



***OWNER'S MANUAL***  
***MANUEL DU PROPRIETAIRE***  
***FAHRERHANDBUCH***  
***MANUAL DEL PROPIETARIO***  
***USO E MANUTENZIONE***  
***HANDLEIDING***  
***HANDBOK***



**TL1000S**

**TL1000S**

**EN**

# **OWNER'S MANUAL**

**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.**

99011-02F52-042  
ENGLISH

## 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.

(ref.)

(ref.)

(ref.)

(ref.)

(ref.)

(ref.)

(ref.)

## 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.

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.

**SUZUKI MOTOR CORPORATION**

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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.

#### **A WARNING**

**Improper accessories or modifications can make your motorcycle unsafe and can lead to an accident.**

Never modify the motorcycle with improper or poorly installed accessories. Follow all instructions in this owner's manual regarding accessories and modifications. Use genuine SUZUKI accessories or equivalent designed and tested for your motorcycle. Consult your SUZUKI dealer if you have any questions.

- Never exceed the G.V.W. (Gross Vehicle Weight) of this motorcycle. The G.V.W. is the combined weight of the machine, accessories, payload and rider. When selecting your accessories, keep in mind the weight of the rider as well as the weight of the accessories. The additional weight of the accessories may not only create an unsafe riding condition but may also affect the riding stability.

G.V.W.: 400 kg (880 lbs)  
at the tire pressure (cold)  
Front: 2.50 kg/cm<sup>2</sup> (35 psi)  
Rear: 2.50 kg/cm<sup>2</sup> (35 psi)

- Anytime 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 load could critically reduce these two safety factors. Also determine that the "load" 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 handlebar 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 hazardous 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.

#### **WARNING**

Do not carry any objects in the space behind the fairing. Objects placed in this area can interfere with steering and can cause loss of control.

#### **MODIFICATION**

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

The frame of this motorcycle is made of an aluminium alloy. Therefore, never make any modifications such as drilling or welding to the frame as it weakens the strength of the frame significantly. Failure to heed this warning could result in an unsafe vehicle operating condition and subsequent accident. Suzuki will not be responsible in any way for personal injury or damage to the motorcycle caused by frame modifications. Bolt on accessories that do not modify the frame in any way may be installed provided that the GVW is not exceeded. For the GVW, refer to the ACCESSORY INSTALLATION AND PRECAUTION SAFETY TIPS section of this owner's manual.

#### **WARNING**

Modification to an aluminium alloy frame, such as drilling or welding, weakens the frame. This could result in an unsafe operating condition and may lead to an accident.

Never make any modifications to the frame.

## **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 the 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 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!

EM



## 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 tube. The engine serial number ② is stamped on the crankcase assembly.

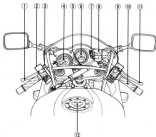
Please write down the numbers in the box provided below for your future reference.

Frame number:

Engine number:

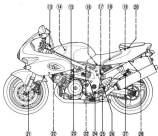


## LOCATION OF PARTS

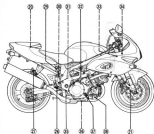


EN

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



- ① Front suspension spring pre-load and rebound damping force adjuster
- ② Air cleaner
- ③ Throttle stop screw
- ④ Main fuse
- ⑤ Rear suspension compression damping force adjuster
- ⑥ Battery
- ⑦ Tools
- ⑧ Helmet holders
- ⑨ Front suspension compression damping force adjuster
- ⑩ Spark plug
- ⑪ Air cleaner drain plugs
- ⑫ Gearshift lever
- ⑬ Side stand
- ⑭ Footrests
- ⑮ Passenger footrests
- ⑯ Seat lock



- ① Rear brake fluid reservoir
- ② Rear suspension rebound damping force adjuster
- ③ Rear brake light switch
- ④ Engine oil filler cap
- ⑤ Engine coolant reservoir
- ⑥ Fuses
- ⑦ Rear brake pedal
- ⑧ Engine oil drain plug
- ⑨ Engine oil inspection window
- ⑩ Engine oil filter

## CONTROLS

### KEY



This motorcycle comes equipped with a main ignition key and a spare one. 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: \_\_\_\_\_

### **A WARNING**

Due to the location of the steering damper, some key chains could get caught between the steering damper and the steering stem nut. This could interfere with steering and cause loss of control.

Use your ignition key without key chains, fobs or other keys attached.

## IGNITION SWITCH



The ignition switch has four positions:

### "OFF" POSITION

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

### "ON" POSITION

(Except for Canada and Australia)  
The ignition circuit is completed and the engine can now be started. The key cannot be removed from the ignition switch in this position.

### "ON" POSITION

(For Canada and Australia)  
The ignition circuit is completed and the engine can now be started. The headlight and taillight will automatically be turned on when the key is in this position. The key cannot be removed from the ignition switch in this position.

**NOTE (For Canada and Australia):**  
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 handlebar 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

(Except for Australia)

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 taillight will remain lit and the steering will be locked." This position is for night time roadside parking to increase visibility.

\*Canadian model does not have position light.

## ⚠ WARNING

Turning the ignition switch to the "P" (PARKING) or "LOCK" position while the motorcycle is moving can be hazardous. Moving the motorcycle while the steering is locked can be hazardous. You could lose your balance and fall, or you could drop the motorcycle.

Stop the motorcycle and place it on the side stand if equipped before locking the steering. Never attempt to move the motorcycle when the steering is locked.

**NOTE:** The key hole can be covered by turning the lid far anti-theft purpose.



Turn the ignition switch to "LOCK" position and change the lid hole position when leaving your motorcycle.



Align the lid hole position to the key hole position when inserting the key.

## INSTRUMENT PANEL



### SPEEDOMETER (1)

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

### TACHOMETER (2)

The tachometer indicates the engine speed in revolutions per minute (rpm).

### ODOMETER/TRIP METER (3)

The display in the speedometer has three functions, odometer and two trip meters. When the ignition switch is turned to the "ON" position, the display indicates the test pattern shown below for three seconds. Then the display changes to odometer or trip meter, as indicated before turning the ignition switch off.

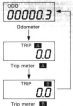


The odometer registers the total distance that the motorcycle has been ridden.

The two trip meters are resettable odometers. They can register two kinds of distance at the same time. For instance, trip meter **A** can register the trip distance and trip meter **B** can register the distance between fuel stops.

EN

To change the display, push the button (4). The display changes in the order below.



To reset the trip meter to zero, push the button (5) for two seconds while the display indicates the trip meter **A** or **B** you want to reset.

### ⚠ WARNING

Operating the display while riding can be hazardous. Removing a hand from the handlebars can reduce your ability to control the motorcycle.

Always keep both hands on the handlebars while riding.





### COOLANT TEMPERATURE METER/ OIL PRESSURE INDICATOR/FUEL INJECTION SYSTEM INDICATOR ①

The display and the indicator light ① in the tachometer have three functions, coolant temperature meter, oil pressure indicator and fuel injection system indicator. The display normally indicates coolant temperature and indicates the oil pressure symbol additionally when the oil pressure is low.

#### Coolant Temperature Meter

When the ignition switch is turned to the "ON" position, the display indicates the test pattern shown below for three seconds. Then display changes to the coolant temperature meter. While the coolant temperature is below 20°C, the display does not indicate a number but "----".



When the coolant temperature is higher than 120°C, the display flickers and the indicator light ① comes on. Further, if the temperature exceeds 140°C, the display blinks "H" and the indicator light ① remains on.

### ⚠ CAUTION

Running the engine with high engine coolant temperature can cause serious engine damage. If the engine coolant temperature indicates more than 120°C and indicator light comes on, stop the engine to let it cool.

Do not run the engine until the coolant temperature indicates less than 120°C.

#### Oil Pressure Indicator

With the ignition switch in the "ON" position but the engine not started, the symbol "oil" in the display flickers and the indicator light ② comes on. As soon as the engine is started, the symbol "oil" and the indicator light should go out.

When the engine oil pressure drops under the normal operating range, the symbol "oil" in the display flickers and the indicator light ② comes on.

### ⚠ CAUTION

Riding the motorcycle with the symbol "oil" flickering and the indicator light lit can damage the engine and transmission.

Whenever the symbol "oil" flickers and the indicator lights up, indicating low oil pressure, stop the engine immediately. Check the oil level and determine if the proper amount of oil is in the engine. If the light still does not go out, have your authorized Suzuki dealer or qualified mechanic troubleshoot your motorcycle.

## Fuel Injection System Indicator

FI

FI

FI

FI

FI

FI

FI

FI

FI

FI

FI

FI

FI

FI

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FI

If the fuel injection system fails, the red indicator light  comes on and the display indicates "FI" in following two modes:

- The display indicates "FI" and the coolant temperature alternately, and the red indicator light  comes on and remains lit.
- The display indicates "FI" continuously and the red indicator light  blinks.

