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# NISSAN LEAF MODEL ZE0 SERIES

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## QUICK REFERENCE INDEX

<b>A</b> GENERAL INFORMATION	<b>GI</b> General Information
<b>B</b> ENGINE	
<b>C</b> ELECTRIC POWER TRAIN	<b>EVC</b> EV Control System
	<b>TMS</b> Traction Motor System
	<b>EVB</b> EV Battery System
	<b>VC</b> Vehicle Charging System
	<b>HCO</b> High Voltage Cooling System
	<b>ACC</b> Accelerator Control System
<b>D</b> TRANSMISSION & DRIVE-LINE	<b>TM</b> Transaxle & Transmission
	<b>FAX</b> Front Axle
	<b>RAX</b> Rear Axle
	<b>FSU</b> Front Suspension
<b>E</b> SUSPENSION	<b>RSU</b> Rear Suspension
	<b>WT</b> Road Wheels & Tires
	<b>BR</b> Brake System
<b>F</b> BRAKES	<b>PB</b> Parking Brake System
	<b>BRC</b> Brake Control System
	<b>ST</b> Steering System
	<b>STC</b> Steering Control System
<b>G</b> STEERING	<b>SB</b> Seat Belt
	<b>SR</b> SRS Airbag
	<b>SRC</b> SRS Airbag Control System
<b>H</b> RESTRAINTS	<b>VTL</b> Ventilation System
	<b>HA</b> Heater & Air Conditioning System
	<b>HAC</b> Heater & Air Conditioning Control System
<b>I</b> VENTILATION, HEATER & AIR CONDITIONER	<b>INT</b> Interior
	<b>IP</b> Instrument Panel
	<b>SE</b> Seat
<b>J</b> BODY INTERIOR	<b>DLK</b> Door & Lock
	<b>SEC</b> Security Control System
	<b>GW</b> Glass & Window System
	<b>PWC</b> Power Window Control System
	<b>EXT</b> Exterior
<b>K</b> BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY	<b>BRM</b> Body Repair Manual
	<b>MIR</b> Mirrors
	<b>EXL</b> Exterior Lighting System
	<b>INL</b> Interior Lighting System
	<b>WW</b> Wiper & Washer
	<b>DEF</b> Defogger
	<b>HRN</b> Horn
	<b>VSP</b> Approaching Vehicle Sound for Pedestrians (VSP)
	<b>PWO</b> Power Outlet
	<b>BCS</b> Body Control System
<b>LAN</b> LAN System	
<b>L</b> DRIVER CONTROLS	<b>PCS</b> Power Control System
	<b>CHG</b> Charging System
	<b>PG</b> Power Supply, Ground & Circuit Elements
	<b>MWI</b> Meter, Warning Lamp & Indicator
	<b>WCS</b> Warning Chime System
<b>M</b> ELECTRICAL & POWER CONTROL	<b>AV</b> Audio, Visual & Navigation System
	<b>CCS</b> Cruise Control System
	<b>MA</b> Maintenance
<b>N</b> DRIVER INFORMATION & MULTIMEDIA	
<b>O</b> CRUISE CONTROL & DRIVER ASSISTANCE	
<b>P</b> MAINTENANCE	

**A**

**B**

**C**

**D**

**E**

**F**

**G**

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**K**

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# FOREWORD

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This manual contains maintenance and repair procedures for the 2014 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

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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.



NISSAN NORTH AMERICA, INC.  
Technical Publications Department



# PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

Your comments are important to NISSAN and will help us to improve our Service Manuals. Use this form to report any issues or comments you may have regarding our Service Manuals. Please print this form and type or write your comments below. Mail or fax to:

Nissan North America, Inc.  
Technical Service Information  
39001 Sunrise Drive, P.O. Box 9200  
Farmington Hills, MI USA 48331  
FAX: (248) 488-3880

**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.*

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**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.*

Please describe the issue or problem in detail: \_\_\_\_\_

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**Is the organization of the manual clear and easy to follow? (circle your answer) YES NO**

Please comment: \_\_\_\_\_

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

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DATE: \_\_\_\_\_ YOUR NAME: \_\_\_\_\_ POSITION: \_\_\_\_\_

