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**INFINITI**®

**G20**

**MODEL P11 SERIES**



**INFINITI**®

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# FOREWORD

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This manual contains maintenance and repair procedures for the 1999 INFINITI G20.

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.

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## 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	<b>2.54</b>	.610	<b>15.49</b>
.110	<b>2.79</b>	.620	<b>15.75</b>
.120	<b>3.05</b>	.630	<b>16.00</b>
.130	<b>3.30</b>	.640	<b>16.26</b>
.140	<b>3.56</b>	.650	<b>16.51</b>
.150	<b>3.81</b>	.660	<b>16.76</b>
.160	<b>4.06</b>	.670	<b>17.02</b>
.170	<b>4.32</b>	.680	<b>17.27</b>
.180	<b>4.57</b>	.690	<b>17.53</b>
.190	<b>4.83</b>	.700	<b>17.78</b>
.200	<b>5.08</b>	.710	<b>18.03</b>
.210	<b>5.33</b>	.720	<b>18.29</b>
.220	<b>5.59</b>	.730	<b>18.54</b>
.230	<b>5.84</b>	.740	<b>18.80</b>
.240	<b>6.10</b>	.750	<b>19.05</b>
.250	<b>6.35</b>	.760	<b>19.30</b>
.260	<b>6.60</b>	.770	<b>19.56</b>
.270	<b>6.86</b>	.780	<b>19.81</b>
.280	<b>7.11</b>	.790	<b>20.07</b>
.290	<b>7.37</b>	.800	<b>20.32</b>
.300	<b>7.62</b>	.810	<b>20.57</b>
.310	<b>7.87</b>	.820	<b>20.83</b>
.320	<b>8.13</b>	.830	<b>21.08</b>
.330	<b>8.38</b>	.840	<b>21.34</b>
.340	<b>8.64</b>	.850	<b>21.59</b>
.350	<b>8.89</b>	.860	<b>21.84</b>
.360	<b>9.14</b>	.870	<b>22.10</b>
.370	<b>9.40</b>	.880	<b>22.35</b>
.380	<b>9.65</b>	.890	<b>22.61</b>
.390	<b>9.91</b>	.900	<b>22.86</b>
.400	<b>10.16</b>	.910	<b>23.11</b>
.410	<b>10.41</b>	.920	<b>23.37</b>
.420	<b>10.67</b>	.930	<b>23.62</b>
.430	<b>10.92</b>	.940	<b>23.88</b>
.440	<b>11.18</b>	.950	<b>24.13</b>
.450	<b>11.43</b>	.960	<b>24.38</b>
.460	<b>11.68</b>	.970	<b>24.64</b>
.470	<b>11.94</b>	.980	<b>24.89</b>
.480	<b>12.19</b>	.990	<b>25.15</b>
.490	<b>12.45</b>	1.000	<b>25.40</b>
.500	<b>12.70</b>	2.000	<b>50.80</b>
.510	<b>12.95</b>	3.000	<b>76.20</b>
.520	<b>13.21</b>	4.000	<b>101.60</b>
.530	<b>13.46</b>	5.000	<b>127.00</b>
.540	<b>13.72</b>	6.000	<b>152.40</b>
.550	<b>13.97</b>	7.000	<b>177.80</b>
.560	<b>14.22</b>	8.000	<b>203.20</b>
.570	<b>14.48</b>	9.000	<b>228.60</b>
.580	<b>14.73</b>	10.000	<b>254.00</b>
.590	<b>14.99</b>	20.000	<b>508.00</b>
.600	<b>15.24</b>		

## METRIC TO INCH CONVERSION TABLE

(Rounded-off for automotive use)

