph)
Shift point (SNOW mode) D range (Throttle valve fully opened)	2 → 3 3 → O/D O/D → 3 3 → 2	85 – 92 km/h (53 – 57 mph) 118 – 129 km/h (73 – 80 mph) 97 – 104 km/h (60 – 65 mph) 61 – 67 km/h (38 – 42 mph)
(Throttle valve fully closed)	3 → O/D O/D → 3	31 – 36 km/h (19 – 22 mph) 18 – 23 km/h (11 – 14 mph)
Lock-up point (NORM mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	86 – 93 km/h (53 – 58 mph) 77 – 84 km/h (48 – 52 mph)
O/D gear	Lock-up ON Lock-up OFF	65 – 72 km/h (40 – 45 mph) 62 – 68 km/h (39 – 42 mph)

Lock-up point (PWR mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	94 – 102 km/h (58 – 63 mph) 77 – 84 km/h (48 – 52 mph)
O/D gear	Lock-up ON Lock-up OFF	74 – 80 km/h (46 – 50 mph) 62 – 68 km/h (39 – 42 mph)
Lock-up point (SNOW mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	86 – 93 km/h (53 – 58 mph) 77 – 84 km/h (48 – 52 mph)
O/D gear	Lock-up ON Lock-up OFF	65 – 72 km/h (40 – 45 mph) 62 – 68 km/h (39 – 42 mph)
Tire size: 195/60R15 (RHD)		
Shift point (NORM mode) D range (Throttle valve fully opened)	1 → 2 2 → 3 3 → O/D O/D → 3	47 – 54 km/h (29 – 34 mph) 87 – 94 km/h (54 – 58 mph) 126 – 138 km/h (78 – 86 mph) 119 – 130 km/h (74 – 81 mph)
(Throttle valve fully closed)	3 → 2 2 → 1 3 → O/D O/D → 3	80 – 87 km/h (50 – 54 mph) 42 – 48 km/h (26 – 30 mph) 31 – 36 km/h (19 – 22 mph) 18 – 23 km/h (11 – 14 mph)
2 range (Throttle valve fully opened)	1 → 2 2 → 1	50 – 57 km/h (31 – 35 mph) 42 – 48 km/h (26 – 30 mph)
L range (Throttle valve fully opened)	2 → 1	50 – 56 km/h (31 – 35 mph)
Shift point (PWR mode) D range (Throttle valve fully opened)	1 → 2 2 → 3 3 → O/D O/D → 3	50 – 57 km/h (31 – 35 mph) 92 – 100 km/h (57 – 62 mph) 126 – 138 km/h (78 – 86 mph) 119 – 130 km/h (74 – 81 mph)
(Throttle valve fully closed)	3 → 2 2 → 1 3 → O/D O/D → 3	85 – 92 km/h (53 – 57 mph) 42 – 48 km/h (26 – 30 mph) 31 – 36 km/h (19 – 22 mph) 18 – 23 km/h (11 – 14 mph)
2 range (Throttle valve fully opened)	1 → 2 2 → 1	50 – 57 km/h (31 – 35 mph) 42 – 48 km/h (26 – 30 mph)
L range (Throttle valve fully opened)	2 → 1	50 – 56 km/h (31 – 35 mph)
Shift point (SNOW mode) D range (Throttle valve fully opened)	2 → 3 3 → O/D O/D → 3	87 – 94 km/h (54 – 58 mph) 126 – 138 km/h (78 – 86 mph) 119 – 130 km/h (74 – 81 mph)
(Throttle valve fully closed)	3 → 2 3 → O/D O/D → 3	80 – 87 km/h (50 – 54 mph) 31 – 36 km/h (19 – 22 mph) 18 – 23 km/h (11 – 14 mph)
Lock-up point (NORM mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	86 – 93 km/h (53 – 58 mph) 77 – 84 km/h (48 – 52 mph)
O/D gear	Lock-up ON Lock-up OFF	65 – 72 km/h (40 – 45 mph) 62 – 68 km/h (39 – 42 mph)

SERVICE SPECIFICATIONS – AUTOMATIC TRANSAXLE (A241E)

Lock-up point (PWR mode)	(Throttle valve opening 5 %)	
3rd gear (O/D main switch OFF)	Lock-up ON	86 – 93 km/h (53 – 58 mph)
	Lock-up OFF	77 – 84 km/h (48 – 52 mph)
O/D gear	Lock-up ON	74 – 80 km/h (46 – 50 mph)
	Lock-up OFF	62 – 68 km/h (39 – 42 mph)
Lock-up point (SNOW mode)	(Throttle valve opening 5 %)	
3rd gear (O/D main switch OFF)	Lock-up ON	86 – 93 km/h (53 – 58 mph)
	Lock-up OFF	77 – 84 km/h (48 – 52 mph)
O/D gear	Lock-up ON	65 – 72 km/h (40 – 45 mph)
	Lock-up OFF	62 – 68 km/h (39 – 42 mph)

TORQUE SPECIFICATION

Parttightened		N·m	kgf·cm	ft·lbf
Vehicle speed sensor installation bolt		16	160	12
Neutral start switch installation bolt		5.4	55	48 in.·lbf
Neutral start switch lock nut		6.9	70	61 in.·lbf
Control shaft x Control shaft lever		12	120	9
Shift control cable x Control shaft lever		12	120	9
Solenoid valve	A	6.4	65	56 in.·lbf
	B	10	100	7
Valve body x Transaxle case		10	100	7
Manual detent spring x Valve body		10	100	7
Wire clamp x Valve body		10	100	7
Oil pipe bracket x Valve body		10	100	7
Oil pipe clamp x Valve body		10	100	7
Oil strainer x Valve body		10	100	7
Oil pan		4.9	50	43 in.·lbf
Drain plug		17	175	13
Throttle cable x Transaxle case		10	100	7
Shift lever assembly x body		12	120	9
Starter mounting bolt		39	400	29
Ground cable installation bolt		18	185	13
Transaxle upper side mount		64	650	47
LH side engine mount x Body		52	530	38
LH side engine mount bracket x Engine mount		87	890	64
Exhaust front pipe x Exhaust manifold		62	630	46
Exhaust front pipe x Exhaust tailpipe		43	440	32
Front center member	A	73	740	54
	B	39	400	29
	C	72	740	53
Intake camber stay x Intake manifold		43	440	32
Intake camber stay x Rear end stiffener plate		43	440	32
Rear end stiffener plate bolt	A	21	210	15
	B	43	440	32
Engine rear mounting bolt		87	890	64
Engine rear mounting bracket x Transaxle		64	650	47
Torque converter mounting bolt		25	260	19
End plate x Transmission		25	250	18
Engine x Transmission		46	470	34
Drive plate x Crankshaft		64	650	47

AUTOMATIC TRANSAXLE (A245E, A246E)

