

## GENERAL INFORMATION

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## IMPORTANT INFORMATION

### BASIC ASSUMPTIONS

This workshop manual assumes that you have and know how to properly use certain special tools which are necessary for the safe and efficient performance of service operations on Mazda vehicles. The manual also assumes that you are familiar generally with automobile systems and basic service and repair procedures. You should not attempt to use this manual unless these assumptions are correct and you understand the consequences described below.

### SAFETY RISK

This manual contains certain notes, warnings, etc., which you should carefully read and follow in order to eliminate the risk of personal injury to yourself or others and the risk of improper service which may damage the vehicle or render it unsafe. The fact that there are no such notes, etc., with respect to any specific service method does not mean that there is no possibility that personal safety or vehicle safety will be jeopardized by the use of incorrect methods or tools.

### POSSIBLE LOSS OF WARRANTY

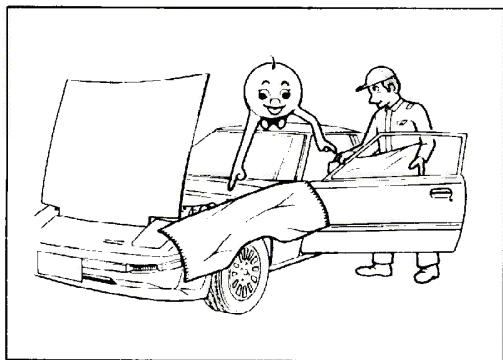
The manufacturer's warranty on Mazda vehicles and engines can be voided if improper service or repairs are performed by persons other than an authorized Mazda dealer.

## FUNDAMENTAL PROCEDURES

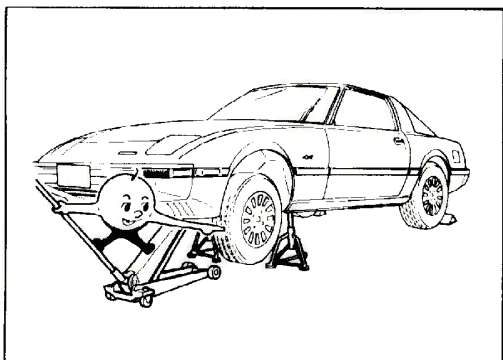
As you read through the procedure, you will come across NOTES, CAUTIONS, and WARNINGS. Each one is there for a specific purpose. **NOTES** give you **added information** that will help you to complete a particular procedure. **CAUTIONS** are given to prevent you from making an error that could **damage the vehicle**. **WARNINGS** remind you to be especially careful in those areas where carelessness can cause **personal injury**. The following list contains some general WARNINGS that you should follow when you work on a vehicle.

### PROTECTION OF THE VEHICLE

Always be sure to cover fenders, seats, and floor areas before starting work.



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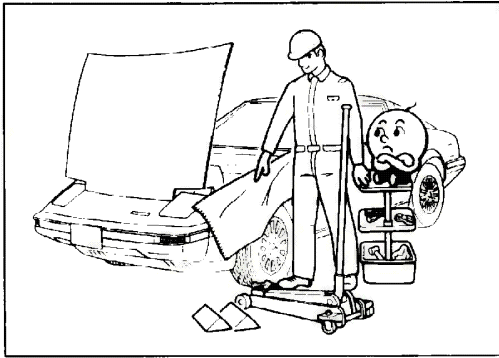
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### A WORD ABOUT SAFETY

The following precautions must be followed when jacking up the vehicle.

1. Block wheels.
2. Use only specified jacking positions.
3. Support vehicle with safety stands (rigid racks).

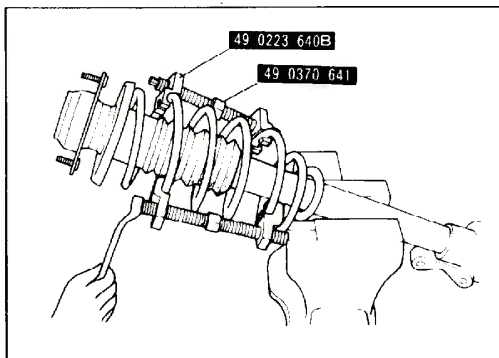
Start the engine only after making certain the engine compartment is clear of tools and people.



