



SV650A/SA

OWNER'S MANUAL

This owner's manual contains
important safety information.
Please read it carefully.

Part No. 99011-17G62-03A
June, 2008  EN

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BE EXTRA SAFETY-CONSCIOUS ON BAD WEATHER DAYS

Riding on bad weather days, especially wet ones, requires extra caution. Braking distances increase on a rainy day. Stay off the painted surface marks, man-hole covers, and greasy-appearing areas, as they can be especially slippery. Use extra caution at railway crossings and on metal gratings and bridges. When it starts to rain, any oil or grease on the road rises to the surface of the water. Pull over and wait a few minutes until this oil film is washed away before riding. Whenever in doubt about road conditions, slow down!

PRACTICE AWAY FROM TRAFFIC

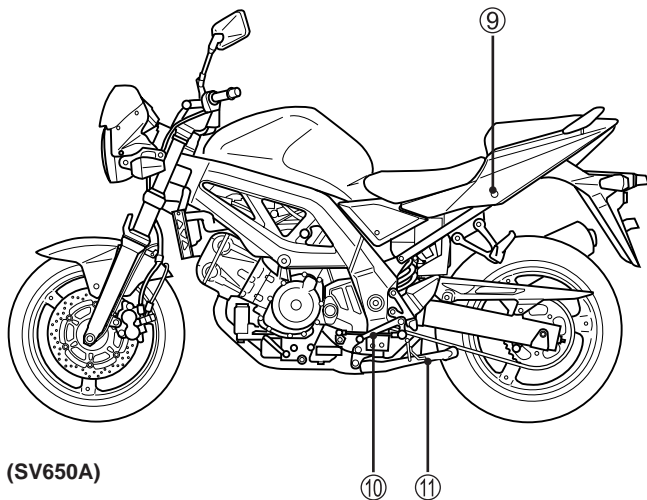
Your riding skill and your mechanical knowledge form the foundation for safe riding practices. We suggest that you practice riding your motorcycle in a non-traffic situation until you are thoroughly familiar with your machine and its controls. Again, consider taking one of the MSF's Rider Courses. Even experts will be pleased with the caliber of the information presented in these courses. As the MSF says: "The more you know, the better it gets!"

INSPECTION BEFORE RIDING

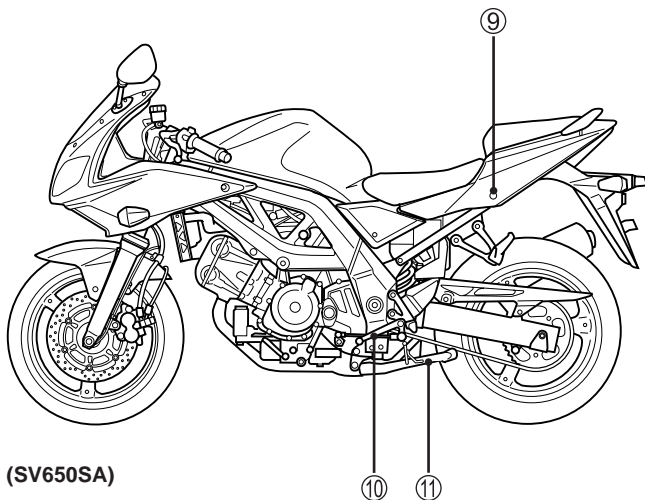
Review the instructions in the "INSPECTION BEFORE RIDING" section of this manual. Perform an entire pre-ride inspection before you head out on the road. Spending a few minutes preparing your machine for a ride can help prevent accidents due to mechanical failure or costly, inconvenient breakdowns far from home.

ACCESSORIES AND LOADING

The accessories you use with your motorcycle and the manner in which you load your gear onto the bike might create hazards. Aerodynamics, handling, balance, and cornering clearance can suffer, and the suspension and tires can be overloaded. Read the "ACCESSORY USE AND MOTORCYCLE LOADING" section.



(SV650A)



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- ⑨ Seat lock
- ⑩ Gearshift lever
- ⑪ Side stand

Fuel Injection System

The image shows the letters 'F' and 'I' in a stylized, digital font, representing the fuel injection system indicator. The 'F' is on the left and the 'I' is on the right, both in a light gray color.

If the fuel injection system fails, symbol mark ⑥ and red indicator light ⑨ comes on and the display ⑫ indicates “FI” in following two modes;

- A. The display ⑫ indicates “FI” and the coolant temperature alternately, and symbol mark ⑥ and the red indicator light ⑨ comes on and remains lit.
- B. The display ⑫ indicates “FI” continuously and the symbol mark ⑥ and the red indicator light ⑨ blinks.

