

## HOW TO USE THIS MANUAL

### SCOPE OF MAINTENANCE, REPAIR AND SERVICING EXPLANATIONS

This manual provides explanations, etc. concerning procedures for the inspection, maintenance, repair and servicing of the subject model. Note, however, that for engine and transmission-related component parts, this manual covers only on-vehicle inspections, adjustments, and the removal and installation procedures for major components.

For detailed information concerning the inspection, checking, adjustment, disassembly and reassembly of the engine, transmission and major components after they have been removed from the vehicle, please refer to separate manuals covering the engine and the transmission.

### ON-VEHICLE SERVICE

“On-vehicle Service” is procedures for performing inspections and adjustments of particularly important locations with regard to the construction and for maintenance and servicing, but other inspection (for looseness, play, cracking, damage, etc.) must also be performed.

### INSPECTION

Under this title are presented inspection and checking procedures to be performed by using special tools and measuring instruments and by feeling, but, for actual maintenance and servicing procedures, visual inspections should always be performed as well.

### INDICATION OF DESTINATION

General Export and GCC are used for convenience to indicate destination.

#### NOTE

- (1) “General Export” means territories other than Europe, GCC, Australia, New Zealand, the U.S.A. and Canada.
- (2) “GCC” indicates countries that are members of the (Persian) Gulf Cooperation Council of nations.
- (3) In some instances, vehicles with other specifications may be shipped to some countries.

### 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.

#### REFERENCE VALUE

Indicates the adjustment value prior to starting the work (presented in order to facilitate assembly and adjustment procedures, and so they can be completed in a shorter time).

#### CAUTION

Indicates the presentation of information particularly vital to the worker during the performance of maintenance and servicing procedures in order to avoid the possibility of injury to the worker, or damage to component parts, or a reduction of component or vehicle function or performance, etc.

### INDICATION OF TIGHTENING TORQUE

Tightening torques (units: N·m) are set to take into account the central value and the allowable tolerance. The central value is the target value, and the allowable tolerance provides the checking range for tightening torques. If bolts and nuts are not provided with tightening torques, refer to P.00-51.

### MODEL INDICATIONS

The following abbreviations are used in this manual for classification of model types.

GDI: Indicates the gasoline direct injection.

DOHC: Indicates an engine with the double overhead camshaft, or models equipped with such an engine.

M/T: Indicates the manual transmission, or models equipped with the manual transmission.

A/T: Indicates the automatic transmission, or models equipped with the automatic transmission.

A/C: Indicates the air conditioner.

## EXPLANATION OF MANUAL CONTENTS

Indicates procedures to be performed before the work in that section is started, and procedures to be performed after the work in that section is finished.

**Component Diagram**

A diagram of the component parts is provided near the front of each section in order to give a reader a better understanding of the installed condition of component parts.

Indicates (by symbols) where lubrication is necessary.

**Maintenance and Servicing Procedures**

The numbers provided within the diagram indicate the sequence for maintenance and servicing procedures.

- Removal steps:  
The part designation number corresponds to the number in the illustration to indicate removal steps.
- Disassembly steps:  
The part designation number corresponds to the number in the illustration to indicate disassembly steps.
- Installation steps:  
Specified in case installation is impossible in reverse order of removal steps. Omitted if installation is possible in reverse order of removal steps.
- Reassembly steps:  
Specified in case reassembly is impossible in reverse order of disassembly steps. Omitted if reassembly is possible in reverse order of disassembly steps.

**Classifications of Major Maintenance/Service Points**

When there are major points relative to maintenance and servicing procedures (such as essential maintenance and service points, maintenance and service standard values, information regarding the use of special tools, etc.), these are arranged together as major maintenance and service points and explained in detail.

- ◀A▶ : Indicates that there are essential points for removal or disassembly.  
▶A◀ : Indicates that there are essential points for installation or reassembly.

**Symbols for Lubrication, Sealants and Adhesives**

Information concerning the locations for lubrication and for application of sealants and adhesives is provided, by using symbols, in the diagram of component parts or on the page following the component parts page, and explained.



: Grease  
(multipurpose grease unless there is a brand or type specified)



: Sealant or adhesive



: Brake fluid or automatic transmission fluid



: Engine oil, gear oil or air conditioner compressor oil



: Adhesive tape or butyl rubber tape

Indicates the group title.

Indicates the section title.

Indicates the group number.

Indicates the page number.

## STEERING – Power Steering Oil Pump

37A-29

### POWER STEERING GEAR BOX

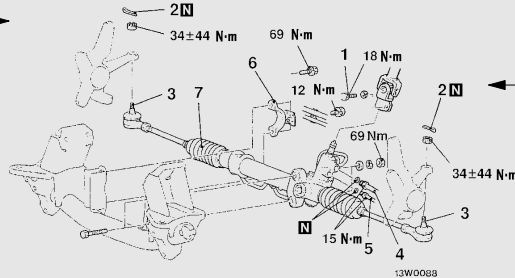
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#### REMOVAL AND INSTALLATION

##### Pre-removal Operation

- (1) Power Steering Fluid Draining (Refer to P. 37A-10.)
- (2) Air Cleaner Assembly Removal
- (3) Under Cover Removal (Refer to GROUP 42 – Under Cover.)

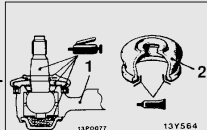
<2WD>



**N** denotes non-reusable part.

Denotes tightening torque. For bolts and nuts which do not have a tightening torque listed, refer to the "Standard Parts-tightening-torque Table".

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

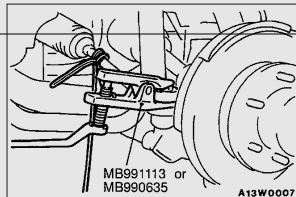


Sealant: 3M ATD Part No. 8661 or equivalent

##### Removal steps

1. Lower shaft assembly and gear box connecting bolt
2. Split pin
3. Connection for tie-rod end and knuckle
4. Connection for return tube

5. Connection for pressure tube
6. Clamp
7. Gear box assembly



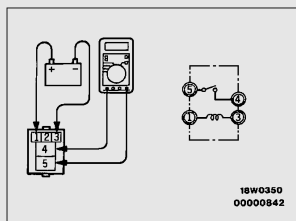
#### REMOVAL SERVICE POINTS

##### ◀A▶ TIE-ROD END DISCONNECTION

##### Caution

1. Using the special tool, loosen the tie rod end mounting nut. Only loosen the nut; do not remove it from the ball joint.
2. Support the special tool with a cord, etc. to prevent it from coming off.

Operating procedures, cautions, etc. on removal, installation, disassembly and reassembly are described.



#### HEADLAMP RELAY CONTINUITY INSPECTION

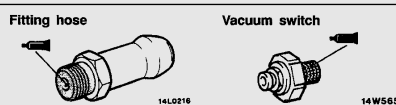
Battery voltage	Terminal No.			
	1	3	4	5
Power is not supplied	○	○		
Power is supplied	⊕	-	-	⊖

○—○ indicates that there is a continuity between the terminals.

⊕—⊖ indicates terminals to which battery voltage is applied.

## 35A-26 BASIC BRAKE SYSTEM – Master Cylinder and Brake Booster

#### Lubrication and sealing points



Sealant: 3M ATD Part No. 8663 or equivalent

The title of the page (following the page on which the diagram of component parts is presented) indicating the locations of lubrication and sealing procedures.

## HOW TO USE TROUBLESHOOTING/INSPECTION SERVICE POINTS

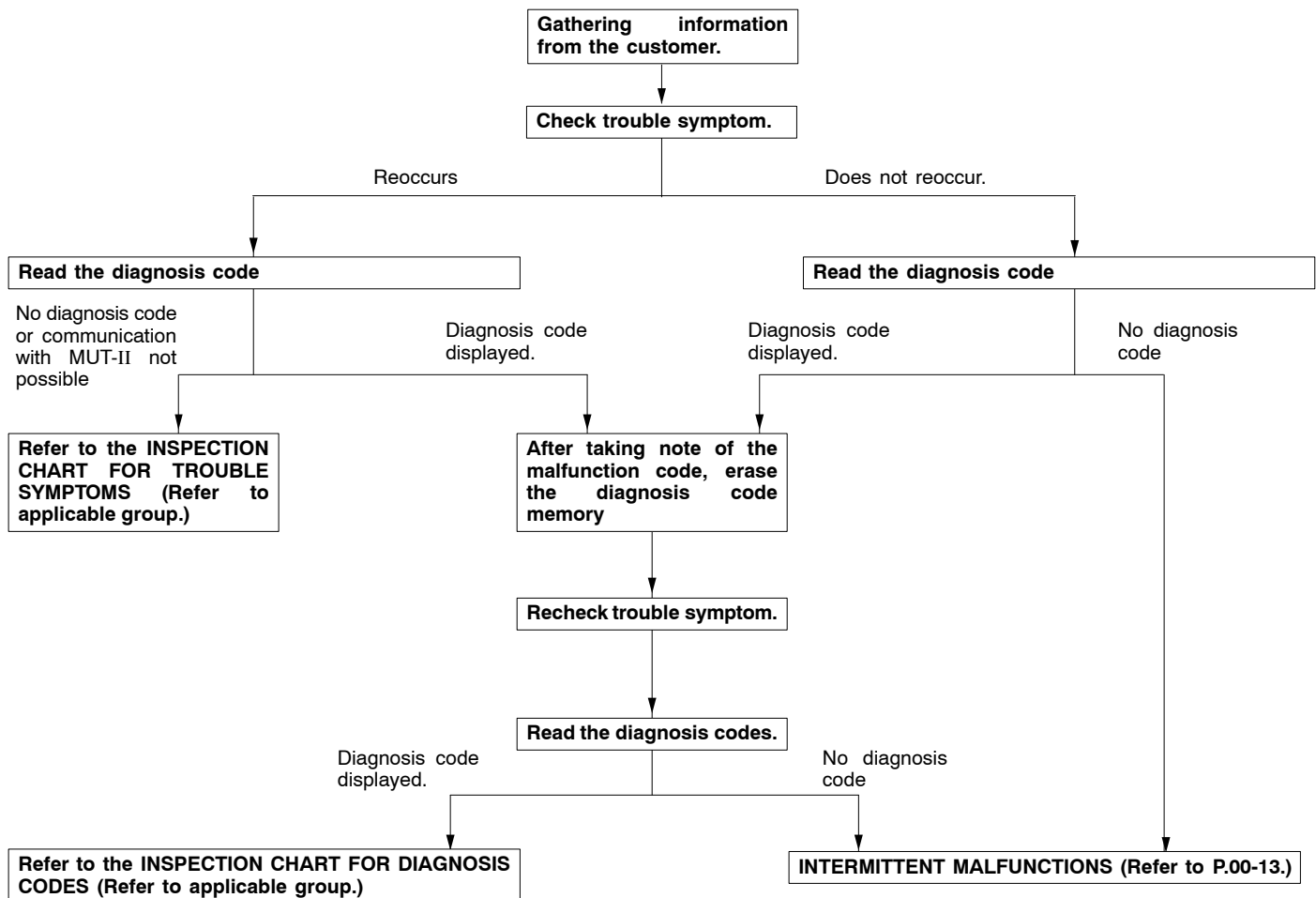
Troubleshooting of electronic control systems for which the MUT-II can be used follows the basic outline described below. Furthermore, even in systems for which the MUT-II cannot be used, part of these systems still follow this outline.

### TROUBLESHOOTING CONTENTS

#### 1. STANDARD FLOW OF DIAGNOSIS TROUBLESHOOTING

The troubleshooting sections follow the basic diagnosis flow which is given below. If the diagnosis flow is different from that given below, or if additional explanation is required, the details of such differences or additions will also be listed.

##### Diagnosis method



#### 2. SYSTEM OPERATION AND SYMPTOM VERIFICATION TESTS

If verification of the trouble symptoms is difficult, procedures for checking operation and verifying trouble symptoms are shown.

#### 3. DIAGNOSIS FUNCTION

Details which are different from those in the “Diagnosis Function” section on the next page are listed.

**4. INSPECTION CHART FOR DIAGNOSIS CODES****5. INSPECTION PROCEDURE FOR DIAGNOSIS CODES**

Indicates the inspection procedures corresponding to each diagnosis code. (Refer to P.00-10 for how to use the inspection procedures.)

**6. INSPECTION CHART FOR TROUBLE SYMPTOMS**

If there are trouble symptoms even though the results of inspection using the MUT-II show that all diagnosis codes are normal, inspection procedures for each trouble symptom will be found by means of this chart.

**7. INSPECTION PROCEDURE FOR TROUBLE SYMPTOM**

Indicates the inspection procedures corresponding to each trouble symptoms classified in the Inspection Chart for Trouble Symptoms. (Refer to P.00-10 for how to use the inspection procedures.)

**8. SERVICE DATA REFERENCE TABLE**

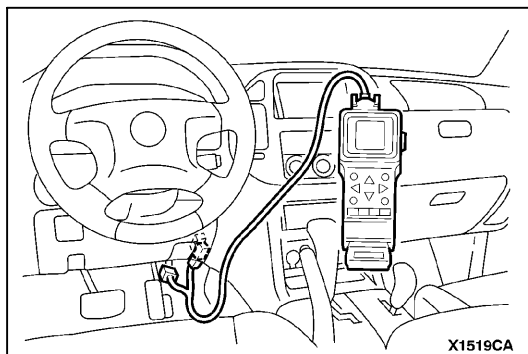
Inspection items and normal judgement values have been provided in this chart as reference information.

**9. CHECK AT ECU TERMINALS**

Terminal numbers for the ECU connectors, inspection items and standard values have been provided in this chart as reference information.

**10. INSPECTION PROCEDURES USING AN OSCILLOSCOPE**

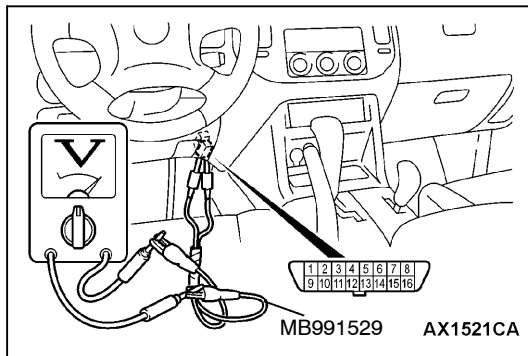
When there are inspection procedures using an oscilloscope, these are listed here.

