

Details described or illustrated in this booklet may differ from the vehicle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be

as purchased, the accessories fitted or the national-market specification. No claims will be asserted as a result of such discrepancies.

Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.

The right to modify designs, equipment and accessories is reserved. Errors and omissions excepted.

# GJMOTOR

#### **Foreword**

Thank you for choosing QJMOTOR SVT 650/SVT 650 X EFI two-wheeled motorcycle. This model of motorcycle is produced based on the worldwide advanced technology and will provide you with extremely happy and safe riding.

Riding a motorcycle is one of the most exciting sports. Before riding, you should be fully familiar with the regulations and requirements specified in this instruction and follow them.

This instruction describes the routine repair and maintenance of motorcycles. Following the regulations in this instruction will ensure the maximum performance and durability of your motorcycle.

The Company has specialized service technicians and service departments, which can provide you with excellent technical repair service.

QJmotor Co., Ltd. will be in persistent pursuit of "making consumers more satisfied". Please understand that any modification of the motorcycle exterior and structure will result in the mismatch of some information between this instruction and actual motorcycles due to the continuous improvement of product quality and performance by QJmotor Co., Ltd. The illustrations in this instruction are for reference only. Detailed information is subject to the final product.

### Zhejiang QJmotor Co., Ltd.

### **Important Precautions**

1. Driver and passenger

This motorcycle is designed to be used by only one driver and one passenger.

2. Road conditions for driving

This motorcycle is suitable for driving on the road.

3. Please read this use and maintenance instruction carefully. Careful and patient running-in of a new motorcycle enables the motorcycle to run stably at the excellent performance.

Please pay attention to the critical safety information in a variety of forms, including:

**WARNING**: It indicates that failure to follow the instructions may result in severe personal injury or even death.

**CAUTION**: It indicates that failure to follow the instructions may result in personal injury or equipment damage.

**NOTE**: Information to help you better use your motorcycle.

This use and maintenance instruction should be regarded as a permanent document of the motorcycle. Even when transferring the motorcycle to others, please hand this use and maintenance instruction over to the new owner.

No part of this use and maintenance instruction may be reproduced without written permission.

Special engine oil should be used for the lubricating parts of this motorcycle.

### **Special Remarks**

WARNING: The motorcycle must be equipped with a fuse that meets the requirements before you drive safely. It is not allowed to use other specifications other than the requirements, and it is also prohibited to directly tie or replace it with other conductive objects; otherwise, it will cause damage to other components and result in fire accidents in serious cases.

The fuse is located under the driver seat cushion, next to the battery.

A blown fuse is generally caused by a fault in the internal circuit of the motorcycle. Before replacing the fuse, you should determine the condition of the whole motorcycle. If it is still blown after the spare fuse is used, you should immediately send the motorcycle to the QJMOTOR service center for inspection. You can ride it only after troubleshooting.

#### **Precautions:**

\* When installing or replacing the battery for the first time, pay attention to the positive and negative electrodes. If there is a reverse connection, check that the fuse is in good condition. However, you should send it to the Service Center for inspection regardless of whether the fuse is in good shape to prevent some electrical parts from being damaged due to the reverse connection of the battery. If the damaged parts continue to work, they will cause unpredictable faults.

\*Before replacing the fuse, turn the key to the "\overline" position to prevent accidental short circuit;

\* Do not damage the fuse holder when replacing the fuse. Otherwise, it will cause poor contact, damage to components and even fire accidents.

**Energy saving and environmentally friendly**: The used oil, coolant, gasoline and some cleaning solvents contain toxic substances. Do not discharge them randomly. Please place them in special sealed containers and send them to the recycling center or the local environmental protection service. Do not discard randomly or disassemble the waste batteries without permission, which shall be recycled and disposed of by a Service Center, or a department with relevant professional disposal qualifications for safe recovery and disposal. Used motorcycles should be sent to the local special dismantling and recycling institutions for classification and recycling.

**No modification:** Do not modify the motorcycle or change the location of any original parts without permission. Any modification without permission may seriously affect the stability and safety of the motorcycle and may cause the motorcycle to fail to work properly. At the same time, according to the Law of the People's Republic of China on Road Traffic Safety, no unit or individual may assemble a motor vehicle or arbitrarily change its registered construction, structure or characteristics. The Company will not bear all quality problems and consequences (including loss of warranty) caused by the user's own modification without permission or replacement of unauthorized parts and components. Users are requested to comply with the regulations of the traffic management department on the use of motorcycles.

Warm reminder: After you buy a motorcycle, please equip it with a motorcycle driving helmet that meets the national standards.