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### PREPARATION OF TOOLS AND MEASURING EQUIPMENT

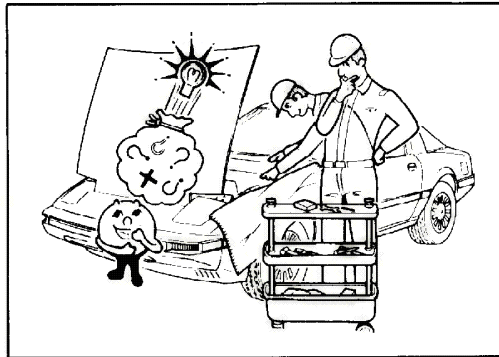
Be sure that all necessary tools and measuring equipment are available before starting work activity.



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### SPECIAL TOOLS

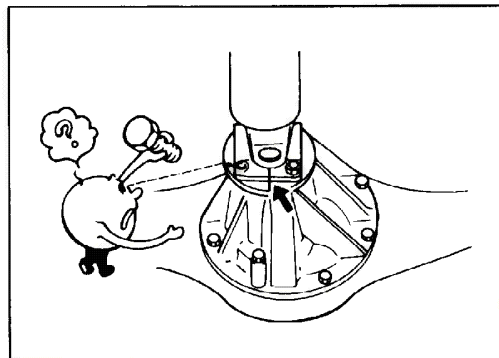
Use special tools when they are required.



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### REMOVAL OF PARTS

While correcting a problem, try also to determine its cause. Begin work only after first learning which parts and subassemblies must be removed and disassembled for replacement or repair.

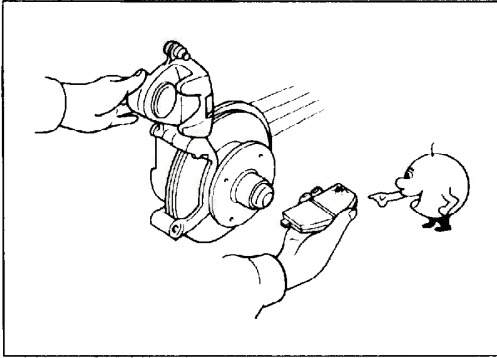


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### DISASSEMBLY

If the disassembly procedure is complex, requiring many parts to be disassembled, that all parts should be disassembled in a way that will not affect their performance or external appearance and be identified so that reassembly can be performed efficiently.

# G FUNDAMENTAL PROCEDURES

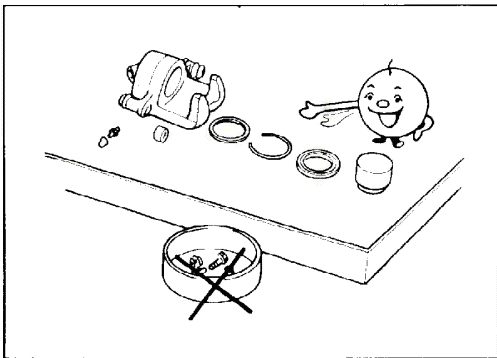


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## DISASSEMBLY

### 1. Inspection of parts

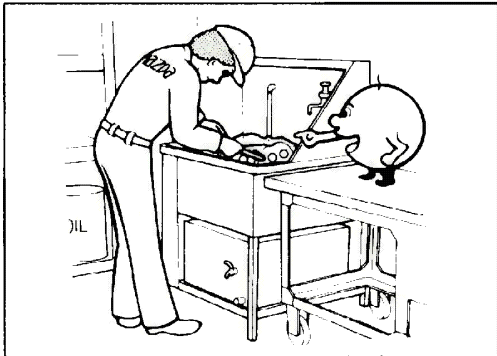
Each part when removed should be carefully inspected for malfunctioning, deformation, damage, and other problems.



