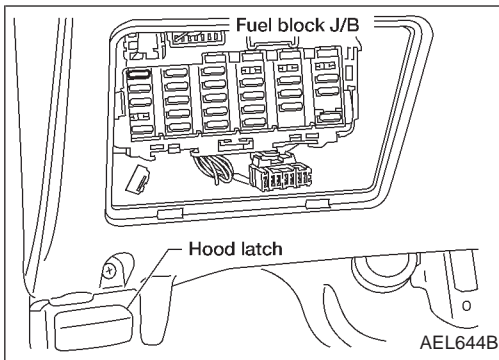



# SUPER MULTIPLE JUNCTION (SMJ)

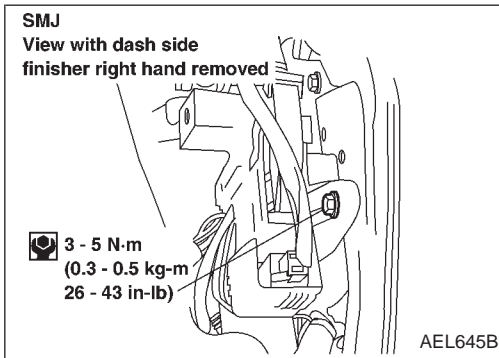


## INSTALLATION

To install SMJ, tighten bolts until orange “fulltight” mark appears and then retighten to specified torque as required.

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

**CAUTION:**  
Do not overtighten bolt, otherwise, it may be damaged.



# SUPER MULTIPLE JUNCTION (SMJ)

## Terminal Arrangement

### 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

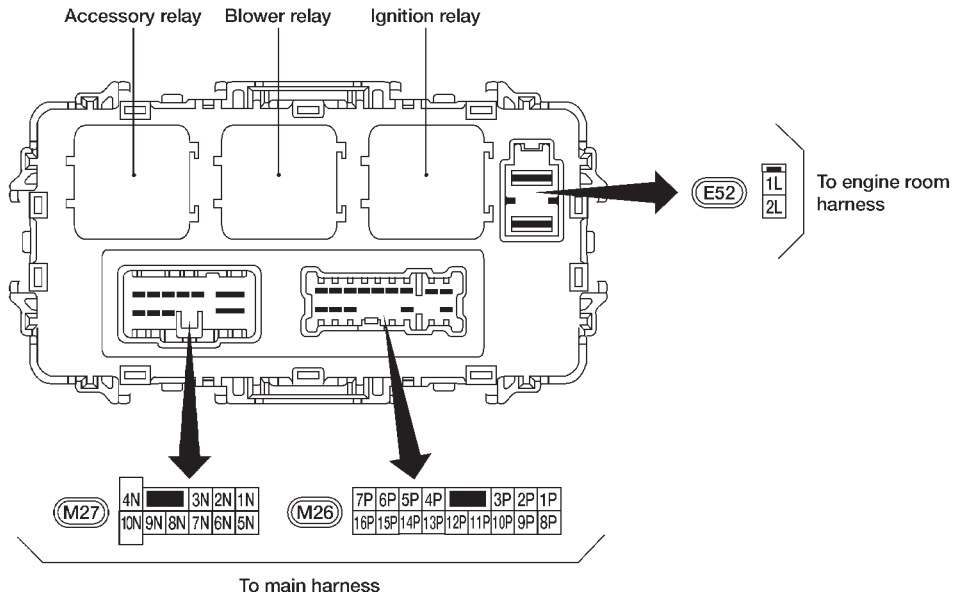
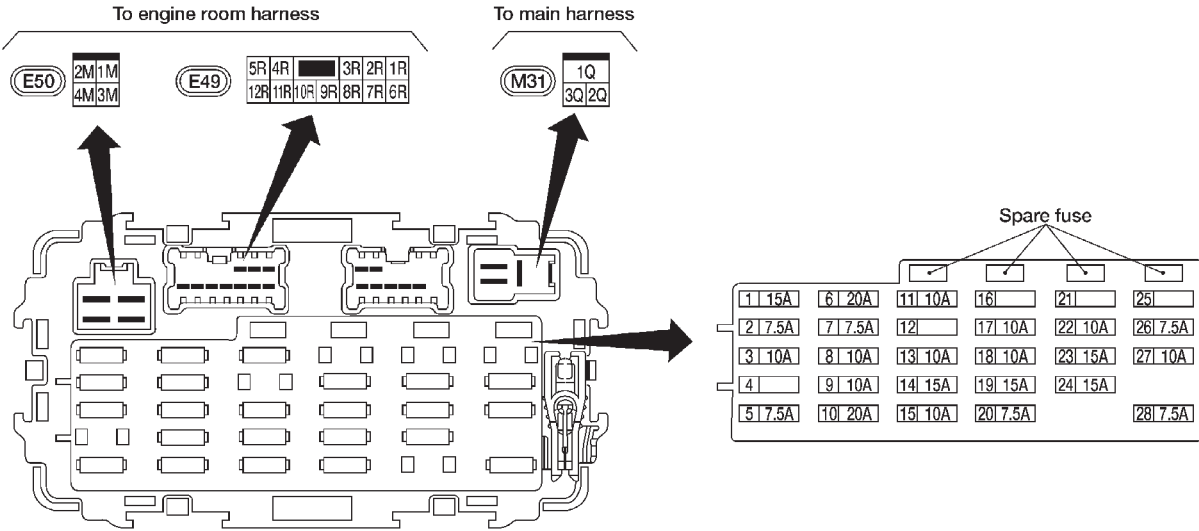


