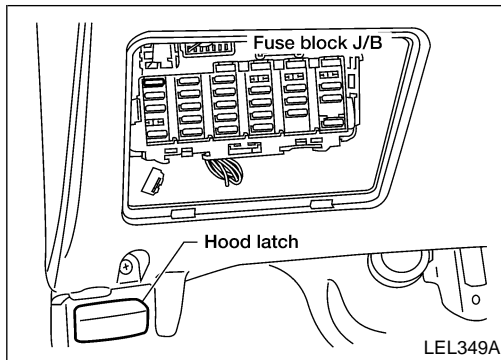


SUPER MULTIPLE JUNCTION (SMJ)

Installation



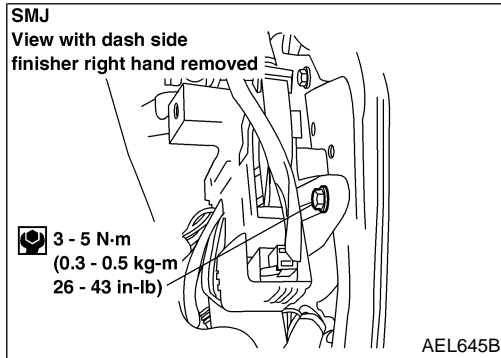
Installation

To install SMJ, tighten bolts until orange "full tight" mark appears and then retighten to specified torque. NGEL0146

 : 3 - 5 N·m (0.3 - 0.5 kg·m, 26 - 43 in-lb)

CAUTION:

Do not overtighten bolts, otherwise, they may be damaged.



SUPER MULTIPLE JUNCTION (SMJ)

Terminal Arrangement

Terminal Arrangement

NGEL0147

MAIN HARNESS

(M65)

24B	23B	22B	21B	20B	19B	18B	17B	16B	15B	14B	13B	12B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B
24A	23A	22A	21A	20A	19A	18A	17A	16A	15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A



24A	23A	22A	21A	20A	19A	18A	17A	16A	15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A
24B	23B	22B	21B	20B	19B	18B	17B	16B	15B	14B	13B	12B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B

(E43)

