Chrysler Voyager Service Manual Gs 1999 1996

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CHRYSLER INTERNATIONAL

SERVICE MANUAL

1998 CHRYSLER VOYAGER

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FOREWORD

The information contained in this service manual has been prepared for the professional automotive technician involved in daily repair operations. This manual does not cover theory of operation, which is addressed in service training material. Information describing the operation and use of standard and optional equipment is included in the Owner's Manual provided with the vehicle.

Information in this manual is divided into groups. These groups contain general information, diagnosis, testing, adjustments, removal, installation, disassembly, and assembly procedures for the systems and components. To assist in locating a group title page, use the Group Tab Locator on the following page. The solid bar after the group title is aligned to a solid tab on the first page of each group. The first page of the group has a contents section that lists major topics within the group. If you are not sure which Group contains the information you need, look up the Component/System in the alphabetical index located in the rear of this manual.

Tightening torques are provided as a specific value throughout this manual. This value represents the midpoint of the acceptable engineering torque range for a given fastener application. These torque values are intended for use in service assembly and installation procedures using the correct OEM fasteners. When replacing fasteners, always use the same type (part number) fastener as removed.

Chrysler International reserves the right to change testing procedures, specifications, diagnosis, repair methods, or vehicle wiring at any time without prior notice or incurring obligation.

GROUP TAB LOCATOR

	Introduction	
0	Lubrication and Maintenance	
2	Suspension	
5	Brakes	
6	Clutch	
7	Cooling System	
8A	Battery	
8B	Starting System	
8E	Instrument Panel and Systems	
8H	Vehicle Speed Control System	
8K	Wiper and Washer Systems	
8L	Lamps	
8Q	Vehicle Theft/Security Systems	
8U	Chime Warning/Reminder System	
8W	Wiring Diagrams	
9	Engine	
13	Frame and Bumpers	
14	Fuel System—2.5L Diesel Engine/2.0L Gas Engine	
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INTRODUCTION

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GENERAL INFORMATION

VEHICLE SAFETY CERTIFICATION LABEL

A vehicle safety certification label (Fig. 1) is located on the rear shut face of the driver's door. This label indicates date of manufacture (month and year), Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating (GAWR) front, Gross Axle Weight Rating (GAWR) rear and the Vehicle Identification Number (VIN). The Month, Day and Hour of manufacture is also included.

When it is necessary to contact the manufacturer regarding service or warranty, the information on the Vehicle Safety Certification Label would be required.

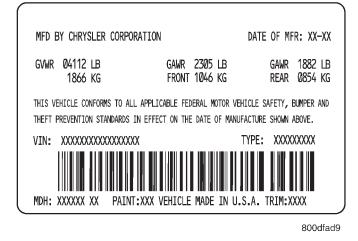


Fig. 1 Vehicle Safety Certification Label

VEHICLE IDENTIFICATION NUMBER

The Vehicle Identification Number (VIN) can be viewed through the windshield at the upper left corner of the instrument panel, near the left windshield pillar (Fig. 2). The VIN consists of 17 characters in a combination of letters and numbers that provide specific information about the vehicle. Refer to VIN Code Breakdown Chart for decoding information.

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VEHICLE IDENTIFICATION NUMBER 1
VEHICLE SAFETY CERTIFICATION LABEL 1
VIN CHECK DIGIT 1

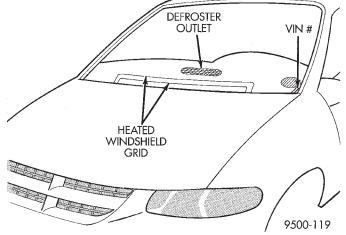


Fig. 2 Vehicle Identification Number (VIN Plate)

VIN CHECK DIGIT

METRIC SYSTEM . TORQUE REFEREN

To protect the consumer from theft and possible fraud, the manufacturer is required to include a Check Digit at the ninth position of the Vehicle Identification Number. The check digit is used by the manufacturer and government agencies to verify the authenticity of the vehicle and official documentation. The formula to use the check digit is not released to the general public.

BODY CODE PLATE

LOCATION AND DECODING

The Body Code Plate (Fig. 3) is located in the engine compartment on the radiator closure panel crossmember. There are seven lines of information on the body code plate. Lines 4, 5, 6, and 7 are not used to define service information. Information reads from left to right, starting with line 3 in the center of the plate to line 1 at the bottom of the plate.

NS ·

VIN CODE BREAKDOWN CHART

POSITION	INTERPRETATION	CODE = DESCRIPTION
1	Country of Origin	1 = United States
		2 = Canada
2	Make	B = Dodge
		C = Chrysler
		P = Plymouth
3	Vehicle Type	4 = Multipurpose Pass. Vehicle
4	Gross Vehicle Weight Rating	G = 2268 - 2721 kg (5001 - 6000 lbs)
5	Car Line	P = Chrysler, Town & Country
		P = Dodge, Caravan/Grand Caravan
		P = Plymouth, Voyager/Grand Voyager
		T = AWD Chrysler, Town & Country
		T = AWD Dodge, Grand Caravan
		T = AWD Plymouth, Grand Voyager
6	Series	2 = FWD Caravan/Grand Caravan, Voyager/ Grand Voyager
		4 = Caravan SE/Grand Caravan SE, Voyager SE/Grand Voyager SE
		5 = Caravan LE or ES/Grand Caravan LE or ES, Voyager LE/Grand Voyager LE, Town & Country LX
		6 = Town & Country LXI
7	Body Style	4 = Long Wheel Base
		5 = Short Wheel Base
8	Engine	B = 2.4 L 4 cyl. MPI 16-VALVE DOHC
		3 = 3.0 L 6 cyl. gas MPI
		R = 3.3L 6 cyl. gas MPI
		L = 3.8 L 6 cyl. gas MPI
9	Check Digit	See explanation in this section.
10	Model Year	V = 1997
11	Assembly Plant	B = St. Louis South
		R = Windsor
12 thru 17	Sequence Number	6 digit number assigned by assembly plant.