SERVICE DATA

SS080-02

Line pressure (Wheel locked)	Engine idling	
	D range	373 – 441 kPa (3.8 – 4.5 kgf/cm ² , 54 – 64 psi)
	R range	598 – 715 kPa (6.1 – 7.3 kgf/cm ² , 87 – 103 psi)
	AT stall (Throttle valve fully opened)	
	D range	981 – 1,138 kPa (10.0 – 11.6 kgf/cm ² , 142 – 165 psi)
	R range	1,392 – 1,716 kPa (14.2 – 17.5 kgf/cm ² , 202 – 249 psi)
Engine stall revolution	D and R ranges	2,350 ± 150 rpm
Time lag	N → D range	Less than 1.2 seconds
	N → R range	Less than 1.5 seconds
Engine idle speed (A/C OFF)	N range	750 ± 50 rpm
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		More than 22.8 mm (0.898 in.)
Differential oil seal drive in depth	LH side	5.3 ± 0.5 mm (0.209 ± 0.020 in.)
	RH side	3.1 ± 0.5 mm (0.122 ± 0.020 in.)
A245E		
Shift point (NORM mode)		
D range		
(Throttle valve fully opened)	1 → 2	53 – 60 km/h (33 – 37 mph)
	2 → 3	98 – 108 km/h (61 – 67 mph)
	3 → O/D	184 – 198 km/h (114 – 123 mph)
	O/D → 3	179 – 193 km/h (111 – 120 mph)
	3 → 2	93 – 104 km/h (58 – 65 mph)
	2 → 1	41 – 48 km/h (25 – 30 mph)
(Throttle valve fully closed)	3 → O/D	32 – 38 km/h (20 – 24 mph)
	O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range		
(Throttle valve fully opened)	1 → 2	55 – 60 km/h (34 – 37 mph)
	2 → 1	41 – 48 km/h (25 – 30 mph)
L range		
(Throttle valve fully opened)	2 → 1	48 – 54 km/h (30 – 34 mph)
Shift point (PWR mode)		
D range		
(Throttle valve fully opened)	1 → 2	55 – 60 km/h (34 – 37 mph)
	2 → 3	98 – 108 km/h (61 – 67 mph)
	3 → O/D	184 – 198 km/h (114 – 123 mph)
	O/D → 3	179 – 193 km/h (111 – 120 mph)
	3 → 2	93 – 104 km/h (58 – 65 mph)
	2 → 1	41 – 48 km/h (25 – 30 mph)
(Throttle valve fully closed)	3 → O/D	32 – 38 km/h (20 – 24 mph)
	O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range		
(Throttle valve fully opened)	1 → 2	55 – 60 km/h (34 – 37 mph)
	2 → 1	41 – 48 km/h (25 – 30 mph)
L range		
(Throttle valve fully opened)	2 → 1	48 – 54 km/h (30 – 34 mph)

Lock-up point (NORM mode) 3rd gear (O/D main switch OFF)		(Throttle valve opening 3%) Lock-up ON	53 – 60 km/h (33 – 37 mph)
		Lock-up OFF	51 – 57 km/h (32 – 35 mph)
O/D gear		Lock-up ON	53 – 60 km/h (33 – 37 mph)
		Lock-up OFF	51 – 57 km/h (32 – 35 mph)
Lock-up point (PWR mode) 3rd gear (O/D main switch OFF)		(Throttle valve opening 3%) Lock-up ON	56 – 63 km/h (35 – 39 mph)
		Lock-up OFF	53 – 60 km/h (33 – 37 mph)
O/D gear		Lock-up ON	62 – 70 km/h (39 – 43 mph)
		Lock-up OFF	60 – 67 km/h (37 – 42 mph)
A246E Tire size 185/65R14 (LHD)			
Shift point (NORM mode) D range (Throttle valve fully opened)		1 → 2	48 – 55 km/h (30 – 34 mph)
		2 → 3	91 – 99 km/h (57 – 62 mph)
		3 → O/D	141 – 153 km/h (88 – 95 mph)
		O/D → 3	130 – 141 km/h (81 – 88 mph)
		3 → 2	81 – 88 km/h (50 – 55 mph)
		2 → 1	39 – 44 km/h (24 – 27 mph)
(Throttle valve fully closed)		3 → O/D	30 – 36 km/h (19 – 22 mph)
		O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range (Throttle valve fully opened)		1 → 2	48 – 55 km/h (30 – 34 mph)
		2 → 1	39 – 44 km/h (24 – 27 mph)
L range (Throttle valve fully opened)		2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (PWR mode) D range (Throttle valve fully opened)		1 → 2	48 – 55 km/h (30 – 34 mph)
		2 → 3	91 – 99 km/h (57 – 62 mph)
		3 → O/D	141 – 153 km/h (88 – 95 mph)
		O/D → 3	128 – 139 km/h (80 – 86 mph)
		3 → 2	81 – 88 km/h (50 – 55 mph)
		2 → 1	39 – 44 km/h (24 – 27 mph)
(Throttle valve fully closed)		3 → O/D	30 – 36 km/h (19 – 22 mph)
		O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range (Throttle valve fully opened)		1 → 2	48 – 55 km/h (30 – 34 mph)
		2 → 1	39 – 44 km/h (24 – 27 mph)
L range (Throttle valve fully opened)		2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (SNOW mode) D range (Throttle valve fully opened)		2 → 3	91 – 99 km/h (57 – 62 mph)
		3 → O/D	141 – 153 km/h (88 – 95 mph)
		O/D → 3	130 – 141 km/h (81 – 88 mph)
		3 → 2	81 – 88 km/h (50 – 55 mph)
(Throttle valve fully closed)		3 → O/D	30 – 36 km/h (19 – 22 mph)
		O/D → 3	14 – 19 km/h (9 – 12 mph)
Lock-up point (NORM mode) 3rd gear (O/D main switch OFF)		(Throttle valve opening 5%) Lock-up ON	50 – 57 km/h (31 – 35 mph)
		Lock-up OFF	48 – 54 km/h (30 – 34 mph)
O/D gear		Lock-up ON	50 – 56 km/h (31 – 35 mph)
		Lock-up OFF	48 – 54 km/h (30 – 34 mph)

SERVICE SPECIFICATIONS – AUTOMATIC TRANSAXLE (A245E, A246E)

