

# **Mazda 929**

**OWNER'S MANUAL**

## TO MAZDA OWNERS .....

Thank you for buying a new Mazda 929. We welcome you to the growing family of Mazda Owners.

This owner's manual has been prepared to acquaint you with the proper operation and maintenance of your Mazda vehicle and to provide important safety information. We urge you to read this manual carefully so as to know and understand every phase of your vehicle's operation and care. Please keep this manual in the glove box of your vehicle so it will be handy for quick reference when you need it.

Your Mazda Dealer knows your vehicle best and is vitally interested in your complete satisfaction. If reliable advice is required, do not hesitate to consult your Authorized Mazda Dealer.

We hope that you will be delighted with your Mazda and that you will enjoy trouble-free motoring for many years.

TOYO KOGYO CO., LTD.  
HIROSHIMA, JAPAN

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### Notice:

The specifications and design details given in this manual were in effect at the time the book was approved for printing. We reserve the right to carry out modifications without previous notice and without incurring obligation.



## SAFETY FEATURES

One of the most important safety factors in auto transportation today is you, the driver. Most automotive safety equipment performs its function with little care or no attention from the consumer.

However, there are some safety features requiring your co-operation to use and maintain them for maximum benefit and effectiveness.

Always keep the following points in mind:

1. Make sure all doors are locked before you drive away.
2. You and your passengers should always fasten your seat belts (if equipped) before you drive away.
3. See that the rear view mirrors, windows and lights are clean.
4. Use the rear view mirrors and turn signal before you move from one traffic lane to another.
5. Look around before driving away from where you are parked.
6. Keep the tires inflated to the recommended pressure and replace the tires when the tread wear indicators appear.
7. Release the parking brake and see that the brake warning light turns off.
8. Always use your hazard warning flasher when you must stop in any unusual place on the road.

9. When leaving your car parked, set the parking brake. Place the automatic transmission selector in park (P) (reverse for manual transmission). Remove the key and lock the doors.

## NEW CAR BREAK-IN

Your new Mazda vehicle will not require an extensive "Break-in", although as a matter of prudence, most owners avoid extended high speed operation for the first few hundred kilometers. Drive at varying engine speeds and accelerate gently. During the break-in, avoid full throttle starts and, if possible, avoid hard stops. Gentle braking during the first few hundred kilometers of operation will result in longer brake life and better future performance.

These few simple suggestions are designed to help you secure the long life capabilities already built into your vehicle.

A break-in oil is not used. The oil in the engine oil pan is the same specified type as you will use in regular changes. Change the oil and replace the filter at the regular time or mileage interval given in the scheduled maintenance services.

Some of you could not identify the description with your vehicle because this manual mainly explains the right-hand drive models. Please note that references to right- or left-hand in this manual are made when viewing the car from the rear.

# BEFORE DRIVING YOUR CAR

**Don't invite car theft!** An unlocked car with the key still in the ignition offers both opportunity and temptation. Always remove the key from ignition and lock the doors when leaving your car unattended, even in your own driveway. Always try to park your car in a well lighted area, and never leave any packages exposed inside the car.

## KEYS

Two separate keys are provided for your car. Each key has a different cross section so that it can be inserted only in certain locks.

The code number of the key is stamped on it. Record the key number and keep this number in a safe place. (Fig. 1)



— For all locks

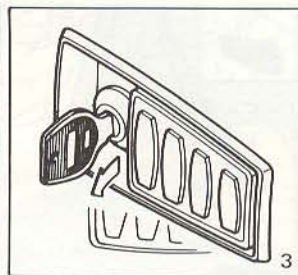
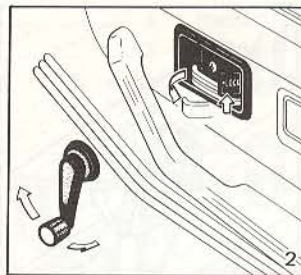


— For ignition, door locks and fuel filler lid



— For ignition switch  
(for certain markets  
only)

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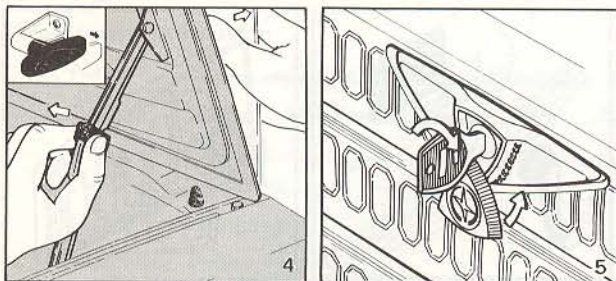
## DOOR LOCKS

Both front and rear doors can be locked from the inside by pushing forward the door lock button located on the door trim. All doors can be locked from the outside by simply pushing forward the door lock button and pulling the outer door handle while closing the door. Once it is closed, release the door handle and the door is locked. The front door can also be locked or unlocked by using the key. To open the unlocked door from the outside, pull the outer door handle forward. To open the unlocked door from inside, pull the inside door handle rearward. The outer door handles are inoperative whenever the doors are locked. (Fig. 2, 3)

## WINDOW CONTROLS

To open the door window, turn the window regulator handle to give the required opening. (Fig. 2)





### BONNET RELEASE

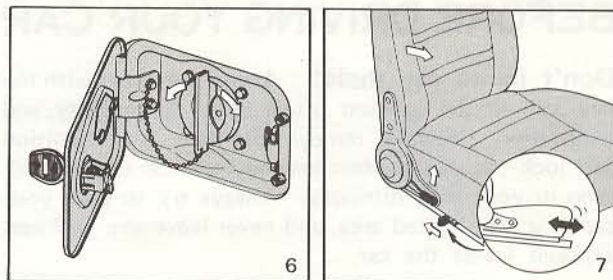
Pull the bonnet release knob, under the instrument panel on the driver's side, and the bonnet will rise slightly. Then gently open the bonnet and keep it securely open with the bonnet stay. To close, release the bonnet stay and press down firmly to lock. (Fig. 4)

### LUGGAGE COMPARTMENT

To open, move the key cylinder cap, insert the square headed key and turn clockwise. The trunk lid will lock automatically when closed without key. (Fig. 5)

### FUEL FILLER

The fuel filler cap is concealed by the filler lid located on the left rear side. To open the lid, insert the key and turn clockwise. Then turn the cap counter-clockwise and remove. Remove the key and close the lid to lock. (Fig. 6)



### SEATS

#### 1. Front Seat Adjustment

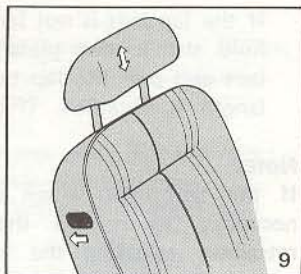
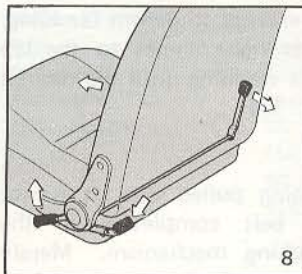
The front seat can be adjusted both forward and rearward. To adjust the seat, release the seat lock mechanism by moving the lever located at the side of the seat rearward. Once released, exert slight body pressure to the seat and slide to obtain the most suitable position. Release the lever to lock the seat in the desired position. (Fig. 7)

#### Caution:

The driver's seat adjustment should be made with the car standing still. Never adjust the seat while the car is moving.

#### 2. Reclining Seats

To adjust the backrest inclination, pull up the lever located at the lower rear of each backrest nearest the door. Once released, exert slight body pressure to the backrest. Release the lever at the desired



position. To return the backrest to the normal position, pull the lever upward and it will be automatically returned. (Fig. 7, 8)

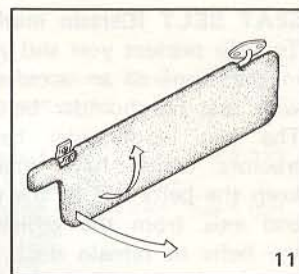
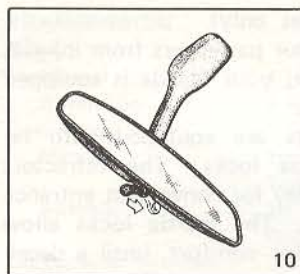
On the hardtop models, the backrest can be fully folded and pushed forward automatically by pulling the lever upward or stepping on the foot pedal. (Fig. 8)

#### Caution:

Do not move the seat control lever until the seat backrest is returned to its normal upright position and the self-latching mechanism is locked.

#### HEAD RESTRAINTS (If equipped)

The head restraints can be raised by simply pulling up. To lower, push down on the head restraint while pushing the adjusting lever rearward. To reset, move the adjusting lever rearward and pull up the head restraint. Do not operate the vehicle with the head restraint removed. (Fig. 9)



#### INSIDE REARVIEW MIRROR

The rearview mirror is held in position by a ball joint which allows the mirror angle to be adjusted at will. It is provided with a knob which changes the mirror angle to prevent the driver from being blinded by the glare of headlights from behind at night. (Fig. 10)

#### SUN VISOR

The sun visor is adjustable to intercept the direct rays of the sun for safe driving. The sun visor can be moved sideways at right angles. (Fig. 11)

### SEAT BELT (Certain market only)

To help protect you and your passengers from injuries in the event of an accident, your Mazda is equipped with seat lap-shoulder belts.

The seat lap-shoulder belts are equipped with retractors which have inertia locks. The retractors keep the belts out of the way for convenient entrance and exit from the vehicle. The inertia locks allow the belts to remain slack, for comfort, until a deceleration force occurs, such as in a sudden stop or collision. At that time, the retractors automatically lock the belts in position and restrain the seat occupants from being thrown forward.

The retractors also lock when the belts are pulled out quickly.

Always adjust the seat to the position in which you will drive before fastening the seat belts.

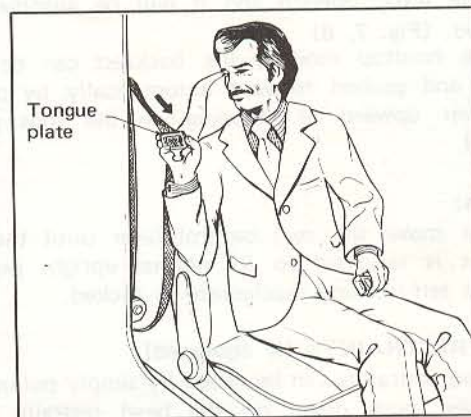
#### To Fasten Front Seat Belts:

1. Grasp the buckle end and tongue plate just below the guide loop.
2. Slowly pull the lap-shoulder belt webbing out of the retractor far enough to permit buckling. (Fig. 12)

If the lap belt is not far enough to permit buckling, hold the tongue plate at right angles to the lap belt and pull the lap belt webbing until the desired length is obtained. (Fig. 13)

#### Note:

If the belt locks when being pulled out, it is not necessary to rewind the belt completely in the retractor, releasing the locking mechanism. Merely release the tension slightly to unlock the mechanism, then pull out to the desired length.



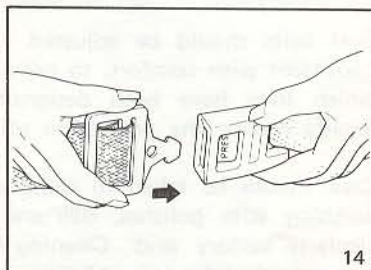
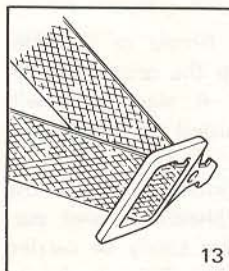
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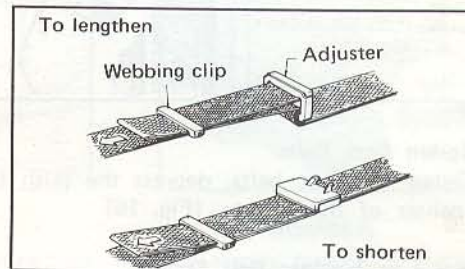
3. Insert the tongue plate into the open end of the buckle. An audible click should sound, indicating the belt is securely locked. (Fig. 14)
4. Position the lap belt across your lap as LOW ON THE HIPS as possible. To reduce the risk of sliding under the belt during an accident, adjust to a SNUG FIT by pulling the belt extending from the tongue plate. The belt retractor is designed to automatically take up excess webbing and maintain tension on the belt.

#### To Fasten Rear Seat Belts:

1. Grasp the buckle end and tongue plate.
2. Position the lap-shoulder belt across the body and lap as LOW ON THE HIPS as possible.