BODY CODE PLATE - LINE 3

DIGITS 1 THROUGH 12 Vehicle Order Number

DIGITS 13 THROUGH 17 Open space

Open space

DIGITS 18 AND 19

Vehicle Shell Line

• NS

DIGIT 20

Carline

FWD

- H = Plymouth
- K = Dodge
- S = Chrysler

AWD

- C = Chrysler
- D = Dodge
- P = Plymouth

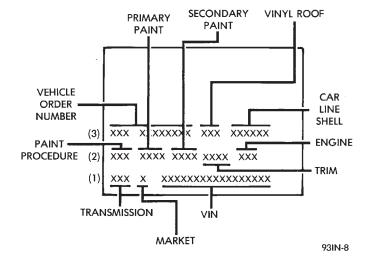


Fig. 3 Body Code Plate

DIGIT 21

- Price Class
- H = Highline
- L = Lowline
- P = Premium
- S = Luxury

DIGITS 22 AND 23

- Body Type
- 52 = Short Wheel Base
- 53 = Long Wheel Base

BODY CODE PLATE LINE 2

DIGITS 1, 2 AND 3

Paint procedure

DIGIT 4

Open Space

DIGITS 5 THROUGH 8

Primary paint See Group 23, Body for color codes.

DIGIT 9

Open Space

DIGITS 10 THROUGH 13 Secondary Paint

DIGIT 14

Open Space

DIGITS 15 THROUGH 18 Interior Trim Code

DIGIT 19

Open Space

DIGITS 20, 21, AND 22

Engine Code

- EDZ = 2.4L 4 cyl. DOHC Gasoline
- EFA = 3.0L 6 cyl. Gasoline
- EGA = 3.3L 6 cyl. Gasoline
- EGH = 3.8L 6 cyl. Gasoline

BODY CODE PLATE LINE 1

DIGITS 1, 2, AND 3

- **Transaxle Codes**
- DGB = 31TH 3-Speed Automatic Transaxle
- DGL = 41TE 4-speed Electronic Automatic Transaxle
 - DGM = 31TH 3-Speed Automatic Transaxle

DIGIT 4

Open Space

DIGIT 5

Market Code

- C = Canada
- B = International
- M = Mexico
- U = United States

DIGIT 6

Open Space

DIGITS 7 THROUGH 23

Vehicle Identification Number

• Refer to Vehicle Identification Number (VIN) paragraph for proper breakdown of VIN code.

IF TWO BODY CODE PLATES ARE REQUIRED

The last code shown on either plate will be followed by END. When two plates are required, the last code space on the first plate will indicate (CTD)

When a second plate is required, the first four spaces of each line will not be used due to overlap of the plates.

INTERNATIONAL CONTROL AND DISPLAY SYMBOLS

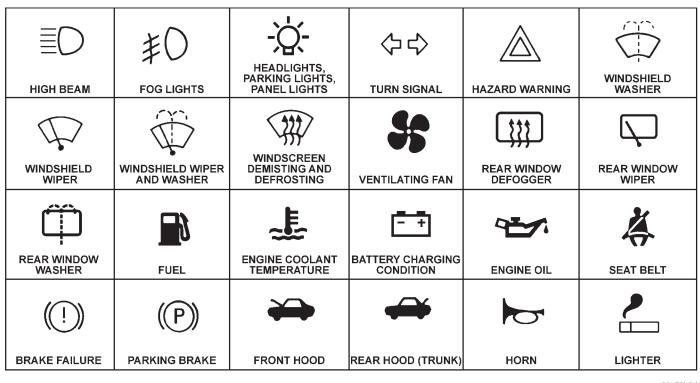


Fig. 4

INTERNATIONAL VEHICLE CONTROL AND DISPLAY SYMBOLS INTERNATIONAL VEHICLE CONTROL AND DISPLAY SYMBOLS

The graphic symbols illustrated in the following chart (Fig. 4) are used to identify various instrument controls. The symbols correspond to the controls and displays that are located on the instrument panel.

FASTENER IDENTIFICATION

FASTENER IDENTIFICATION

THREAD IDENTIFICATION

SAE and metric bolt/nut threads are not the same. The difference is described in the Thread Notation chart (Fig. 5).

GRADE/CLASS IDENTIFICATION

The SAE bolt strength grades range from grade 2 to grade 8. The higher the grade number, the greater the bolt strength. Identification is determined by the line marks on the top of each bolt head. The actual

INCH		METR	IC
5/16-1	8	M8 X	1.25
THREAD MAJOR DIAMETER IN INCHES	NUMBER OF THREADS PER INCH	THREAD MAJOR DIAMETER IN MILLIMETERS	DISTANCE BETWEEN THREADS IN MILLIMETERS

PR606B

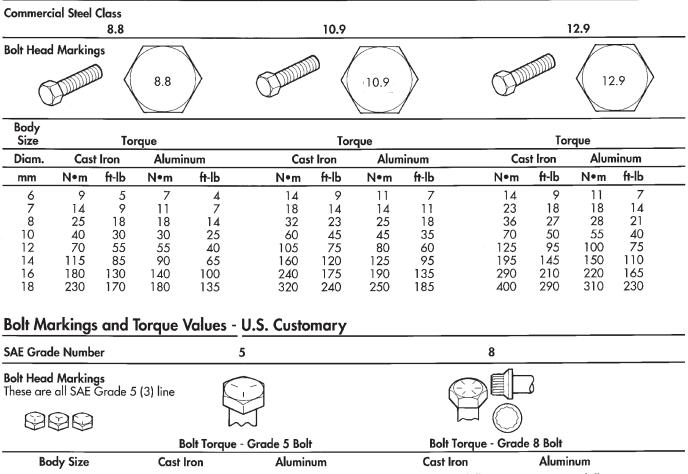
Fig. 5 Thread Notation—SAE and Metric

bolt strength grade corresponds to the number of line marks plus 2. The most commonly used metric bolt strength classes are 9.8 and 12.9. The metric strength class identification number is imprinted on the head of the bolt. The higher the class number, the greater the bolt strength. Some metric nuts are imprinted with a single-digit strength class on the nut face. Refer to the Fastener Identification and Fastener Strength Charts.