Lock-up point (PWR mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	53 – 60 km/h (33 – 37 mph) 50 – 56 km/h (31 – 35 mph)
O/D gear	Lock-up ON Lock-up OFF	59 – 65 km/h (37 – 40 mph) 56 – 62 km/h (35 – 39 mph)
Tire size 185/65R14 (RHD)		
Shift point (NORM mode) D range (Throttle valve fully opened)	1 → 2 2 → 3 3 → O/D O/D → 3	48 – 55 km/h (30 – 34 mph) 91 – 99 km/h (57 – 62 mph) 146 – 158 km/h (91 – 98 mph) 141 – 153 km/h (88 – 95 mph)
(Throttle valve fully closed)	3 → 2 2 → 1 3 → O/D O/D → 3	81 – 88 km/h (50 – 55 mph) 39 – 44 km/h (24 – 27 mph) 30 – 36 km/h (19 – 22 mph) 14 – 19 km/h (9 – 12 mph)
2 range (Throttle valve fully opened)	1 → 2 2 → 1	48 – 55 km/h (30 – 34 mph) 39 – 44 km/h (24 – 27 mph)
L range (Throttle valve fully opened)	2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (PWR mode) D range (Throttle valve fully opened)	1 → 2 2 → 3 3 → O/D O/D → 3	48 – 55 km/h (30 – 34 mph) 91 – 99 km/h (57 – 62 mph) 146 – 158 km/h (91 – 98 mph) 141 – 153 km/h (88 – 95 mph)
(Throttle valve fully closed)	3 → 2 2 → 1 3 → O/D O/D → 3	81 – 88 km/h (50 – 55 mph) 39 – 44 km/h (24 – 27 mph) 30 – 36 km/h (19 – 22 mph) 14 – 19 km/h (9 – 12 mph)
2 range (Throttle valve fully opened)	1 → 2 2 → 1	48 – 55 km/h (30 – 34 mph) 39 – 44 km/h (24 – 27 mph)
L range (Throttle valve fully opened)	2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (SNOW mode) D range (Throttle valve fully opened)	2 → 3 3 → O/D O/D → 3 3 → 2	91 – 99 km/h (57 – 62 mph) 146 – 158 km/h (91 – 98 mph) 141 – 153 km/h (88 – 95 mph) 81 – 88 km/h (50 – 55 mph)
Lock-up point (NORM mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	50 – 57 km/h (31 – 35 mph) 48 – 54 km/h (30 – 34 mph)
O/D gear	Lock-up ON Lock-up OFF	50 – 56 km/h (31 – 35 mph) 48 – 54 km/h (30 – 34 mph)
Lock-up point (PWR mode) 3rd gear (O/D main switch OFF)	(Throttle valve opening 5 %) Lock-up ON Lock-up OFF	53 – 60 km/h (33 – 37 mph) 50 – 56 km/h (31 – 35 mph)
O/D gear	Lock-up ON Lock-up OFF	59 – 65 km/h (37 – 40 mph) 56 – 62 km/h (35 – 39 mph)

Tire size 195/60R15 (LHD)		
Shift point (NORM mode)		
D range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 3	91 – 99 km/h (57 – 62 mph)
	3 → O/D	141 – 154 km/h (88 – 96 mph)
	O/D → 3	130 – 142 km/h (81 – 88 mph)
	3 → 2	81 – 88 km/h (50 – 55 mph)
	2 → 1	39 – 45 km/h (24 – 28 mph)
(Throttle valve fully closed)	3 → O/D	30 – 36 km/h (19 – 22 mph)
	O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 1	39 – 45 km/h (24 – 28 mph)
L range		
(Throttle valve fully opened)	2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (PWR mode)		
D range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 3	91 – 99 km/h (57 – 62 mph)
	3 → O/D	141 – 154 km/h (88 – 96 mph)
	O/D → 3	128 – 140 km/h (80 – 87 mph)
	3 → 2	81 – 88 km/h (50 – 55 mph)
	2 → 1	39 – 45 km/h (24 – 27 mph)
(Throttle valve fully closed)	3 → O/D	30 – 36 km/h (19 – 22 mph)
	O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 1	39 – 45 km/h (24 – 28 mph)
L range		
(Throttle valve fully opened)	2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (SNOW mode)		
D range		
(Throttle valve fully opened)	2 → 3	91 – 99 km/h (57 – 62 mph)
	3 → O/D	141 – 154 km/h (88 – 96 mph)
	O/D → 3	129 – 142 km/h (80 – 88 mph)
	3 → 2	81 – 88 km/h (50 – 55 mph)
Lock-up point (NORM mode) (Throttle valve opening 5 %)		
3rd gear (O/D main switch OFF)	Lock-up ON	50 – 57 km/h (31 – 35 mph)
	Lock-up OFF	48 – 54 km/h (30 – 34 mph)
O/D gear	Lock-up ON	50 – 57 km/h (31 – 35 mph)
	Lock-up OFF	48 – 54 km/h (30 – 34 mph)
Lock-up point (PWR mode) (Throttle valve opening 5 %)		
3rd gear (O/D main switch OFF)	Lock-up ON	53 – 60 km/h (33 – 37 mph)
	Lock-up OFF	50 – 57 km/h (31 – 35 mph)
O/D gear	Lock-up ON	59 – 66 km/h (37 – 41 mph)
	Lock-up OFF	56 – 63 km/h (35 – 39 mph)

SERVICE SPECIFICATIONS – AUTOMATIC TRANSAXLE (A245E, A246E)

Tire size 195/60R15 (RHD)		
Shift point (NORM mode)		
D range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 3	91 – 99 km/h (57 – 62 mph)
	3 → O/D	146 – 159 km/h (91 – 99 mph)
	O/D → 3	141 – 154 km/h (88 – 96 mph)
	3 → 2	81 – 88 km/h (50 – 55 mph)
	2 → 1	39 – 45 km/h (24 – 28 mph)
(Throttle valve fully closed)	3 → O/D	30 – 36 km/h (19 – 22 mph)
	O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 1	39 – 45 km/h (24 – 28 mph)
L range		
(Throttle valve fully opened)	2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (PWR mode)		
D range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 3	91 – 99 km/h (57 – 62 mph)
	3 → O/D	146 – 159 km/h (91 – 99 mph)
	O/D → 3	141 – 154 km/h (88 – 96 mph)
	3 → 2	81 – 88 km/h (50 – 55 mph)
	2 → 1	39 – 45 km/h (24 – 28 mph)
(Throttle valve fully closed)	3 → O/D	30 – 36 km/h (19 – 22 mph)
	O/D → 3	14 – 19 km/h (9 – 12 mph)
2 range		
(Throttle valve fully opened)	1 → 2	48 – 55 km/h (30 – 34 mph)
	2 → 1	39 – 45 km/h (24 – 28 mph)
L range		
(Throttle valve fully opened)	2 → 1	43 – 49 km/h (27 – 30 mph)
Shift point (SNOW mode)		
D range		
(Throttle valve fully opened)	2 → 3	91 – 99 km/h (57 – 62 mph)
	3 → O/D	146 – 159 km/h (91 – 99 mph)
	O/D → 3	141 – 154 km/h (88 – 96 mph)
	3 → 2	81 – 88 km/h (50 – 55 mph)
Lock-up point (NORM mode) (Throttle valve opening 5 %)		
3rd gear (O/D main switch OFF)	Lock-up ON	50 – 57 km/h (31 – 35 mph)
	Lock-up OFF	48 – 54 km/h (30 – 34 mph)
O/D gear	Lock-up ON	50 – 57 km/h (31 – 35 mph)
	Lock-up OFF	48 – 54 km/h (30 – 34 mph)
Lock-up point (PWR mode) (Throttle valve opening 5 %)		
3rd gear (O/D main switch OFF)	Lock-up ON	53 – 60 km/h (33 – 37 mph)
	Lock-up OFF	50 – 57 km/h (31 – 35 mph)
O/D gear	Lock-up ON	59 – 66 km/h (37 – 41 mph)
	Lock-up OFF	56 – 63 km/h (35 – 39 mph)

