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NISSAN

LEAF

MODEL ZE0 SERIES

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QUICK REFERENCE INDEX

A GENERAL INFORMATION	GI General Information
B ENGINE	
C ELECTRIC POWER TRAIN	
	EVC EV Control System
	TMS Traction Motor System
	EVB EV Battery System
	VC Vehicle Charging System
D TRANSMISSION & DRIVE-LINE	HCO High Voltage Cooling System
	ACC Accelerator Control System
	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
	SR SRS Airbag
	SRC SRS Airbag Control System
	VTL Ventilation System
I VENTILATION, HEATER & AIR CONDITIONER	HA Heater & Air Conditioning System
	HAC Heater & Air Conditioning Control System
	INT Interior
J BODY 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
L DRIVER CONTROLS	EXT Exterior
	BRM Body Repair Manual
	MIR Mirrors
	EXL Exterior Lighting System
	INL Interior Lighting System
	WW Wiper & Washer
	DEF Defogger
	HRN Horn
	VSP Approaching Vehicle Sound for Pedestrians (VSP)
M ELECTRICAL & POWER CONTROL	PWO Power Outlet
	BCS Body Control System
	LAN LAN System
	PCS Power Control System
	CHG Charging System
	PG Power Supply, Ground & Circuit Elements
N DRIVER INFORMATION & MULTIMEDIA	MWI Meter, Warning Lamp & Indicator
	WCS Warning Chime System
O CRUISE CONTROL & DRIVER ASSISTANCE	AV Audio, Visual & Navigation System
	CCS Cruise Control System
P MAINTENANCE	
	MA Maintenance

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FOREWORD

This manual contains maintenance and repair procedures for the 2013 NISSAN LEAF.

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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QUICK REFERENCE CHART: LEAF

Periodical Maintenance Specification

INFOID:000000009357192

COOLANT CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Coolant capacity (With reservoir tank at "MAX" level)	5.3 (5-5/8, 4-5/8)
Reservoir tank coolant capacity (At "MAX" level)	0.5 (4/8, 4/8)

RESERVOIR TANK CAP

Unit: kPa (kg/cm², psi)

Cap relief pressure	24 - 36 (0.2 - 0.3, 3.5 - 5.2)
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RADIATOR

Unit: kPa (kg/cm², psi)

Leakage testing pressure	32 (0.3, 5)
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Front Wheel Alignment

INFOID:000000009357193

Item		Standard	
Camber Degree minute (Decimal degree)	Minimum	−1° 10′ (−1.17°)	
	Nominal	−0° 25′ (−0.42°)	
	Maximum	0° 20′ (0.33°)	
	Left and right difference*1	−0° 45′ (−0.75°) - 0° 45′ (0.75°)	
Caster Degree minute (Decimal degree)	Minimum	4° 05′ (4.08°)	
	Nominal	4° 50′ (4.83°)	
	Maximum	5° 35′ (5.58°)	
	Left and right difference*1	−0° 45′ (−0.75°) - 0° 45′ (0.75°)	
Kingpin inclination Degree minute (Decimal degree)	Minimum	11° 10′ (11.17°)	
	Nominal	11° 55′ (11.92°)	
	Maximum	12° 40′ (12.67°)	
Toe-in	Total toe-in Distance	Minimum	0 mm (0 in)
		Nominal	In 2 mm (In 0.08 in)
		Maximum	In 4 mm (In 0.15 in)
	Total toe-angle Degree minute (Decimal de- gree)	Minimum	0 ° 00′ (0.00°)
		Nominal	In 0 ° 10′ 48″ (In 0.18°)
		Maximum	In 0 ° 21′ 36″ (In 0.36°)

Measure value under unladen*2 conditions.

*1: A difference when assuming the left side a standard.

*2: Fluids and lubricants are full. Tire repair kit and mats are in designated positions.

Rear Wheel Alignment

INFOID:000000009357194

Item		Standard
Camber Degree minute (Decimal degree)	Minimum	-1° 59' (-1.98°)
	Nominal	-1° 29' (-1.48°)
	Maximum	-0° 59' (-0.98°)

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Item			Standard
Toe-in	Total toe-in Distance	Minimum	In 1.5 mm (In 0.06 in)
		Nominal	In 5.0 mm (In 0.20 in)
		Maximum	In 8.5 mm (In 0.33 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum	Out 0° 08' 24" (Out 0.14°)
		Nominal	In 0° 19' 12" (In 0.32°)
		Maximum	In 0° 46' 48" (In 0.78°)

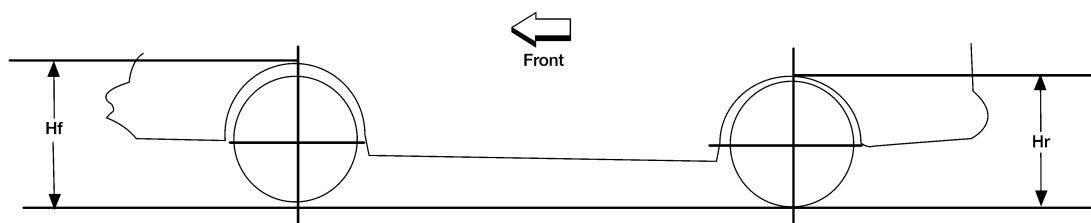
Measure value under unladen* conditions.

*: Fluids and lubricants are full. Tire repair kit and mats are in designated positions.