24A	23A	22A	21A	20A	19A	18A	17A	16A	15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A
24B	23B	22B	21B	20B	19B	18B	17B	16B	15B	14B	13B	12B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B

(E43)

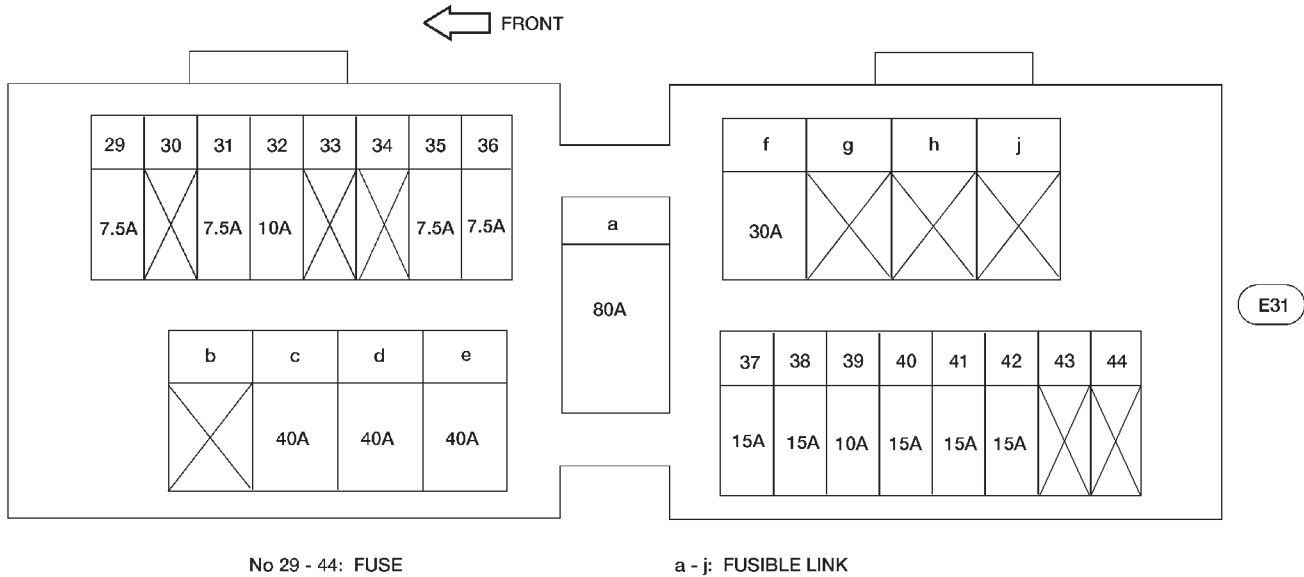
### ENGINE ROOM HARNESS

# FUSE BLOCK — Junction Box (J/B)



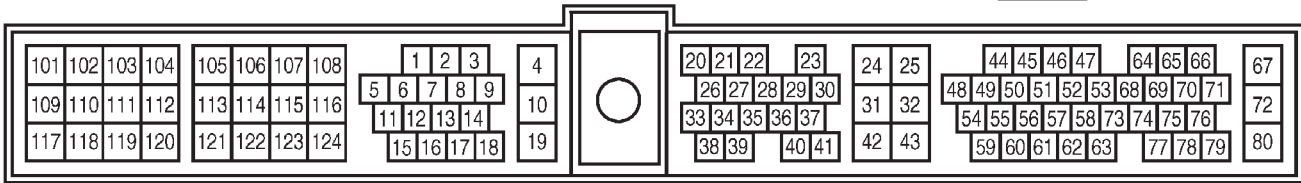
# FUSE AND FUSIBLE LINK BOX

## Fuse Arrangement

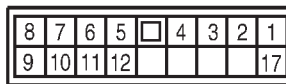


# ELECTRICAL UNITS

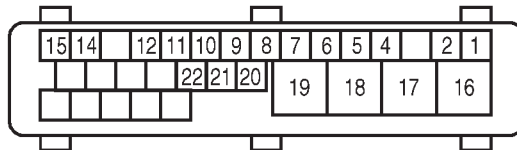
ECM (F29)