TORQUE SPECIFICATION

Parttightened		N·m	kgf·cm	ft·lbf
Vehicle speed sensor installation		16	160	12
Neutral start switch x Transmission case		5.4	55	48 in.·lbf
Neutral start switch lock nut		6.9	70	61 in.·lbf
Control shaft lever x Control shaft		12	120	9
Shife control cable x Control shaft lever		13	130	9
Valve body x Transmission case		10	100	7
Wire retainer x Valve body		6.4	65	56 in.·lbf
Manual detent spring x Valve body		10	100	7
Oil strainer x Valve body		10	100	7
Oil pan		5.3	55	48 in.·lbf
Drain plug		17	175	13
Throttle cable installation bolt		10	100	7
Shift lever assembly x Body		12	120	9
Gronud cable installation bolt		18	185	13
Wire harness clamp installation bolt		13	130	9
Transaxle mounting bolt	17 mm bolt	64	650	47
	14 mm bolt	46	470	34
Srarter mounting bolt	Upper side	46	470	34
	Lower side	39	400	29
LH side engine mounting bolt		52	530	38
Exhaust front pipe x Exhaust manifold		62	630	46
Exhaust front pipe x Exhaust tailpipe		43	440	32
Front center member x Body		73	740	54
Front center member x Suspension member		73	740	54
Front center member protector x Front center member		39	400	29
Front cente member x Engine front mount		72	740	53
Rear end stiffener plate		43	440	32
Engine rear mounting bolt		87	890	64
Engine rear mounting bracket x Transaxle		64	650	47
Torque converter mounting bolt		25	260	19
Drive plate x Crankshaft		64	650	47

SUSPENSION AND AXLE

SERVICE DATA

SS01Y-01

Cold tire inflation pressure (Standard inflation for all loads including full rated loads)	185/65R14 86H	Front*1	220 kPa (2.2 kgf/cm ² , 32 psi)
		Rear*1	220 kPa (2.2 kgf/cm ² , 32 psi)
		Front*2	260 kPa (2.6 kgf/cm ² , 38 psi)
		Rear*2	270 kPa (2.7 kgf/cm ² , 39 psi)
	195/60R15 88H	Front*1	220 kPa (2.2 kgf/cm ² , 32 psi)
		Rear*1	220 kPa (2.2 kgf/cm ² , 32 psi)
		Front*2	240 kPa (2.4 kgf/cm ² , 35 psi)
		Rear*2	260 kPa (2.6 kgf/cm ² , 38 psi)
Cold tire inflation pressure (Optional inflation for reduced loads (1 to 4 passengers))	185/65R14 86H	Front*1	220 kPa (2.2 kgf/cm ² , 32 psi)
		Rear*1	220 kPa (2.2 kgf/cm ² , 32 psi)
		Front*2	250 kPa (2.5 kgf/cm ² , 36 psi)
		Rear*2	260 kPa (2.6 kgf/cm ² , 38 psi)
Front wheel alignment (Rough road package)	Vehicle height SEDAN and LIFTBACK	185/65R14 86H Front*3	206 mm (8.11 in.)
		185/65R14 86H Rear*4	269 mm (10.59 in.)
		195/60R15 88H Front*3	216 mm (8.50 in.)
		195/60R15 88H Rear*4	279 mm (10.98 in.)
	WAGON	185/65R14 86H Front*3	205 mm (8.07 in.)
		185/65R14 86H Rear*4	263 mm (10.35 in.)
		195/60R15 88H Front*3	215 mm (8.46 in.)
		195/60R15 88H Rear*4	273 mm (10.75 in.)
	Camber	Left – right error	–0° 50' ± 45' (–0.83° ± 0.75°) 45' (0.75°) or less
	Caster	Left – right error	1° 15' ± 45' (1.25° ± 0.75°) 45' (0.75°) or less
	Steering axis inclination		14° 14' ± 45' (14.23° ± 0.75°)
	Toe-in (Total)		0° 06' ± 12' (0.1° ± 0.2°, 1 ± 2 mm, 0.04 ± 0.08 in.)
		Rack end length difference	1.5 mm (0.059 in.) or less
	Wheel angle		
		Inside wheel	36° 48' ± 2° (36.80° ± 2°)
		Outside wheel <Reference>	31° 19' (31.32°)

*1: For driving under 160 km/h (100 mph)

*2: For driving at 160 km/h (100 mph) or over

*3: Front measuring point

Measure the distance from the ground to the center of the front side lower suspension arm mounting bolt.

*4: Rear measuring point

Measure the distance from the ground to the center of the strut rod mounting bolt.

Front wheel alignment (Others)	Vehicle height			
	SEDAN and LIFTBACK	185/65R14 86H	Front* ¹	191 mm (7.52 in.)
			Rear* ²	259 mm (10.20 in.)
		195/60R15 88H	Front* ¹	201 mm (7.91 in.)
			Rear* ²	269 mm (10.59 in.)
	WAGON	185/65R14 86H	Front* ¹	190 mm (7.48 in.)
			Rear* ²	261 mm (10.28 in.)
		195/60R15 88H	Front* ¹	200 mm (7.87 in.)
			Rear* ²	271 mm (10.67 in.)
Camber	Left – right error		$-0^{\circ}21' \pm 45'$ ($-0.35^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less	
	Caster		1°20' $\pm$ 45' ($1.33^{\circ} \pm 0.75^{\circ}$) 1°21' $\pm$ 45' ($1.35^{\circ} \pm 0.75^{\circ}$)	
	Left – right error		45' (0.75°) or less	
	Steering axis inclination		13°22' $\pm$ 45' ($13.37^{\circ} \pm 0.75^{\circ}$)	
	Toe-in (Total)		0°06' $\pm$ 12' ($0.1^{\circ} \pm 0.2^{\circ}$, 1 $\pm$ 2 mm, 0.04 $\pm$ 0.08 in.)	
	Rack end length difference		1.5 mm (0.059 in.) or less	
Wheel angle	Inside wheel		37°52' $\pm$ 2° (37.87° $\pm$ 2°)	
	Outside wheel <Reference>		32°05' (32.08°)	

*1: Front measuring point

Measure the distance from the ground to the center of the front side lower suspension arm mounting bolt.