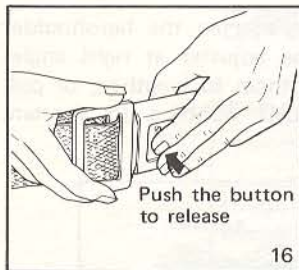


3. If necessary, lengthen or shorten the lap-shoulder belt. To adjust, hold the adjuster at right angles to the webbing and pull them to lengthen, or pull the loose end of the belt webbing to shorten. (Fig. 15)

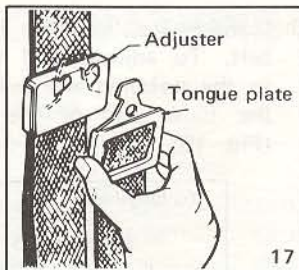


4. Insert the tongue plate into the open end of the buckle until an audible snap is heard. Then, pull the shoulder belt upward to get a snug fit around the hips. The snug and low positions are essential in order that the force exerted by the lap belt in a collision may be spread over the strong hip bone structure and not across the soft abdominal area which could result in serious injury.
5. To get a proper slack of the shoulder belt, place a fist on the chest under the webbing. The shoulder belt should not be tight across the body.





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#### To Unfasten Seat Belts:

To unfasten the seat belts, depress the push button in the center of the buckle. (Fig. 16)

#### Rear Seat Lap-shoulder Belt Storage:

When the lap-shoulder belt is not in use, it should be stored. Loop the belt and place the tongue end into the hook of the adjuster. (Fig. 17)

#### Important — for station wagon

The following additional points are important and should be carefully noted.

1. Keep the rear seat belts and buckles clear when folding the rear seat, to prevent damage to them.

2. Make sure that the rear seat lap-shoulder belts are positioned properly in front of the rear seat-back when folding up the seat-back again. Should the webbing be pinched in the rear seat catch, it can become damaged.
3. Make sure that the rear seat inboard lap belts come out from between the seat cushion and seat-back. Belts should be pulled all the way out so as not to curl up loose under the seat cushion.

#### Instructions for use of seat belt assemblies

"WARNING: Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap."

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

## VITAL CHECK POINTS

**You are advised to carry out the following inspections before starting to drive, to assure carefree operation.**

1. Check engine oil level (See page 38)
2. Check engine coolant level (See pages 40, 41)
3. Check fuel quantity (See pages 18, 22)
4. Check brake and clutch fluid (See page 40)
5. Check battery fluid level (See page 44)
6. Check tire pressure, wear and scars  
(See pages 46, 47)
7. Check windshield washer fluid (See page 20)
8. Check lighting and signaling devices



# STARTING AND OPERATING

## ENGINE EXHAUST GAS CAUTION (CARBON MONOXIDE)

Avoid inhaling exhaust gases especially in an enclosed area such as a garage. Because they contain a percentage of carbon monoxide which is a potentially lethal gas that, by itself, is colorless and odorless.

The best protection against exhaust gas entry into the car interior is a properly maintained engine exhaust system, body ventilation system and car body.

If at any time you suspect that exhaust fumes are entering the passenger compartment, have the cause determined and corrected as soon as possible. If you must drive under these conditions, drive only with all windows fully open.

## IGNITION SWITCH AND ANTI-THEFT STEERING LOCK

**Lock** ..... Normal parking position. Locks ignition and electrical equipment giving added theft protection by preventing normal operation of steering.

**Off** ..... Turns off the engine and accessories without locking the steering. The key can not be withdrawn in this position.

**Acc** ..... Permits operation of electrical accessories when the engine is not running.

**On** ..... The ignition and auxiliary circuits will be brought into action.

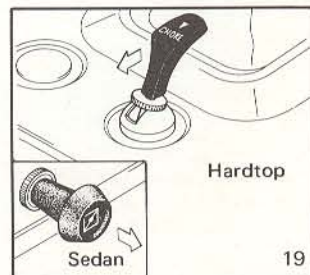
**Start** ..... Permits engagement of starter. As soon as the engine starts, release the key.

## CHOKE CONTROL KNOB

The choke control knob is used only when starting a cold engine or when warming-up the engine. When the knob is pulled out, the air-fuel mixture is temporarily enriched, thereby facilitating starting and warming-up of a cold engine.



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## STARTING THE ENGINE

### STARTING

If your car is equipped with a manual transmission, apply the parking brake, place the transmission in neutral and hold the clutch pedal to the floor throughout the starting procedure.

With an automatic transmission, place the selector lever in either "Neutral (N)" or "Park (P)", and apply the foot brake.

### Starting a Cold Engine

Pull the choke control knob out part way or all the way according to the atmospheric temperature or engine temperature and hold it until the engine starts. Do not depress the accelerator pedal. Crank the engine by turning the ignition key to the "Start" position. If the engine does not start, repeat the above procedure.

As soon as the engine starts, release the ignition key and push in the choke control knob just enough to allow the engine to run smoothly. When the engine warms up, the choke control knob must be pushed in all the way.

### Caution:

Do not keep the starter engaged for more than 10 seconds at a time. Wait 5 ~ 10 seconds before trying again.

### Starting a Warm Engine

Depress the accelerator pedal approximately half way without the use of the choke. With a very hot engine, it may be necessary to depress the accelerator pedal fully. When the engine starts, release the accelerator pedal gradually. Do not pump the accelerator pedal.

### Engine Flooded

Depress the accelerator pedal fully and hold while starting until the engine is cleared of excessive fuel. As soon as the engine starts, release the accelerator pedal gradually. Do not pump the accelerator pedal. If the engine fails to start by using the above procedure, remove all the spark plugs, dry if wet, and keep the spark plug bores open until excessive fuel in the combustion chambers has cleared. Re-install the spark plugs and repeat the above procedure.

### Caution:

Keep open flames, cigarettes or sparks away from the engine while performing the above procedure.

### Engine Warm-Up

Warm up the engine until the water temperature gauge needle indicates above "C" before driving off. Do not use the choke after the engine has warmed up.



## DRIVING THE CAR

### DRIVING WITH MANUAL TRANSMISSION

The shift pattern is shown on the gearshift lever knob. Make full use of the gears. When it is necessary to reduce speed due to slowing traffic, turning corners or driving up steep hills, downshift into a lower gear before the engine starts to labor. When shifting, depress the clutch pedal fully, then release it slowly. To prevent premature clutch wear and failure, do not drive with your foot resting on the pedal. Stop the vehicle before shifting into reverse. To shift into reverse, move the shift lever all the way to the right, overcoming the spring pressure. Then move the lever rearward toward the seat.

### DRIVING WITH AUTOMATIC TRANSMISSION

The automatic transmission has three forward speeds. There are six positions for the selector lever and

they are indicated on the indicator panel by the letters. All normal driving will be done in "D" position. Other positions are used for the special circumstances which are explained below.

#### P (Park):

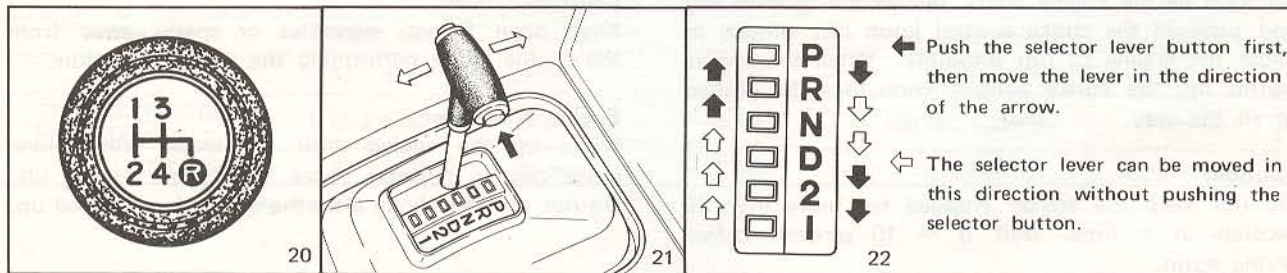
This position engages the transmission lock which must be used only when stopped, parked or for starting the engine.

#### R (Reverse):

This range is used only for backing the car. The car must be stopped before shifting into Reverse.

#### N (Neutral):

This range is used when the car is not moving. Do not fail to apply the brakes. The engine can be started in this position.



#### **D (Drive):**

This range is used for normal driving, for which the shift intervals are set in accordance with economic driving considerations. In position "D" the transmission operates in all three gears. Never downshift the selector lever to "2" or "1" position when driving over 105 km/h (65 mph)

#### **2 (Second):**

This range is used for driving in heavy traffic, on slippery surfaces or on hilly terrain. Better use is made of engine efficiency and braking efficiency is reinforced with the aid of the engine. In this range it is possible to drive only in the second gear; the transmission does not shift up to the third gear. Do not exceed 105 km/h (65 mph) in "2" position.

#### **1 (Low):**

This range is designed for hard pulling and for climbing or descending steep grades. When downshifting to "1" position, the car will temporarily remain in the second gear in accordance with the car speed before it shift to low gear. Upshifts from "1" can be made only by manual shifting. Do not drive over 60 km/h (35 mph) in "1" position.

#### **Forced Downshifts ("D" position only)**

Quick power and sharp acceleration can be obtained to pass moving cars or to climb steep grades at speeds ranging between 100 and 35 km/h (62 and 21 mph) by depressing the accelerator pedal fully to downshift from a higher to a lower gear. It will shift up again automatically.

#### **Starting the Car on Upgrades**

Depress the brake pedal with your left foot and shift the selector lever to "D", "2" or "1" position. Depress the accelerator pedal gradually with your right foot, while releasing the foot brake.

#### **Operating Cautions:**

1. Do not accelerate the engine in "1", "2", "D" or "R" with the brakes applied. This can cause damage by overheating the transmission.
2. Do not hold the car on an upgrade by accelerating the engine. Use the brakes.
3. Do not coast in Neutral at any time.
4. Avoid downshifting suddenly on slippery roads, since the engine braking action may cause a skid.
5. If the engine idles faster after the car's break-in period, adjust the idle speed to specifications to minimize creeping.
6. Use "Type F" automatic transmission fluid.



## **DRIVING ON SNOW, ICE OR SAND**

Ice, snow or wet surfaces present hazardous driving conditions. Stopping distances are unpredictable and braking on slippery surfaces can cause skidding. Therefore drive more cautiously and always maintain an adequate stopping distance. Apply brakes rhythmically to obtain light braking without locking the wheels. Avoid quick movements of the steering wheel. Deep snow resists forward motion in a manner similar to loose sand. Hard, packed snow causes the wheels to lose traction. In mud, both momentum and traction may be lost. Sand, rock salt, tire chains, or a piece of carpeting under the rear wheels can help if you get bogged down. To get moving in soft snow or sand, use second gear to obtain the necessary torque and depress the accelerator pedal very lightly. Try to crawl forward slowly but evenly. Should resistance increase to the point where the vehicle begins to stall, shift to first (low) gear. Do not spin the wheels.

## **ECONOMY TIPS**

### **1. Start gradually and accelerate gently**

Fast starts and sudden bursts of speed are the main causes of excessive fuel consumption. Drive at moderate speeds and accelerate slowly. The faster you drive the car, the greater fuel consumption increases.

### **2. Avoid hard braking**

Each brake application means the loss of much energy created to get your car up to speed. You will save gas if, instead of rushing up to a red traffic light or stop sign, you simply let up on the accelerator pedal so that the car does most of the slowing down by itself.

### **3. Tire pressure**

Keep tires up to recommended pressures. Correct pressure will improve economy, especially when carrying heavy loads.

### **4. Shut off the ignition when parked**

An idling engine uses a richer mixture to prevent stalling. Thus, whenever the car is parked, shut off the engine to preserve fuel.

### **5. Maintain your car in top condition**

Have your authorized dealer regularly inspect and perform scheduled maintenance operations recommended in this manual to keep your car in top running condition.

## **EMERGENCY PROCEDURES**

### **EMERGENCY STARTING**

#### **Push Starting**

If your car is equipped with a manual transmission, it can be started in an emergency by pushing. When being pushed to start the engine, turn off all unnecessary electrical loads. Turn the ignition key to the "On" position. Depress the clutch pedal and shift to high gear. Release the clutch pedal when car speed reaches 15 km/h (10 mph). The bumper and other parts contacted by the pushing vehicle should be protected from damage.

#### **Caution:**

Cars with automatic transmissions cannot be started by pushing.

#### **Jump Starting with Auxiliary Battery**

To start the car with a "Run-down" battery, remove the vent caps from the batteries, then connect the jumper cables to the booster battery first.

Be sure to connect the positive terminals of both batteries through one cable (usually red color) and the negative terminals through the other cable.

Any other procedure will damage the charging system. If the battery is frozen or the electrolyte fluid is obviously below the specified level, do not attempt to

jump start because the battery may rupture or explode. Keep fire away from the top of open battery cells because combustible gases are always present.

### **EMERGENCY STOP**

If you must stop your car on a busy highway, pull it over to the right side of the shoulder as far as possible; do not park in the driving lane. Apply the parking brake and turn on the hazard warning lights, day or night, to warn other drivers of the hazard. If you must leave your car to call assistance, lock all the doors.