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FASTENER IDENTIFICATION

Bolt Markings and Torque - Metric



		Dell render		ψII					
Body Size	Cas	st Iron	Alum	ninum	Cast	Iron	Alum	inum	
	N∙m	ft-lb	N∙m	ft-lb	N∙m	ft-lb	N∙m	ft-lb	
1/4 - 20	9	7	8	6	15	11	12	9	
- 28	12	9	9	7	18	13	14	10	
5/16 - 18	20	15	16	12	30	22	24	18	
- 24	23	17	19	14	33	24	25	19	
3/8 - 16	40	30	25	20	55	40	40	30	
- 24	40	30	35	25	60	45	45	35	
7/16 - 14	60	45	45	35	90	65	65	50	
- 20	65	50	55	40	95	70	75	55	
1/2 - 13	95	70	75	55	130	95	100	75	
- 20	100	75	80	60	150	110	120	90	
9/16 - 12	135	100	110	80	190	140	150	110	
- 18	150	110	115	85	210	155	170	125	
5/8 - 11	180	135	150	110	255	190	205	150	
- 18	210	155	160	120	290	215	230	170	
3/4 - 10	325	240	255	190	460	340	365	270	
- 16	365	270	285	210	515	380	410	300	
7/8 - 9	490	360	380	280	745	550	600	440	
- 14	530	390	420	310	825	610	660	490	
1 - 8	720	530	570	420	1100	820	890	660	
- 14	800	590	650	480	1200	890	960	710	

FASTENER STRENGTH

HOW TO DETERMINE BOLT STRENGTH

$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Mark	Class		Mark	Class
Hexagon flange bolt Image bolt Imag	Hexagon head bolt	5	5T 6T 7T 8T 9T 10T	Stud bolt	No mark	4T
flange bolt Image AT w/washer hexagon bolt Image AT Hexagon head bolt Image Image Image Image Image Image <t< td=""><td></td><td>No mark</td><td>4T</td><td></td><td></td><td></td></t<>		No mark	4T			
head bolt Image: second seco	flange bolt w/washer	No mark	4T		Grooved	6Т
flange bolt Image bolt </td <td>Hexagon head bolt</td> <td>protruding</td> <td>51</td> <td></td> <td></td> <td></td>	Hexagon head bolt	protruding	51			
head bolt Image: Description of the protructing lines 7T Image: Description of the protructing lines 4T Hexagon head bolt Image: Description of the protructing lines 8T Image: Description of the protructing lines 4T	flange bolt w/washer	([6T	Welded bolt		
head bolt Four protruding 8T	Hexagon head bolt	protruding	71			4 T
	Hexagon head bolt	protruding	81			

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INTRODUCTION

GENERAL INFORMATION (Continued)

METRIC SYSTEM

WARNING: USE OF AN INCORRECT FASTENER MAY RESULT IN COMPONENT DAMAGE OR PER-SONAL INJURY.

Figure art, specifications and torque references in this Service Manual are identified in metric and SAE format.

During any maintenance or repair procedures, it is important to salvage metric fasteners (nuts, bolts, etc.) for reassembly. If the fastener is not salvageable, a fastener of equivalent specification should be used.

The metric system is based on quantities of one, ten, one hundred, one thousand and one million (Fig. 6).

The following chart will assist in converting metric units to equivalent English and SAE units, or vise versa.

Refer to the Conversion Chart to convert torque values listed in metric Newton- meters $(N \cdot m)$. Also, use the chart to convert between millimeters (mm) and inches (in.)

Mega	-	(M) Million	Deci -	(D) Tenth
Kilo	-	(K) Thousand	Centi -	(C) Hundreth
		Milli -	(m) Thousandth	

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Multiply	By	To Get	Multiply	By	To Get
in-lbs	x 0.11298	= Newton-Meters (N•m)	N•m	x 8.851	= in-lbs
ft-lbs	x 1.3558	 Newton-Meters (N•m) 	N•m	x 0.7376	= ft-lbs
Inches Hg (60°F)	x 3.377	= Kilopascals (kPa)	kPa	x 0.2961	= Inches Hg
psi	x 6.895	 Kilopascals (kPa) 	kPa	x 0.145	= psi
Inches	× 25.4	= Millimeters (mm)	mm	x 0.03937	= Inches
Feet	x 0.3048	= Meters (M)	м	x 3.281	= Feet
Yards	x 0.9144	= Meters (M)	M	x 1.0936	= Yards
Miles	x 1.6093	= Kilometers (Km)	Km	x 0.6214	= Miles
mph	x 1.6093	= Kilometers/Hr. (Km/h)	Km/h	x 0.6214	= mph
Feet/Sec.	x 0.3048	= Meters/Sec. (M/S)	M/S	x 3.281	= Feet/Sec.
Kilometers/Hr.	× 0.27778	= Meters/Sec. (M/S)	M/S	× 3.600	= Kilometers/Hr.
mph	× 0.4470	= Meters/Sec. (M/S)	M/S	x 2.237	= mph
		COMMON METRI	C EQUIVALENTS		
l Inch = 25 Milli	meters		1 Cubic Inch	= 16 Cut	oic Centimeters
Foot = 0.3 Me	ter		1 Cubic Foot	= 0.03 C	ubic Meter
Yard = 0.9 Me	ter		1 Cubic Yard	= 0.8 Cu	bic Meter
Mile = 1.6 Kilor	notore				

CONVERSION FORMULAS AND EQUIVALENT VALUES

TORQUE REFERENCES

Individual Torque Charts appear at the end of many Groups. Refer to the Standard Torque Specifications Chart for torque references not listed in the individual torque charts. J91IN-1