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### 2. Arrangement of parts

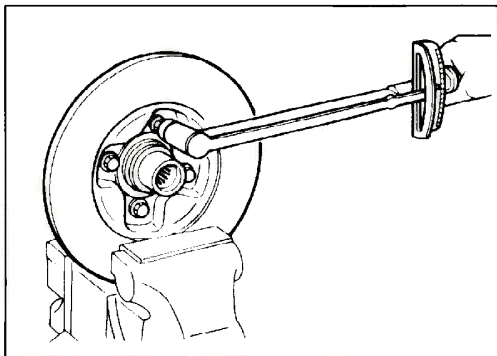
All disassembled parts should be carefully arranged for reassembly. Be sure to separate or otherwise identify the parts to be replaced from those that will be reused.



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### 3. Cleaning parts for reuse

All parts to be reused should be carefully and thoroughly cleaned by the appropriate method.



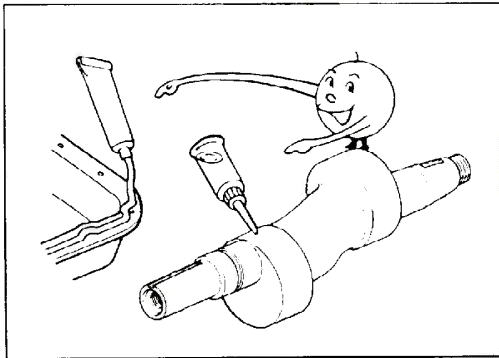
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## REASSEMBLY

Standard values, such as torques and certain adjustments, must be strictly observed in the reassembly of all parts.

If removed, these parts should be replaced with new ones.

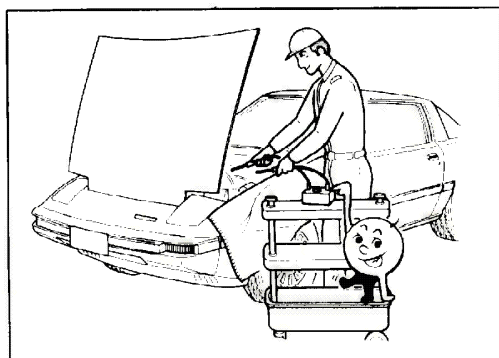
1. Oil seals
2. Gaskets
3. O-rings
4. Lock washers
5. Cotter pins (split pins)
6. Nylon nuts



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Depending on where they are;

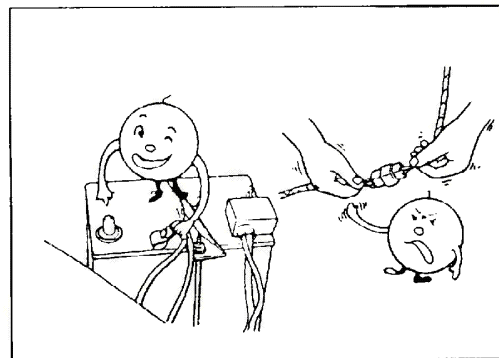
1. Sealant should be applied to gaskets
2. Oil should be applied to moving components of parts
3. Specified oil or grease should be applied at the prescribed locations (oil seals, etc.) before assembly.



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**ADJUSTMENTS**

Use gauges and testers to correct adjustments to standard values.



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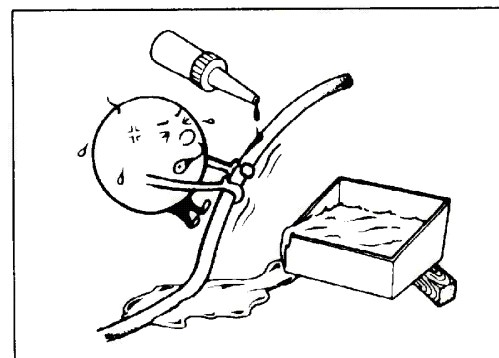
**ELECTRICAL SYSTEM**

Be sure to disconnect the battery cable from the negative (-) terminal of the battery.

Never pull on the wiring when disconnecting connectors.

Locking connectors must be heard to click if the connector is secure.