### **TOWING**

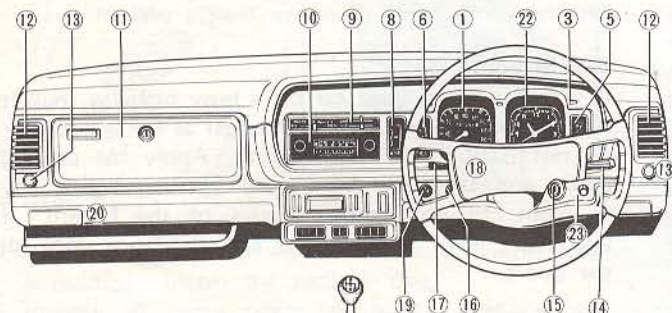
With a manual transmission, make sure the parking brake is released and the transmission is in neutral. It is important that the transmission and rear axle are in proper working order before towing.

To move a car with an inoperative transmission or rear axle, raise the rear wheels and tow from the rear. With an automatic transmission, lift the rear wheels and tow. Unless the car is lifted from the rear, the transmission could be damaged.

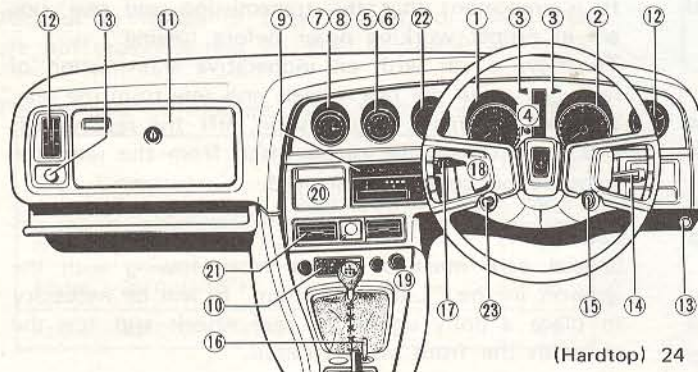
#### **Caution:**

Special care must be taken when towing with the ignition in the "Lock" position. It will be necessary to place a dolly under the rear wheels and tow the car with the front wheels raised.

# INSTRUMENTS AND CONTROLS



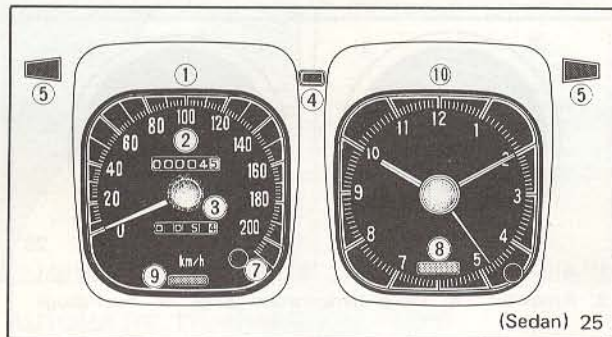
(Sedan) 23



(Hardtop) 24

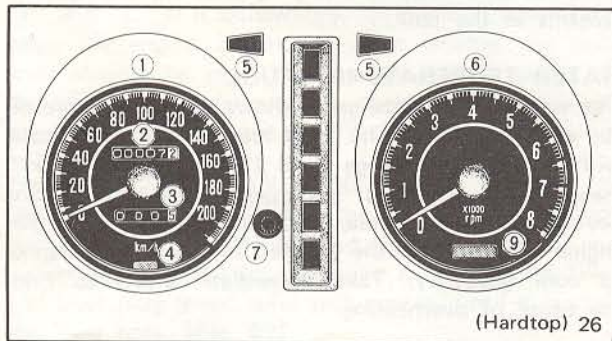
1. Speedometer
2. Tachometer
3. Turn signal indicator light
4. Tripmeter re-set knob
5. Water temperature gauge
6. Fuel gauge
7. Oil pressure warning light
8. Ammeter
9. Heater controls
10. Radio
11. Glove box
12. Ventilation air outlet
13. Ventilation control knob
14. Combination switch lever
15. Ignition switch
16. Choke control knob
17. Light switch
18. Horn switch
19. Cigar lighter
20. Ash tray
21. Car cooler
22. Clock
23. Illumination light control knob





(Sedan) 25

1. Speedometer
2. Odometer
3. Tripmeter
4. High beam indicator light
5. Turn signal indicator light
6. Tachometer
7. Tripmeter re-set knob
8. Oil pressure warning light
9. Brake system warning light
10. Auto clock



(Hardtop) 26

## SPEEDOMETER AND ODOMETER

The speedometer indicates the car's forward speed in kilometers per hour or miles per hour. The odometer, located just above the center of the speedometer dial, registers accumulated mileage.

## TRIPMETER

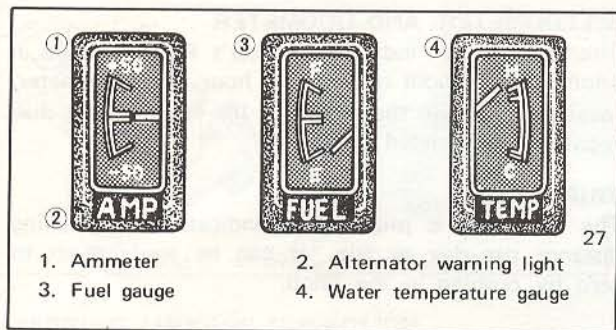
The tripmeter is provided to indicate the travelling distance per day or trip. It can be easily re-set to zero by pushing in the knob.

## TACHOMETER (If equipped)

The electric tachometer indicates the number of engine revolutions per minute, allowing the driver to estimate maximum performance. Do not use engine speeds within the red zone at any time.

## OIL PRESSURE WARNING LIGHT

The warning light will glow when the ignition switch is turned on and should go out after the engine is started. If the light glows continuously at normal driving speeds, the engine should be shut off immediately until the cause of the trouble can be located and corrected. (Figs. 25-8 & 28-2)

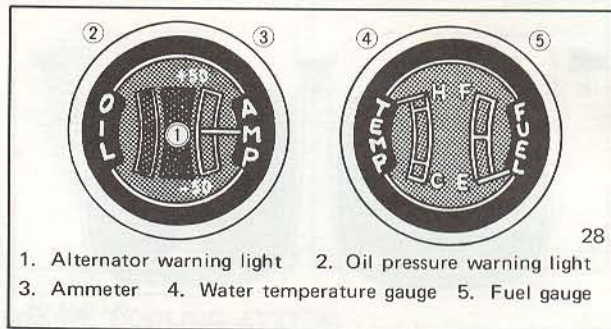


### ALTERNATOR WARNING LIGHT

The warning light will glow when the ignition switch is turned on and should go out after the engine is started. If the light glows continuously when the engine is running, the charging system should be checked and corrected as soon as possible.

### AMMETER

The ammeter indicates the rate of battery charge or discharge. Any reading toward the minus end of the scale indicates that the battery is being discharged. Except at low engine idle speeds, the needle should register on the plus side of the scale. If the needle registers minus occasionally when the engine is running, have your Authorized Mazda Dealer correct the trouble.



### FUEL GAUGE

The fuel gauge indicates an approximate amount of fuel in the fuel tank when the ignition switch is turned on. When the needle registers the "E" position, a reserve of 3 liters (2.6 Imp. quarts, 3.2 U.S. quarts) remains in the tank.

### WATER TEMPERATURE GAUGE

The water temperature gauge shows the temperature of the engine coolant. The gauge readings should indicate within the normal range band ("C" means cold, "H" means hot). Should the needle reach or move beyond the normal area, stop immediately. With the engine idling, open the bonnet to allow the engine to cool gradually. Take immediate action to find the cause of overheating.



## BRAKE SYSTEM WARNING LIGHT

### 1. Parking Brake Warning Light

If the parking brake has not been released, the warning light will glow with the ignition turned on. (Do not move the car until the parking brake is released and the light is off.) (Figs. 25, 26)

### 2. Service Brake Warning Light (If equipped)

If your car is equipped with the "service brake warning device" as the light is used in common with the "parking brake warning light", the same light will also give warning of any defects in the hydraulic brake system. The dual brake system is designed so that one half of the hydraulic brake system will function even if there is a hydraulic leak in the other half of the system. If the warning light glows when the brake pedal is depressed with the ignition switched on, it may indicate a failure of either half of the dual brake system. Operation of the car in this condition is dangerous. Have your Authorized Mazda Dealer locate and correct the trouble immediately. The warning light bulb can be checked by turning the ignition key to the "On" position with the parking brake applied. This warning light is not to be considered as a substitute for visual checking of the brake fluid level, which is required as a part of the scheduled maintenance services.

## STOP LIGHT CHECKER BUZZER (If equipped)

A burned out stop light bulb or other minor malfunctions of the stop light system is indicated by the checker buzzer sounding when the foot brake is depressed.

## HIGH BEAM INDICATOR LIGHT

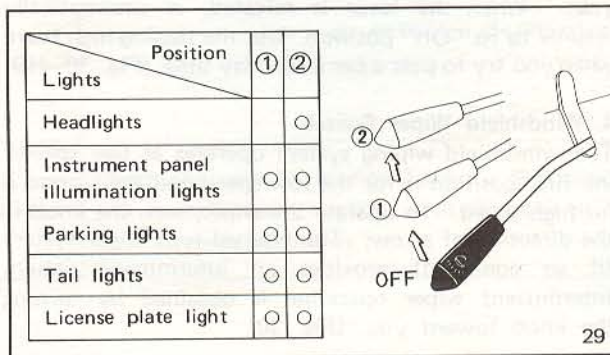
The blue indicator light will glow whenever the headlight high beams are in use. (Figs. 25, 26)

## TURN SIGNAL INDICATOR LIGHT

The light will flash intermittently to indicate the proper operation of the both front and rear turn signal lights. (Figs. 25, 26)

## LIGHT SWITCH

The three position light switch operates as follows:





## COMBINATION SWITCH LEVER

### 1. Turn Signal Switch

The ignition switch must be in the "On" position in order for the directional signals to be operational. Move up the lever for turns to the left and down for turns to the right. The lever automatically returns to the "Off" position when the turn is completed. (Fig. 30)

### 2. Headlight Beam Switch

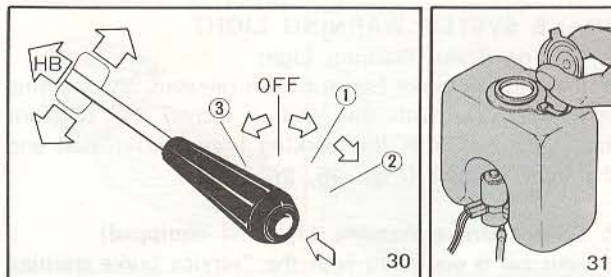
The "High" and "Low" headlight beams are controlled by pulling the lever toward you when the light switch is in the "2" position. (Fig. 30—HB)

### 3. Passing High Beam Switch

With the light switch at either "Off" or "1" position, the headlights are flashed by pulling the lever toward you. When the lever is released, it automatically returns to its "Off" position. Use the passing high beam when you try to pass a car in the day time. (Fig. 30—HB)

### 4. Windshield Wiper Switch

The windshield wiping system operates at two speeds; the first position is for the low speed and the second is for high speed. To operate the wiper, turn the knob in the direction of arrow. The interval type wiper system (if so equipped) provides an intermittent action. Intermittent wiper operation is obtained by turning the knob toward you. (Fig. 30)

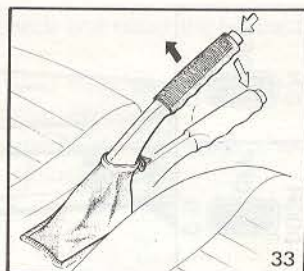
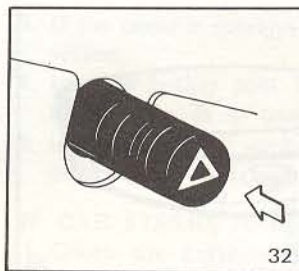


### 5. Windshield Washer Switch

The windshield washer fluid squirts onto the windshield by pushing in the knob. Continuous operation of the windshield washer should be within 15 seconds. Do not operate the washer when the fluid reservoir (located in the engine compartment) is empty. Check the washer fluid level frequently. (Figs. 30, 31)

#### Caution:

It is the owner's responsibility to check all lights, signaling systems and warning lights frequently to be sure they are working properly. It is important that any malfunctions be corrected promptly for your safety, and for the safety of others.