**DIAGNOSIS FUNCTION****METHOD OF READING DIAGNOSIS CODES****WHEN USING THE MUT-II**

Connect the MUT-II to the diagnosis connector and take a reading of the diagnosis codes.

**Caution**

Turn the ignition switch to “LOCK(OFF)” position before connecting or disconnecting the MUT-II.

**WHEN USING THE WARNING LAMP**

1. Use the special tool to earth No.1 terminal (diagnosis control terminal) of the diagnosis connector.
2. Turn on the ignition switch.
3. Read out a diagnosis code by observing how the warning lamp flashes.

**Applicable systems**

System name	Warning lamp name
A/T	Neutral position indicator lamp
ABS	ABS warning lamp
SS4 II	4WD warning lamp
Hydraulic Brake Booster(HBB)	Brake warning lamp

**Indication of diagnosis code by warning lamp**

When the diagnosis code No.24 is output	When no diagnosis code is output*

**NOTE**

\*: Even if the ABS system is normal, removing the valve relay causes the diagnosis code No.52 to be output.

**METHOD OF ERASING DIAGNOSIS CODES****WHEN USING THE MUT-II**

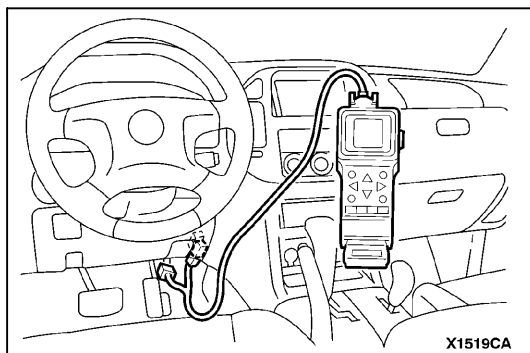
Connect the MUT-II to the diagnosis connector and erase the diagnosis code.

**Caution**

**Turn off the ignition switch to "LOCK(OFF)" position before connecting or disconnecting the MUT-II.**

**WHEN NOT USING THE MUT-II**

1. Turn the ignition switch to "LOCK(OFF)" position.
2. After disconnecting the battery cable from the battery (-) terminal for 10 seconds or more, reconnect the cable.
3. After the engine has warmed up, run it at idle for about 15 minutes.

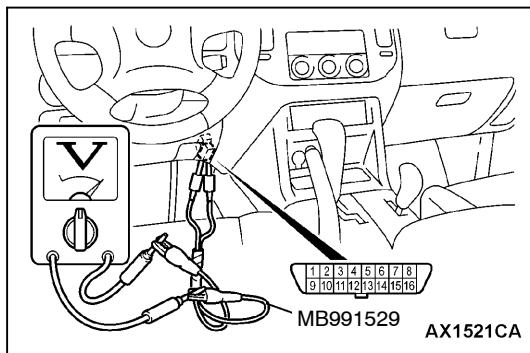
**INPUT SIGNAL CHECK <SWS>****WHEN USING THE MUT-II**

1. Connect the MUT-II to the diagnosis connector and erase the diagnosis code.

**Caution**

**Turn off the ignition switch to “LOCK(OFF)” position before connecting or disconnecting the MUT-II.**

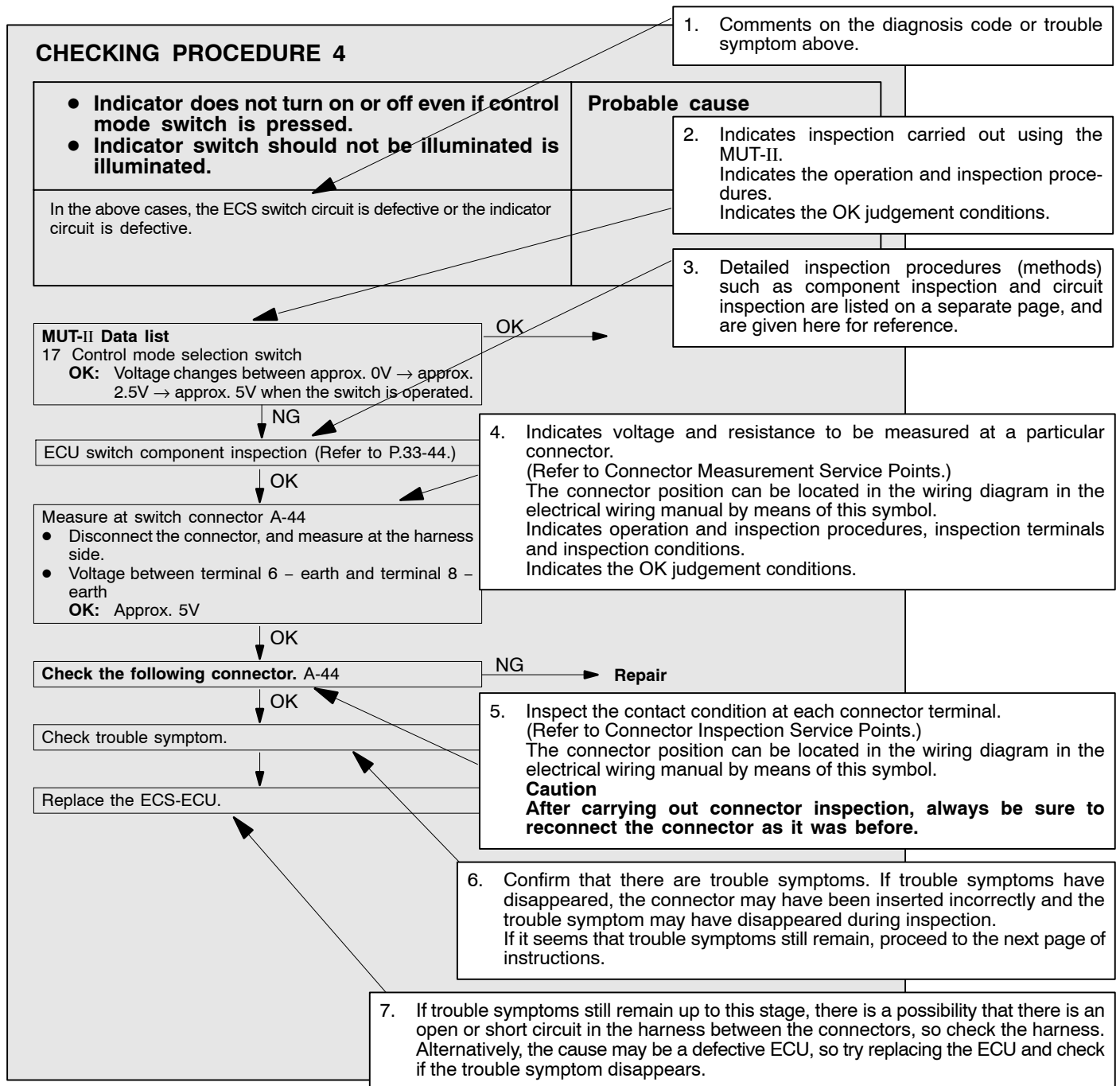
2. If the MUT-II buzzer sounds once when each switch is operated (ON/OFF), the input signal for that switch circuit system is normal.

**WHEN USING A VOLTMETER**

1. Use the special tool to connect the ETACS terminal (terminal 9) and the earth terminals (terminals 4 and 5) of the diagnosis connector to the voltage meter.
2. If the needle of the voltage meter flickers once when each switch is operated (ON/OFF), the input signal for that switch circuit system is normal.

## HOW TO USE THE INSPECTION PROCEDURES

The causes of a high frequency of problems occurring in electronic circuitry are generally the connectors, components, the ECU and the harnesses between connectors, in that order. These inspection procedures follow this order, and they first try to discover a problem with a connector or a defective component.



## HARNESS INSPECTION

Check for an open or short circuit in the harness between the terminals which were defective according to the connector measurements. Carry out this inspection while referring to the electrical wiring manual. Here, "Check harness between power supply and terminal xx" also includes checking for blown fuses. For inspection service points when there is a blown fuse, refer to "Inspection Service Points for a Blown Fuse."

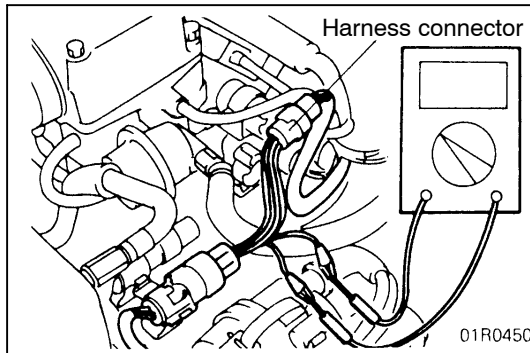
## MEASURES TO TAKE AFTER REPLACING THE ECU

If the trouble symptoms have not disappeared even after replacing the ECU, repeat the inspection procedure from the beginning.



## CONNECTOR MEASUREMENT SERVICE POINTS

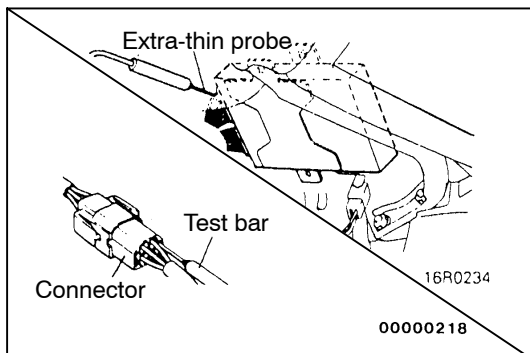
Turn the ignition switch to OFF when connecting/disconnecting the connectors, and turn the ignition switch to ON when measuring if there are no instructions to be contrary.



### IF INSPECTING WITH THE CONNECTOR CONNECTED (WITH CIRCUIT IN A CONDITION OF CONTINUITY)

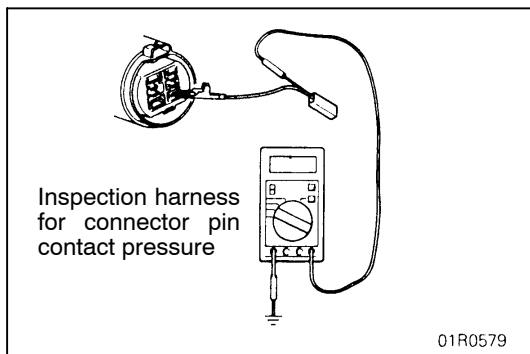
#### Waterproof Connectors

Be sure to use the special tool (harness connector). Never insert a test bar from the harness side, because to do so will reduce the waterproof performance and result in corrosion.



#### Ordinary (non-waterproof) Connectors

Check by inserting the test bar from the harness side. Note that if the connector (control unit, etc.) is too small to permit insertion of the test bar, it should not be forced; use a special tool (the extra-thin probe in the harness set for checking for this purpose).

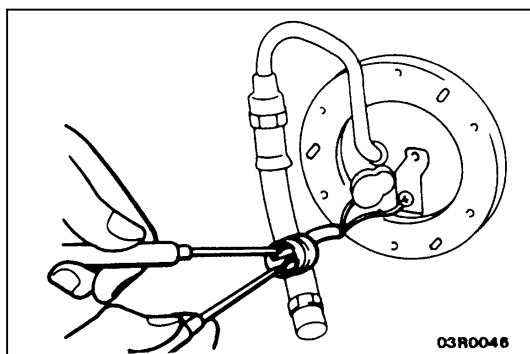


### IF INSPECTING WITH THE CONNECTOR DISCONNECTED

#### <When Inspecting a Female Pin>

Use the special tool (inspection harness for connector pin contact pressure in the harness set for inspection).

The inspection harness for connector pin contact pressure should be used. the test bar should never be forcibly inserted, as it may cause a defective contact.



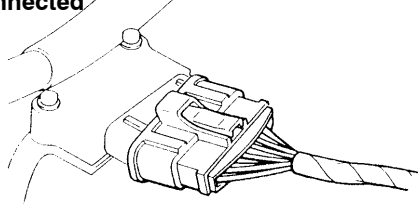
#### <When Inspecting a Male Pin>

Touch the pin directly with the test bar.

#### Caution

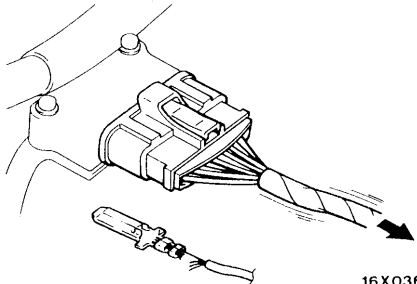
At this time, be careful not to short the connector pins with the test bars. To do so may damage the circuits inside the ECU.

Connector disconnected or improperly connected



16S0256

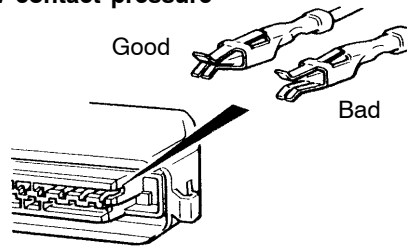
Defective connector contact



Harness wire breakage at terminal section

16X0369

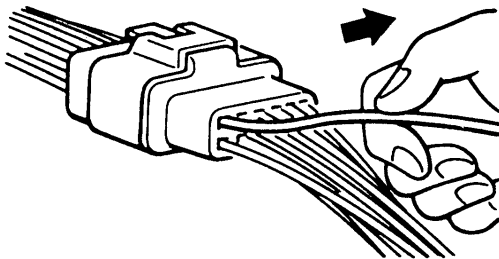
Low contact pressure



16S0254  
00000219

## CONNECTOR PIN INSPECTION

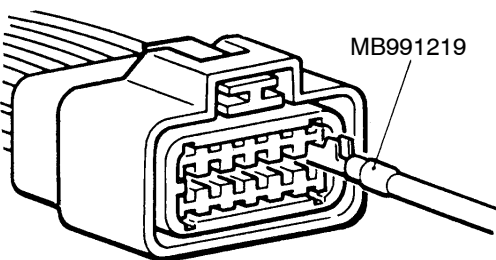
If the connector pin stopper is damaged, the terminal connections (male and female pins) will not be perfect even if the connector body is connected, and the pins may pull out of the reverse side of the connector. Therefore, gently pull the harnesses one by one to make sure that no pins pull out of the connector.



