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IMPORT SERVICE MANUAL

Volume -- 1

Engine, Chassis & Body

RAM RAIDER

SAFETY NOTICE

CAUTION

ALL SERVICE AND REBUILDING INSTRUCTIONS CONTAINED HERE-IN ARE APPLICABLE TO, AND FOR THE CONVENIENCE OF, THE AUTOMOTIVE TRADE ONLY. All test and repair procedures on components or assemblies in non automotive applications should be repaired in accordance with instructions supplied by the manufacturer of the total product.

Proper service and repair is important to the safe, reliable, operation of all motor vehicles. The service procedures recommended and described in this publication were developed for professional service personnel and are effective methods for performing vehicle repair. Following these procedures will help assure efficient economical vehicle performance and service reliability. Some of these service procedures require the use of special tools designed for specific procedures. These special tools should be used when recommended throughout this publication.

Special attention should be exercised when working with spring or tension loaded fasteners and devices such as E-Clips, Circlips, Snaprings etc. as careless removal can cause personal injury. Always wear safety goggles whenever working on vehicles or vehicle components.

It is important to note that this publication contains various **Cautions** and **Warnings**. These should be carefully read in order to minimize the risk of personal injury, or the possibility that improper service methods may damage the vehicle or render it unsafe. It is important to note these **Cautions** and **Warnings** cover only the situations and procedures Chrysler Motors has encountered and recommended. Chrysler Motors could not possibly know, evaluate, and advise the service trade of all conceivable ways that service may be performed or of the possible hazards of each. Consequently Chrysler Motors has not undertaken any such broad service review. Accordingly, anyone who uses a service procedure or tool that is not recommended in this publication must assure oneself thoroughly that neither personal safety nor vehicle safety be jeopardized by the service methods they select.



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National Institute for
**AUTOMOTIVE
SERVICE
EXCELLENCE**



Service Manual

RAM RAIDER

1987

Volume-1
Engine,
Chassis & Body

FOREWORD

This Service Manual has been prepared with the latest service information available at the time of publication. It is subdivided into various group categories and each section contains diagnosis, disassembly, repair, and installation procedures along with complete specifications and tightening references. Use of this manual will aid in properly performing any servicing necessary to maintain or restore the high levels of performance and reliability designed into these outstanding vehicles.



Chrysler Motors reserves the right to make changes in design or to make additions to or improvements in its products without imposing any obligations upon itself to install them on its products previously manufactured.

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N00AA-A

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NOTE

For Electrical, Heater & Air-conditioning, refer to ...

Volume-2

"Electrical, Heater & Air-conditioning"

HOW TO USE THIS MANUAL

N00BAAA

CONTENTS

The preceding page contains the GROUP INDEX which lists the group title and group number.

PAGE NUMBERS

All page numbers consist of two sets of digits separated by a dash. The digits preceding the dash identify the number of the group. The digits following the dash represent the consecutive page number within the group. The page numbers can be found on the top left or right of each page.

TEXT

Unless otherwise specified, each service procedure covers all models. Procedures covering specific models are identified by the model codes, or similar designation (engine type, transmission type, etc.). A description of these designations is covered in this unit under "VEHICLE IDENTIFICATION".

TROUBLESHOOTING

Troubleshootings are classified into master troubleshooting and group troubleshooting and located as follows:

The master troubleshooting is prepared when the trouble symptom relates to two or more groups and given in MASTER TROUBLESHOOTING.

The group troubleshooting guide is prepared for causes of problems related to that individual group only; a troubleshooting guide is prepared for each appropriate group.

SERVICE PROCEDURES

The service steps are arranged in numerical order and attentions to be paid in performing vehicle service are described in detail in SERVICE POINTS.

DEFINITION OF TERMS

STANDARD VALUE

Indicates the value used as the standard for judging the quality of a part or assembly on inspection or the value to which the part or assembly is corrected and adjusted. It is given by tolerance.

LIMIT

Shows the standard for judging the quality of a part or assembly on inspection and means the maximum or minimum value within which the part or assembly must be kept functionally or in strength. It is a value established outside the range of standard value.