Handle sensors and relays carefully. Be careful not to drop them or hit them against other parts.



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**RUBBER PARTS AND TUBING**

Always prevent gasoline or oil from touching rubber parts or tubing.

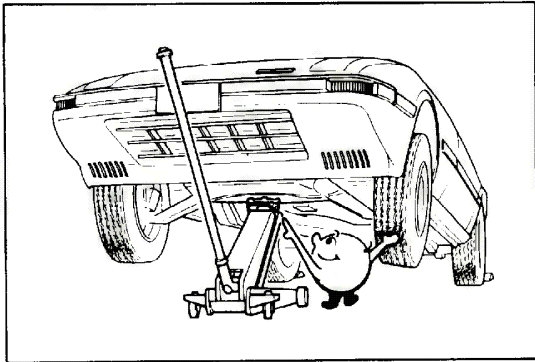
# G JACK AND SAFETY STAND (RIGID RACK) POSITIONS

## JACK AND SAFETY STAND (RIGID RACK) POSITIONS

### FRONT END

#### Jack position:

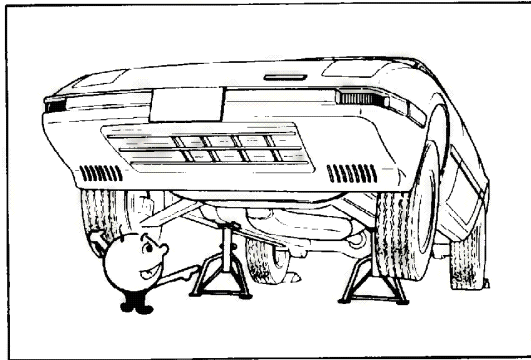
At the center of the crossmember



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#### Safety stand positions:

On both sides of the body frame

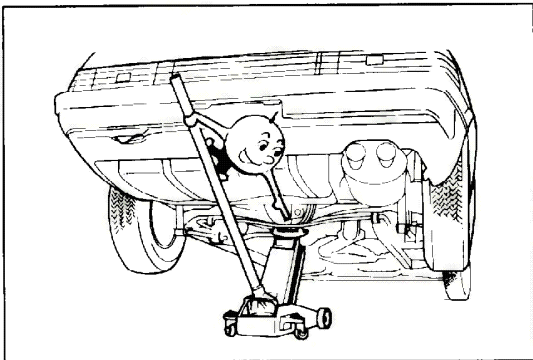


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### REAR END

#### Jack position:

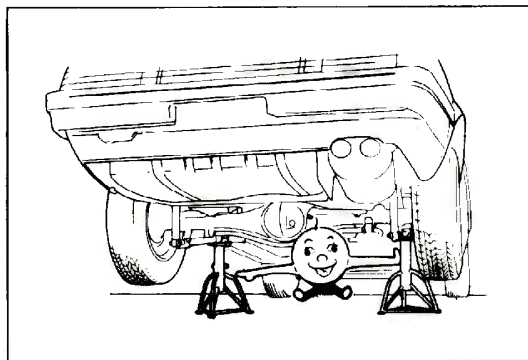
At the differential



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#### Safety stand positions:

On both sides of the body frame

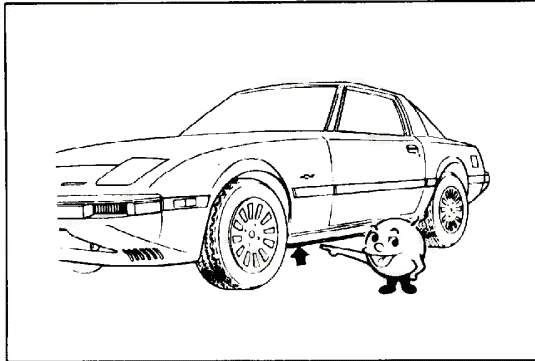


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## VEHICLE LIFT (2-SUPPORT TYPE) POSITIONS