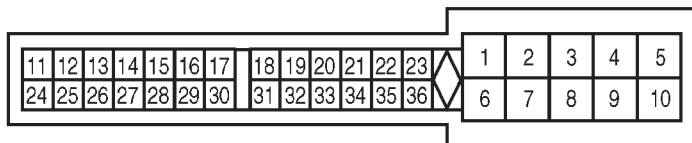
ABS CONTROL UNIT  
(WITH 2-WHEEL ABS) (M23)



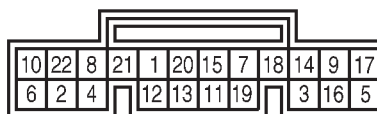
ABS ACTUATOR AND ELECTRIC UNIT  
(CONTROL UNIT) (WITH 4-WHEEL ABS) (E39)



SMART ENTRANCE CONTROL UNIT (M10)



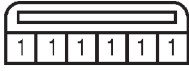
AIR BAG DIAGNOSIS SENSOR UNIT (Z6)



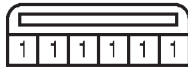
# JOINT CONNECTOR (J/C)

## Location

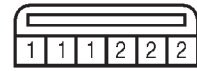
JOINT CONNECTOR - 1 (F31)



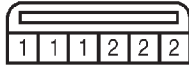
JOINT CONNECTOR - 2 (F32)



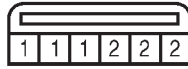
JOINT CONNECTOR - 8 (M73)



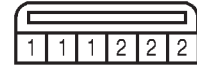
JOINT CONNECTOR - 7 (M74)



JOINT CONNECTOR - 5 (M84)



JOINT CONNECTOR - 6 (M85)



# QUICK REFERENCE CHART: FRONTIER 085   2000

## 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		800 ± 50	
A/T (in "N" position)		800 ± 50	
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	Standard	FR5AP-10	
Type	Cold	FR6AP-10	
		FR7AP-10	
Gap	mm (in)	1.0 - 1.1 (0.039 - 0.043)	
Drive belt deflection (Cold)	mm (in)	Used belt	
		Limit	Deflection after adjustment
Generator		17 (0.67)	10 - 12 (0.39 - 0.47)
Air conditioner compressor		16 (0.63)	10 - 12 (0.39 - 0.47)
Power steering oil pump		17 (0.67)	10 - 13 (0.39 - 0.51)
			Deflection of new belt
			8 - 10 (0.31 - 0.39)
			8 - 10 (0.31 - 0.39)
			8 - 10 (0.31 - 0.39)
Drive belt tension	N (kg, lb)	Used belt	
		Limit	Tension after adjustment
Generator		222.4 (22.7, 50)	355.8 - 444.8 (36.3-45.4, 90-100)
Air conditioner compressor		200.2 (20.4, 45)	355.8 - 444.8 (36.3-45.4, 90-100)
Power steering oil pump		222.4 (22.7, 50)	355.8 - 444.8 (36.3-45.4, 90-100)
			489.3 - 578.2 (49.9-59.0, 110-130)
Applied pressed force	N (kg, lb)	80 - 100 (8.2 - 10.2, 18 - 22.5)	
Radiator cap relief pressure	kPa (kg/cm <sup>2</sup> , psi)	78 - 98 (0.8 - 1.0, 11 - 14)	
Cooling system leakage testing pressure	kPa (kg/cm <sup>2</sup> , 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
Spark plug		20 - 29	2.0 - 3.0
Oil pan drain plug		29 - 39	3.0 - 4.0
			ft-lb
			14 - 22
			22 - 29