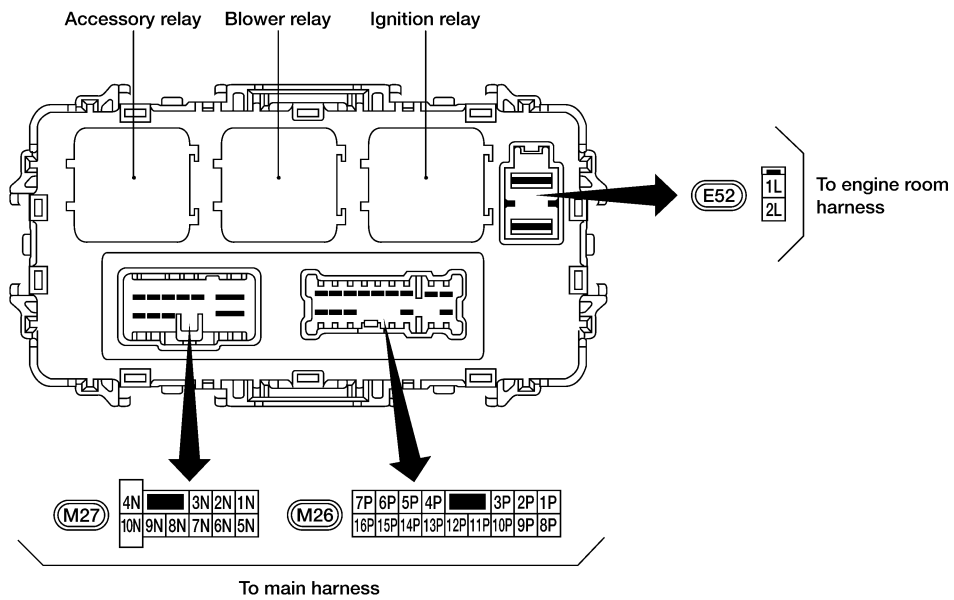
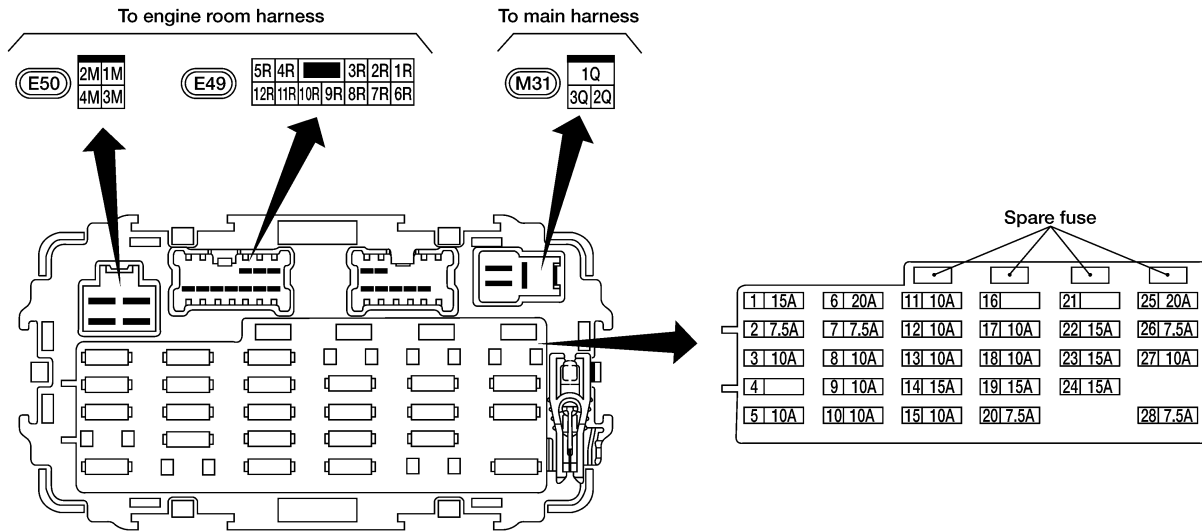
ENGINE ROOM HARNESS

FUSE BLOCK — JUNCTION BOX (J/B)

