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QUICK REFERENCE INDEX

**NISSAN
VERSA
MODEL C11 SERIES**

| | | |
|---------------------------------------|---|--|
| 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 | |
| | ACC Accelerator Control System | |
| | CL Clutch System | |
| C TRANSMISSION/ TRANSAXLE | MT Manual Transaxle | |
| | AT Automatic Transaxle | |
| | CVT CVT | |
| | FAX Front Axle | |
| D DRIVELINE/AXLE | RAX Rear Axle | |
| | FSU Front Suspension | |
| E SUSPENSION | RSU Rear Suspension | |
| | WT Road Wheels & Tires | |
| | BR Brake System | |
| F BRAKES | PB Parking Brake System | |
| | BRC Brake Control System | |
| | PS Power Steering System | |
| G STEERING | STC Steering Control System | |
| | SB Seat Belts | |
| H RESTRAINTS | SRS Supplemental Restraint System (SRS) | |
| | BL Body, Lock & Security System | |
| | GW Glasses, Window System & Mirrors | |
| I BODY | RF Roof | |
| | EI Exterior & Interior | |
| | IP Instrument Panel | |
| | SE Seat | |
| | MTC Manual Air Conditioner | |
| | SC Starting & Charging System | |
| J AIR CONDITIONER | LT Lighting System | |
| | DI Driver Information System | |
| | WW Wiper, Washer & Horn | |
| | BCS Body Control System | |
| | LAN LAN System | |
| | AV Audio Visual, Navigation & Telephone System | |
| | ACS Auto Cruise Control System | |
| | PG Power Supply, Ground & Circuit Elements | |
| | MA Maintenance | |
| | K ELECTRICAL | |
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| | | |
| | | |
| L MAINTENANCE | | |

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K
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M**

FOREWORD

This manual contains maintenance and repair procedures for the 2012 NISSAN VERSA HATCHBACK.

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.



NISSAN NORTH AMERICA, INC.
Technical Publications Department



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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.*

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: _____

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

Please comment: _____

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: VERSA HATCHBACK

Engine Tune-up Data

INFOID:000000007799262

GENERAL SPECIFICATIONS

| | | |
|--|--------------------------------------|-----------------------------|
| Engine type | | MR18DE |
| Cylinder arrangement | | In-line 4 |
| Displacement | cm ³ (cu in) | 1,797 (109.65) |
| Bore and stroke | mm (in) | 84.0 x 81.1 (3.307 x 3.192) |
| Valve arrangement | | DOHC |
| Firing order | | 1-3-4-2 |
| Number of piston rings | Compression | 2 |
| | Oil | 1 |
| Compression ratio | | 9.9 |
| Compression pressure kPa (kg/cm ² , psi) / 250 rpm | Standard | 1,500 (15.3, 217.6) |
| | Minimum | 1,200 (12.2, 174) |
| | Differential limit between cylinders | 100 (1.0, 15) |

DRIVE BELT

| | |
|-----------------------|-----------------------------------|
| Tension of drive belt | Auto adjustment by auto-tensioner |
|-----------------------|-----------------------------------|

SPARK PLUG

Unit: mm (in)

| | |
|----------------|----------------------|
| Make | DENSO |
| Standard type* | FXE20HR-11 |
| Spark plug gap | Nominal: 1.1 (0.043) |

*: Always check with the Parts Department for the latest parts information.

Front Wheel Alignment (Unladen*)

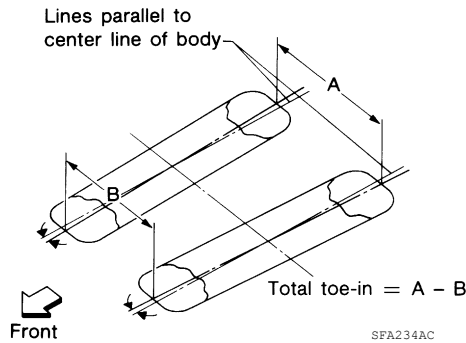
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| | | | |
|--|------------------------------------|--------------------------|--------------------|
| Market | | United States and Canada | |
| Tire size | | P185/65R15, P195/55R16 | |
| Camber Degree minute (Decimal degree) | RH | Minimum | - 0° 55' (- 0.92°) |
| | | Nominal | - 0° 10' (- 0.17°) |
| | | Maximum | 0° 35' (0.58°) |
| | LH | Minimum | - 0° 55' (- 0.92°) |
| | | Nominal | - 0° 10' (- 0.17°) |
| | | Maximum | 0° 35' (0.58°) |
| | Left or right difference (LH - RH) | Minimum | -0° 33' (-0.55°) |
| | | Nominal | 0° 0' (0°) |
| | | Maximum | 0° 33' (0.55°) |