METRIC CONVERSION

in-lbs to N•m

N•m to in-lbs

in- Ib	N∙m	in-Ib	N∙m	in-Ib	N∙m	in-lb	N∙m	in-lb	N•m	N∙m	in-lb	N•m	in-lb	N∙m	in-Ib	N∙m	in-lb	N∙m	in-lb
2	.2260	42	4.7453	82	9.2646	122	13,7839	162	18.3032	.2	1.7702	4.2	37.1747	8.2	72.5792	12.2	107.9837	16.2	
4	.4519		4.9713	84	9.4906		14.0099		18.5292	.4	3.5404	4.4	38.9449	8.4	74.3494	12.4	109.7539	16.4	145.1584
6	.6779		5.1972	86	9.7165		14.2359		18.7552	.6	5.3107	4.6	40.7152	8.6	76.1197	12.6	111.5242	16.6	146.9287
8	9039		5.4232	88	9.9425		14.4618		18.9811	.8	7.0809	4.8	42.4854	8.8	77.8899	12.8	113.2944	16.8	148.6989
10	1.1298		5.6492	90	10.1685		14.6878		19.2071	1	8.8511	5	44.2556	9	79.6601		115.0646		150.4691
12	1.3558		5.8751	92	10.3944		14.9138		19.4331	1.2	10.6213	5.2	46.0258	9.2	81.4303		116.8348		152.2393
14	1.5818		6.1011	94	10.6204		15.1397		19.6590	1.4	12.3916	5.4	47.7961	9.4	83.2006	13.4	118.6051	17.4	154.0096
16	1.8077		6.3270	96	10.8464		15.3657		19.8850	1.6	14.1618	5.6	49.5663	9.6	84.9708	13.6	120.3753		155.7798
18	2.0337		6.5530	98	11.0723		15.5917		20.1110	1.8	15.9320	5.8	51.3365	9.8	86.7410		122.1455		157.5500
20	2.2597		6.7790		11.2983		15.8176		20.3369	2	17.7022	6	53.1067	10	88.5112		123.9157		159.3202
22	2.4856		7.0049		11.5243		16.0436		20.5629	2.2	19.4725	6.2	54.8770	10.2	90.2815		125.6860		163.7458
24	2.7116		7.2309		11.7502		16.2696		20,7889	2.4	21.2427	6.4	56.6472	10.4	92.0517		127.4562		168.1714
26	2.9376		7.4569		11.9762		16.4955		21.0148	2.6	23.0129	6.6	58.4174	10.6	93.8219		129.2264	19.5	172.5970
28	3.1635		7.6828	108	12.2022		16.7215		21.2408	2.8	24.7831	6.8	60.1876	10.8	95.5921		130.9966		177.0225
30	3.3895		7.9088	110		150	16.9475		21.4668	3	26.5534	7	61.9579		97.3624		132.7669		181.4480
32	3.6155		8.1348		12.6541		17.1734		21.6927	3.2	28.3236	7.2	63.7281	11.2	99.1326		134.5371		185.8736
34	3.8414		8.3607	114	12.8801		17.3994		21.9187	3.4	30.0938	7.4	65.4983	11.4	100.9028		136.3073		194.7247
36	4.0674		8.5867		13.1060		17.6253		22.1447	3.6	31.8640	7.6	67.2685		102.6730		138.0775		203.5759
38	4.2934		8.8127		13.3320		17.8513		22.3706	3.8	33.6342	7.8	69,0388		104.4433		139.8478		212.4270
40	4.5193		9.0386		13.5580		18.0773		22.5966	4	35.4045	8	70.8090	12	106.2135	16	141.6180	25	221.2781

ft-lbs to N•m

N•m to ft-lbs

ft-Ib	N•m	ft-lb	N∙m	ft-lb	N∙m	ft-lb	N∙m	ft-lb	N∙m	N∙m	ft-lb	N∙m	ft-lb	N∙m	ft-Ib	N∙m	ft-lb	N∙m	ft-lb
1	1.3558	21	28.4722	41	55.5885	61	82.7049	81	109.8212	1	.7376	21	15.9888	41	30.2400	61	44.9913	81	59.7425
2	2.7116	22	29.8280	42	56.9444	62	84.0607	82	111.1770	2	1.4751	22	16.2264	42	30.9776	62	45.7289	82	60.4801
3	4.0675	23	31.1838	43	58.3002	63	85.4165	83	112.5328	3	2.2127	23	16.9639	43	31.7152	63	46.4664	83	61.2177
4	5.4233	24	32.5396	44	59.6560	64	86.7723	84	113.8888	4	2.9502	24	17.7015	44	32.4527	64	47.2040		61.9552
5	6.7791	25	33.8954	45	61.0118	65	88.1281	85	115.2446	5	3.6878	25	18.4391	45	33.1903	65	47.9415		62.6928
6	8.1349	26	35.2513	46	62.3676	66	89.4840	86	116.6004	6	4.4254	26	19.1766	46	33.9279	66	48.6791	86	63.4303
7	9.4907	27	36.607 1	47	63.7234	67	90.8398	87	117.9562	7	5.1629	27	19.9142	47	34.6654	67	49.4167	87	64.1679
8	10.8465	28	37.9629	48	65.0793	68	92.1956	88	119.3120	8	5.9005	28	20.6517	48	35.4030	68	50.1542	88	64.9545
9	12.2024	29	39.3187	49	66.4351	69	93.5514	89	120.6678	9	6.6381	29	21.3893	49	36.1405	69	50.8918	89	65.6430
10	13.5582	30	40.6745	50	67.7909	70	94.9073	90	122.0236	10	7.3756	30	22.1269	50	36.8781	70	51.6293	90	66.3806
11	14.9140	31	42.0304	51	69.1467	71	96.2631	91	123.3794	11	8.1132	31	22.8644	51	37.6157	71	52.3669	91	67.1181
12	16.2698	32	43.3862	52	70.5025	72	97.6189	92	124.7352	12	8.8507	32	23.6020	52	38.3532	72	53.1045	92	67.8557
13	17.6256		44.7420	53	71.8583	73	98.9747	93	126.0910	.13	9.5883	33	24.3395	53	39.0908	73	53.8420	93	68.5933
14	18.9815		46.0978	54	73.2142	74	100.3316		127.4468	14	10.3259	34	25.0771	54	39.8284	74	54.5720		69.3308
15	20.3373		47.4536	55	74.5700	75	101.6862	95	128.8026	15	11.0634	35	25.8147	55	40.5659	75	55.3172	95	70.0684
16	21.6931	36	48.8094	56	75.9258	76	103.0422	96	130.1586	16	11.8010	36	26.5522	-56	41.3035	76	56.0547	96	70.8060
17	23.0489	37	50.1653	57	77.2816	77	104.3980	97	131.5144	17	12.5386	37	27.2898	57	42.0410		56.7923	97	71.5435
18	24.4047	38	51.5211	58	78.6374	78	105.7538	98	132.8702	18	13.2761	38	28.0274	58	42.7786	78	57.5298	98	72.2811
19	25.7605	39	52.8769	59	79.9933	79	107.1196	99	134.2260	19	14.0137	39	28.7649	59	43.5162	79	58.2674	99	73.0187
20	27.1164	40	54.2327	60	81.3491	80	108.4654	100	135.5820	20	14.7512	40	29.5025	60	44.2537	80	59.0050	100	73.7562