Indicates incidental operation to be performed before removal or after installation

Removal steps : The numbers before part names correspond to numbers in the illustration and indicate the order of removal.

Disassembly steps : The numbers before part names correspond to numbers in the illustration, and indicate the order of disassembly.

Installation steps : This is provided if installation cannot be made in the reverse order of "Removal steps"; omitted if installation in the reverse order of "Removal steps" is possible.

Reassembly steps : This is provided if reassembly cannot be made in the reverse order of "Disassembly steps"; omitted if reassembly in the reverse order of "Disassembly steps" is possible.

Classification of SERVICE POINTS

◀▶ : Removal
 ▶▶ : Installation
 ▶▶ : Disassembly
 ▶▶ : Reassembly

Page number

Group title

Section title

7-10

COOLING – Thermostat

THERMOSTAT

REMOVAL AND INSTALLATION

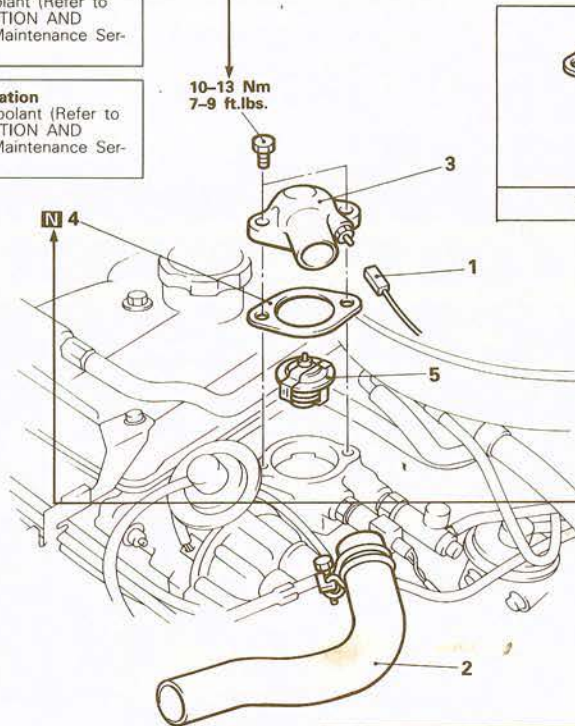
Pre-removal Operation

- Draining of the Coolant (Refer to GROUP 0 LUBRICATION AND MAINTENANCE – Maintenance Service.)

Post-installation Operation

- Supplying of the Coolant (Refer to GROUP 0 LUBRICATION AND MAINTENANCE – Maintenance Service.)

10–13 Nm
7–9 ft.lbs.



Indicates tightening torque

Repair kit or set parts are shown. (Only very frequently used parts are shown.)

Indicates non-reusable part.

Removal steps

1. Connection of water temperature switch connector (Vehicles with an air conditioner)
2. Connection of radiator upper hose
3. Water outlet fitting
4. Water outlet fitting gasket
5. Thermostat

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ♦♦ : Refer to "Service Points of Installation"
- (3) N : Non-reusable parts

This number corresponds to the number in "Removal steps", "Disassembly steps", "Installation steps" or "Reassembly steps".

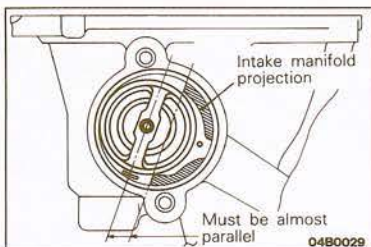
SERVICE POINTS OF INSTALLATION

5. INSTALLATION OF THERMOSTAT

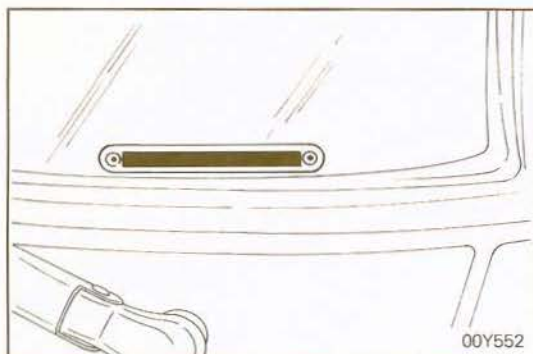
Install the thermostat to the intake manifold as illustrated.

