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NISSAN

ROGUE

MODEL T32 SERIES

QUICK REFERENCE INDEX

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	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 System
	TM Transaxle & Transmission
	DLN Driveline
	FAX Front Axle
	RAX Rear Axle
	FSU Front Suspension
	RSU Rear Suspension
E SUSPENSION	SCS Suspension Control System
	WT Road Wheels & Tires
	BR Brake System
	PB Parking Brake System
	BRC Brake Control System
F BRAKES	ST Steering System
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	SR SRS Airbag
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K BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY	WW Wiper & Washer
	DEF Defogger
	HRN Horn
	PWO Power Outlet
	BCS Body Control System
	LAN LAN System
	PCS Power Control System
	CHG Charging System
	PG Power Supply, Ground & Circuit Elements
L DRIVER CONTROLS	MWI Meter, Warning Lamp & Indicator
	WCS Warning Chime System
	AV Audio, Visual & Navigation System
	CCS Cruise Control System
M ELECTRICAL & POWER CONTROL	DAS Driver Assistance System
	DMS Drive Mode System
	MA Maintenance
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FOREWORD

This manual contains maintenance and repair procedures for the 2016 NISSAN ROGUE.

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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SERVICE MANUAL: Model: _____ **Year:** _____

PUBLICATION NO. (Refer to Quick Reference Index): _____

Please describe any Service Manual issues or problems in detail:

Page number(s) _____ *Note: Please include a copy of each page, marked with your comments.*

Are the trouble diagnosis procedures logical and easy to use? (circle your answer) YES NO

If no, what page number(s)? _____ *Note: Please include a copy of each page, marked with your comments.*

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What information should be included in NISSAN Service Manuals to better support you in servicing or repairing customer vehicles?

DATE: _____ YOUR NAME: _____ POSITION: _____

DEALER: _____ DEALER NO.: _____ ADDRESS: _____

CITY: _____ STATE/PROV./COUNTRY: _____ ZIP/POSTAL CODE: _____

QUICK REFERENCE CHART: ROGUE

Engine Tune-up Data

INFOID:0000000013057189

GENERAL SPECIFICATIONS

Cylinder arrangement		In-line 4
Displacement	cm ³ (cu in)	2,488 (151.82)
Bore and stroke	mm (in)	89.0 x 100.0 (3.504 x 3.940)
Valve arrangement		DOHC
Firing order		1-3-4-2
Number of piston rings	Compression	2
	Oil	1
Compression ratio		10.0
Compression pressure kPa (kg/cm ² , psi)/250 rpm	Standard	1,412 (14.4, 204.7)
	Minimum	1,216 (12.4, 176.3)
	Differential limit between cylinders	100 (1.0, 14.5)

Unit: degree

Valve timing ⇐ : Intake valve ⇐ : Exhaust valve						
	a	b	c	d	e	f
	224	244	5 (-35) ATDC	69 (-29) ABDC	3 (53)	41 (-9)

() : Valve timing control "ON"

Drive belt

INFOID:0000000013057190

DRIVE BELT

Tension of drive belt	Belt tension is not necessary, as it is automatically adjusted by drive belt auto-tensioner.
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Spark Plug

INFOID:0000000013057191

SPARK PLUG

Unit: mm (in)

Make	DENSO
Standard type	FXE20HE11C
Spark plug gap (Nominal)	1.1 (0.043)

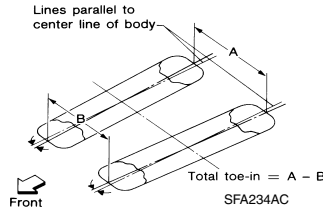
QUICK REFERENCE CHART: ROGUE

2016

Front Wheel Alignment (Unladen*¹)