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#### **Motorcycle Safety**

#### Safe Driving Rules

- 1. You must inspect the motorcycle before driving to avoid accidents and damage to parts.
- 2. The driver must pass the examination of the traffic management department and obtain a driver's license consistent with the motorcycle before driving. It is not allowed to lend the motorcycle to a person without a driver's license.
- 3. To protect against other motor vehicles, the driver must be as conspicuous as possible. For this purpose, please:
- wear distinctive and noticeable tight clothes;
- do not get too close to other motor vehicles.
- 4. Strictly abide by the traffic rules, and do not rush for roads.
- 5. Do not exceed the maximum speed limit of the road section to prevent accidents due to overspeed.
- 6. Turn on the turn signal light in advance when turning or changing the lane to attract the attention of others.
- 7. Be careful at intersections, entrances and exits of parking lots, and on fast lanes.
- 8. Refitting the motorcycle or removing the original parts arbitrarily will not guarantee driving safety, and is not in compliance with the regulations, which will affect the motorcycle's warranty.

- 9. The configured accessories must not affect the motorcycle's driving safety and handling performance, especially the overload of the electrical system which can easily cause danger.
- 10. Do not tow another vehicle. Towing another vehicle with a motorcycle can make the tires overloaded, damaged and failed, reduce braking performance, and adversely affect stability and maneuverability of the motorcycle, potentially resulting in death or serious injury. Towing a faulty motorcycle can adversely affect stability and maneuverability of the motorcycle, potentially resulting in death or serious injury.
- 11. Do not add a sidecar. Riding a motorcycle with a sidecar can cause the motorcycle out of control, resulting in death or serious injury.
- 12. Do not overload the motorcycle when driving. Overloading can cause parts and components fault and seriously affect stability, maneuverability and performance, possibly resulting in death or serious injury.

#### **Protective clothing**

- 1. For personal safety, drivers must wear safety helmets, goggles, riding boots, gloves and protective clothing. Passengers also need to wear safety helmets and hold firmly the passenger armrest.
- 2. During driving, the exhaust system will become hot, and it will be still hot after the engine is stopped for a

while. Never touch a hot exhaust system.

3. Do not wear loose clothing that may be trapped by the control lever, footrest or wheels while driving.

#### Wearing a Safety Helmet

A helmet that meets safety and quality standards is the priority for riding with protective equipment. The worst traffic accident is a head injury. Please always wear a safety helmet and preferably protective glasses.

#### Precautions for Riding on Rainy Days

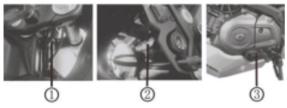
Be cautious when riding on a wet and slippery road on rainy days, as the braking distance becomes longer under such weather conditions. When riding, avoid paint, manhole covers and greasy roads in order to prevent slipping. Be careful when passing through railway crossings, iron gates and bridges. Please slow down when you cannot judge the road conditions.

#### **Motorcycle Series Number**

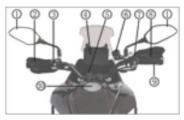
The frame number and engine number are used for registering motorcycles. When ordering accessories or entrusting special services, you can obtain better services provided by the OJMOTOR service center using these numbers.

Please record the number for reference.

- 1) Position for marking the frame number: on the head tube (to the right)
- 2 Position for riveting the product nameplate: on the head tube (to the left)
- 3 Position for marking the engine model and the production serial number: bottom of the left crankcase of the engine.



#### **Part Name**



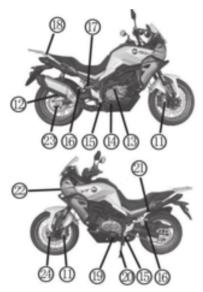
- (1)Rearview mirrors (left and right)
- (4)Instrument panel
- (7) Right handlebar switch
- (10) Fuel tank cover
- (13)Oil filler
- (16)Passenger footrests (left and right)
- (19)Shift lever

- (2)Clutch lever
- (5) Ignition switch (power supply lock)
- (8)Front brake lever
  - (11)Front brakes (left and right)
  - (14) Rear brake pedal
  - (17)Rear brake fluid reservoir
  - 20 Side stand
- 22 Front camera position
- ②Front wheel ABS wheel speed sensor

(3)Left handlebar switch

- (6)Front brake fluid reservoir
- (9) Accelerator control grip
- (12)Rear brake
- (15) Driver footrests (left and right)
- (18)Passenger armrest (handle)
- 21)Driver seat cushion lock hole ②Rear wheel ABS wheel speed sensor

#### Status of SVT 650 X model:



Note: This model is equipped with tires, rims, shock absorbers, brakes, etc. The illustrations in this instruction are for reference only. Detailed information is subject to the final product.