The engine may continue to run in mode A, but the engine will not start in mode B.

### CAUTION

Riding the motorcycle with the display indicates the problem of the fuel injection system and the indicator light lit can damage the engine and transmission.

Whenever the red indicator light is lit and the display indicates "FI", have your authorized Suzuki dealer or qualified mechanic inspect the fuel injection system as soon as possible.

### NOTE:

- If the display indicates "FI" and the coolant temperature alternately, and the red indicator light comes on and remains lit, keep the engine running and bring your motorcycle to an authorized Suzuki dealer. If the engine stalls, try restarting the engine after turning the ignition switch off and on.
- If the display indicates "FI" continuously and the red indicator light blinks, the engine will not start. If the engine is running, keep the engine running and bring your motorcycle to an authorized Suzuki dealer.

EM

CHEC

When the display indicates "CHEC", check following items:

- Make sure that the engine stop switch is in the "  " position.
- Make sure that the transmission is in neutral or the side stand is fully up.

If the display still indicates "CHEC" after above procedure, inspect the ignition fuse and connection of lead wire couplers.



#### **TURN SIGNAL INDICATOR LIGHT (1)**

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 flickers more quickly to notify the rider of the existence of trouble.*

#### **HIGH BEAM INDICATOR LIGHT (2)**

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

#### **FUEL INDICATOR LIGHT (3)**

When the fuel in the fuel tank drops below approximately 4.5 liters (1.2/1.0 US/imp. gal), this indicator light flickers. When the fuel drops below approximately 2.5 liters (0.7/0.5 US/imp. gal), the indicator light remains lit. This indicator light is for three seconds when the ignition switch is turned to the "ON" position then the indicator light should go out if there is enough fuel in the tank.

*NOTE: When the fuel indicator light comes on, you should add fuel to the fuel tank at the first opportunity to avoid running out of fuel.*

#### **NEUTRAL INDICATOR LIGHT (4)**

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.

## LEFT HANDLEBAR



### Except for Canada



### For Canada

## CLUTCH LEVER ①

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.

## HEADLIGHT FLASHER SWITCH ②

(Except for Canada)

Press the switch to light the headlight.

## DIMMER SWITCH ③

" " position

The headlight low beam and taillight turn on.

" " position

" " position

The headlight high beam and taillight turn on. The high beam indicator light also turns on.

## TURN SIGNAL LIGHT SWITCH ④

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

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## ⚠ WARNING

Failure to use the turn signals, and failure to turn off the turn signals can be hazardous. Other drivers may misjudge your course and this may result in an accident.

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 " " ⑤

Press the switch to sound the horn.

## CHOKE LEVER



This motorcycle has a choke system to provide easy starting when the engine is cold. When starting the cold engine, turn the choke lever all the way toward you. The choke system opens the throttle valve slightly to raise idling speed.

When the engine is warm, you do not need to use the choke system for starting.

**NOTE:** Refer to the **RIDING TIPS** section of this manual for the engine starting procedure.

## RIGHT HANDLEBAR



Except for Canada and Australia



For Canada and Australia

### ENGINE STOP SWITCH ①

“OFF” position

The ignition circuit is off. The engine cannot start or run.

“ON” position

The ignition circuit is on and the engine can run.

### LIGHT SWITCH ②

(Except for Canada and Australia)

“ON” position

The headlight and taillight turn on.

“OFF” position

The position light and taillight turn on.

“ ” position

The headlight and taillight turn off.

## ELECTRIC STARTER BUTTON "ⓐ"

This button is used for operating the starter motor. With the ignition switch in the "ON" position, the engine stop switch in "ⓐ" and the transmission in neutral, push the electric starter button to operate the starter motor and 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 and the clutch is disengaged, or
- The transmission is in gear, the side stand is fully up and the clutch is disengaged.

### ⚠ CAUTION

To prevent electrical system damage, do not operate the starter motor more than five seconds at a time.

If the engine does not start after several attempts, check the fuel supply and ignition system. Refer to the TROUBLESHOOTING section in this manual.

## FRONT BRAKE LEVER ⓑ

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

## Front Brake Lever Adjuster



EN

The distance between the throttle grip and the front brake lever is adjustable among 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.

### ⚠ WARNING

Adjusting the front brake lever position while riding can be hazardous. Removing a hand from the handlebars can reduce your ability to control the motorcycle.

**Always keep both hands on the handlebars while riding.**

## THROTTLE GRIP ⓐ

Engine speed is controlled by the position of the throttle grip. Twist 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, insert the ignition key into the lock and turn it clockwise. With the key inserted, lift up with the key and open the fuel tank cap. To close the fuel tank cap, push the cap down firmly with the key in the cap lock.



- ① Fuel level
- ② Filler neck

### ⚠ WARNING

Overfilling the fuel tank can cause the fuel to overflow when it expands due to heat from the engine or the sun. Spilled fuel can catch on fire.

Never fill the fuel above the bottom of the filler neck.

### ⚠ WARNING

Fuel and fuel vapor are highly flammable and toxic. You can be burned or poisoned when refueling.

- Stop the engine and keep flames, sparks and heat sources away.
- Refuel only outdoors or in a well ventilated area.
- Do not smoke.
- Wipe up spills immediately.
- Avoid breathing fuel vapor.
- Keep children and pets away.

**CRASH IT** **LEWIS**



This motorcycle has a 5-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 illuminated, cautiously release the clutch lever slowly to determine whether the transmission is positively in neutral.

Reduce the motorcycle speed before down-shifting. When down-shifting, the engine speed should be increased before the clutch is engaged. This will prevent unnecessary wear on the drive train components and the rear tire.

NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_



Depressing the rear brake pedal will apply the rear disk brake. The brake light will be illuminated when the rear brake is operated.



## SEAT LOCK AND HELMET HOLDERS

### Front Seat



The seat lock is located at the bottom of the left frame cover. To remove the front seat, insert the ignition key into the lock and turn it clockwise.

Raise the rear end of the seat and slide it backward.



To reinstall the seat, slide the seat hooks into the seat hook retainers and push down firmly until the seat snaps into the locked position.

### **▲ WARNING**

Failure to install the seat properly could allow the seat to move and cause loss of rider control.

Latch the seat securely in its proper position.

## Rear Seat



To remove the rear seat, insert the ignition key into the lock and turn it counterclockwise.

Raise the front end of the seat and slide it forward.



To reinstall the seat, slide the seat hook into the seat hook retainer and push down firmly until the seat snaps into the latched position.

### **⚠ WARNING**

Failure to install the seat properly could allow the seat to move and cause loss of rider control.

Latch the seat securely in its proper position.

EN

A small and light article such as rain gear or a windbreaker can be placed under the rear seat.

Loading limit: 2 kg (4.5 lbs)

A seat tail cover is included with your motorcycle for solo riding. It can be removed and installed using the same procedures as the rear seat.

## Helmet Holders



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

### **⚠ WARNING**

Riding with a helmet fastened to the helmet holder can interfere with rider control.

Never carry a helmet fastened to the helmet holder. Fix the helmet securely atop the seat if you must carry it.

## SIDE STAND



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**

Riding with the side stand incompletely retracted can result in an accident when you turn left.

- Check operation of the side stand/ignition interlock system before riding.
- Always retract the side stand completely before starting off.

### **⚠ CAUTION**

Park the motorcycle on firm, level ground to help prevent it from falling over.

If you must park on an incline, aim the front of the motorcycle uphill and put the transmission into 1st gear to reduce the possibility of rolling off the side stand.

## SUSPENSION ADJUSTMENT

The standard settings of both front and rear suspensions are selected to meet various riding conditions such as low to high motorcycle speed and light to heavy load on the motorcycle. The suspension settings can be adjusted for your preference and fine-tuning.

### FRONT SUSPENSION

#### Spring Preload Adjustment

(Always stop.)



(Always stop.)

(Always stop.)

To change the spring preload, turn the adjuster ① clockwise or counterclockwise. Turning the adjuster clockwise will increase the spring preload. Turning the adjuster counterclockwise will decrease the spring preload. There are seven grooved lines on the side of the adjuster ① for reference. Position 8 provides the minimum spring preload and position 0 provides the maximum preload. This motorcycle is delivered from the factory with its adjuster set on position 4.



Position 0



Position 4



Position 8

## Damping Force Adjustment



The rebound and compression damping force can be individually adjusted by turning the respective adjusters. The rebound damping force adjuster ① is located at the top of the front fork. The compression damping force adjuster ② is located at the bottom of the front fork.

To adjust the damping force, set the adjuster to the standard setting first and then adjust the adjuster to the desired position.

To set the rebound damping force adjuster to the standard position, turn the adjuster clockwise until it stops and then turn it counterclockwise  $\frac{1}{4}$  turn.

To set the compression damping force adjuster to the standard position, turn the adjuster clockwise until it stops and then turn it counterclockwise  $1\frac{1}{4}$  turns.

