



INFINITI®

130

MODEL A32 SERIES



INFINITI®

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FOREWORD

This manual contains maintenance and repair procedures for the 1996 INFINITI I30.

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 INFINITI must first be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.



INFINITI®



NISSAN MOTOR CO., LTD.

Overseas Service Department
Tokyo, Japan

INCH TO METRIC CONVERSION TABLE

(Rounded-off for automotive use)

| inches | mm | inches | mm |
|--------|--------------|--------|---------------|
| .100 | 2.54 | .610 | 15.49 |
| .110 | 2.79 | .620 | 15.75 |
| .120 | 3.05 | .630 | 16.00 |
| .130 | 3.30 | .640 | 16.26 |
| .140 | 3.56 | .650 | 16.51 |
| .150 | 3.81 | .660 | 16.76 |
| .160 | 4.06 | .670 | 17.02 |
| .170 | 4.32 | .680 | 17.27 |
| .180 | 4.57 | .690 | 17.53 |
| .190 | 4.83 | .700 | 17.78 |
| .200 | 5.08 | .710 | 18.03 |
| .210 | 5.33 | .720 | 18.29 |
| .220 | 5.59 | .730 | 18.54 |
| .230 | 5.84 | .740 | 18.80 |
| .240 | 6.10 | .750 | 19.05 |
| .250 | 6.35 | .760 | 19.30 |
| .260 | 6.60 | .770 | 19.56 |
| .270 | 6.86 | .780 | 19.81 |
| .280 | 7.11 | .790 | 20.07 |
| .290 | 7.37 | .800 | 20.32 |
| .300 | 7.62 | .810 | 20.57 |
| .310 | 7.87 | .820 | 20.83 |
| .320 | 8.13 | .830 | 21.08 |
| .330 | 8.38 | .840 | 21.34 |
| .340 | 8.64 | .850 | 21.59 |
| .350 | 8.89 | .860 | 21.84 |
| .360 | 9.14 | .870 | 22.10 |
| .370 | 9.40 | .880 | 22.35 |
| .380 | 9.65 | .890 | 22.61 |
| .390 | 9.91 | .900 | 22.86 |
| .400 | 10.16 | .910 | 23.11 |
| .410 | 10.41 | .920 | 23.37 |
| .420 | 10.67 | .930 | 23.62 |
| .430 | 10.92 | .940 | 23.88 |
| .440 | 11.18 | .950 | 24.11 |
| .450 | 11.43 | .960 | 24.38 |
| .460 | 11.68 | .970 | 24.64 |
| .470 | 11.94 | .980 | 24.89 |
| .480 | 12.19 | .990 | 25.15 |
| .490 | 12.45 | 1.000 | 25.40 |
| .500 | 12.70 | 2.000 | 50.80 |
| .510 | 12.95 | 3.000 | 76.20 |
| .520 | 13.21 | 4.000 | 101.60 |
| .530 | 13.46 | 5.000 | 127.00 |
| .540 | 13.72 | 6.000 | 152.40 |
| .550 | 13.97 | 7.000 | 177.80 |
| .560 | 14.22 | 8.000 | 203.20 |
| .570 | 14.48 | 9.000 | 228.60 |
| .580 | 14.73 | 10.000 | 254.00 |
| .590 | 14.99 | 20.000 | 508.00 |
| .600 | 15.24 | | |

METRIC TO INCH CONVERSION TABLE

(Rounded-off for automotive use)