*2: Rear measuring point

Measure the distance from the ground to the center of the strut rod mounting bolt.

Rear wheel alignment	Camber (Rough road package)			
	SEDAN and LIFTBACK			$-0^{\circ}18' \pm 30'$ ($-0.30^{\circ} \pm 0.5^{\circ}$)
	WAGON			$-0^{\circ}25' \pm 30'$ ($-0.42^{\circ} \pm 0.5^{\circ}$)
	Left – right error		45' (0.75°) or less	
	Camber (Others)		$-0^{\circ}31' \pm 30'$ ($-0.52^{\circ} \pm 0.5^{\circ}$) $-0^{\circ}25' \pm 30'$ ($-0.42^{\circ} \pm 0.5^{\circ}$)	
Toe-in (Total)	Left – right error		45' (0.75°) or less	
	No.2 lower suspension arm length difference		0°12' $\pm$ 12' ($0.2^{\circ} \pm 0.2^{\circ}$, 2 $\pm$ 2 mm, 0.08 $\pm$ 0.08 in.) 1.0 mm (0.039 in.) or less	

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Front axle	Axle bearing backlash	Maximum	0 mm (0 in.)
	Axle hub deviation	Maximum	0.05 mm (0.0020 in.)
Front drive shaft	Drive shaft standard length 4A-FE, 7A-FE engine	RH	859.30 ± 2.0 mm (33.83 ± 0.079 in.)
		LH	544.70 ± 2.0 mm (21.44 ± 0.079 in.)
	3S-FE engine	RH	840.70 ± 2.0 mm (33.10 ± 0.079 in.)
		LH	554.00 ± 2.0 mm (21.81 ± 0.079 in.)
	2C-TE, 2C-T engine	RH	844.25 ± 2.0 mm (33.24 ± 0.079 in.)
		LH	557.95 ± 2.0 mm (21.97 ± 0.079 in.)
Front suspension	Lower ball joint turning torque		1.0 – 3.4 N·m (10 – 35 kgf·cm, 8.7 – 30 in.-lbf)
	Stabilizer bar link ball joint turning torque		0.05 – 1.0 N·m (0.5 – 10 kgf·cm, 0.4 – 8.7 in.-lbf)
Rear axle	Axle bearing backlash	Maximum	0 mm (0 in.)
	Axle hub deviation	Maximum	0.07 mm (0.0028 in.)
Rear suspension	No.2 lower suspension arm length		420 ± 1.5 mm (16.535 ± 0.059 in.)
	Stabilizer bar link ball joint turning torque		0.05 – 1.0 N·m (0.5 – 10 kgf·cm, 0.4 – 8.7 in.-lbf)

TORQUE SPECIFICATION

Parttightened	N·m	kgf·cm	ft·lbf	
FRONT:				
Hub nut	103	1,050	76	
Tie rod end lock nut	74	750	54	
Steering knuckle x Shock absorber	255	2,600	188	
Steering knuckle x Brake caliper	94	960	69	
Steering knuckle x Tie rod end	49	500	36	
Axle hub x Drive shaft	216	2,200	159	
Lower ball joint x Lower suspension arm	127	1,300	94	
Lower ball joint x Steering knuckle	103	1,050	76	
Steering knuckle x Disc brake dust cover	8.4	86	74 in·lbf	
Drive shaft center bearing bracket set bolt	64	650	47	
Suspension support x Body	80	820	59	
Suspension support x Piston rod	47	475	34	
ABS speed sensor set bolt	8.0	82	71 in·lbf	
ABS speed sensor wire harness clamp x Shock absorber	5.5	55	48 in·lbf	
Flexible hose x Shock absorber bracket	29	300	22	
Lower suspension arm front side set bolt	127	1,300	94	
Lower suspension arm rear side set bolt	145	1,479	107	
Assist link x Lower suspension arm	84	860	62	
Center member protector x Center member	39	400	29	
Center member x Body	73	740	54	
Engine front mounting x Center member	72	740	53	
Center member x Front suspension member	73	740	54	
Engine rear mounting x Front suspension member	72	740	53	
Front suspension member front side set bolt	206	2,100	152	
Sub-frame brace x Front suspension member	206	2,100	152	
Sub-frame brace x Body	146	1,490	108	
Exhaust front pipe x Exhaust manifold	62	630	46	
Exhaust front pipe support bracket x Front suspension member	12	125	9	
Exhaust front pipe x Exhaust center pipe	Gasoline engine	43	440	32
	Diesel engine	44	440	32
Stabilizer bar bracket x Suspension member	19	195	14	
Stabilizer bar link set bolt	44	450	33	
REAR:				
Hub nut	103	1,050	76	
ABS speed sensor set bolt	8.0	82	71 in·lbf	
Axle hub set bolt	80	820	59	
Flexible hose x Shock absorber bracket	19	192	14	
Strut rod x Rear axle carrier	113	1,150	83	
Shock absorber x Rear axle carrier	255	2,600	188	
Rear side seatback set bolt	37	378	27	
Seat belt set bolt	65	665	48	
Suspension support x Piston rod	49	500	36	

SERVICE SPECIFICATIONS – SUSPENSION AND AXLE

Suspension support x Body	39	400	29
ABS speed sensor wire harness x Shock absorber	5.5	55	48 in.·lbf
Strut rod x Body	113	1,150	83
Parking brake cable bracket set bolt	5.5	55	48 in.·lbf
No.1, No.2 Lower suspension arm x Rear Suspension member	118	1,200	87
No.1, No.2 Lower suspension arm x Rear axle carrier	118	1,200	87
No.2 lower suspension arm adjusting tube lock nut	56	570	41
Rear suspension brace x Body	5.0	51	44 in.·lbf
Rear suspension brace x Rear suspension member	64	660	48
Rear suspension frame x Rear suspension member	65	660	48
Rear suspension frame x Body	56	570	41
Stabilizer bar bracket x Body	19	195	14
Stabilizer bar link set bolt	44	450	33
Fuel tank band set bolt	35	360	26

