

**SUZUKI**

OWNER'S MANUAL

SUZUKI MOTOR CORPORATION

GSX250F



**GSX250F**

This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when resold or otherwise transferred to a new owner or operator. The manual contains important safety information and instructions which should be read carefully before operating the motorcycle.

## IMPORTANT

### BREAK-IN (RUNNING-IN) INFORMATION FOR YOUR MOTORCYCLE

The first 1600 km (1000 miles) are the most important in the life of your motorcycle. Proper break-in operation during this time will help ensure maximum life and performance from your new motorcycle. Suzuki parts are manufactured of high quality materials, and machined parts are finished to close tolerances. Proper break-in operation allows the machined surfaces to polish each other and mate smoothly.

Motorcycle reliability and performance depend on special care and restraint exercised during the break-in period. It is especially important that you avoid operating the engine in a manner which could expose the engine parts to excessive heat.

Please refer to the **BREAK-IN (RUNNING-IN)** section for specific break-in recommendations.

## WARNING/CAUTION/NOTE

Please read this manual and follow its instructions carefully. To emphasize special information the words **WARNING**, **CAUTION** and **NOTE** carry special meanings and should be carefully reviewed.

### **▲WARNING**

The personal safety of the rider may be involved. Disregarding this information could result in injury to the rider.

### **▲CAUTION**

These instructions point out special service procedures or precautions that must be followed to avoid damaging the machine.

*NOTE: This provides special information to make maintenance easier or important instructions clearer.*

## FOREWORD

Motorcycling is one of the most exhilarating sports and to ensure your riding enjoyment, you should become thoroughly familiar with the information presented in this Owner's Manual before riding the motorcycle.

The proper care and maintenance that your motorcycle requires is outlined in this manual. By following these instructions explicitly you will ensure a long trouble-free operating life for your motorcycle. Your authorized Suzuki dealer has experienced technicians that are trained to provide your machine with the best possible service with the right tools and equipment.

**SUZUKI MOTOR CORPORATION**

All information, illustrations, photographs and specifications contained in this manual are based on the latest product information available at the time of publication. Due to improvements or other changes, there may be some discrepancies in this manual. Suzuki reserves the right to make changes at any time.

Please note that this manual applies to all specifications or all respective destinations and explains all equipment. Therefore, your model may have different standard features than shown in this manual.

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## CONSUMER INFORMATION

### ACCESSORY INSTALLATION AND PRECAUTION SAFETY TIPS

There are a great variety of accessories available to Suzuki owners. Suzuki can not have direct control over the quality or suitability of accessories you may wish to purchase. The addition of unsuitable accessories can lead to unsafe operating conditions. It is not possible for Suzuki to test each accessory on the market or combinations of all the available accessories; however, your dealer can assist you in selecting quality accessories and installing them correctly.

Use extreme caution when selecting and installing the accessories for your Suzuki. We have developed some general guidelines which will aid you when deciding whether, and how to equip your motorcycle.

- Any time that additional weight or aerodynamic affecting accessories are installed, they should be mounted as low as possible, as close to the motorcycle and as near the center of gravity as is feasible. The mounting brackets and other attachment hardware should be carefully checked to ensure that it provides for a rigid, non-movable mount. Weak mounts can allow the shifting of the weight and create a dangerous, unstable condition.

- Inspect for proper ground clearance and bank angle. An improperly mounted accessories could critically reduce these two safety factors. Also determine that the "accessories" does not interfere with the operation of the suspension, steering or other control operations.
- Accessories fitted to the handlebars or the front fork area can create serious stability problems. This extra weight will cause the motorcycle to be less responsive to your steering control. The weight may also cause oscillations in the front end and lead to instability problems. Accessories added to the handlebars or front fork should be as light as possible and kept to a minimum.
- The motorcycle may be affected by a lifting condition or by an instability in cross winds or when being passed or passing large vehicles. Improperly mounted or poorly designed accessories can result in an unsafe riding condition, therefore caution should be used when selecting and installing all accessories.
- Certain accessories displace the rider from his or her normal riding position. This limits the freedom of movement of the rider and may limit his or her control ability.

- Additional electrical accessories may overload the existing electrical system. Severe overloads may damage the wiring harness or create a dangerous situation due to the loss of electrical power during the operation of the motorcycle.

When carrying a load on the motorcycle, mount it as low as possible and as close as possible to the machine. An improperly mounted load can create a high center of gravity which is very dangerous and makes the motorcycle difficult to handle. The size of the "load" can also affect the aerodynamics and handling of the motorcycle. Balance the load between the right and left side of the motorcycle and fasten it securely.

### MODIFICATION

Modification of the motorcycle, or removal of original equipment may render the vehicle unsafe or illegal.

### SAFE RIDING RECOMMENDATION FOR MOTORCYCLE RIDERS

Motorcycle riding is great fun and an exciting sport. Motorcycle riding also requires that some extra precautions be taken to ensure the safety of the rider and passenger. These precautions are:

#### WEAR A HELMET

Motorcycle safety equipment starts with a quality helmet. One of the most serious injuries that can happen is a head injury. ALWAYS wear a properly approved helmet. You should also wear suitable eye protection.

### RIDING APPAREL

Loose, fancy clothing can be uncomfortable and unsafe when riding your motorcycle. Choose good quality motorcycle riding apparel when riding your motorcycle.

### INSPECTION BEFORE RIDING

Review thoroughly the instructions in the INSPECTION BEFORE RIDING section of this manual. Do not forget to perform an entire safety inspection to ensure the safety of the rider and its passenger.

### FAMILIARIZE YOURSELF WITH THE MOTORCYCLE

Your riding skill and your mechanical knowledge form the foundation for safe riding practices. We suggest that you practice riding your motorcycle in a non-traffic situation until you are thoroughly familiar with your machine and its controls. Remember practice makes perfect.

### KNOW YOUR LIMITS

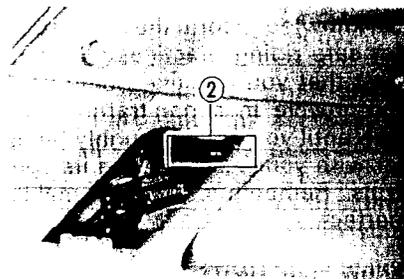
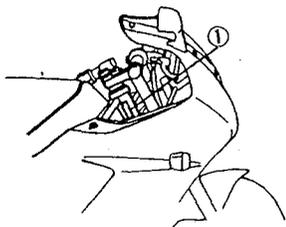
Ride within the boundaries of your own skill at all times. Knowing these limits and staying within them will help you to avoid accidents.

### BE EXTRA SAFETY CONSCIOUS ON BAD WEATHER DAYS

Riding on bad weather days, especially wet ones, requires extra caution. Braking distances double on a rainy day. Stay off of the painted surface marks, manhole covers and greasy appearing areas as they can be especially slippery. Use extreme caution at railway crossings and on metal gratings and bridges. Whenever in doubt about road condition, slow down!

## SERIAL NUMBER LOCATION

The frame and/or engine serial numbers are used to register the motorcycle. They are also used to assist your dealer when ordering parts or referring to special service information.



The frame number ① is stamped on the steering head. The engine serial number ② is stamped on the right side of the crankcase assembly.

Please write down the numbers in the box provided below for your future reference.

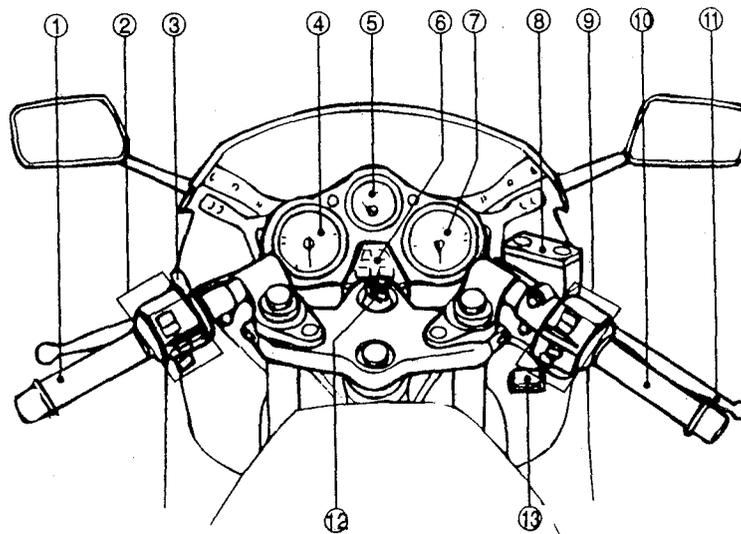
Frame number:

~~XXXXXXXXXXXX~~

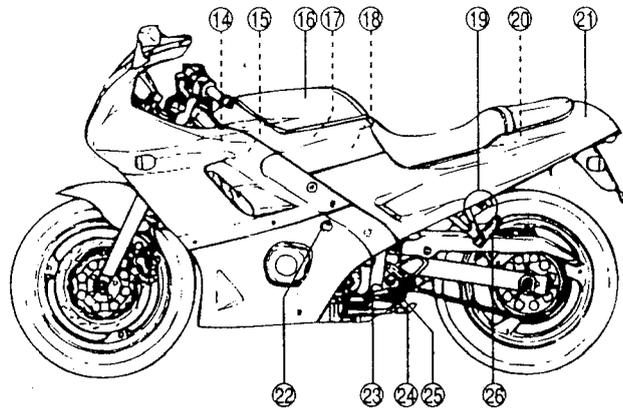
Engine number:

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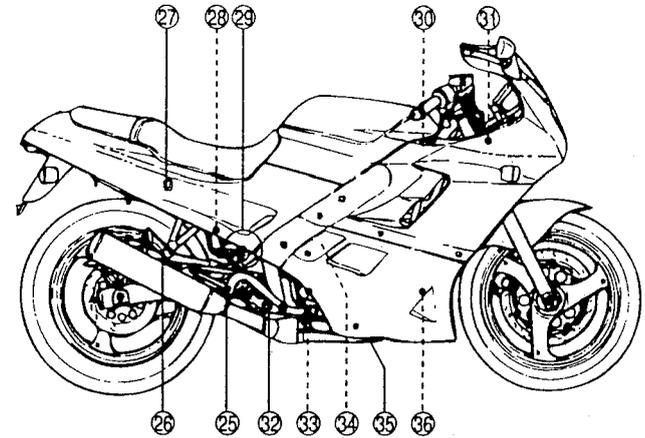
## LOCATION OF PARTS



- ① Clutch lever
- ② Left handlebar switches
- ③ Choke lever
- ④ Speedometer
- ⑤ Coolant temperature gauge
- ⑥ Indicator lights
- ⑦ Tachometer
- ⑧ Front brake fluid reservoir
- ⑨ Right handlebar switches
- ⑩ Throttle grip
- ⑪ Front brake lever
- ⑫ Ignition switch
- ⑬ Fuel opener



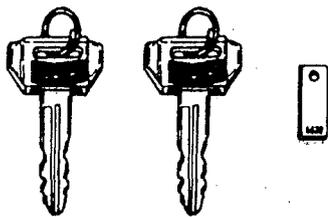
- ⑭ Battery
- ⑮ Spark plug
- ⑯ Trunk
- ⑰ Tools
- ⑱ Air cleaner
- ⑲ Seat lock
- ⑳ Helmet holders
- ㉑ Fuel tank cap
- ㉒ Throttle stop screw
- ㉓ Gearshift lever
- ㉔ Side stand
- ㉕ Footrests
- ㉖ Passenger footrests



- ㉗ Rear brake fluid reservoir
- ㉘ Rear brake light switch
- ㉙ Fuel valve
- ㉚ Fuses
- ㉛ Engine coolant reservoir
- ㉜ Rear brake pedal
- ㉝ Engine oil inspection window
- ㉞ Engine oil filler cap
- ㉟ Engine oil drain plug
- ㊱ Engine oil filter

## CONTROLS

### KEY



This motorcycle comes equipped with a pair of identical ignition keys. Keep the spare key in a safe place.