Turn the adjuster clockwise from the standard position to stiffen the damping force. Turn the adjuster counterclockwise to soften the damping force. The damping force should be adjusted gradually.  $\frac{1}{8}$  turn at a time, to fine-tune the suspension.

### WARNING

Unequal suspension adjustment can cause poor handling and loss of stability.

Adjust the right and left front forks to the same settings.

## REAR SUSPENSION

### Damping Force Adjustment



Fully turned in



2 and 1/4 turns out



Fully turned in



1 and 1/4 turns out



The rebound and compression damping force can be individually adjusted by turning the respective adjusters. The rebound damping force adjuster ① is located at the right side of the rear suspension damper unit. The compression damping force adjuster ② is located at the left side of the rear suspension damper unit.

EN

To adjust the damping force, set the adjuster to the standard setting first and then adjust the adjuster to the desired position.

To set the rebound damping force adjuster to the standard position:

1. Turn the adjuster clockwise until it stops.
2. Turn the adjuster counterclockwise 2 and 1/4 turns.
3. a. If there is blue paint on the adjuster, turn the adjuster clockwise until the two punch marks align.  
b. If there is red paint on the adjuster, turn the adjuster counterclockwise until the two punch marks align.  
c. If there is no paint on the adjuster, make sure that the two punch marks align.

To set the compression damping force adjuster to the standard position:

1. Turn the adjuster clockwise until it stops.
2. Turn the adjuster counterclockwise 1 and 1/4 turns.
3. a. If there is blue paint on the adjuster, turn the adjuster clockwise until the two punch marks align.

b. If there is red paint on the adjuster, turn the adjuster **counterclockwise** until the two punch marks align.

c. If there is no paint on the adjuster, make sure that the two punch marks align.

Turn the adjuster clockwise from the standard position to stiffen the damping force. Turn the adjuster counterclockwise to soften the damping force. The damping force should be adjusted gradually. ¼ turn at a time, to fine-tune the suspension.

### SUSPENSION SETTING

The suspension can be adjusted for different riding conditions and rider preferences. The following chart shows basic recommended settings for the front and rear suspension units.

|               |          | Front              |                                                                                     |                                                                                     |                                                                                     | Rear                                                                                |  |
|---------------|----------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|
|               |          | Spring<br>pre-load | Damping force                                                                       |                                                                                     | Damping force                                                                       |                                                                                     |  |
|               |          |                    | Rebound                                                                             | Compression                                                                         | Rebound                                                                             | Compression                                                                         |  |
| Solo riding   | Softer   | 4                  |    |    |    |    |  |
|               | Standard | 4                  |   |   |   |   |  |
|               | Stiffer  | 4                  |  |  |  |  |  |
| Two-up riding |          | 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 pinging or knocking is experienced, substitute higher octane grade gasoline or another brand, because there are differences between brands.

### ⚠ CAUTION

Spilling gasoline containing alcohol can harm your motorcycle. Alcohol can damage painted surfaces.

Be careful not to spill any fuel when filling the fuel tank. Wipe spilled gasoline up immediately.

### ENGINE OIL

Use a premium quality 4-stroke motor oil to ensure longer service life of your motorcycle. Use only oils which are rated 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 aluminium radiator mixed with distilled water only at the ratio of 50:50.

### ⚠ WARNING

Engine coolant is harmful if swallowed or if it comes in contact with your skin or eyes.

Keep engine coolant away from children and pets. Call your physician immediately if engine coolant is swallowed, and induce vomiting. Flush eyes or skin with water if engine coolant gets in eyes or comes in contact with skin.

### ⚠ CAUTION

Spilled engine coolant can damage painted surfaces.

Do not spill any fluid when filling the radiator. Wipe spilled engine coolant up immediately.

#### Water for mixing

Use distilled water only. Water other than distilled water can corrode and clog the aluminium 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): 3200 ml (4.6/3.8 US/Imp pt)

|     |         |                                |
|-----|---------|--------------------------------|
| 50% | Water   | 1100 ml<br>(2.3/1.9 US/Imp pt) |
|     | Coolant | 1100 ml<br>(2.3/1.9 US/Imp pt) |

**NOTE:** This 50% mixture will protect the cooling system from freezing at temperatures above  $-37^{\circ}\text{C}$ . If the machine/pole is to be exposed to temperature below  $-37^{\circ}\text{C}$ , this mixing ratio should be increased up to 55% ( $-40^{\circ}$ ) or 60% ( $-55^{\circ}\text{C}$ ). The mixing ratio should not exceed 60%.

## BREAK-IN (RUNNING-IN)

Previous sections explain how important proper break-in is to achieving 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<br>(500 miles)   | Below<br>5000 rpm  |
| Up to   | 1600 km<br>(1000 miles) | Below<br>7500 rpm  |
| Over    | 1600 km<br>(1000 miles) | Below<br>10500 rpm |

### 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).

EN

### 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.

**NOTE:** 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

### WARNING

Failure to inspect and maintain your motorcycle properly increases the chance of an accident or equipment damage.

Always perform a pre-ride inspection before each ride. Refer to the table below for check items. For further details, refer to the **INSPECTION AND MAINTENANCE** section.

### WARNING

Using worn, improperly inflated, or incorrect tires will reduce stability and can cause an accident.

Follow all instructions in the **TIRES** section in this owner's manual.

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.

### WARNING

Checking maintenance items when the engine is running can be hazardous. You could be severely injured if your hands or clothing get caught in moving parts.

Shut the engine off when performing maintenance checks, except when checking the engine stop switch and throttle.

| 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>• Correct pedal and lever play</li><li>• No "springiness"</li><li>• No fluid leakage</li><li>• Brake pads not to be worn down to the limit line</li></ul> |
| Suspension                           | Smooth movement                                                                                                                                                                                                                                                 |
| Fuel                                 | Enough fuel for the planned distance of operation                                                                                                                                                                                                               |
| Drive chain                          | <ul style="list-style-type: none"><li>• Correct tension or slack</li><li>• Adequate lubrication</li><li>• No excessive wear or damage</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                                                                                                                                                                                                                                                   |
| Cooling system                       | <ul style="list-style-type: none"><li>• Proper coolant level</li><li>• No coolant leakage</li></ul>                                                                                                                                                             |
| Lighting                             | Operation of all lights and indicators                                                                                                                                                                                                                          |
| Horn                                 | Correct function                                                                                                                                                                                                                                                |
| Engine stop switch                   | Correct function                                                                                                                                                                                                                                                |
| Side stand/ignition interlock switch | Proper operation                                                                                                                                                                                                                                                |

## RIDING TIPS

### STARTING THE ENGINE

Before attempting to start the engine, make sure:

- The transmission is in neutral.
- The engine stop switch is in the "O" 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 and the clutch is disengaged, or
- The transmission is in gear, the side stand is fully up and the clutch is disengaged.

#### When the Engine is Cold

1. Turn the choke lever all the way toward you.
2. Close the throttle grip and push the electric starter switch.
3. Immediately after the engine starts, return the choke lever halfway and warm up the engine.
4. Return the choke lever all the way back to its disengaged position.

#### When the Engine is Warm

1. Open the throttle grip 1/8–1/4.
2. Push the electric starter switch.

**NOTE:** Operation of the choke system is not necessary when the engine is warm.

### ⚠ WARNING

Running the engine indoors or in a garage can be hazardous. 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.

## STARTING OFF

### WARNING

Riding this motorcycle at excessive speed increases your chances of losing control of the motorcycle. This may result in an accident.

Always ride within the limits of your skills, your motorcycle, and the riding conditions.

### WARNING

Removing your hands from the handlebars or feet from the footrests during operation can be hazardous. If you remove even one hand or foot from the motorcycle, you can reduce your ability to control the motorcycle.

Always keep both hands on the handlebars and both feet on the footrests of your motorcycle during operation.

### WARNING

Sudden side winds, which can occur when being passed by larger vehicles, at tunnel exits or in hilly areas, can upset your control.

Reduce your speed and be alert to side winds.

After moving the side stand to the fully up position, pull the clutch lever in and pause momentarily. Engage first gear by depressing the gear shift lever downward. Twist the throttle grip 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 gear shift lever upward to select the next gear, 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.

### WARNING

**Downshifting when engine speed is too high can:**

- cause the rear wheel to skid and lose traction due to increased engine braking, resulting in an accident; or
- force the engine to overrev in the lower gear, resulting in engine damage.

**Reduce speed before downshifting.**

### WARNING

**Downshifting while the motorcycle is leaned over in a corner may cause rear wheel skid and loss of control.**

**Reduce your speed and downshift before entering the corner.**

### CAUTION

**Reving the engine into the red zone can cause severe engine damage.**

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

## HIDING ON HILLS

CAUTIONS

- 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 descending a long, steep slope, use engine compression to assist the brakes by shifting to a lower gear. Continuous brake application can overheat the brakes and reduce their effectiveness.
- Be careful, however, not to allow the engine to over rev.