Terminal Arrangement

Terminal Arrangement

NGEL0148



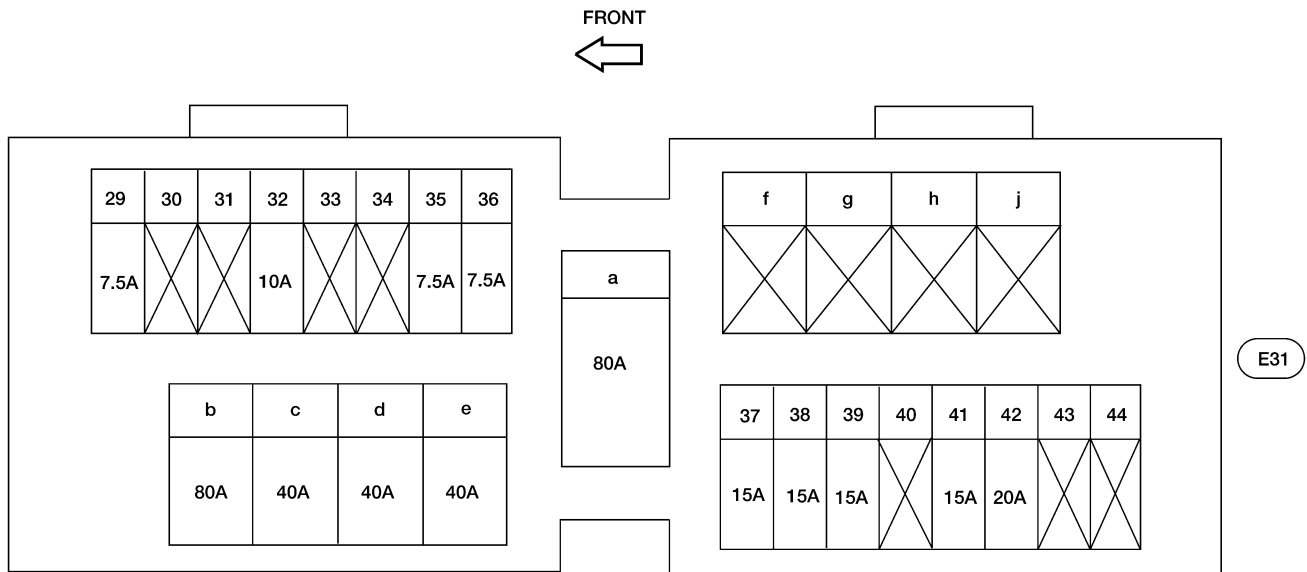
FUSE AND FUSIBLE LINK BOX

Terminal Arrangement

Terminal Arrangement

NGEL0149

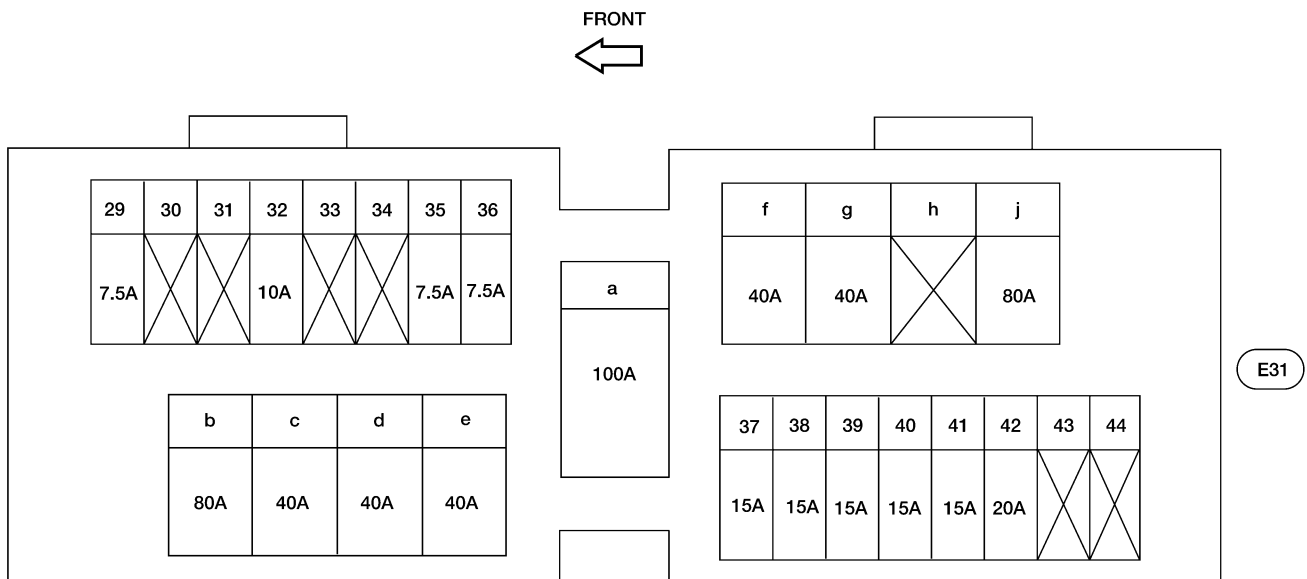
For KA24DE



No. 29 - 44: FUSE

a - j: FUSIBLE LINK

For VG33E



No. 29 - 44: FUSE

a - j: FUSIBLE LINK

JOINT CONNECTOR

Terminal Arrangement

Terminal Arrangement

NGEL0198

JOINT CONNECTOR - 1 (F31)



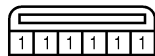
(GRAY)

JOINT CONNECTOR - 2 (F32)



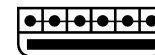
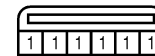
(GRAY)

For VG33E models
JOINT CONNECTOR - 3 (F33)



(GRAY)

For VG33E models
JOINT CONNECTOR - 4 (F34)