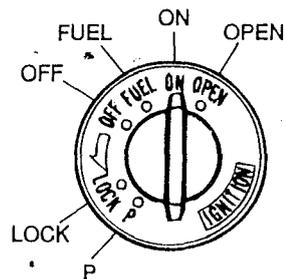
The key number is stamped on a plate provided with the keys. This number is used when making replacement keys.

Please write your key number in the box provided for your future reference.

Key number:

### IGNITION SWITCH

The ignition switch has six positions:



#### "OFF" POSITION

All electrical circuits are cut off. The engine will not start. The key can be removed.

#### "ON" POSITION

The ignition circuit is completed and the engine can run. The headlight and the taillight will automatically turn on. You cannot remove the key from the ignition switch in this position.

### CAUTION

Turn the fuel valve to the "ON" or "RES" position before turning the ignition switch to the "ON" position, or the fuel pump may be damaged.

*NOTE: Start the engine promptly after turning the key to the "ON" position, or the battery will lose power due to consumption by the headlight and taillight.*

### "LOCK" POSITION

To lock the steering, turn the handlebars all the way to the left. Push down and turn the key to the "LOCK" position and remove the key. All electrical circuits are cut off.

### "P" (PARKING) POSITION

When parking the motorcycle, lock the steering and turn the key to the "P" position. The key can now be removed and the position light and the taillight will remain lit. This position is for night time roadside parking to increase visibility.

### WARNING

- Before turning the ignition switch to the "P" (PARKING) or "LOCK" position, stop the motorcycle and place the motorcycle on the side stand.
- Never attempt to move the motorcycle when the steering is locked, or you may lose balance.

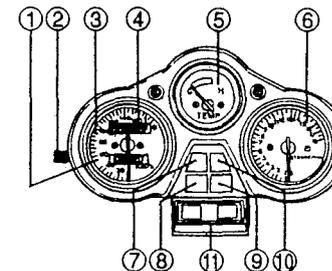
### "FUEL" POSITION

The fuel tank lid can be opened when the ignition switch is in this position. Turn the ignition switch to the "FUEL" position and push the fuel opener. The key cannot be removed in this position.

### "OPEN" POSITION

Turn the key to the "OPEN" position to open the trunk lid. Follow the WARNING and NOTE in the TRUNK section.

## INSTRUMENT PANEL



### TRIP METER ①

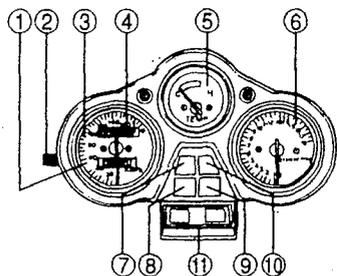
The trip meter is a resettable odometer located in the speedometer assembly. It can be used for indicating the distance traveled on short trips or between fuel stops. Turning knob ② counterclockwise will return the meter to zero.

### SPEEDOMETER ③

The speedometer indicates the road speed in miles per hour and/or kilometers per hour.

### ODOMETER ④

The odometer registers the total distance that the motorcycle has been ridden.



### COOLANT TEMPERATURE GAUGE ⑤

The coolant temperature gauge indicates engine coolant temperature when the ignition switch is in the "ON" position.

### ⚠ CAUTION

Riding the motorcycle with highly heated engine coolant may cause engine overheating and damage the engine. If the needle of the coolant temperature indicates the red area of the meter, stop the engine and allow the engine to cool.

### TACHOMETER ⑥

The tachometer indicates the engine speed in revolutions per minute (r/min).

### OIL PRESSURE INDICATOR LIGHT ⑦

This indicator comes on when the engine oil pressure is below the normal operating range. This should come on when the ignition switch is "ON" and the engine is not running. As soon as the engine starts, this should go out.

### ⚠ CAUTION

Whenever the oil pressure indicator lights up, indicating low oil pressure, stop the engine immediately. First check the oil level and determine if the proper amount of oil is in the engine. If the oil level is low, refill the engine to the correct level. If the light still does not go out, then have your authorized Suzuki dealer or qualified mechanic inspect your motorcycle to determine the difficulty. Do not operate the motorcycle when the light is lit as it may cause serious damage to the internal parts of the engine or transmission.

### NEUTRAL INDICATOR LIGHT ⑧

The green light will come on when the transmission is in neutral. The light will go out when you shift into any gear other than neutral.

### HIGH BEAM INDICATOR LIGHT ⑨

The blue indicator light will come on when the headlight high beam is turned on.

### TURN SIGNAL INDICATOR LIGHT ⑩

When the turn signals are being operated either to the right or to the left, the indicator will flash at the same time.

*NOTE: If turn signal light is not operating properly due to bulb filament or circuit failure, the indicator light does not flicker but remains lit to notify the rider of the existence of failure.*

### FUEL LEVEL INDICATOR LIGHTS ⑪

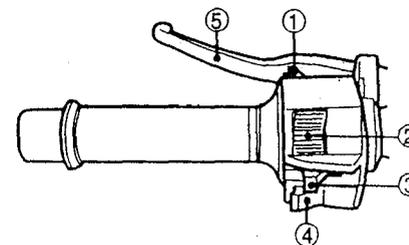
The fuel level indicator comes on when the fuel level in the fuel tank comes low, requiring fuel supply.

The yellow light will come on when the fuel level in the fuel tank is approximately 6 L (1.6/1.3 US/Imp. gal) or less.

The red light will come on when the fuel level in the fuel tank is approximately 2.5 L (0.7/0.5 US/Imp. gal) or less.

*NOTE: With the ignition switch in the "ON" position but the engine not started, the fuel level indicator lights should come on to check the bulb function. As soon as the engine is started, the lights should go out.*

### LEFT HANDLEBAR



### HEADLIGHT FLASHER SWITCH ①

Press the switch to light the headlight.

### DIMMER SWITCH ②

When the switch is in "HI" position, the high beam will be lit. At the same time that the high beam is lit, the high beam indicator will also light in the instrument panel. When the switch is in "LO" position, the low beam will be lit.

### TURN SIGNAL SWITCH ③

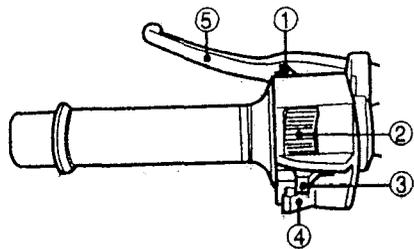
Moving the switch to the "L" position will flash the left turn signals. Moving the switch to the "R" position will flash the right turn signals. The indicator light will also flash intermittently. To cancel turn signal operation, push the switch on.

### ⚠ WARNING

Always use the turn signals when you intend to change lanes or make a turn. Be sure to turn off the turn signals after completing the turn or lane change.

### HORN SWITCH ④

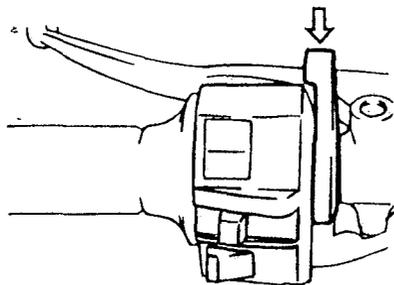
Press the switch to sound the horn.



#### CLUTCH LEVER ⑤

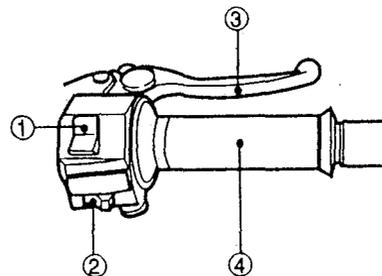
The clutch lever is used for disengaging the drive to the rear wheel when starting the engine or shifting the transmission gear. Squeezing the lever disengages the clutch.

#### CHOKE LEVER



The carburetor is equipped with a choke system to provide easy starting. When starting a cold engine, turn the choke lever all the way toward you. Immediately after the engine starts, return the choke lever halfway and hold the lever at that position to have the engine operate in steady fast idling until the engine warms up. Thereafter return the choke lever back to its normal disengaged position. The engine is sufficiently warm when the engine revs up smoothly with the choke system disengaged. The choke will operate only when the throttle is in the closed position as opening the throttle will bypass the choke system. When the engine is warm, the choke does not need to be used for starting.

#### RIGHT HANDLEBAR



#### ENGINE STOP SWITCH ①

The engine stop switch is located on the top of the right handlebars grip switch housing. This is a rocker style switch which pivots in the center. In the "RUN" position the ignition circuit is on and the engine will operate. The switch is intended primarily as an emergency switch. When the switch is in the "OFF" position neither the starter motor nor the ignition circuit will be energized.

#### ELECTRIC STARTER BUTTON ②

This button is used for operating the starter motor. With the ignition switch in the "ON" position, the engine stop switch in "RUN", the transmission in neutral, push the electric starter button to operating the starter motor to start the engine.

*NOTE: This motorcycle is equipped with interlock switches for the ignition circuit and the starter circuit. The engine can only be started if:*

- The transmission is in neutral, or
- The transmission is in gear and the side stand is fully up.

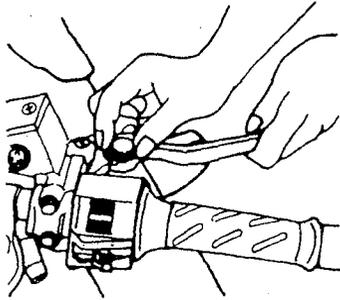
#### ⚠ CAUTION

Do not engage the starter motor for more than five seconds at a time. The starter motor and wiring harness may overheat. If the engine does not start after several attempts, check the fuel supply and ignition system. (Refer to the TROUBLESHOOTING section.)

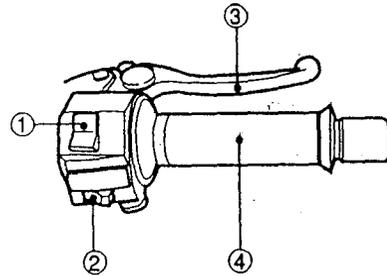
#### FRONT BRAKE LEVER ③

The front brake is applied by squeezing the brake lever gently toward the throttle grip. This motorcycle is equipped with disk brake system and excessive pressure is not required to slow the machine down properly. The brake light will come on when the lever is squeezed inward.

## Front Brake Lever Adjustment



The distance between the throttle grip and the front brake lever is adjustable in four positions. To change the position, push the brake lever forward and turn the adjuster to the desired position. When changing the brake lever position, always be sure the adjuster stops in the proper position; a projection of the brake lever holder should fit into the depression of the adjuster. This motorcycle is delivered from the factory with its adjuster set on position 2.



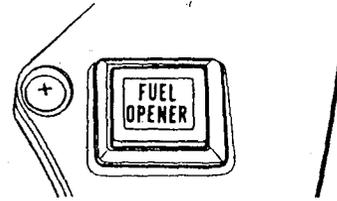
## THROTTLE GRIP ④

Engine speed is controlled by the position of the throttle grip. Turn it toward you to increase engine speed. Turn it away from you to decrease the engine speed.

## FUEL TANK CAP

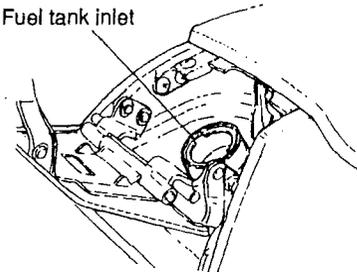
To open the fuel tank cap, follow the procedure below:

1. Insert the ignition key into the ignition switch and turn it to the "FUEL" position.

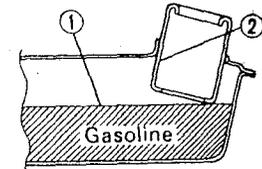


2. Push the fuel opener and the fuel tank lid will open.
3. Turn the fuel tank cap counter-clockwise.

Fuel tank inlet



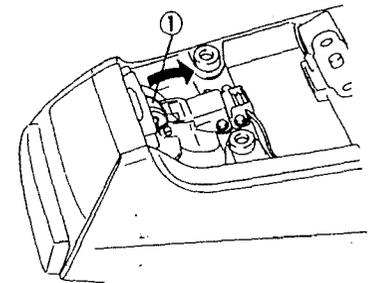
To close the fuel tank cap, turn it clockwise and tighten it securely. Close the lid and push on it firmly until the lid latch snaps into the locked position.