Wheelarch Height

INFOID:000000009357195

UNITED STATES



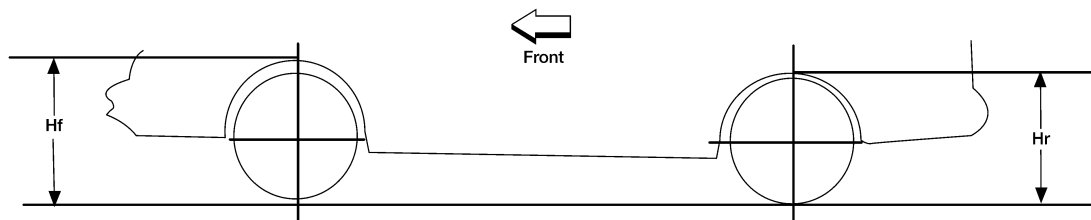
LEIA0085E

Tire size	205/55R16	215/50R17
Front (Hf)	706 mm (27.80 in)	714 mm (28.11 in)
Rear (Hr)	708 mm (27.87 in)	714 mm (28.11 in)

Measure value under unladen* conditions.

*: Fluids and lubricants are full. Tire repair kit and mats are in designated positions.

CANADA



LEIA0085E

Tire size	205/55R16	215/50R17
Front (Hf)	706 mm (27.80 in)	714 mm (28.11 in)
Rear (Hr)	709 mm (27.91 in)	715 mm (28.15 in)

Measure value under unladen* conditions.

*: Fluids and lubricants are full. Tire repair kit and mats are in designated positions.

Brake Specifications

INFOID:000000009357196

Unit: mm (in)

Front brake	Cylinder bore diameter	45.0 (1.772) × 2
	Pad length × width × thickness	140.0 × 48.0 × 9.5 (5.51 × 1.890 × 0.374)
	Rotor outer diameter × thickness	283 × 28.0 (11.14 × 1.102)

QUICK REFERENCE CHART: LEAF

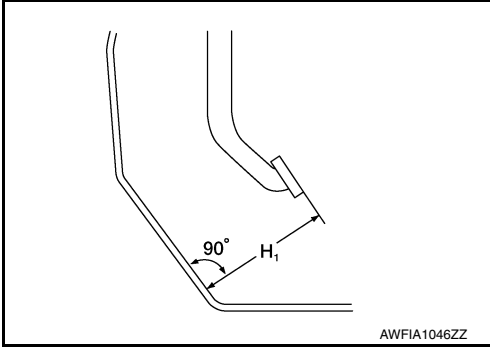
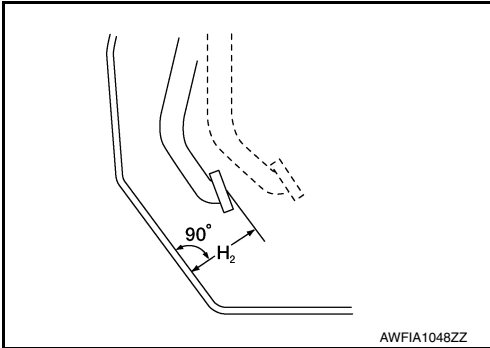
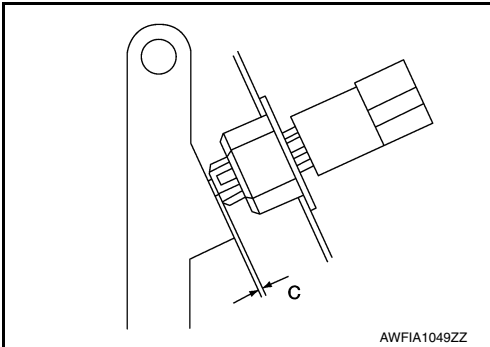
2013

Rear brake	Cylinder bore diameter	38.1 (1.500)
	Pad length × width × thickness	83.0 × 31.9 × 8.5 (3.268 × 1.265 × 0.355)
	Rotor outer diameter × thickness	292 × 16.0 (11.50 × 0.630)
Master cylinder	Cylinder bore diameter	25.4 (1)
Control valve	Valve type	Electric brake force distribution

Brake Pedal

INFOID:0000000009357197

Unit: mm (in)

Item	Standard
 AWFIA1046ZZ	
Brake pedal height (H1)	159.9 – 169.9 (6.30 – 6.69)
 AWFIA1048ZZ	
Depressed brake pedal height (H2) Depressing [196 N (20 kg, 44 lb) while set the vehicle to READY]	93.0 (3.661) or more
 AWFIA1049ZZ	
Clearance (C) between stop lamp switch and brake pedal position switch threaded end and the brake pedal lever	0.74 – 1.96 (0.0291 – 0.0772)
Brake pedal play	3 – 11 (0.12 – 0.43)

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Front Disc Brake

INFOID:000000009357198

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	26.0 (1.024)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.035 (0.0014)

Rear Disc Brake

INFOID:000000009357199

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	14.0 (0.051)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.1 (0.04)

Fluids and Lubricants

INFOID:000000009357200

		Capacity (Approximate)		
		US measure	Imp measure	Liter
Cooling system	With reservoir tank	5-5/8 qt	4-5/8 qt	5.3
	Reservoir tank	4/8 qt	4/8 qt	0.5
Reduction gear fluid		3 pt	2-1/2 pt	1.41
Brake fluid		—	—	—
Air conditioning system refrigerant		—	—	—
Air conditioning system lubricants	With heat pump system	—	—	—
	Without heat pump system	—	—	—
Multi-purpose grease		—	—	—