FW110

OWNER'S MANUAL

IMPORTANT

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

The first 1600 km (1,000 miles) are the most important in the life of your motorcycle. Proper break-in operation during this time will help ensure maximum life and performance from your new motorcycle. Suzuki parts are manufactured of high quality materials, and machined parts are finished to close tolerances. Proper break-in operation allows the machined surfaces to polish each other and mate smoothly.

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

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

WARNING / CAUTION / NOTE

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

⚠ WARNING

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

CAUTION

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

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

FOREWORD

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

The proper care and maintenance that your motorcycle requires is outlined in this manual. By following these instructions explicitly you will ensure a long trouble free operating life for your motorcycle. Your 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 PHILIPPINES, INCORPORATED

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ACCESSORY INSTALLATION AND PRECAUTION SAFETY TIPS

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

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

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

- Inspect for proper ground clearance and bank angle. An improperly mounted 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 handlebars or front fork should be as light as possible and kept to a minimum.

- The motorcycle may be affected by a lifting condition or by an instability in cross winds or when being passed or passing large vehicles. Improperly mounted or poorly designed accessories can result in an unsafe riding condition, therefore caution should be used when selecting and installing all accessories.

- Certain accessories displace the rider from his or her normal riding position. This limits the freedom of movement of the rider and may limit his or her control ability.

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

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

⚠ WARNING

Exceeding a maximum loading capacity can cause loss of control.

Never exceed the maximum loading capacity described in the owner’s manual and label.

MODIFICATION

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

⚠ 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 which was designed and tested for your motorcycle. Consult your SUZUKI dealer if you have any question.

SAFETY RIDING RECOMMENDATION FOR MOTORCYCLE RIDERS

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

WEAR A HELMET

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

RIDING APPAREL

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

INSPECTION BEFORE RIDING

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

FAMILIARIZE YOURSELF WITH THE MOTORCYCLE

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

KNOW YOUR LIMITS

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

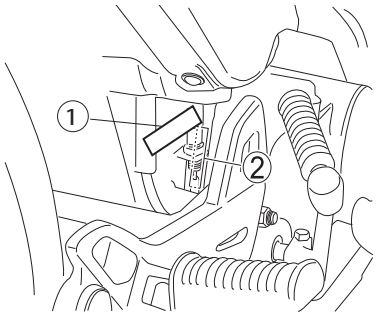
BE EXTRA SAFETY CONSCIOUS ON BAD WEATHER DAYS

Riding on bad weather days, especially on wet, requires extra careful. 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 !

RIDE DEFENSIVELY

The most common type of motorcycle accident occurs when a car traveling towards amotorcycle turns round corner in front of the motorcyclist. Ride defensively. Wise motorcyclist uses a strategy of assuming they are invisible to other drivers, even in broad daylight. Wear bright, reflecting clothing. Turn on the headlight and taillight every time even on a bright, sunny day to attract driver's attention. Do not ride in another driver's blind spot.

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 serial number ① is stamped on the lower right side of the frame near the brake light switch.

The engine serial number ② is stamped on the right hand side of the crankcase assembly.

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

Frame number:

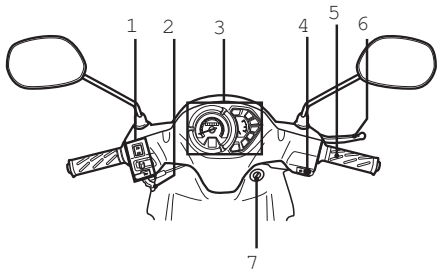
Engine number:

CONTROLS

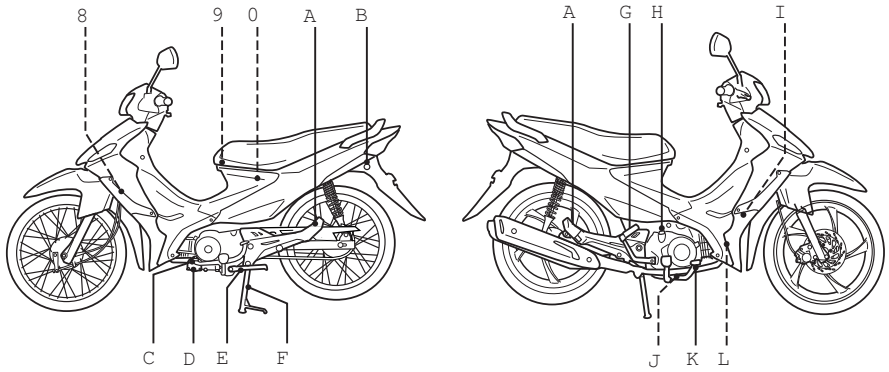
CONTROLS

LOCATION OF PARTS

FW110D/SC



① Left handlebar switches
② Choke lever
③ Instrument panel
④ Electric starter switch
⑤ Throttle grip
⑥ Front brake lever
⑦ Ignition switch



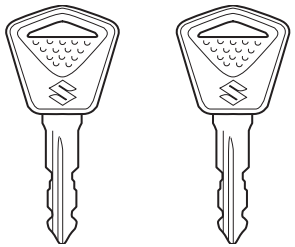
FW110D/SC

⑧ Air cleaner
⑨ Helmet holders
⑩ Battery, tools and fuse
⑪ Passenger footrest
⑫ Seat lock
⑬ Gearshift lever
⑭ Engine oil filter
⑮ Side stand
⑯ Center stand
⑰ Kick starter lever
⑱ Engine oil filler cap
⑲ Throttle stop screw
⑳ Engine oil drain plug
㉑ Rear brake pedal
㉒ Spark plug

KEY

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

FW110D



Your motorcycle ignition keys are stamped with an identifying number. This number is used when making replacement keys. Please write your key number in the box provided for your future reference.

Key number:

IGNITION SWITCH

The ignition switch has 3 positions:

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

"ON" POSITION
The ignition circuit is completed and the engine can now be started. The key cannot be removed from the ignition switch in this position.

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

FW110D/SC

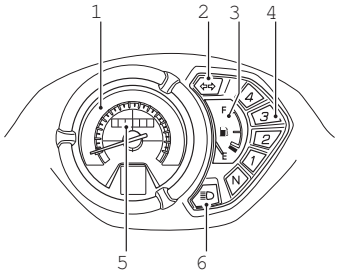
⚠ WARNING

Moving the motorcycle while the steering is locked can be hazardous. You could lose your balance and fall, or you could drop the motorcycle.

Never attempt to move the motorcycle when the steering is locked.

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

INSTRUMENT PANEL



SPEEDOMETER ①
The speedometer indicates the road speed in kilometers per hour.

TURN SIGNAL INDICATOR LIGHT "⇦⇨" ②
When the turn signals are being operated either to the right or to the left, the indicator light will flash intermittently.

NOTE: If a turn signal light is not operating properly due to bulb filament or circuit failure, the indicator will flicker quickly to warn the rider of the existence of a trouble.

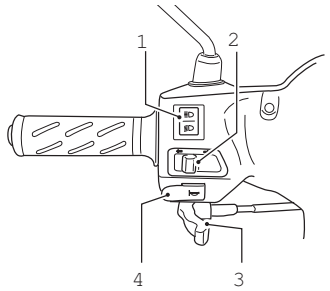
FUEL GAUGE "⛽" ③
The fuel gauge indicates the amount of fuel remaining in the fuel tank. The "E" mark indicates the fuel tank is empty or nearly so. The "F" mark indicates the fuel tank is full.

GEAR POSITION INDICATOR ④
The gear position indicator indicates gear position. Neutral, 1st, 2nd, 3rd, and 4th.

ODOMETER ⑤
The odometer registers the total distance that the motorcycle has been ridden.

HIGH BEAM INDICATOR LIGHT "≡D" ⑥
The blue indicator light will be lit when the headlight high beam is turned on.

LEFT HANDLEBAR



DIMMER SWITCH ①
"≡D" Position
The headlight low beam and taillight turn on.

"≡D" Position
The headlight high beam and taillight turn on.
The high beam indicator light also turns on.

CAUTION

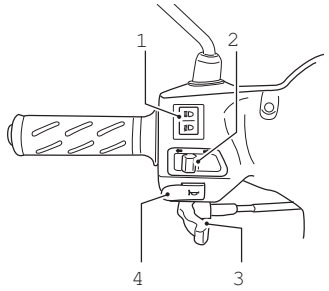
Holding the dimmer switch between "≡D" high and "≡D" low beam position will light both "≡D" high and "≡D" low headlight beam. This operation can damage the motorcycle.

Use the dimmer switch only at "≡D" high or "≡D"low position.

CAUTION

Sticking some tape or placing objects in front of the headlight can damage the headlight.

Do not stick any tapes to the headlight. Do not place objects in front of the headlight.



CAUTION

Do not put objects infront of the headlight or tail light when they are on, and donot cover with clothes when the motorcycle is stopped.