- ① Fuel level
- ② Filler neck

## ⚠ WARNING

- Do not overfill the fuel tank. Avoid spilling fuel on the hot engine. Do not fill the fuel tank above the bottom of the filler neck as shown in the illustration or it may overflow when the fuel heats up later and expands.
- When refueling, always shut the engine off and turn the ignition key to the "OFF" position. Never refuel near an open flame.



*NOTE:* To open the fuel tank lid when the battery is discharged, remove the seat and unhook the lid latch ① by hand.

## FUEL VALVE

This motorcycle is equipped with a manually operated fuel valve. There are three positions: "ON," "RES" and "OFF."

### "ON" POSITION



To run the engine, turn the fuel valve to the "ON" position. In this position fuel will flow from the fuel valve to the carburetor whenever the fuel level in the carburetor drops.

### "RES" (RESERVE) POSITION



If the fuel level in the tank is too low, turn the fuel valve to the "RES" position to use the 2.0 L (0.5/0.4 US/Imp. gal) of reserve fuel supply.

*NOTE: After turning the fuel valve to the "RES" position, refill the tank at the closest gasoline station. After refueling, be sure to turn the fuel valve back to the "ON" position.*

### "OFF" POSITION

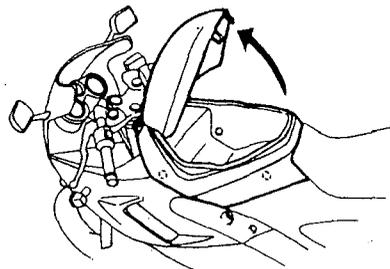


Turn the fuel valve to the "OFF" position when stopping the engine for more than a few minutes.

## CAUTION

Leaving the fuel valve in the "ON" or "RES" position may cause the carburetor to overflow and fuel to run into the engine. It is possible that this may cause severe mechanical damage when the engine is started.

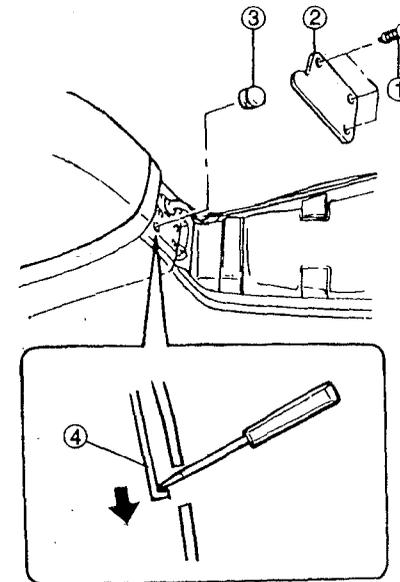
## TRUNK



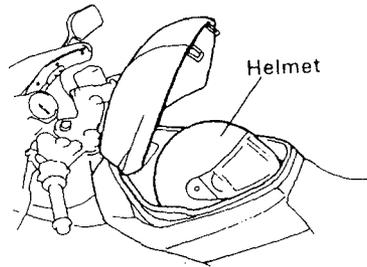
The trunk has the electric lock. To open the trunk, insert the key into the ignition switch and turn the key to the "OPEN" position. To lock the trunk, push the lid down firmly until the lid latch snaps into the locked position.

To open the trunk when the battery is discharged, follow the procedure below.

1. Remove the seat.



2. Remove the screws ①, plate ② and rubber seal ③.
3. Insert a screwdriver into the hole and push the nail ④ to release the latch.



When putting a helmet in the trunk, place it as shown in the figure.

Trunk load capacity: 10 kg (22 lbs)

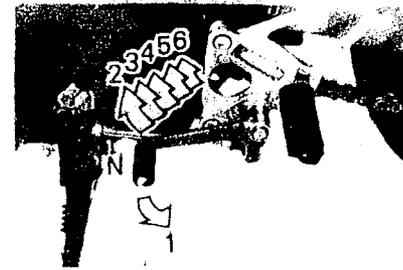
### **WARNING**

- Do not overload the trunk, or you may lose the balance due to higher center of gravity.
- Before riding, make sure that the lid is securely locked. If the lid opens while riding, it may interfere with the rider control.
- Do not open the lid while riding as removing a hand can lose control.
- Do not store inflammables in the trunk, or they may create a fire hazard when the trunk heated by the engine or the sun etc.

#### **NOTE:**

- Do not store heat-sensitive items such as cassette tape etc. in the trunk when the trunk may get hot.
- Do not store fragile items in the trunk.
- Do not store valuables in the trunk when leaving the motorcycle unattended.
- Do not keep the lid open for a long time without the engine running, or the trunk light will discharge the battery.
- When washing the motorcycle, empty the trunk and take care not to allow water to get inside of the trunk. Do not use water or any solvent to clean inside of the trunk.

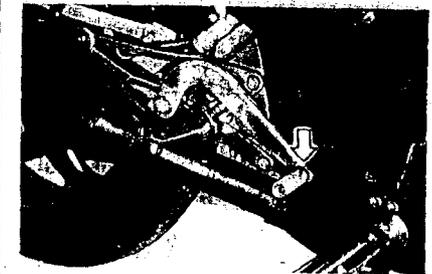
#### **GEARSHIFT LEVER**



This motorcycle has a 6-speed transmission which operates as shown. To shift properly, pull the clutch lever and close the throttle at the same time you operate the gearshift lever. Lift the gearshift lever to upshift and depress the lever to downshift. Neutral is located between low and 2nd gear. When neutral is desired, depress or lift the lever halfway between low and 2nd gear.

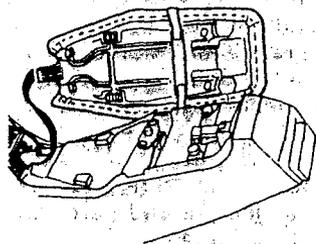
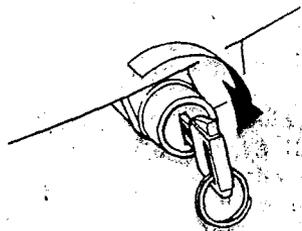
*NOTE: When the transmission is in neutral the green indicator light on the instrument panel will be lit. However, even though the light is lit, cautiously release the clutch lever slowly to determine whether the transmission is positively in neutral.*

#### **REAR BRAKE PEDAL**



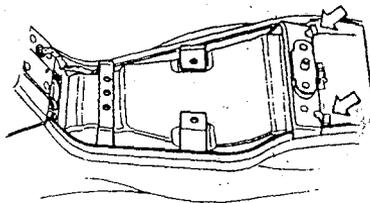
Depressing the rear brake pedal will apply the rear disk brake. The brake light will come on when the rear brake is operated.

## SEAT LOCK AND HELMET HOLDERS SEAT LOCK



To unlock the seat lock, insert the ignition key into the lock and turn it clockwise. To lock the seat, hook the seat hook to the seat holding bracket and push down the seat firmly until the seat snaps into the locked position.

## HELMET HOLDERS

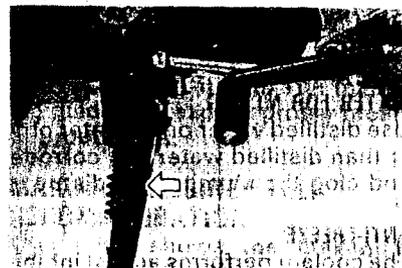


There are helmet holders under the seat. To use them, remove the seat, hook your helmet fastener ring to the holder and refit the seat.

### ⚠ WARNING

- Do not operate the motorcycle with a helmet fastened to the helmet holder. The helmet may interfere with the safe operation of the motorcycle.
- After you have reinstalled the seat, pull up on it firmly to be certain it is securely latched. If the seat is not latched securely, it may come loose and interfere with the rider's control.

## SIDE STAND



This motorcycle is equipped with a side stand to support the motorcycle when parking. An interlock switch is provided to cut off the ignition circuit when the side stand is down and the transmission is in any gear other than neutral.

The side stand/ignition interlock switch works as follows:

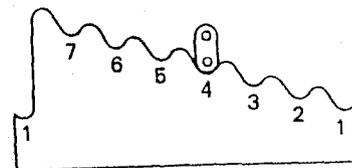
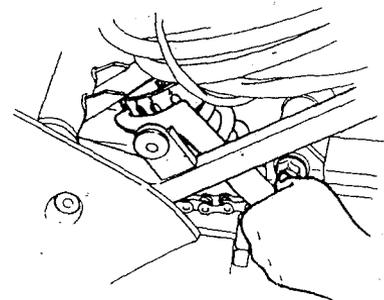
- If the side stand is down and the transmission is in gear, the engine can not be started.
- If the engine is running and the transmission is shifted into gear with the side stand down, the engine will stop running.
- If the engine is running and the side stand is put down with the transmission in gear, the engine will stop running.

### ⚠ WARNING

Always check the side stand/ignition interlock switch for proper operation before riding, according to the instructions in the SIDE STAND/IGNITION INTERLOCK SWITCH section. If the switch is not working and the side stand is left down, it may interfere with rider control during a left turn.

## SUSPENSION ADJUSTMENT REAR SUSPENSION

### Spring pre-load Adjustment



To adjust the spring pre-load, turn the adjuster clockwise or counter-clockwise to the desired position. Position 1 provides the softest spring pre-load and position 7 provides the stiffest. This motorcycle is delivered from the factory with its adjuster set on position 4.

## FUEL, ENGINE OIL AND COOLANT RECOMMENDATION

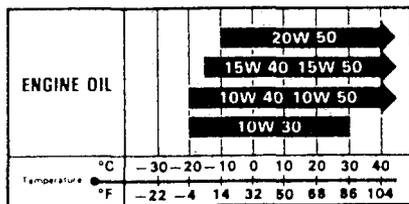
### FUEL

Use unleaded gasoline with an octane rating of 91 or higher (Research method). Unleaded gasoline can extend spark plug life and exhaust components life.

If pinking or knocking is experienced, substitute higher octane grade gasoline or another brand, because there are differences between brands.

### ENGINE OIL

Use a premium quality 4-stroke motor oil to ensure longer service life of your motorcycle. Use only oils which are rated SE, SF or SG under the API service classification. The recommended viscosity is SAE 10W-40. If a SAE 10W-40 motor oil is not available, select an alternative according to the following chart.



### COOLANT

Use an anti-freeze compatible with aluminum radiator mixed with distilled water only at the ratio of 50:50.

### WATER FOR MIXING

Use distilled water only. Water other than distilled water can corrode and clog the aluminum radiator.

### ANTI-FREEZE

The coolant performs as rust inhibitor and water pump lubricant as well as anti-freeze. Therefore the coolant should be used at all times even though the atmospheric temperature in your area does not go down to freezing point.

### REQUIRED AMOUNT OF WATER/COOLANT

Solution capacity (total): 2000ml (2.1/1.8 US/Imp. qt)

30%	Water	1400ml (1.5/1.3 US/Imp. qt)
	Coolant	600ml (0.6/0.5 US/Imp. qt)
40%	Water	1200ml (1.3/1.1 US/Imp. qt)
	Coolant	800ml (0.8/0.7 US/Imp. qt)
50%	Water	1000ml (1.1/0.9 US/Imp. qt)
	Coolant	1000ml (1.1/0.9 US/Imp. qt)

*NOTE: Mixing of anti-freeze should be limited to 60%. Mixing beyond it would reduce its efficiency. If the anti-freeze mixing ratio is below 30% rust inhibiting performance is greatly reduced. Be sure to mix it above 30% even though the atmospheric temperature does not go down to freezing point.*

### BREAK-IN (RUNNING-IN)

The opening explains how important proper break-in is to achieve maximum life and performance from your new Suzuki. The following guidelines explain proper break-in procedures.

### MAXIMUM ENGINE SPEED RECOMMENDATION

This table shows the maximum recommended engine speed during the break-in period.