EM

## STOPPING AND PARKING

1. Twist 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 toward the grip (disengaged position) just before the motorcycle stops. Neutral position can be confirmed by observing the neutral indicator light.

### WARNING

Inexperienced riders tend to underutilize the front brake. This can cause excessive stopping distance and lead to a collision. Using only the front or rear brake can cause skidding and loss of control.

Apply both brakes evenly and at the same time.

### WARNING

Hard braking while turning may cause wheel skid and loss of control.

Brake before you begin to turn.

### WARNING

Hard braking on wet, loose, rough, or other slippery surfaces can cause wheel skid and loss of control.

Brake lightly and with care on slippery or irregular surfaces.

### WARNING

Following another vehicle too closely can lead to a collision. As vehicle speeds increase, stopping distance increases progressively.

Be sure you have a safe stopping distance between you and the vehicle in front of you.

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

### WARNING

A hot muffler can burn you. The muffler will be hot enough to burn you for some time after stopping the engine.

Park the motorcycle where pedestrians or children are not likely to touch the muffler.

*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

Improper maintenance or failure to perform recommended maintenance increases the chance of an accident or motorcycle damage.

Always follow the inspection and maintenance recommendations and schedule in this owner's manual. Ask your SUZUKI dealer or qualified mechanic to do the maintenance items marked with an asterisk (\*). You may perform the unmarked maintenance items by referring to the instructions in this section. If you are not sure how to do any of the jobs, have your SUZUKI dealer or qualified mechanic do them.

#### WARNING

Running the engine indoors or in a garage can be hazardous. 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.

**NOTE:** The MAINTENANCE CHART specified the minimum requirements for maintenance. If you use your motorcycle under severe conditions, perform maintenance more often than shown in the chart. If you have any questions regarding maintenance intervals, consult your SUZUKI dealer or qualified mechanic.

#### CAUTION

Using poor quality replacement parts can cause your motorcycle to wear more quickly and may shorten its useful life.

Use only genuine Suzuki replacement parts or their equivalent.



# MAINTENANCE CHART

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

| Interval<br>Element                               | km                                            | 1000 | 6000 | 12000 | 18000 | 24000 |
|---------------------------------------------------|-----------------------------------------------|------|------|-------|-------|-------|
|                                                   | miles                                         | 620  | 4000 | 7500  | 11000 | 15000 |
|                                                   | months                                        | 1    | 6    | 12    | 18    | 24    |
| Air cleaner element                               | —                                             | I    | I    | I     | I     | I     |
| <sup>2</sup> Exhaust pipe bolts and muffler bolts | T                                             | —    | T    | —     | —     | T     |
| <sup>3</sup> Valve clearance                      | —                                             | —    | —    | —     | —     | I     |
| Spark plugs                                       | —                                             | I    | R    | I     | I     | R     |
| Fuel hose                                         | —                                             | I    | I    | I     | I     | I     |
|                                                   | *Replace every four years                     |      |      |       |       |       |
| Engine oil                                        | R                                             | R    | R    | R     | R     | R     |
| Engine oil filter                                 | R                                             | —    | —    | R     | —     | —     |
| Idle speed                                        | I                                             | I    | I    | I     | I     | I     |
| Throttle cable play                               | I                                             | I    | I    | I     | I     | I     |
| <sup>2</sup> Intake air pressure synchronization  | —                                             | —    | I    | —     | —     | I     |
| <sup>3</sup> Engine coolant                       | Replace every two years                       |      |      |       |       |       |
| Radiator hose                                     | —                                             | I    | I    | I     | I     | I     |
| Clutch                                            | —                                             | I    | I    | I     | I     | I     |
| Drive chain                                       | I                                             | I    | I    | I     | I     | I     |
|                                                   | Clean and lubricate every 1000 km (600 miles) |      |      |       |       |       |
| <sup>3</sup> Brakes                               | I                                             | I    | I    | I     | I     | I     |
| Brake hose                                        | —                                             | I    | I    | I     | I     | I     |
|                                                   | *Replace every four years                     |      |      |       |       |       |
| Brake fluid                                       | —                                             | I    | I    | I     | I     | I     |
|                                                   | *Replace every two years                      |      |      |       |       |       |
| Tires                                             | —                                             | I    | I    | I     | I     | I     |
| <sup>3</sup> Steering                             | I                                             | —    | I    | —     | —     | I     |
| <sup>2</sup> Front forks                          | —                                             | —    | I    | —     | —     | I     |
| <sup>3</sup> Rear suspension                      | —                                             | —    | I    | —     | —     | I     |
| <sup>2</sup> Chain bolts and nuts                 | T                                             | T    | 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 located under the rear seat.

## FUEL TANK LIFT

1. Place the motorcycle on the side stand.
2. Remove the front seat by referring to the SEAT LOCK AND HELMET HOLDERS section.



3. Remove the caps ①.



4. Remove the steering damper fitting bolt ② and damper stay bolts ③.

EM



5. To prevent the damper rod hitting the fuel tank, move the damper rod ahead of the mirror bracket.
6. Remove the damper stay ②.



7. Take the prop stay off ③. Remove the rubber caps from the end of the stay.



8. Lift the front end of the fuel tank and prop it up as shown above. Insert the crank end of the prop stand into the hole of the steering shaft.

## LOWERING FUEL TANK

1. Lift and support the fuel tank with one hand and remove the prop stay from the steering stem.
2. Slowly lower the fuel tank back into place.
3. Replace the rubber caps and put the prop stay back on to its storage clips.



4. Set the steering damper stay back in place. Replace the bolts from the front edge of the fuel tank. Turn the bolts in finger tight.
5. Tighten the two front fuel tank bolts to the specified torque.

Steering damper stay bolts tightening torque:

10 Nm (1.0 kg-m, 7.5 lb-ft)



6. Replace the steering damper. Place the shim and dust covers as shown when the bolt is inserted through the spherical bearing on the steering damper.
7. Tighten the damper bolt to the specified torque.

Steering damper bolt tightening torque:

23 Nm (2.3 kg-m, 16.5 lb-ft)



8. Check the smoothness of the steering, turn the handlebars several times. If you feel any unusual resistance, recheck the installation and hardware torque.
9. Refer to the SEAT LOCK AND HELMET HOLDERS section for installing the seats.

### **WARNING**

Failure to torque bolts and nuts could lead to an accident.

Bolts and nuts must be torqued to the proper specifications. We strongly recommend that this be done by your authorized Suzuki dealer or a qualified mechanic.

## **STEERING DAMPER MAINTENANCE**

1. Keep the steering damper shaft clean at all times.
2. Wipe off any oil residue with a cloth .



**NOTE:** Do not confuse the grease-like residue on the steering damper's shaft with an oil leak. Collection of this residue is normal and is from oil seal lubricant used in the damper.

You may also notice a sound as the damper shaft is stroked in and out. This "escaping air" type sound is normal and is made as the internal valving dampens the shaft movement.

## LUBRICATION POINTS

Proper lubrication is important for smooth operation and long life of each working part of your motorcycle and also for safe riding. It is a good practice to lubricate the motorcycle after a long rough ride and after getting it wet in the rain or after washing it. Major lubrication points are indicated below.

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

EN



- ...Motor oil  
■...Grease

## BATTERY

The battery is located under the front seat. This battery is sealed type and requires no maintenance. Have your dealer check the battery's state of charge periodically.

The standard charging rate is  $1.2A \times 6$  to 10 hours and maximum rate is  $5.0A \times 1$  hour. Never exceed maximum charging rate.



To remove the battery, loosen the bolts (1) and remove the seat bracket (2) first.

## ⚠ WARNING

Hydrogen gas produced by batteries can explode if exposed to flames or sparks.

Keep flames and sparks away from the battery. Never smoke when working near the battery.

## ⚠ CAUTION

Exceeding the maximum charging rate for the battery can shorten its life.

Never exceed the maximum charging rate.

## ⚠ CAUTION

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 traces) lead must go to the negative (-) terminal.

## AIR CLEANER

The air cleaner is located under the fuel tank. 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. If driving under dusty conditions, the air cleaner element must be cleaned or replaced more frequently than maintenance schedule. Check and clean the air cleaner element periodically according to the following procedure.

### WARNING

Operating the engine without the air cleaner element in place could allow a flame spit back from the engine to the air cleaner, or could allow dirt to enter the engine. This could cause a fire or severe engine damage.

Never run the engine without the air cleaner element properly installed.

### CAUTION

Clean or replace the air cleaner element frequently if the motorcycle is used in dusty, wet or muddy conditions. The air cleaner element will clog under these conditions, and this may cause engine damage, poor performance, and poor fuel economy.

Clean the air cleaner case and element immediately if water gets in the air cleaner box.