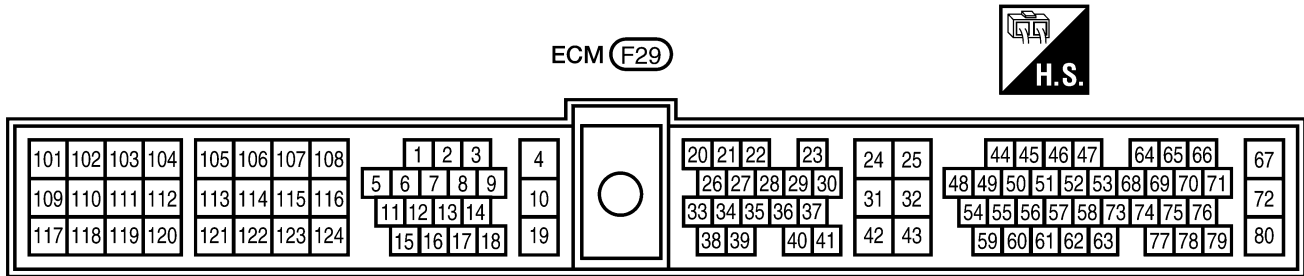
(GRAY)

ELECTRICAL UNITS

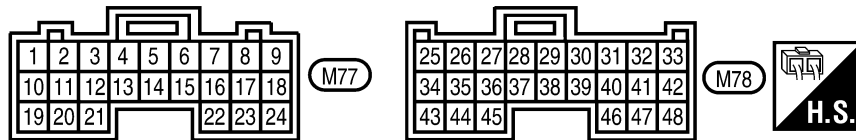
Terminal Arrangement

Terminal Arrangement

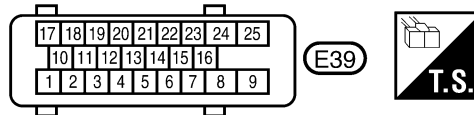
NGEL0150



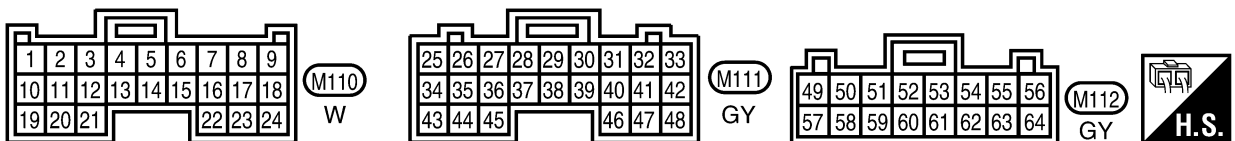
TCM (TRANSMISSION CONTROL MODULE)



ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



SMART ENTRANCE CONTROL UNIT



QUICK REFERENCE CHART: XTERRA 194 2001

EQUIPPED WITH 2.4L, KA ENGINE

ENGINE TUNE-UP DATA

Engine model	KA24DE				
Firing order	1-3-4-2				
Idle speed rpm	800° ± 50				
MT (in neutral)					
Ignition timing (degree B.T.D.C. at idle speed)	20° ± 2°				
CO% at idle	Idle mixture screw is preset and sealed at factory				
Spark plug	NGK (Double Platinum Tipped)				
Type	Standard	PFR5G-11			
	Cold	PFR6G-11			
Gap	mm (in)	1.1 (0.043)			
Drive belt deflection (Cold)	mm (in)	Used belt			
		Limit	Deflection after adjustment		
		Deflection of new belt			
		Generator	17 (0.67)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
		Air conditioner compressor	16 (0.63)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
Power steering oil pump	17 (0.67)	10 - 13 (0.39 - 0.51)	8 - 10 (0.31 - 0.39)		
Drive belt tension	N (kg, lb)	Used belt			
		Limit	Tension after adjustment		
		Tension of new belt			
		Generator	222.4 (22.7, 50)	355.8 - 444.8 (36.3-45.4, 80-100)	489.3 - 578.2 (49.9-59.0, 110-130)
		Air conditioner compressor	200.2 (20.4, 45)	355.8 - 444.8 (36.3-45.4, 80-100)	489.3 - 578.2 (49.9-59.0, 110-130)
Power steering oil pump	222.4 (22.7, 50)	355.8 - 444.8 (36.3-45.4, 80-100)	489.3 - 578.2 (49.9-59.0, 110-130)		
Applied pushing force	N (kg, lb)	98 (10, 22)			
Radiator cap relief pressure	kPa (kg/cm ² , psi)	78 - 98 (0.8 - 1.0, 11 - 14)			
Cooling system leakage testing pressure	kPa (kg/cm ² , psi)	157 (1.6, 23)			
Compression pressure	Standard	1,226 (12.5, 178)/300			
	Minimum	1,030 (10.5, 149)/300			
Tightening torque	N·m	kg-m	ft-lb		
		Spark plug	20 - 29	2.0 - 3.0	14 - 22
		Oil pan drain plug	29.4 - 39.2	3.0 - 4.0	21.69 - 28.91