| mm | inches | mm | inches |
|-----------|--------|------------|--------|
| 1 | .0394 | 51 | 2.008 |
| 2 | .079 | 52 | 2.047 |
| 3 | .118 | 53 | 2.087 |
| 4 | .157 | 54 | 2.126 |
| 5 | .197 | 55 | 2.165 |
| 6 | .236 | 56 | 2.205 |
| 7 | .276 | 57 | 2.244 |
| 8 | .315 | 58 | 2.283 |
| 9 | .354 | 59 | 2.323 |
| 10 | .394 | 60 | 2.362 |
| 11 | .433 | 61 | 2.402 |
| 12 | .472 | 62 | 2.441 |
| 13 | .512 | 63 | 2.480 |
| 14 | .551 | 64 | 2.520 |
| 15 | .591 | 65 | 2.559 |
| 16 | .630 | 66 | 2.598 |
| 17 | .669 | 67 | 2.638 |
| 18 | .709 | 68 | 2.677 |
| 19 | .748 | 69 | 2.717 |
| 20 | .787 | 70 | 2.756 |
| 21 | .827 | 71 | 2.795 |
| 22 | .866 | 72 | 2.835 |
| 23 | .906 | 73 | 2.874 |
| 24 | .945 | 74 | 2.913 |
| 25 | .984 | 75 | 2.953 |
| 26 | 1.024 | 76 | 2.992 |
| 27 | 1.063 | 77 | 3.031 |
| 28 | 1.102 | 78 | 3.071 |
| 29 | 1.142 | 79 | 3.110 |
| 30 | 1.181 | 80 | 3.150 |
| 31 | 1.220 | 81 | 3.189 |
| 32 | 1.260 | 82 | 3.228 |
| 33 | 1.299 | 83 | 3.268 |
| 34 | 1.339 | 84 | 3.307 |
| 35 | 1.378 | 85 | 3.346 |
| 36 | 1.417 | 86 | 3.386 |
| 37 | 1.457 | 87 | 3.425 |
| 38 | 1.496 | 88 | 3.465 |
| 39 | 1.535 | 89 | 3.504 |
| 40 | 1.575 | 90 | 3.543 |
| 41 | 1.614 | 91 | 3.583 |
| 42 | 1.654 | 92 | 3.622 |
| 43 | 1.693 | 93 | 3.661 |
| 44 | 1.732 | 94 | 3.701 |
| 45 | 1.772 | 95 | 3.740 |
| 46 | 1.811 | 96 | 3.780 |
| 47 | 1.850 | 97 | 3.819 |
| 48 | 1.890 | 98 | 3.858 |
| 49 | 1.929 | 99 | 3.898 |
| 50 | 1.969 | 100 | 3.937 |

QUICK REFERENCE CHART: I30

1996

ENGINE TUNE-UP DATA

| | | | |
|---|---|------------------------------|------------------------------|
| Engine model | VQ30DE | | |
| Firing order | 1-2-3-4-5-6 | | |
| Idle speed | M/T | 625 ± 50 | |
| | A/T (in "N" position) | 700 ± 50 | |
| Ignition timing (degree BTDC at idle speed) | M/T: 15° ± 2° A/T: | | |
| CO% at idle | Idle mixture screw is preset and sealed at factory. | | |
| Drive belt deflection (Cold) | mm (in) | Used belt | |
| | | Limit | Deflection after adjustment |
| Alternator | | Deflection of new belt | |
| | | | |
| With air conditioner compressor | 7 (0.28) | 4.2 - 4.6 (0.165 - 0.181) | 3.8 - 4.1 (0.150 - 0.161) |
| Without air conditioner compressor | 10 (0.39) | 6.3 - 6.9 (0.248 - 0.272) | 5.8 - 6.2 (0.228 - 0.244) |
| Power steering oil pump | 11 (0.43) | 7.3 - 8 (0.287 - 0.315) | 6.5 - 7 (0.256 - 0.276) |
| Applied pressed force | N (kg, lb) | 98 (10, 22) | |
| Radiator cap relief pressure | kPa (kg/cm ² , psi) | 78 - 98 (0.8 - 1.0, 11 - 14) | |
| Cooling system leakage testing pressure | kPa (kg/cm ² , psi) | 157 (1.6, 23) | |
| Compression pressure | Standard | 1,275 (13.0, 185)/300 | |
| | Minimum | 981 (10.0, 142)/300 | |
| High tension cable resistance | kΩ | — | |
| Spark plug | Type | PFR5G-11 | |
| | Gap mm (in) | 1.0 - 1.1 (0.039 - 0.043) | |