1. Remove the fuel tank by referring to the FUEL TANK LIFT section.

**EM**

2. Remove the four screws .
3. Pull up the air cleaner cover .



4. Remove the air cleaner element .



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



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

6. 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.

### CAUTION

A torn air cleaner element will allow dirt to enter the engine and can damage the engine.

Carefully examine the air cleaner element for tears during cleaning. Replace it with a new one if it is torn.

### CAUTION

Failure to position the air cleaner element properly can allow dirt to bypass the air cleaner element. This will cause engine damage.

Be sure to properly install the air cleaner element.

## Air Cleaner Drain Plug



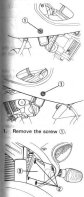
Remove the plug and drain water and oil at the periodic maintenance interval. The air cleaner drain plug is located beneath the air cleaner box.

## SPARK PLUGS

### REMOVAL

To remove the spark plugs, follow the procedure below:

#### Front Side



1. Remove the screw (1).

2. Remove the four screws (2) and inner panel (3).



3. Remove the four screws (3) and inner panel (4).

4. Remove the radiator mounting bolt (5).





5. Remove the radiator mounting bolts (2).



6. Move the radiator forward.

**NOTE:** Do not extract the radiator hose.

7. Extract the spark plug cap.
8. Remove the spark plug with the spark plug wrench provided in the tool kit.

**NOTE:** Be careful not to damage the radiator fins.

### **⚠ WARNING**

A hot radiator and hot engine can burn you.

Wait until the radiator and engine are cool enough to touch with bare hands before starting this work.

### **Rear Side**

1. Lift the fuel tank by referring to the FUEL TANK LIFT section.



2. Remove the spark plug with the spark plug wrench provided in the tool kit.

**NOTE:** Pry up the spark plug cap with a screwdriver or a bar if it is hard to remove by hand. Do not pull the spark plug cord.

### **⚠ CAUTION**

Dirt can damage your engine if it enters an open spark plug hole.

Cover the spark plug hole whenever spark plug is removed.



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) by using a spark plug gap thickness gauge. The spark plug should be replaced every 12000 km (7500 miles).

Whenever removing the carbon deposits, be sure to observe the operational color of each spark plug's porcelain tip. This color tells you whether or not the standard spark plug is suitable for your type of usage. A normal operating spark plug should be very light brown in color. If the spark plug is very white or glazed appearing, it has been operating much too hot. This spark plug should be replaced with the colder plug.

### ⚠ CAUTION

An improper spark plug may have an incorrect fit or heat range for your engine. This may cause severe engine damage which will not be covered under warranty.

Use one of the spark plugs listed below or equivalent. Consult your Suzuki dealer or qualified mechanic if you are not sure which spark plug is correct for type of usage.

| NGK            | DENSO            | REMARKS                                                          |
|----------------|------------------|------------------------------------------------------------------|
| CPO6K          | U24ETR           | Standard                                                         |
| CPO6K<br>CR10K | U27CTR<br>U21ETR | If the standard plug is set to overheat, replace with this plug. |

### Installation

### ⚠ CAUTION

A cross-threaded or overtightened spark plug will damage the aluminum threads of the cylinder head.

Carefully turn the spark plug by hand into the threads until it is finger tight. If the spark plug is new, tighten it with a wrench about 1/2 turn past finger tight. If you are reusing the old spark plug, tighten it with a wrench about 1/8 turn past finger tight.



**NOTE:** When installing the spark plug caps, point the arrow marks on the spark plug caps to the exhaust side.

## FUEL HOSE



Inspect the fuel hose for damage and fuel leakage. If any defects are found, the fuel hose must be replaced.

## 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 items to be performed.

### ENGINE 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 on the right side of the engine.

### ⚠ CAUTION

The engine oil level must be between the "L" (Low) line and "F" (Full) line, or engine damage may occur.

Check the oil level, through the inspection window, with the motorcycle held vertically on level ground before each use of the motorcycle.

## ENGINE OIL AND FILTER CHANGE

Change the engine oil and oil filter at the initial 1000 km (600 miles) and at each maintenance interval. The oil should be changed when the engine is warm so that the oil will drain thoroughly from the engine. The procedure is as follows:

1. Place the motorcycle on the side stand.



2. Remove the oil filter cap ①.



3. Place a drain pan under the drain plug ②.
4. Remove the drain plug with a wrench and drain out the engine oil.

## **A WARNING**

Engine oil and exhaust pipes can be hot enough to burn you.

Wait until the oil drain plug and exhaust pipes are cool enough to touch with bare hands before draining oil.

## **A WARNING**

New and used oil and solvent can be hazardous. Children and pets may be harmed by swallowing new or used oil or solvent. Continuous contact with used engine oil has been found to cause skin cancer in laboratory animals. Brief contact with used oil or solvent may irritate skin.

- Keep new and used oil and solvent away from children and pets.
- Wear a long-sleeve shirt and waterproof gloves.
- Wash with soap if oil or solvent contacts your skin.

*NOTE: Recycle or properly dispose of used oil and solvent.*

5. Reinstall the drain plug and gasket. Tighten the plug securely with a wrench.



Available from Suzuki dealer  
Oil filter wrench (Part No. 09915-40610)



6. Loosen the oil filter (1) counter-clockwise and remove it with a Suzuki "cap type" oil filter wrench or a "strap type" filter wrench of proper size.



7. Wipe off the mounting surface (2) on the engine where the new filter will be seated with a clean rag.



8. Smear a little engine oil around the rubber gasket (3) of the new oil filter.
9. Screw the new filter by hand until the filter gasket contacts the mounting surface (a small resistance will be felt).

### ⚠ CAUTION

Using an oil filter with the wrong design or thread specifications can cause oil leaks or engine damage.

Use a genuine SUZUKI oil filter or an equivalent designed for your motorcycle.

**NOTE:** To tighten the oil filter properly, it is important to accurately identify the position at which the filter gasket first contacts the mounting surface.



In the position at which the filter gasket first contacts the mounting surface.



10. Mark the top dead center position on the "cap type" filter wrench or on the oil filter. Use an oil filter wrench to tighten the filter 2 turns.
11. Pour 3000 ml (3.5/3.9 US/imp qt) of new engine oil through the filter hole and install the filter cap. Be sure to always use the specified engine oil described in the FUEL AND ENGINE OIL section.



**NOTE:** About 3100 ml (3.3/2.7 US/imp. qt) of oil will be required when changing oil only.

### **⚠ CAUTION**

Engine damage may occur if you use oil that does not meet Suzuki's specifications.

Use the oil specified in the **FUEL, ENGINE OIL AND COOLANT RECOMMENDATION** series.

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 motor-cycle vertically. If the oil level is lower than the "F" line, add new oil until it reaches the "F" line. Check for leaks again.

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

## **IDLE SPEED**



Adjust the engine idle speed periodically on the engine at normal operating temperature.

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 knob (1) in or out so that engine may run at 1100–1300 r/min (1150–1250 r/min for Switzerland).

**NOTE:** The idle speed should be adjusted with the engine fully warmed up.

## THROTTLE CABLE PLAY



This motorcycle has a twin throttle cable system. Cable (4) is for pulling cable and cable (3) is for returning.

To adjust the cable play:

1. Loosen the lock nut (1).
2. Turn in the adjuster (2) fully.
3. Loosen the lock nut (3).
4. Turn the adjuster (4) so that the throttle grip has 2.0–4.0 mm (0.08–0.16 in) play.
5. Tighten the lock nut (3).
6. While holding the throttle grip at the closed position, turn out the adjuster (2) to feel resistance.
7. Tighten the lock nut (1).

## ⚠ WARNING

Inadequate throttle cable play can cause engine speed to rise suddenly when you turn the handlebars. This can lead to loss of rider control.

Adjust the throttle cable play so that engine idle speed does not rise due to handlebar movement.

EW

## CLUTCH



At each maintenance interval, adjust the clutch cable play with the clutch cable adjuster. The cable play should be 10–15 mm (0.4–0.6 in) as measured at the clutch lever end before the clutch begins to disengage. If you find the play of clutch incorrect, adjust it in the following way:

1. Turn clutch lever adjuster ① clockwise as far as it will go.



2. Loosen cable adjuster lock nuts ②, and turn cable adjuster ③ to obtain approximately 10–15 mm (0.4–0.6 in) of free play at the clutch lever end as indicated.

3. Minor adjustment can now be made with the adjuster ③.
4. Tighten the lock nut ② after finishing adjustment.

**NOTE:** Any maintenance of the clutch other than the clutch cable play should be performed by your Suzuki dealer.

## COOLANT COOLANT LEVEL



The coolant should be kept between the "F" (FULL) and "L" (LOW) level lines in the reservoir tank at all times. Inspect the level every time before riding while the motorcycle vertically. If the coolant is found lower than the "L" level line, add properly mixed coolant in the following way:



1. Remove the cover (1) by removing the screws (2).



2. Remove the filler cap and add properly mixed coolant through the filler hole until it reaches the "F" line. Refer to the **FUEL, ENGINE OIL AND COOLANT RECOMMENDATION** section.