in. to mm

mm to in.

in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
.01	.254	.21	5.334	.41	10.414	.61	15,494	.81	20.574	.01	.00039	.21	.00827	.41	.01614	.61	.02402	.81	.03189
.02	.508	.22	5.588	.42	10.668	.62	15.748	.82	20.828	.02	.00079	.22	.00866	.42	.01654	.62	.02441	.82	.03228
.03	.762	.23	5.842	.43	10.922	.63	16.002	.83	21.082	.03	.00118	.23	.00906	.43	.01693	.63	.02480	.83	.03268
.04	1.016	.24	6.096	.44	11.176	.64	16.256	.84	21.336	.04	.00157	.24	.00945	.44	.01732	.64	.02520	.84	.03307
.05	1.270	.25	6.350	.45	11.430	.65	16.510	.85	21.590	.05	.00197	.25	.00984	.45	.01772	.65	.02559	.85	.03346
.06	1.524	.26	6.604	.46	11.684	.66	16.764	.86	21.844	.06	.00236	.26	.01024	.46	.01811	.66	.02598	.86	.03386
.07	1.778	.27	6.858	.47	11.938	.67	17.018	.87	22.098	.07	.00276	.27	.01063	.47	.01850	.67	.02638	.87	.03425
.08	2.032	.28	7.112	.48	12.192	.68	17.272	.88	22.352	.08	.00315	.28	.01102	.48	.01890	.68	.02677	.88	.03465
.09	2.286	.29	7.366	.49	12.446	.69	17.526	.89	22.606	.09	.00354	.29	.01142	.49	.01929	.69	.02717	.89	.03504
.10	2.540	.30	7.620	.50	12.700	.70	17.780	.90	22.860	.10	.00394	.30	.01181	.50	.01969	.70	.02756	.90	.03543
.11	2.794	.31	7.874	.51	12.954	.71	18.034	.91	23.114	.11	.00433	.31	.01220	.51	.02008	.71	.02795	.91	.03583
.12	3.048	.32	8.128	.52	13.208	.72	18.288	.92	23.368	.12	.00472	.32	.01260	.52	.02047	.72	.02835	.92	.03622
.13	3.302	.33	8.382	.53	13.462	.73	18.542	.93	23.622	.13	.00512	.33	.01299	.53	.02087	.73	.02874	.93	.03661
.14	3.556	.34	8.636	.54	13.716	.74	18.796	.94	23.876	.14	.00551	.34	.01339	.54	.02126	.74	.02913	.94	.03701
.15	3.810	.35	8.890	.55	13.970	.75	19.050	.95	24.130	.15	.00591	.35	.01378	.55	.02165	.75	.02953	.95	.03740
.16	4.064	.36	9.144	.56	14.224	.76	19.304	.96	24.384	.16	.00630	.36	.01417	.56	.02205	.76	.02992	.96	.03780
.17	3.318	.37	9.398	.57	14.478	.77	19.558	.97	24.638	.17	.00669	.37	.01457	.57	.02244	.77	.03032	.97	.03819
.18	4.572	.38	9.652	.58	14.732	.78	19.812	.98	24.892	.18	.00709	.38	.01496	.58	.02283	.78	.03071	.98	.03858
.19	4.826	.39	9.906	.59	14.986	.79	20.066	.99	25.146	.19	.00748	.39	.01535	.59	.02323	.79	.03110	.99	.03898
.20	5.080	.40	10.160	.60	15.240	.80	20.320	1.00	25.400	.20	.00787	.40	.01575	.60	.02362	.80	.03150	1.00	.03937