CLUTCH PEDAL

| | | |
|-----------------|--|-------------------------|
| | | Unit: mm (in) |
| Pedal height | | 168 - 175 (6.61 - 6.89) |
| Pedal free play | | 1 - 3 (0.04 - 0.12) |

FRONT WHEEL ALIGNMENT (Unladen*)

| | | | |
|---------------------------------|-----------------------------------|---------------------------|---------------------|
| Camber | Degree minute (Decimal degree) | Minimum | -1°00' (-1.00°) |
| | | Nominal | -0°15' (-0.25°) |
| | | Maximum | 0°30' (0.50°) |
| | | Left and right difference | 45' (0.75') or less |
| Caster | Degree minute (Decimal degree) | Minimum | 2°00' (2.00°) |
| | | Nominal | 2°45' (2.75°) |
| | | Maximum | 3°30' (3.50°) |
| | | Left and right difference | 45' (0.75') or less |
| Total toe-in | Distance (A - B) mm (in) | Minimum | 1 (0.04) |
| | | Nominal | 2 (0.08) |
| | | Maximum | 3 (0.12) |
| Angle (left plus right) | Degree minute (Decimal degree) | Minimum | 11' (0.18°) |
| | | Nominal | 22' (0.37°) |
| | | Maximum | 32' (0.53°) |
| Wheel turning angle (Full turn) | Degree minute (Decimal degree) | Minimum | 36°00' (36.00°) |
| | | Nominal | 39°30' (39.50°) |
| | | Maximum | 40°30' (40.50°) |
| Outside | Degree minute (Decimal degree) | Nominal | 32°00' (32.00°) |

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

REAR WHEEL ALIGNMENT (Unladen*)

| | | | |
|-------------------------|-----------------------------------|---------|-----------------|
| Camber | Degree minute (Decimal degree) | Minimum | -1°45' (-1.75°) |
| | | Nominal | -1°00' (-1.00°) |
| | | Maximum | -0°15' (-0.25°) |
| Total toe-in | Distance (A - B) mm (in) | Minimum | -3 (-0.12) |
| | | Nominal | 1 (0.04) |
| | | Maximum | 5 (0.20) |
| Angle (left plus right) | Degree minute (Decimal degree) | Minimum | -32' (-0.53°) |
| | | Nominal | 11' (0.18°) |
| | | Maximum | 52' (0.87°) |

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

BRAKE

| | | |
|--------------------------|--|---------------|
| | | Unit: mm (in) |
| Front brake | Pad wear limit | 2.0 (0.079) |
| | Rotor repair limit | 20.0 (0.787) |
| Rear brake | Pad wear limit | 1.5 (0.059) |
| | Rotor repair limit | 8.0 (0.315) |
| Pedal free height | M/T: 158 - 165 (6.22 - 6.50) A/T: 167 - 174 (6.57 - 6.85) | |
| Pedal depressed height*1 | M/T: 70 (2.76) A/T: 75 (2.95) | |
| Parking brake | Number of notches*2 | 10 - 11 |

*1 Under force of 490 N (50 kg, 110 lb) with engine running

*2 At pulling force: 196 N (20 kg, 44 lb)

REFILL CAPACITIES

| | | | |
|-------------------------|--------------------|----------------|----------------|
| Unit | | Liter | US measure |
| Fuel tank | | 70 | 18-1/2 gal |
| Coolant with reservoir | | 8.5 | 9 qt |
| Engine | With oil filter | 4.0 | 4-1/4 qt |
| | Without oil filter | 3.7 | 3-7/8 qt |
| Transaxle | M/T | RSF50V | 4.3 - 4.5 |
| | A/T | RSF50A | 4.5 - 4.8 |
| Power steering system | | 1.1 | 1-1/8 qt |
| Air conditioning system | Refrigerant | 0.60 - 0.70 kg | 1.32 - 1.54 lb |
| | Compressor oil | 0.25 | 8.5 fl oz |