Caution

The thermostat flange fits over the manifold seat; ensure that the thermostat is not installed at an angle.



An explanation of procedures, notes, etc. regarding removal, installation, disassembly and reassembly.



VEHICLE IDENTIFICATION

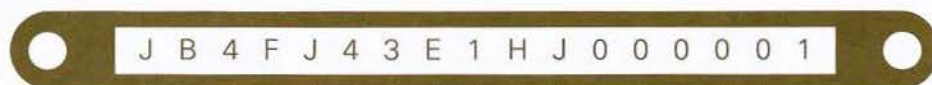
VEHICLE IDENTIFICATION NUMBER LOCATION

The vehicle identification number (V.I.N.) is located on a plate attached to the left top side of the instrument panel.

VEHICLE IDENTIFICATION CODE CHART PLATE

N00CB-A

All vehicle identification numbers contain 17 digits. The vehicle number is a code which tells country, make, vehicle type, etc.



1st digit	2nd digit	3rd digit	4th digit	5th digit	6th digit	7th digit	8th digit	9th digit	10th digit	11th digit	12th thru 17th digit
Country	Make	Vehicle type	Others	Line	Price class	Body	Engine	Check digit	Model year	Plant	Serial number
J- Japan	B- Dodge	4- Multi- purpose vehicle (MPV) 7-Truck	F- 4001 lbs. or more with hydraulic brakes	J- RAM RAIDER	4- High	3- 3-door metal- top or van	E- 2.6 liters (155.9 C.I.D.)	0 1 2 3 . . . 9 X	H- 1987 year	J- Nagoya -3	000001 to 999999

NOTE

*"Check digit" means a single number or letter X used to verify the accuracy of transcription of vehicle identification number.

VEHICLE IDENTIFICATION NUMBER LIST

FEDERAL

N00CC-A

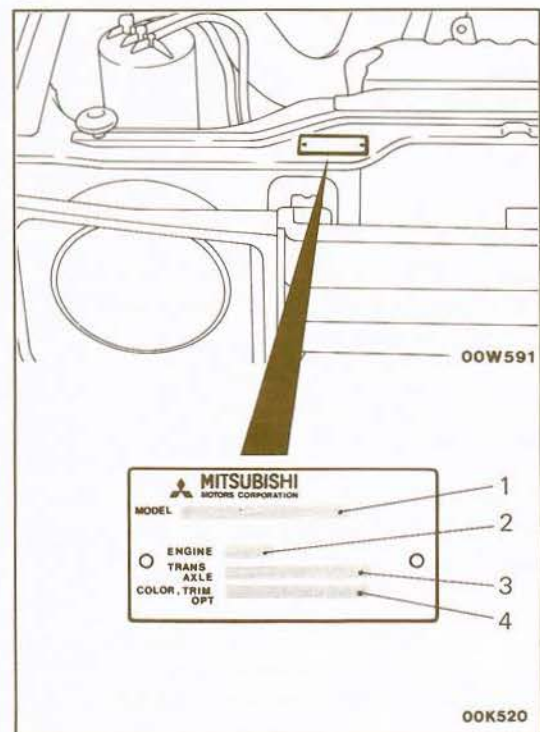
VIN (except sequence number)	Brand	Engine displacement	Model code
JB7FJ43E □ HJ	Dodge	2.555 liters	L042GTN JL2
JB7FJ43E □ HJ	RAM RAIDER	(155.9 C.I.D.)	L042GTR JL2

CALIFORNIA (Can also be sold in Federal states.)