– NS

TORQUE SPECIFICATIONS

SPECIFIED TORQUE FOR STANDARD BOLTS

			Specified torque											
Class	mm mm			Hexagon head l			exagon flange							
	mm	mm	N∙m	kgf-cm	ft-lbf	N∙m	kgf-cm	ft-lbf						
	6	1	5	55	48 inIbf	6	60	52 inlbf						
	8	1.25	12.5	130	9	14	145	10						
4 T	10	1.25	26	260	19	29	290	21						
	12	1.25	47	480	35	53	540	39						
	14	1.5	74	760	55	84	850	61						
	16	1.5	115	1,150	83									
	6	1	6.5	65	56 inlbf	7.5	75	65 inlbf						
	8	1.25	15.5	160	12	17.5	175	13						
5T	10	1.25	32	330	24	36	360	26						
	12	1.25	59	600	43	65	670	48						
	14	1.5	91	930	67	100	1,050	76						
	16	1.5	140	1,400	101		· · · · · · · · · · · · · · · · · · ·							
	6	1	8	80	69 inIbf	9	90	78 inlbf						
	8	1.25	19	195	14	21	210	15						
6T	10	1.25	39	400	29	44	440	32						
	12	1.25	71	730	53	80	810	59						
	14	1.5	110	1,100	80	125	1,250	90						
	16	1.5	1 <i>7</i> 0	1,750	127	—		<u> </u>						
	6	1	10.5	110	8	12	120	9						
	8	1.25	25	260	19	28	290	21						
7 T	10	1.25	52	530	38	58	590	43						
	12	1.25	95	970	70	105	1,050	76						
	14	1.5	145	1,500	108	165	1,700	123						
	16	1.5	230	2,300	166	<u> </u>		_						
	8	1.25	29	300	22	33	330	24						
8T	10	1.25	61	620	45	68	690	50						
	12	1.25	110	1,100	80	120	1,250	90						
	8	1.25	34	340	25	37	380	27						
9T	10	1.25	70	710	51	78	790	57						
	12	1.25	125	1,300	94	140	1,450	105						
	8	1.25	38	390	28	42	430	31						
10T	10	1.25	78	800	58	88	890	64						
	12	1.25	140	1,450	105	155	1,600	116						
	8	1.25	42	430	31	47	480	35						
11T	10	1.25	87	890	64	97	990	72						
	12	1.25	155	1,600	116	175	1,800	130						

INTRODUCTION

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GENERAL INFORMATION

E-MARK LABEL

An E-mark Label (Fig. 1) is located on the rear shut face of the driver's door. The label contains the following information:

- Date of Manufacture
- Month-Day-Hour (MDH)
- Vehicle Identification Number (VIN)
- Country Codes
- Regulation Number
- Regulation Amendment Number
- Approval Number

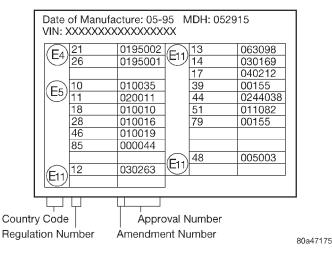


Fig. 1 E-Mark Label

VEHICLE IDENTIFICATION NUMBER

The Vehicle Identification Number (VIN) can be viewed through the windshield at the upper left corner of the instrument panel next to the left A-pillar (Fig. 2). The VIN consists of 17 characters in a combination of letters and numbers that provide specific information about the vehicle. Refer to the VIN Decoding Information Table to interpret VIN code.

MANUFACTURER PLATE	3
VEHICLE IDENTIFICATION NUMBER	1

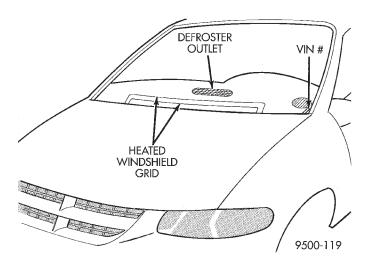


Fig. 2 VIN PLATE LOCATION

VIN CHECK DIGIT

To protect the consumer from theft and possible fraud the manufacturer is required to include a check Digit at the ninth position of the VIN. The check digit is used by the manufacturer and government agencies to verify the authenticity of the vehicle and official documentation. The formula to use the check digit is not released to the general public.

BODY CODE PLATE

LOCATION AND DECODING

The Body Code Plate is located (Fig. 3) in the engine compartment on the radiator closure panel crossmember. There are seven lines of information on the body code plate. Lines 4, 5, 6, and 7 are not used to define service information. Information reads from left to right, starting with line 3 in the center of the plate to line 1 at the bottom of the plate.

BODY CODE PLATE—LINE 3

DIGITS 1 THROUGH 12 Vehicle Order Number

DIGITS 13, 14, AND 15 Open Space

VIN DECODING INFORMATION

INTERPRETATION	CODE = DESCRIPTION
Country of origin	1 = United States or Austria
	2 = Canada
Make	C = Chrysler
	D = Dodge
Vehicle Type	4 = Multipurpose Pass. Veh.
Gross Vehicle Weight Rating	G = 2268-2721 kg (5001-6000 lbs)
Car Line	C = Voyager/Grand Voyager AWD
	Y = Voyager/Grand Voyager FWD
Series	4 = Voyager/Grand Voyager SE FWD
	5 = Voyager/Grand Voyager LE FWD/AWD
	6 = Voyager LX FWD/AWD
	N = 5-Speed Manual Transmission
	B = 4-Speed Automatic Transmission
Body Style	2 = Short Wheelbase 4-Door
	3 = Short Wheelbase 3-Door
	4 = Long Wheelbase Premium 4-Door
	5 = Long Wheelbase Highline 4-door
	7 = Short Wheelbase Commercial Van
Engine	B = 2.4 L 4cyl. MPI 16-Valve DOHC
	C = 2.0L 4cyl. MPI 16-Valve SOHC
	M = 2.5L 4cyl Turbo Diesel (Intercooler)
	R = 3.3 L 6 cyl. gas MPI
	L = 3.8 L 6 cyl. gas MPI
Check Digit	See explanation in this section.
Model Year	W = 1998
Assembly Plant	B = St. Louis South, U.S.A.
	R = Windsor, Canada
	U = Graz, Austria
Build Sequence	6 Digit number assigned by assembly plant
	Make Vehicle Type Gross Vehicle Weight Rating Car Line Series Body Style Body Style Engine Check Digit Model Year Assembly Plant

DIGITS 16, 17, AND 18

Vehicle Shell Car Line

- GSYH = Voyager/Grand Voyager SE FWD
- GSYP = Voyager/Grand Voyager LE FWD
- GSYS = Voyager LX FWD
- GSCP = Voyager/Grand Voyager LE AWD
- GSCS = Voyager LX AWD

DIGIT 19

Price Class

- H = High Line
- P = Premium
- S = Special/Sport

DIGITS 20 AND 21

- Body Type
- 52 = Short Wheel Base
- 53 = Long Wheel Base

BODY CODE PLATE—LINE 2

DIGITS 1,2, AND 3

Paint Procedure

DIGIT 4

Open Space

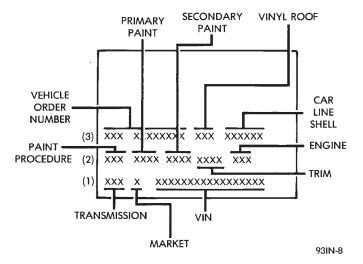


Fig. 3 Body Code Plate

DIGITS 5 THROUGH 8

Primary Paint See Group 23, Body for color codes.