This may cause melting of the lens or da mage to the object by the heat from the lens.

TURN SIGNAL INDICATOR LIGHT "⇦⇨" ②
Moving the switch to the "⇦" position will flash the left turn signals. Moving the switch to the "⇨" position will flash the right turn signals. When the turn signals are being operated either to the right or to the left, the indicator light will flash intermittently.To cancel turn signal operation, push the switch in.

⚠ WARNING

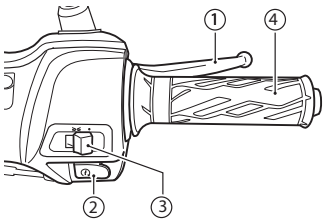
Failure to use the turn signals, and failure to turn off the turn signals can be hazardous. Other drivers may misjudge your course and this may result in and accident.

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.

CHOKE LEVER ③
The carburetor is equipped with a choke system to provide easy starting when the engine is cold. When starting the cold engine, pull the choke knob all th way towards you. The choke works best when the throttle is in the closed position. When the engine is warm, you do not need to use the choke system for starting.

HORN BUTTON " " ④
Press the button to sound the horn.

RIGHT HANDLEBAR



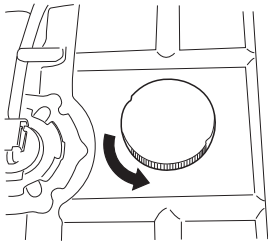
FRONT BRAKE LEVER ①
The front brake is applied by squeezing the brake lever gently toward the throttle grip. The brake light will lit when the lever is squeezed inward.

ELECTRIC STARTER BUTTON "⚡" ②
Push in the electric starter switch to operate the starter motor. With the ignition switch in the "ON" position, the transmission in neutral and push the electric starter switch to start the engine.

LIGHT SWITCH ③
ON "☼"position
Headlight and taillight come on.
OFF "•"position
All light go off**.**

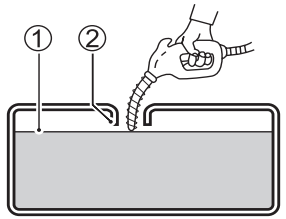
THROTTLE GRIP ④
Engine speed is controlled by the position of the throttle grip. Turn it toward you to increase engine speed. Turn it away from you to decrease the engine speed.

FUEL TANK CAP



Fuel tank is located under the seat. To open the fuel tank cap, turn it counterclockwise. To close the fuel tank cap, align the cap guides with the slots of the filler neck and turn it clockwise.

Use fresh gasoline when filling up the fuel tank. Do not use bad gasoline which is contaminated with dirt, dust, water or other liquid. Prevent the dirt, dust or water not to enter the fuel tank when refueling.



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.

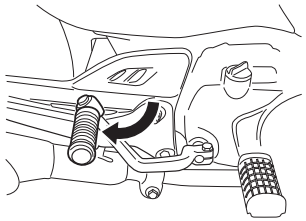
Never fill the fuel above the bottom of the filler neck ②.

⚠ 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.**

KICK STARTER LEVER



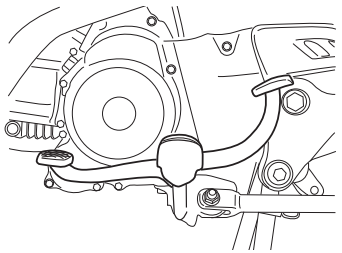
This motorcycle is equipped with a kick starter located on the right side of the engine.

⚠ WARNING

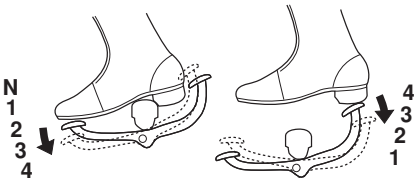
An improperly retracted kick starter lever can interfere with rider control.

Be sure the kick starter lever is returned to its home position after starting the engine.

GEARSHIFT LEVER

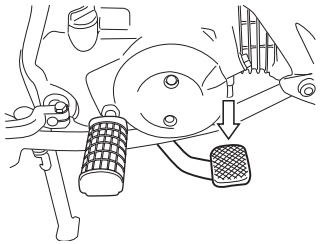


This motorcycle has 4-speed transmission which operates as shown. To shift properly, close the throttle at the same time you operate the gearshift lever. Depress the front end of the gearshift lever to upshift and depress the rear end of the lever to downshift.



NOTE: The transmission can be shifted from 4th to Neutral gear position when the motorcycle is not moving forward.

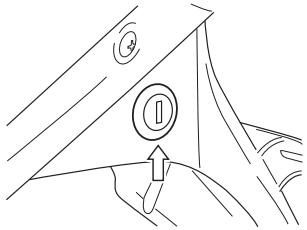
REAR BRAKE PEDAL



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

SEAT LOCK AND HELMET HOLDERS

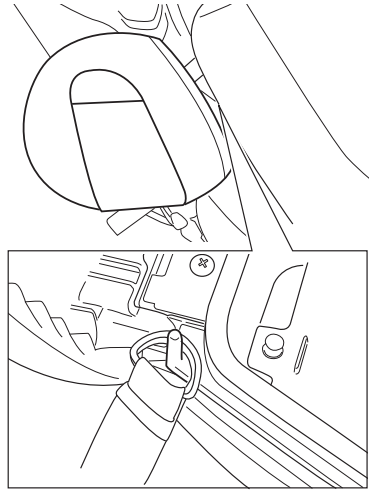
SEAT LOCK



To unlock the seat lock, insert the ignition key into the lock and turn it clockwise.

To lock the seat, push down firmly until the seat latch snaps into the locked position.

HELMET HOLDERS



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

LUGGAGE BOX

The luggage box load capacity is 5 kg. Do not allow water to get inside the luggage box.

NOTE:

- *Do not keep any low heat-resistant items in the luggage box since it may get hot.*
- *Do not keep valuable items in the luggage box when leaving the motorcycle unaatended.*
- *Push down the rear end of the seat if the seat does not unlock with key operation.*

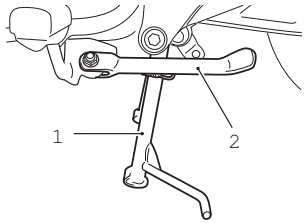
⚠ WARNING

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

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

STANDS

This motorcycle is equipped with a center stand and side stand.



CENTER STAND ①

To place the motorcycle on the center stand, place your right foot on the center stand extension, hold the handlebars with your left hand and hold the passenger hand rail with your right hand. Step on the center stand extension and then rock the motorcycle to the rear and upward.

SIDE STAND ②

To place the motorcycle on the side stand, place your right foot on the end of the side stand and push down firmly until the stand pivots fully through its arc and comes to rest against its stopper.

⚠ WARNING

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

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 place the motorcycle on the center stand, for the motorcycle on the side stand may roll off.

FUEL AND ENGINE OIL RECOMMENDATIONS

FUEL, ENGINE OIL AND COOLANT RECOMMENDATIONS

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.

Oxygenated fuels which meet the minimum octane requirement and the requirements described below may be used in your motorcycle without jeopardizing the New Vehicle Limited Warranty.

NOTE: Oxygenated fuels are fuels which contain oxygen carrying additives such as alcohol.

Gasoline / Ethanol Blends

Blends of unleaded gasoline and ethanol (grain alcohol), also known as GASOHOL, may be used in your vehicle if the ethanol content is not greater than 10%.

NOTE:

- *To help minimize air pollution, SUZUKI recommends that you use oxygenated fuels.*
- *Be sure that any oxygenated fuel you use has octane ratings of at least 91 octane.*
- *If you are not satisfied with the driveability of your motorcycle when you are using an oxygenated fuel, or if engine pinging is experienced, substitute another brand as 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 immediately.

ENGINE OIL

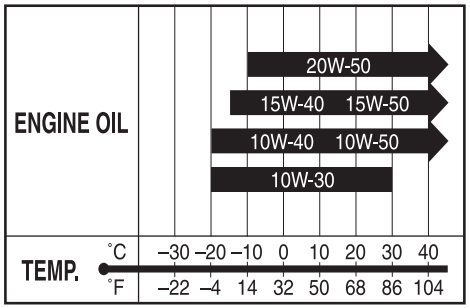
Oil quality is a major contributor to your engine's performance and life. Always select good quality engine oil. Use oil with an API (American Petroleum Institute) Classification of SF/SG or SH/SJ/SK/SL with JASO MA.

SAE	API	JASO
10W-40	SF or SG	-
10W-40	SH, SJ, SK, SL	MA

API: American Petroleum Institute
JASO: Japanese Automobile Standards Organization

SAE Engine Oil Viscosity

SUZUKI recommends the use of Suzuki Genuine Oil (SAE 10W-40 SF/SG or SH/SJ/SK/SL with JASO MA) available in the market. If not available, select an alternative oil according to the chart below.