BRAKE

SERVICE DATA

SS0FS-02

Brake pedal height (from asphalt sheet)	LHD	139.8 – 149.8 mm (5.504 – 5.598 in.)
	RHD	149.5 – 159.5 mm (85.886 – 6.280 in.)
Brake pedal freeplay		1 – 6 mm (0.04 – 0.24 in.)
Brake pedal reserve distance at 490 N (50 kgf, 110.2 lbf)	LHD Gasoline engine (w/o ABS)	More than 75 mm (2.95 in.)
	LHD Others	More than 70 mm (2.76 in.)
	RHD Gasoline engine (w/o ABS)	More than 85 mm (3.35 in.)
	RHD Others	More than 80 mm (3.15 in.)
Front brake pad thickness	STD	12.0 mm (0.472 in.)
	Minimum	1.0 mm (0.039 in.)
Front brake disc thickness	STD	25.0 mm (0.984 in.)
	Minimum	23.0 mm (0.906 in.)
Front brake disc runout	Maximum	0.05 mm (0.0020 in.)
Rear brake shoe thickness	STD	4.0 mm (0.157 in.)
	Minimum	1.0 mm (0.039 in.)
Rear brake drum inside diameter	STD	228.6 mm (9.000 in.)
	Maximum	229.6 mm (9.036 in.)
Rear brake drum to shoe clearance		0.6 mm (0.024 in.)
Parking brake pedal travel at 294 N (30 kgf, 66 lbf)		4 – 7 clicks

TORQUE SPECIFICATION

Parttightened	N·m	kgf·cm	ft·lbf
Master cylinder x Reservoir	2.3	23	20 in.·lbf
Master cylinder x Brake booster	25	255	18
Brake line union nut	15	155	11
Brake booster clevis lock nut (RHD)	25	260	19
Brake booster x Pedal bracket	13	130	9
Vacuum pump x Engine	19	195	14
Bleeder plug	8.3	85	74 in.·lbf
Front brake torque plate x Steering knuckle	94	960	69
Front brake caliper x Flexible hose	30	310	22
Rear brake wheel cylinder x Backing plate	12	125	9
ABS actuator bracket x Body	19	195	14
Actuator bracket No.1 x Actuator bracket No.2 (LHD)	13	130	9
ABS actuator x ABS actuator bracket	13	130	9
ABS actuator x ECU	3.0	31	27 in.·lbf
Front speed sensor installation bolt	8.0	82	71 in.·lbf
Rear speed sensor installation bolt	8.0	82	71 in.·lbf
ABS speed sensor harness clamp bolt	5.5	55	48 in.·lbf

STEERING

SERVICE DATA

SS01F-01

DRIVE BELT		
4A-FE, 7A-FE Engines:		
Drive belt deflection	New belt	5 – 6 mm (0.20 – 0.24 in.)
Drive belt deflection	Used belt	6 – 8 mm (0.24 – 0.31 in.)
*Drive belt tension	New belt	441 – 539 N (45 – 55 kgf)
*Drive belt tension	Used belt	245 – 392 N (25 – 40 kgf)
3S-FE Engine:		
Drive belt deflection	New belt	8 – 10 mm (0.31 – 0.39 in.)
Drive belt deflection	Used belt	10 – 13 mm (0.39 – 0.51 in.)
* Drive belt tension	New belt	441 – 539 N (45 – 55 kgf)
* Drive belt tension	Used belt	245 – 392 N (25 – 40 kgf)
2C, 2C-TE Engines:		
Drive belt deflection	New belt	11 – 14 mm (0.43 – 0.55 in.)
Drive belt deflection	Used belt	15 – 18 mm (0.59 – 0.71 in.)
* Drive belt tension	New belt	539 – 637 N (55 – 65 kgf)
* Drive belt tension	Used belt	245 – 392 N (25 – 40 kgf)
POWER STEERING FLUID		
Oil level rise	Maximum	5 mm (0.20 in.)
4A-FE, 7A-FE Engines:		
Oil pressure at idle speed with valve closed	Minimum	8,238 kPa (84 kgf/cm ² , 1,195 psi)
3S-FE Engine:		
Oil pressure at idle speed with valve closed	Minimum	9,022 kPa (92 kgf/cm ² , 1,309 psi)
2C, 2C-TE Engines:		
Oil pressure at idle speed with valve closed	Minimum	8,826 kPa (90 kgf/cm ² , 1,280 psi)
STEERING WHEEL		
Steering wheel free play	Maximum	30 mm (1.18 in.)
Steering effort at idle speed	Reference	7.8 N·m (80 kgf·cm, 69 in.-lbf)
PS VANE PUMP (2C, 2C-TE Engines)		
Pump rotating torque	Maximum	0.3 N·m (2.8 kgf·cm, 2.4 in.-lbf)
Pump shaft and front housing bushing oil clearance	STD	0.01 – 0.03 mm (0.0004 – 0.0012 in.)
	Maximum	0.07 mm (0.0028 in.)
Vane plate height	Minimum	8.1 mm (0.319 in.)
Vane plate thickness	Minimum	1.797 mm (0.0708 in.)
Vane plate length	Minimum	14.988 mm (0.5901 in.)
Vane plate and pump rotor groove clearance	Maximum	0.03 mm (0.0012 in.)
Vane plate length	Pump rotor and cam ring mark	
	None	14.996 – 14.998 mm (0.59039 – 0.59047 in.)
	1	14.994 – 14.996 mm (0.59032 – 0.59039 in.)
	2	14.992 – 14.994 mm (0.59024 – 0.59032 in.)
	3	14.990 – 14.992 mm (0.59016 – 0.59024 in.)
	4	14.988 – 14.990 mm (0.59008 – 0.59016 in.)
Flow control valve spring length	Minimum	36.0 mm (1.417 in.)

*: For use with belt tension gauge

TORQUE SPECIFICATION

Parttightened		N·m	kgf·cm	ft·lbf
TILT STEERING COLUMN				
Steering column assembly set bolt and nut		25.5	260	19
Control valve shaft x Yoke		35	360	26
Steering wheel set nut		34	350	25
Steering wheel pad set screw (Torx screw)		8.8	90	78 in.·lbf
PS VANE PUMP (4A-FE, 7A-FE)				
Union bolt x Pressure feed tube		52	525	38
PS vane pump assembly set bolt	Bolt A	39	400	29
	Bolt B	62	630	46
Pump bracket set bolt	12 mm bolt	19	195	14
	14 mm bolt	39	400	29
Oil pressure switch x PS vane pump assembly		25	250	18
PS VANE PUMP (3S-FE)				
Union bolt x Pressure feed tube		52	525	38
PS vane pump assembly set bolt	Bolt A	62	630	46
	Bolt B	43	440	32
Oil pressure switch x PS vane pump assembly		25	250	18
PS VANE PUMP (2C, 2C-TE)				
Idler pulley set nut		38	390	28
PS vane pump pulley set nut		43	440	32
Union bolt x Pressure feed tube		54	550	40
PS vane pump assembly set bolt		39	400	29
Pulley cover x PS vane pump assembly		39	400	29
Suction port union set bolt		13	130	9
Pressure port union x Front housing		69	700	51
POWER STEERING GEAR				
Exhaust front pipe x Exhaust manifold		44	440	32
Exhaust front pipe support bracket set bolt		12	125	9
Exhaust front pipe x Exhaust center pipe		62	630	46
Tube clamp set bolt		13	130	9
Pressure feed and return tube set union bolt	LHD	52	525	38
Pressure feed tube x Control valve housing	RHD	36 (44)	365 (450)	26 (33)
PS gear assembly set bolt		78	800	58
Return tube No. 1 sub-assembly x Control valve housing	RHD	36 (44)	365 (450)	26 (33)
Tie rod end lock nut		74	750	54