QUICK REFERENCE CHART: VERSA HATCHBACK

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| | | | |
|---|------------------------------------|--------------------------|------------------|
| Market | | United States and Canada | |
| Tire size | | P185/65R15, P195/55R16 | |
| Caster Degree minute (Decimal degree) | RH | Minimum | 4° 05' (4.08°) |
| | | Nominal | 4° 50' (4.83°) |
| | | Maximum | 5° 35' (5.58°) |
| | LH | Minimum | 3° 55' (3.92°) |
| | | Nominal | 4° 40' (4.67°) |
| | | Maximum | 5° 25' (5.42°) |
| | Left or right difference (LH - RH) | Minimum | -0° 45' (-0.75°) |
| | | Nominal | -0° 12' (-0.20°) |
| | | Maximum | 0° 21' (0.35°) |
| Kingpin inclination Degree minute (Decimal degree) | Minimum | 9° 10' (9.17°) | |
| | Nominal | 9° 55' (9.92°) | |
| | Maximum | 10° 40' (10.67°) | |



| | | | |
|--------------|---|---------|-------------------|
| Total toe-in | Distance (A - B) | Minimum | 0 mm (0 in) |
| | | Nominal | 1 mm (0.04 in) |
| | | Maximum | 2 mm (0.08 in) |
| | Angle (left or right, each side) Degree minute second (Decimal degree) | Minimum | 0° 0' 0" (0°) |
| | | Nominal | 0° 2' 42" (0.05°) |
| | | Maximum | 0° 5' 24" (0.09°) |

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

Rear Wheel Alignment (Unladen*)

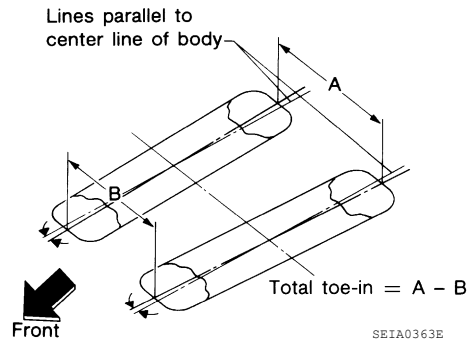
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| | | | |
|--|---------|--------------------------|--|
| Market | | United States and Canada | |
| Tire size | | P185/65R15, P195/55R16 | |
| Camber Degree minute (Decimal degree) | Minimum | - 2° 0' 30" (- 2.01°) | |
| | Nominal | - 1° 30' 30" (- 1.51°) | |
| | Maximum | - 1° 0' 30" (- 1.01°) | |

QUICK REFERENCE CHART: VERSA HATCHBACK

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| | |
|-----------|--------------------------|
| Market | United States and Canada |
| Tire size | P185/65R15, P195/55R16 |



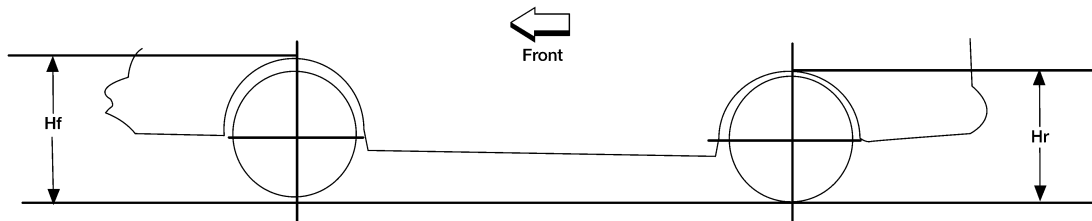
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|--------------|--|---------|---------------------|
| Total toe-in | Distance (A - B) | Minimum | -1.0 mm (-0.039 in) |
| | | Nominal | 3.0 mm (0.118 in) |
| | | Maximum | 7.0 mm (0.276 in) |
| | Angle (left or right, each side) Degree minute (Decimal degree) | Minimum | -0° 2' 30" (-0.04°) |
| | | Nominal | 0° 8' 30" (0.14°) |
| | | Maximum | 0° 19' 0" (0.32°) |

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

Wheelarch Height (Unladen*)

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Unit: mm (in)



LEIA0085E

| | | | |
|------------|---------------|-------------|---------------|
| Tire size | P185/65R15 | | P195/55R16 |
| Market | United States | Canada | United States |
| Front (Hf) | 685 (26.97) | 685 (26.97) | 686 (27.01) |
| Rear (Hr) | 682 (26.85) | 683 (26.89) | 683 (26.89) |

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

Brake Specifications

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MR18DE

| | | |
|-------------|-----------------------------------|---|
| Front brake | Brake model | CLZ25VF |
| | Cylinder bore diameter | 57.2 mm (2.252 in) |
| | Pad Length × width × thickness | 125.6 mm × 48.0 mm × 9.5 mm (4.945 in × 1.890 in × 0.374 in) |
| | Rotor outer diameter × thickness | 280 mm × 24.0 mm (11.02 in × 0.945 in) |
| Rear brake | Brake model | LT23 |
| | Cylinder bore diameter | 19.06 mm (0.750 in) |
| | Drum inner diameter | 228.6 mm (9.000 in) |