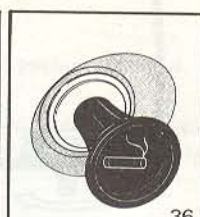
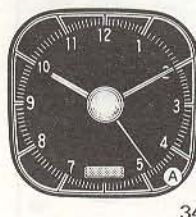
### HAZARD WARNING FLASHER SWITCH

In the event your car is disabled or you stop for any reason on the highway, the hazard warning system, which flashes all four turn signals, should be used to warn other drivers that your car is a traffic hazard. The system is activated by pushing in the switch button located on the steering column cover. (Fig. 32)

### PARKING BRAKE LEVER

The parking brake lever is located between the two front seats. The parking brake operates the rear wheel brakes mechanically. To apply, pull the lever upward. To release it, lift the lever slightly, depress the button on top of lever to free the ratchet, then ease it fully down. (Fig. 33)

## OTHER FEATURES



### CLOCK

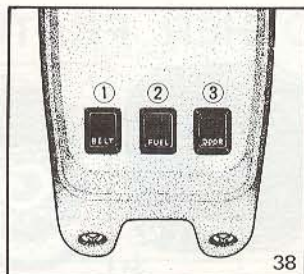
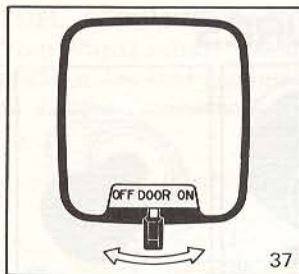
To reset the electric clock, pull the reset knob **A** and turn as required. (Fig. 34)

### ILLUMINATION LIGHT CONTROL KNOB

Instrument panel illumination is controlled by turning the knob. Turning the knob clockwise will brighten the instrument panel light. (Fig. 35)

### CIGAR LIGHTER

To operate the cigar lighter, push the lighter in all the way and release. The lighter will automatically heat and pop out to its normal position. Pull it out and use. Never hold the lighter in the depressed position. (Fig. 36)



## INTERIOR LIGHT

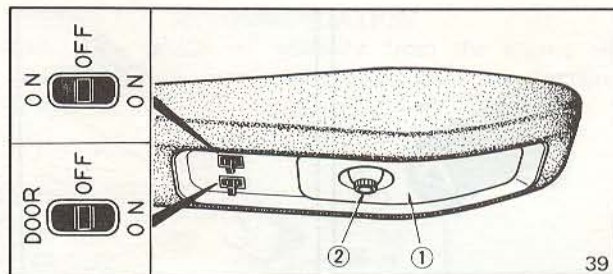
The interior light, located in the center of the roof or in the overhead console (If so equipped), is equipped with a three-position switch. The light can be controlled as shown on the following table. (Figs. 37, 39-1)

OFF	The light is off all the times.
DOOR	The light is on when the door is opened.
ON	The light is on all the times.

## OVERHEAD CONSOLE (If equipped)

### 1. Seat Belt Warning Light

The seat belt warning light is located on the front end of the overhead console. When the ignition switch is turned on, the word "BELT" will flash intermittently for approximately 15 seconds irrespective of the use of the seat belt. (Fig. 38-1)



### 2. Low Fuel Level Warning Light

The warning light will glow and illuminate the word "FUEL" if the remaining fuel in the tank is approximately 12 liters (2.6 Imp. gals., 3.1 U.S. gals) or below when the ignition is turned on. Occasional flickering of the light when stopping and starting, because of movement of the fuel in the tank, is normal. (Fig. 38-2)

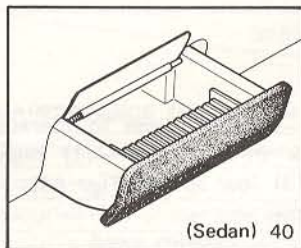
### 3. Door Ajar Warning Light

The warning light will glow if the doors are not completely closed. (Fig. 38-3)

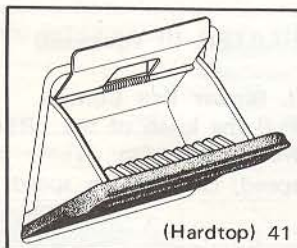
### 4. Map Light

The map light is located on the overhead console and can be turned on by a switch. The direction of beam is changed by turning the lens cover. (Fig. 39-2)





(Sedan) 40



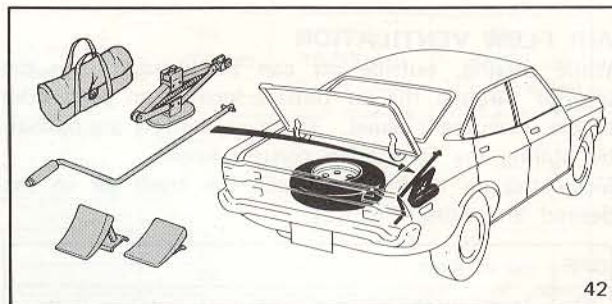
(Hardtop) 41

### ASH TRAYS

To remove the ash tray for cleaning, pull it out, then push down the lock spring and pull outward. To reinstall, place the tray into opening, align and push in. (Figs. 40, 41)

### JACK AND TOOLS

The jack and tools are stored in the luggage compartment. Always make sure that the jack is fastened securely and the tool bag is firmly packed. (Fig. 42)



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### SPARE TIRE

The spare tire is located in the luggage compartment. To remove the spare tire, take off the rubber mat and cover board, and remove the spare tire clamp. Keep the spare tire properly inflated, and check the inflation pressure at least once a month. (Fig. 42)

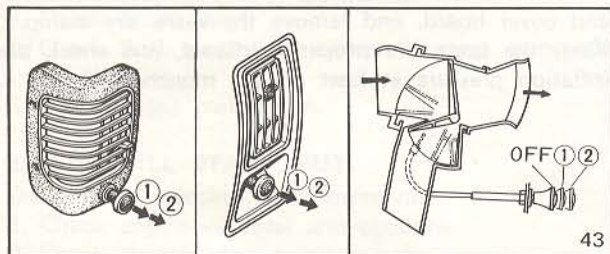
## AIR FLOW VENTILATION

While driving, outside air can be brought into the interior through the air outlets located on both sides of the instrument panel. These air outlets are opened by pulling the ventilation control knobs.

Move the air outlets to direct the fresh air in the desired direction. (Fig. 43)

OFF	No air flow.
①	Air flow is directed from each upper and lower outlet.
②	Air flow is directed from each upper outlet.

\* A car with a cooler has only "off" and the 2 position.



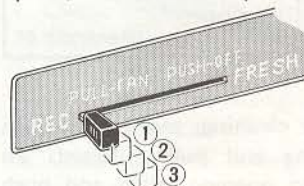
## BOOST VENTILATION

Refer to the "Setting Heater Controls" on page 25.

## HEATER (If equipped)

### 1. Blower Fan Control

Pull the knob of the "REC-FRESH" lever to operate the blower fan. There are three speeds - (1) high speed; (2) medium speed; (3) low speed. (Fig. 44)



- ① High speed
- ② Medium speed
- ③ Low speed

### 2. Air Circulation Control (REC-FRESH)

This lever directs either recirculated inside air or fresh outside air through the heater system.

REC position ..... Inside air is circulated within the passenger area.

FRESH position ..... Outside air is brought into the vehicle.

**Note:** The "REC" position is needed only during extreme cold weather or air conditioner operation, or to help avoid objectionable outside odors.



### 3. Temperature Control (VENT—HOT)

VENT position.....Fresh outside air is brought through the center air outlets into the passenger area with the blower fan turned on.

Midway position.....Shuts off the central ventilation air flow.

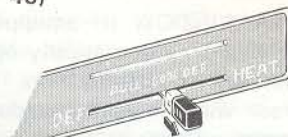
HOT position.....This position provides warm air flow through either the defroster or heater outlets.

### 4. Air Flow Direction Control (DEF—HEAT)

DEF position.....Warm air flows toward the windshield.

HEAT position.....Warm air flows both upward and downward.

"PULL—COOL DEF" ..... Pull the knob of the "DEF—HEAT" lever to obtain cool air only from the defroster outlets and warm air from the heater outlets. This split level system is designed to enable you to have lower body heat and upper body coolness. When pushed in the operation is normal "DEF—HEAT" mode. (Fig. 46)



#### Heater Operating Tips

1. The heater provides heat only after the engine has warmed up.
2. Clear the windshield, rear window and all side windows of ice and snow before driving the car.

#### Setting Heater Controls

	BLOWER FAN	REC—FRESH	VENT—HOT	DEF—HEAT
Normal driving	② or ③	FRESH	HOT	HEAT
Windshield de-icing and defogging	①	FRESH	HOT	DEF
Mild weather defogging	As desired	FRESH	HOT or midway	DEF
Avoid outside objectionable odors	OFF	REC	As required	As required
Boost ventilation	As desired	FRESH	VENT	
In summer	OFF		VENT	



3. Keep all windows and vents closed to reduce dust, road and wind noise and uncomfortable drafts.
4. For adequate rear seat heating, the area beneath the front seat must not be blocked by carpeting, rags, paper or other material and the fan should be operated on high speed.

### HEATABLE REAR WINDOW (If equipped)

The heatable rear window automatically operates when the heater blower fan is switched on. The heating element of the rear window warms gradually to clear fog during inclement weather.

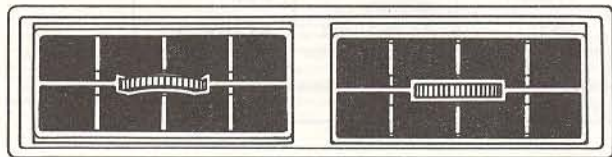
#### Caution:

1. In order to protect the filament on the rear window, keep things on the rear package tray away from it.
2. When cleaning the rear window inside, wipe it horizontally with a soft cloth.

### COOLER (If equipped)

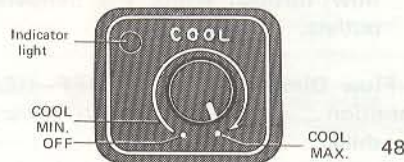
#### How to operate the car cooler:

1. Close the fresh air vents by pushing in the ventilation control knob. (Fig. 43)



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2. Slide the "VENT-HOT" lever to the "VENT" position and the "REC-FRESH" lever to the "REC" position. (Fig. 45)
3. Turn the cooler switch clockwise to the "COOL MAX." position. The cooler switch is located below the instrument panel to the right of the cooler air outlets. (Fig. 48)



Cooler (thermo) switch

4. Start the engine and place the blower fan switch on Medium or High speed position. (Fig. 44)
5. When operating the cooler, the indicator light will light up. (Fig. 48)
6. When turning off, turn the cooler switch to the "OFF" position and slide the fan switch to the "OFF" position.

#### Note:

When the "VENT-HOT" lever is set to the "VENT" position, the rear window heater will not come on even if the fan switch is on, moisture can be removed from the rear window however by means of the air coming from the cooler.

### Cooler Operating Tips

1. As a rule, do not use the cooler while the car is at a standstill, to prevent engine overheating.
2. Avoid operating the cooler with the thermo switch set at "7-10", and the blower fan switch at "Low speed", for this combination may sometimes cause frost on the evaporator, deducing performance.
3. If the car has been parked in direct sunlight, open the windows enough before operating the cooler to let warm air escape.
4. To clean misted windows on rainy days, decrease the temperature inside the car by operating the car cooler. This is most effective during the rainy season.
5. When driving in heavy traffic area, insufficient cooling may occur because of stopping and slowing down of the car. In this case, drive in a lower gear position to obtain sufficient cooling.
6. When driving on an up-hill road, the engine is apt to overheat. To prevent this, turn the car cooler on and off at 3 to 5 minute intervals.
7. Be sure to have your Authorized Mazda Dealer check and service the cooler both in and out of the hot season so that you can enjoy the car cooler longer and more comfortably.

### RADIO (If equipped)

#### 1. ON-OFF & Volume Control

The radio is switched on by pushing in the knob A. The same knob also controls the volume when turned.

#### 2. Tone Control

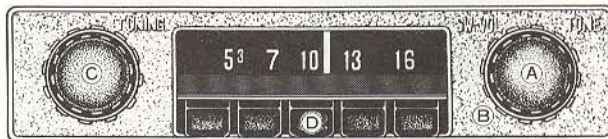
Turn the knob B clockwise counterclockwise for bass tone.

#### 3. Tuning Control

To select a station, turn the control knob C and align the indicator on the desired station.

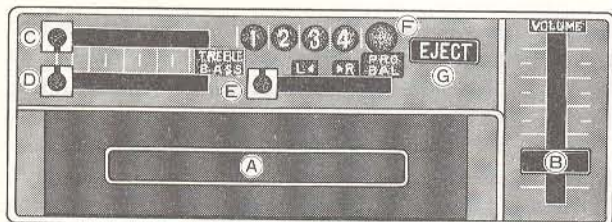
#### 4. Push Button Program Selection

1. Select a push button to be pre-set. Pull the button straight out until it stops.
2. Turn the tuning knob C to the desired station.
3. Push the button in all the way. The button will return to its normal position automatically.



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- A. ON-OFF & volume control knob    B. Tone control knob  
C. Tuning control knob                  D. Push buttons



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- |                               |                             |
|-------------------------------|-----------------------------|
| A. Tape slot                  | B. Volume control knob      |
| C. Tone control knob (treble) | D. Tone control knob (bass) |
| E. Balance control knob       | F. Program selector button  |
| G. "EJECT" button             |                             |

## CAR STEREO (If equipped)

### 1. Starting

Turn the ignition switch to the "On" or "Acc" position and insert the stereo tape cartridge into the slot A until it is firmly seated.

### 2. Volume Control

Volume is adjusted by manipulating the volume control knob B

### 3. Tone Control

Moving both tone control knobs C and D from left to right will produce a high note response.

### 4. Balance Control

For best stereo effect, adjust the balance between the right and left speakers by moving the knob E to the right or left as required.