### **⚠ WARNING**

Engine coolant is harmful if swallowed or if it comes in contact with your skin or eyes.

Keep engine coolant away from children and pets. Call your physician immediately if engine coolant is swallowed, and induce vomiting. Flush eyes or skin with water if engine coolant gets in eyes or comes in contact with skin.

**NOTE:** Adding only water will dilute the engine coolant and reduce its effectiveness. Add 50:50 mixture of engine coolant and water.

### **CHANGING THE COOLANT**

Change the coolant every two years.

**NOTE:** About 2200 ml (4.6/3.8 US/imp qt) of coolant will required when filling the radiator and reservoir tank.

## 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 guide lines for inspecting and servicing the chain.

### WARNING

Riding with the chain in poor condition or improperly adjusted can lead to an accident.

Inspect, adjust, and maintain the chain properly before each ride, according to this section.

### 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:

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

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

Good                  Worn



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

### WARNING

Improperly installing a replacement chain, or using a joint-clip type chain, can be hazardous. An incompletely riveted master link, or a joint-clip type master link, may come apart and cause an accident or severe engine damage.

Do not use a joint-clip type chain. Chain replacement requires a special riveting tool and a high-quality, non-joint-clip type chain. Ask an authorized SUZUKI dealer or qualified mechanic to perform this work.

## 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. Clean the chain with kerosene. 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.

### A WARNING

Kerosene can be hazardous. Kerosene is flammable. Children or pets may be harmed from contact with kerosene.

Keep flames and smoking materials away from kerosene. Keep children and pets away from kerosene. If swallowed, do not induce vomiting. Call a physician immediately. Dispose of used kerosene properly.

### A CAUTION

Cleaning the chain with gasoline or commercial cleaning solvents can damage O-rings and ruin the chain.

Clean the drive chain with kerosene only.

2. After thoroughly washing the chain and allowing it to dry, oil the links with a drive chain lubricant or motor oil (SAE 20W/50).

### A CAUTION

Some drive chain lubricants contain solvents and additives which could damage the O-rings in your chain.

Use Saeedi chain lube or an equivalent that is specifically intended for use with O-ring chains.

EN

## DRIVE CHAIN ADJUSTMENT

Adjust the drive chain slack to the proper specification. This chain may require more frequent adjustments than periodic maintenance schedule depending upon your riding conditions.

### WARNING

Too much chain slack can cause the chain to come off the sprockets, resulting in an accident or serious damage to the motorcycle.

Inspect and adjust the drive chain slack before each use.

To adjust the drive chain, follow the procedure below:

1. Place the motorcycle on the side stand.



Except for Canada



For Canada

2. (Only for Canada) Remove the cotter pin .
3. Loosen the axle nut .
4. Loosen the lock nut  (right and left).

### WARNING

A hot muffler can burn you. The muffler will be hot enough to burn you for some time after stopping the engine.

Wait until the muffler cools to avoid burns.



25–35 mm  
(1.0–1.4 in)

5. Adjust the drive chain slack by turning the right and left chain adjuster bolts  . 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  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.
6. Tighten the lock nut  (right and left).
7. Tighten the axle nut  securely.
8. (Only for Canada) Replace the cotter pin with a new one.

9. Recheck the chain slack after tightening and readjust if necessary.

Rear axle nut tightening torque:  
100 Nm (10.0 kg-m, 72.5 lb-ft)

## BRAKES

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

### BRAKE SYSTEM

EN

#### A WARNING

Failure to inspect and properly maintain the brakes increases your chance of having an accident.

Inspect the brake system before each use according to the **INSPECTION BEFORE RIDING** section. Follow the **MAINTENANCE SCHEDULE** section to maintain your brake system.

Inspect your brake system for the following items daily:

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



## BRAKE FLUID

### ⚠ WARNING

Brake fluid can be hazardous to humans and pets. Brake fluid is harmful or fatal if swallowed, and harmful if it comes in contact with skin or eyes.

Keep brake fluid away from children and pets. Call your doctor immediately if brake fluid is swallowed, and induce vomiting. Flush eyes or skin with water if brake fluid gets in eyes or comes in contact with skin.



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 for brake pad wear and leaks.

### ⚠ WARNING

Failure to keep the brake fluid reservoir full with proper brake fluid can be hazardous. The brakes may not work correctly without the proper amount and type of brake fluid. This could lead to an accident.

Inspect the brake fluid level before each use. Use only DOT-4 brake fluid from a sealed container. Never use or mix different types of brake fluid. If there is frequent loss of fluid, take your motorcycle to a SUZUKI dealer or qualified mechanic for inspection.

### ⚠ CAUTION

Spilled brake fluid can damage painted surfaces and plastic parts.

Avoid spilling any fluid when filling the reservoir. Wipe up spills immediately.

## BRAKE PAD

### FRONT





**NOTE:** Remove the two bolts (1) and caliper pin (2) to inspect the front brake pads.

#### REAR



**NOTE:** Remove the plastic cover (1) to inspect the rear brake pads. Use a mirror to inspect them from below, if it is available.



FRONT

REAR

Inspect the front and rear brake pads by noting whether or not the friction

pads are worn down to the grooved limit line (3). If a pad is worn to the grooved limit line it must be replaced with a new one by your authorized Suzuki dealer or qualified service mechanic.

#### ⚠ WARNING

Riding with worn brake pads will reduce braking performance and will increase your chance of having an accident.

Inspect brake pad wear before each use. Ask your SUZUKI dealer or qualified mechanic to replace brake pads if any pad is worn to the limit.

#### ⚠ WARNING

Failure to extend brake pads after repair or replacement can cause poor braking performance and may result in an accident.

Before riding, "pump" the brake repeatedly until brake pads are pressed against the brake disks and proper lever/pedal stroke and firm feel are restored.

**NOTE:** 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.

EN

## 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 55-65 mm (2.2-2.6 in) below the top face of the footrest.
2. Retighten lock nut (1) to secure push rod (2) in the proper position.

### **⚠ CAUTION**

An incorrectly adjusted brake pedal may force brake pads to rub against the disk at all times, causing damage to the pads and disk.

Follow the steps in this section to adjust the brake pedal properly.

## REAR BRAKE LIGHT SWITCH



To adjust the brake light switch, raise or lower the switch so that the brake light will come on just before a pressure rise is felt when the brake pedal is depressed.

## A WARNING

Failure to follow these warnings may result in an accident due to tire failure. The tires on your motorcycle form the crucial link between your motorcycle and the road.

Follow these instructions:

- Check tire condition and pressure, and adjust pressure before each ride.
- Avoid overloading your motorcycle.
- Replace a tire when worn to the specified limit, or if you find damage such as cuts or cracks.
- Always use the size and type of tires specified in this owner's manual.
- Balance the wheel after tire installation.
- Read this section of owner's manual 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 vehicle control.

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

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.

### Cold Tire Inflation Pressure

| LOAD<br>(TIRE) | SOLO RIDING                                  | TWO-UP<br>PG094G                             |
|----------------|----------------------------------------------|----------------------------------------------|
| FRONT          | 250 kPa<br>2.50 kg/cm <sup>2</sup><br>36 psi | 250 kPa<br>2.50 kg/cm <sup>2</sup><br>36 psi |
| REAR           | 250 kPa<br>2.50 kg/cm <sup>2</sup><br>36 psi | 250 kPa<br>2.50 kg/cm <sup>2</sup><br>36 psi |

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

## TIRE CONDITION AND TYPE

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



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.



**NOTE:** These wear bars will be reached before the wear bars molded into the tire make contact with the road.

When you replace a tire, be sure to replace it with a tire of the size and type listed below. If you use a different size or type of tire, vehicle handling may be adversely affected, possibly resulting in loss of vehicle control.

|      | FRONT                            | REAR                      |
|------|----------------------------------|---------------------------|
| SIZE | 120/70 ZH17<br>(3800)            | 160/60 ZH17<br>(730W)     |
| TYPE | METZLER<br>M821s Front<br>Racing | METZLER<br>M821<br>Racing |

Be sure to 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.

## **A WARNING**

An improperly repaired, installed, or balanced tire can cause loss of control or shorten tire life.

- Ask your SUZUKI dealer or qualified mechanic to perform tire repair, replacement, and balancing because proper tools and experience are required.
- Install tires according to the rotation direction shown by arrows on the sidewall of each tire.

## **⚠ WARNING**

Failure to follow these instructions about tubeless tires may result in an accident due to tire failure. Tubeless tires require different service procedures than tube tires.