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

CAUTION

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

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

NOTE:

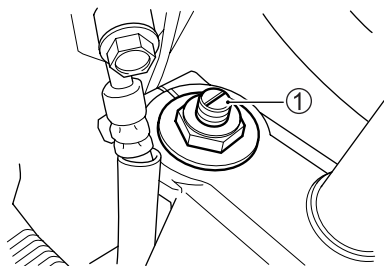
- If the display indicates “FI” and the coolant temperature alternately, and the red indicator light comes on and remains lit, keep the engine running and bring your motorcycle to an authorized Suzuki dealer. If the engine stalls, try restarting the engine after turning the ignition switch off and on.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

SUSPENSION ADJUSTMENT

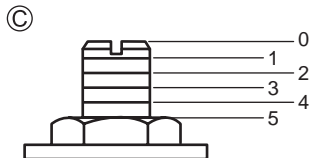
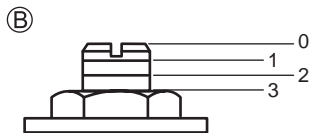
The standard settings for both the front and rear suspensions are selected to meet various riding conditions such as low to high motorcycle speed and light to heavy load on the motorcycle. The suspension settings can be adjusted to fine-tune then according to your preference.

FRONT SUSPENSION

Spring Pre-load Adjustment



To change the spring pre-load, turn the adjuster ① clockwise or counterclockwise. Turning the adjuster clockwise will increase the spring pre-load. Turning the adjuster counterclockwise will decrease the spring pre-load. There are 5 grooved lines on the side of the adjuster ① for reference. Position 5 provides the minimum spring pre-load and position 0 provides the maximum pre-load. This motorcycle is delivered from the factory with its adjuster set on position 3.



- (A) Position 0
- (B) Position 3
- (C) Position 5

STARTING OFF AND SHIFTING

WARNING

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

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

WARNING

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

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

WARNING

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

Reduce your speed and be alert to side winds.

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

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

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SPARK PLUG

Your motorcycle comes equipped with NGK CR8E or DENSO U24ESR-N spark plugs. To determine if the standard spark plug is right for your usage, check the color of the plug's porcelain center electrode insulator after motorcycle operation. A light brown color indicates that the plug is correct. A white or dark insulator indicates that the engine may need adjustment, or another plug type may be needed. Consult your Suzuki dealer or a qualified mechanic if your plug insulator is not a light brown color.

CAUTION

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

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

Plug Replacement Guide

NGK	DENSO	REMARKS
CR7E	U22ESR-N	If the standard plug is apt to get wet, replace with this plug.
CR8E	U24ESR-N	Standard
CR9E	U27ESR-N	If the standard plug is apt to overheat, replace with this plug.

NOTE:

- *If the above-named plugs are not available, consult your Suzuki dealer.*
- *This motorcycle uses resistor-type spark plug to avoid jamming electronic parts. Improper spark plug selection may cause electronic interference with your motorcycle's ignition system, resulting in motorcycle performance problems. Use only the recommended spark plugs.*

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

To adjust the cable play:

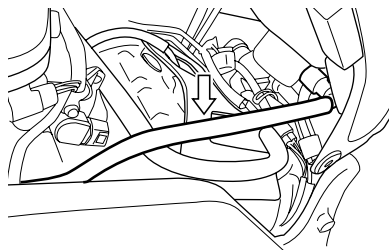
1. Loosen the lock nut ①.
2. Turn in the adjuster ② fully.
3. Loosen the lock nut ③.
4. Turn the adjuster ④ so that the throttle grip has 2.0 – 4.0 mm (0.08 – 0.16 in) play.
5. Tighten the lock nut ③.
6. While holding the throttle grip at the closed position, turn out the adjuster ② to feel resistance.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

WARNING

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

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

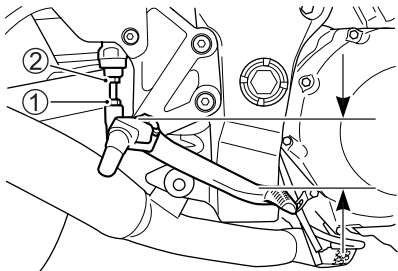
FUEL HOSES



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

Rear Brake Adjustment

The rear brake pedal must be adjusted to set the clearance between the pedal and the foot-rest. Adjust the brake pedal as follows:



(SV650A)

1. Loosen the lock nut ①, and turn the push rod ② to locate the pedal 50 – 60 mm (2.0 – 2.4 in) below the top face of the foot rest.