VIN (except sequence number)	Brand	Engine displacement	Model code
JB7FJ43E □ HJ	Dodge	2.555 liters	L042GTN JL7
JB7FJ43E □ HJ	RAM RAIDER	(155.9 C.I.D.)	L042GTR JL7

CANADA

VIN (except sequence number)	Brand	Engine displacement	Model code
JB4FJ43E □ HJ	Dodge	2.555 liters	L042GVN JL3
JB4FJ43E □ HJ	RAM RAIDER	(155.9 C.I.D.)	L042GVR JL3



VEHICLE INFORMATION CODE PLATE

N00CD-A

Vehicle information code plate is riveted on the headlight support panel in the engine compartment.

The plate shows model code, engine model, transmission model, and body color code.

1. MODEL L042G VN JL2
 Model series
 Vehicle model
 2. ENGINE G54B
 Engine model
 3. TRANS AXLE KM145
 Transmission model
 4. COLOR, TRIM OPT B76
 Montone exterior color code
B07B76H43
 Two-tone color code
 Exterior code
- Two-tone exterior is shown by the exterior code followed by the two color codes.

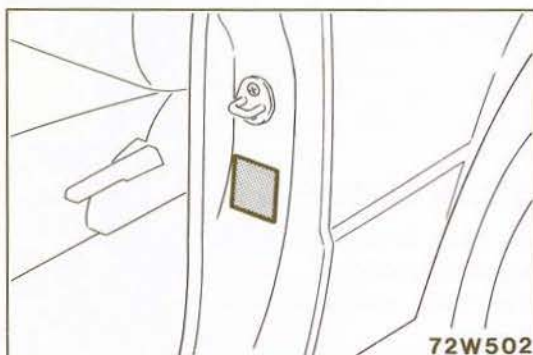
**CHASSIS NUMBER****STAMPING LOCATION**

The chassis number is stamped on the side of the frame, the right rear shock absorber.

CHASSIS NUMBER CODE CHART

L04 2 V HJ000001

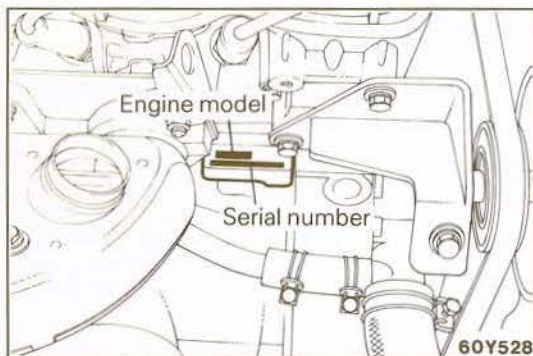
Vehicle line	Engine displacement	Body type	Refer to 10th thru 17th digits of V.I.N. plate
L04- RAM RAIDER	2- 2.555 liters (155.9 C.I.D.)	V- 3-door metal-top T- Van	

**VEHICLE SAFETY CERTIFICATION LABEL**

N00CF--

The vehicle safety certification label is attached to face of left door pillar.

This label indicates the month and year of manufacture, Gross Vehicle Weight Rating (G.V.W.R.), front and rear Gross Axle Weight Rating (G.A.W.R.), and Vehicle Identification Number (V.I.N.).

**ENGINE MODEL STAMPING**

N00CG--

The engine model number is stamped at the right front side on the top edge of the cylinder block as shown in the following:

Engine model	Engine displacement
G54B	2.555 liters (155.9 C.I.D.)

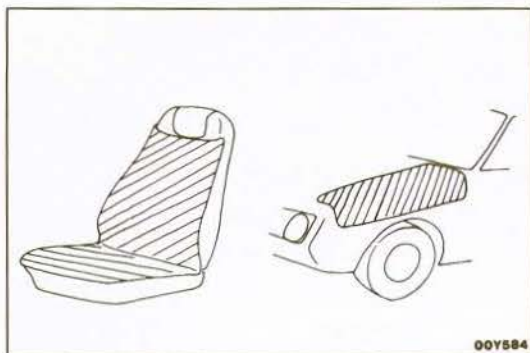
The engine serial number is stamped near the engine model number, and the serial number cycles, as shown below.