Initial	800 km (500 miles)	Below 7000 r/min
Up to	1600 km (1000 miles)	Below 10000 r/min
Over	1600 km (1000 miles)	Below 16500 r/min

### VARY THE ENGINE SPEED

The engine speed should be varied and not held at a constant speed. This allows the parts to be "loaded" with pressure, and then unloaded, allowing the parts to cool. This aids the mating process of the parts. It is essential that some stress be placed on the engine components during break-in to ensure this mating process. Do not, though, apply excessive load on the engine.

### AVOID CONSTANT LOW SPEED

Operating the engine at constant low speed (light load) can cause parts to glaze and not seat in. Allow the engine to accelerate freely through the gears, without exceeding the recommended maximum limits. Do not, however, use full throttle for the first 1600 km (1000 miles).

### ALLOW THE ENGINE OIL TO CIRCULATE BEFORE RIDING

Allow sufficient idling time after warm or cold engine start up before applying load or revving the engine. This allows time for the lubricating oil to reach all critical engine components.

### OBSERVE YOUR FIRST AND MOST CRITICAL SERVICE

The initial service (1000 km maintenance) is the most important service your motorcycle will receive. During break-in operation, all of the engine components will have mated together and seated. Maintenance required as part of the initial service includes correction of all adjustments, tightening of all fasteners and replacement of dirty oil. Timely performance of this service will help make sure you get the best service life and performance from the engine.

### CAUTION

The 1000 km (600 miles) service should be performed as outlined in the INSPECTION AND MAINTENANCE section of this Owner's Manual. Pay particular attention to the CAUTION AND WARNING in that section.

## INSPECTION BEFORE RIDING

Before riding the motorcycle, be sure to check the following items. Never underestimate the importance of these checks. Perform all of them before riding the motorcycle.

WHAT TO CHECK	CHECK FOR:
Steering	<ul style="list-style-type: none"> <li>• Smoothness</li> <li>• No restriction of movement</li> <li>• No play or looseness</li> </ul>
Throttle	<ul style="list-style-type: none"> <li>• Correct play in the throttle cable</li> <li>• Smooth operation and positive return of the throttle grip to the closed position</li> </ul>
Clutch	<ul style="list-style-type: none"> <li>• Correct play in the cable</li> <li>• Smooth and progressive action</li> </ul>
Brakes	<ul style="list-style-type: none"> <li>• Fluid level in the reservoir to be above "LOWER" line</li> <li>• No fluid leakage</li> <li>• Brake pads not to be worn down to the limit line</li> <li>• Correct pedal and lever play</li> <li>• No "sponginess"</li> </ul>
Suspensions	Smooth movement
Fuel	Enough fuel for the planned distance of operation
Cooling system	<ul style="list-style-type: none"> <li>• Proper coolant level</li> <li>• No leaks from the cooling system</li> </ul>

Drive chain	<ul style="list-style-type: none"> <li>• Proper tension or slack</li> <li>• Adequate lubrication</li> </ul>
Tires	<ul style="list-style-type: none"> <li>• Correct pressure</li> <li>• Adequate tread depth</li> <li>• No cracks or cuts</li> </ul>
Engine oil	Correct level
Lighting	Operation of all lights and indicators
Horn	Correct function
Engine stop switch	Correct function
Side stand/ Ignition Interlock switch	Proper operation

## RIDING TIPS

### ⚠ WARNING

- If this is the first time that you have ridden a machine of this type, we suggest that you practice on a non-public road to become thoroughly familiar with the controls and operation of the motorcycle.
- One-hand riding is extremely dangerous. Keep both hands firmly on the handlebars and both feet securely on the footrests. Under no circumstances should both hands be removed from the handlebars.
- Do not downshift in the midst of cornering. Slow down to a safe speed before negotiating a corner.
- When the road surface is wet or slushy, there is a reduction in tire traction. You should reduce speed whenever these conditions exist as braking and cornering ability are reduced.
- At side winds which may be experienced at the exists of tunnels, when passing by the cut of a hill, or when being overtaken by larger vehicles, you should reduce speed and ride alertly.
- Obey the speed limit and traffic regulations at all times.

## STARTING THE ENGINE

1. Turn the fuel valve to the "ON" position.
2. Insert the key into the ignition switch and turn it to the "ON" position:

### ⚠ WARNING

Never run the engine indoors or in a garage. Exhaust gas contains carbon monoxide, a gas that is colorless and odorless and can cause death or severe injury. Only run the engine outdoors where there is fresh air.

### ⚠ CAUTION

Running the engine too long without riding may cause the engine to overheat. Overheating can result in damage to internal engine components and discoloration of exhaust pipes. Shut the engine off if you cannot begin your ride promptly.

Before attempting to start the engine, make sure:

1. The transmission is in neutral.
2. The fuel valve lever is in the "ON" position.
3. The engine stop switch is in the "RUN" position.

*NOTE: This motorcycle is equipped with interlock switches for the ignition circuit and the starter circuit. The engine can only be started if:*

- The transmission is in neutral, or
- The transmission is in gear and the side stand is fully up.

#### WHEN THE ENGINE IS COLD:

Turn the choke lever all the way toward you. Close the throttle completely. Push the electric starter switch and the engine will start. Immediately after the engine starts, return the choke lever half-way and warm up the engine. Return the choke lever all the way back to its normal disengaged position.

#### WHEN THE ENGINE IS WARM:

Open the throttle 1/8 to 1/4 turn and push the electric starter switch. Operation of the carburetor choke system is usually not necessary when the engine is warm.

#### STARTING OFF

After moving the side stand to the fully up position, pull the clutch lever in and pause momentarily. Engage first gear by depressing the gearshift lever downward. Turn the throttle grip a little toward you and at the same time release the clutch lever gently and smoothly. As the clutch engages, the motorcycle will start moving forward. To shift to the next higher gear, accelerate gently, then close the throttle and pull the clutch lever in simultaneously. Lift the gearshift lever upward to select the next gear and release the clutch lever and open the throttle again. Select the gears in this manner until top gear is reached.

*NOTE: This motorcycle is equipped with a side stand/ignition interlock switch. If you shift the transmission into gear when the side stand is down, the engine will stop running.*

#### USING THE TRANSMISSION

The transmission is provided to keep the engine operating smoothly in its normal operating speed range. The gear ratios have been carefully chosen to meet the characteristics of the engine. The rider should always select the most suitable gear for the prevailing conditions. Never slip the clutch to control road speed, but rather downshift to allow the engine to run within its normal operational range.

#### ⚠ CAUTION

Never allow the engine to rev into red zone in the tachometer in any gear.

#### RIDING ON HILLS

- When climbing steep hills, the motorcycle may begin to slow down and show lack of power. At this point you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift rapidly to prevent the motorcycle from losing momentum.
- When riding down a steep hill, the engine may be used for braking by shifting to a lower gear.
- Be careful, however, not to allow the engine to overrev.

#### STOPPING AND PARKING

1. Turn the throttle grip away from yourself to close the throttle completely.
2. Apply the front and rear brakes evenly and at the same time.
3. Downshift through the gears as road speed decreases.
4. Select neutral with the clutch lever squeezed towards the grip (disengaged position) just before the motorcycle stops. Neutral position can be confirmed by observing the neutral indicator light.

#### ⚠ WARNING

- As motorcycle speed increases, stopping distance increases progressively. Be sure you have a safe stopping distance between you and the vehicle or object ahead of you.
- Using only the front or rear brake is dangerous and can cause skidding and loss of control.
- Apply the brakes lightly and with great care on a wet highway pavement or other slippery surfaces and at all corners. Any abrupt braking on slippery or irregular roads can cause loss of rider control.

*NOTE: Reduce your road speed before downshifting. When downshifting, the engine speed should be increased before the clutch is engaged. This will prevent unnecessary wear on the drivetrain components and rear tire.*

5. Park the motorcycle on a firm, flat surface where it will not fall over.

#### ⚠ WARNING

The muffler and exhaust pipes are very hot during operation. Keep off the muffler and exhaust pipes or you will burn yourself. Park the motorcycle where others are not likely to touch them.

*NOTE: If the motorcycle is to be parked on the side stand on a slight slope, the front end of the motorcycle should face "up" the incline to avoid rolling forward off the side stand. You may leave the motorcycle in 1st gear to help prevent it from rolling off the side stand. Return to neutral before starting engine.*

6. Turn the ignition key to the "OFF" position.
7. Turn the handlebars all the way to the left and lock the steering for security.
8. Remove the ignition key.

## INSPECTION AND MAINTENANCE

### MAINTENANCE SCHEDULE

The chart indicates the intervals between periodic services in miles, kilometers and months. At the end of each interval, be sure to inspect, check, lubricate and service as instructed. If your motorcycle is used under high stress conditions such as continuous full throttle operation, or is operated in a dusty climate, certain services should be performed more often to ensure reliability of the machine as explained in the maintenance section. Your Suzuki dealer can provide you with further guidelines. Steering components, suspensions and wheel components are key items and require very special and careful servicing. For maximum safety we suggest that you have these items inspected and serviced by your authorized Suzuki dealer or a qualified service mechanic.

### ⚠ WARNING

The initial 1000 km (600 miles) maintenance is a **MANDATORY** item for making certain that your motorcycle is reliable and gives full performance at all times. Be sure that this periodic maintenance is performed thoroughly and in accordance with the instructions in this manual.

### ⚠ WARNING

Periodical inspections may reveal one or more parts that may need replacement. Whenever replacing parts on your motorcycle, it is recommended that you use genuine Suzuki replacement parts or their equivalent. Whether you are an expert or do-it-yourself mechanic, Suzuki recommends that those items on the **MAINTENANCE CHART** marked with an asterisk (\*), be performed by your authorized Suzuki dealer or qualified service mechanic. You may perform the unmarked items easily by referring to the instructions in this section.

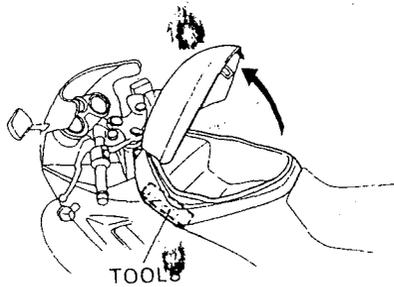
## MAINTENANCE CHART

Interval; This interval should be judged by odometer reading or months, whichever comes first.

Item	Interval	km	1000	5000	10000	15000
		miles	600	3000	6000	9500
		months	2	15	30	45
Air cleaner elements		Clean every 3000 km (2000 miles) and replace every 12000 km (7500 miles)				
*Cylinder head nuts & exhaust pipe bolts		T	T	T	T	
*Valve clearance		I	I	I	I	
Spark plugs		—	I	R	I	
Fuel hose		I	I	I	I	
		*Replace every four years				
Engine oil and oil filter		R	R	R	R	
Idle speed		I	I	I	I	
Radiator hose		I	—	I	—	
		*Replace every four years				
*Engine coolant		Replace every two years				
Clutch		I	I	I	I	
		I	I	I	I	
Drive chain		Clean and lubricate every 1000 km (600 miles)				
*Brakes		I	I	I	I	
Brake hose		I	I	I	I	
		*Replace every four years				
Brake fluid		I	I	I	I	
		*Replace every two years				
Tires		I	I	I	I	
*Steering		I	I	I	I	
*Front forks		I	I	—	I	
*Rear suspension		I	I	—	I	
*Chassis bolts and nuts		T	T	T	T	

NOTE: I=Inspect and clean, adjust, replace or lubricate as necessary;  
R=Replace; T=Tighten

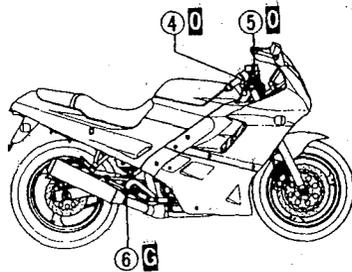
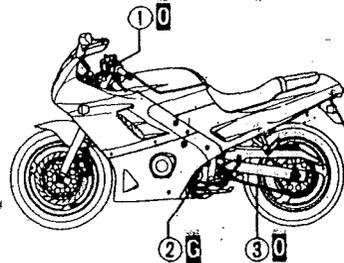
## TOOLS



To assist you in the performance of periodic maintenance, a tool kit is supplied and is located in the trunk.