DEALER: \_\_\_\_\_ DEALER NO.: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE/PROV./COUNTRY: \_\_\_\_\_ ZIP/POSTAL CODE: \_\_\_\_\_

QUICK REFERENCE CHART: LEAF

Periodical Maintenance Specification

INFOID:000000010591903

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/cm<sup>2</sup>, psi)

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

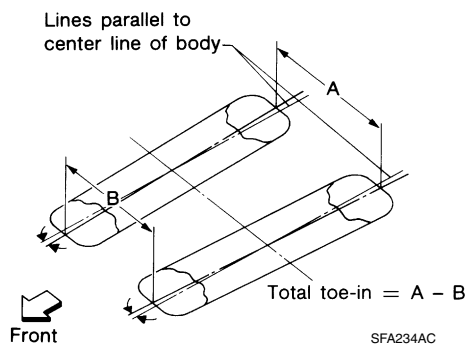
Unit: kPa (kg/cm<sup>2</sup>, psi)

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

INFOID:000000010591902

Item		Standard
Camber Degree minute (Decimal degree)	Minimum	-1° 10' (-1.17°)
	Nominal	-0° 25' (-0.42°)
	Maximum	0° 20' (0.33°)
	LH and RH 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°)
	LH and RH 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°)



Total toe-in	Distance (A - B)	Minimum	0 mm (0 in)
		Nominal	In 2 mm (In 0.08 in)
		Maximum	In 4 mm (In 0.15 in)
	Angle (LH and RH) Degree minute (Decimal degree)	Minimum	0 ° 00' (0.00°)
		Nominal	In 0 ° 10' 48" (In 0.18°)
		Maximum	In 0 ° 21' 36" (In 0.36°)

# QUICK REFERENCE CHART: LEAF

2014

Measure value under unladen\*2 conditions.

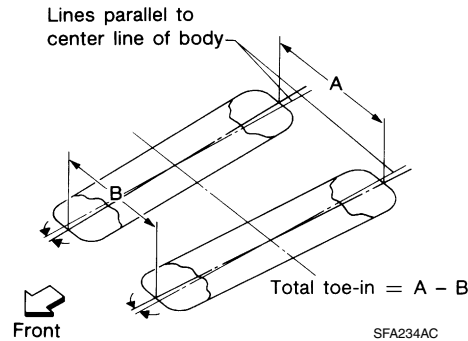
\*1: A difference when assuming the LH a standard.

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

## Rear Wheel Alignment

INFOID:000000010591901

Tire size		205/55R16	215/50R17
Camber Degree minute (Decimal degree)	Minimum	0° 59' (0.98°)	
	Nominal	1° 29' (1.48°)	
	Maximum	1° 59' (1.98°)	



Toe-in	Distance (A - B)	Minimum	Out 1.5 mm (Out 0.059 in)	Out 1.6 mm (Out 0.063 in)
		Nominal	In 3.3 mm (In 0.130 in)	In 3.4 mm (In 0.134 in)
		Maximum	In 8.1 mm (In 0.319 in)	In 8.4 mm (In 0.331 in)
	Angle (LH and RH) Degree minute (Decimal degree)	Minimum	Out 0° 09' (Out 0.15°)	
		Nominal	In 0° 19' (In 0.32°)	
		Maximum	In 0° 47' (In 0.78°)	

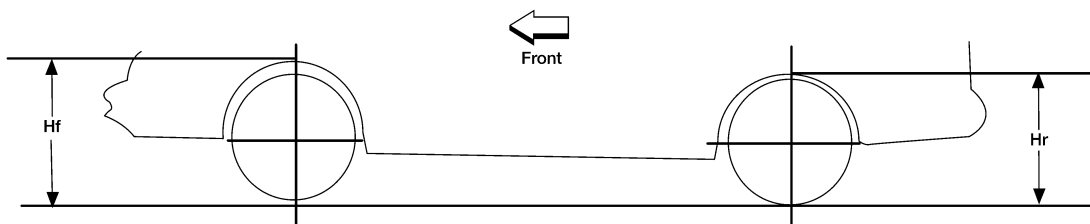
Measure value under unladen\* conditions.