Engine serial number	Number cycling
AA0201 to YY9999	AA0201 ----> AA9999
	AB0001 ----> AY9999
	BA0001 ----> YY9999

BODY COLOR CODE

N00CH-A

Exterior code	Body color
Monotone	
B76	Dark blue (Metallic)
H43	Silver (Metallic)
K78	Gold (Metallic)
R52	Red
W18	White
X15	Black
Two-tone	
B07B76H43	Silver (Metallic)/ Dark blue (Metallic)
H63 H43X15	Black/ Silver (Metallic)
R02 R52 H43	Silver (Metallic)/ Red
X97 X15 K78	Black/ Gold (Metallic)



00Y584

PRECAUTIONS BEFORE SERVICE

PROTECTING THE VEHICLE

N00*

If there is a likelihood of damaging painted or interior parts during service operations, protect them with suitable covers (such as seat covers, fender covers, etc.).



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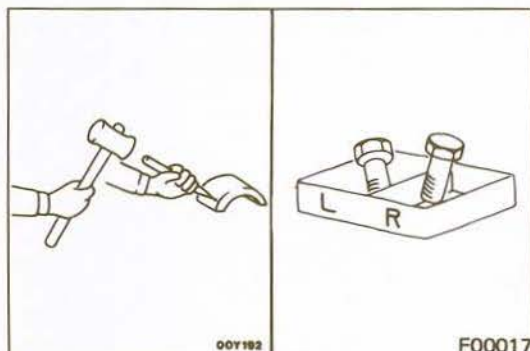
REMOVAL AND DISASSEMBLY

When checking a malfunction, find the cause of the problem. If it is determined that removal and/or disassembly is necessary, perform the work by following the procedures contained in this Workshop Manual.

If punch marks or mating marks are made to avoid error in assembly and facilitate the assembly work, be sure to make them in locations which will have no detrimental effect on performance and/or appearances.

If an area having many parts, similar parts, and/or parts which are symmetrical right and left is disassembled, be sure to arrange the parts so that they do not become mixed during the assembly process.

1. Arrange the parts removed in the proper order.
2. Determine which parts are to be reused and which are to be replaced.
3. If bolts, nuts, etc., are to be replaced, be sure to use only the exact size specified.

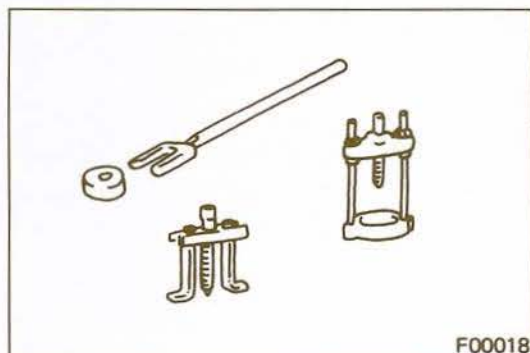


00Y182

F00017

SPECIAL TOOLS

If other tools are substituted for the special tools to do service or repair work, there is the danger that vehicle parts might be damaged, or the mechanic might be injured; therefore, be sure to use the special tool whenever doing any work for which the use of one is specified.

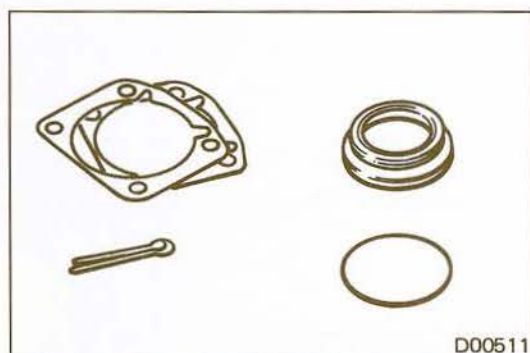


F00018

PARTS TO BE REPLACED

If any of the following parts are removed, they must be replaced with new parts.

1. Oil seals
2. Gaskets (except rocker cover gasket)
3. Packings
4. O-rings
5. Lock washers
6. Cotter pins
7. Self-locking nuts



D00511