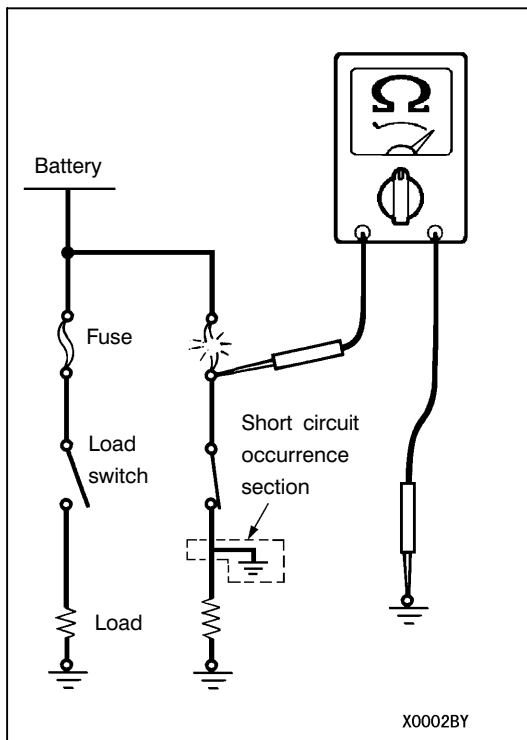
16R1317

## CONNECTOR ENGAGEMENT INSPECTION

Use the special tool (connector pin connection pressure inspection harness of the inspection harness set) to inspect the engagement of the male pins and females pins. (Pin drawing force : 1 N or more)



16R1318

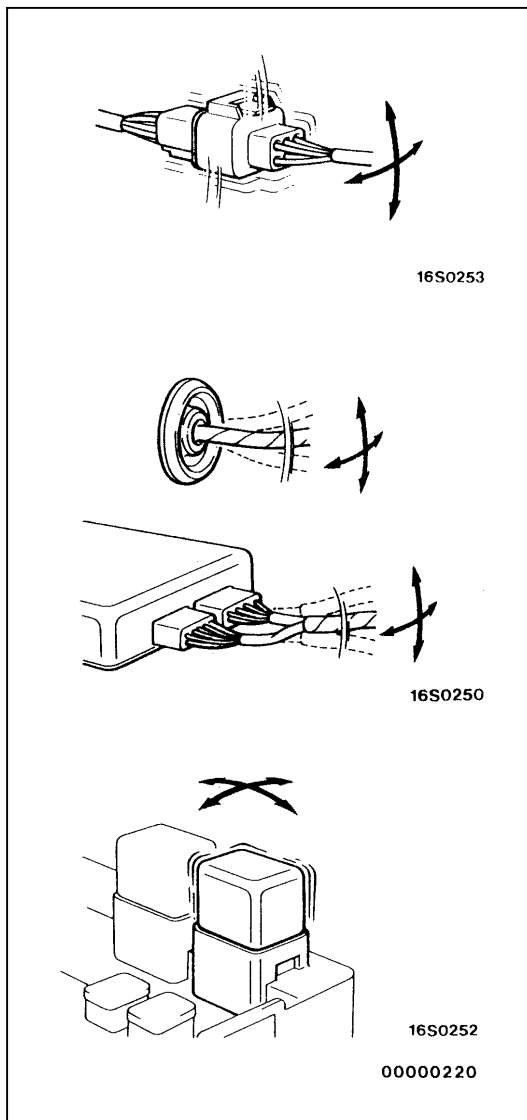


## INSPECTION SERVICE POINTS FOR A BLOWN FUSE

Remove the blown fuse and measure the resistance between the load side of the blown fuse and the earth. Set the switches of all circuits which are connected to this fuse to a condition of continuity. If the resistance is almost  $0\ \Omega$  at this time, there is a short somewhere between these switches and the load. If the resistance is not  $0\ \Omega$ , there is no short at the present time, but a momentary short has probably caused the fuse to blow.

The main causes of a short circuit are the following.

- Harness being clamped by the vehicle body
- Damage to the outer casing of the harness due to wear or heat
- Water getting into the connector or circuitry
- Human error (mistakenly shorting a circuit, etc.)



## POINTS TO NOTE FOR INTERMITTENT MALFUNCTIONS

Intermittent malfunctions often occur under certain conditions, and if these conditions can be ascertained, determining the cause becomes simple. In order to ascertain the conditions under which an intermittent malfunction occurs, first ask the customer for details about the driving conditions, weather conditions, frequency of occurrence and trouble symptoms, and then try to recreate the trouble symptoms. Next, ascertain whether the reason why the trouble symptom occurred under these conditions is due to vibration, temperature or some other factor. If vibration is thought to be the cause, carry out the following checks with the connectors and components to confirm whether the trouble symptom occurs.

The objects to be checked are connectors and components which are indicated by inspection procedures or given as probable causes (which generates diagnosis codes or trouble symptoms.)

- Gently shake the connector up, down and to the left and right.
- Gently shake the wiring harness up, down and to the left and right.
- Gently rock each sensor and relay, etc. by hand.
- Gently shake the wiring harness at suspensions and other moving parts.

### NOTE

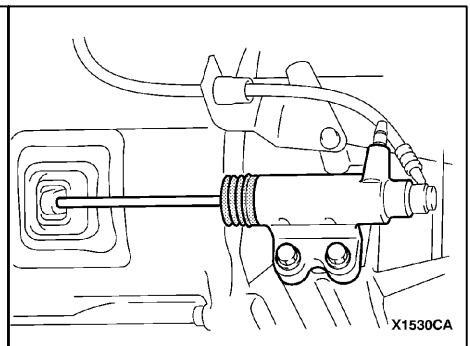
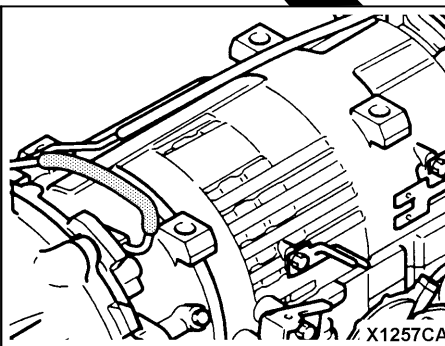
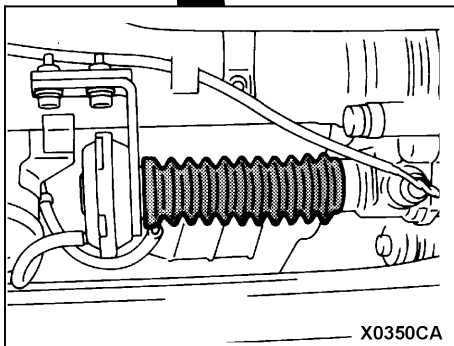
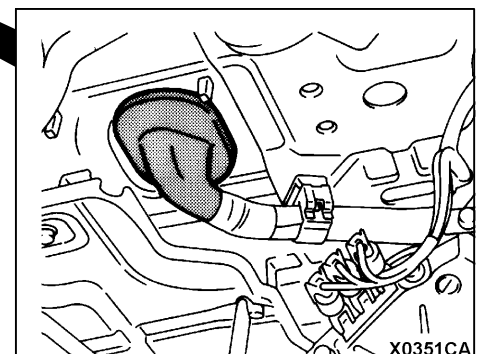
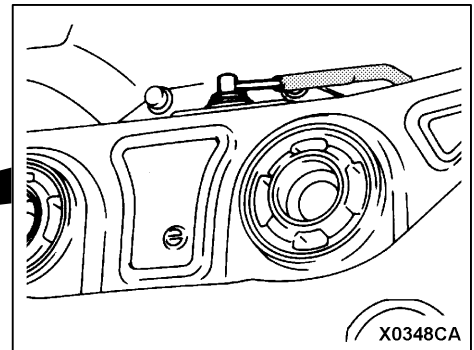
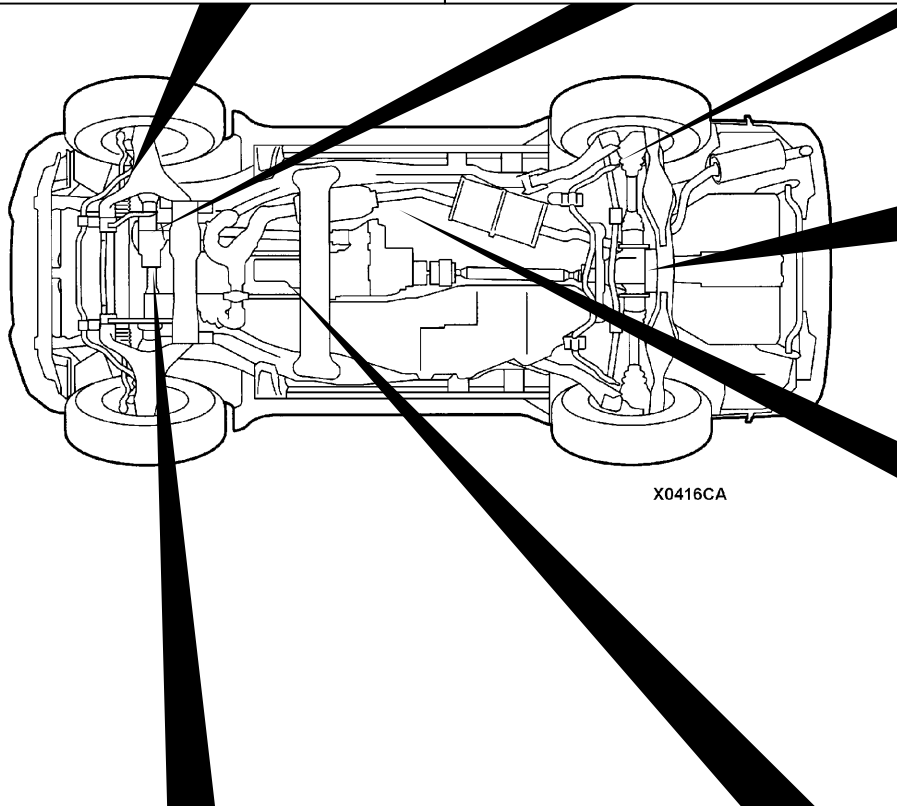
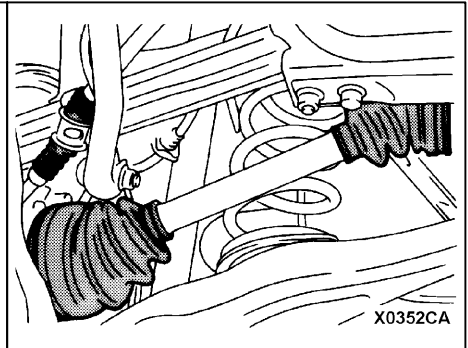
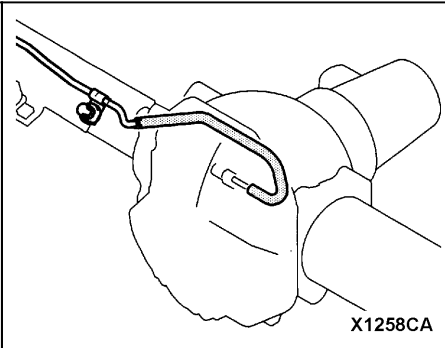
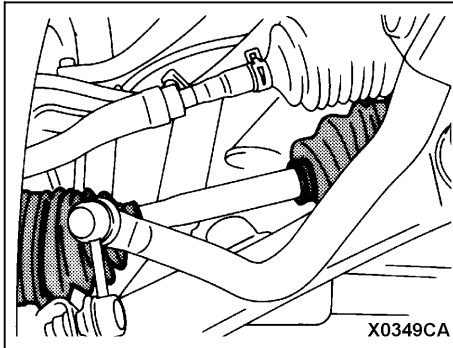
If determining the cause is difficult, the flight recorder function of the MUT-II can also be used.

## TREATMENT BEFORE/AFTER FORDING A STREAM

### INSPECTION AND SERVICE BEFORE FORDING A STREAM

Vehicles which are driven through water, or which may possibly be driven through water, should be subjected to the following inspections and maintenance procedures in advance.

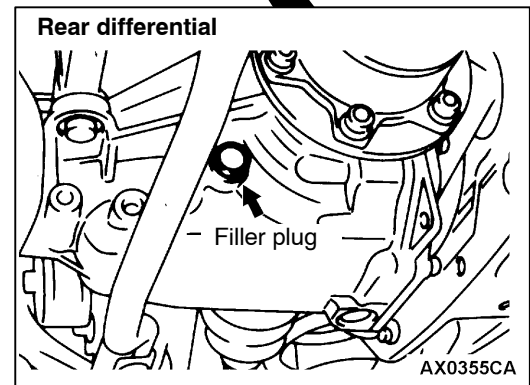
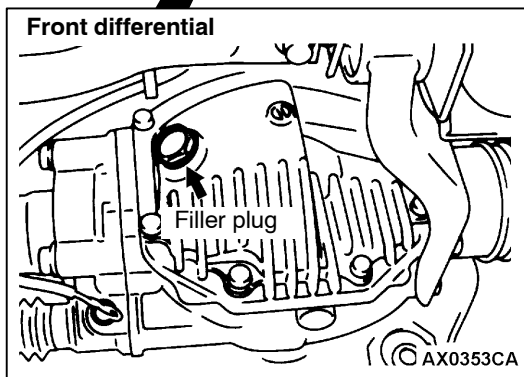
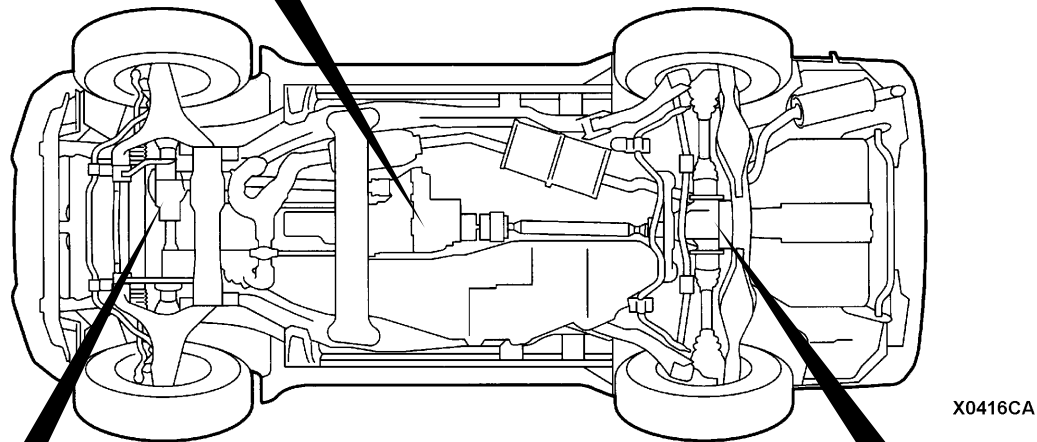
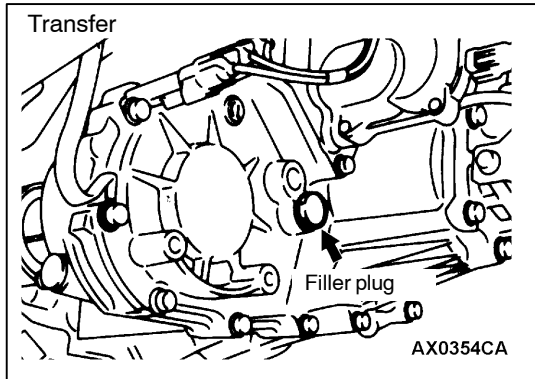
- Inspect the dust boot and breather hose for cracks or damage, and replace them if cracks or damage are found.