(): For use without SST

SUPPLEMENTAL RESTRAINT SYSTEM

TORQUE SPECIFICATION

SS061-10

Parttightened	N·m	kgf·cm	ft·lbf
Steering wheel	35	360	26
Steering wheel pad	8.8	90	78 in·lbf
Front passenger airbag assembly x Instrument panel reinforcement	21	210	15
Side airbag assembly x Seatback frame	5.4	55	48 in·lbf
Seatback frame set bolt	25	255	18
Front seat installation bolt	37	375	27
Front seat belt lap outer anchor set bolt	44	450	32
Airbag sensor assembly	21	210	15
Front airbag sensor	20	205	15
Side airbag sensor assembly	21	210	15
Front seat outer belt retractor	Upper bolt	5.0	51
	Lower bolt	44	450
			44 in·lbf 32

BODY ELECTRICAL

SERVICE DATA

SS0JK-01

INTEGRATION RELAY (Wire harness side)	
A1 – Ground (Constant)	Battery Voltage
A7 – Ground (Ignition switch LOCK or ACC)	No Voltage
A7 – Ground (Ignition switch ON)	Battery Voltage
A11 – Ground (Ignition switch LOCK)	No Voltage
A11 – Ground (Ignition switch ACC or ON)	Battery Voltage
DAYTIME RUNNING LIGHT MAIN RELAY (Wire harness side)	
1 – Ground (Ignition switch LOCK or ACC)	No Voltage
1 – Ground (Ignition switch ON or START)	Battery Voltage
3 – Ground (Constant)	Battery Voltage
5 – Ground (Constant)	Battery Voltage
8 – Ground (Engine stop)	No Voltage
8 – Ground (Engine running)	Battery Voltage
9 – Ground (Constant)	No Voltage
9 – Ground (Ground terminal 3)	Battery Voltage
11 – Ground (Constant)	No Voltage
11 – Ground (Ground terminal 3)	Battery Voltage
12 – Ground (Constant)	Battery Voltage
14 – Ground (Constant)	No Voltage
14 – Ground (Ground terminal 5)	Battery Voltage
HEADLIGHT BEAM LEVEL CONTROL SWITCH	
Switch position :	Resistance (k Ω):
0	1.4 – 1.6
1	1.6 – 1.8
2	1.8 – 2.0
3	2.0 – 2.3
4	2.4 – 2.7
5	2.8 – 3.2
HEADLIGHT BEAM LEVEL CONTROL ACTUATOR (Wire harness side)	
3 – Ground	Battery Voltage
SPEEDOMETER (ON-VEHICLE)	
EUROPE MODELS :	
Standard indication (mph)	Allowable range (mph)
20	20 – 24.5
40	40 – 46.5
60	60 – 68.5
80	80 – 90.5
100	100 – 112.5
Standard indication (km/h)	Allowable range (km/h)

20	20 – 26
40	40 – 48
60	60 – 70
80	80 – 92
100	100 – 114
120	120 – 136
140	140 – 158
160	160 – 180
GENERAL COUNTRIES :	
Standard indication (mph)	Allowable range (mph)
20	21 – 23.5
40	41.5 – 44
60	62.5 – 66
80	83 – 87
100	104 – 108.5
Standard indication (km/h)	Allowable range (km/h)
20	21 – 25
40	41.5 – 46
60	62.5 – 67
80	83 – 88
100	104 – 109
120	125 – 130.5
140	145.5 – 151.5
160	166 – 173
TACHOMETER (ON-VEHICLE) / DC13.5V 25°C at (77°F)	
Standard indication	Allowable range
700	630 – 770
1,000	900 – 1,100
2,000	1,850 – 2,150
3,000	2,800 – 3,200
4,000	3,800 – 4,200
5,000	4,800 – 5,200
6,000	5,750 – 6,250
7,000	6,700 – 7,300
FUEL SENDER GAUGE	
Float position mm (in.)	Resistance (Ω)
F : Approx. 19.76 (0.78) ±3 (0.12)	Approx. 4.0 ±1.0
E : Approx. 92.7 (3.65) ±3 (0.12)	Approx. 107.0 ±1.0
ENGINE COOLANT TEMPERATURE SENDER GAUGE	
Temperature °C (°F)	Resistance (Ω)
50 (122.0)	160 – 240
120 (248.0)	17.1 – 21.2

SERVICE SPECIFICATIONS – BODY ELECTRICAL

DEICER TIMER SWITCH (Wire harness side)	
1 – Ground (Ignition switch LOCK or ACC)	No Voltage
1 – Ground (Ignition switch LOCK)	Battery Voltage
6 – Ground (Ignition switch LOCK or ACC)	No Voltage
6 – Ground (Ignition switch ON)	Battery Voltage
DEFOGGER TIMER SWITCH (Wire harness side)	
4 – Ground (Ignition switch LOCK or ACC)	No Voltage
4 – Ground (Ignition switch ON)	Battery Voltage
5 – Ground (Ignition switch LOCK or ACC)	No Voltage
5 – Ground (Ignition switch ON)	Battery Voltage
SLIDING ROOF CONTROL ASSEMBLY (Wire harness side)	
2 – Ground (Ignition switch ON, slide roof control switch (SLIDE) OFF or CLOSE)	No Voltage
2 – Ground (Ignition switch ON, slide roof control switch (SLIDE) OPEN)	Battery Voltage
1 – Ground (Ignition switch ON, slide roof control switch (SLIDE) OFF or OPEN)	No Voltage
1 – Ground (Ignition switch ON, slide roof control switch (SLIDE) CLOSE)	Battery Voltage
1 – Ground (Ignition switch ON, slide roof control switch (TILT) OFF or DOWN)	No Voltage
1 – Ground (Ignition switch ON, slide roof control switch (TILT) UP)	No Voltage
2 – Ground (Ignition switch ON, slide roof control switch (TILT) OFF or UP)	No Voltage
2 – Ground (Ignition switch ON, slide roof control switch (TILT) DOWN)	Battery Voltage
5 – Ground (Ignition switch LOCK or ACC)	No Voltage
5 – Ground (Ignition switch ON)	Battery Voltage
4 – Ground (Constant)	Battery Voltage
TRANSPONDER KEY ECU	
1 – Ground (Constant)	Battery Voltage
2 – Ground (Ignition switch ON)	Battery Voltage