### FRONT END

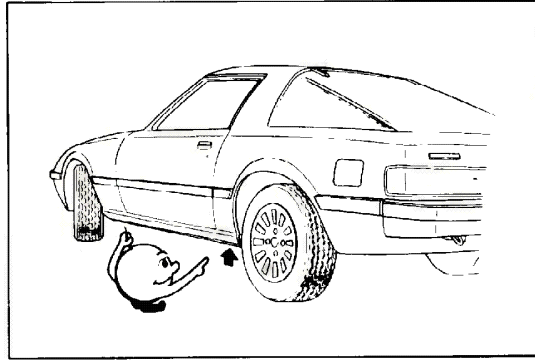
**Frame**  
Side sills (front)



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### REAR END

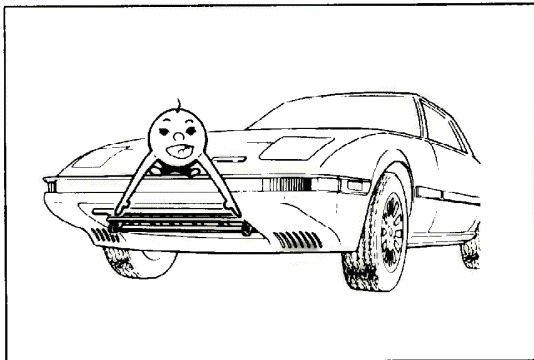
**Frame**  
Side sills (rear)



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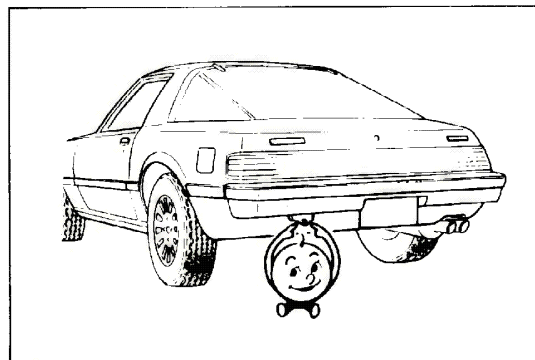
## TOW-ROPE POSITIONS

### FRONT END



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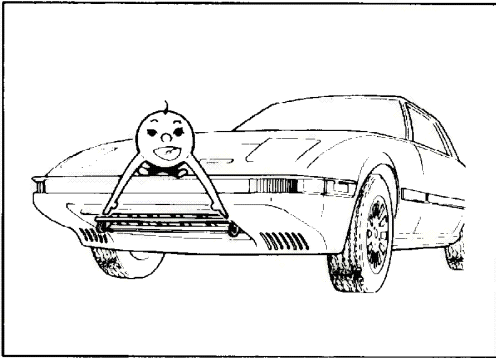
### REAR END



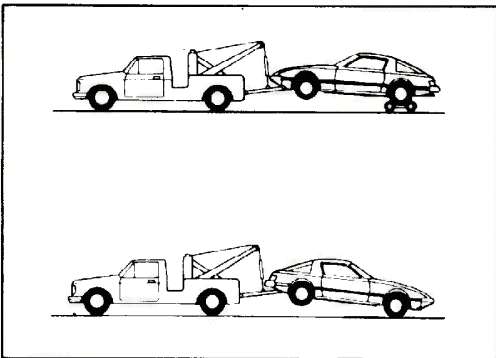
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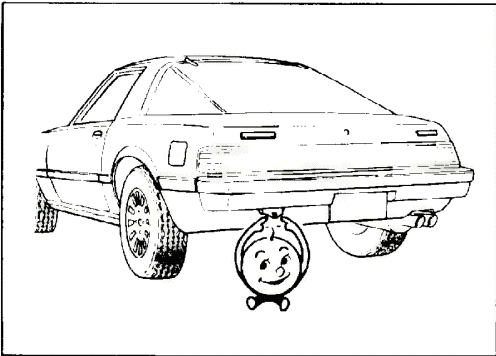
## G TOW-ROPE POSITIONS



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47U0GX-026

### TOWING

Proper towing equipment is necessary to prevent damage to the vehicle during any towing operation. Laws and regulations applicable to vehicles in tow must always be observed.