CLUTCH PEDAL

Pedal height	221 - 231 (8.70 - 9.09)
Pedal free play	9 - 16 (0.35 - 0.63)

Unit: mm (in)

BRAKE

Disc brake	Pad minimum thickness	2.0 (0.079)
	Rotor repair limit Runout	0.07 (0.0028)
	Minimum thickness	26.0 (1.024)
Drum brake	Lining minimum thickness	1.5 (0.059)
	Drum repair limit Maximum inner diameter	296.5 (11.67)
Parking brake	Number of notches*2	10 - 12

Unit: mm (in)

*1 At pulling force: 196 N (20 kg, 44 lb)

FRONT WHEEL BEARING

Item	Model	
Lock nut tightening torque	2WD	
N · m (kg·m, ft-lb)	34 - 39 (3.5 - 4.0, 25 - 29)	
Preload (At hub bolt)	N (kg, lb)	New seal
	Used seal	9.8 - 28.4 (1.0 - 2.9, 2.2 - 6.4)
		9.8 - 23.5 (1.0 - 2.4, 2.2 - 5.3)

REFILL CAPACITIES

	Unit	Liter	US measure	
Fuel tank		73.5	19.4 gal	
Coolant (with reservoir)	2WD MT	7.3	7-3/4 qt	
Engine	2WD	With oil filter	3.5	3-3/4 qt
		Without oil filter	3.3	3-1/2 qt
	Dry engine (engine overhaul)	4.1	4-3/8 qt	
Transmission	MT	2WD	2.0	4-1/4 pt
Final drive	Rear	C200	1.3	2-3/4 pt
Manual steering system			0.62	2-3/8 qt
Power steering system			0.9 - 1.0	30.4-33.8 fl oz
Air conditioning system	Lubricant	0.2	6.8 fl oz	
	Refrigerant *	0.6 - 0.7 kg	1.32 - 1.54 lb	

*R-134a

FRONT WHEEL ALIGNMENT (Unladen*1)

		2WD			
Camber	Degree minute (Decimal degree)	Minimum	-0°03' (-0.05°)		
		Nominal	0°03' (0.55°)		
		Maximum	1°03' (1.05°)		
		Left and right difference	45' (0.75°) or less		
Caster	Degree minute (Decimal degree)	Minimum	2°04' (2.07°)		
		Nominal	2°34' (2.57°)		
		Maximum	3°04' (3.07°)		
		Left and right difference	45' (0.75°) or less		
Kingpin inclination	Degree minute (Decimal degree)	Minimum	10°23' (10.38°)		
		Nominal	10°53' (10.88°)		
		Maximum	11°23' (11.38°)		
Total toe-in	Distance (A - B) mm (in)	Minimum	3' (0.12")		
		Nominal	4' (0.16")		
		Maximum	5' (0.20")		
	Angle (left plus right)	Minimum	15' (0.25")		
		Nominal	20' (0.33")		
		Maximum	25' (0.42")		
Wheel turning angle	Inside	Degree minute (Decimal degree)	Minimum	32°48' (32.80°)	30°48' (30.80°)
			Nominal	34°48' (34.80°)	32°48' (32.80°)
			Maximum	34°48' (34.80°)	32°48' (32.80°)
	Outside	Minimum	31°00' (31.00°)	28°42' (28.70°)	
		Nominal	33°00' (33.00°)	30°42' (30.70°)	
		Maximum	33°00' (33.00°)	30°42' (30.70°)	

*1 Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

*2 On power steering models, wheel turning force (at circumference of steering wheel) of 98 to 147 N (10 to 15 kg, 22 to 33 lb) with engine idle.