INFOID:000000013057188

Axle type		FWD			AWD	
Body type		2 ROW		3 ROW	2 ROW	3 ROW
Wheel diameter		17 inch	18 inch	17 inch	17 or 18 inch	17 inch
Camber Degree minute (Decimal degree)	Minimum	-1° 19' (-1.32°)			-1° 14' (-1.23°)	
	Nominal	-0° 34' (-0.57°)			-0° 29' (-0.48°)	
	Maximum	0° 11' (0.18°)			0° 16' (0.27°)	
	(LH) and (RH) difference	± 0° 35' (± 0.60°)				
Caster Degree minute (Decimal degree)	Minimum	4° 56' (4.93°)	4° 57' (4.95°)	5° 00' (5.00°)	4° 51' (4.85°)	4° 54' (4.90°)
	Nominal	5° 41' (5.68°)	5° 42' (5.70°)	5° 45' (5.75°)	5° 36' (5.60°)	5° 39' (5.65°)
	Maximum	6° 26' (6.43°)	6° 27' (6.45°)	6° 30' (6.50°)	6° 21' (6.35°)	6° 24' (6.40°)
	(LH) and (RH) difference	± 0° 35' (± 0.60°)				
Kingpin inclination Degree minute (Decimal degree)	Minimum	11° 05' (11.10°)			10° 55' (10.92°)	10° 50' (10.83°)
	Nominal	11° 50' (11.85°)			11° 40' (11.67°)	11° 35' (11.58°)
	Maximum	12° 35' (12.60°)			12° 25' (12.42°)	12° 20' (12.33°)



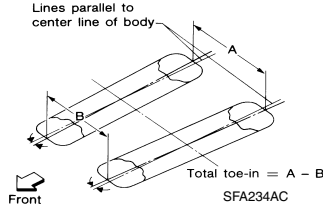
Total toe-in	Distance (A - B)	Minimum	Out 0.5 mm (Out 0.02 in)
		Nominal	In 1.5 mm (In 0.08 in)
		Maximum	In 3.5 mm (In 0.14 in)
	Angle (LH and RH) Degree minute (Decimal degree)	Minimum	Out 0° 2' (Out 0.04°)
		Nominal	In 0° 7' (In 0.12°)
		Maximum	In 0° 17' (In 0.28°)

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

Rear Wheel Alignment (Unladen*¹)

INFOID:000000013057186

Drive Type		FWD	AWD
Camber Degree minute (Decimal degree)	Minimum	-1° 40' (-1.67°)	-1° 20' (-1.33°)
	Nominal	-0° 55' (-0.92°)	-0° 35' (-0.58°)
	Maximum	-0° 10' (-0.17°)	0° 10' (0.17°)



Total toe-in	Distance (A - B)	Minimum	In 0.0 mm (In 0.00 in)
		Nominal	In 4.0 mm (In 0.16 in)
		Maximum	In 8.0 mm (In 0.31 in)
	Angle (LH and RH) ^{*2} Degree minute (Decimal degree)	Minimum	In 0° 00' (In 0.00°)
		Nominal	In 0° 20' (In 0.33°)
		Maximum	In 0° 40' (In 0.67°)

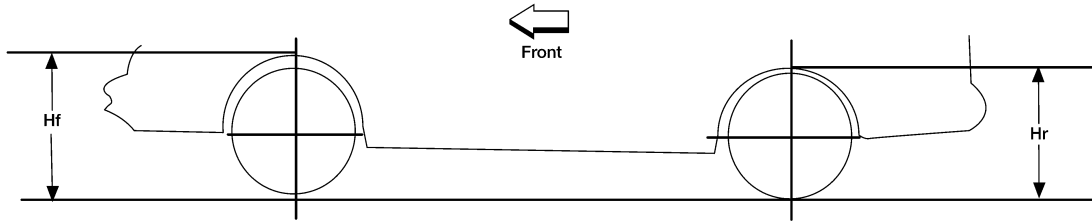
*1: Fuel, engine coolant, and lubricants are full. Spare tire, jack, hand tools, and mats are in designated positions.

*2: Since an adjustment mechanism is not included, the value of the left and right wheels must be used as the standard value.

Wheelarch Height (Unladen*)

INFOID:0000000013057187

Unit: mm (in)



LEIA0085E

Axle type	FWD			AWD		
	2 ROW		3 ROW	2 ROW		3 ROW
Body type						
Tire size	225/65R17	225/60R18	225/65R17 RF	225/65R17	225/60R18	225/65R17 RF
Front (Hf)	788 (31.02)	790 (31.10)	790 (31.10)	797 (31.38)	799 (31.46)	800 (31.50)
Rear (Hr)	785 (30.91)	787 (30.98)	786 (30.94)	794 (31.26)	796 (31.34)	795 (31.30)

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

Brake Specifications

INFOID:0000000013057184

Unit: mm (in)