#### **Instrument panel**

The instrument panel of this model can be set to daytime interface mode or night interface mode or automatic mode (the instrument panel automatically switches to daytime or night interface when it senses ambient light conditions).

#### 1 Left turn signal indicator light

When you move the turn signal light switch to the left, the left turn signal

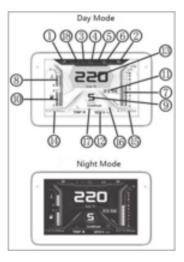
left turn signal indicator light will flash accordingly.

# Right turn signal indicator light

When you move the turn signal switch to the right, the right turn signal indicator light will flash accordingly.

# 3 High beam indicator light

When the high beam headlight comes on, the high beam indicator light will come on.



#### **4** Engine fault indicator light

When the key is turned on, the indicator light will come on and the oil pump works for 3 seconds, then the motorcycle is started. If the indicator light goes off after the motorcycle is started, the motorcycle is normal, and there is no fault; if the indicator light comes on, there is a fault. Similarly, the motorcycle is running normally if the indicator light goes off during driving. If the light comes on, the motorcycle has a fault and needs to be stopped for inspection. Please contact the local QJMOTOR service center to inspect the motorcycle in time.

#### **5** Engine oil indicator light

When the engine is not started after the ignition switch is turned on, the oil indicator light remains on; if the oil pressure is normal after the engine is started, the oil indicator light will go off. If the oil indicator light doesn't go off, the oil pressure may be abnormal and the engine should be shut down for inspection; when the engine oil is low, the oil indicator light will come on. Please add the oil in time.

#### **6** ABS indicator light:

It indicates the working condition of ABS. Please refer to the "ABS use and repair instructions" described below for details (Page 29).

#### Tachometer

It indicates the engine speed.

#### **8** Water temperature display

It indicates the motorcycle water temperature with the position "C" indicating that the water temperature is low and the position "H" indicating that the water temperature is high.

#### 

It indicates the current gear position of the motorcycle, including gear positions 1, 2, 3, 4, 5, 6 and N, respectively indicating that the gear position is in 1st, 2nd, 3rd, 4th, 5th, 6th and neutral position.

#### 10 Fuel indicator

It indicates the fuel level in the fuel tank. When the fuel tank is full (Position F), the fuel level is displayed with 6 indicating marks. When the fuel is low, the fuel level is displayed with 1 indicating mark or less (Position E). The last indicating mark of the fuel indicator will flash.

#### 11 Time display

It indicates the current time. If the time needs to be adjusted, see the following **Instrument adjusting key** for details.

#### (12) Odometer

The odometer records the motorcycle's total mileage (TOTAL) and relative mileage (TRIP A and TRIP B). The relative mileage (TRIP A and TRIP B) can be reset in kilometers or miles. See the following **Instrument** 

#### adjusting key for details.

#### (13) Speedometer:

It indicates the current driving speed, optionally in km/h or mph. See the following **Instrument adjusting key** for details.

#### (4) Front tire temperature and pressure display

It indicates the tire temperature (°C) of the front wheel (F) and the front tire pressure.

#### (15) Tire temperature and pressure display

It indicates the tire temperature (°C) of the rear wheel (R) and the rear tire pressure.

#### 16 Tire abnormal alarm

This yellow tire pressure warning light "will come on when the tire pressure or temperature is abnormal.

# Tire pressure fault alarm message display area/incoming call display area

It indicates the tire pressure fault alarm message content. Please stop for inspection or contact the local QJMOTOR Service Center to inspect the motorcycle.

After the Bluetooth is connected, if there is an incoming or outgoing call, the incoming or outgoing call information is displayed.

#### (18) Bluetooth indicator light

The blue Bluetooth icon is displayed when Bluetooth is

connected. The Bluetooth icon is not displayed when Bluetooth is not connected.

#### Instrument adjusting key

The instrument adjusting key is located on the left handlebar switch of the motorcycle. On the instrument panel main display interface, press the "SELECT" key to switch between the total mileage (TOTAL) and the relative mileage (TRIP A and TRIP B). Under the state of the relative mileage (TRIP A and



TRIP B), press and hold "SELECT" to clear the subtotal relative mileage. Under the state of the total mileage (TOTAL), press and hold "SELECT" to switch the mileage and the unit display of the motorcycle speed in km/h or mph.