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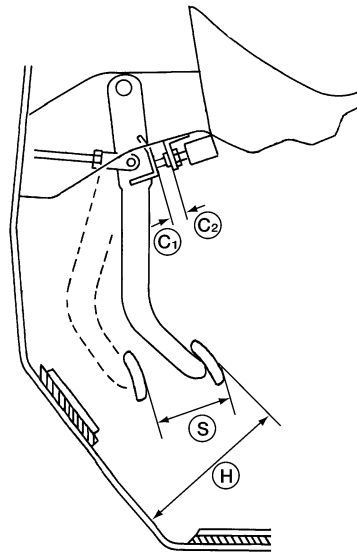
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| | | |
|-----------------|------------------------|-------------------------------------|
| Master cylinder | Cylinder bore diameter | 23.81 ± 0.015 mm (0.937 ± 0.001 in) |
| Brake booster | Booster model | C255 |
| | Diaphragm diameter | 255 mm (10.04 in) |

Brake Pedal

INFOID:000000007799255

Unit: mm (in)



AWFIA0557ZZ

| | | |
|--|----------------|-------------------------------|
| Brake pedal free height (H) (from dash panel top surface) | A/T, CVT model | 172.4 +10/-0 (6.78 +0.39/-0) |
| | M/T model | 162.3 +10/-0 (6.39 +0.39/-0) |
| Brake pedal full stroke (S) | | 133 (5.24) |
| Clearance between the pedal stopper and threaded end of stop lamp switch (C1) and ASCD cancel switch (C2), if equipped | | 0.74 - 1.96 (0.0291 - 0.0772) |

Front Disc Brake

INFOID:000000007799254

Unit: mm (in)

| | | |
|-------------|--|-----------------------------|
| Brake model | | CLZ25VF |
| Brake pad | Standard thickness (new) | 9.5 (0.374) |
| | Minimum thickness | 2.0 (0.079) |
| Disc rotor | Standard thickness (new) | 24.0 (0.945) |
| | Repair limit thickness | 22.0 (0.866) |
| | Runout limit (measured at 10.0 mm (0.394 in) inside the disc edge) | 0.07 (0.0028) |
| | Maximum uneven wear (measured at 8 positions) | 0.02 mm (0.0008 in) or less |

Rear Drum Brake

INFOID:000000007799253

Unit: mm (in)

| | | |
|--------------|--------------------------|-------------|
| Brake model | | LT23 |
| Brake lining | Standard thickness (new) | 4.0 (0.157) |
| | Minimum thickness | 1.5 (0.059) |

QUICK REFERENCE CHART: VERSA HATCHBACK

2012

| | | |
|------|-------------------------------|---------------|
| Drum | Standard inner diameter (new) | 228.6 (9.000) |
| | Repair limit inner diameter | 230.0 (9.055) |

Fluids and Lubricants

INFOID:000000007799252

| Description | | Capacity (Approximate) | | |
|---|---------------------------|------------------------|----------------|----------------|
| | | Metric | US measure | Imp measure |
| Fuel | | 50.0 ℓ | 13 1/4 gal | 11 gal |
| Engine oil Drain and refill | With oil filter change | 4.1 ℓ | 4 3/8 qt | 3 5/8 qt |
| | Without oil filter change | 3.9 ℓ | 4 1/8 qt | 3 3/8 qt |
| Dry engine (engine overhaul) | | 4.9 ℓ | 5 1/8 qt | 4 3/8 qt |
| Cooling system (with reservoir at MAX level) | | 6.8 ℓ | 7 1/4 qt | 6 qt |
| Manual transaxle fluid (MTF) | RS6F949 | 2.0 ℓ | 4 1/4 pt | 3 1/2 pt |
| Automatic transaxle fluid (ATF) | | 7.9 ℓ | 8 3/8 qt | 7 qt |
| CVT fluid | RE0F08B | 6.9 ℓ | 7 1/4 qt | 6 1/8 qt |
| Brake and clutch fluid | | — | — | — |
| Multi-purpose grease | | — | — | — |
| Windshield washer fluid | | 4.5 ℓ | 4 3/4 qt | 4 qt |
| Air conditioning system refrigerant | | 0.45 ± 0.05 kg | 0.99 ± 0.11 lb | 0.99 ± 0.11 lb |
| Air conditioning system oil | MR18DE - Type 1 | 120 m ℓ | 4.1 fl oz | 4.2 fl oz |
| | MR18DE - Type 2 | 100 m ℓ | 3.4 fl oz | 3.5 fl oz |