Suzuki Genuine Oil

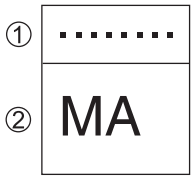
Recommended Oil

SAE	API	JASO
10W-40	SL	MA

JASO T903

The JASO T903 standard is an index to select engine oils for 4-stroke motorcycle and ATV engines. Motorcycle and ATV engines lubricate clutch and transmission gears with engine oil. JASO T903 specifies performance requirements for motorcycle and ATV clutches and transmissions.

There are two classes MA and MB. The oil container shows the classification as follows.



① Code number of oil sales company
② Oil Classification

Energy Conserving

SUZUKI does not recommend the use of "ENERGY CONSERVING" oils. Some engine oils which have an API classification of SH or higher have an "ENERGY CONSERVING" indication in the API classification doughnut mark. These oils can affect engine life and clutch performance.

API SG, SH, SJ or SL

Recommended

API from SH to SM

API SN or higher

Not recommended

BREAK-IN (RUNNING-IN) AND INSPECTION BEFORE RIDING

BREAK-IN (RUNNING-IN)

PROPER BREAK-IN PROCEDURE

The opening explains 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 THROTTLE OPERATION RECOMMENDATION

This table shows the maximum recommended throttle operation during the break-in period.

Initial	800 km	Less than 1/2 throttle
Up to	1600 km	Less than 3/4 throttle

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 1,600 km.

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.

BREAKING IN THE NEW TIRES

New tires need proper break-in to assure maximum performance, just as the engine does. Wear-in the tread surface by gradually increasing your cornering lean angles over the first 160 km before attempting maximum performance. Avoid hard acceleration, hard cornering, and hard braking for the first 160 km.

⚠ WARNING

Failure to perform break-in of the tires could cause tire slip and loss of control.

Use extra care when riding on new tires. Perform proper break-in of the tires as described in this section and avoid hard acceleration, hard cornering, and hard braking for the first 160 km.

OBSERVE YOUR FIRST AND MOST CRITICAL SERVICE

The first 1000 km service is the most important service your motorcycle will receive. During break-in all of the engine components will have worn in and all of the other parts will have seated in. All adjustments will be restored, all fasteners will be tightened, and the dirty engine oil and engine oil filter will be replaced.

Timely completion of the first 1000 km service will ensure optimum service life and performance from the engine.

NOTE: The 1000 km service should be performed as outlined in the MAINTENANCE SCHEDULE section of this Owner's Manual. Pay particular attention to the CAUTION and WARNING in that section.

INSPECTION BEFORE RIDING

PRE-RIDE CHECK ITEMS

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

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 next table 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.

⚠ WARNING

Checking maintenace 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	• Smoothness • No restriction of movement • No play or looseness
Brakes (☞ 2-10, 2-14, 6-30)	• Brake shoes not be worn down to the limit line • Correct lever play • No "sponginess" • No dragging
Tires (☞ 6-36)	• Correct pressure • Adequate tread depth • No cracks or cuts
Fuel (☞ 2-11,3-2)	Enough fuel for the planned distance of operation
Lighting (☞ 2-6 to 2-10)	Operation of all lights and indicators
Horn (☞ 2-9)	Correct function
Suspensions	Smooth movement and oil leaks
Drive Chain (☞ 6-26)	• Proper tension or slack • Adequate lubrication • No excessive wear or damage

Throttle grip (☞6-19)	• Correct cable play • Smooth operation and positive return of the throttle grip to the closed position
Side stand and Center stand	• Smoothness • No restriction of movement • No play or looseness
Engine oil (☞6-21)	• Correct level

RIDING TIPS

STARTING THE ENGINE

Before attempting to start the engine, make sure the transmission is in neutral position, the motorcycle on the center stand. Insert the ignition key into the ignition switch and turn it to the “ON” position.

⚠ WARNING

Starting the engine improperly can be hazardous. Starting the engine with the center stand released can move motorcycle forward as soon as engine starts.

Place the motorcycle on the center stand before starting the engine and do not release the center stand until engine revs at idling speed.

CAUTION

Check if the engine is under the following conditions. If the engine is started under the conditions other than those mentioned, serious engine damaged may result. If these conditions are not indicated on the indicator, consult your Suzuki dealer for checking.

- **When the neutral indicator light comes on, the gear position indicator should indicate N.**
- **When the neutral indicator light goes off, the gear position indicator should indicate either “1”, “2”, “3”, “4”.**

When the Engine is Cold:

1. Turn the choke lever all the way to the left.
2. Close the throttle grip and push the electric starter button or depress the kick starter lever.
3. Immediately after the engine starts, return the choke lever halfway and warm up the engine.
4. Return the choke lever all the way to the disengaged position.

NOTE: Opening the throttle grip before starting the engine will make the engine hard to start. Do not open the throttle grip before starting.

When the Engine is Warm:

1. Open the throttle grip 1/8 - 1/4.
2. Push the electric starter button or depress the starter kick lever.

NOTE: Operation of the carburetor 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

1. Warm up the engine in Neutral gear position.
2. Shift 1st gear by closing the throttle grip before stepping on the front end of the gearshift lever.
3. Slowly twist the throttle grip towards you to move the motorcycle forward. Accelerate gently by smoothly twisting more the throttle grip towards you.
4. As the speed increases, shift to 2nd gear (the next higher gear) to obtain higher speed. By closing the throttle grip first before stepping on the front end of the gearshift lever for the next higher gear. Select higher gears in this manner until top gear is reached.

⚠ WARNING

It will be hazardous to operate motorcycle 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

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

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.

RIDING ON HILLS

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

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 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.

⚠ 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**
- **force the engine to overrev in the lower gear, resulting in engine damage.**

Reduce engine speed before downshifting.

CAUTION

Improper gear shift lever operation can damage the transmission.

- **Do not rest your foot on the gear shift lever.**
- **Do not use force to shift gears.**

CAUTION

Revving the engine into the red zone can cause severe engine damage.

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

STOPPING AND PARKING

1. Turn the throttle grip away from yourself to close the throttle completely.
2. Apply the front and rear brakes evenly and at the same time.
3. Downshift through the gears as road speed decreases.
4. Park the motorcycle on a firm, flat surface where it will not fall over.
5. Turn the ignition switch to the “OFF” position to stop the engine.
6. Turn the ignition switch to the “LOCK” position to lock the steering.
7. Remove the ignition key from the switch.

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.

⚠ WARNING

Inexperienced riders tend not to use the front brake. This can cause excessive stopping distance and may lead to a collision. Using only the front or rear brake alone can cause skidding and loss of control.

Apply both front and rear brakes evenly and at the same time for a more effective braking power.

⚠ 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.

⚠ 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

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

Brake before you begin to turn.

⚠ 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.

INSPECTION AND MAINTENANCE

INSPECTION AND MAINTENANCE

MAINTENANCE SCHEDULE

The chart indicates the intervals between periodic services in 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 schedules 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 have mechanical experience. 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.

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.

NOTE: The MAINTENANCE CHART specifies 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.

MAINTENANCE CHART

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

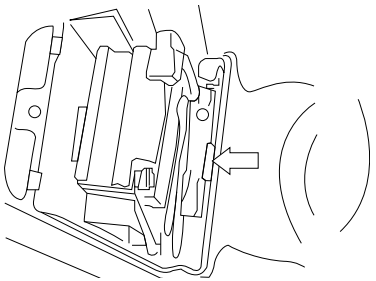
Item \ Interval	km	1000	4000	8000	12000	16000	20000
	Months	1	4	8	12	16	24
Battery		I	I	I	I	I	I
*Cylinder head nuts, cylinder nuts, exhaust pipe and muffler bolts and nut		T	T	T	T	T	T
Air cleaner element		-	I	I	R	I	I
		Replace every 12000 km					
*Valve clearance		I	I	I	I	I	I
Sparkplug		-	I	R	I	I	I
		Replace every 8000 km					
Fuel Hose		-	I	I	I	I	I
		Replace every 4 years					
Engine oil		R	R	R	R	R	R
Engine oil filter		R	R	R	R	R	R
Throttle cable play		I	I	I	I	I	I
Idle speed		I	I	I	I	I	I

Item \ Interval	km	1000	4000	8000	12000	16000	20000
	Months	1	4	8	12	16	24
Drive chain		I	I	I	I	I	I
		Clean and lubricate every 1000km					
Brakes		I	I	I	I	I	I
Tires		I	I	I	I	I	I
*Steering		I	I	I	I	I	I
*Front fork		-	I	-	I	-	I
*Rear suspension		-	-	I	-	-	I
*Chassis nuts and bolts		T	T	T	T	T	T

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

TOOLS

The tool kit is provided with your motorcycle. It is located inside the battery box.

