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NISSAN CUBE MODEL Z12 SERIES

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QUICK REFERENCE INDEX

A GENERAL INFORMATION	GI General Information
B ENGINE	EM Engine Mechanical
	LU Engine Lubrication System
	CO Engine Cooling System
	EC Engine Control System
	FL Fuel System
	EX Exhaust System
	STR Starting System
	ACC Accelerator Control System
C HYBRID	
D TRANSMISSION & DRIVE-LINE	CL Clutch
	TM Transaxle & Transmission
E SUSPENSION	FAX Front Axle
	RAX Rear Axle
	FSU Front Suspension
	RSU Rear Suspension
F BRAKES	WT Road Wheels & Tires
	BR Brake System
	PB Parking Brake System
	BRC Brake Control System
G STEERING	ST Steering System
	STC Steering Control System
H RESTRAINTS	SB Seat Belt
	SBC Seat Belt Control System
	SR SRS Airbag
	SRC SRS Airbag Control System
I VENTILATION, HEATER & AIR CONDITIONER	VTL Ventilation System
	HA Heater & Air Conditioning System
	HAC Heater & Air Conditioning Control System
J BODY INTERIOR	INT Interior
	IP Instrument Panel
	SE Seat
K BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY	DLK Door & Lock
	SEC Security Control System
	GW Glass & Window System
	PWC Power Window Control System
	EXT Exterior
	BRM Body Repair
L DRIVER CONTROLS	MIR Mirrors
	EXL Exterior Lighting System
	INL Interior Lighting System
	WW Wiper & Washer
	DEF Defogger
	HRN Horn
	PWO Power Outlet
	BCS Body Control System
LAN LAN System	
M ELECTRICAL & POWER CONTROL	PCS Power Control System
	CHG Charging System
	PG Power Supply, Ground & Circuit Elements
	NWI Meter, Warning Lamp & Indicator
	WCS Warning Chime System
	AV Audio, Visual & Navigation System
O CRUISE CONTROL	
P MAINTENANCE	MA Maintenance

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FOREWORD

This manual contains maintenance and repair procedure for the 2010 NISSAN CUBE.

In order to assure your safety and the efficient functioning of the vehicle, this manual should be read thoroughly. It is especially important that the PRECAUTIONS in the GI section be completely understood before starting any repair task.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the technician and the efficient functioning of the vehicle.

The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately. Service varies with the procedures used, the skills of the technician and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.

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QUICK REFERENCE CHART CUBE
ENGINE TUNE-UP DATA (MR18DE)

PFP:00000

ELS0003W

Engine model		MR18DE
Firing order		1-3-4-2
Idle speed CVT (In "P or N" position) M/T (In Neutral position)	rpm	700 ± 50
Ignition timing (BTDC at idle speed)		13° ± 5°
CO% at idle		3 - 11 % and engine runs smoothly
Tensions of drive belts		Auto adjustment by auto tensioner
Radiator cap relief pressure	kPa (kg/cm ² , psi)	
	Standard	78 - 98 (0.8 - 1.0, 11 - 14)
	Limit	59 (0.6, 9)
Cooling system leakage testing pressure	kPa (kg/cm ² , psi)	156 (1.59, 22.6)
Compression pressure	kPa (kg/cm ² , psi)/250 rpm	
	Standard	1,500 (15.3, 217.5)
	Minimum	1,200 (12.2, 174)
	Differential limit between cylinders	100 (1.0, 14.5)
Spark plug (Iridium-tipped type)	Make	DENSO
	Standard type	FXE20HR11
	Gap (Nominal)	1.1 (0.043)

FRONT WHEEL ALIGNMENT

ELS0003X

Camber Degree minute (Decimal degree)		Minimum	-0° 55' (-0.92°)
		Nominal	-0° 10' (-0.17°)
		Maximum	0° 35' (0.58°)
		Left and right difference	0° 45' (0.75°)
Caster Degree minute (Decimal degree)		Minimum	3° 55' (3.92°)
		Nominal	4° 40' (4.67°)
		Maximum	5° 25' (5.41°)
		Left and right difference	0° 45' (0.75°)
Kingpin inclination Degree minute (Decimal degree)		Minimum	9° 10' (9.17°)
		Nominal	9° 55' (9.92°)
		Maximum	10° 40' (10.66°)
Toe-in	Total toe-in Distance	Minimum	0 mm (0 in)
		Nominal	In 1.0 mm (0.05 in)
		Maximum	In 2.0 mm (0.07 in)
	Toe angle (left wheel or right wheel) Degree minute (Decimal degree)	Minimum	0° 00' (0.00°)
		Nominal	In 0° 03' (0.05°)
		Maximum	In 0° 06' (0.10°)

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

REAR WHEEL ALIGNMENT

ELS0003Y

Camber Degree minute (Decimal degree)		Minimum	-2° 00' (-2.01°)
		Nominal	-1° 31' (-1.51°)
		Maximum	-1° 01' (-1.01°)
Toe-in	Total toe-in Distance	Minimum	Out 1.0 mm (Out 0.039 in)
		Nominal	In 3.0 mm (In 0.118 in)
		Maximum	In 7.0 mm (In 0.275 in)
	Toe angle (left wheel or right wheel) Degree minute (Decimal degree)	Minimum	Out 0° 02' (Out 0.04°)
		Nominal	In 0° 08' (In 0.13°)
		Maximum	In 0° 19' (In 0.31°)

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

BRAKE PEDAL

Unit: mm (in.)

Depressed brake pedal height (H1)	M/T	162.3 - 172.3 (6.39 - 6.78)
	CVT	172.4 - 182.4 (6.79 - 7.18)
Brake pedal reserve height (H2) [Depressing 490 N (50 kg, 110 lb) while turning the engine ON]	M/T	80 (3.15) or more
	CVT	85 (3.35) or more

FRONT DISK BRAKE

Unit: mm (in.)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
Disc rotor	Wear thickness	22.0 (0.866)

REAR DRUM BRAKE

Unit: mm (in.)

Item		Limit
Brake lining	Wear thickness	1.5 (0.059)
Brake drum	Wear inner diameter	230.0 (9.06)

REFILL CAPACITIES

ELS00040

UNIT		Liter	US measure	Imp measure
Fuel tank		50.0	13-1/4 gal	11 gal
Engine Coolant (With reservoir tank) at MAX level	CVT models	7.1	7-1/2 qt	6-1/4 qt
	M/T models	6.8	7-1/4 qt	6 qt
Engine oil	Drain and refill			
	With oil filter change	4.1	4-2/8 qt	3-5/8 qt
	Without oil filter change	3.8	4 qt	3-3/8 qt
	Dry engine (Overhaul)	4.9	5-1/8 qt	4-3/8 qt
Transmission	CVT	7.4	7-7/8 qt	6-1/2 qt
	M/T	2	4-1/4 pt	3-1/2 pt
Air conditioning system	Compressor oil	0.12	4.1 fl oz	4.2 fl oz
	Refrigerant	0.45 kg	1.0 lb	1.0 lb