### FRONT WHEEL ALIGNMENT (Unladen\*1)

		2WD		4WD		
		Minimum	Nominal	Maximum	Left and right difference	Right and left difference
Camber	Minimum	-0°05' (-0.08°)		0°06' (0.10°)		
	Nominal	-0°25' (-0.08°)		0°36' (0.60°)		
	Maximum	-0°55' (-0.08°)		1°06' (1.10°)		
	Left and right difference	45° (0.75°) or less		45° (0.75°) or less		
Caster	Minimum	0°06' (0.10°)		1°40' (1.67°)		
	Nominal	0°36' (0.60°)		2°10' (2.17°)		
	Maximum	1°06' (1.10°)		2°40' (2.67°)		
	Left and right difference	45° (0.75°) or less		45° (0.75°) or less		
Kingpin inclination	Minimum	8°35' (8.58°)		10°18' (10.30°)		
	Nominal	9°05' (9.08°)		10°48' (10.80°)		
	Maximum	9°35' (9.58°)		11°18' (11.30°)		
Total toe-in	Minimum	2 (0.12)				
	Nominal	3 (0.16)				
	Maximum	4 (0.20)				
	Angle (left plus right)	Minimum	15° (0.25°)			
Degree minute (Decimal degree)	Nominal	10°48' (10.80°)				
	Maximum	11°18' (11.30°)				
Wheel turning angle Inside	Degree minute (Decimal degree)	Minimum	Except P235/70R15	P235/70R15	Except P235/70R15	P235/70R15
		Nominal	38°00' (38.00°)	37°00' (37.00°)	35°06' (35.10°)	33°00' (33.00°)
		Maximum	38°00' (38.00°)	37°00' (37.00°)	35°06' (35.10°)	33°00' (33.00°)
	Full turn *2	Minimum	32°36' (32.60°)	31°36' (31.60°)	31°12' (31.20°)	29°00' (29.00°)
		Nominal	34°36' (34.60°)	33°36' (33.60°)	33°12' (33.20°)	31°00' (31.00°)
		Maximum	34°36' (34.60°)	33°36' (33.60°)	33°12' (33.20°)	31°00' (31.00°)

\*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.

### CLUTCH PEDAL

Pedal height	221 - 231 (8.70 - 9.09)
Pedal free play	7 - 14 (0.27 - 0.55)

Unit: mm (in)

### BRAKE

Disc brake	
Pad minimum thickness	2.0 (0.079)
Rotor repair limit	
Runout	0.07 (0.0028)
Minimum thickness	24.0 (0.945), CL28VD
Drum brake	
Lining minimum thickness	1.5 (0.0059)
Drum repair limit	
Maximum inner diameter	296.5 (11.67), LT30A
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			
	2WD	4WD		
Tightening torque N • m (kg•m, ft-lb)	34 - 39 (3.5 - 4.0, 25 - 29)	—		
Return angle degree	45° - 60°	—		
Preload (At hub bolt)	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)
			Start force at wheel hub bolt N • m (kg, lb)	A
		Turning angle degree	15° - 30°	
		Starting force at wheel hub bolt N • m (kg, lb)	B	
		Wheel bearing preload at wheel hub bolt B- A N (kg, lb)	7.06 - 20.99 (0.72 - 2.14, 1.59 - 4.72)	

### REFILL CAPACITIES

	Unit	Metric measure	US measure	
Fuel tank		60ℓ	15.9 gal	
Coolant (with reservoir)	2WD MT	9.15ℓ	9-5/8 qt	
		2WD AT	8.95ℓ	9-1/2 qt
	4WD	9.25ℓ	9-3/4 qt	
Engine	2WD	With oil filter	3.5ℓ	3-3/4 qt
		Without oil filter	3.3ℓ	3-1/2 qt
	Dry engine (engine overhaul)	4.1ℓ	4-3/8 qt	
		4WD	With oil filter	3.9ℓ
		Without oil filter	3.7ℓ	3-7/8 qt
		Dry engine (engine overhaul)	4.5ℓ	4-3/4 qt
Transmission	M/T	2WD	2.0ℓ	4-1/4 pt
		4WD	4.9ℓ	10-3/8 pt
	A/T	—	7.9ℓ	8-3/8 qt
Transfer	4WD	2.2ℓ	2-3/8 qt	
Final drive	Rear	H190A	1.5ℓ	3-1/8 pt
		C200	1.3ℓ	2-3/4 pt
	Front	R180A	1.3ℓ	1-1/8 pt
Manual steering system		0.62ℓ	2-3/8 qt	
Power steering system		PB46S	0.9 - 1.0ℓ	30.4 - 33.8 fl oz
		PB59K	1.0 - 1.1ℓ	33.8 - 37.2 fl oz
Air conditioning system		Lubricant	0.2ℓ	6.8 fl oz
		Refrigerant *1	0.6 - 0.7 kg	1.32 - 1.54 lb