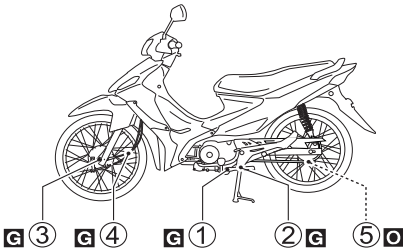


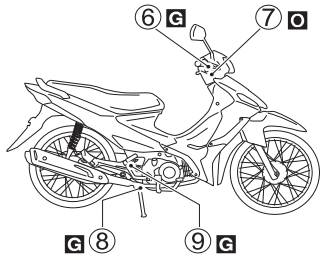
LUBRICATION POINTS

Proper lubrication is important for smooth 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....Side stand pivot and spring hook
②....Center stand pivot and spring hook
③....Speedometer gear box
④....Speedometer cable
⑤....Drive chain
⑥....Front brake lever holder
⑦....Throttle cable
⑧....Brake pedal pivot
⑨....Kick starter lever pivot

˘ ...Motor oil
¯ ...Grease





CAUTION

Lubricating electrical switches can damage the switches.

Do not apply grease and oil to electrical switches.

BATTERY

This battery is a sealed type battery and requires no maintenance. Have your dealer check the battery's state of change periodically.

The standard charging rate is 0.4A x 5 to 10 hours and the maximum rate is 3.0A x 30 min. Never exceed maximum charging rate.

⚠ 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.

⚠ WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds. Lead is harmful to your health if it gets into your blood stream.

Wash hands after handling any parts containing lead. Diluted sulfuric acid from battery can cause blindness or severe burns. Use proper eye protection and gloves. Flush eyes or body with ample water and get medical care immediately if suffered. Keep batteries out of reach of children.

⚠ WARNING

Wiping the battery with a dry cloth can cause a static electricity spark, which can start a fire.

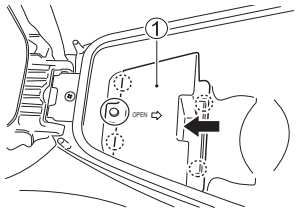
Wipe the battery with a damp cloth to avoid static electricity buildup.

CAUTION

Exceeding the standard charging rate for the motorcycle battery can shorten its life.
Never exceed the standard charging rate.

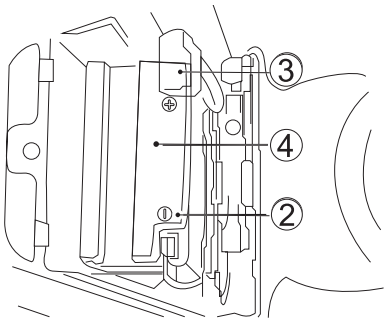
Battery removal:
To remove the battery, follow the procedure below:

1. Place the motorcycle on the center stand.
2. Open the seat by referring to the SEAT LOCK AND HELMET HOLDERS section.
3. Pull out the fastener. Remove the box lid ①.



NOTE: When the fastener is hard to remove, push the battery box lid in the direction of the arrow and full off the fastener.

4. Disconnect the negative (–) terminal ②.
5. Remove the cap. Disconnect the positive (+) terminal ③.
6. Remove the battery ④.



Battery installation:

1. Install the battery in the reverse order of removal.
2. Connect the battery terminals securely.

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 tracer) lead must go to the negative (–) terminal.

Battery inspection:

If the battery is discharged, recharge the battery at the standard charging rate:

For: (FW110D) 0.4A × 10 hours

Never exceed the standard charging rate.

CAUTION

Exceeding the standard charging rate for the motorcycle battery can shorten its life.
Never exceed the standard charging rate.

Used battery disposal:

Proper disposal or recycling of used batteries will help prevent potential negative consequences for the environment and human health.

The recycling of materials will help to conserve natural resources. For more detailed information about disposing or recycling of the used battery, consult your SUZUKI dealer.

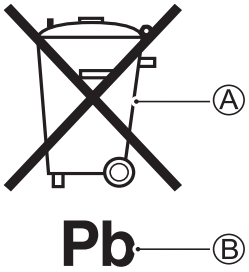
NOTE:

- *. Select the same type MF battery when replacing the battery.*
- *Recharge the battery once a month if the motorcycle is not used for a long time.*

⚠ WARNING

Batteries contain toxic substances including sulfuric acid and lead. They could have potential negative consequences for the environment and human health.

Used batteries must be disposed or recycled according to the local law and must not be discarded with ordinary household waste. Make sure not to tip over the battery when you remove it from the motorcycle. Otherwise, sulfuric acid could spill and you might get injured.



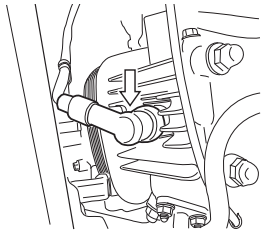
The crossed-out wheeled bin symbol Ⓐ located on the battery label indicates that used battery should be collected separately from ordinary household waste.

The chemical symbol “Pb” Ⓑ indicates the battery contains more than 0.004% lead.

SPARK PLUG

SPARK PLUG REMOVAL

Remove the spark plug cap and remove the spark plug using a spark plug wrench.

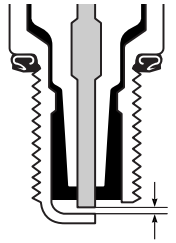


CAUTION

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

Cover the spark plug hole whenever the spark plug is removed.

SPARK PLUG INSPECTION



0.6 - 0.7 mm

Adjust the spark plug gap to 0.6 - 0.7 mm by using a spark plug gap thickness gauge. The spark plug should be replaced periodically.

SPARK PLUG INSTALLATION

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.

SPARK PLUG REPLACEMENT GUIDE

NGK	DENSO	REMARKS
C6HSA	U20FS-U	Standard

CAUTION

A crossthreaded or overtightened spark plug will damage the aluminum threads of the cylinder head.

CAUTION

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

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

AIR CLEANER

If the air cleaner element has become clogged with dust, intake resistance will increase with a resultant decrease in power output and an increase in fuel consumption. This may also cause damage in engine.

Check and clean the air cleaner element periodically according to the following procedure.

CAUTION

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

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

⚠ WARNING

Operating the engine without the air cleaner element in place can be hazardous. A flame can spit back from the engine to the air intake box without the air cleaner element to stop it. Severe engine damage can also occur if dirt enters the engine due to running the engine without the air cleaner element.

Never run the engine without the air cleaner element in place.

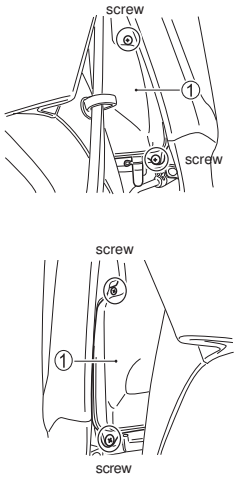
⚠ WARNING

Operating the engine without the air cleaner element in place can be hazardous. A flame can spit back from the engine to the air intake box without the air cleaner element to stop it. Severe engine damage can also occur if dirt enters the engine due to running the engine without the air cleaner element.

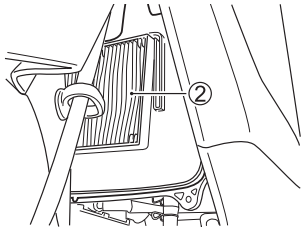
Never run the engine without the air cleaner element in place.

Air cleaner element removal and cleaning

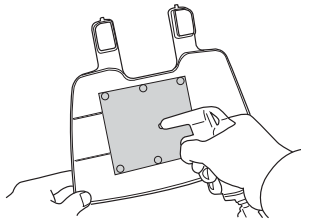
1. Place the motorcycle on the center stand.
2. Remove the 4 screws. Unhook the hooks and remove the air cleaner cover ①.



3. Remove the air cleaner element ②.



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



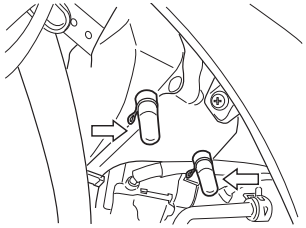
NOTE: Always apply air pressure on the carburetor side of the air cleaner element only. If air pressure is applied on the air cleaner cover side, dirt will be forced into the pores of the cleaner element restricting the air flow throught the cleaner element.

CAUTION

Failure to inspect the air cleaner element frequently if the vehicle is used in dusty, wet,or muddy conditions can damage your motorcycle. The air cleaner element can become clogged under these conditions, and engine damage may result.

Always inspect the air cleaner element afte riding in severe conditions. Replace the element as necessary. If water gets in the air cleaner case, immediately clean the element and the inside of the case.

Air cleaner Drain Plugs

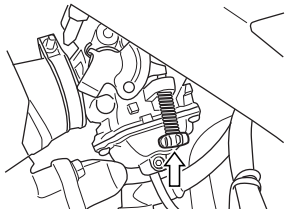


Remove the plug and drain water and oil at the periodic maintenance interval. The air cleaner drain plug is located beneath the air cleaner box.