QUICK REFERENCE CHART: XTERRA 194 2001

EQUIPPED WITH 3.3L, VG ENGINE

ENGINE TUNE-UP DATA

Engine model	VG33E			
Firing order	1-2-3-4-5-6			
Idle speed rpm	750° ± 50			
MT (in neutral)	750° ± 50			
A/T (in "P" or "N" position)	10° ± 2°			
Ignition timing (degree B.T.D.C. at idle speed)	Idle mixture screw is preset and sealed at factory			
CO% at idle	NGK (Double Platinum Tipped)			
Spark plug	Standard PFR5G-11			
Type	Cold	PFR6G-11		
	Hot	PFR4G-11		
	Gap	mm (in) 1.1 (0.043)		
Drive belt deflection (Cold) mm (in)	Used belt			
	Limit	Deflection after adjustment	Deflection of new belt	
	Generator	7 - 8 (0.24 - 0.31)	6 - 7 (0.24 - 0.28)	
	Air conditioner compressor	12 - 13 (0.47 - 0.51)	10.5 - 11.5 (0.413 - 0.453)	
Power steering oil pump	9.5 - 10.5 (0.374 - 0.413)	8 - 9 (0.31 - 0.35)		
Drive belt tension N (kg, lb)	Used belt			
	Limit	Tension after adjustment	Tension of new belt	
	Generator	554.1-642.4 (56.5-65.5, 124.6-144.4)	671.8-760.0 (68.5-77.5, 151.0-170.9)	
	Air conditioner compressor	495.3-583.5 (50.5-59.5, 111.4-131.2)	603.1-691.4 (61.5-70.5, 135.6-155.5)	
Power steering oil pump	554.1-642.4 (56.5-65.5, 124.6-144.4)	671.8-760.0 (68.5-77.5, 151.0-170.9)		
Applied pressed force N (kg, lb)	98 (10, 22)			
Radiator cap relief pressure kPa (kg/cm ² , psi)	78 - 98 (0.8 - 1.0, 11 - 14)			
Cooling system leakage testing pressure kPa (kg/cm ² , psi)	157 (1.6, 23)			
Compression pressure kPa (kg/cm ² , psi)/rpm	Standard	1,196 (12.2, 173)/300		
	Minimum	883 (9.0, 128)/300		
Tightening torque	N-m	kg-m	ft-lb	
	Spark plug	19.6 - 29.4	2.0 - 3.0	14.46 - 21.69
	Oil pan drain plug	29 - 39	3.0 - 4.0	22 - 29

CLUTCH PEDAL

Pedal height	227 - 237 (8.94 - 9.33)	Unit: mm (in)
Pedal free play	9 - 16 (0.35 - 0.63)	

BRAKE

Disc brake	Pad minimum thickness	2.0 (0.079)
	Rotor repair limit Runout	0.07 (0.0028)
	Minimum thickness	26.0 (1.024)
Drum brake	Lining minimum thickness	1.5 (0.059)
	Drum repair limit Maximum inner diameter	296.5 (11.67)
	Parking brake Number of notches*2	10 - 12

*1 At pulling force: 196 N (20 kg, 44 lb)