DIGIT 9

Open Space

DIGITS 10 THROUGH 13 Secondary Paint

DIGIT 14

Open Space

DIGITS 15 THROUGH 18

Interior Trim Code

DIGIT 19

Open Space

DIGITS 20, 21, AND 22

Engine Code

- ECB = 2.0L 4cyl 16 valve SOHC gasoline
- EDZ = 2.4 L 4 cyl. 16 valve DOHC gasoline
- ENC = 2.5 L 4 cyl. Turbo Diesel (Intercooler)
- EGA = 3.3 L 6 cyl. gasoline
- EGH = 3.8 L 6 cyl. gasoline

BODY CODE PLATE LINE 1

DIGITS 1, 2, AND 3

Transaxle Codes

• DGL = 41TE 4-speed Electronic Automatic Transaxle

• DD3 = A-598 5-speed Manual Transaxle

DIGIT 4

Open Space

DIGIT 5

- Market Code
- B = International
- M = Mexico

DIGIT 6

Open Space

DIGITS 7 THROUGH 23

Vehicle Identification Number (VIN)

Refer to Vehicle Identification Number (VIN) paragraph for proper breakdown of VIN code.

IF TWO BODY CODE PLATES ARE REQUIRED

The last code shown on either plate will be followed by END. When two plates are required, the last code space on the first plate will indicate continued (CTD).

When a second plate is required, the first four spaces of each line will not be used due to overlap of the plates.

MANUFACTURER PLATE

The Manufacturer Plate (Fig. 4) is located in the engine compartment on the radiator closure panel crossmember adjacent to the Body Code Plate. The plate contains five lines of information:

- 1. Vehicle Identification Number (VIN)
- 2. Gross Vehicle Mass (GVM)
- 3. Gross Train Mass (GTM)
- 4. Gross Front Axle Rating (GFAR)
- 5. Gross Rear Axle Rating (GRAR)

CHRYSLER CORPORATION

*XXXXXXXXXXXXXXXXXXXX XXXX KG XXXX KG 1 XXXX KG 2 XXXX KG

80a47179

Fig. 4 Manufacturer Plate

LUBRICATION AND MAINTENANCE

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GENERAL INFORMATION

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GENERAL INFORMATION

INTRODUCTION

Service and maintenance procedures for components and systems listed in Schedule - A or B can be found by using the Group Tab Locator index at the front of this manual. If it is not clear which group contains the information needed, refer to the index at the back of this manual.

There are two maintenance schedules that show proper service based on the conditions that the vehicle is subjected to.

Schedule - A, lists scheduled maintenance to be performed when the vehicle is used for general transportation.

Schedule - B, lists maintenance intervals for vehicles that are operated under the conditions listed at the beginning of the Maintenance Schedule section.

Use the schedule that best describes your driving conditions.

Where time and mileage are listed, follow the interval that occurs first.

PARTS AND LUBRICANT RECOMMENDATIONS

When service is required, Chrysler Corporation recommends that only Mopar® brand parts, lubricants and chemicals be used. Mopar provides the best engineered products for servicing Chrysler Corporation vehicles.

INTRODUCTION 1 PARTS AND LUBRICANT

INTERNATIONAL SYMBOLS

Chrysler Corporation uses international symbols to identify engine compartment lubricant and fluid inspection and fill locations (Fig. 1).

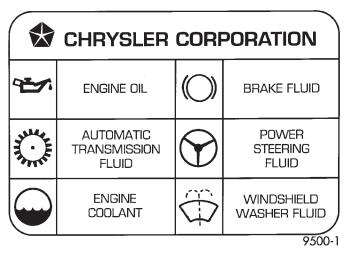


Fig. 1 International Symbols

CLASSIFICATION OF LUBRICANTS

Only lubricants that are endorsed by the following organization should be used to service a Chrysler Corporation vehicle.

- Society of Automotive Engineers (SAE)
- American Petroleum Institute (API) (Fig. 2)
- National Lubricating Grease Institute (NLGI) (Fig. 3)



9400-9

Fig. 2 API Symbol ENGINE OIL

SAE VISCOSITY RATING INDICATES ENGINE OIL VISCOSITY

An SAE viscosity grade is used to specify the viscosity of engine oil. SAE 30 specifies a single viscosity engine oil. Engine oils also have multiple viscosities. These are specified with a dual SAE viscosity grade which indicates the cold-to-hot temperature viscosity range.

- SAE 30 = single grade engine oil.
- SAE 10W-30 = multiple grade engine oil.

API QUALITY CLASSIFICATION

The API Service Grade specifies the type of performance the engine oil is intended to provide. The API Service Grade specifications also apply to energy conserving engine oils.

Use engine oils that are API Service Certified. 5W-30 and 10W-30 MOPAR engine oils conform to specifications.

Refer to Group 9, Engine for engine oil specification.

GEAR LUBRICANTS

SAE ratings also apply to multiple grade gear lubricants. In addition, API classification defines the lubricants usage.

LUBRICANTS AND GREASES

Lubricating grease is rated for quality and usage by the NLGI. All approved products have the NLGI symbol (Fig. 3) on the label. At the bottom NLGI symbol is the usage and quality identification letters. Wheel bearing lubricant is identified by the letter "G". Chassis lubricant is identified by the latter "L". The letter following the usage letter indicates the quality of the lubricant. The following symbols indicate the highest quality.