CARBURETOR

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

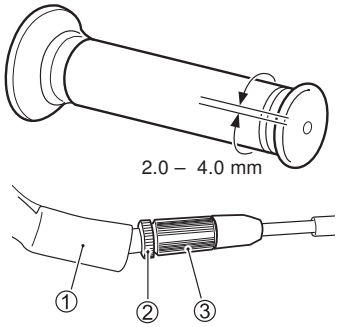
IDLE SPEED ADJUSTMENT



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 ① in or out so that engine may run at 1300-1500 RPM.

THROTTLE CABLE PLAY

Measure the throttle cable play by turning the throttle grip. The throttle grip should have 2.0 - 4.0 mm play.



To adjust the cable play:

1. Remove the boot ①.
2. Loosen the lock nut ②.
3. Turn the adjuster ③ so that the throttle grip has 2.0 - 4.0 mm play.
4. Tighten the lock nut ②.
5. Return the boot ①.

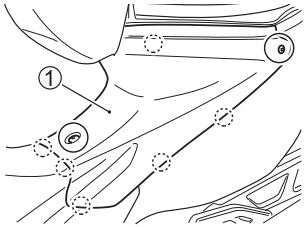
⚠ WARNING

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

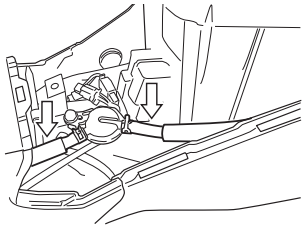
Adjust the throttle cable play so that engine idle speed does not rise due to handlebar movement.

FUEL HOSE

1. Open the seat by referring to the SEAT LOCK AND HELMET HOLDERS section.
2. Remove the 3 screw. Unhook the hooks and remove the frame cover ①.



3. 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 engine oil. Daily engine oil level checks and periodic changes are two of the most important maintenance to be performed.

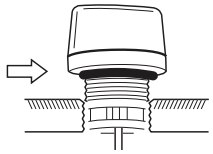
CAUTION

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

OIL LEVEL CHECK PROCEDURE

Check the engine oil level with the engine oil dipstick. The dipstick comes out together with the oil filler cap as shown. The level found in the dipstick should be between “L” (Low) line and “F” (Full) lines.

1. Place the motorcycle on the center stand.
2. Start the engine and run it for 3 minutes.
3. Stop the engine and wait for 3 minutes.
4. Hold the motorcycle vertically and inspect the engine oil level with the engine oil dipstick.

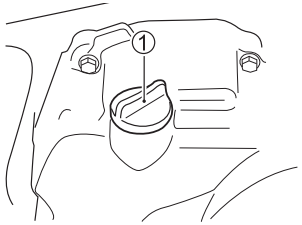


NOTE: Do not screw in the oil filler cap when checking the engine oil level.

ENGINE OIL AND FILTER CHANGE

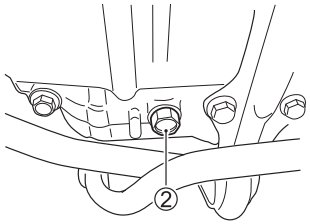
The engine oil should be changed when the engine is warm so that the engine oil will drain thoroughly from the engine. The procedure is as follows:

1. Place the motorcycle on the side stand.
2. Remove the engine oil filler cap ①.



3. Place a drain pan under drain plug.

4. Remove the drain plug ② and and drain out the engine oil.
5. Reinstall the drain plug ② and gasket. Tighten the plug securely with wrench.

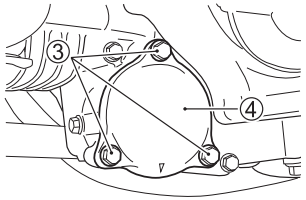


⚠ WARNING

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

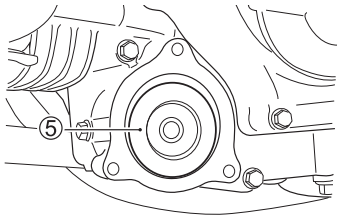
Wait until the oil drain plug and exhaust pipes are cool enough to touch with bare hands before draining oil.

6. Remove the three bolts ③ holding the filter cap ④ in place.

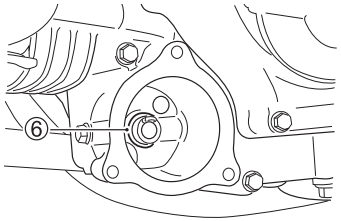


NOTE: Recycle or properly dispose used oil and solvent.

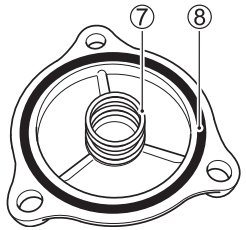
7. Replace the oil filter element ⑤ and the "O" ring ⑥ with a new one.



NOTE: Insert a new "O" ring each time the engine oil filter element is replaced.



8. Before replacing the oil filter cap ④, be sure to check that the filter spring ⑦ and the "O" ring ⑧ are installed correctly.



9. Replace the oil filter cap and tighten the bolts securely but do not overtighten them.
10. Replace the drain plug and tighten it securely with a wrench. Pour fresh oil through the filler hole. Approximately 1000 ml of oil will be required.
11. Tighten the oil filler cap
12. Start the engine and allow it to idle for few minutes.
12. Check the oil level according to OIL LEVEL CHECK procedure.

NOTE: Check to see that no oil is leaking from the oil filter cap.

Approximately 800 ml of oil will be required when changing oil only.

CAUTION

Using an oil filter with the wrong design can cause engine damage.

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

CAUTION

Failure to insert the new element correctly can damage the engine. No oil flow will result if the element is inserted backwards.

Insert the open end of the new oil filter element into the engine.

⚠ 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 water proof gloves.**

DRIVE CHAIN

The condition and adjustment of the drive chain should be checked each day before you ride. Always follow the guidelines below 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

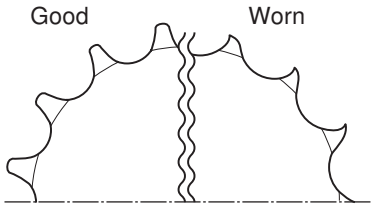
When inspecting the chain, look for the following:

- 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.

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



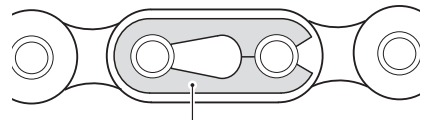
NOTE: The two sprockets should be inspected for wear when a new chain is installed and replace them if necessary.

CAUTION

Improperly attached chain joint clip may detach and cause the chain to come off the sprockets or to be caught in the engine. This may cause severe engine damage.

Attach the chain joint clip so that the slit end faces opposite to the direction of rotation.

⇦ Turning direction



Chain joint clip

DRIVE CHAIN CLEANING AND OILING

Clean and oil the chain every 1000 km, as follows:

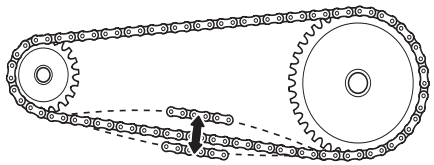
1. Clean the chain with kerosene. If the chain tends to rust, the interval must be shortened. Kerosene is a petroleum product and will provide some lubrication as well as cleaning action.
2. After thoroughly washing the chain and allowing it to dry, oil the links with Suzuki chain lube or an equivalent chain lubricant.

⚠ 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. If swallowed, do not induce vomiting. Call a physician immediately. Dispose of used kerosene properly.

DRIVE CHAIN ADJUSTMENT



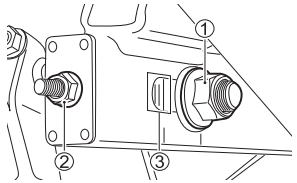
15- 25 mm

Check the drive chain slack at the middle between the two sprockets. The chain may require more frequent adjustment than periodic maintenance interval depending on 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 these directions:

1. Place the motorcycle on the center stand.
2. Loosen the axle nut ①.
3. Adjust the slack in the drive chain by turning the right and left chain adjuster bolts ②. At the same time that the chain is being adjusted, the rear sprocket must be kept in perfect alignment with the front sprocket. To assist you in performing this procedure, there are reference marks ③ on the swing arm and notches on each chain adjuster which are to be aligned with each other and to be used as a reference from one side to the other.
4. Tighten the axle nut ① securely.
5. Recheck the chain slack after tightening and readjust if necessary.

Rear axle tightening torque:
54 N·m (5.4 kgf-m, 39.0 lb-ft)

Rear torque link nut tightening torque:
16 N·m (1.6 kgf-m, 11.5 lbf-ft)

⚠ 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.