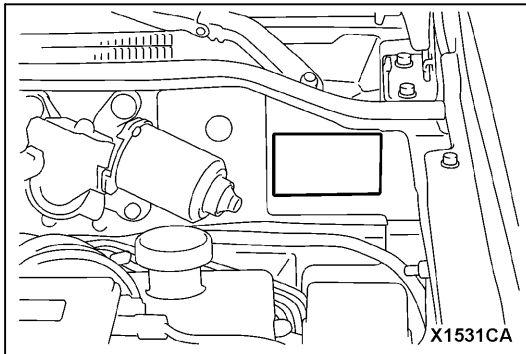


**INSPECTION AND SERVICE AFTER FORDING A STREAM**

After fording a stream, check the following points. If abnormal condition is evident, clean, replace or lubricate.

- Check for water, mud, sand, etc. in the rear brake drum, clutch housing, starter motor, brake pipe and fuel pipe.
- Check for water in the fluid or oil inside the front differential, rear differential, transmission and transfer.
- Check all boots and breather hoses for cracks and damage.



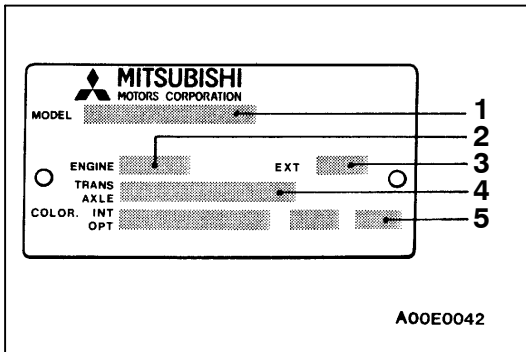


## VEHICLE IDENTIFICATION

### VEHICLE INFORMATION CODE PLATE

#### LOCATION

Vehicle information code plate is riveted on the toeboard inside the engine compartment.



#### CODE PLATE DESCRIPTION

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

No.	Item	Contents	
1	MODEL	V65W	V65W: Vehicle model
		MYXVL	MYXVL: Model series
2	ENGINE	6G74-SOH C	Engine model
3	EXT	S74B	Exterior code
4	TRANS-AXLE	V5A51	Transmission code
5	COLOR INT OPT	S74    15Q Z06	S74: Body colour code
			15Q: Interior code
			Z06: Equipment code

For monotone colour vehicles, the body colour code shall be indicated. For two-tone or three-way two-tone colour vehicles, each colour code only shall be indicated in series.

## MODELS

### VEHICLES FOR GENERAL EXPORT (Except BRAZIL, TAIWAN, HONG KONG, SOUTH AFRICA and CHINA)

#### <Short wheelbase>

Model code		Engine model	Transmission model	Fuel supply system
V66W	MNDFL/R	4M40 Intercooler Turbo (2,835 mℓ)	V5M31 <5M/T>	Injection
	MNXFL/R			
	MNXFQL			
	MRXFQL		V4A51 <4A/T>	

Model code		Engine model	Transmission model	Fuel supply system
V63W	MNDVL	6G72-SOHC (2,972 mℓ)	V5MT1 <5M/T>	MPI
	MNXVL		V5M31 <5M/T>	
	MRXVL/R		V4A51 <4A/T>	
	MNXVQL		V5M31 <5M/T>	
	MRXVQL		V4A51 <4A/T>	
V65W	MNDVL	6G74-SOHC (3,496 mℓ)	V5M31 <5M/T>	
	MNXVL			
	MYXVL		V5A51 <5A/T>	
	MNXVQL		V5M31 <5M/T>	
	MYXVQL		V5A51 <5A/T>	

## &lt;Long wheelbase&gt;

Model code		Engine model	Transmission model	Fuel supply system
V76W	LNDFL/R	4M40 Intercooler Turbo (2,835 mℓ)	V5M31 <5M/T>	Injection
	LNHFL/R			
	LNXFRL/R			
	LRXFRL/R		V4A51 <4A/T>	
	LNDFQL		V5M31 <5M/T>	
	LNHFQL/R			
	LNXFQL			
	LRXFQL/R		V4A51 <4A/T>	
V73W	LNDVL/R	6G72-SOHC (2,972 mℓ)	V5MT1 <5M/T>	MPI
	LNHVL/R		V5M31 <5M/T>	
	LNXL/R			
	LRXL/R		V4A51 <4A/T>	
	LNDVQL		V5MT1 <5M/T>	

Model code		Engine model	Transmission model	Fuel supply system
V73W	LNHVQL/R	6G72-SOHC (2,972 mℓ)	V5M31 <5M/T>	MPI
	LRHVQL/R		V4A51 <4A/T>	
	LN XVQL		V5M31 <5M/T>	
	LR XVQL/R		V4A51 <4A/T>	
V75W	LNDVL	6G74-SOHC (3,496 mℓ)	V5M31 <5M/T>	
	LN XVL/R			
	LY XVL/R		V5A51 <5A/T>	
	LN XVQL		V5M31 <5M/T>	
	LY XVQL		V5A51 <5A/T>	

**(BRAZIL)****<Short wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V63W	MNXVQL1B	6G72-SOHC (2,972 mℓ)	V5M31 <5M/T>	MPI
V65W	MYXVQL1B	6G74-SOHC (3,496 mℓ)	V5A51 <5A/T>	

**<Long wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V76W	LN XFQL1B	4M40 Intercooler Turbo (2,835 mℓ)	V5M31 <5M/T>	Injection
	LR XFQL1B		V4A51 <4A/T>	
V73W	LR XVQL1B	6G72-SOHC (2,972 mℓ)	V4A51 <4A/T>	MPI
V75W	LY XVQL1B	6G74-SOHC (3,496 mℓ)	V5A51 <5A/T>	

**(TAIWAN)****<Long wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V75W	LY XVQL1Q	6G74-SOHC (3,496 mℓ)	V5A51 <5A/T>	MPI

**(HONG KONG)****<Short wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V65W	MYXCQR1D	6G74GDI (3,496 mℓ)	V5A51 <5A/T>	GDI

**<Long wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V75W	LYXCQR1D	6G74GDI (3,496 mℓ)	V5A51 <5A/T>	GDI



**(SOUTH AFRICA)**  
**<Short wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V68W	MNXFR6S	4M41-DOHC Intercooler Turbo (3,200 ml)	V5M31 <5M/T>	Electronically-controlled high pressure fuel distribution
V63W	MNXVR6S	6G72-SOHC (2,972 ml)		MPI
V65W	MNXVR6S	6G74-SOHC (3,496 ml)		
	MYXVR6S		V5A51 <5A/T>	

**<Long wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V78W	LNFR6S	4M41-DOHC Intercooler Turbo (3,200 mℓ)	V5M31 <5M/T>	Electronically-controlled high pressure fuel distribution
	LYXFR6S		V5A51 <5A/T>	
V75W	LNVR6S	6G74-SOHC (3,496 mℓ)	V5M31 <5M/T>	MPI
	LYXVR6S		V5A51 <5A/T>	

**(CHINA)**  
**<Long wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V73W	LNHVQL1C	6G72-SOHC (2,972 mℓ)	V5M31 <5M/T>	MPI
	LRHVQL1C		V4A51 <4A/T>	
	LNHVQL1C		V5M31 <5M/T>	
	LRXVQL1C		V4A51 <4A/T>	

**VEHICLES FOR GCC**  
**<Short wheelbase>**

Model code		Engine model	Transmission model	Fuel supply system
V63W	MNDVLW	6G72-SOHC (2,972 mℓ)	V5MT1 <5M/T>	MPI
	MRDVLW		V4A51 <4A/T>	
	MNXVLW		V5M31 <5M/T>	
	MRXVLW		V4A51 <4A/T>	
V65W	MNDVLW	6G74-SOHC (3,496 mℓ)	V5M31 <5M/T>	
	MNXVLW			
	MYXVLW		V5A51 <5A/T>	

## &lt;Long wheelbase&gt;

Model code		Engine model	Transmission model	Fuel supply system
V73W	LNDVLW	6G72-SOHC (2,972 mℓ)	V5MT1 <5M/T>	MPI
	LRDVLW		V4A51 <4A/T>	
	LNHVLW		V5M31 <5M/T>	
	LRHVLW		V4A51 <4A/T>	
	LNXLVW		V5M31 <5M/T>	
	LRXLVW		V4A51 <4A/T>	
V75W	LNDVLW	6G74-SOHC (3,496 mℓ)	V5M31 <5M/T>	
	LNXLVW			
	LYXLVW		V5A51 <5A/T>	

## VEHICLES FOR AUSTRALIA

## &lt;Long wheelbase&gt;

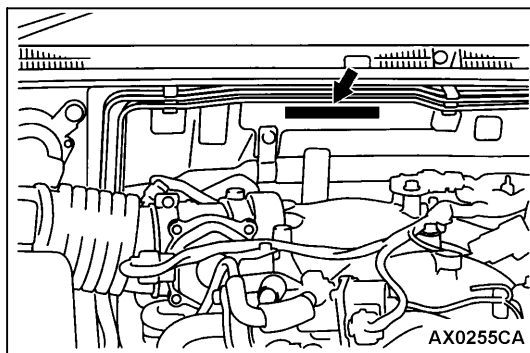
Model code		Engine model	Transmission model	Fuel supply system
V76W	LNDFR8	4M40 Intercooler Turbo (2,835 mℓ)	V5M31 <5M/T>	Injection
	LNHFR8			
	LNXFR8			
V75W	LNDVR8	6G74-SOHC (3,496 mℓ)	V5M31 <5M/T>	MPI
	LNHVR8			
	LYHVR8		V5A51 <5A/T>	
	LNXVR8		V5M31 <5M/T>	
	LYXVR8		V5A51 <5A/T>	

V 7 5 W L N X V Q L  
 1 2 3 4 5 6 7 8 9 10 11

X1273CA



**MODEL CODE**

No.	Items	Contents
1	Development	V: MITSUBISHI PAJERO
2	wheelbase	6: Short wheelbase 7: Long wheelbase
3	Engine type	3: 2,972 ml petrol engine 5: 3,496 ml petrol engine 6: 2,835 ml diesel engine 8: 3,200 ml diesel engine
4	Sort	W: Wagon
5	Body style	M: 3-door L: 5-door
6	Transmission type	N: 5-speed manual transmission R: 4-speed automatic transmission Y: 5-speed automatic transmission
7	Trim level	D: GL H: GLX X: GLS, LTD
8	Specification engine feature	V: MPI-SOHC C: GDI F: Intercooler Turbocharger
9	Special feature	Q: Emission control
10	Steering wheel location	L: Left hand R: Right hand
11	Destination	None: For General Export (Except BRAZIL, TAIWAN, HONG KONG, SOUTH AFRICA, CHINA) 1B: For BRASIL 1Q: For TAIWAN 1D: For HONG KONG 6S: For SOUTH AFRICA 1C: For CHINA W: For GCC 8: For AUSTRALIA

**CHASSIS NUMBER**

The chassis number is stamped on the toeboard inside the engine compartment.

**VEHICLES FOR GENERAL EXPORT AND AUSTRALIA**

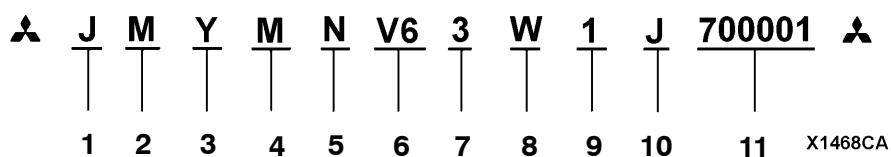

**J** **M** **Y** **M** **N** **V6** **3** **W** **1** **J** **000001** 

1 2 3 4 5 6 7 8 9 10 11

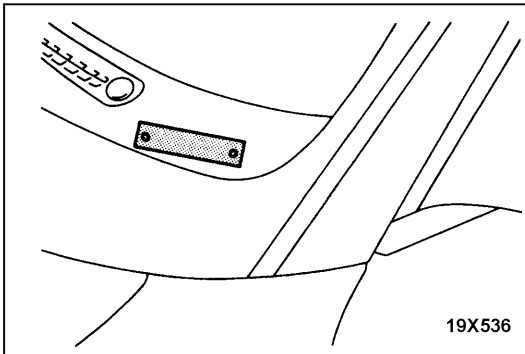
X1467CA

No.	Items		Contents
1	Fixed figure	J	Asia
2	Distribution channel	M	Japan channel
3	Destination	Y	For General Export
		F	For Australia
4	Body style	M	2-door
		L	4-door
5	Transmission type	N	5-speed manual transmission
		R	4-speed automatic transmission
		Y	5-speed automatic transmission
6	Development order	V6	MITSUBISHI PAJERO short wheelbase
		V7	MITSUBISHI PAJERO long wheelbase
7	Engine	3	6G72: 2,972 ml petrol engine
		5	6G74: 3,496 ml petrol engine
		6	4M40: 2,835 ml diesel engine
		8	4M41: 3,200 ml diesel engine
8	Sort	W	Station wagon
9	Model year	1	2001
10	Plant	J	Nagoya-3
11	Serial number	–	000001: General Export (Except BRAZIL), Australia Y00001: since January, 2000 (BRAZIL) 100001: since January, 2001 (BRAZIL)