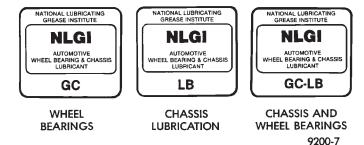


Fig. 3 NLGI Symbol

FLUID CAPACITIES

MAINTENANCE SCHEDULES

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GENERAL INFORMATION

INTRODUCTION

Service and maintenance procedures for components and systems listed in Schedule – A or B can be found by using the Group Tab Locator index at the front of this manual. If it is not clear which group contains the information needed, refer to the index at the back of this manual.

There are two maintenance schedules that show proper service based on the conditions that the vehicle is subjected to.

Schedule -A, lists scheduled maintenance to be performed when the vehicle is used for general transportation.

Schedule - **B**, lists maintenance intervals for vehicles that are operated under the conditions listed at the beginning of the Maintenance Schedule section.

Use the schedule that best describes your driving conditions.

Where time and mileage are listed, follow the interval that occurs first.

UNSCHEDULED INSPECTION

At Each Stop for Fuel

• Check engine oil level, add as required.

• Check windshield washer solvent and add if required.

Once a Month

• Check tire pressure and look for unusual wear or damage.

• Inspect battery and clean and tighten terminals as required.

• Check fluid levels of coolant reservoir, brake master cylinder, power steering and transaxle and add as needed.

• Check all lights and all other electrical items for correct operation.

• Check rubber seals on each side of the radiator for proper fit.

SCHEDULE – B 4	ŀ
UNSCHEDULED INSPECTION 3	3

At Each Oil Change

- Inspect exhaust system.
- Inspect brake hoses

• Inspect the CV joints and front suspension components

• Rotate the tires at each oil change interval shown on Schedule – A (7,500 miles) or every other interval shown on Schedule – B (6,000 miles).

- Check the coolant level, hoses, and clamps.
- If your mileage is less than 7,500 miles (12 000 km) yearly, replace the engine oil filter at each oil

change.

• Replace engine oil filter on 2.4L engines.

SCHEDULE – A

7,500 Miles (12 000 km) or at 6 months

• Change engine oil.

15,000 Miles (24 000 km) or at 12 months

- Change engine oil.
- Replace engine oil filter.

22,500 Miles (36 000 km) or at 18 months

- Change engine oil.
- Inspect brake linings.

30,000 Miles (48 000 km) or at 24 months

- Change engine oil.
- Change automatic transmission fluid.
- Replace engine oil filter.
- Replace air cleaner element.
- Inspect tie rod ends and boot seals.

37,500 Miles (60 000 km) or at 30 months

• Change engine oil.

45,000 Miles (72 000 km) or at 36 months

- Change engine oil.
- Replace engine oil filter.
- Inspect brake linings.

• Flush and replace engine coolant at 36 months, regardless of mileage.

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Chrysler Voyager Service Manual Gs 1999 1996

Full download: http://manualplace.com/download/chrysler-voyager-service-manual-gs-1999-1996/ 0 - 4 LUBRICATION AND MAINTENANCE

GENERAL INFORMATION (Continued)

52,500 Miles (84 000 km) or at 42 months

• Change engine oil.

• Flush and replace engine coolant if not done at 36 months.

60,000 Miles (96 000 km) or at 48 months

• Change engine oil.

*

- Replace engine oil filter.
- Replace air cleaner element.
- Check PCV valve and replace, if necessary.

• Inspect serpentine drive belt, replace if necessarv.

• Inspect tie rod ends and boot seals.

67,500 Miles (108 000 km) or at 54 months

- Change engine oil.
- Inspect brake linings.

75,000 Miles (120 000 km) or at 60 months

- Change engine oil.
- Replace engine oil filter.

• Inspect serpentine drive belt, replace if necessary. This maintenance is not required if belt was previously replaced.

• Flush and replace engine coolant if it has been 30,000 miles (48 000 km) or 24 months since last change.

82,500 Miles (132 000 km) or at 66 months

• Change engine oil.

• Flush and replace engine coolant if it has been 30,000 miles (48 000 km) or 24 months since last change.

90,000 Miles (144 000 km) or at 72 months

- Change engine oil.
- Replace engine oil filter.
- Replace air cleaner element.

• Check PCV valve and replace, if necessary. Not required if previously changed. *

• Inspect serpentine drive belt, replace if necessary. This maintenance is not required if belt was previously replaced.

- Inspect tie rod ends and boot seals.
- Inspect brake linings.

97,500 Miles (156 000 km) or at 78 months

• Change engine oil.

100,000 Miles (160,000 km)

• Replace spark plugs on 3.3L and 3.8L engines.

• Replace ignition cables on 3.3L and 3.8L engines.

105,000 Miles (168 000 km) or at 84 months

- Change engine oil.
- Replace engine oil filter.

• Inspect serpentine drive belt, replace if necessary. This maintenance is not required if belt was previously replaced.

• Flush and replace engine coolant if it has been 30,000 miles (48 000 km) or 24 months since last change.

112,500 Miles (180 000 km) or at 90 months

- Change engine oil.
- Inspect brake linings.

• Flush and replace engine coolant if it has been 30,000 miles (48 000 km) or 24 months since last change.

120,000 Miles (192 000 km) or at 96 months

- Change engine oil.
- Replace engine oil filter.
- Replace automatic transmission fluid.
- Replace engine air cleaner element.
- Check and replace PCV valve, if necessary.

• Inspect serpentine drive belt. Not required if replaced at 75,000, 90,000 or 105,000 miles.

• Inspect tie rod ends and boot seals.

* This maintenance is recommended by Chrysler to the owner but is not required to maintain the warranty on the PCV valve.

** If California vehicle, this maintenance is recommended by Chrysler to the owner but is not required to maintain the warranty of the timing belt.

SCHEDULE – B

3,000 Miles (5 000 km)

• Change engine oil.

6,000 Miles (10 000 km)

- Change engine oil.
- Replace engine oil filter.

9,000 Miles (14 000 km)

- Change engine oil.
- Inspect brake linings.

12,000 Miles (19 000 km)

- Change engine oil.
- Replace engine oil filter.

15,000 Miles (24 000 km)

• Change engine oil.

• Inspect air cleaner element. Replace as necessary.