When the vehicle is equipped with either an automatic or manual transmission, release the parking brake, place the selector lever (shift lever) in neutral, and set the ignition key in the "ACC" position. As a rule, towed vehicles should be pulled with their drive wheels off the ground.

If excessive vehicle damage or other conditions prevent towing a vehicle with its drive wheels up, use wheel dollies. With all four wheels on the ground, the vehicle may be towed only forward. In this case, it cannot be towed at a speed exceeding 56 km/h (35 mph) for more than 80 km (50 miles) without danger of damaging the transmission.

If the towing speed will exceed 56 km/h (35 mph), or if the towing distance will exceed 80 km (50 miles), use either of these two methods:

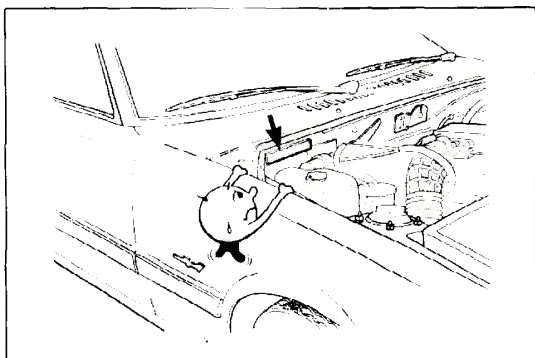
1. Place the rear wheels on dollies.
2. Tow with the rear wheels raised.

### CAUTIONS

- a) Do not tow the vehicle backward with the drive wheels on the ground.
- b) The power assist for the brakes and steering (if so equipped) will be inoperable while the engine is off.
- c) When either towing hooks are used, always pull the cable or chain straight away from the hook and do not apply any sideways force to it. To further help prevent damage, do not take up slack too quickly in the cable or chain.
- d) The rear towing hook should be used only in an emergency situation, (e.g., to pull the vehicle from a ditch, a snowbank, or mud).



**CHASSIS NUMBER LOCATION**

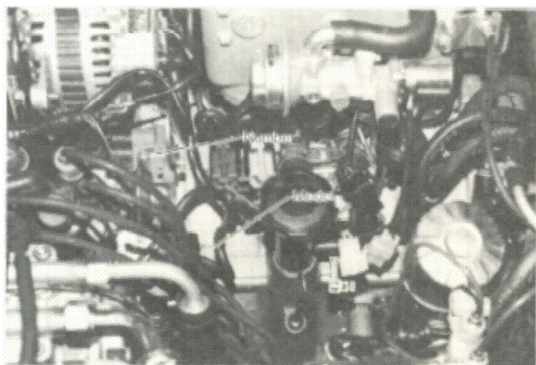


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**UNITS**

N-m (ft-lb or in-lb)	Torque
rpm	Revolutions per minute
A	Ampere(s)
V	Volts(s)
$\Omega$	Ohm(s) (resistance)
kPa (psi)	Pressure (usually positive)
mmHg (in Hg)	Pressure (usually negative)
W	Watt

**ENGINE MODEL AND NUMBER LOCATION**



**ABBREVIATIONS**

ACC	Accessories
ABDC	After bottom dead center
ATDC	After top dead center
A/T	Automatic transmission
ATF	Automatic transmission fluid
BBDC	Before bottom dead center
BTDC	Before top dead center
EX	Exhaust
IG	Ignition
IN	Intake
IC	Integrated circuit
INT	Intermittent
LH	Left hand
M/T	Manual transmission
M	Motor
OFF	Switch off
ON	Switch on
PCV	Positive crankcase ventilation
P/S	Power steering
P/W	Power window
RH	Right hand
ST	Start
SW	Switch

**CAUTION**

**INSTALLATION OF A MOBILE TWO-WAY RADIO SYSTEM  
(For vehicles equipped with E.G.I. system)**

If a mobile two-way radio system is installed improperly, or wrong type is used, the electronic gasoline injection system and the cruise control system may be affected. To avoid any damage to the vehicle, be sure to check for proper installation of a mobile two-way radio.