## LUBRICATION POINTS

Proper lubrication is important for safe, smooth operation and a long life for your motorcycle. Be sure that all lubrication is performed during periodic maintenance on the motorcycle. Increase frequency when you use your motorcycle in severe conditions.

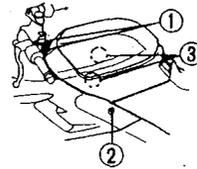


- ①... Clutch cable and Clutch lever holder
- ②... Side stand pivot and spring hook
- ③... Drive chain
- ④... Throttle cable
- ⑤... Brake lever holder
- ⑥... Brake pedal pivot and brake rod link

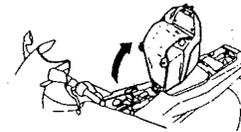
- ⓪... Motor oil
- Ⓜ... Grease

## TRUNK REMOVAL

It is necessary to remove the trunk for maintaining the battery, the air cleaner and the spark plugs etc. To remove the trunk follow the procedure below:



1. Remove the screws ①, ② (right & left side) and ③ (inside of trunk).



2. Pull up the front end of the trunk and lean it rearward.

### ⚠ WARNING

After reinstalling the trunk, make sure that the trunk is correctly positioned. If the trunk is not installed correctly, it may come loose and interfere with the rider's control.

### ⚠ CAUTION

Empty the trunk before leaning it rearward, or the hinge at the rear of the trunk may be damaged.

## BATTERY

The battery is located under the trunk. This battery is sealed type and requires no maintenance of fluid level and gravity. But have your dealer check the charging condition of the battery periodically.

### ⚠ CAUTION

- Never charge a battery while still in the machine as damage may result to the battery or regulator/rectifier.
- When disconnecting the battery terminals, be sure to remove the negative (-) terminal first, then remove the positive (+) terminal.
- The standard charging rate is 0.7 A × 5 hours and maximum rate is 3.0 A × 1 hour. Never exceed maximum charging rate.
- Never attempt to open the battery filler caps, even when charging the battery.
- Reversing the battery lead wires can damage the charging system and the battery. The red lead must go to the positive (+) terminal and the black (or black with white tracer) lead must go to the negative (-) terminal.

## AIR CLEANER

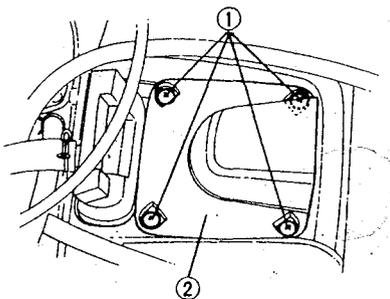
The air cleaner element is located under the trunk. If the element has become clogged with dust, intake resistance will increase with a resultant decrease in power output and an increase in fuel consumption. Check and clean the cleaner periodically according to the following procedure.

*NOTE: If driving under dusty conditions, the air cleaner element must be cleaned or replaced more frequently than maintenance schedule.*

### ⚠ CAUTION

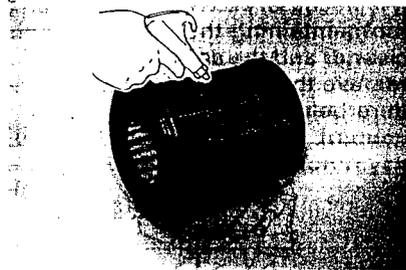
Never operate the engine without the element in position. Operating the engine without the air cleaner element will increase engine wear. Always be sure that the air cleaner element is in excellent operational condition. The life of the engine depends largely on this single component.

1. Remove the trunk.



2. Loosen the screws ① and remove the air cleaner case cover ②.

3. Pull out the air cleaner element.



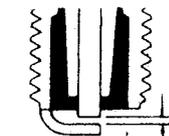
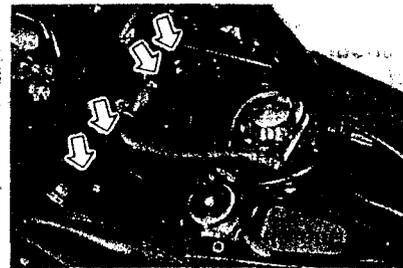
4. Carefully use an air hose to blow the dust from the air cleaner element.

### ⚠ CAUTION

Always apply air pressure to the outside of the air cleaner element only. If air pressure is applied to the inside, dirt will be forced into the pores of the cleaner element restricting the air flow through the cleaner element.

5. Reinstall the cleaned element or new air cleaner element in reverse order of removal. Be absolutely sure that the element is securely in position and is sealing properly. Replace the air cleaner element with a new one periodically.

## SPARK PLUGS



0.6 – 0.7 mm  
(0.024 – 0.028 in)

Remove the carbon deposits periodically from the spark plug with a piece of hard wire or pin. Readjust the spark plug gap to 0.6 – 0.7 mm (0.024 - 0.028 in) with a spark plug gap thickness gauge.

Before removing the carbon deposits, observe the color of each operating spark plug's porcelain tip. This color tells you whether or not the standard spark plug is suitable for your type of usage. If the standard plug is glazed appearing or white in color, the colder plug may be more suitable. A normal operating spark plug should be light brown in color.

## PLUG REPLACEMENT GUIDE

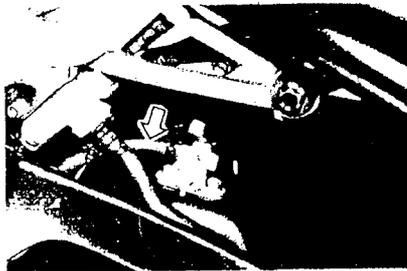
NGK	REMARKS
CR6HSA	If the standard plug is wet appearing or very dark in color, replace with this plug.
CR7HSA	Standard
CR8HSA	If the standard plug is glazed appearing or very white in color, replace with this plug.

NIPPONDENSO	REMARKS
U20FSR-U	If the standard plug is wet appearing or very dark in color, replace with this plug.
U22FSR-U	Standard
U24FSR-U	If the standard plug is glazed appearing or very white in color, replace with this plug.

### ⚠ CAUTION

- Do not overtorque or cross thread the spark plugs or the aluminum threads of the cylinder head will be damaged.
- Do not allow contaminants to enter the engine through the spark plug holes when the plugs are removed.
- The standard spark plug for this motorcycle has been carefully selected to meet the vast majority of all operational ranges. If the spark plug color indicates that other than a standard spark plug be used, it is best to consult your Suzuki dealer before selecting an alternate plug or heat range. The selection of an improper spark plug can lead to severe engine damage.

## FUEL HOSE



Replace the fuel hose periodically.

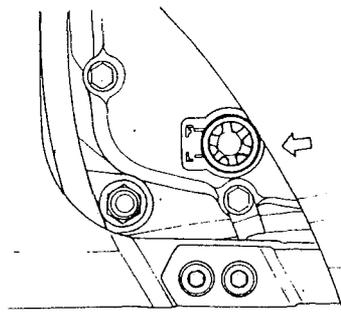
## ENGINE OIL

Long engine life depends much on the selection of a quality oil and the periodic changing of the oil. Daily oil level checks and periodic changes are two of the most important maintenance to be performed.

### OIL LEVEL CHECK

Follow the procedure below to inspect the engine oil level.

1. Start the engine and run it for a few minutes.
2. Stop the engine and wait one minute.
3. Hold the motorcycle vertically and inspect the engine oil level through the engine oil level inspection window at the right side of the engine.



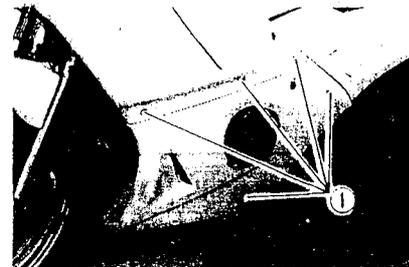
### ⚠ CAUTION

The engine oil level should be between the "L" and "F" level lines in the inspection window at all times. Never operate the engine when the engine oil level is not between the "L" and "F" level lines.

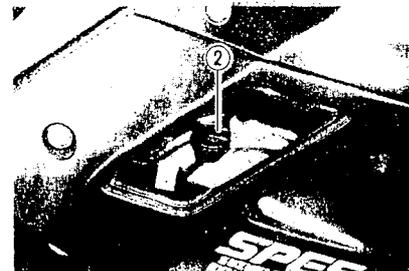
## ENGINE OIL AND FILTER CHANGE

Change the engine oil and oil filter at the initial 1 000 km (600 miles) and at each maintenance interval. The oil should be changed when the engine is hot so that the oil will drain thoroughly from the engine. The procedure is as follows:

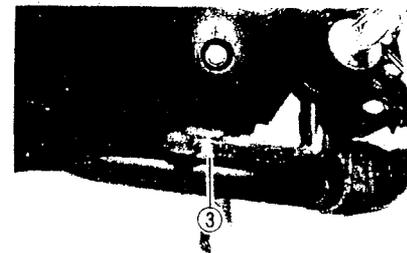
1. Place the motorcycle on the side stand.



2. Loosen the screws ① and remove the fairing lower part.



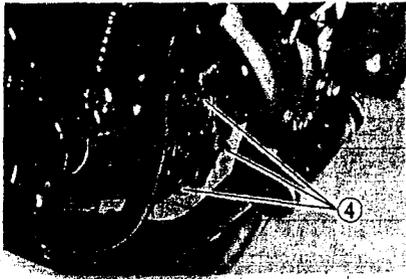
3. Remove the oil filler cap ②.



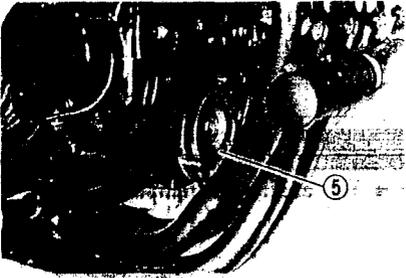
4. Place a drain pan under the drain plug ③.
5. Remove the drain plug with a wrench and drain out the engine oil while holding the motorcycle vertically.

### ⚠ WARNING

- The engine oil temperature may be high enough to burn you when the drain plug is loosened. Wait until the drain plug is cool enough to touch with bare hand.
- Do not touch the hot exhaust pipe, or the hot exhaust pipe can burn you.



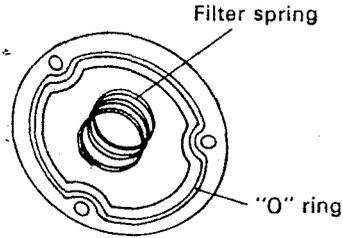
6. Remove the three nuts ④ holding the filter cover in place.



7. Remove the filter cover, pull out the element ⑤ and replace with a new oil filter element.

### ⚠ CAUTION

Insert the filter with the open end into the engine and make sure that the filter is seating properly.



8. Before fitting the oil filter cover, check that the filter spring and the cap "O" ring fitted correctly.

### ⚠ CAUTION

Use a new "O" ring each time the filter element is replaced.

9. Fit the oil filter cover and tighten nuts securely but do not overtighten them.
10. Tighten the drain plug securely. Pour fresh oil through the filler hole. Approximately 2900 ml (3.1/2.6 US/Imp. qt) of oil will be required. Always use the specified engine oil described in the FUEL, ENGINE OIL AND COOLANT RECOMMENDATION section.

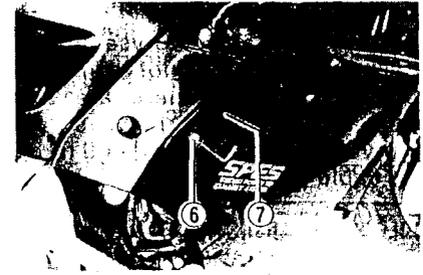
*NOTE: About 2600 ml (2.7/2.3 US/Imp. qt) of oil will be required when changing oil without replacing the oil filter.*

11. Tighten the oil filler cap.
12. With the engine running, look carefully for leaks at the oil filter and drain plug. Run the engine at various speeds for 2 to 3 minutes.
13. Stop the engine and wait a few minutes. Check the oil level again. Engine oil level can be inspected through the inspection window while holding the motorcycle vertically. If the oil level is lower than the "F" line, add new oil until it reaches the "F" line. Check for leaks again.