## VEHICLES FOR GCC

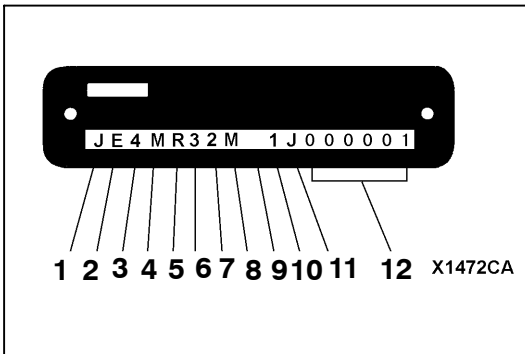


No.	Items		Contents
1	Fixed figure	J	Asia
2	Distribution channel	M	Japan channel
3	Destination	Y	For GCC
4	Body style	M	2-door
		L	4-door
5	Transmission type	N	5-speed manual transmission
		R	4-speed automatic transmission
		Y	5-speed automatic transmission
6	Development order	V6	MITSUBISHI PAJERO short wheelbase
		V7	MITSUBISHI PAJERO long wheelbase
7	Engine	3	6G72: 2,972 ml petrol engine
		5	6G74: 3,496 ml petrol engine
8	Sort	W	Station wagon
9	Model year	1	2001
10	Plant	J	Nagoya-3
11	Serial number	–	700001 to 799999



## VEHICLE IDENTIFICATION NUMBER LOCATION

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



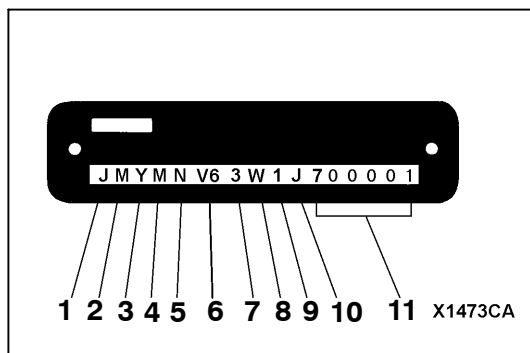
## VEHICLE IDENTIFICATION CODE CHART PLATE (GCC ONLY)

All vehicle identification numbers contain 17 digits. The vehicle number is a code which tells country, make, vehicle type, etc. **<Except vehicles for UAE and Kuwait>**

No.	Items	Contents
1	Country	J: Japan
2	Make	E: Mitsubishi
3	Vehicle type	4: Multi-purpose passenger vehicle (MPV)
4	Others	M: 2,268kg – 2,722kg/HYDRAULIC
5	Car line	R: PAJERO
6	Price class	3: GL 5: GLX 6: GLS
7	Body	2: 4-door 3: 2-door
8	Engine	M: 3.0L MPI N: 3.5L MPI
9	Check digits*	1, 2, 3, .....9, X
10	Model year	1: 2001 year
11	Plants	J: Nagoya-3
12	Serial number	700001 to 799999

### NOTE

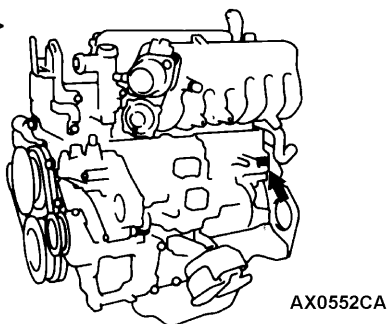
\*: Check digit means a single number or letter X used to verify the accuracy of transcription of vehicle identification number.



## &lt;UAE and Kuwait&gt;

No.	Items		Contents
1	Fixed figure	J	Asia
2	Distribution channel	M	Japan channel
3	Destination	Y	For GCC
4	Body style	M	2-door
		L	4-door
5	Transmission type	N	5-speed manual transmission
		R	4-speed automatic transmission
		Y	5-speed automatic transmission
6	Development order	V6	PAJERO short wheelbase
		V7	PAJERO long wheelbase
7	Engine	3	6G72: 2,972 ml petrol engine
		5	6G74: 3,496 ml petrol engine
8	Sort	W	Station wagon
9	Model year	1	2001
10	Plant	J	Nagoya-3
11	Serial number	–	700001 to 799999

## &lt;4M4&gt;



AX0552CA

## ENGINE MODEL NUMBER

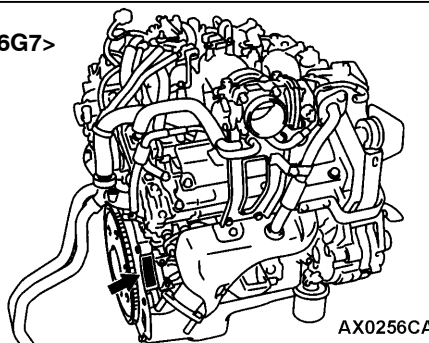
- The engine model number is stamped at the cylinder block as shown in the following.

Engine model	Engine displacement ml
6G72	2,972
6G74	3,496
4M40	2,835
4M41	3,200

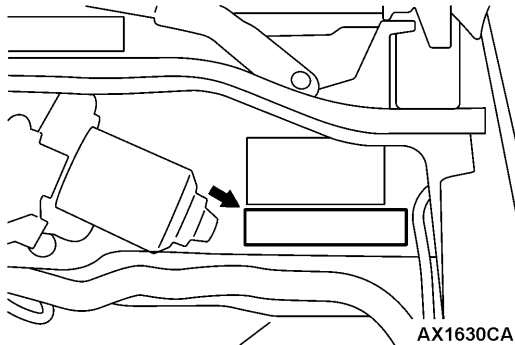
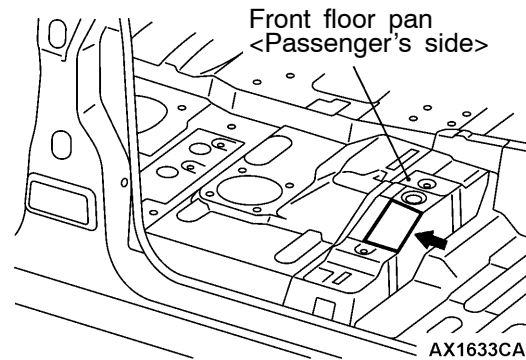
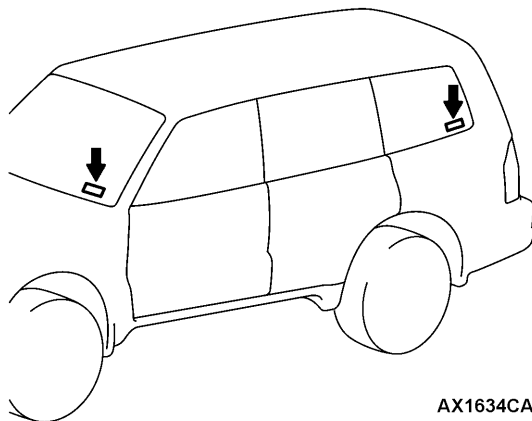
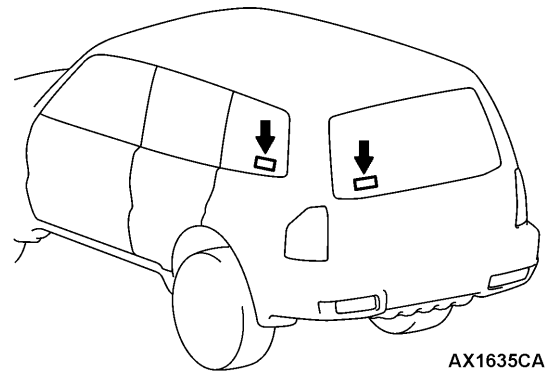
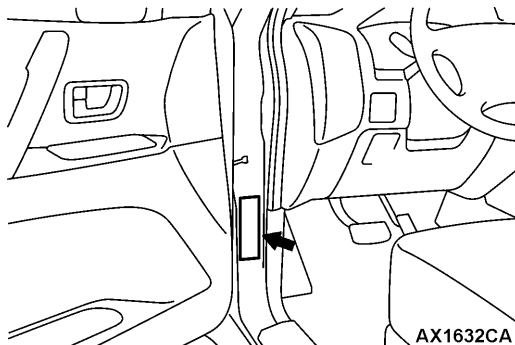
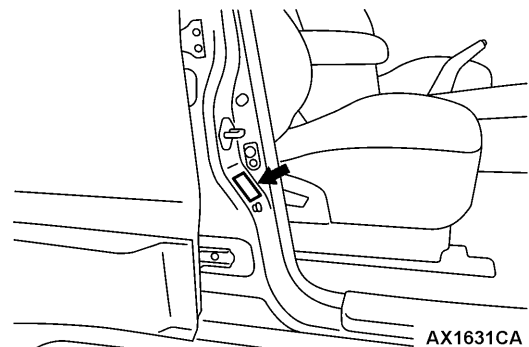
- The engine serial number is stamped near the engine model number.

Engine serial number	AA0201 to YY9999
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## &lt;6G7&gt;



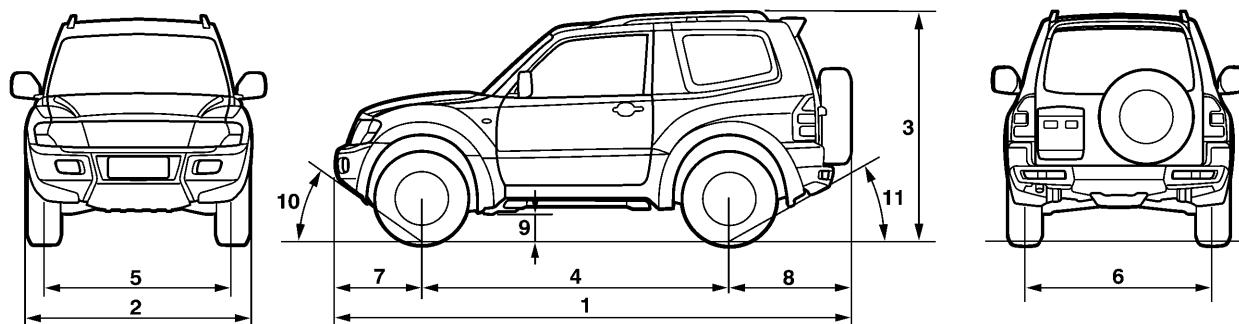
AX0256CA

**THEFT PROTECTION <For BRAZIL>****Locations****Engine room****Room****Glass****Glass****Side panel****Front door  
<Driver's side>****Side panel****Front door  
<Passenger's side>**



## MAJOR SPECIFICATIONS

### <Short wheel base>



X1508CA

Items			V66W			V63W	
Items			MNDFL/R	MNXFL/R, MNXFQL	MRXFQL	MNDVL	MNXVL, MNXVQL
Vehicle dimensions mm	Overall length	1	4,260	4,280		4,260	4,280
	Overall width	2	1,845	1,875		1,845	1,875
	Overall height (unladen)	3	1,845, 1,875* <sup>1</sup>				
	Wheelbase	4	2,545				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,005* <sup>2</sup> , 1,025* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	33.5°				
Vehicle weight kg	Kerb weight		1,910	1,950		1,810	1,870
	Max. gross vehicle weight		2,510				
	Max. axle weight rating-front		1,085	1,120		965	1,020
	Max. axle weight rating-rear		1,425	1,390		1,545	1,490
Seating capacity			5				
Engine	Model No.		4M40 Intercooler Turbo			6G72-SOHC	
	Total displacement ml		2,835			2,972	
Transmission	Model No.		V5M31		V4A51	V5M31	
	Type		5-speed manual		4-speed automatic	5-speed manual	
Fuel system	Fuel supply system		Injection			MPI	

#### NOTE:

\*<sup>1</sup>: Vehicles with roof rails

\*<sup>2</sup>: Vehicles with 235/80R16 Tyre

\*<sup>3</sup>: Vehicles with 265/70R16 Tyre

Items			V63W	V65W			V63W
			MRXVL/R, MRXVQL	MNDVL	MNXVL, MNXVQL	MYXVL, MYXVQL	MNXVQL1B
Vehicle dimensions mm	Overall length	1	4,280	4,260	4,280		
	Overall width	2	1,875	1,845	1,875		
	Overall height (unladen)	3	1,845,1,875* <sup>1</sup>				
	Wheelbase	4	2,545				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,005* <sup>2</sup> , 1,025* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	33.5°				
Vehicle weight kg	Kerb weight		1,870		1,910		1,870
	Max. gross vehicle weight		2,510				
	Max. axle weight rating-front		1,020	1,025	1,060		1,020
	Max. axle weight rating-rear		1,490	1,485	1,450		1,490
Seating capacity			5				
Engine	Model No.		6G72-SOHC	6G74-SOHC			6G72-SOHC
	Total displacement ml		2,972	3,496			2,972
Transmis- sion	Model No.		V4A51	V5MT1	V5M31	V5A51	V5M31
	Type		4-speed automatic	5-speed manual		5-speed automatic	5-speed manual
Fuel system	Fuel supply system		MPI				

## NOTE:

\*1: Vehicles with roof rails

\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre

Items			V65W		V68W	V63W	V65W
			MYXVQL1B	MYXCQR1D	MNXFR6S	MNXVR6S	MNXVR6S
Vehicle dimensions mm	Overall length	1	4,280				
	Overall width	2	1,875				
	Overall height (unladen)	3	1,845, 1,875* <sup>1</sup>				
	Wheelbase	4	2,545				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,005* <sup>2</sup> , 1,025* <sup>3</sup>				
	Ground clearance (unladen)	9	235		225	235	
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	33.5°				
Vehicle weight kg	Kerb weight		1,910	1,915	2,000	1,865	1,905
	Max. gross vehicle weight		2,510				
	Max. axle weight rating-front		1,060	1,080	1,170	1,020	1,050
	Max. axle weight rating-rear		1,450	1,430	1,340	1,490	1,460
Seating capacity			5				
Engine	Model No.		6G74-SOHC	6G74GDI	4M41-DOHC Intercooler Turbo	6G72-SOHC	6G74-SOHC
	Total displacement mℓ		3,496		3,200	2,972	3,496
Transmission	Model No.		V5A51		V5M31		
	Type		5-speed automatic		5-speed manual		
Fuel system	Fuel supply system		MPI	GDI	Electronically-controlled high pressure fuel distribution	MPI	

## NOTE:

\*<sup>1</sup>: Vehicles with roof rails\*<sup>2</sup>: Vehicles with 235/80R16 Tyre\*<sup>3</sup>: Vehicles with 265/70R16 Tyre