BRAKES

Properly operating brake systems is vital to safe riding. Be sure to perform the brake inspection requirements as scheduled. The brakes should be inspected at periodic inspection by your authorized Suzuki dealer.

BRAKE SYSTEM

⚠ WARNING

Brakes are items of personal safety and should always be maintained in proper adjustment.

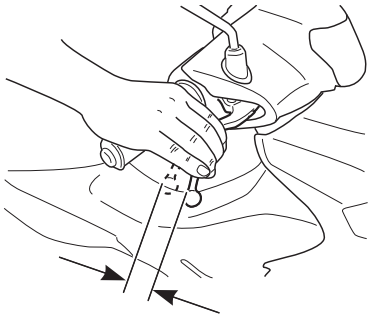
Failure to inspect and properly maintain the brakes increases your chance of having an accident.

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

FRONT BRAKE ADJUSTMENT

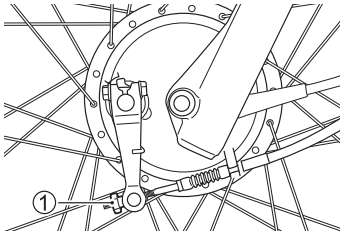
DRUM BRAKE SYSTEM (FW110D)

The front brake lever play should be 15 - 25 mm measured at the brake lever end. When the lever is lightly pulled in towards the throttle grip. Check the play every time before riding and adjust it if necessary, as follows:



15 - 25 mm

1. Turn the front brake adjuster ① clockwise or counterclockwise to obtain the specified play. Turning the adjuster ① clockwise will decrease the play.
2. After adjusting the play, check that there is no dragging when turning the front wheel, with the wheel off the ground, and that there is enough clearance between the front brake lever and throttle grip when the lever is tightly squezzed.



⚠ WARNING

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

⚠ WARNING

Replacing only one of the two brake pads can result in uneven braking action and can increase your chance of having an accident.

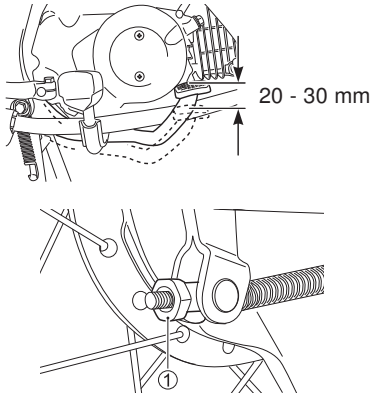
Always replace both pads together.

REAR BRAKE

REAR BRAKE (FW110D)

The rear brake pedal position and the free travel must be properly adjusted. Adjust the brake pedal in the following manner.

Adjust the free travel to 20-30 mm by turning in or out the brake adjusting nut ①.



⚠ WARNING

Too much play in the rear brake pedal can cause poor braking performance and may lead to an accident. Too little play may force brake shoes to rub against the drum at all times, causing damage to the shoes and the drum.

BRAKE LINING WEAR LIMIT

FW110D

The motorcycle is equipped with the brake lining wear limit indicator on the front and rear brakes. To check wear of the brake lining perform the following:

1. Check if the brake system is properly adjusted.
2. While fully applying the brake check to see that the extension line of the index mark is within the range on the brake panel as shown in the Fig. A.
3. If the extension line is beyond the range as shown in the Fig. B have the brake shoe assembly replaced by your Suzuki dealer to ensure safe operation.

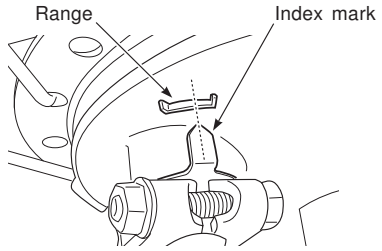


Fig.A The extension line of the index mark is within the range.

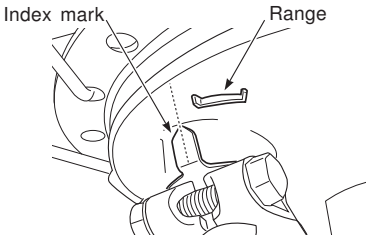


Fig.B The extension line of the index mark is out of the range.

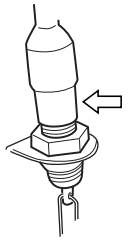
⚠ WARNING

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

Inspect brake shoe wear before each use. Ask your SUZUKI dealer or qualified mechanic to replace brake shoes if the shoes are worn to the limit.

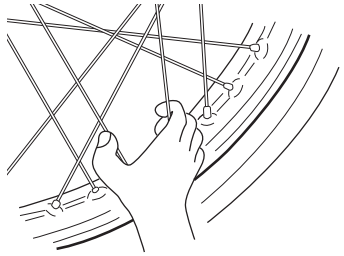
REAR BRAKE LIGHT SWITCH

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



SPOKE NIPPLE TIGHTNESS (FW110 D)

Check the tension of spokes to verify the tightness of the spoke nipples. The tension of the spokes can be checked by squeezing the spokes with your fingers. If a spoke nipple is loose the spoke will bend more than the others. The tension can also be checked by hitting the spoke with a small metal bar. If the spoke nipple is loose its sound will be dull.
To tighten the spoke nipples properly tighten them equally to the specified torque. Loosened and overtightend spoke nipples may cause unequal tension of spokes and may result in distortion of the wheel rim. Contact your Suzuki dealer for this service to be performed.



TIRES

⚠ 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.**

⚠ WARNING

Failure to perform break-in of the tires could cause tire slip and loss of control.

Use extra care when riding on new tires. Perform proper break-in of the tires referring to the BREAK-IN section and avoid hard acceleration, hard cornering, and hard braking for the first 160 km.

TIRE PRESSURE AND LOADING

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

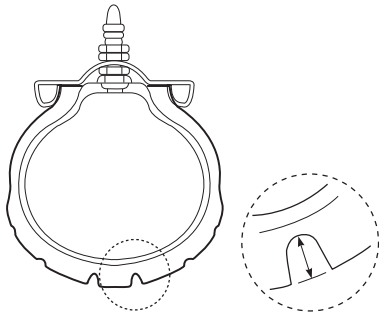
Check tire pressure each day before you ride, and be sure the pressure is correct for the motorcycle load according to the table as follows.

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.

TIRE CONDITION AND TYPE



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

Cold Tire Inflation Pressure and Tire Type Table

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, motorcycle handling may be adversely affected, possibly resulting in loss of motorcycle control.

FW110D (Spoke Type)

	FRONT						REAR					
TYPE	LEO - L201N						LEO - L201N					
SIZE	70/90-17M/C 38P						80/90-17M/C 44P					
LOAD	SOLO RIDING			DUAL RIDING			SOLO RIDING			DUAL RIDING		
COLD TIRE PRESSURE	kPa	kgf /	psi	kPa	kgf / cm^2	psi	kPa	kgf /	psi	kPa	kgf / cm^2	psi
	175	1.75	25	175	1.75	25	225	2.25	33	225	2.25	33

FW110D (Spoke Type)

	FRONT						REAR					
TYPE	MBP - MP-219						MBP - MP-219					
SIZE	70/90-17M/C 38P						80/90-17M/C 44P					
LOAD	SOLO RIDING			DUAL RIDING			SOLO RIDING			DUAL RIDING		
COLD TIRE PRESSURE	kPa	kgf /	psi	kPa	kgf / cm^2	psi	kPa	kgf /	psi	kPa	kgf / cm^2	psi
	175	1.75	25	175	1.75	25	225	2.25	33	225	2.25	33

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.

⚠ 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.**

LIGHT BULB REPLACEMENT

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

CAUTION

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

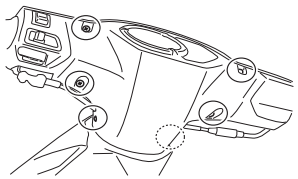
Always use the specified light bulb.

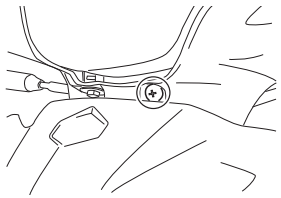
Headlight	12V 32/32W
Turn signal light	12V 10W X 4
Brake light/Taillight	12V 18/5W

Headlight bulb replacement

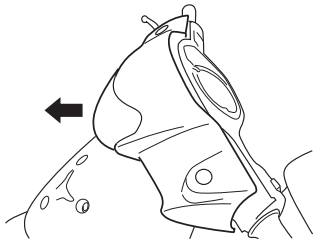
To replace the headlight bulb, follow the procedure below:

1. Remove the mirrors.
2. Remove the screws.

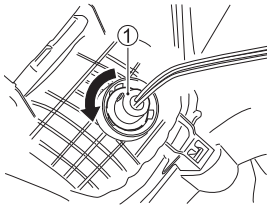




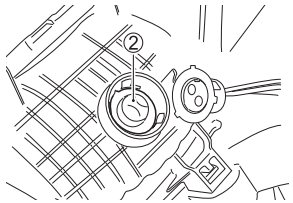
3. Remove the headlight assembly with the headlight cover.