### ⚠ CAUTION

Oil leaks from around the oil filter or drain plug indicate incorrect installation or gasket damage. If you find any leaks or are not sure that the filter has been properly tightened, have the motorcycle inspected by your authorized Suzuki dealer.

*NOTE: If you do not have a proper oil filter wrench, have your authorized Suzuki dealer or qualified mechanic perform this service.*



*NOTE: When changing oil without replacing the oil filter, removing of the fairing lower part is not necessary. Loosen the screw ⑥ and remove the oil filler lid ⑦ to reach the oil filler cap.*

### ⚠ WARNING

Fairing parts must be reinstalled securely. After reinstallation, check that they are positioned without looseness.

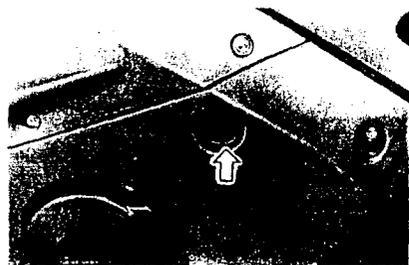
## CARBURETOR

The carburetor is factoryset for the best carburetion. Do not attempt to alter its setting. There are two items of adjustment, however, under your care: idle speed and throttle cable play.

### IDLE SPEED ADJUSTMENT

To adjust the idle speed:

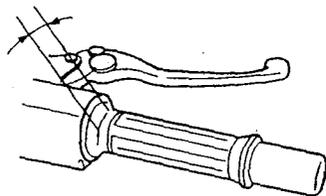
1. Start up the engine and let the engine run until it warms up fully.



2. After engine warms up, turn the throttle stop screw in or out so that engine may run at 1500–1700 r/min.

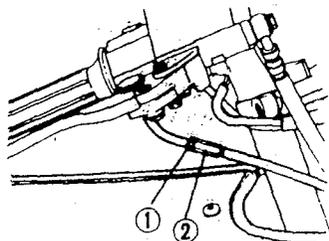
## THROTTLE CABLE ADJUSTMENT

3.0 – 6.0 mm  
(0.12 – 0.24 in)



Measure the throttle cable play by turning the throttle grip. The throttle grip should have 3–6 mm (0.12–0.24 in) play.

To adjust the throttle cable play:



1. Loosen the lock nut ①.
2. Turn the adjuster ② in or out to obtain the correct play.
3. After adjusting the play, tighten the lock nut.

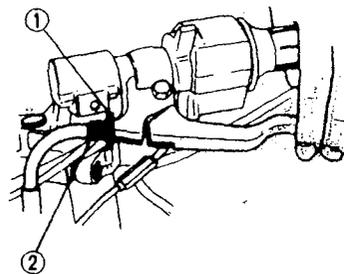
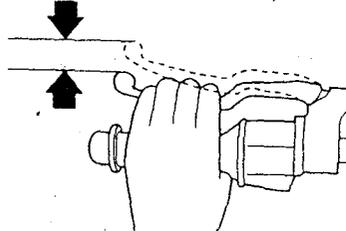
### ▲WARNING

After completing throttle cable adjustment, check that the handlebars movement does not raise the idle speed and that the throttle grip returns smoothly and automatically.

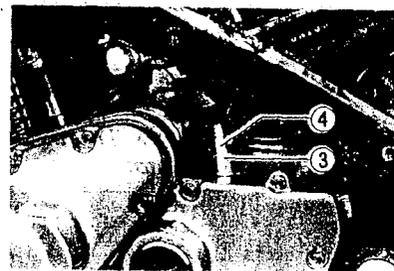
## CLUTCH

The play of the clutch lever should be 10–15 mm (0.39–0.59 in) as measured at the clutch lever end. If you find the play of the clutch incorrect, adjust it in the following way.

10–15 mm (0.39–0.59 in)



1. Loosen the lock nut ① and turn in the adjuster ② as far as it will go.

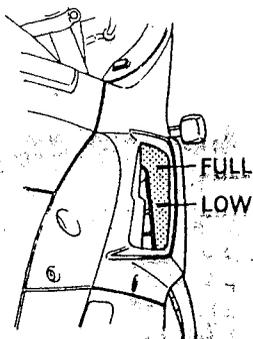


2. Loosen the lock nut ③ and turn the adjuster ④ to obtain the correct play.
3. Minor adjustment can be made with the clutch lever side adjuster ②.
4. Tighten the lock nuts ① and ③.

### ▲CAUTION

Any maintenance of the clutch other than the clutch cable play adjustment should be performed by your authorized Suzuki dealer or qualified mechanic.

## ENGINE COOLANT COOLANT LEVEL

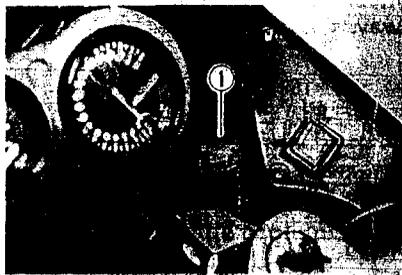


The coolant should be kept between the "FULL" and "LOW" level lines in the reservoir tank at all times. Inspect the level every time before riding the motorcycle vertically. If the coolant is found lower than the "LOW" level line, add properly mixed coolant through the filler hole until it reaches the "FULL" line.

*NOTE: Coolant level should be inspected with the motorcycle held vertically.*

To add coolant, follow the procedure below:

1. Place the motorcycle on the side stand.



2. Remove the coolant reservoir tank cap ①.
3. Pour properly mixed coolant into the filler hole.

### NOTE:

- Do not add water only to the coolant. Adding water only will dilute the coolant and lower its performance.
- If coolant loss should be found to become frequent during usage, take your motorcycle to an authorized Suzuki dealer or qualified mechanic for inspection as there may be leaks in the system.

### CHANGING THE COOLANT

Change the coolant every two years.

*NOTE: About 2000 ml (2.0/1.8 US/Imp. qt) of coolant will be required when filling the radiator.*

## DRIVE CHAIN

This motorcycle has an endless drive chain constructed from special materials. It does not use a master link. We recommend that you take your motorcycle to an authorized Suzuki dealer or qualified mechanic if the drive chain needs replacing. The condition and adjustment of the drive chain should be checked each day before you ride. Always follow the guidelines as shown for inspecting and servicing the chain.

### ⚠ WARNING

**For maximum safety, the drive chain condition and adjustment should be checked prior to operating the motorcycle.**

### INSPECTING THE DRIVE CHAIN

When inspecting the chain, look for the following:

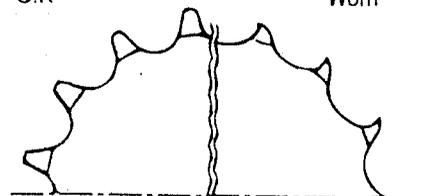
- Loose pins
- Damaged rollers
- Dry or rusted links
- Kinked or binding links
- Excessive wear
- Improper chain adjustment

If you find anything wrong with the drive chain condition or adjustment, correct the problem if you know how. If necessary, consult your authorized Suzuki dealer or qualified mechanic.

Damage to the drive chain means that the sprockets may also be damaged. Inspect the sprockets for the following:

O.K.

Worn



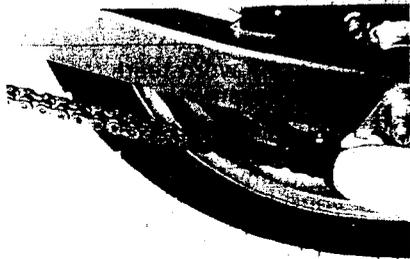
- Excessively worn teeth
- Broken or damaged teeth
- Loose sprocket mounting nuts

If you find any of these problems with your sprocket, consult your authorized Suzuki dealer or qualified mechanic.

### DRIVE CHAIN CLEANING AND OILING

This drive chain has special "O" rings that permanently seal grease inside. Clean and oil the chain periodically, as follows:

1. Cleaning the chain with kerosene is strongly recommended. If the chain tends to rust, the interval must be shortened. Kerosene is a petroleum product and will provide some lubrication as well as cleaning action.



### CAUTION

Do not use gasoline, trichlene or other commercial cleaning solvents. These fluids have a strong dissolving power that could damage the "O" rings in the chain. This will allow the grease to run out of the chain and the chain would have to be replaced.

2. After thoroughly washing the chain and allowing it to dry, oil the links with a heavy weight motor oil of 40 or 50 weight.

### CAUTION

Do not use any oil sold commercially as drive chain oil. These oils contain solvents and additives which could damage the "O" rings in the chain.

### DRIVE CHAIN ADJUSTMENT

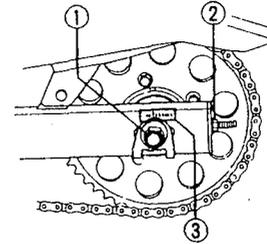
Adjust the drive chain slack to the proper specification. The chain may require more frequent adjustments than it is with periodic maintenance depending upon your riding conditions.

### WARNING

Excessive chain slack could cause the chain to come off the sprockets and result in an accident or serious engine damage. The drive chain adjustment should be checked every time the machine is operated.

To adjust the drive chain, follow these directions:

1. Place the motorcycle on the side stand.

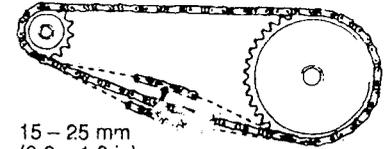


2. Loosen the axle nut ①.

### WARNING

Do not touch the hot muffler, or the hot muffler can burn you.

3. Adjust the slack in the drive chain by turning the right and left chain adjuster nuts ②. At the same time that the chain is being adjusted, the rear sprocket must be kept in perfect alignment with the front sprocket. To assist you in performing this procedure, there are reference marks ③ on the swing arm and each chain adjuster which are to be aligned with each other and to be used as a reference from one side to the other.



4. After aligning and adjusting the slack in the drive chain to 15 - 25 mm (0.6 - 1.0 in), retighten the axle nut securely.

### CAUTION

The drive chain for this motorcycle is made of the special material. The chain should be replaced with a DID520VS2. Use of another chain may lead to premature chain failure.

*NOTE: The two sprockets should be inspected for wear when a new chain is installed and replace them if necessary.*

*NOTE: The chain is an endless type chain (no master link) for maximum strength. Chain replacement requires that the swing arm be removed. Trust this work only to a qualified technician. Do not install a master link type chain.*

## BRAKES

This motorcycle utilizes front and rear disk brakes. Properly operating brake systems are vital to safe riding. Be sure to perform the brake inspection requirements as scheduled.

## BRAKE SYSTEM

### ▲WARNING

- If the brake system or pads need to be repaired or serviced we strongly advise you to have your authorized Suzuki dealer or qualified mechanic perform service. He or she has the proper tools and proper training to perform the job in a safe and economical manner.
- Disk brake systems operate under extremely high pressures. For safety, the brake hose and brake fluid should be changed at intervals of no longer than those scheduled in **MAINTENANCE SCHEDULE** section of this manual.

Inspect your brake system for the following items daily:

- Inspect the front and rear brake system for signs of fluid leakage.
- Inspect the brake hose for leakage or a cracked appearance.
- Check the wear of the disk brake pads.
- The brake lever and pedal should have the proper stroke and be firm at all times.

## BRAKE FLUID

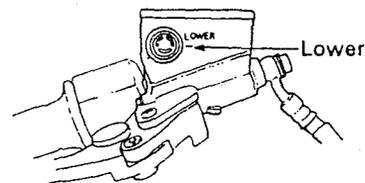
### ▲WARNING

- Brake fluid will be harmful if swallowed or if it comes in contact with skin or eyes. Contact your physician immediately if swallowed induce vomiting. If brake fluid gets into the eyes or in contact with the skin, flush thoroughly with plenty of water.
- The use of any brake fluid except DOT 4 brake fluid from a sealed container can damage the brake system and lead to an accident. Use only DOT 4 brake fluid from a sealed container. Never use or mix different types of brake fluid.