BODY

TORQUE SPECIFICATION

SS0K4-01

Parttightened		N·m	kgf·cm	ft·lbf
FRONT BUMPER		–	–	–
Reinforcement x Body	Bolt:	20	205	15
	Nut:	20	205	15
HOOD		–	–	–
Hood x Hood hinge		12	122	9
Hood lock x Body		11	112	8
FRONT DOOR		–	–	–
Door hinge x Body		26	265	19
Door hinge x Door panel		26	265	19
Outside handle x Door panel		5.5	56	49 in.·lbf
Window regulator x Door panel		7.5	76	65 in.·lbf
Door glass x Window regulator		5.0	51	44 in.·lbf
Outside rear view mirror x Door panel		8.0	82	71 in.·lbf
REAR DOOR		–	–	–
Door hinge x Body		26	265	19
Door hinge x Door panel		26	265	19
Door lock striker x Body		23	230	17
Window regulator x Door panel		7.5	76	66 in.·lbf
Door lock x Door panel		5.0	51	44 in.·lbf
Outside handle x Door panel		5.5	56	49 in.·lbf
BACK DOOR (Liftback)		–	–	–
Back door lock x Door panel		8.0	82	71 in.·lbf
Back door hinge x Body		11.5	117	8.5
Back door hinge x Door panel		20	204	15
Door lock striker x Body		11.5	117	8.5
Door lock cylinder x Door panel		5.5	56	49 in.·lbf
BACK DOOR (Wagon)		–	–	–
Door lock cylinder x Door panel		5.5	56	49 in.·lbf
Door lock x Door panel		8.0	82	71 in.·lbf
Back door hinge x Door panel		11.5	117	8.5
Back door hinge x Body		20	204	15
Door lock striker x Body		11.5	117	8.5
BACK DOOR STAY		–	–	–
Back door stay x Body	Liftback :	18	184	13
	Wagon :	18	184	13
Back door x Back door stay	Liftback :	18	184	13
	Wagon :	18	184	13
LUGGAGE COMPARTMENT DOOR AND HINGE		–	–	–
Door hinge x Door panel		7.0	71	62 in.·lbf
Door lock x Door panel		5.0	51	44 in.·lbf
Door lock striker x Body		23	230	17

SERVICE SPECIFICATIONS – BODY

FRONT WIPER AND WASHER	–	–	–
Wiper motor and link assembly x Body	5.4	55	48 in.·lbf
Wiper arm x Wiper link	20	205	15
REAR WIPER AND WASHER (Liftback)	–	–	–
Wiper motor x Door panel	5.4	55	48 in.·lbf
Wiper arm x Door panel	18	184	13
REAR WIPER AND WASHER (Wagon)	–	–	–
Wiper motor x Door panel	5.4	55	48 in.·lbf
Wiper arm x Door panel	18	184	13
INSTRUMENT PANEL	–	–	–
Steering wheel set nut	34	350	25
Passenger airbag assembly x Reinforcement	18	185	13
FRONT SEAT	–	–	–
Seat cushion assembly x Seat adjuster	18	185	13
Side airbag assembly x Seatback frame	5.4	55	48 in.·lbf
Seatback frame x Seat cushion frame	25	260	19
Front seat assembly x Body	37	375	27
REAR SEAT (Sedan)	–	–	–
Seatback frame x Seatback lock	17.5	178	13
Side hinge x Seatback assembly	21	214	15
Seatback assembly x Body	21	214	15
Side seatback x Body	21	214	15
REAR SEAT (Except Sedan)	–	–	–
Seat cushion hinge x Body	37	378	27
Seatback frame x Seat belt	65	663	481
Seatback lock x Seatback frame	18	184	13
Seatback assembly x Side hinge	21	214	15
Seatback assembly x Body	21	214	15
Seatback assembly x Side hinge	21	214	15
Side seatback x Body	21	214	15
Seat cushion assembly x Body	21	214	15
Seatback frame x Retainer	Nut	8.0	82
	Screw	8.0	82
SEAT BELT	–	–	–
Front Seat Belt :			
Shoulder anchor adjuster x Body	42	430	31
Shoulder anchor x Body	42	430	31
Retractor x Body	Upper Bolt :	5.0	51
	Lower bolt :	42	430
Outer belt x Seat	42	430	31
Inner belt x Seat	42	430	31
Rear Seat Belt :			
Outer belt x Body	65	665	48
Floor anchor x Body	65	665	48
Side seatback x Body	37	378	27
Inner belt x Body	65	665	48

FUEL TANK AND LINE	–	–	–
Fuel tank band x Body	35	360	26
Tail exhaust pipe x Front exhaust pipe	43	440	32
Tail exhaust pipe x Body	12	125	9.0

AIR CONDITIONING

SERVICE DATA

SS03B-03

Refrigerant volume		450 ± 50 g (15.87 ± 1.76 oz.)
Drive belt deflection (apply load of 9.8N)		—
4A-FE and 7A-FE	New belt	6.0 – 7.0 mm (0.24 – 0.28 in.)
	Used belt	8.5 – 9.5 mm (0.33 – 0.37 in.)
3S-FE	New belt	6.0 – 9.0 mm (0.24 – 0.35 in.)
	Used belt	9.0 – 11.0 mm (0.35 – 0.43 in.)
2C-T and 2C-TE	New belt	11.0 – 13.0 mm (0.43 – 0.51 in.)
	Used belt	15.0 – 18.0 mm (0.59 – 0.71 in.)
Drive belt tension		—
4A-FE and 7A-FE	New belt	520 – 755 N (53 – 77 kgf)
	Used belt	196 – 392 N (20 – 40 kgf)
3S-FE	New belt	618 – 853 N (63 – 87 kgf)
	Used belt	441 – 539 N (45 – 55 kgf)
2C-T and 2C-TE	New belt	520 – 755 N (53 – 77 kgf)
	Used belt	196 – 392 N (20 – 40 kgf)
Magnetic Clutch clearance		0.5 ± 0.15 mm (0.020 ± 0.0059 in.)

TORQUE SPECIFICATION

Parttightened	N·m	kgf·cm	ft·lbf
Compressor x Compressor bracket	25	250	18
Idle pulley lock nut (Except 3S-FE)	39	400	29
Compressor x Discharge hose	10	100	7
Compressor x Suction hose	10	100	7
Pressure plate x Compressor	13.2	135	9
Front housing x Cylinder block	25	250	18
Discharge cover x Cylinder block	25	250	18
Expansion valve x Liquid tube	14	140	10
Expansion valve x Evaporator	22	225	16
Condenser x Liquid tube	10	100	7
Condenser x Discharge hose	5.4	55	48 in.·lbf
Pressure switch x Liquid tube	10	100	7
Adjusting lock bolt (3S-FE)	18	185	13
Pivot bolt (3S-FE)	52	530	38