### 5. Program Selector

Push in the program selector button F to select the desired program number. The indicator light will show the number of the program that is playing.

### 6. Stopping

Push in the "EJECT" button G to release the tape cartridge.

## Operation Recommendations

1. All tape contact faces should be periodically cleaned with a soft, lint-free material and head cleaner or methyl alcohol to remove dust and accumulated oxide. Do not use a screwdriver or any metallic object near the head faces.
2. Always use 3-ampere fuse.
3. Protect tape cartridges from direct sunlight and dust.
4. Slanting or reverse insertion of the cartridge will cause damage. Therefore, make sure the tape cartridge is firmly inserted straight into the slot.
5. Avoid touching the tape cartridge while it is played. This causes variation of tape speed. Always release a cartridge when the stereo is not in use.



## STATION WAGON

Your station wagon provides generous cargo space while retaining the comfort and performance of a sedan.

### TAILGATE

The tailgate can be locked or unlocked from the outside by using the key. To open the locked tailgate, insert the key into the key slot and turn it clockwise, then pull the release handle rearward. The opened tailgate will stay in its fully opened position by spring pressure. To close, push the tailgate downward firmly until the latch is secured. (Fig. 51)

### STOWAGE COMPARTMENT

The stowage compartment located inside the vehicle in the right rear quarter panel. To open the stowage compartment, simply pull the door. (Fig. 52)

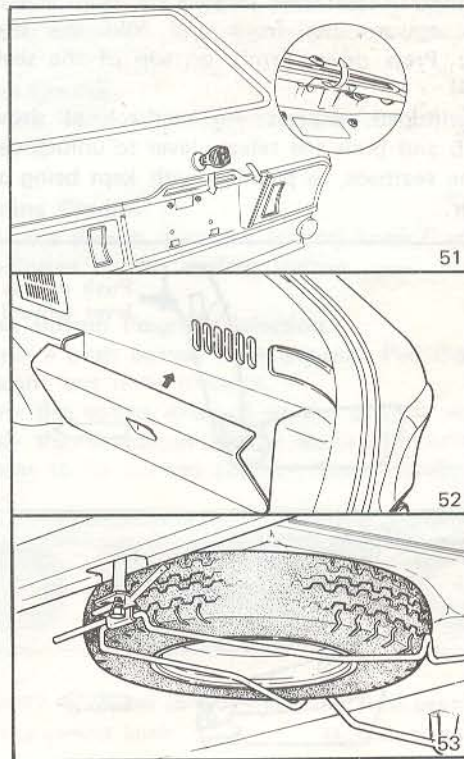
### JACK AND TOOLS

The jack, jack handle and tool kit are stored in the stowage compartment. (Fig. 52)

### SPARE TIRE

The spare tire is located under the cargo floor. To remove the spare tire, lower the spare tire hanger.

frame by loosening the hanger bolt with the hub bolt wrench. (Fig. 53)



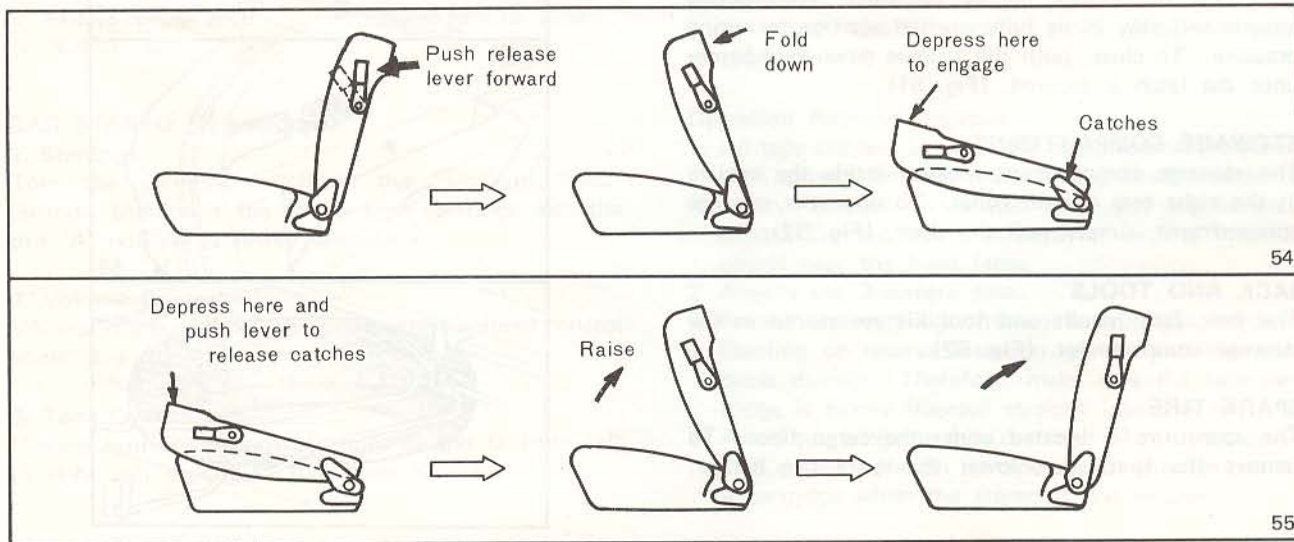
## REAR SEAT OPERATION

To convert the rear seat area to a load carrying space, push either release lever located on each side of the seatback toward the front and fold the seatback forward. Press down firmly on top of the seatback. (Fig. 54)

When unfolded, depress the seatback as shown in figure 55 and push the release lever to unlock catches. Raise the seatback to position with kept being pushed the lever.

### Caution:

1. Do not drive with the tailgate open because it is possible under some conditions for engine exhaust gas will enter the car.
2. It is recommended that luggage and other cargo articles be secured in place to prevent them from becoming dangerous projectiles in the event of a quick stop or collision.
3. The cargo area should not be used as a play area for children when the car is in motion.



## APPEARANCE CARE

### WASHING

Wiping off dust or dirt with a dry cloth or using a combination cleaner and polish without first washing the car can scratch the paint finish. Wash your car often to prevent road dirt, salt, chemicals and other matter from damaging the finish. Flood the painted surface with cold water to loosen surface dirt and prevent scratching. If washing with water alone is not sufficient, washing agents can be used. Be very careful when choosing a washing agent since some of them are detrimental to the surface finish.

### POLISHING (WAXING)

The vehicle should be carefully washed and dried before being polished. If polishing carried out on a dirty or dusty surface, the surface finish can easily be scratched. Do not polish in direct sunshine since this can result in a smeary surface. Use a good quality polish intended for synthetic finish.

#### Caution:

Never wash or polish the car in sunlight or when the metal is warm.

### BRIGHT METAL PARTS

All bright metal parts of the car should be regularly cleaned and protected against the same substances harmful to the painted surface. Normally, washing with water is all that is required.

Never use auto or chrome polish, steam or any caustic soap to clean aluminum. Wash only with lukewarm water, and if necessary, a mild soap. Rinse well and dry thoroughly. It is recommended that all bright metal parts of your car, after being thoroughly cleaned, be given a wax coating and rubbed to a high polish. This will keep corrosive agents away from these surfaces, and should be repeated as often as required.

### UPHOLSTERY

Clean the upholstery of your car frequently, using a whisk broom or vacuum cleaner. A damp cloth will wipe dust from hard surfaces. When cleaning interior trims or carpeting etc. do not use volatile cleaning solvents such as: gasoline, naphtha, turpentine, paint thinner or carbon tetrachloride. Nor should laundry soaps, bleaches, tints or caustic cleaners be used. They may injure or fade trim material. If you choose to use them, they should be tested on an obscure area before use.



# MAINTENANCE

## REGULAR SYSTEMS: REQUIRED MAINTENANCE SERVICES

SERVICE INTERVAL MAINTENANCE OPERATION	mileage or times in months, whichever comes first	At 1,000 km (600 miles)	Every 10,000 km (6,000 miles) or 6 months	Every 20,000 km (12,000 miles) or 12 months
Change engine oil.		<input type="radio"/>	<input type="radio"/>	
Change oil filter.			<input type="radio"/>	
Check for oil, fuel and water leaks.		<input type="radio"/>	<input type="radio"/>	
Change engine coolant.		Every 40,000 km (24,000 miles) or two years, whichever comes first		
Check fan belt for tension and wear, adjust or replace if necessary.		<input type="radio"/>	<input type="radio"/>	
Change fuel filter.				<input type="radio"/>
Clean air cleaner element.			<input type="radio"/>	
Change air cleaner element. (*)		Every 40,000 km (24,000 miles)		
Tighten intake and exhaust manifolds and cylinder head bolts.		<input type="radio"/>		<input type="radio"/>
Check and adjust engine valve clearance.		<input type="radio"/>	<input type="radio"/>	
Check engine compression pressure.				<input type="radio"/>
Clean, check, adjust and test spark plugs, replace if necessary.		<input type="radio"/>	<input type="radio"/>	
Check and adjust carburetor—idle speed and fuel mixture.		<input type="radio"/>	<input type="radio"/>	
Check and adjust distributor breaker points.		<input type="radio"/>	<input type="radio"/>	
Check and adjust ignition timing.		<input type="radio"/>	<input type="radio"/>	
Change manual transmission oil.		<input type="radio"/>		<input type="radio"/>
Check oil level of manual transmission, replenish if necessary.			<input type="radio"/>	

<div>SERVICE INTERVAL</div> <div>mileage or times in months, whichever comes first</div>	At 1,000 km (600 miles)	Every 10,000 km (6,000 miles) or 6 months	Every 20,000 km (12,000 miles) or 12 months
<b>MAINTENANCE OPERATION</b>			
Check fluid level of automatic transmission, replenish if necessary.	○	○	
Change rear axle oil.	○		○
Check oil level of rear axle, replenish if necessary.		○	
Check clutch and brake pedal free travel, adjust and bleed if necessary.	○	○	
Check parking brake, adjust if necessary.	○	○	
Check fluid level for clutch and brake fluid reservoirs, replenish if necessary.	○	○	
Check drum brake linings, adjust or replace if necessary.			○
Check disk brake pad, replace if necessary.		○	
Check oil level of steering gear box, replenish if necessary.			○
Check steering wheel free play.	○	○	
Check battery for level and specific gravity of electrolyte.	○	○	
Check operation of lights and instruments, replace if necessary.		○	
Check for tightness, bolts and nuts on chassis and body.	○		○
Tighten wheel lug bolts.	○	○	
Check brake, fuel line tubes and hoses.			○
Grease as required (wheel bearings, ball joints and others).	Every 40,000 km (24,000 miles) or two years, whichever comes first		
Check steering ball joints and idler arm. If damaged, repair or replace.			
Change piston cups of brake system and rubber parts of power brake system.	Every two years		
Change brake, fuel and automatic transmission hoses.	Every four years		

(\*) In very dusty operating conditions, the air cleaner will require more frequent service.

## **MINOR TROUBLE SHOOTING GUIDE**

### **ENGINE WILL NOT START:**

#### **Engine won't crank**

1. Check automatic transmission selector lever operation.
2. Check battery and connections.
3. Check ignition switch.
4. Check cable connections to the starter and solenoid.
5. Check fuses.

#### **Engine cranks but won't start**

1. Check fuel quantity.
2. Check ignition system (distributor leads, coil and breaker points).
3. Check spark plugs.
4. Check fuel supply to carburetor and carburetor for flooding.
5. Check choke mechanism.

### **ENGINE WILL START, BUT:**

#### **Oil pressure warning light comes on**

1. Check engine oil level and pressure.
2. Check electric circuit and switch.

#### **Ammeter indicates minus reading**

1. Check fan belt and adjust.
2. Check alternator and voltage regulator.
3. Check battery connections.

#### **Engine stalls when idling**

1. Check idle speed and adjust carburetor.
2. Check choke mechanism.
3. Check fuel supply and carburetor for flooding.

#### **Engine overheats**

1. Check radiator coolant level.
2. Check fan belt.
3. Check engine oil level.
4. Check air flow through radiator for being restricted.
5. Check thermostat.
6. Check ignition timing.

#### **Engine idles rough**

1. Adjust idling.
2. Clean air cleaner element.
3. Check choke mechanism.

#### **Engine does not give full power**

1. Check air cleaner element and fuel filter.
2. Check spark plugs and ignition system.
3. Check carburetor.

### **IF BRAKES DO NOT STOP WELL:**

1. If you have driven through deep water, gently apply brakes several times in a safe area.
2. Check the brake system warning light for indication of hydraulic system leaks.



3. If the pedal is spongy, check and bleed the hydraulic system.
4. Let the brakes cool if you have been using them abnormally, as in mountain driving.
5. If brakes do not apply equally on both sides, check tire pressure and brake linings (pads).

#### **IF CAR STEERS HARD:**

1. Check tire pressure.
2. Check oil level of steering gear box.
3. Check wheel alignment of the front wheels.

#### **IF STEERING WANDERS OR PULLS TO ONE SIDE:**

1. Check tire pressure.
2. Check wheel balance.
3. Check steering system preload.
4. This condition also can be caused by car being overloaded or unevenly loaded.