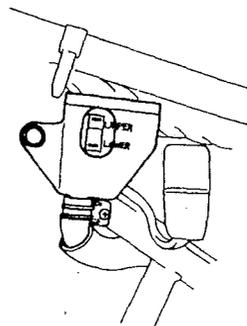
### ▲CAUTION

Do not spill any brake fluid on painted or plastic surfaces as it will damage the surface severely.

Front Brake



Rear Brake

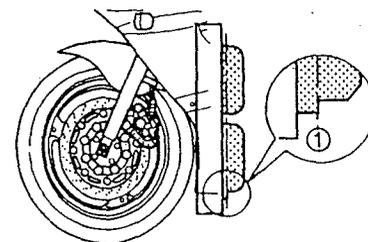


Check the brake fluid level in both front and rear brake fluid reservoirs. If the level in either reservoir is below the lower mark, add DOT4 brake fluid and inspect brake pad wear and leaks.

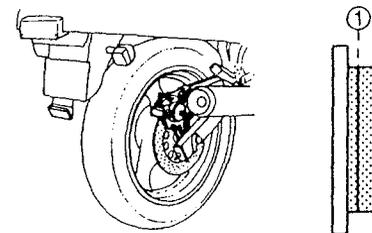
*NOTE: Rear brake fluid reservoir is behind the right frame cover. Inspect the fluid level through the hole on the right frame cover.*

## BRAKE PAD

Front Brake



Rear Brake



Inspect the front and rear brake pads by noting whether or not the friction pads are worn down to the grooved wear limit line ①. If a pad is worn to the grooved wear limit line it must be replaced with a new one by your authorized Suzuki dealer or qualified service mechanic.

### ▲WARNING

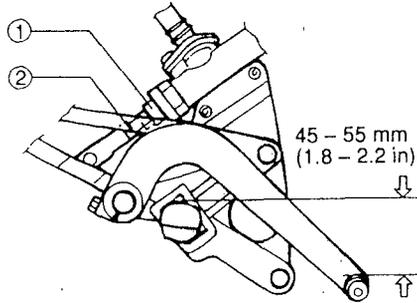
After front or rear disk brake pads replacement, do not ride the motorcycle until the brake lever/pedal has been "pumped" several times to extend the pads and restore the proper lever/pedal stroke and firm feel.

## CAUTION

Do not squeeze/depress the brake lever/pedal when the pads are not in their positions. It is difficult to push the pistons back and brake fluid leakage may result.

### REAR BRAKE PEDAL ADJUSTMENT

The rear brake pedal position must be properly adjusted at all times or the disk brake pads will bear against the disk causing damage to the pads and to the disk surface. Adjust the brake pedal position in the following manner:



1. Loosen lock nut ①, and rotate push rod ② to locate the pedal 45 - 55 mm (1.8 - 2.2 in) below the top face of the footrest.
2. Retighten lock nut ① to secure push rod ② in the proper position.

### REAR BRAKE LIGHT SWITCH



The rear brake light switch is located under the right frame cover. To adjust the brake light switch, turn the switch body and raise or lower it so that the brake light will come on just before a pressure rise is felt when the brake pedal is depressed.

### TIRES

## WARNING

The tires on your motorcycle form the crucial link between your motorcycle and the road. Proper tire pressure, condition, loading, and tire type are important conditions for you to monitor. Failure to follow these warnings may result in an accident due to tire failure or motorcycle control difficulty:

- Check tire pressure and condition each day before you ride.
- Do not overload your tires.
- Replace tires when tread is worn to specified limits, or if tires show visual evidence of damage, such as cracks or cuts.
- When replacing tires, use only tires of the specified size and type, and balance the wheel after installing a new tire.
- Do not use external tire repair plugs to repair tubeless tires.
- Read the following sections carefully.

### TIRE PRESSURE AND LOADING

Proper tire pressure and proper tire loading are important factors. Overloading your tires can lead to tire failure and loss of motorcycle control.

Check tire pressure each day before you ride, and be sure the pressure is correct for the motorcycle load according to the following table. Tire pressure should only be checked and adjusted before riding, since riding will heat up the tires and lead to higher inflation pressure readings.

#### Cold Tire Pressure

TIRE	LOAD	SOLO RIDING	TWO-UP RIDING
			200 kPa 2.00 kg/cm <sup>2</sup> 29 psi
FRONT		225 kPa 2.25 kg/cm <sup>2</sup> 33 psi	250 kPa 2.50 kg/cm <sup>2</sup> 36 psi
REAR			

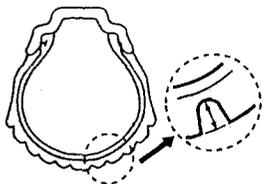
*NOTE: When you detect drops in tire pressure, check the tire for nails or other punctures, or a damaged wheel rim. Tubeless tires sometimes lose pressure gradually when punctured.*

Under-inflated tires make smooth cornering difficult, and can result in rapid tire wear. Over-inflated tires have a smaller amount of tire in contact with the road, which can contribute to skidding and loss of control.

#### TIRE CONDITION AND TYPE

Proper tire condition and proper tire type affect motorcycle performance. Cuts or cracks in the tires can lead to tire failure and loss of motorcycle control. Worn tires are susceptible to puncture failures and subsequent loss of motorcycle control. Tire wear also affects the tire profile, changing motorcycle handling characteristics.

	FRONT	REAR
SIZE	110/70-17 54H	140/70-17 66H
TYPE	DUNLOP K505F	DUNLOP K505



Check tire conditions each day before you ride. Replace tires if tires show visual evidence of damage, such as cracks or cuts, or if tread depth is less than 1.6 mm (0.06 in) front, 2.0 mm (0.08 in) rear.

Always balance the wheel after repairing a puncture or replacing the tire. Proper wheel balance is important to avoid variable wheel-to-road contact, and to avoid uneven tire wear.

#### ⚠ WARNING

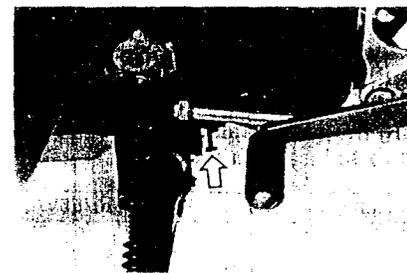
- Proper procedures for repairing or replacing tires, and balancing wheels, are very important. These procedures should only be performed by those with the proper tools and experience. For this reason, we recommend that you have an authorized Suzuki dealer or qualified mechanic perform these procedures.
- The front and rear tires of this motorcycle are directional. This means they must be mounted on the wheels in a specified direction, as indicated by the arrow on the tire's side wall. Whenever the tire is dismantled or replaced, be sure that the tire is mounted in the proper direction. Installing the tire in the reverse direction can affect handling.

#### ⚠ WARNING

Tubeless tires require different service procedures than tube type tires.

- Tubeless tires require an air-tight seal between the tire bead and wheel rim. Damage to the tire bead surface or the wheel rim inner surface will result in an air leak. Therefore, special care must be taken when removing or installing the tire. Special tire irons and rim protectors, or a specialized tire mounting machine, must be used to prevent damage.
- Repair punctures in tubeless tires by removing the tire and applying an INTERNAL patch.
- After re-installing a repaired tire, do not exceed 80 km/h (50 mph) for at least 24 hours. This will help avoid excessive heat buildup which could lead to tire repair failure and subsequent tire deflation.
- Do not operate your motorcycle at speeds above 130 km/h (80 mph) with a repaired tire. Heat buildup could lead to tire repair failure and subsequent tire deflation.
- Do not use an external tire repair plug to repair a puncture, since the plug may work loose as a result of the cornering forces experienced in a motorcycle tire.
- Replace the tire if it is punctured in the sidewall area, or if a puncture in the tread area is larger than 5 mm (3/16 in). These punctures cannot be repaired adequately.

#### SIDE STAND/IGNITION LOCK SWITCH



Check the side stand/ignition interlock switch for proper operation as follows:

1. Sit on the motorcycle in the normal riding position, with the side stand up.
2. Shift into first gear, hold the clutch in, and start the engine.
3. While continuing to hold the clutch in, move the side stand to the down position.

If the engine stop running when the side stand is moved to the down position, then the side stand/ignition interlock switch is working properly. If the engine continues to run with the side stand down and the transmission in gear, then the side stand/ignition interlock switch is not working properly. Have your motorcycle inspected by an authorized Suzuki dealer or a qualified service mechanic.

#### ⚠ WARNING

Make sure that the side stand/ignition interlock switch is working properly before riding. If the switch is not working and the side stand is left down, it may interfere with rider control during a left turn.

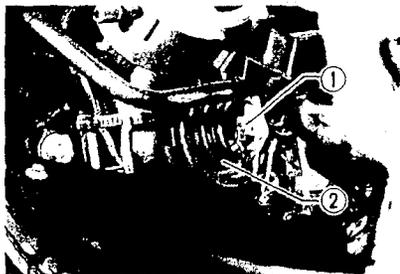
## LIGHT BULB REPLACEMENT

The wattage rating of each bulb is shown on the chart below. When replacing a burned out bulb, always use the exact same wattage rating. Using other than the specified rating can result in overloading the electrical system or premature failure of a bulb.

Headlight	12V 60/55W
Turn signal light	12V 21W
Tail/Brake light	12V 5/21W

### HEADLIGHT

To replace the headlight bulb, follow the procedure below:



1. Disconnect socket ① from the headlight and remove the rubber cap ②.



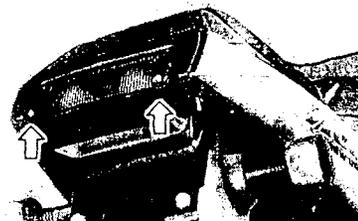
2. Unhook the bulb holder spring ③, and pull out bulb ④.

### ⚠ CAUTION

This motorcycle uses a halogen headlight bulb. Do not touch the glass bulb, or the life of the bulb will be shortened.

### TAIL/BRAKE LIGHT

To replace the tail/brake light bulb, follow the procedure below:



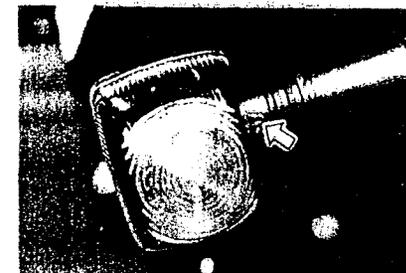
1. Loosen two screws and remove the lens.



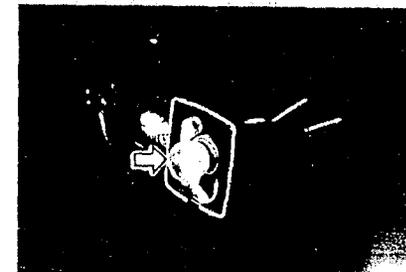
2. Push in on the bulb, turn it to the left, and pull it out.

### TURN SIGNAL LIGHT

To replace the license plate light bulb, follow the procedure below:



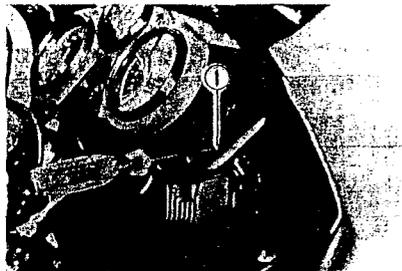
1. Loosen the screws and remove the lens.



2. Push in on the bulb, turn it to the left, and pull it out.

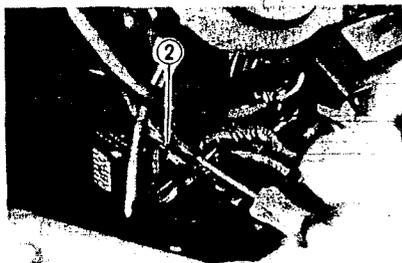
## HEADLIGHT BEAM ADJUSTMENT

The headlight beam can be adjusted both horizontally and vertically if necessary.