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

# QUICK REFERENCE CHART: G20

# 1999

## ENGINE TUNE-UP DATA

Engine model		SR20DE	
Firing order		1-3-4-2	
Idle speed	rpm	800±50	
	M/T (in "N" position)	800±50	
Ignition timing (degree BTDC at idle speed)		M/T: A/T: 15°±2°	
CO% at idle		Idle mixture screw is preset and sealed at factory.	
Drive belt deflection adjustment (Cold)	mm (in)	Used belt	
		Limit	Deflection after adjustment
Alternator		New belt	
		Limit	Deflection after adjustment
With air conditioner compressor		11.5 - 12.5 (0.453 - 0.492)	7 - 8 (0.28 - 0.31)
Without air conditioner compressor		12 - 13 (0.47 - 0.51)	8 - 9 (0.31 - 0.35)
Power steering oil pump		6 - 7 (0.24 - 0.28)	4 - 5 (0.16 - 0.20)
Applied pressed force		N (kg, lb) 98 (10, 22)	
Drive belt tension adjustment (Cold)	N (kg, lb)	Used belt	
		Limit	After adjustment
Alternator		New belt	
		Limit	After adjustment
Air conditioner compressor		294 (30, 65)	549 - 647 (56 - 66, 125 - 145)
Power steering pump		294 (30, 65)	549 - 647 (56 - 66, 125 - 145)
Radiator cap relief pressure		kPa (kg/cm <sup>2</sup> , psi) 78 - 98 (0.8 - 1.0, 11 - 14)	
Cooling system leakage testing pressure		kPa (kg/cm <sup>2</sup> , psi) 157 (1.6, 23)	
Compression pressure	Standard	1,226 (12.5, 178)/300	
	Minimum	1,030 (10.5, 149)/300	
High tension cable resistance		kΩ —	
Spark plug	Standard	Platinum tipped type	Conventional type
	Type	Hot	Cold
Gap		mm (in)	

## FRONT WHEEL ALIGNMENT (Unladen\*)

Camber	Degree minute (Decimal degree)	Minimum	-0°45' (-0.75°)
		Nominal	0° (0°)
		Maximum	0°45' (0.75°)
Left and right difference		45' (0.75°) or less	
Caster	Degree minute (Decimal degree)	Minimum	1°10' (1.17°)
		Nominal	1°55' (1.92°)
		Maximum	2°40' (2.67°)
Left and right difference		45' (0.75°) or less	
Total toe-in	mm (in)	Minimum	0 (0)
		Nominal	1 (0.04)
		Maximum	2 (0.08)
Distance (A - B)			
Angle (left plus right)	Degree minute (Decimal degree)	Minimum	0 (0.00°)
		Nominal	6° (0.10°)
		Maximum	12° (0.20°)
Wheel turning angle (Full turn)	Degree minute (Decimal degree)	Minimum	31°00' (31.00°)
		Nominal	34°00' (34.00°)
		Maximum	35°00' (35.00°)
Inside	Degree minute (Decimal degree)		
		Nominal	29°00' (29.00°)
Outside	Degree minute (Decimal degree)		
		Nominal	29°00' (29.00°)

\* 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	-2°03' (-2.05°)
		Nominal	-1°18' (-1.30°)
		Maximum	-0°33' (-0.55°)
Total toe-in	mm (in)	Minimum	0 (0)
		Nominal	4 (0.16)
		Maximum	8 (0.31)
Distance (A - B)			
Angle (left plus right)	Degree minute (Decimal degree)	Minimum	0 (0.00°)
		Nominal	24° (0.40°)
		Maximum	48° (0.80°)

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

## CLUTCH PEDAL

Unit: mm (in)	
Pedal height	158 - 168 (6.22 - 6.61)
Pedal free play	9 - 16 (0.35 - 0.63)

## 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: 151 - 161 (5.94 - 6.34) A/T: 159 - 169 (6.26 - 6.65)
Parking brake	
Number of notches*1	6 - 7

\*1 At pulling force: 196 N (20 kg, 44 lb)

## REFILL CAPACITIES

Unit		Liter	US measure
Coolant with reservoir	M/T	6.2	6-1/2 qt
	A/T	6.2	6-1/2 qt
Engine*	Drain and refill		
	With oil filter	3.4	3-5/8 qt
	Without oil filter	3.2	3-3/8 qt
Dry engine (engine overhaul)		3.6	3-7/8 qt
Transaxle	M/T	RS5F32A	3.6 - 3.8
		RS5F32V	3.7 - 3.9
	A/T	RE4F03A/V	7.0
Power steering system		0.9	1 qt
Air conditioning system	Refrigerant	0.55 - 0.65 kg	1.21 - 1.43 lb
	Compressor oil	0.25	8.5 fl oz

\* For further details, see "Changing Engine Oil" in MA section.

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