- Tubeless tires require an air-tight seal between the tire bead and wheel rim. Special tire irons and rim protectors or a specialized tire mounting machine must be used for removing and installing tires to prevent tire or rim damage which could result in an air leak.
- Repair puncture in tubeless tires by removing the tire and applying an internal patch.
- Do not use an external repair plug to repair a puncture since the plug may work loose as a result of the cornering forces experienced in a motorcycle tire.
- After repairing a tire, do not exceed 80 km/h (50 mph) for the first 24 hours, 120 km/h (80 mph) thereafter. This is to avoid excessive heat build-up which could result in a tire repair failure and tire deflation.
- Replace the tire if it is punctured in the sidewall area, or if a puncture in the tread area is larger than 6 mm (3/16 in). These punctures cannot be repaired adequately.



EW

**NOTE:** The wheel has arrow marks showing the rotating direction. The arrow marks on the tire and on the wheel should be in the same direction.

## SIDE STAND/IGNITION INTERLOCK 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 stops 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.

## A WARNING

If the side stand/ignition interlock system is not working properly, it is possible to ride the motorcycle with the side stand in the down position. This may interfere with rider control during a left turn.

Check the side stand/ignition interlock system for proper operation before riding. Check that the side stand is returned to its full up position before starting off.

## FRONT WHEEL REMOVAL

1. Place the motorcycle on the side stand.



2. Remove both brake calipers from the front forks by removing two mounting bolts ① on each caliper.

**NOTE:** Never squeeze the front brake lever with the caliper removed. It is very difficult to force the pads back into the caliper assembly and brake fluid leakage may result.



3. Loosen the two axle holder bolts ② on the right front fork.

**NOTE:** Never loosen the axle holder bolts on the left front fork.

4. Loosen the axle shaft ③ temporarily.

5. Place an accessory service stand or equivalent under the swing arm to help stabilize the rear end.
6. Carefully position a jack under the exhaust pipe and raise until the front wheel is slightly off the ground.

### CAUTION

Improper jacking may cause damage to the fairing or oil filter.

Do not apply the jack head to the fairing lower part or the oil filter when jacking up the motorcycle.



7. Turn the axle shaft counterclockwise and draw it out.



8. Slide the front wheel forward.
9. To reinstall the wheel assembly, reverse the sequence as described.

EN



10. After installing the wheel, apply the brake several times to restore the proper lever stroke.

#### **⚠ WARNING**

Failure to adjust brake pads after installing the wheel can cause poor braking performance and may result in an accident.

Before riding, "pump" the brake repeatedly until brake pads are pressed against the brake disks and proper lever/pedal stroke and firm feel are restored. Also check that the wheel rotates freely.

#### **⚠ WARNING**

Installing the front wheel in the reverse direction can be hazardous. The tire for this motorcycle is directional. Therefore, the motorcycle may have unusual handling if the wheel is installed incorrectly.

Install the front wheel in a specified direction, as indicated by the arrow on the sidewall of the tire.

#### **⚠ WARNING**

Failure to torque bolts and nuts properly could lead to an accident.

Torque bolts and nuts to the proper specifications. If you are not sure of the proper procedure, have your authorized SUZUKI dealer or qualified mechanic do this.

Front axle tightening torque:  
100 N·m (10.0 kg-m, 72.5 lb-ft)

Front axle holder bolt tightening torque:  
23 N·m (2.3 kg-m, 16.5 lb-ft)

Front brake caliper mounting bolt tightening torque:  
39 N·m (3.9 kg-m, 28.0 lb-ft)

## REAR WHEEL REMOVAL

1. Place the motorcycle on the side stand.



Except for Canada



For Canada

2. (Only for Canada) Remove the cotter pin (1).
3. Remove the axle nut (2).

### WARNING

A hot muffler can burn you. The muffler will be hot enough to burn you for some time after stopping the engine.

Wait until the muffler cools to avoid burns.

4. Place an accessory service stand or equivalent under the swing arm to lift the rear wheel slightly off the ground.

5. Loosen the lock nut (3) (right and left). Turn the chain adjusting nuts (4) clockwise (right and left).



6. Draw out the axle shaft.



7. With the wheel moved forward, remove the chain from the sprocket.



8. Pull the rear wheel assembly rearward.

**NOTE:** Never depress the rear brake pedal with the rear wheel removed. It is very difficult to force the pads back into the caliper assembly.

9. To replace the wheel reverse the complete sequence listed.
10. (Only for Canada) Replace the cotter pin with a new one.
11. After installing the wheel, apply the brake several times and then check that the wheel rotates freely.

### WARNING

Failure to adjust the drive chain and failure to torque bolts and nuts properly could lead to an accident.

- Adjust the drive chain as described in **DRIVE CHAIN ADJUSTMENT** section after installing the rear wheel.
- Torque bolts and nuts to the proper specifications. If you are not sure of the proper procedure, have your authorized **SAZUKI** dealer or qualified mechanic do this.

Rear axle nut tightening torque:  
100 N·m (10.0 kg-m, 73.5 lb-ft)

### WARNING

Failure to extend brake pads after installing the wheel can cause poor braking performance and may result in an accident.

Before riding, "pump" the brake repeatedly until brake pads are pressed against the brake disks and proper lever/pedal stroke and firm feel are restored. Also check that the wheel rotates freely.

## LIGHT BULB REPLACEMENT

The wattage rating of each bulb is shown on the table 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.

### CAUTION

Using a light bulb with the wrong wattage rating can cause electrical system damage or shorten bulb life.

Always use the specified light bulb.

|                       |       |                                                   |
|-----------------------|-------|---------------------------------------------------|
| Headlight             | Right | 12V 55W (H1)<br>... High beam<br>12V 60/55W (H4)* |
|                       | Left  | 12V 55W (H7)<br>... Low beam<br>12V 60/55W (H4)*  |
| Position light        |       | 12V 5W**                                          |
| Turn signal light     |       | 12V 21W                                           |
| Brake light* Tailight |       | 12V 21/5W x 2                                     |
| License plate light   |       | 12V 5W                                            |

\* For UK, Canada and Australia

\*\* Except for Canada and Australia

## HEADLIGHT

To replace the headlight bulb, perform the following step:

Left Side (Except for UK, Canada and Australia)



1. Remove the cover (1) by removing the screws (2).



2. Remove the rubber cap (3).



3. Disconnect the lead wires (4).



4. Unhook the bulb holder spring (5) and pull out the bulb (6).

EN

**Left Side (For UK, Canada and Australia)**



1. Remove the cover (1) by removing the screws (2).



2. Disconnect the socket (3) from the headlight and remove the rubber cap (4).



3. Unhook the bulb holder spring (5) and pull out the bulb (6).



1. Remove the cover (1) by removing the screws (2).



2. Disconnect the socket (3) from the headlight and remove the rubber cup (4).



3. Unhook the bulb holder spring (5) and pull out the bulb (6).



4. (Except for UK, Canada and Australia) Pull off the bulb (7) from the socket (8).

### ⚠ CAUTION

Oil from your skin may damage the headlight bulb or shorten its life.

Grasp the new bulb with a clean cloth.

## HEADLIGHT BEAM ADJUSTMENT

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



**To adjust the beam horizontally:**  
Turn the adjuster ① clockwise or counterclockwise.

**To adjust the beam vertically:**  
Turn the adjuster ② clockwise or counterclockwise.

**NOTE:** To adjust the headlight beam, adjust the beam horizontally first, then adjust vertically.

## POSITION LIGHT (Except for Canada and Australia)

To replace the position light bulb follow the procedure below.



1. Remove the four screws ① and remove the panel ②.



2. Turn the socket counterclockwise to remove it.



3. Pull off the bulb ③ from the socket ④.

### TURN SIGNAL LIGHT

To replace the turn signal light bulb, follow these directions.



1. Remove screw and take off the lens.



2. Turn the socket counterclockwise and remove it.



3. Push in on the bulb, twisting it to the left, and pull it out.

### ⚠ CAUTION

Overtightening the screws may cause the lens to crack.

Tighten the screws only until they are snug.

EN



### **BRAKE LIGHT/TAILLIGHT**

To change the brake light/taillight bulb, perform the following steps:



1. Remove the lens by removing the screws ①.



2. Push in the bulb, twist it to the left and pull it off.

### **⚠ CAUTION**

Overtightening the screws may cause the lens to crack.

Tighten the screws only until they are snug.

### **LICENSE PLATE LIGHT**

To change the license plate light bulb, perform the following steps:



1. Remove the lens by removing the screws ①.



2. Pull off the bulb.

## FUSES



The main fuse is located under the front seat. Remove the front seat by referring to the SEAT LOCK AND HELMET HOLDERS section. One 30A spare fuse is located inside the fuse box.



The fuses are located under the instrument panel. One 10A and one 15A spare fuses are provided inside the fuse box.

To open the fuse box, loosen the screw ❶ and take off the stopper ❷.