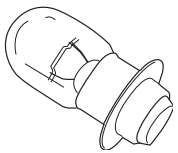
4. Push in on the socket ①, twisting it to the left and pull it out.



5. Pull out the bulb ②.
6. Fit the new bulb.



7. To reinstall the headlight, reverse the sequence described above.

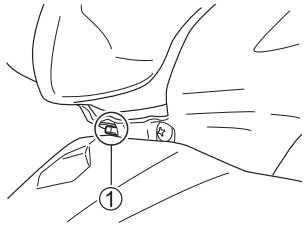


CAUTION

Oil from your skin may damage the headlight bulb or shorten its life. Grasp the new bulb with a clean cloth.

Headlight beam adjustment

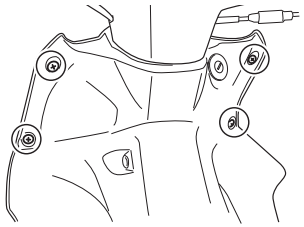
The headlight beam can be adjusted up and down if necessary. To adjust the beam, move the adjuster bolt ① forward or backward.

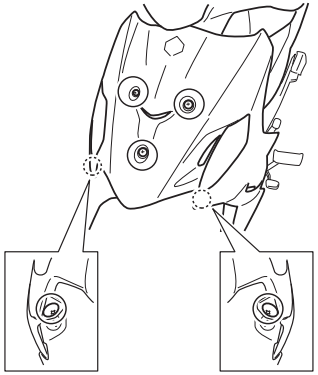


Front turn signal light bulb replacement

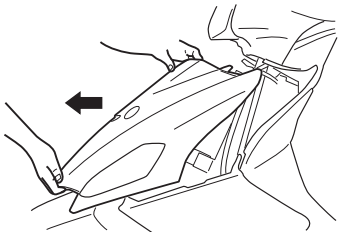
To replace the headlight bulb, follow the procedure below:

1. Remove the screws.

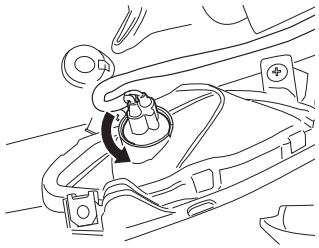




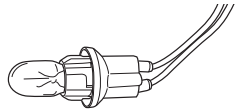
2. Remove the screws.



3. Turn the socket counterclockwise and remove it.



4. Pull off the bulb from the socket.
5. Fit the new bulb.



6. To reinstall the front turn signal light, reverse the sequence described above.

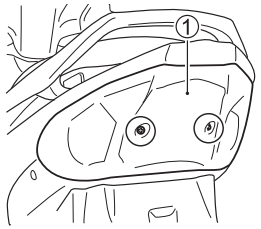
CAUTION

Oil from your skin may damage the headlight bulb or shorten its life. Grasp the new bulb with a clean cloth.

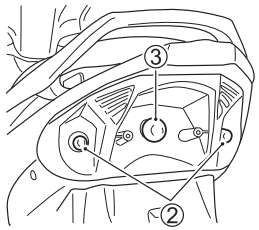
REAR TURN SIGNAL LIGHT AND BRAKE LIGHT / TAIL LIGHT

To replace the rear turn signal light and brakelight / taillight bulb, follow the procedure below:

1. Loosen the screws and remove the lens ①.



2. Pull off the rear turn signal light bulbs ② from the socket



3. Fit the new bulbcsignal light bulb.
4. Push in on the brake light / tail light bulb ③, turn it to the left and pull it out.
5. To fit the replacement bulb, push it in and twist it to the right while pushing.

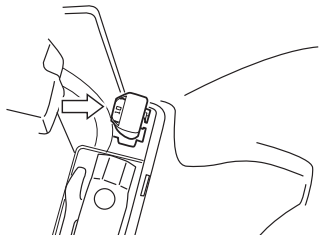
CAUTION

Overtightening the screws when reinstalling the lens may cause the lens to crack.

Tighten the screws only until they are fit comfortably.

FUSE

The fuse is located in the battery box. The 10A fuse is equipped. It is disigned to open when a circuit overload exists in individual electrical system circuits. If any electrical system fails to operate, then the fuse must be checked. A 10A spare fuse is provided in the vinyl case.



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.

CATALYTIC CONVERTER

This motorcycle is equipped with catalytic converter. The purpose of the catalytic converter is to minimize the amount of harmful pollutant in your motorcycle's exhaust. Use of leaded fuel in motorcycles equipped with catalytic converters is prohibited because lead deactivates the pollutant-reducing components of the catalyst system.

The converter is designed to last the life of the motorcycle under normal usage and when unleaded fuel is used. Not special maintenance is required on the converter. However, it is very important to keep the engine properly tuned. Engine misfiring, which can result from an improperly tuned engine, may cause overheating of the catalyst. This may result in permanent heat damage to the catalyst and other motorcycle components.

CAUTION

Improper motorcycle operation can cause catalyst or other motorcycle engine components damage.
To avoid damage to the catalyst or other related components, you should take the following precautions:
• Maintain the engine in the proper operating condition.
• In the event of an engine malfunction, particularly one involving engine misfire or other apparent performance loss, stop riding the motorcycle and turn off the engine and have the motorcycle serviced promptly.
• Do not shut off the engine or interrupt the ignition when the transmission is in gear and the motorcycle is in motion.

CAUTION

• Do not try to start the engine by pushing the motorcycle or by coasting down a hill
• Do not idle the engine with any spark plug wires disconnected or removed, during diagnostic testing.
• Do not idle the motorcycle for prolonged periods, if idling is rough or there are other malfunctions.
• Do not allow the fuel tank to get near the empty level.

CAUTION

If you park or operate the motorcycle in areas where there are combustible materials such as dry grass or leaves, these materials may come in contact with the catalytic converter or other hot exhaust components. This can cause a fire.

Avoid parking or operating your motorcycle in areas with any combustible materials.

TROUBLESHOOTING

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 SYSTEM CHECK

1. Make sure there is enough fuel in the fuel tank.
2. Make sure there is enough fuel reaching the carburetor from the fuel valve.
   a. Loosen the drain screw located under the carburetor.
   b. Drain the fuel from the carburetor into a container.
   c. When the ignition switch turned “OFF” and transmission in neutral, crank the engine by using kick starter. If no fuel is not reaching the carburetor. Consult your Suzuki dealer for repairs.
   d. Tighten the drain screw.
3. If fuel is reaching the carburetor, ignition system should be checked next.

⚠ WARNING

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

When draining the carburetor:

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

IGNITION SYSTEM CHECK

1. Remove the spark plug and reattach it to the spark plug lead.
2. While holding the spark plug firmly against the engine, crank the engine with the ignition switch in the “ON” position, the transmission in neutral. If the ignition system is operating properly, a blue spark should jump across the spark plug gap. If there is 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.

3. If there is no spark, clean the spark plug. Replace it if necessary. Retry the above procedure with the cleaned spark plug or a new one.
4. If there is still no spark, consult your Suzuki dealer for repairs.

ENGINE STALLING

1. Check the fuel supply in the fuel tank.
2. Check the ignition system for intermittent spark.
3. Check the idle speed.

MOTORCYCLE CLEANING AND STORAGE PROCEDURE

MOTORCYCLE CLEANING AND STORAGE PROCEDURE

MOTORCYCLE CLEANING

Washing the Motorcycle

When washing the motorcycle, follow the instructions below:

1. Remove dirt and mud from the motorcycle with cool 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.

NOTE: Clean the motorcycle immediately after riding on road salt or riding along coast with cool water. Be sure to use cool water because warm water can hasten corrosion.

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

- *Ignition switch*
- *Spark plug*
- *Fuel tank cap*
- *Carburetor*

CAUTION

High pressure washers and parts cleaner can damage your motorcycle.

Do not use high pressure washers to clean your motorcycle. Do not use parts cleaner to throttle body and fuel injection sensors if equipped.

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

CAUTION

Cleaning with any alkaline or strong acid cleaner, gasoline, brake fluid, or any other solvent will damage the motorcycle parts.
Clean only with soft cloth and warm water with mild detergent.

Waxing the Motorcycle

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

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

Special Care for Matte Finish Paint

Do not use polishing compounds or waxes that contain polishing compounds or surfaces which have matte finish. The use of polishing compounds will change the appearance of the matte finish.

Solid type waxes may be difficult to remove from surfaces with a matte finish.

Excessive rubbing or polishing of a surface with a matte finish will change its appearance.

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 distance 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 as follows.

MOTORCYCLE
Clean the entire motorcycle. Place the motorcycle on the center 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
Drain the fuel from the fuel tank using a commercially available hand pump or siphon. Drain the fuel from the fuel injection system.