Items			V65W	V63W			
			MYXVR6S	MNDVLW	MRDVLW	MNXVLW	MRXVLW
Vehicle dimensions mm	Overall length	1	4,280	4,255		4,280	
	Overall width	2	1,875	1,845		1,875	
	Overall height (unladen)	3	1,845,1,875* <sup>1</sup>				
	Wheelbase	4	2,545				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,005* <sup>2</sup> , 1,025* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	33.5°				
Vehicle weight kg	Kerb weight		1,915	1,810	1,830	1,870	
	Max. gross vehicle weight		2,510				
	Max. axle weight rating-front		1,060	965	980	1,020	
	Max. axle weight rating-rear		1,450	1,545	1,530	1,490	
Seating capacity			5				
Engine	Model No.		6G74-SOHC	6G72-SOHC			
	Total displacement ml		3,496	2,972			
Transmis- sion	Model No.		V5A51	V5MT1	V4A51	V5M31	V4A51
	Type		5-speed automatic	5-speed manual	4-speed automatic	5-speed manual	4-speed automatic
Fuel system	Fuel supply system		MPI				

## NOTE:

\*<sup>1</sup>: Vehicles with roof rails\*<sup>2</sup>: Vehicles with 235/80R16 Tyre\*<sup>3</sup>: Vehicles with 265/70R16 Tyre

Items			V65W		
			MNDVLW	MNXVLW	MYXVLW
Vehicle dimensions mm	Overall length	1	4,255	4,280	
	Overall width	2	1,845	1,875	
	Overall height (unladen)	3	1,845,1,875* <sup>1</sup>		
	Wheelbase	4	2,545		
	Track-front	5	1,560		
	Track-rear	6	1,560		
	Overhang-front	7	710		
	Overhang-rear	8	1,005* <sup>2</sup> , 1,025* <sup>3</sup>		
	Ground clearance (unladen)	9	235		
	Angle of approach degrees	10	42°		
	Angle of departure degrees	11	33.5°		
Vehicle weight kg	Kerb weight		1,870	1,910	
	Max. gross vehicle weight		2,510		
	Max. axle weight rating-front		1,025	1,060	
	Max. axle weight rating-rear		1,485	1,450	
Seating capacity			5		
Engine	Model No.		6G74-SOHC		
	Total displacement ml		3,496		
Transmis- sion	Model No.		V5MT1	V5M31	V5A51
	Type		5-speed manual		5-speed automatic
Fuel system	Fuel supply system		MPI		

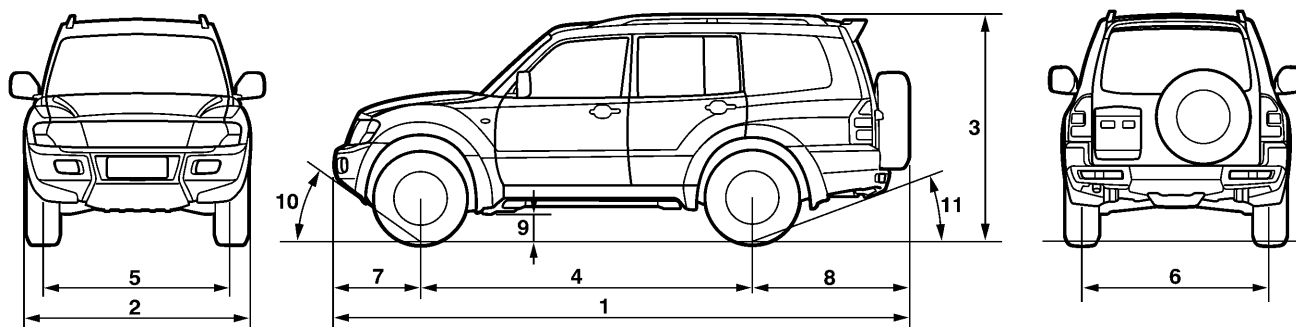
## NOTE:

\*1: Vehicles with roof rails

\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre

## &lt;Long wheel base&gt;



X1509CA

Items			V76W				V73W
			LNDFL/R, LNDFQL	LNHFL/R, LNHFQL/R	LNXFRL/R, LNXFQL	LRXFRL/R, LRXFQL/R	LNDVL/R, LNDVQL
Vehicle dimensions mm	Overall length	1	4,775		4,795		4,775
	Overall width	2	1,845		1,875		1,845
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
Vehicle dimensions mm	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	24°				
Vehicle weight kg	Kerb weight		2,020	2,060	2,080		1,920
	Max. gross vehicle weight		2,760				
	Max. axle weight rating-front		1,110				
	Max. axle weight rating-rear		1,650				
Seating capacity			9	7			9
Engine	Model No.		4M40 Intercooler Turbo				6G72-SOHC
	Total displacement ml		2,835				2,972
Transmis- sion	Model No.		V5M31			V4A51	V5MT1, V5M31
	Type		5-speed manual			4-speed automatic	5-speed manual
Fuel system	Fuel supply system		Injection				MPI

## NOTE:

\*<sup>1</sup>: Vehicles with roof rails\*<sup>2</sup>: Vehicles with 235/80R16 Tyre\*<sup>3</sup>: Vehicles with 265/70R16 Tyre

Items			V73W				V75W
			LNHVL/R, LNHVQL/R	LRHVQL/R	LNXLV/R, LNXLVQL	LRXLV/R, LRXLVQL/R	LNDVL
Vehicle dimensions mm	Overall length	1	4,775		4,795		
	Overall width	2	1,845		1,875		1,845
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	24°				
	Vehicle weight kg	Kerb weight		1,980		2,000	
Max. gross vehicle weight			2,760				
Max. axle weight rating-front			1,110				
Max. axle weight rating-rear			1,650				
Seating capacity			7				9
Engine	Model No.		6G72-SOHC				6G74-SOHC
	Total displacement ml		2,972				3,496
Transmis- sion	Model No.		V5M31	V4A51	V5M31	V4A51	V5M31
	Type		5-speed manual	4-speed automatic	5-speed manual	4-speed automatic	5-speed manual
Fuel system	Fuel supply system		MPI				

## NOTE:

\*1: Vehicles with roof rails

\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre

Items			V75W		V76W		V73W
			LNXLV/R, LNXLVQL	LYXLV/R, LYXLVQL	LNXLQL1B	LRXLQL1B	LRXLVQL1B
Vehicle dimensions mm	Overall length	1	4,795				
	Overall width	2	1,875				
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	24°				
Vehicle weight kg	Kerb weight		2,040		2,080		2,000
	Max. gross vehicle weight		2,760				
	Max. axle weight rating-front		1,110				
	Max. axle weight rating-rear		1,650				
Seating capacity			7				
Engine	Model No.		6G74-SOHC		4M40 Intercooler Turbo		6G72-SOHC
	Total displacement ml		3,496		2,835		2,972
Transmis- sion	Model No.		V5M31	V5A51	V5M31	V4A51	V4A51
	Type		5-speed manual	5-speed automatic	5-speed manual	4-speed automatic	
Fuel system	Fuel supply system		MPI		Injection		MPI

## NOTE:

\*1: Vehicles with roof rails

\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre



Items			V75W			V78W	
			LYXVQL1B	LYXVQL1Q	LYXCQR1D	LNXXFR6S	LYXFR6S
Vehicle dimensions mm	Overall length	1	4,795				
	Overall width	2	1,875				
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235			225	
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	24°				
Vehicle weight kg	Kerb weight		2,040		2,085	2,155	
	Max. gross vehicle weight		2,760				
	Max. axle weight rating-front		1,110			1,160	
	Max. axle weight rating-rear		1,650			1,600	
Seating capacity			7				
Engine	Model No.		6G74-SOHC		6G74GDI	4M40 Intercooler Turbo	
	Total displacement ml		3,496			2,835	
Transmission	Model No.		V5A51			V5M31	V5A51
	Type		5-speed automatic			5-speed manual	5-speed automatic
Fuel system	Fuel supply system		MPI		GDI	Injection	

## NOTE:

\*1: Vehicles with roof rails

\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre

Items			V75W		V73W		
			LNxVR6S	LYXVR6S	LNHVQL1C	LRHVQL1C	LNxVQL1C
Vehicle dimensions mm	Overall length	1	4,795		4,775		
	Overall width	2	1,875		1,845		
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
	Angle of approach degrees	10	42° 42°				
	Angle of departure degrees	11	24° 24°				
Vehicle weight kg	Kerb weight		2,065	2,075	1,980	1,980	2,000
	Max. gross vehicle weight		2,760				
	Max. axle weight rating-front		1,135	1,140	1,110	1,110	
	Max. axle weight rating-rear		1,625	1,620	1,650	1,650	
Seating capacity			7				
Engine	Model No.		6G74-SOHC		6G72-SOHC		
	Total displacement ml		3,496		2,972		
Transmis- sion	Model No.		V5M31	V5A51	V5M31	V4A51	V5M31
	Type		5-speed manual	5-speed automatic	5-speed manual	4-speed automatic	5-speed manual
Fuel system	Fuel supply system		MPI				

## NOTE:

\*<sup>1</sup>: Vehicles with roof rails\*<sup>2</sup>: Vehicles with 235/80R16 Tyre\*<sup>3</sup>: Vehicles with 265/70R16 Tyre

Items			V73W				
			LRXVQL1C	LNDVLW	LRDVLW	LNHVLW	LRHVLW
Vehicle dimensions mm	Overall length	1	4,775				
	Overall width	2	1,845				
	Overall height (unladen)	3	1,855, 1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
Vehicle dimensions mm	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	24°				
Vehicle weight kg	Kerb weight		2,000	1,920		1,980	
	Max. gross vehicle weight		2,760				
	Max. axle weight rating-front		1,110				
	Max. axle weight rating-rear		1,650				
Seating capacity			7	9		7	
Engine	Model No.		6G72-SOHC				
	Total displacement ml		2,972				
Transmission	Model No.		V4A51	V5MT1	V4A51	V5M31	V4A51
	Type		4-speed automatic	5-speed manual	4-speed automatic	5-speed manual	4-speed automatic
Fuel system	Fuel supply system		MPI				

## NOTE:

\*1: Vehicles with roof rails

\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre

Items			V73W		V75W		
			LNXLVW	LRXLVW	LNDVLW	LNXLVW	LYXLVW
Vehicle dimensions mm	Overall length	1	4,795		4,775	4,795	
	Overall width	2	1,875		1,845	1,875	
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235				
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	24°				
Vehicle weight kg	Kerb weight		2,000		1,980	2,040	2,040
	Max. gross vehicle weight		2,760				
	Max. axle weight rating-front		1,110				
	Max. axle weight rating-rear		1,650				
Seating capacity			7		9	7	
Engine	Model No.		6G72-SOHC		6G74-SOHC 6G74-SOHC		
	Total displacement ml		2,972		3,496		
Transmission	Model No.		V5M31	V4A51	V5MT1	V5M31	V5A51
	Type		5-speed manual	4-speed automatic	5-speed manual		5-speed automatic
Fuel system	Fuel supply system		MPI				

## NOTE:

\*1: Vehicles with roof rails

\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre

Items			V76W			V75W	
			LNDFR8	LNHFR8	LNFR8	LNDVR8	LNHVR8
Vehicle dimensions mm	Overall length	1	4,795				
	Overall width	2	1,875				
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>				
	Wheelbase	4	2,780				
	Track-front	5	1,560				
	Track-rear	6	1,560				
	Overhang-front	7	710				
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>				
	Ground clearance (unladen)	9	235	225		235	
	Angle of approach degrees	10	42°				
	Angle of departure degrees	11	24°				
Vehicle weight kg	Kerb weight		1,975	2,065	2,085	1,945	2,035
	Max. gross vehicle weight		2,665	2,720		2,650	2,710
	Max. axle weight rating-front		1,015	1,070		1,000	1,060
	Max. axle weight rating-rear		1,650	1,650		1,650	1,650
Seating capacity			7				
Engine	Model No.		4M40 Intercooler Turbo			6G74-SOHC	
	Total displacement ml		2,835			3,496	
Transmis- sion	Model No.		V5M31				
	Type		5-speed manual				
Fuel system	Fuel supply system		Injection			MPI	

## NOTE:

\*<sup>1</sup>: Vehicles with roof rails\*<sup>2</sup>: Vehicles with 235/80R16 Tyre\*<sup>3</sup>: Vehicles with 265/70R16 Tyre

Items			V75W		
			LYHVR8	LNxVR8	LYXVR8
Vehicle dimensions mm	Overall length	1	4,795		
	Overall width	2	1,875		
	Overall height (unladen)	3	1,855,1,885* <sup>1</sup>		
	Wheelbase	4	2,780		
	Track-front	5	1,560		
	Track-rear	6	1,560		
	Overhang-front	7	710		
	Overhang-rear	8	1,285* <sup>2</sup> , 1,305* <sup>3</sup>		
	Ground clearance (unladen)	9	235		
	Angle of approach degrees	10	42°		
	Angle of departure degrees	11	24°		
Vehicle weight kg	Kerb weight		2,035	2,065	
	Max. gross vehicle weight		2,710	2,715	
	Max. axle weight rating-front		1,060	1,065	
	Max. axle weight rating-rear		1,650		
Seating capacity			7		
Engine	Model No.		6G74-SOHC		
	Total displacement ml		3,496		
Transmis- sion	Model No.		V5A51	V5M31	V5A51
	Type		5-speed automatic	5-speed manual	5-speed automatic
Fuel system	Fuel supply system		MPI		

## NOTE:

\*1: Vehicles with roof rails

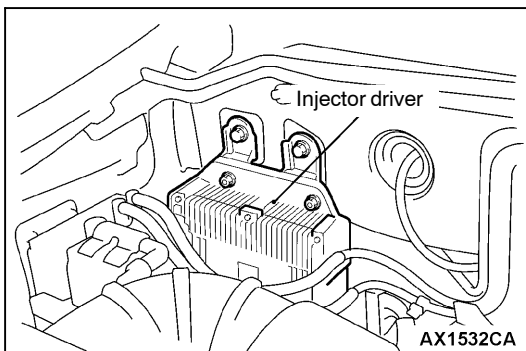
\*2: Vehicles with 235/80R16 Tyre

\*3: Vehicles with 265/70R16 Tyre

## PRECAUTIONS BEFORE SERVICE

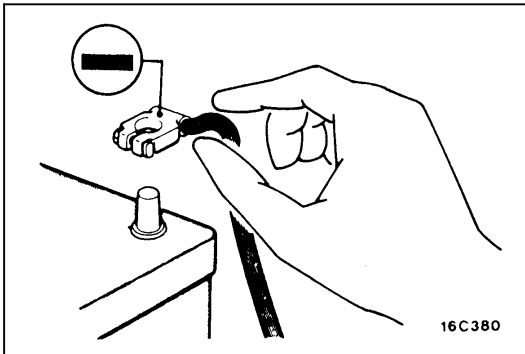
### SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

1. Items to follow when servicing SRS
  - (1) Be sure to read GROUP 52B – Supplemental Restraint System (SRS).  
For safe operations, please follow the directions and heed all warnings.
  - (2) Wait at least 60 seconds after disconnecting the battery cable before doing any further work.  
The SRS system is designed to retain enough voltage to deploy the air bag even after the battery has been disconnected. Serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cable is disconnected.
  - (3) Warning labels must be heeded when servicing or handling SRS components. Warning labels are located in the following locations.
    - Hood
    - Sun visor
    - Glove box
    - SRS-ECU
    - Steering wheel
    - Steering gearbox
    - Air bag module (driver's side and front passenger's side)
    - Front impact sensor
    - Clock spring
    - Side air bag module
    - Side impact sensor
  - (4) Always use the designated special tools and test equipment.
  - (5) Store components removed from the SRS in a clean and dry place.  
The air bag module should be stored on a flat surface and placed so that the pad surface is facing upward.  
Do not place anything on top of it.
  - (6) Never attempt to disassemble or repair the SRS components (SRS-ECU, air bag module, clock spring).
  - (7) Whenever you finish servicing the SRS, check the SRS warning lamp operation to make sure that the system functions properly.
  - (8) Be sure to deploy the air bag before disposing of the air bag module or disposing of a vehicle equipped with an air bag. (Refer to GROUP 52B – Air Bag Module Disposal Procedures.)
2. Observe the following when carrying out operations on places where SRS components are installed, including operations not directly related to the SRS air bag.
  - (1) When removing or installing parts do not allow any impact or shock to the SRS components.
  - (2) SRS components should not be subjected to heat, so remove the SRS components before drying or baking the vehicle after painting.
    - SRS-ECU, air bag module, clock spring, front and side impact sensors: 93°C or moreAfter re-installing them, check the SRS warning lamp operation to make sure that the system functions properly.