FRONT WHEEL BEARING

Item	Model			
	2WD		4WD	
Lock nut tightening torque N • m (kg•m, ft-lb)	34 - 39 (3.5 - 4.0, 25 - 29)		—	
Preload (At hub bolt) N (kg, lb)	New seal	9.8 - 28.4 (1.0 - 2.9, 2.2 - 6.4)	Wheel bearing Tightening torque N • m (kg•m, ft-lb)	78 - 98 (8-10, 58 - 72)
			Retightening torque after loosening wheel bearing lock nut N•m (kg•m, ft-lb)	0.5 - 1.5 (0.05 - 0.15, 0.4 - 1.1)
	Used seal	9.8 - 23.5 (1.0 - 2.4, 2.2 - 5.3)	Axial end play mm (in)	0(0)
			Turning angle degree	15° - 30°
			Wheel bearing preload at wheel hub bolt B - A N (kg, lb)	7.06 - 20.99 (0.72 - 2.14, 1.59 - 4.72)

FRONT WHEEL ALIGNMENT (Unladen*1)

Camber	2WD		4WD			
	Minimum	-0°03' (-0.05°)	0°06' (0.10°)			
Nominal	0°03' (0.55°)	0°36' (0.60°)				
Maximum	1°03' (1.05°)	1°06' (1.10°)				
Left and right difference	45' (0.75°) or less		45' (0.75°) or less			
Caster	Minimum	2°04' (2.07°)	1°40' (1.67°)			
	Nominal	2°34' (2.57°)	2°10' (2.17°)			
	Maximum	3°04' (3.07°)	2°40' (2.67°)			
	Left and right difference	45' (0.75°) or less		45' (0.75°) or less		
Kingpin inclination	Minimum	10°23' (10.38°)	10°18' (10.30°)			
	Nominal	10°53' (10.88°)	10°48' (10.80°)			
	Maximum	11°23' (11.38°)	11°18' (11.30°)			
Total toe-in	Minimum	3' (0.12°)	3' (0.12°)			
	Nominal	4' (0.16°)	4' (0.16°)			
	Maximum	5' (0.20°)	5' (0.20°)			
Angle (left plus right)	Minimum	15' (0.25°)	15' (0.25°)			
	Nominal	20' (0.33°)	20' (0.33°)			
	Maximum	25' (0.42°)	25' (0.42°)			
Wheel turning angle	Inside	Except P265/70R15	P265/70R15	Except P265/70R15	P265/70R15	
		Minimum	32°48' (32.80°)	30°48' (33.48°)	33°06' (33.10°)	31°00' (31.00°)
	Nominal	34°48' (34.80°)	32°48' (32.80°)	35°06' (35.10°)	33°00' (33.00°)	
	Maximum	34°48' (34.80°)	32°48' (32.80°)	35°06' (35.10°)	33°00' (33.00°)	
Full turn *2	Outside	Minimum	31°00' (31.00°)	28°42' (28.70°)	31°12' (31.20°)	29°00' (29.00°)
		Nominal	33°00' (33.00°)	30°42' (30.70°)	33°12' (33.20°)	31°00' (31.00°)
		Maximum	33°00' (33.00°)	30°42' (30.70°)	33°12' (33.20°)	31°00' (31.00°)*

REFILL CAPACITIES

Unit	Liter	US measure
Fuel tank	73.5	19.4 gal
Coolant (with reservoir)	AT & MT 10.95 11-5/8 qt	
Engine	With oil filter	3.3 3-1/2 qt
	Without oil filter	3.0 3-1/8 qt
Transmission	Dry engine (engine overhaul) 3.8 4 qt	
	M/T	2WD 2.8 5-7/8 pt
Transfer	4WD	5.1 10-3/4 pt
	A/T	2WD 8.3 8-3/4 qt
Final drive	4WD	8.5 9 qt
	Rear	4WD 2.2 2-3/8 qt
Manual steering system	H233B	2.8 5-7/8 pt
	R200A	1.5 3-1/8 qt
Power steering system	0.62	1-3/8 pt
Air conditioning system	1.0 - 1.1 33.8 - 37.2 fl oz	
	Lubricant	0.2 6.8 fl oz
Refrigerant *	0.6 - 0.7 kg	1.32 - 1.54 lb

*R-134a

*1 Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

*2 On power steering models, wheel turning force (at circumference of steering wheel) of 98 to 147 N (10 to 15 kg, 22 to 33 lb) with engine idle.