#### **ELECTRICAL SYSTEM:**

##### **Light does not come on**

1. Check bulb and fuse.
2. Check terminal connections and system ground.

If the examination does not indicate the above cause of the trouble, see your Authorized Mazda Dealer for inspection.

##### **Note:**

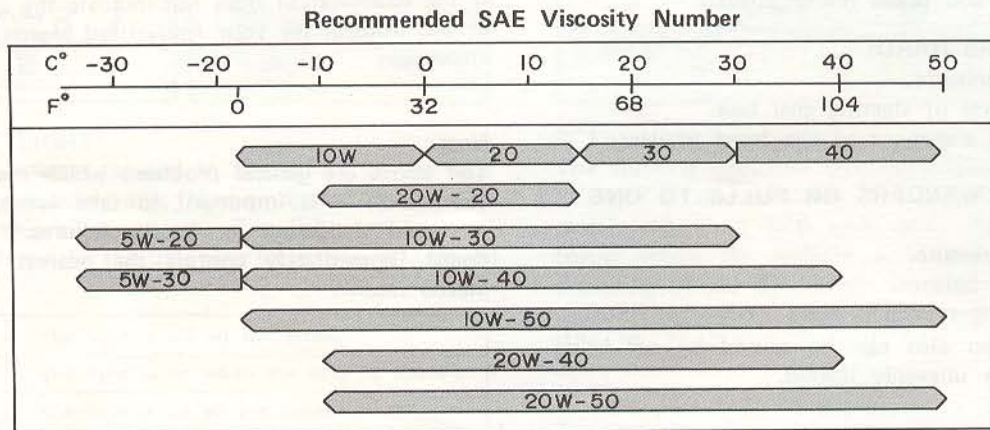
The above are general problems which may be encountered. It is important to take immediate steps to avoid dangerous or costly failures. If in any doubt, immediately contact the nearest Authorized Mazda Dealer.

## FUEL RECOMMENDATION

Your Mazda vehicle will operate efficiently on regular grade or low-lead gasoline when the engine is adjusted to factory recommended specifications.

## ENGINE OIL RECOMMENDATION

Select the proper oil viscosity from the engine oil recommendation chart according to local climatic conditions.

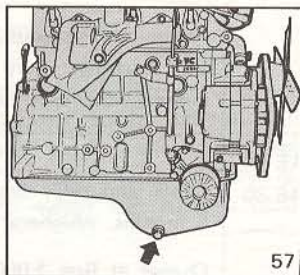
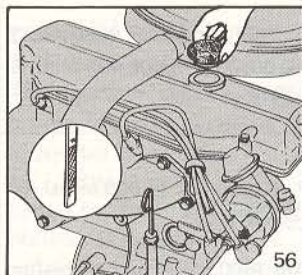


Change the engine oil at the first 1,000 km (600 miles) and thereafter every 10,000 km (6,000 miles) or every 6 months whichever comes first.

## RECOMMENDED LUBRICANTS

Transmission	Automatic	ATF Type "F" (M2C33F)	Check and replenish at first 1,000 km (600 miles) and thereafter every 10,000 km (6,000 miles) or 6 months, whichever comes first.
	Manual	Above $-18^{\circ}\text{C}$ ( $0^{\circ}\text{F}$ )      EP. SAE 90 Below                                      EP. SAE 80	Check and refill every 10,000 km (6,000 miles) or 6 months, whichever comes first.
Rear axle	Above $-18^{\circ}\text{C}$ ( $0^{\circ}\text{F}$ )      HP. SAE 90 Below                                      HP. SAE 80		Change at first 1,000 km (600 miles) and thereafter every 20,000 km (12,000 miles) or 12 months, whichever comes first.
Steering gear	EP. SAE 90		Check and replenish every 20,000 km (12,000 miles) or 12 months, whichever comes first.
Lower arm ball joint	Disulphide Molybdenum Grease NLGI No. 2		Lubricate or replace every 40,000 km (24,000 miles) or 2 years, whichever comes first.
Front wheel bearings	Lithium Grease NLGI No. 2		
Body pivot points			
Brake and clutch fluid reservoirs	SAE J 1703a or MVSS 116, DOT-3 or DOT-4		Check and replenish at first 1,000 km (600 miles) and thereafter every 10,000 km (6,000 miles) or 6 months, whichever comes first.





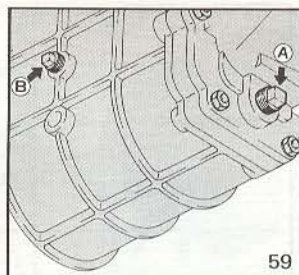
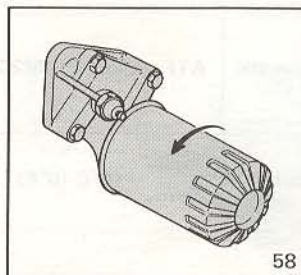
### ENGINE OIL LEVEL

To check the level, withdraw the dip stick gauge, wipe it with a clean rag, insert and withdraw again. It is advisable to keep the level between the line "F" (FULL) and "L" (LOW) at all times.

If the level is below "L", oil should be added through the oil filler tube as required. (Fig. 56)

### CHANGING ENGINE OIL

To change the oil, remove the drain plug located on the lowest portion of the oil pan while the oil is still warm. Replace the drain plug when the oil has thoroughly drained. Fill the engine with proper grade of oil, and check the level with the dip stick. (Fig. 57)



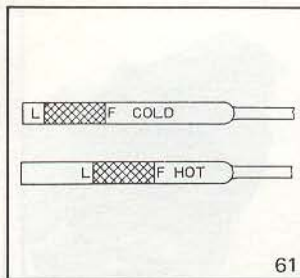
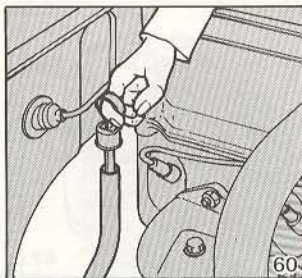
### CHANGING OIL FILTER

To remove the filter, turn it counter-clockwise by using a special tool.

Before installing a new filter, clean the gasket surface on the filter body and coat the new gasket with engine oil. Place the filter and turn it clockwise until it is securely contacting the sealing surface. Then tighten the filter hand tight only. Do not overtighten. Check the engine oil level, start the engine and inspect for leaks. (Fig. 58)

### CHANGING MANUAL TRANSMISSION OIL

Drain the oil by removing the drain plug A while the oil is still warm. The magnetic oil drain plug should be carefully cleaned. Remove the combined filler and level plug B and refill with new oil until it reaches the level hole. (Fig. 59)

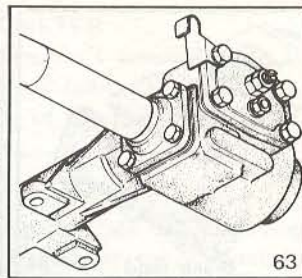
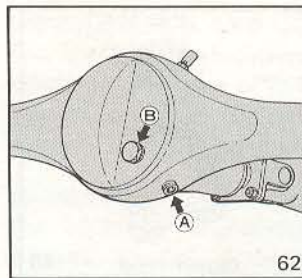


### AUTOMATIC TRANSMISSION FLUID

It is essential that the regular check is made on level ground. When the check is made before driving, run the engine at idling for about 2 minutes. Pull the dip-stick gauge and clean. Insert the gauge and withdraw it again. Read fluid level on the COLD side of the gauge. If the level is between the lines "F" and "L", it is satisfactory. If the level is measured when the engine is hot, i.e. after driving, the fluid level should be in "HOT" range on the gauge. If the fluid level is below "L", replenish fluid through the filler pipe. Do not overfill. (Figs. 60, 61)

### CHANGING REAR AXLE OIL

Drain the oil by removing the drain plug A. Once the oil has thoroughly drained, be sure to install and tighten the drain plug. Remove the combined filler and level plug B and refill with new oil until it reaches the level hole. (Fig. 62)



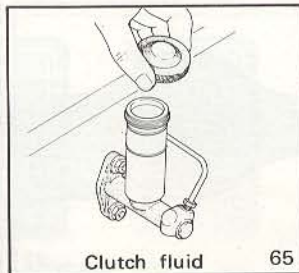
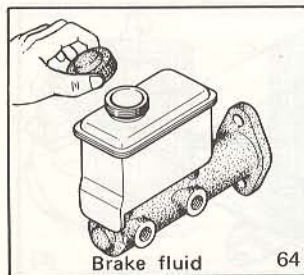
### CHECKING STEERING GEAR BOX OIL

To check the level, remove the plug on the top of the steering gear box. Add gear oil to the level of the plug hole if necessary. (Fig. 63)

### BODY LUBRICATION

In order to prevent squeaking of all body pivot parts, including such items as seat track, bonnet hinges, doors and locks, the body should be lubricated as required with each oil change. During the winter the locks should also be lubricated with an antifreeze preparation to prevent the locks from freezing.





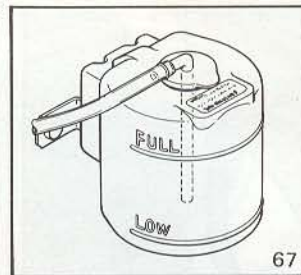
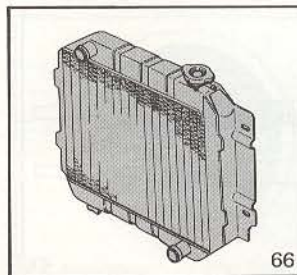
### STEERING LINKAGE INSPECTION

#### AND FRONT SUSPENSION LUBRICATION

The required maintenance at 40,000 km (24,000 miles) or 2 year intervals, whichever comes first, includes inspection and lubrication. This involves the ball joints, idler arm and front wheel bearings, with replacement of the steering and suspension rubber seals as necessary. More frequent service intervals are necessary if the car is operated in extremely dusty or sandy areas.

### BRAKE AND CLUTCH FLUID

The fluid level in each reservoir should be checked and replenished regularly. Keep the fluid level at least 2/3 full at all times. After checking, the reservoir cap should be cleaned and fitted. (Figs. 64, 65)



### ENGINE COOLING SYSTEM

The cooling system is designed to maintain the engine at proper operating temperature. It requires little care except for maintaining an adequate coolant level. The cooling system has been filled at the factory with year round engine coolant (ethylene glycol base, for aluminum engine).

This coolant solution provides protection against freezing and boiling, and it has been formulated to be used for two full calendar years or 40,000 km (24,000 miles), whichever comes first, provided the proper concentration of coolant is maintained.

Anti-freeze solution and anti-corrosive solution are included in the Mazda factory genuine coolant.



### 1. Checking Coolant Level

Check the coolant level at the see-through coolant reservoir and radiator at each engine oil level check interval when the engine is cold.

To check the level, turn the radiator cap counterclockwise to the first stop, then depress the cap and remove it.

The coolant level should be full in the radiator and between the "FULL" and "LOW" marks on the coolant reservoir. (Figs. 66, 67)

Add a mixture of high quality ethylene glycol anti-freeze (for aluminum engine) and soft water (demineralized water) if coolant additions are necessary. DO NOT OVERFILL.

If the vehicle is to be used only in areas where the temperature is always above freezing, water with an anti-rust inhibitor may be used in place of the anti-freeze and water mixture.

Be sure the anti-rust inhibitor is recommended for use with aluminum engine parts. Replace the water and rust inhibitor each 6 months.

### Caution:

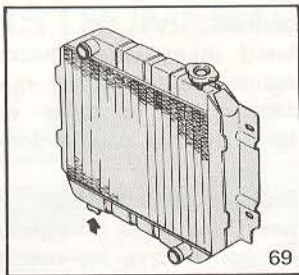
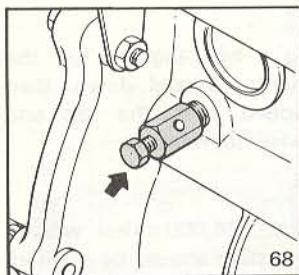
Avoid injury when checking a hot engine. Let the engine idle for a few moments to cool down, then place a rag or towel wrapped over the cap and slowly turn it counterclockwise to remove.

### 2. Changing Coolant

Every two years or 40,000 km (24,000 miles) whichever comes first, the cooling system should be drained and refilled as follows:

1. Remove the radiator cap.
2. Drain the coolant by opening the drain plugs.
3. Close the drain plugs and flush the system with regular tap water until all traces of rust are gone.
4. Allow the system to drain and add the necessary amount of Mazda genuine coolant or equivalent (ethylene glycol base, for aluminum engine) to provide the required freezing and corrosion protection.

In extremely cold climates, add the necessary amount of ethylene glycol base coolant in accordance with the instructions of the coolant manufacturer.



5. Idle the engine until normal operating temperature is reached. Install the radiator cap.
6. Inspect all connections for leaks. Recheck the coolant level and add mixture as required.