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

## Wheelarch Height

INFOID:000000010591900

### UNITED STATES



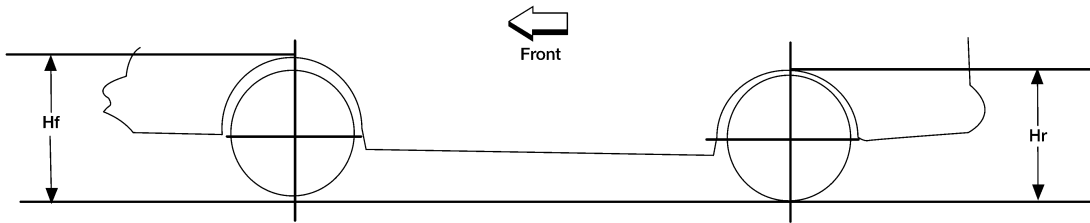
LEIA0085E

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:0000000010591899

Unit: mm (in)

Front brake	Cylinder bore diameter	57.2 (2.252)
	Pad length × width × thickness	140.0 × 48.0 × 9.5 (5.51 × 1.890 × 0.374)
	Rotor outer diameter × thickness	296 × 26.0 (11.65 × 1.024)
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

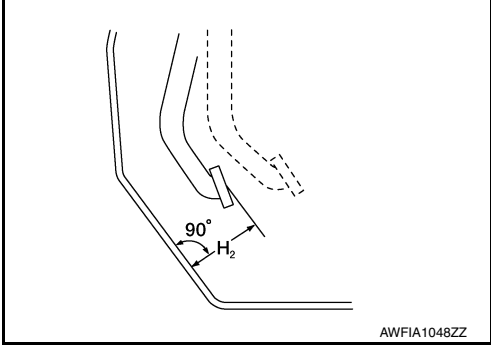
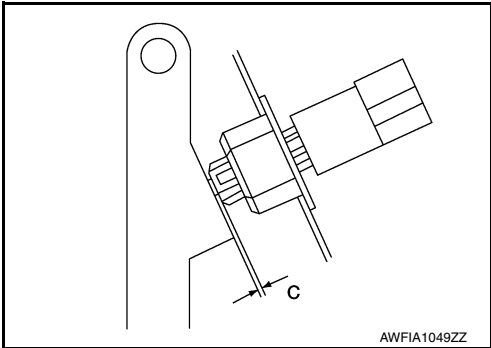
INFOID:0000000010591898

Unit: mm (in)

Item	Standard
Brake pedal height (H1)	159.9 – 169.9 (6.30 – 6.69)

# QUICK REFERENCE CHART: LEAF

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Item	Standard
 <p style="text-align: right; font-size: small;">AWFIA1048ZZ</p>	
Depressed brake pedal height (H <sub>2</sub> ) Depressing [196 N (20 kg, 44 lb) while set the vehicle to READY]	93.0 (3.661) or more
 <p style="text-align: right; font-size: small;">AWFIA1049ZZ</p>	
Clearance (C) between stop lamp switch and brake pedal position switch (if equipped) threaded end and the brake pedal lever	0.74 – 1.96 (0.0291 – 0.0772)
Brake pedal play	3 – 11 (0.12 – 0.43)

## Front Disc Brake

INFOID:0000000010591897

Unit: mm (in)

Item	Limit
Brake pad	Wear limit thickness 2.0 (0.079)
Disc rotor	Wear limit thickness 24.0 (0.945)
	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:0000000010591896

Unit: mm (in)

Item	Limit
Brake pad	Wear thickness 2.0 (0.079)
Disc rotor	Wear thickness 14.0 (0.051)
	Thickness variation (measured at 8 positions) 0.015 (0.0006)
	Runout (with it attached to the vehicle) 0.1 (0.0039)

## Fluids and Lubricants

INFOID:0000000010591895

		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

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		Capacity (Approximate)		
		US measure	Imp measure	Liter
Reduction gear fluid		3 pt	2-1/2 pt	1.41
Brake fluid		—	—	—
Air conditioning system re- frigerant	With heat pump system	0.85 kg	1.87 lb	1.87 lb
	Without heat pump system	0.42 kg	0.93 lb	0.93 lb
Air conditioning system lubri- cants	With heat pump system	150 m ℓ	5.3 fl oz	5.1 fl oz
	Without heat pump system	150 m ℓ	5.3 fl oz	5.1 fl oz
Multi-purpose grease		—	—	—