ENGINE
1. Pour one tablespoon of motor oil into each spark plug hole. Reinstall the spark plug and crank the engine a few times.
2. Drain the engine oil thoroughly and refill the crankcase with fresh engine oil all the way up to the filler hole.
3. Cover the air cleaner intake and the muffler outlet with oily rags to prevent humidity from entering.

⚠ WARNING

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

BATTERY
1. Remove the battery from the motorcycle by referring to the BATTERY section.

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.

TIRE
Inflate the tires to the normal pressure.

EXTERNAL
- Spray all vinyl and rubber parts with rubber preservative.
- Spray the unpainted surfaces with anti-rust.
- Coat the painted surfaces with car wax.

PROCEDURE DURING STORAGE

Once a month, recharge the battery with a specified charging rate (Ampere). Standard charging rate is 0.4A × 5 to 10 hours.

PROCEDURE FOR RETURNING TO SERVICE

- Clean the entire motorcycle.
- Reinstall the battery by referring to the BATTERY section.
- Adjust the pressure of tires as described in the TIRE section.
- Lubricate all places as instructed in this manual.
- Do the “INSPECTION BEFORE RIDING” as listed in this manual.

CORROSION PREVENTION

It is important to take good care of your motorcycle to protect it from corrosion and keep it looking new for years to come.

Important Information About Corrosion

Common causes of corrosion

- Accumulation of road salt, dirt, moisture, or chemicals in hard-to-reach areas.
- Chipping, scratches, and any damage to treated or painted metal surfaces resulting from minor accidents or impacts from stones and gravel.

Road salt, sea air, industrial pollution, and high humidity will all contribute to corrosion.

How to Help Prevent Corrosion

- Wash your motorcycle frequently, atleast once a month. Keep your motorcycle as clean and dry as possible.
- Remove foreign material deposits. Foreign material such as road salt, chemicals, road oil or tar, tree sap, bird droppings and industrial fall-out may damage your motorcycle’s finish. Remove these types of deposits as quickly as possible. If these deposits are difficult to wash off, an additional cleaner may be required. Follow the manufacturer’s directions when using these special cleaners.
- Repair finish damage as soon as possible. Carefully examine your motorcycle for damage to the painted surfaces. Should you find any chips or scratches in the paint, touch them up immediately to prevent corrosion from starting. If the chips or scratches have gone through to the bare metal, have a Suzuki dealer make the repair.

- Store your motorcycle in a dry, well-ventilated area. If you often wash your motorcycle in the garage or if you frequently park it inside when wet, your garage may be damp. The high humidity may cause or accelerate corrosion. A wet motorcycle may corrode even in a heated garage if the ventilation is poor.
- Cover your motorcycle. Exposure to midday sun can cause the colors in paint, plastic parts, and instrument faces to fade. Covering your motorcycle with a high-quality, “breathable” motorcycle cover can help protect the finish from harmful UV rays in sunlight , and can reduce the amount of dust and air pollution reaching the surface. Your Suzuki dealer can help you select the right cover for your motorcycle.

SPECIFICATIONS

DIMENSIONS AND CURB MASS

Overall length	1930 mm
Overall width	655 mm
Overall height	1040 mm
Wheelbase	1230 mm
Ground clearance	130 mm
Seat height	750 mm
Curb mass	97 kg (FW110D)

ENGINE

Type	4-stroke, liquid-cooled, SOHC
Number of cylinders	1
Bore	51.0 mm
Stroke	55.2 mm
Displacement	112.7 cm^3
Corrected compression ratio	9.5 : 1
Carburetor	Deni VM 22
Air cleaner	Paper element
Starter system	Electric starter / Kick starter
Lubrication system	Wet sump

DRIVE TRAIN

Clutch	Wet type, automatic centrifugal type
Transmission	4-speed constant mesh
Gearshift pattern	All down
Primary reduction ratio	3.409 (75/22)
Gear ratios, Low	3.000 (33/11)
2nd	1.923 (25/13)
3rd	1.375 (22/16)
4th	1.052 (20/19)
Final reduction ratio	2.500 (35/14)
Drive chain	DAIDO, (DID) #428 100 links

CHASSIS

Front suspension	Telescopic, coil spring, oil damped
Rear suspension	Swingarm type, coil spring, oil damped
Steering angle	45° (right and left)
Caster	27°
Trail	88 mm
Turning radius	1.9 m
Front brake	Drum brake
	Disc brake
Rear brake	Drum brake
Front tire size	70/90-17M/C 38P
Rear tire size	80/90-17M/C 44P

ELECTRICAL

Ignition type	Electronic ignition (CDI)
Spark plug	NGK C6HSA, ND U20FS-U
Battery	12V 12.6 kC(3.5 Ah)/10HR
Generator	Single-phase A.C.generator
Fuse	10A
Headlight	12V 32/32W
Position light	12V 5W
Brake light/Taillight	12V 18/5W
Turn signal light	12V 10W × 4
Speedometer light	12V 1.7W × 2
Neutral indicator light	12V 1.7W
High beam indicator light	12V 1.7W
Turn signal indicator light	12V 1.7W

CAPACITIES

Fuel tank	4.3 L
Engine oil, oil change	800 ml
with filter change	1000 ml
overhaul	1100 ml

INDEX

Warranty System

WARRANTY COVERAGE
FOR ALL MODELS
24 months or 20,000km
whichever comes first

EXPENDABLE PARTS NOT COVERED BY WARRANTY

- Spark plugs
- Lamp bulbs
- Fuses
- Rubber parts except engine oil seals
- Bolts, nuts, washers
- Brake / clutch linings
- Cables
- Gaskets
- Tires and inner tubes
- Mags
- Spokes
- Sprockets (Engine and wheel)
- Drive chain / V-belt

CONDITIONS NOT COVERED BY WARRANTY

- Units that have not undergone required periodic inspection.
- Units serviced by mechanics not authorized by Suzuki.
- Units damaged by use of parts other than Suzuki Genuine Parts.
- Damages caused by users negligence or abuse.
- Delivery or transport problems.
- Changes or alterations in the unit not recommended by Suzuki.
- Accidents, collisions, over-revolution of engine, racing...
- Use of fuel and oil not recommended by Suzuki.
- Trouble caused by breaking a seal or disassembling any unremovable parts such as ECM, CDI unit, switches, speedometer, oil pump, fuel pump, etc.
- Trouble caused by inappropriate care (Rusting, fading of color, natural deterioration, etc.)

SERVICE RECORD

Reliability and performance depend on the special care and maintenance of your motorcycle. Visit your dealers for Periodic Maintenance Service when your motorcycle has reached the specified number of month/s or kilometer reading (whichever comes first) as shown below.

Owner's Name				Dealer Name	
Address				Address	
Model		Color		Date Purchased	
Eng No.				Frame No.	

1st Month (1,000 km) Service

Service Date		Km Reading		JO No.	
Servicing Dealer / Address					
Mechanic Name / Signature		Customer Name / Signature			
Replaced Oil?	☐ YES ☐ NO	Replaced Oil filter?	☐ YES ☐ NO	If YES what oil brand?	

4th Month (4,000 km) Service					
Service Date		Km Reading		JO No.	
Servicing Dealer / Address					
Mechanic Name / Signature		Customer Name / Signature			
Replaced Oil?	☐ YES ☐ NO	Replaced Oil filter?	☐ YES ☐ NO		If YES what oil brand?

8th Month (8,000 km) Service					
Service Date		Km Reading		JO No.	
Servicing Dealer / Address					
Mechanic Name / Signature		Customer Name / Signature			
Replaced Oil?	☐ YES ☐ NO	Replaced Oil filter?	☐ YES ☐ NO		If YES what oil brand?

12th Month (12,000 km) Service					
Service Date		Km Reading		JO No.	
Servicing Dealer / Address					
Mechanic Name / Signature		Customer Name / Signature			
Replaced Oil?	☐ YES ☐ NO	Replaced Oil filter?	☐ YES ☐ NO		If YES what oil brand?

16th Month (16,000 km) Service					
Service Date		Km Reading		JO No.	
Servicing Dealer / Address					
Mechanic Name / Signature		Customer Name / Signature			
Replaced Oil?	☐ YES ☐ NO	Replaced Oil filter?	☐ YES ☐ NO		If YES what oil brand?

24th Month (20,000 km) Service					
Service Date		Km Reading		JO No.	
Servicing Dealer / Address					
Mechanic Name / Signature		Customer Name / Signature			
Replaced Oil?	☐ YES ☐ NO	Replaced Oil filter?	☐ YES ☐ NO		If YES what oil brand?

REPAIR AND INSPECTION RECORD

(To be filled up by Suzuki dealer's mechanic.)

Repair Order No.	Repair Description	Servicing Dealer	Mechanic Name	Repair Date dd/mo/yr	Km Reading

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