**Caution :**

Alcohol or methanol base coolants or plain water are not recommended for your Mazda at any time.

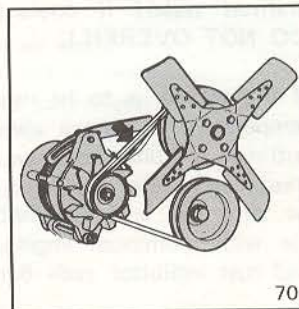
For purpose of mixture, refer to the following table.

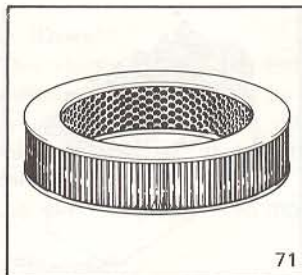
Protection	Mixture percentage (volume)	
	Anti-freeze solution	Water
Above $-16^{\circ}\text{C}$ ( $3^{\circ}\text{F}$ )	35	65
Above $-26^{\circ}\text{C}$ ( $-15^{\circ}\text{F}$ )	45	55
Above $-40^{\circ}\text{C}$ ( $-40^{\circ}\text{F}$ )	55	45

## FAN DRIVE BELT

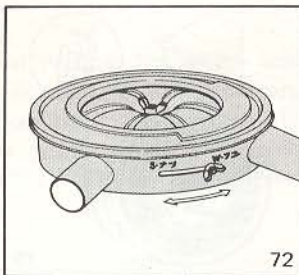
The fan belt should be checked for tension and wear at first 1,000 km (600 miles) and thereafter every 10,000 km (6,000 miles) or 6 months, whichever comes first. To check the tension, apply moderate thumb pressure midway between the pulleys. To adjust, loosen the alternator mounting bolt and adjusting bolt on the alternator strap. Move the alternator away from the engine or toward the engine. After adjustment, retighten the bolts and recheck the tension. (Fig. 70)

Used belt	12–14 mm (0.5–0.6")
New belt	9–11 mm (0.4–0.5")





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72

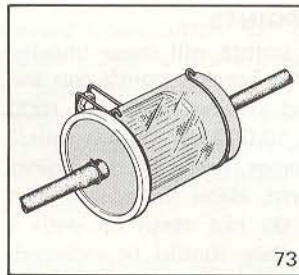
## AIR CLEANER

### 1. Servicing the Air Cleaner

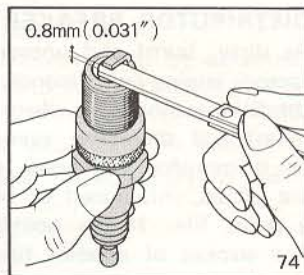
The air cleaner element should be cleaned every 10,000 km (6,000 miles) or 6 months, whichever comes first. It should be replaced every 40,000 km (24,000 miles). If the vehicle is operated in very dusty or sandy areas, clean and replace more often than at the usual recommended intervals. (Fig. 71)

### 2. Air Cleaner Intake Positions

To reduce possibility of carburetor icing, the air cleaner intake should be positioned close to the exhaust manifold (position W) when the car is operated under ambient temperature below 10–15°C (50–60°F). In this event, pre-heated air is drawn through the air duct above the exhaust manifold. When the ambient temperature is above 10–15°C (50–60°F), move the lever to "S". This allows cool air from the front grilles to enter the air cleaner. (Fig. 72)



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## CHANGING FUEL FILTER

The cartridge type fuel filter prevents foreign particles from getting into the carburetor and clogging the jets. Ordinarily replacement of the filter is not necessary before recommended interval, but dirty gasoline could cause the element to clog sooner and require filter replacement. (Fig. 73)

## SPARK PLUGS

The spark plugs should be checked at first 1,000 km (600 miles) and thereafter every 10,000 km (6,000 miles) or 6 months, whichever comes first. If the plugs appear dirty, carefully scrape carbon and residue off the electrodes with a suitable file. If the plugs appear badly burned or cracked, replace with new plugs. Before reinstalling used, cleaned or even new plugs, check the gap with a feeler gauge. Carefully bend the electrode to the correct gap 0.8 mm (0.031"). (Fig. 74)



### DISTRIBUTOR BREAKER POINTS

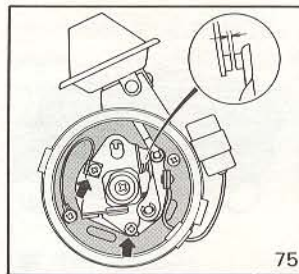
As dirty, burnt and uneven points will cause unsatisfactory engine performance, the breaker points gap and conditions should be checked at first 1,000 km (600 miles) and thereafter every 10,000 km (6,000 miles) or 6 months, whichever comes first. If the points are pitted, misaligned or burnt, clean the points with a point file. If the points do not clean up with a few strokes of a point file, they should be replaced.

If the point gap is not at the specified value of 0.50 mm (0.020"), adjust as follows:

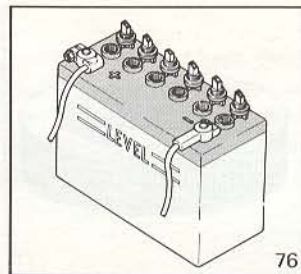
1. Remove the distributor cap and rotor.
2. Turn the engine until the rubbing block on the breaker points is on the highest of a cam lobe.
3. Loosen the screws retaining the breaker points (be careful not to drop the screws).
4. Adjust the point gap to 0.50 mm (0.020") with a feeler gauge. Make sure that the feeler gauge is clean and free of dirt and oil.
5. Tighten the screws and recheck the point gap.

#### Note:

Points set too close may tend to burn and pit rapidly. Points with excessive separation tend to cause a weak spark at high speeds causing the engine to miss.



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### BATTERY

Check the battery electrolyte level regularly, at least once a week. If low, add distilled water to bring the level up approximately 10–20 mm (0.4–0.8") above the cell plates. Do not overfill.

Have the battery's state of charge checked frequently, particularly during cold weather. Charge the battery if the specific gravity falls below 1.200. (Fig. 76)

State of battery	Specific gravity at 20°C (68°F)
Fully charged	1.260
50% discharged	1.160
100% discharged	1.060

#### Caution:

1. Keep the top of the battery clean and dry. Also keep the terminals clean and well covered with petroleum jelly.

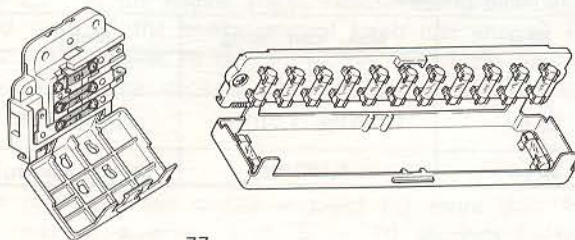
2. Since battery fluid is a sulfuric acid solution, it must be kept away from your skin, eyes, clothing and the painted surfaces of your car.
3. Keep open flames or sparks (or even cigarettes) away from open battery filler caps since combustible gas is always present.

## FUSES

The main fuse block is located beside the battery. Other fuses are installed in the fuse box located under the instrument panel just below the glove compartment. The fuse amperage and related circuit is marked on the fuse block cover.

If electrical failure occurs, check for a blown fuse and replace. If a fuse blows out again, see your authorized Mazda dealer and eliminate the cause of such problems. **Always use specified fuses only.**

(Fig. 77)



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## BULBS

License plate, side turn and front turn signal light bulbs can be easily replaced after taking off the lenses. The bulbs of the rear combination light are replaced from inside the luggage compartment.

To remove, push in the bulb and turn counterclockwise then pull it out. To install a new bulb, line up pins on sides of bulb with the grooves in socket and push in place and turn clockwise to lock it in.

BULB SPECIFICATIONS (Wattage : W)		
	Right-hand drive models	Left-hand drive models
Headlight	37.5/50W, 37.5W	40/45W, 40W
Front parking and turn signal light	5W, 21W	5W, 21W
Side turn signal light	5W	5W
Interior light	5W	5W
Map light	6W	6W
Instrument panel illumination light	3W	3W
Tail and stop light	5/21W	5/21W
Rear turn signal light	21W	21W
Reverse light	10W, 12W*	10W
License light	5W	5W
Indicator panel light (automatic transmission)	1.5W	1.5W

\* For Australia

## TIRES

### 1. Tire Pressure

Your car is designed to operate most efficiently with the inflation pressures shown in the following table. Nothing will be gained by exceeding pressures shown, whereas excessive pressures can adversely affect riding

comfort and quietness. Under inflation affects vehicle handling and tire life. Uneven pressure in the left and right tires may cause unsteady steering and one-sided pulling when braking. It is best to check pressures when the tires are cool. (Fig. 78)

Recommended Cold Tire Inflation Pressure				
Tire size	Wheel size	Less than 100 km/h (60 mph)	More than 100 km/h (60 mph)	Model
		Front & rear	Front & rear	
6.45S13-4PR, 175SR13	5J x 13	1.7 kg/cm <sup>2</sup> (24 psi)	2.0 kg/cm <sup>2</sup> (28 psi)	Sedan
175SR13, 175HR13 195/70SR13, 195/70HR13	5½J x 13	1.7 kg/cm <sup>2</sup> (24 psi)	2.0 kg/cm <sup>2</sup> (28 psi)	Hardtop

Tire size	Wheel size	Front	Rear	
175SR13	5J x 13	1.7 kg/cm <sup>2</sup> (24 psi)	2.0 kg/cm <sup>2</sup> (28 psi)	Station wagon

* Recommended Cold Tire Inflation Pressure					
Tire size	Wheel size	Front	Rear	Max. load rating	Model
175SR13	5J x 13	26 psi	26 psi	1,150 lbs	Sedan
175SR13, 195/70SR13, CR70H13	5½J x 13	26 psi	26 psi	1,150 lbs, 1,210 lbs	Hardtop
175SR13	5J x 13	24 psi	28 psi	1,150 lbs	Station wagon

\* For Australia



## 2. Tread Wear Indicator

The tires for your car incorporate built-in tread wear indicators to assist you in determining when your tires have been worn to the point of needing replacement. These indicators will appear when the tire tread depth wears to 1.5 mm (0.06"). When an indicator appears as a solid band across the tread, the tire should be replaced. (Fig. 79)

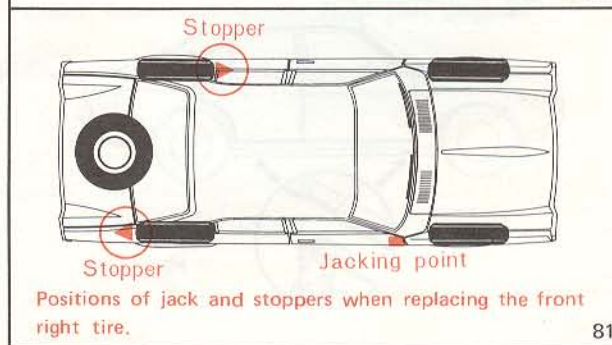
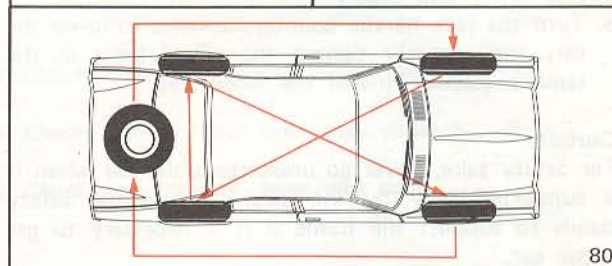
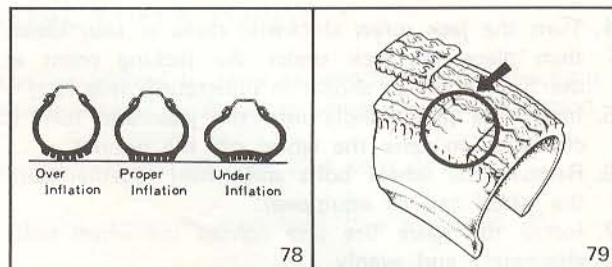
## 3. Tire Rotation

To equalize tread wear, it is recommended that the tire should be rotated every 10,000 km (6,000 miles) (or sooner if irregular wear develops) as indicated in the diagram below and the same time checked for correct balance. (Fig. 80)

## 4. Jack Operation for Changing a Wheel

If a wheel is to be changed, ensure that the car is on level ground.

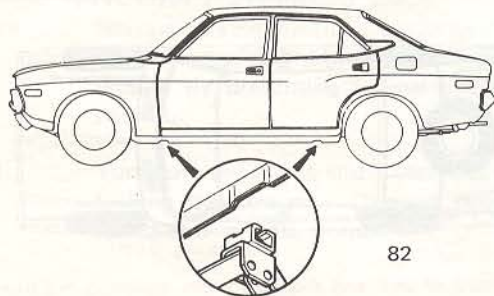
1. Apply the parking brake and place the transmission in reverse on a car equipped with a manual transmission, or in park (P) on a car with an automatic transmission.
2. As an added precaution, block the wheels with the stoppers as shown in illustration. (Fig. 81)
3. Remove the wheel cap or wheel ring with the flat end of the wheel box wrench from the tool kit and loosen the wheel bolts one or two turns each, but do not remove them until the wheel is raised off the ground. All wheel bolts have right-hand threads.