Front disc brake (One piston caliper)	Cylinder bore diameter	60.33 (2.375)
	Pad length × width × thickness	123.6 × 53.5 × 10.5 (4.87 × 2.106 × 0.413)
	Disc brake rotor outer diameter × thickness	296 × 26.0 (11.65 × 1.024)
Front disc brake (Two piston caliper)	Cylinder bore diameter	44.45 (1.750)
	Pad length × width × thickness	133.6 × 56.3 × 10.0 (5.26 × 2.256 × 0.394)
	Disc brake rotor outer diameter × thickness	320 × 28.0 (12.60 × 1.102)
Rear disc brake	Cylinder bore diameter	38.1 (1.5)
	Pad length × width × thickness	83.0 × 33.0 × 8.5 (3.268 × 1.299 × 0.335)
	Disc brake rotor outer diameter × thickness	292 × 16.0 (11.50 × 0.630)

QUICK REFERENCE CHART: ROGUE

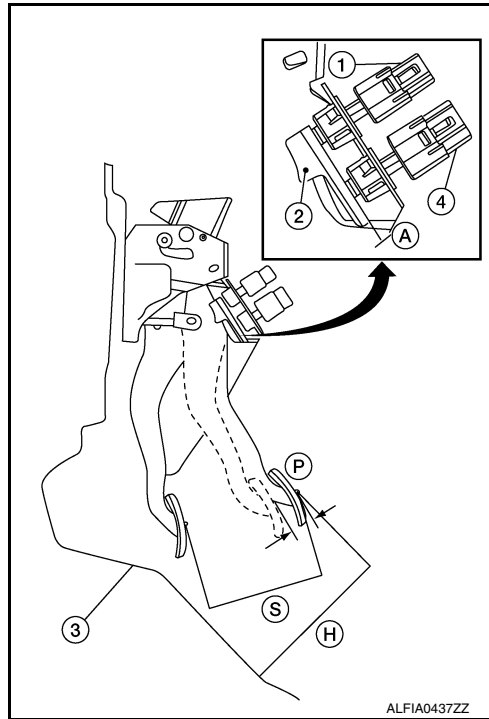
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Master cylinder	Cylinder bore diameter	23.8 (0.973)
Control valve	Valve type	Electric brake force distribution

Brake Pedal

INFOID:000000013057185

Unit: mm (in)



Item	Standard
Brake pedal height (H)	175.9 – 185.9 (6.93 – 7.32)
Clearance (A) between brake pedal stopper bracket (2), stop lamp switch (4) and brake pedal position switch (1) contact ends	0.20 – 1.96 (0.0079 – 0.0772)
Brake pedal full stroke (S)	135.1 (5.32)
Brake pedal play	—

Front Disc Brake

INFOID:000000013057182

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
Disc brake rotor	One piston caliper wear thickness	24.0 (0.945)
	Two piston caliper wear thickness	26.0 (1.024)
	Thickness variation (measured at 8 positions)*	0.020 (0.0008)
	Runout limit (with it attached to the vehicle)	0.035 (0.0014)

*To check if rotor imbalance, rotor runout or rotor deformation exists.

Rear Disc Brake

INFOID:000000013057183

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	1.5 (0.059)

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Item		Limit
Disc brake rotor	Wear thickness	14.0 (0.551)
	Thickness variation (measured at 8 positions)*	0.020 (0.0008)
	Runout limit (with it attached to the vehicle)	0.070 (0.0028)

*To check for rotor imbalance, rotor runout or rotor deformation.

Fluids and Lubricants

INFOID:000000013057181

The following are approximate capacities. The actual capacities may be slightly different. When refilling, follow the procedures described elsewhere in this manual.

		Capacity (Approximate)		
		Liter	US measure	Imp measure
Fuel		55 ℓ	14-1/2 gal	12-1/8 gal
Engine oil Drain and refill	With oil filter change	4.6 ℓ	4-7/8 qt	4 qt
	Without oil filter change	4.3 ℓ	4-1/2 qt	3-3/4 qt
Dry engine (Overhaul)		5.3 ℓ	5-5/8 qt	4-5/8 qt
Cooling system	With reservoir tank	8.1 ℓ	8-5/8 qt	7-1/8 qt
	Reservoir tank	0.61 ℓ	5/8 qt	1/2 qt
CVT fluid		7.9 ℓ	8-3/8 qt	7 qt
Differential gear oil		0.55 ℓ	1-1/8 pt	1 pt
Transfer oil		0.31 ℓ	5/8 pt	1/2 qt
Brake fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		5.2 ℓ	5-1/2 qt	4-5/8 qt
Air conditioning system refrigerant		0.50 kg	1.10 lb	1.10 lb
Air conditioning system oil		110 m ℓ	3.7 fl oz	3.9 fl oz