### To Adjust the Beam Vertically:

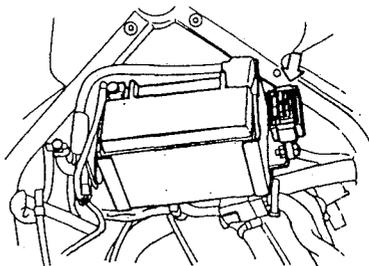
Turn the adjuster ① clockwise or counterclockwise.



### To Adjust the Beam Horizontally:

Turn the adjuster ② clockwise or counterclockwise.

## FUSES



The fuses are located beside the battery. They are designed to open when a circuit overload exists in individual electrical system circuits. If any electrical system fails to operate, then the fuses must be checked. Spare fuses are provided inside the fuse box cover.

### ⚠ CAUTION

- Never use the fuse other than 25A or 10A.
- Always be sure to replace the blown fuse with the correct amperage fuse. Never use a substitute, for example, aluminum foil or a wire to replace a blown fuse.
- If a fuse blown out in a short period of time, it means that you could have a major electrical problem. You should consult your authorized Suzuki dealer or qualified mechanic immediately.

## FUSE LIST

- 25A MAIN fuse protects all electrical system.
- 10A HEAD fuse protects the headlight and high beam indicator light.
- 10A SIGNAL fuse protects the turn signal light, turn signal indicator light, position light, tail/brake light, instrument panel light, neutral indicator light, oil pressure indicator light, fuel level indicator light and horn.
- 10A IGNITION fuse protects the ignition system and fan motor.

## TROUBLESHOOTING

*NOTE: It is best to consult your Suzuki dealer before attempting to troubleshoot any problem. If the machine is still within the warranty then the Suzuki dealer should be consulted before any repairs are attempted on the machine by yourself. Tampering with the machine while in warranty may affect warranty consideration.*

If the engine refuses to start, perform the following inspections to determine the cause.

### FUEL SUPPLY CHECK

1. Make sure there is enough fuel in the fuel tank.
2. Make sure there is enough fuel reaching the carburetor from the fuel valve.
  - a. Turn the fuel valve to the "OFF" position.

### ⚠ WARNING

Do not allow the fuel to spill. Catch the fuel in a container. Do not allow any fuel to come in contact with the hot engine or exhaust system. Extinguish any smoking materials before performing this check, and stay away from any other fire or heat source.

- b. Loosen the drain screw located under the carburetor. Drain the fuel from the carburetor into a container.
- c. Tighten the drain screw.

- d. Turn the fuel valve to the "ON" position.
  - e. Turn the engine stop switch to "RUN" position and the ignition switch to the "ON" position.
  - f. Turn the ignition switch to the "OFF" position several seconds later.
  - g. Loosen the drain screw and check that the carburetor is filled back up with fuel.
  - h. Tighten the drain screw.
3. If fuel is reaching the carburetor, ignition system should be checked next.

#### IGNITION SYSTEM CHECK

1. Remove the spark plug and reattach it to the spark plug lead.
2. While holding the spark plug firmly against the engine, push the starter switch with the ignition switch in the "ON" position, the engine stop switch in the "RUN" position, the transmission in neutral, and the clutch disengaged. If the ignition system is operating properly, a blue spark should jump across the spark plug gap. If there is no spark, consult your authorized Suzuki dealer for or qualified mechanic repairs.

#### **▲WARNING**

Do not place the spark plug close to the open spark plug hole in the cylinder head as gasoline vapor inside the cylinder could be ignited, creating a fire hazard. To reduce the chance of electrical shock, place the metal shell of the spark plug on an unpainted metal portion of the engine. Due to the possibility of electrical shock, anyone with a heart condition or pacemaker should avoid this check.

#### ENGINE STALLING

- Check the fuel supply in the fuel tank.
- Check the ignition system for intermittent spark.
- Check the idle speed.

#### MOTORCYCLE CLEANING

#### WASHING THE MOTORCYCLE

When washing the motorcycle, follow the instruction below:

1. Remove dirt and mud from the motorcycle with running water. You may use a soft sponge or brush. Do not use hard materials which can scratch the paint.
2. Wash the entire motorcycle with a mild detergent or car wash soap using a sponge or soft cloth. The sponge or cloth should be frequently soaked in the soap solution.

#### **▲CAUTION**

Radiator fins can be damaged by spraying high pressure water on them. Do not spray high pressure water on the radiator fins.

*NOTE: Avoid spraying or allowing water to flow over the following places:*

- Ignition switch
- Spark plugs
- Fuel tank cap
- Carburetors
- Brake master cylinders

3. Once the dirt has been completely removed, rinse off the detergent with running water.
4. After rinsing, wipe off the motorcycle with a wet chamois or cloth and allow it to dry in the shade.

Painted surfaces: If there is any damage, obtain "touch-up" paint and "touch-up" the damage following the procedure below:

- a. Clean all damaged spots and allow them to dry.
- b. Stir the paint and "touch-up" the damaged spots lightly with a small brush.
- c. Allow the paint to dry completely.

#### WINDSHIELD CLEANING

Clean the windshield with a soft cloth and warm water with a mild detergent. If scratched, polish with a commercially available plastic polish. Replace the windshield if it becomes scratched or discolored so as to obstruct view. When replacing the windshield, use a Suzuki replacement windshield.

#### **▲CAUTION**

Improper cleaning can damage the windshield. Using gasoline, alcohol, acid or other cleaning solvents will damage the windshield. Use only mild or neutral detergent to wash windshield.

#### WAXING THE MOTORCYCLE

After washing the motorcycle, waxing and polishing are recommended to further protect and beautify the paint.

- Only use waxes and polishes of good quality.
- When using waxes and polishes, observe the precautions specified by the manufacturers.

## INSPECTION AFTER CLEANING

For extended life of your motorcycle, lubricate according to LUBRICATION POINTS section.

### **▲ WARNING**

Operating the motorcycle with wet brakes can be hazardous. Wet brakes may not provide as much stopping power as dry brakes. This could lead to an accident. Test your brakes after washing the motorcycle, while riding at slow speed. If necessary, apply brakes several times to let friction dry out the lining.

Follow the procedures in the INSPECTION BEFORE RIDING section to check your motorcycle for any problems that may have arisen during your last ride.

## STORAGE PROCEDURE

If the motorcycle is to be left unused for extended period of time for winter storage or any other reason, the machine needs special servicing requiring appropriate materials, equipment and skill. For this reason, Suzuki recommends that you trust this maintenance work to your authorized Suzuki dealer or qualified mechanic. If you need to service the machine for storage yourself, follow the general guidelines below.

### MOTORCYCLE

- Clean the entire motorcycle. Place the motorcycle on the side stand on a firm, flat surface where it will not fall over. Turn the handlebars all the way to the left and lock the steering, and remove the ignition key.

### FUEL

1. Fill the fuel tank to the top with fuel mixed with the amount of gasoline stabilizer recommended by the stabilizer manufacturer.
2. Drain the carburetors or run the engine for a few minutes until the stabilized gasoline fills the carburetors.

*NOTE: Make sure that the fuel valve is in "OFF" position.*

### ENGINE

1. Pour one tablespoon of motor oil into the spark plug holes. Reinstall the spark plugs and crank the engine a few times.
2. Drain the engine oil thoroughly and fill the crankcase with the fresh engine oil all the way up to the filler hole.

### BATTERY

1. Remove the battery from the motorcycle.

*NOTE: Be sure to remove the negative terminal first, then remove the positive terminal.*

2. Clean the outside of the battery with a mild detergent and remove any corrosion from the terminals and wiring harness connections.
3. Store the battery in a room above freezing.

### TIRES

- Inflate the tires to the normal specifications.

### EXTERNAL

1. Spray all vinyl and rubber parts with rubber preservative.
2. Spray the unpainted surfaces with rust preventative.
3. Coat the painted surfaces with car wax.

### PROCEDURE DURING STORAGE

- Once a month, recharge the battery with a specified charging rate (Ampere). Standard charging rate is 0.7A × 5 hours.

### PROCEDURE FOR RETURNING TO SERVICE

1. Clean the entire motorcycle.
2. Reinstall the battery.

*NOTE: Be sure to connect the positive terminal first, then connect the negative terminal.*

3. Remove the spark plugs. Turn the engine a few times by putting the transmission in top gear and turning the rear wheel. Reinstall the spark plugs.
4. Drain the engine oil thoroughly. Replace the oil filter with a new one and pour fresh oil as outlined in this manual.
5. Adjust the pressure of tires as described in the TIRES section.
6. Lubricate all places as instructed in this manual.
7. Do the INSPECTION BEFORE RIDING as listed in this manual.

# SPECIFICATIONS

## DIMENSIONS AND DRY MASS

Overall length.....	2020 mm (79.5 in)
Overall width.....	695 mm (27.4 in)
Overall height.....	1120 mm (44.1 in)
Wheelbase.....	1380 mm (54.3 in)
Ground clearance.....	140 mm (5.5 in)
Seat height.....	770 mm (30.3 in)
Dry mass (weight).....	163 kg (359 lbs)

## ENGINE

Type.....	Four-stroke, liquid-cooled, DOHC
Number of cylinders.....	4
Bore.....	49.0 mm (1.929 in)
Stroke.....	33.0 mm (1.299 in)
Displacement.....	248 cm <sup>3</sup> (15.1 cu.in)
Compression ratio.....	12.5 : 1
Carburetors.....	MIKUNI BSW27, two
Air cleaner.....	Non-woven fabric element
Starter system.....	Starter motor
Lubrication system.....	Wet sump

## TRANSMISSION

Clutch.....	Wet multi-plate type
Transmission.....	6-speed constant mesh
Gearshift pattern.....	1-down, 5-up
Primary reduction ratio.....	2.285 (80/35)
Gear ratios, Low.....	3.083 (37/12)
2nd.....	2.200 (33/15)
3rd.....	1.722 (31/18)
4th.....	1.450 (29/20)
5th.....	1.285 (27/21)
Top.....	1.150 (23/20)
Final reduction ratio.....	3.769 (49/13)
Drive chain.....	DID520VS2, DID520V, or RK520SMOZ9, 110 links

Front suspension.....	Telescopic, coil spring, oil damped
Rear suspension.....	Link type, coil spring, oil damper, spring preload 7 way adjustable
Steering angle.....	33° (right & left)
Caster.....	64°00'
Trail.....	102 mm (4.02 in)
Turning radius.....	2.9 m (9.5 ft)
Front brake.....	Disk
Rear brake.....	Disk
Front tire size.....	110/70-17 54H
Rear tire size.....	140/70-17 66H

## ELECTRICAL

Ignition type.....	Electronic ignition (Transistorized)
Ignition timing.....	20° B.T.D.C. below 1 800 r/min
Spark plug.....	NGK CR7HSA or NIPPONDENSO U22FSR-U
Battery.....	12V 21.6 kC (6 Ah)/10HR
Generator.....	Three-phase A.C. generator
Fuse.....	25/10/10/10 A
Headlight.....	12V 60/55W
Position light.....	12V 5W
Tail/brake light.....	12V 5/21W × 2
Turn signal light.....	12V 21W
Speedometer light.....	12V 3W
Tachometer light.....	12V 3W
Neutral indicator light.....	12V 3.4W
High beam indicator light.....	12V 1.7W
Turn signal indicator light.....	12V 3.4W
Oil pressure indicator light.....	12V 3.4W
Water temperature meter light.....	12V 3W
Fuel level light, Yellow.....	12V 2W
Red.....	12V 2W
Trunk light.....	12V 2W

## CAPACITIES

Fuel tank, including reserve.....	12 L (3.2/2.6 US/Imp gal)
reserve.....	2.0 L (0.5/0.4 US/Imp gal)
Engine oil, without filter change.....	2600 ml (2.7/2.3 US/Imp qt)
with filter change.....	2900 ml (3.1/2.6 US/Imp qt)
Coolant.....	2.0 L (0.5/0.4 US/Imp gal)