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.

## ⚠ CAUTION

Installing a fuse of incorrect rating or using aluminum foil or wire instead of a fuse may seriously damage the electrical system.

Always replace a blown fuse with a fuse of the same type and rating. If the new fuse blows in a short time, consult your Suzuki dealer or qualified mechanic immediately.

EN

## FUSE LIST

- 30A MAIN fuse protects all electrical circuits.
- 15A HEAD-HI fuse protects the headlight high beam and high beam indicator light.
- 15A HEAD-LO fuse protects the headlight low beam.
- 10A IGNITION fuse protects side stand relay, fuel relay, ignition coil, starter relay and cooling fan motor.
- 15A SIGNAL fuse protects the fuel level indicator, the oil pressure indicator light, turn signal indicator light, neutral indicator light, horn, license plate light, brake light/tail light, speedometer light, tachometer light, \*position light, turn signal light and turn signal relay.
- 10A FUEL fuse protects the fuel pump and fuel injection system.

\* Except for Canada and Australia

## TROUBLESHOOTING

This troubleshooting guide is provided to help you find the cause of some common complaints.

### CAUTION

Failure to troubleshoot a problem correctly can damage your motorcycle. Improper repairs or adjustments may damage the motorcycle instead of fixing it. Such damage may not be covered under warranty.

If you are not sure about the proper action, consult your Suzuki dealer or qualified mechanic about the problem.

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

#### Fuel Supply Check

If the coolant temperature meter indicates "FI", showing signs of trouble in the fuel injection system, take your machine to an authorized Suzuki dealer. Refer to the "INSTRUMENT PANEL" section for fuel injection system indicator explanation. If the meter does not indicate "FI", make sure there is enough fuel in the fuel tank. If the meter does not indicate "FI" and there is enough fuel, ignition system should be checked.

#### Ignition System Check

1. Remove the spark plugs and reattach them to the spark plug leads.
2. While holding the spark plug firmly against the crank case of the engine, push the starter switch with the ignition switch in the "OFF" position, the engine stop switch in the "  " 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.
3. If there is no spark, clean the spark plug. Replace it if necessary. Retry the above procedure with the cleaned spark plug or new one.
4. If there is still no spark, consult your Suzuki dealer for repairs.

### WARNING

Performing the spark test improperly can cause a high voltage electrical shock or an explosion.

Avoid performing this check if you are not familiar with this procedure, or if you have a heart condition or wear a pacemaker. Keep the spark plug away from the spark plug hole during this test.

## ENGINE STALLING

1. Make sure there is enough fuel in the fuel tank.
2. If the coolant temperature meter indicates "PT", showing signs of trouble in the fuel injection system, take your machine to an authorized Suzuki dealer. Refer to the "INSTRUMENT PANEL" section for fuel injection system indicator explanation.
3. Check the ignition system for intermittent spark.
4. Check the idle speed. If necessary, adjust it using a tachometer. The correct idle speed is 1100–1300 r/min (1150–1250 r/min for Switzerland).

## 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.

EW

### ⚠ CAUTION

Radiator and oil cooler fins can be damaged by spraying high pressure water on them.

Do not spray high pressure water on the radiator and oil cooler fins.

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

- Ignition switch
- Spark plugs
- Fuel tank cap
- Fuel injection system
- 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 chamoise or cloth and allow it to dry in the shade.

5. Check carefully for damage to 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

Cleaning with any alkaline or strong acid cleaner, gasoline, brake fluid, or any other solvent will damage the windshield.

Clean only with a soft cloth and warm water with a mild detergent.

### 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

Wet brakes can cause poor braking performance and may lead to an accident.

Avoid a possible accident by expecting longer stopping distances after washing your motorcycle. Apply brakes several times to let heat dry the brake pads or shoes.

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 Suzuki dealer. 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. Run the engine for a few minutes until the stabilized gasoline fills the fuel injection system.

### ENGINE

1. Pour one tablespoon of motor oil into each spark plug hole. Reinstall the spark plugs and crank the engine a few times.
2. Drain the engine oil thoroughly. Refill the crankcase with 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

- Spray all vinyl and rubber parts with rubber preservative.
- Spray the unpainted surfaces with rust preventative.
- 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 1.2 A x 6 to 10 hours.

EM

## PROCEDURE FOR RETURNING TO SERVICE

- Clean the entire motorcycle.
- Reinstall the battery.

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

- 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.
- Drain the engine oil thoroughly. Replace the oil filter with a new one and pour fresh oil as outlined in this manual.
- Adjust the pressure of tires as described in the TIRES section.
- Lubricate all places as instructed in this manual.
- Do the "Inspection Before Riding" as listed in this manual.



# SPECIFICATIONS

EN 10021-10

EN 10021-10

EN 10021-10

## DIMENSIONS AND DRY MASS

Overall length .....

2045 mm (80.5 in)

2055 mm (81.3 in) ... Switzerland, Germany  
and Australia

2065 mm (81.7 in) ... Austria

Overall width .....

715 mm (27.9 in)

Overall height .....

1575 mm (62.0 in)

Wheelbase .....

1415 mm (55.7 in)

Ground clearance .....

140 mm (5.5 in)

Rear height .....

835 mm (32.9 in)

Dry mass .....

150 kg (331 lb)

## ENGINE

Type .....

Four-stroke, liquid-cooled, DOHC, 1600 cc

Number of cylinders .....

4

Bore .....

66.0 mm (2.60 in)

Stroke .....

66.0 mm (2.60 in)

Displacement .....

1600 cm<sup>3</sup> (97.6 cu. in)

Compression ratio .....

11.5 : 1

Fuel system .....

Fuel injection

Oil system .....

Harmonic balancer assembly

Water system .....

Electric

Lubrication system .....

Wet sump

## TRANSMISSION

Clutch .....

Wet multi-plate type

Transmission .....

6-speed constant mesh

Gearshift pattern .....

1-down, 5-up

Primary reduction ratio .....

1.838 (13/7.1)

Gear ratios, Low .....

2.688 (23/8.6)

5th .....

1.933 (18/9.3)

4th .....

1.500 (13/8.7)

3rd .....

1.327 (13/9.8)

2nd .....

1.089 (10/9.2)

1st .....

1.000 (10/10)

Rear reduction ratio .....

2.325 (28/12)

Gear chain .....

PM5025/17, 124 links

## CHASSIS

Front suspension .....

Inverted telescopic, coil spring, oil damped,  
spring preload fully adjustable, rebound and  
compression damping force fully adjustable

Rear suspension .....

Swingarm type, coil spring, rotary damper,  
spring preload fully adjustable, rebound and  
compression damping force fully adjustable

Frame .....

21" x 41"

Trail .....

94.5 mm (3.7 in)

Steering angle .....

30° right and left

Turning radius .....

3.1 m (10.2 ft)

Front brake .....

Disc brake, twin

Rear brake .....

Disc brake

Front tire size .....

120/70 ZR17 (58W), tubeless

Rear tire size .....

180/60 ZR17 (73W), tubeless

EN



## ELECTRICAL

|                                                 |                                               |
|-------------------------------------------------|-----------------------------------------------|
| Ignition type.....                              | Electronic ignition (Transistorized)          |
| Ignition timing.....                            | 37° B.T.D.C. at 1200 rpm                      |
| Spark plug.....                                 | NGK CR8E or DENSO UD40TW                      |
| Battery.....                                    | 12V 38 A/C(10.5A/10 HR)                       |
| Generator.....                                  | Three-phase A.C. generator                    |
| Fuse.....                                       | 30/15/15/10/15/10A                            |
| Headlight.....                                  | 12V 80W = 12V 80W                             |
|                                                 | 12V 60/55W x 2 ... U.S., Australia and Canada |
|                                                 | 12V 55W ... Except for Canada and Australia   |
| Position light.....                             | 12V 21W                                       |
| Turn signal light.....                          | 12V 21/5W x 2                                 |
| Brake light/Tail light.....                     | 12V 5W                                        |
| License plate light.....                        | 12V 5.84W x 2                                 |
| Speedometer/Tachometer light.....               | 12V 1.7W                                      |
| Fuel indicator light.....                       | 12V 3W                                        |
| Turn signal indicator light.....                | 12V 1.7W                                      |
| High beam indicator light.....                  | 12V 1.7W                                      |
| Neutral indicator light.....                    | LED                                           |
| Coolant temperature/Oil pressure indicator..... | LED                                           |

## CAPACITIES

|                                        |                              |
|----------------------------------------|------------------------------|
| Fuel tank.....                         | 13.0 L (4.5/3.7 US/imp. gal) |
| Engine oil, without filter change..... | 3100 ml (3.3/3.7 US/imp. qt) |
| with filter change.....                | 3300 ml (3.5/3.8 US/imp. qt) |
| Engine coolant.....                    | 2000 ml (5.6/3.8 US/imp. qt) |