### SERVICING INJECTOR DRIVER

After driving the vehicle, the injector driver will be hot. In addition, high voltages and high currents are supplied to the injector driver and the injectors while the engine is running, so take sufficient care when handling the injector driver and surrounding components at such times.



## SERVICING THE ELECTRICAL SYSTEM

Before replacing a component related to the electrical system and before undertaking any repair procedures involving the electrical system, be sure to first disconnect the negative (-) cable from the battery in order to avoid damage caused by short-circuiting.

### Caution

**Before connecting or disconnecting the negative (-) cable, be sure to turn off the ignition switch and the lighting switch.**

**(If this is not done, there is the possibility of semiconductor parts being damaged.)**

## APPLICATION OF ANTI-CORROSION AGENTS AND UNDERCOATS

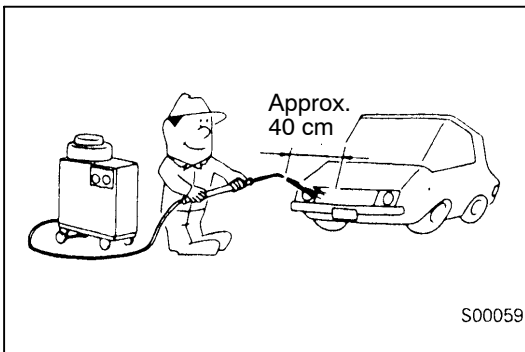
If oil or grease gets onto the oxygen sensor, it will cause a drop in the performance of the sensor.

Cover the oxygen sensor with a protective cover when applying anti-corrosion agents and undercoats.

## PRE-INSPECTION CONDITION

“Pre-inspection condition” refers to the condition that the vehicle must be in before proper engine inspection can be carried out. If you see the words “Set the vehicle to the pre-inspection condition”. in this manual, it means to set the vehicle to the following condition.

- Engine coolant temperature: 80–90°C
- Lamps, electric cooling fan and all accessories: OFF
- M/T: Neutral
- A/T: P range

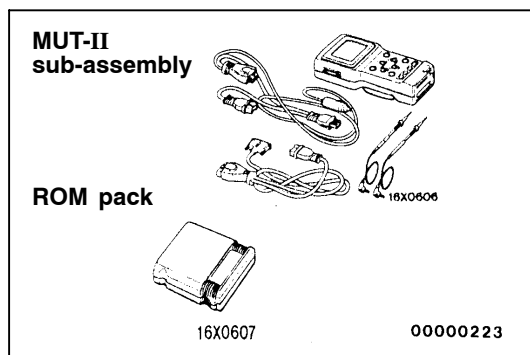


## VEHICLE WASHING

If high-pressure car-washing equipment or steam car-washing equipment is used to wash the vehicle, be sure to note the following information in order to avoid damage to plastic components, etc.

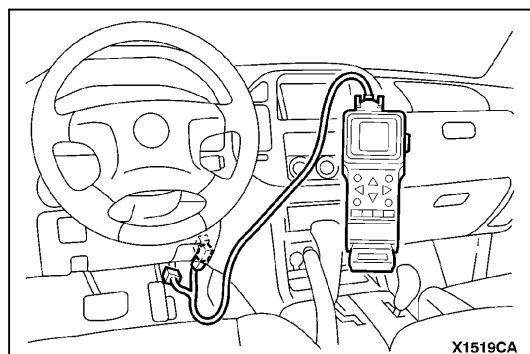
- Spray nozzle distance: Approx. 40 cm or more
- Spray pressure: 3,900 kPa or less
- Spray temperature: 82°C or less
- Time of concentrated spray to one point: within 30 sec.





## MUT-II

Refer to the "MUT-II REFERENCE MANUAL" or "MUT-II OPERATING INSTRUCTIONS" for instructions on handling the MUT-II.



Connect the MUT-II to the diagnosis connector as shown in the illustration.

### Caution

**Connection and disconnection of the MUT-II should always be made with the ignition switch in the "LOCK (OFF)" position.**

## IN ORDER TO PREVENT VEHICLES FROM FIRE

"Improper installation of electrical or fuel related parts could cause a fire. In order to retain the high quality and safety of the vehicle, it is important that any accessories that may be fitted or modifications/repairs that may be carried out which involve the electrical or fuel systems, **MUST** be carried out in accordance with MMC's information/Instructions".

## ENGINE OILS

### Health Warning

Prolonged and repeated contact with mineral oil will result in the removal of natural fats from the skin, leading to dryness, irritation and dermatitis. In addition, used engine oil contains potentially harmful contaminants which may cause skin cancer. Adequate means of skin protection and washing facilities must be provided.

### Recommended Precautions

The most effective precaution is to adapt working practices which prevent, as far as practicable, the risk of skin contact with mineral oils, for example by using enclosed systems for handling used engine oil and by degreasing components, where practicable, before handling them.

Other precautions:

- Avoid prolonged and repeated contact with oils, particularly used engine oils.
- Wear protective clothing, including impervious gloves where practicable.
- Avoid contaminating clothes, particularly underpants, with oil.
- Do not put oily rags in pockets, the use of overalls without pockets will avoid this.
- Do not wear heavily soiled clothing and oil-impregnated foot-wear. Overalls must be cleaned regularly and kept separately from personal clothing.
- Where there is a risk of eye contact, eye protection should be worn, for example, chemical goggles or face shields; in addition an eye wash facility should be provided.
- Obtain First Aid treatment immediately for open cuts and wounds.
- Wash regularly with soap and water to ensure all oil is removed, especially before meals (skin cleansers and nail brushes will help). After cleaning, the application of preparations containing lanolin to replace the natural skin oils is advised.
- Do not use petrol, kerosine, diesel fuel, gas oil, thinners or solvents for cleaning skin.
- Use barrier creams, applying them before each work period, to help the removal of oil from the skin after work.
- If skin disorders develop, obtain medical advice without delay.

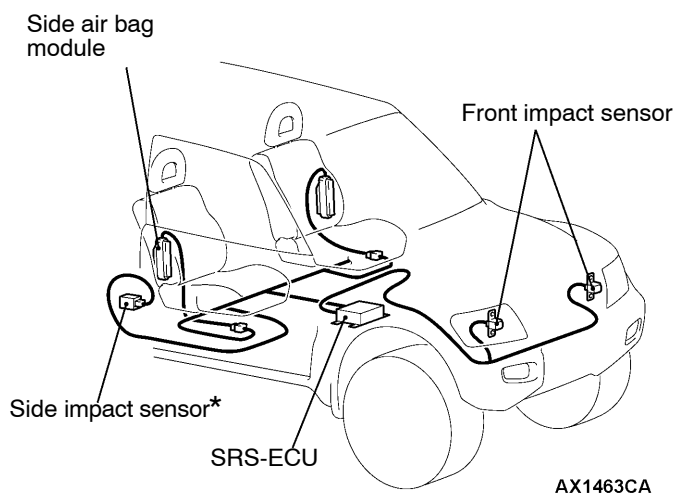
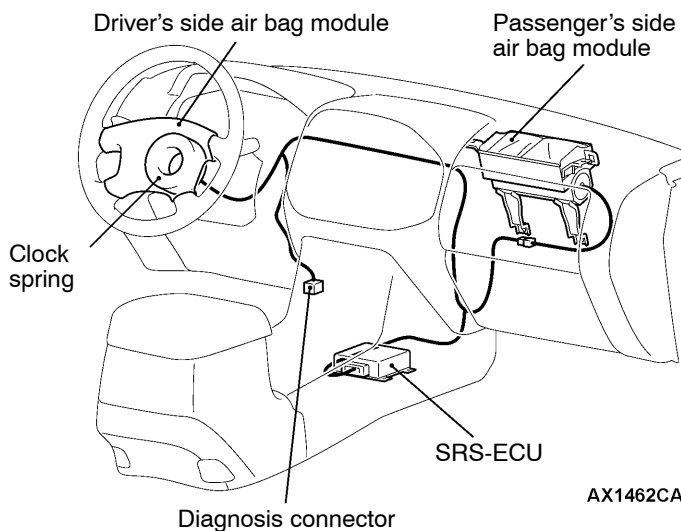
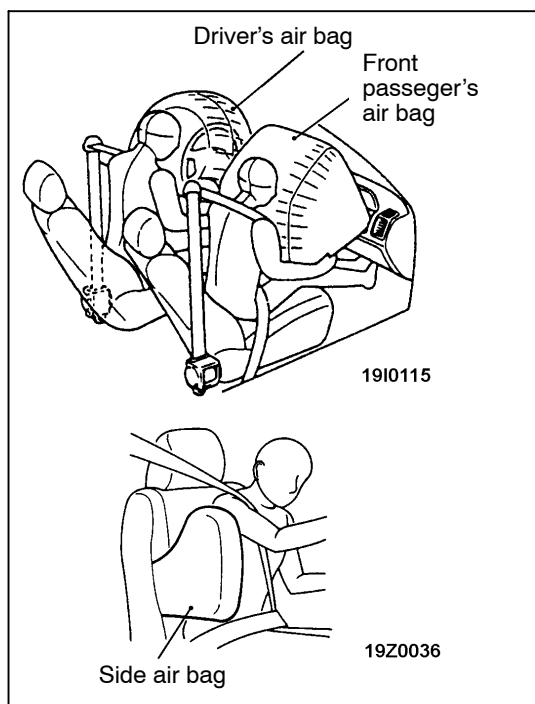
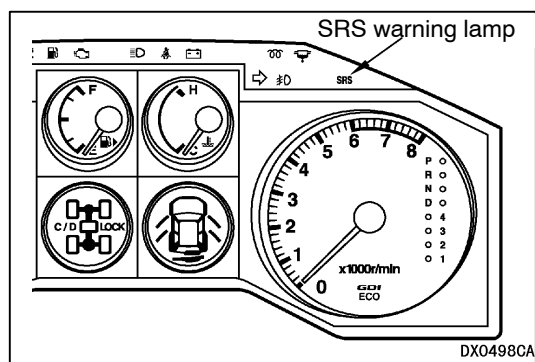
## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

To improve safety, the SRS is available as optional parts. This system enhances collision safety by restraining the front occupants in case of an accident.

The SRS consists of four air bag modules, SRS air bag control unit (SRS-ECU), front and side impact sensors, SRS warning lamp and clock spring. The air bags are located in the centre of the steering wheel, above the glove box, and built into the front seat back assemblies. Each air bag has a folded air bag and an inflator unit. The SRS-ECU under the floor console monitors the system and has a safing G-sensor and an analog G-sensor. The front impact sensors are installed in the headlamp support. The side impact sensors are installed inside the center pillars or the quarter panels, inner monitor any

shocks coming from the side of the vehicle. The warning lamp on the instrument panel indicates the operational status of the SRS. The clock spring is installed in the steering column.

The SRS side air bags deploy if an impact received at the front or side of the vehicle is stronger than a certain set value, in order to protect the front seat occupant's torso in the event of a collision. Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work. Extreme care must be used when servicing the SRS to avoid injury to the service personnel (by inadvertent deployment of the air bags) or the driver (by rendering the SRS inoperative).



### NOTE

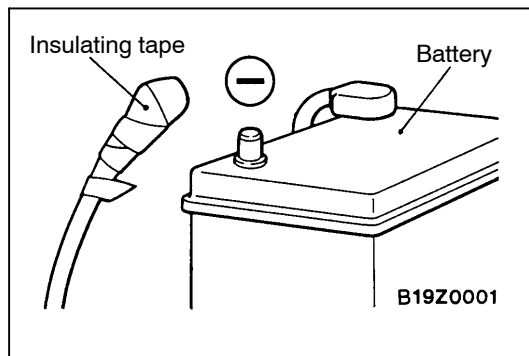
\*: Indicates the parts equipped on the right and left sides.

## SRS SERVICE PRECAUTIONS

1. In order to avoid injury to yourself or others from accidental deployment of the air bag during servicing, read and carefully follow all the precautions and procedures described in this manual.
2. Do not use any electrical test equipment on or near SRS components, except those specified on GROUP 52B.
3. **Never Attempt to Repair the Following Components:**
  - SRS air bag control unit (SRS-ECU)
  - Clock spring
  - Driver's and front passenger's air bag modules
  - Side air bag modules
  - Front impact sensors
  - Side impact sensors

### NOTE

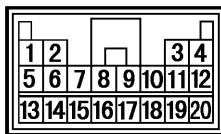
If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the INDIVIDUAL COMPONENTS SERVICE procedures in this manual. (Refer to GROUP 52B.)