4. Turn the jack screw clockwise three or four times, then place the jack under the jacking point at the floor panel as shown in illustration. (Fig. 82)
5. Insert the jack handle into the jack and turn it clockwise to raise the wheel off the ground.
6. Remove the wheel bolts and wheel together with the wheel cap (if equipped).
7. Install the spare tire and tighten the wheel bolts alternately and evenly.
8. Turn the jack handle counterclockwise to lower the car, and securely tighten the wheel bolts in the same sequence. Install the wheel cap.

**Caution:**

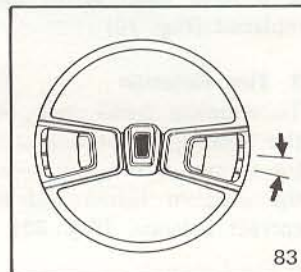
For safety sake, never go underneath the car when it is supported only by the jack. Always use safety stands to support the frame if it is necessary to get under car.



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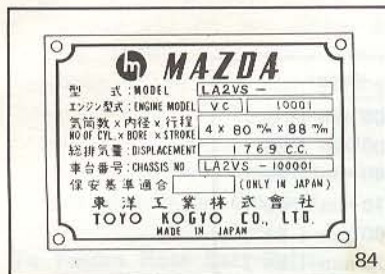
**STEERING WHEEL FREE PLAY**

The standard free play is 5–20 mm (0.2–0.8") on the outer circumference of the steering wheel. If the free play exceeds 30 mm (1.2"), it should be checked and re-set as needed. (Fig. 83)



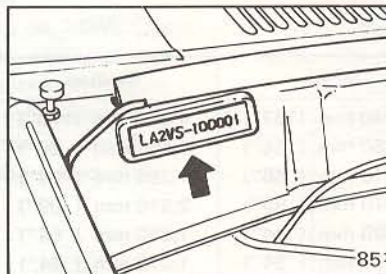
83

## VEHICLE IDENTIFICATION



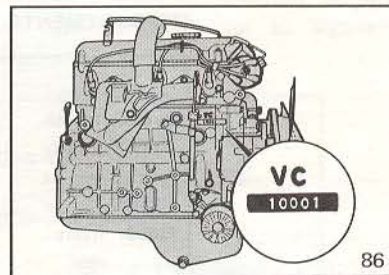
### MODEL PLATE

The vehicle model, displacement, chassis number, etc. are stamped on the model plate riveted on the cowl. (Fig. 84)



### CHASSIS NUMBER

The chassis number is stamped on the right rear panel of the engine compartment. (Fig. 85)



### ENGINE NUMBER

The engine number is stamped on the front right upper surface of the cylinder block. (Fig. 86)



# SPECIFICATIONS AND SERVICE DATA

## MEASUREMENTS

	Sedan	Hardtop	Wagon
Overall length	4,240 mm (167")	4,320 mm (170")	4,405 mm (173")
Overall width	1,660 mm ( 65")	1,665 mm ( 66")	1,660 mm ( 65")
Overall height	1,410 mm ( 56")	1,380 mm ( 54")	1,440 mm ( 57")
Wheelbase	2,510 mm ( 99")	2,510 mm ( 99")	2,510 mm ( 99")
Tread: front	1,380 mm ( 54")	1,380 mm ( 54")	1,380 mm ( 54")
rear	1,370 mm ( 54")	1,370 mm ( 54")	1,370 mm ( 54")
Ground clearance	175 mm ( 7")	175 mm ( 7")	175 mm ( 7")

## ENGINE

Type	4 cylinder in-line, 4 cycle, S.O.H.C. 5 main bearings
Compression ratio	8.6 : 1
Bore x stroke	80 x 88 mm (3.15 x 3.46")
Piston displacement	1,769 cc (108 cu-in)
Firing order	1-3-4-2
Valve clearance (warmed):	
Valve side	In. & Ex. 0.30 mm (0.012")
Camshaft side	In. & Ex. 0.22 mm (0.009")
Idle speed	700 rpm (manual) 700 rpm at "D" range (automatic)
Ignition timing	8° B.T.D.C.
Oil pan capacity	3.6 liters (3.2 Imp. quarts, 3.8 U.S. quarts)

## COOLING SYSTEM

Type	Forced circulation water cooling
Water pump	Centrifugal impeller
Thermostat	Wax pellet with jiggle pin
Radiator	Corrugate fin with a radiator reservoir
Coolant capacity:	
(without heater)	6.9 liters (6.1 Imp. quarts, 7.3 U.S. quarts)
(with heater)	7.5 liters (6.6 Imp. quarts, 7.9 U.S. quarts)
Slack of fan belt:	
New	9-11 mm (0.4-0.5")
Used	12-14 mm (0.5-0.6")

## FUEL SYSTEM

Fuel	Regular grade or low-lead gasoline
Carburetor	Down draft, 2-stage, 2-barrel
Fuel pump	Transistor type
Tank capacity	65 liters (14.3 Imp. gals., 16.9 U.S. gals.) 67 liters — Station wagon (14.7 Imp. gals., 17.4 U.S. gals.)

## ELECTRICAL SYSTEM

Battery	12V 60Ah/20Hr
Battery specific gravity:	
Full charged	1.260 at 20°C (68°F)
Recharged at	1.200 at 20°C (68°F)
Ignition system	Coil and distributor
Spark plug	NGK BP-6ES NIPPONDENSO W20EP
Spark plug gap	0.8 mm (0.031")
Breaker point gap	0.5 mm (0.02")
Alternator	12V 50A
Starter	12V 0.8KW

## CLUTCH

Type	Dry single plate
Release fork free play	2.5–3.5 mm (0.10–0.14")

## TRANSMISSION

Type:	Manual	4 forward speed, all synchromesh
	Automatic	3 forward speed
Gear ratio:		
Manual	1st 3.403 2nd 2.005 3rd 1.373	
	Top 1.000 Rev. 3.665	
Automatic	1st 2.458 2nd 1.458 3rd 1.000	
	Rev. 2.181	
Oil capacity (manual)	1.4 liters	
	(1.2 Imp. quarts, 1.5 U.S. quarts)	
Fluid capacity	6.2 liters	
(Automatic)	(5.5 Imp. quarts, 6.6 U.S. quarts)	

## REAR AXLE

Type	Semi-floating, hypoid gear
Final reduction ratio	3.900
Oil capacity	1.4 liters (1.2 Imp. quarts, 1.5 U.S. quarts)

## STEERING

Type	Recirculating ball nut type
Gear ratio	Variable 18.0–20.0
Steering wheel free play	5–20 mm (0.2–0.8")
Min. turning radius	5 m (16' 4")

## **BRAKE**

Foot brake

Hydraulic, disc brake on front wheels

Hydraulic, drum brake on rear wheels

Parking brake

Mechanical, acting on rear wheels

## **SUSPENSION**

Front

Independent, strut type

Rear

Semi-elliptic leaf spring

## **TIRE**

Tire size and inflation pressure

See page 46.



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### Personal Information

Name Beneficial Finance Corp Ltd

Address 23 Franklin St. Adelaide

Tel. No. \_\_\_\_\_

Driving License No. \_\_\_\_\_

Insurance Company \_\_\_\_\_

Insurance Policy No. \_\_\_\_\_

### Nearest Mazda Dealer

Name Lock Motors Pty Ltd

Address 419 Magill Rd. St. Morris.

Tel. No. 319121

### Vehicle Information

Type Designation LADUS

Chassis No. 1B5318

Engine No. 60124

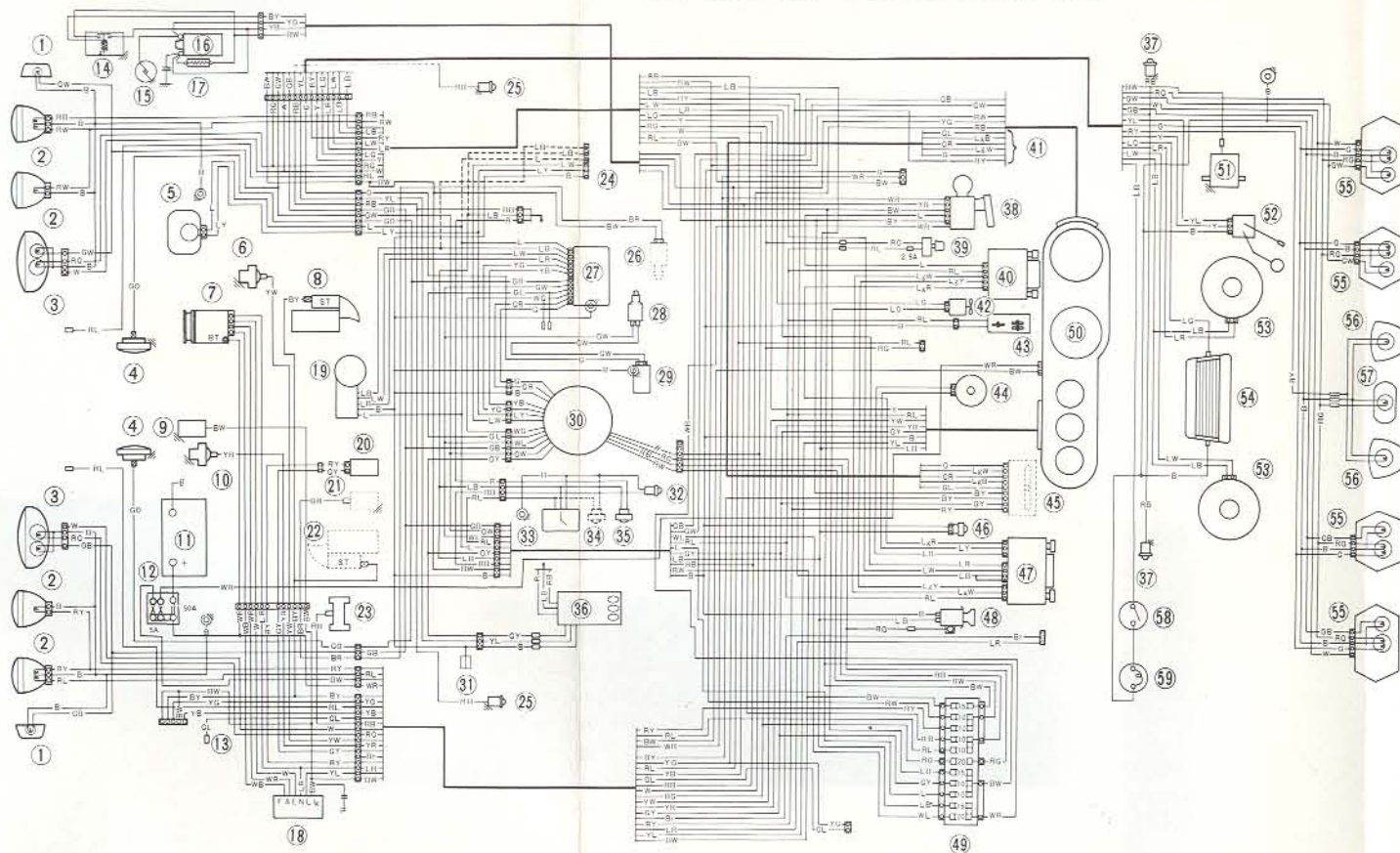
Registration No. \_\_\_\_\_

# MEMO



MEMO

# ELECTRICAL WIRING DIAGRAM



## Wiring color code

R : Red	Y : Yellow
B : Black	L : Blue
Br : Brown	Lg : Light green
W : White	O : Orange
G : Green	

- Side turn signal light
- Headlight
- Turn signal and parking light
- Horn
- Windshield washer motor
- Water temperature gauge unit
- Alternator
- Starter (manual)
- Fuel cut valve
- Oil pressure warning switch
- Battery
- Fuse box
- Cooler unit relay
- Ignition coil relay
- Distributor
- Ignition coil
- Ignition coil resistor
- Regulator
- Windshield wiper motor
- Reverse light switch
- Kick down solenoid
- Starter (automatic)
- Brake failure indicator
- To interval wiper relay
- Front door switch
- Kick down switch
- Central control box
- Stop light switch
- Stop light checker relay
- Combined switch
- Heater and cooler earth
- Parking brake switch
- Clock
- Indicator panel light (automatic)
- Step light
- Overhead console
- Rear door switch
- Ignition switch
- Illumination light control
- Stereo
- To indicator panel light (automatic)
- Heater
- Illumination light (heater control)
- Radio speaker
- Inhibitor switch
- Glove box light and switch
- Radio
- Cigar lighter
- Fuse box
- Combination meter
- Fuel pump
- Fuel gauge unit
- Stereo speaker
- Heatable rear window
- Stop, turn signal and tail light
- Reverse light
- License light
- Luggage compartment illumination light switch
- Luggage compartment illumination light



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