(SV650SA)

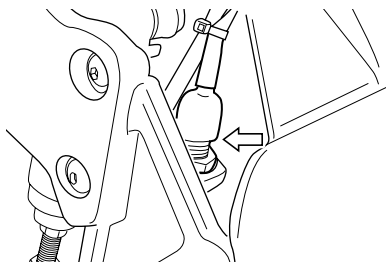
1. Loosen the lock nut ①, and turn the push rod ② to locate the pedal 60 – 70 mm (2.4 – 2.8 in) below the top face of the foot rest.
2. Retighten the lock nut ① to lock the push rod ② in the proper position.

CAUTION

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

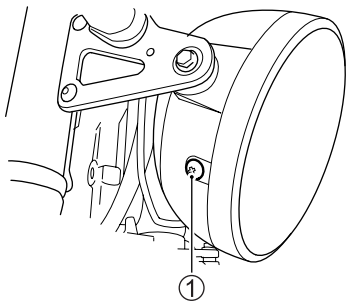
Follow the steps in this section to adjust the brake pedal properly.

Rear Brake Light Switch



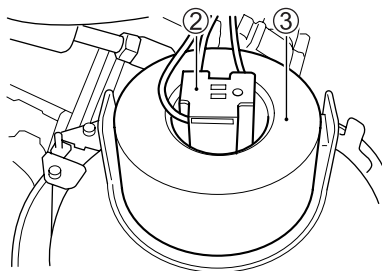
To adjust the brake light switch, hold the switch body and turn the adjuster so that the brake light will come on just before a pressure rise is felt when the brake pedal is depressed.

Headlight

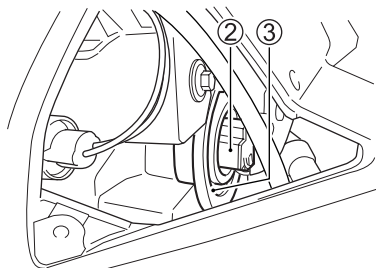


(SV650A)

1. Remove the screws (1).
Remove the headlight.

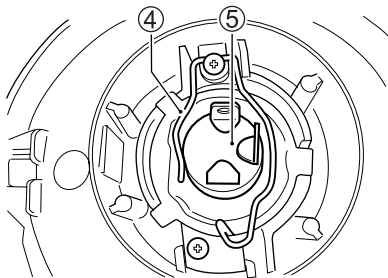


(SV650A)



(SV650SA)

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



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

CAUTION

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

Grasp the new bulb with a clean cloth.

PROCEDURE FOR RETURNING TO SERVICE

1. Clean the entire motorcycle.
2. Remove the oily rags from the air cleaner intake and muffler outlet.
3. Drain all the engine oil. Install a new oil filter and fill the engine with fresh oil as outlined in this manual.
4. Remove the spark plugs. Turn the engine a few times. Reinstall the spark plugs.
5. Reinstall the battery.
6. Make sure that the motorcycle is properly lubricated.
7. Perform the **INSPECTION BEFORE RIDING** as listed in this manual.
8. Start the motorcycle as outlined 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, at least 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.

③ (SV650A)

⚠ WARNING		COLD TIRE PRESSURE	SOLO RIDING			DUAL RIDING		
			kPa	kgf/cm ²	psi	kPa	kgf/cm ²	psi
<ul style="list-style-type: none"> • Check tire condition, wear, and cold tire pressure before each ride. • Replace only with TUBELESS tires of listed size and type. • Read Owner's manual for more information. 		FRONT	225	2.25	33	225	2.25	33
		REAR	250	2.50	36	250	2.50	36
		TIRE SIZE		FRONT 120/60ZR17 M/C (55W)			REAR 160/60ZR17 M/C (69W)	
TYPE	DUNLOP	D220FST			D220ST L			

③ (SV650SA)

⚠ WARNING		COLD TIRE PRESSURE	SOLO RIDING			DUAL RIDING		
			kPa	kgf/cm ²	psi	kPa	kgf/cm ²	psi
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		REAR	250	2.50	36	250	2.50	36
		TIRE SIZE		FRONT 120/60ZR17 M/C (55W)			REAR 160/60ZR17 M/C (69W)	
TYPE	DUNLOP	D220FST M			D220ST L			

④

⚠ WARNING
<p>Do not carry any objects in the space behind the fairing or on the fairing support bars.</p> <p>Objects placed in these area can interfere with steering and can cause loss of control.</p>

⑤ (SV650SA)

⚠ WARNING
<ul style="list-style-type: none"> • Keep windshield clean at all times. • Clean only with a soft cloth and warm water with a mild detergent. • Minor scratches may be removed by polishing with a commercially available plastic polish. Make sure the plastic polish does not contain an abrasive compound, as it may cause permanent scratches. • Replace windshield if it becomes scratched or discolored so as to interfere with view. • Avoid using any alkaline or strong acid cleaner, gasoline, brake fluid, or any other solvent. • When replacing windshield, use Suzuki replacement windshield.

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