4. After disconnecting the negative (–) battery cable, wait 60 seconds at least before any service and insulate the disconnected cable with tape. The SRS retain enough voltage to deploy the air bags for a short time even after the disconnection of the battery. So, serious injury may result by accidental air bag deployment if a work is done on the SRS just after the disconnection of the battery.

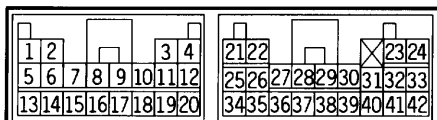
### SRS-ECU connector

#### <Vehicles without SRS side air bag>



W0997AL

#### <Vehicles with SRS side air bag>



W0582AU

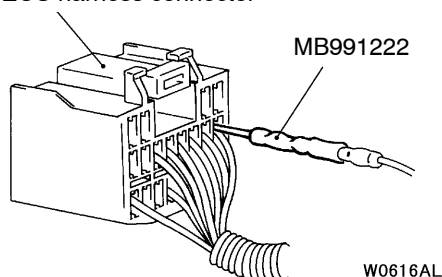
5. Do not attempt to repair the wiring harness connectors of the SRS. If the connector(s) are diagnosed as defective, replace the wiring harness(es). If the harness(es) are diagnosed as faulty, replace or repair the wiring harness(es) according to the table that follows.

SRS-ECU Terminal No.	Destination of harness	Corrective action
1, 2, 3, 4	Instrument panel wiring harness → Front wiring harness → Front impact sensor	Repair or replace each wiring harness
7	Instrument panel wiring harness → Earth	Repair or replace Instrument panel wiring harness
8	Instrument panel wiring harness → Combination meter (SRS warning lamp)	
9, 10	Instrument panel wiring harness → Front passenger's air bag module	
11, 12	Instrument panel wiring harness → Clock spring → Driver's air bag module)	Repair or replace the Instrument panel wiring harness. Replace clock spring.
13	Instrument panel wiring harness → Junction block (fuse No.8)	Repair or replace Instrument panel wiring harness.
16	Instrument panel wiring harness → Junction block (fuse No.6)	
20	Instrument panel wiring harness → Diagnosis connector	
21, 22	Side air bag wiring harness → Side air bag module (L.H.)	Repair or replace side air bag wiring harness.
23, 24	Side air bag wiring harness → Side air bag module (R.H.)	
34, 35, 36	Side air bag wiring harness → Floor wiring harness → Side impact sensor (L.H.)	Repair or each wiring harness.
40, 41, 42	Side air bag wiring harness → Floor wiring harness → Side impact sensor (R.H.)	

6. Inspection of the SRS-ECU harness connector should be carried out by the following procedure. Insert the special tool (probe, MB991222, in the harness set) into the connector from harness side (rear side), and connect the tester to this probe. If any tool than specified is used, damage to the harness and other components will result. Furthermore, measurement should not be carried out by touching the probe directly against the terminals from the front of the connector. The terminals are plated to increase their conductivity, so that if they are touched directly by the probe, the plating may break, which will cause drops in reliability.

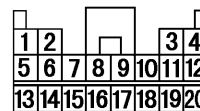
## &lt;Vehicles without SRS side air bag&gt;

SRS-ECU harness connector



W0616AL

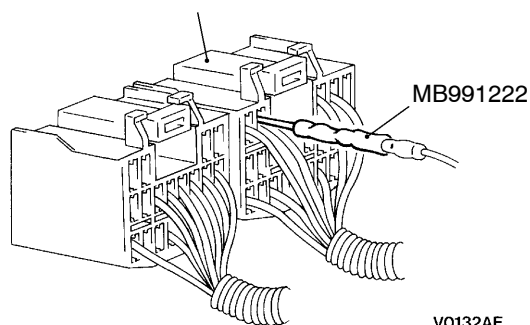
## SRS-ECU harness connector (rear view)



W0999AL

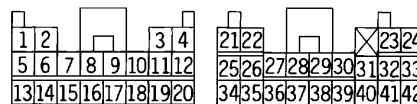
## &lt;Vehicles with SRS side air bag&gt;

SRS-ECU harness connector



V0132AE

## SRS-ECU harness connector (rear view)



W0584AU

7. SRS components should not be subjected to temperature over 93°C, so remove the SRS-ECU, driver's and front passenger's air bag modules, clock spring, side impact sensors and front seat assemblies (side air bag modules) before drying or baking the vehicle after painting.
8. Whenever you finish servicing the SRS, check warning lamp operation to make sure that the system functions properly. (Refer to GROUP 52B.)
9. Make certain that the ignition switch is LOCK (OFF) position when the MUT-II is connected or disconnected.
10. If you have any questions about the SRS, please contact your local distributor.

## NOTE

SERIOUS INJURY CAN RESULT FROM UNINTENDED AIR BAG DEPLOYMENT, SO USE ONLY THE PROCEDURES AND EQUIPMENT SPECIFIED IN THIS MANUAL.

## SUPPORT LOCATIONS FOR LIFTING AND JACKING

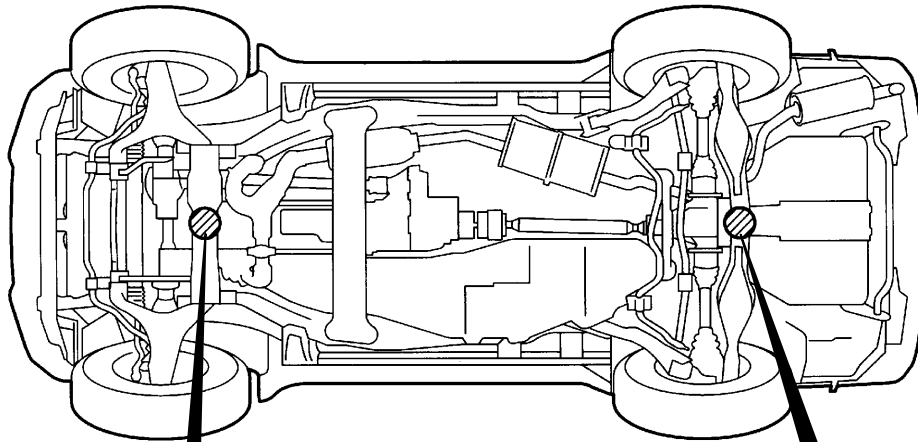
**Caution**

Do not support the vehicles at locations other than specified supporting points. If do so, this will cause damage, etc.

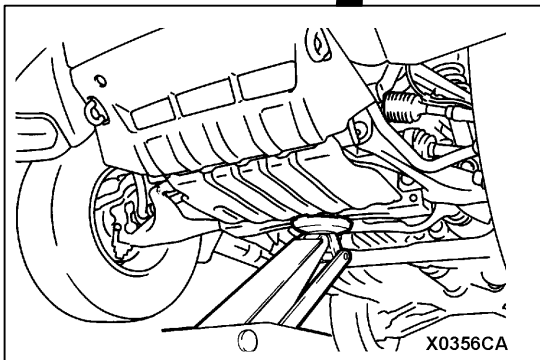
### SUPPORT POSITIONS FOR A GARAGE JACK

**Caution**

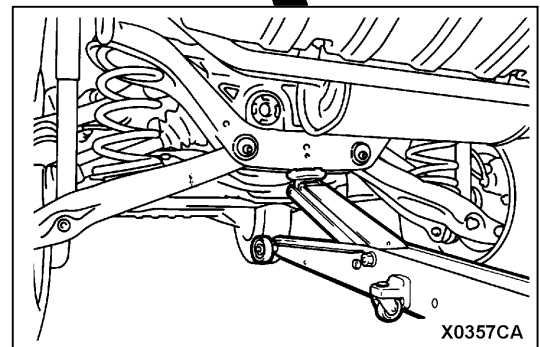
Never support any point other than the specified one, or it will be deformed.



X0417CA



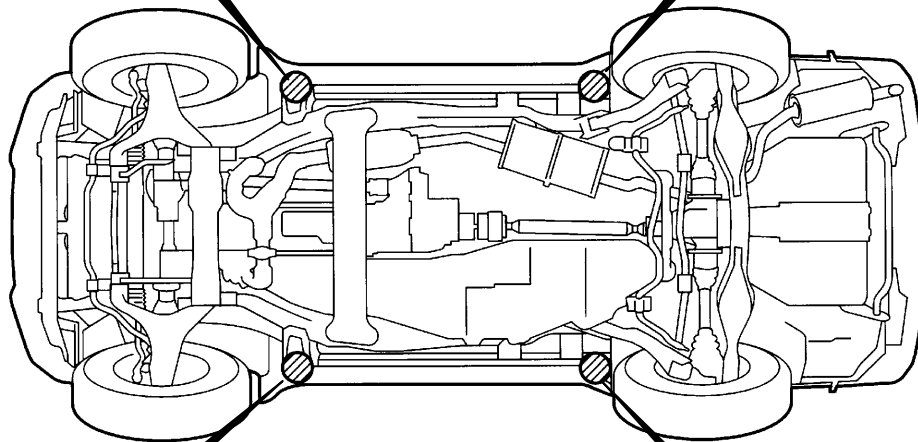
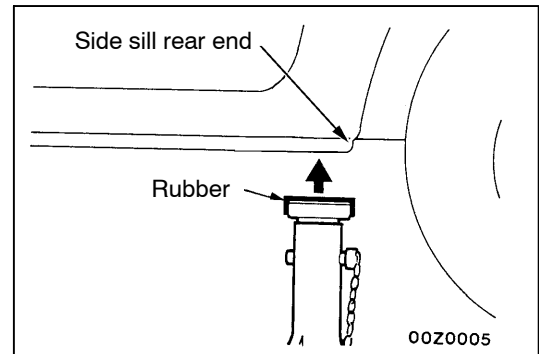
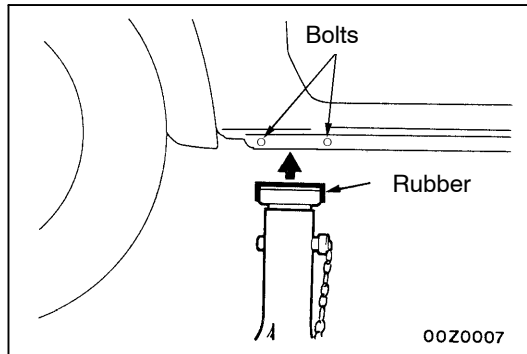
X0356CA



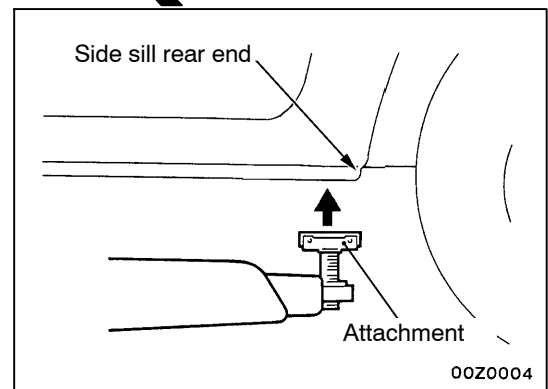
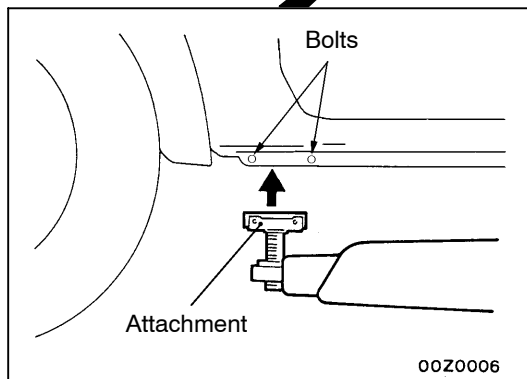
X0357CA

**SUPPORT POSITIONS FOR AXLE STANDS AND A SINGLE-POST LIFT OR DOUBLE-POST LIFT****Caution**

1. If rubber attachments with grooves that are too thick are used at the front support positions, the front fender may become bent, so be sure to use rubber attachments with groove thicknesses of 18 mm or less.
2. If attachments which are not high enough are used, they may damage areas such as the side step. Be sure to use attachments which are high enough, or remove the side step if not using attachments.

**AXLE STANDS**

CX0418CA

**SINGLE-POST  
LIFT OR DOUBLE-  
POST LIFT**



## STANDARD PART/TIGHTENING-TORQUE TABLE

Each torque value in the table is a standard value for tightening under the following conditions.

- (1) Bolts, nuts and washers are all made of steel and plated with zinc.
- (2) The threads and bearing surface of bolts and nuts are all in dry condition.

The values in the table are not applicable:

- (1) If toothed washers are inserted.
- (2) If plastic parts are fastened.
- (3) If bolts are tightened to plastic or die-cast inserted nuts.
- (4) If self-tapping screws or self-locking nuts are used.

### Standard bolt and nut tightening torque

Thread size		Torque N·m		
Bolt nominal diameter (mm)	Pitch (mm)	Head mark “4”	Head mark “7”	Head mark “8”
M5	0.8	2.5 ± 0.5	5.0 ± 1.0	6.0 ± 1.0
M6	1.0	5.0 ± 1.0	9.0 ± 2.0	10 ± 2
M8	1.25	12 ± 2	22 ± 4	25 ± 4
M10	1.25	24 ± 4	44 ± 10	53 ± 7
M12	1.25	41 ± 8	83 ± 12	98 ± 12
M14	1.5	73 ± 12	140 ± 20	155 ± 25
M16	1.5	110 ± 20	210 ± 30	235 ± 35
M18	1.5	165 ± 25	300 ± 40	340 ± 50
M20	1.5	225 ± 35	410 ± 60	480 ± 70
M22	1.5	300 ± 40	555 ± 85	645 ± 95
M24	1.5	395 ± 55	735 ± 105	855 ± 125

### Flange bolt and nut tightening torque

Thread size		Torque N·m		
Bolt nominal diameter (mm)	Pitch (mm)	Head mark “4”	Head mark “7”	Head mark “8”
M6	1.0	5.0 ± 1.0	10 ± 2	12 ± 2
M8	1.25	13 ± 2	24 ± 4	27 ± 5
M10	1.25	26 ± 4	49 ± 9	58 ± 7
M10	1.5	24 ± 4	45 ± 8	55 ± 10
M12	1.25	46 ± 8	95 ± 15	105 ± 15
M12	1.75	43 ± 8	83 ± 12	98 ± 12

### NOTE

1. Be sure to use only the specified bolts and nuts, and always tighten them to the specified torques.
2. Bolts marked with indications such as 4T or 7T are reinforced bolts. The larger the number, the greater the bolt strength.