When the motorcycle speed is zero, press the "ENTER" key for confirmation to enter the main menu page of the



instrument panel. You can select the functions of "INTERFACE", "CLOCK", "BRIGHTNESS", "UNIT", "INFORMATION", "Mobile Bluetooth", "TPMS" and

"EXIT". Press "SELECT" to select the specific function to be adjusted, and press "ENTER" to confirm after selection. After the main menu interface is entered, the system automatically returns to the main interface if there is no operation for 8 seconds (except for Bluetooth, secondary setting interface of tire pressure).

After the Bluetooth is connected, if there is an incoming or outgoing call, you can answer the call by pressing "ENTER" and hang up by pressing "SELECT".

#### 1 INTERFACE

The main interface of the instrument panel can be displayed in three modes: daytime, night and automatic.

When automatic mode is selected, the light sensor automatically selects daytime/night mode based on the current ambient light brightness.

#### 2 CLOCK

Clock display range:  $00:00 \sim 23:59$  (24-hour system). The time needs to be reset in case of battery failure. In the setting mode, when each time a digit is set, the number of the digit flashes.

#### ③ BRIGHTNESS

Set the instrument panel backlight brightness at positions  $1\sim 5$  and auto.

#### **4** UNIT

Select the units of the speedometer and odometer on the

instrument panel main interface in km/h or mph.

#### **(5)** INFORMATION

It displays the motorcycle fault, version and other information.

#### **6** Mobile Bluetooth

When the Bluetooth is not paired, the Bluetooth indicator is not displayed on the main interface of the instrument panel, and when the pairing is successful and the Bluetooth is connected, the Bluetooth indicator remains on

Select the ON or OFF status in the settings. If you turn it off, the Bluetooth can not be connected, and the number of synchronized contacts is 0; if you turn it on, the Bluetooth is reconnected, and the maximum of 2000 contacts are automatically synchronized.

Select Exit to return to the previous menu.

#### (7) TPMS

The tire pressure unit can be chosen from one of three types: kpa, bar or psi.

If the front and rear wheel sensors have not learned, the "Not learned" message is displayed; if the front and rear wheel sensors have successfully learned, the corresponding ID string is displayed; if the front and rear wheel sensors have failed to learn, the "Learning failed" message is displayed.

Select Exit to return to the previous menu.

#### (8) EXIT

Select Exit to return to the main interface of the instrument panel.

#### **Operations of All Parts**

#### • Key

The motorcycle is provided with two keys, which can be used to start the motorcycle and open all the locks. One key is for service. Keep another key at a safe place.



Press the button ① on the key to extend or retract the key head.

#### • Ignition switch (power supply lock)

#### WARNING:

Do not hang O-rings or other objects on the key, which may prevent its rotation. Never turn the key while the motorcycle is running. Otherwise, the motorcycle will be out of control. In order to ensure safety during driving, please do not place objects that hinder you from operating the motorcycle.

"A" mark - When the key is turned to the "A" mark position, the power supply is off, and the engine cannot be started, but the key can be removed;

"O" mark - When the key is turned to the "O" mark position, the power supply is on, and the engine can be started, but the key cannot be



#### removed;

"d" position: When the key is at the "\(\overline{\mathbb{N}}\)" mark position, turn the steering handle to the left, press the key and turn it counterclockwise to the "\(\overline{\mathbb{U}}\)" position. The steering lock extends out of the lock cylinder, and the motorcycle steering is locked. Now, the key can be removed.

#### Note:

Please lock the steering handlebar and remove the key when parking to prevent theft. After locking, turn the steering handlebar gently to confirm whether it is locked. Please do not park in the place that blocks traffic.

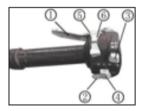
#### • Left handlebar

① Clutch lever

When starting the engine or shifting gears, hold the clutch lever to cut off the drive to the rear wheel.

(2) Horn button

Press the horn button and the horn beeps.



③ High/low beam headlight selector switch

When the high/low beam headlight selector switch is moved to the "\( \begin{align\*} \begin{align\*} \text{moved} & \text{moved} & \text{position}, & \text{the high beam headlight will} \end{align\*}

come on, and the high beam indicator light on the instrument panel will also come on; when the selector switch is moved to the "\$\oldsymbol{\infty}\text{O}\text{"} position, the low beam headlight will come on. When you ride the motorcycle in an urban area or see a vehicle in the front, switch to the low beam headlight so as not to affect the sight of the other drivers.

#### 4 Turn signal light switch

Move the turn signal light switch to the "\(\sigma\)" or "\(\sigma\)" position and the corresponding turn signal light will flash. And, the green turn signal indicator light on the instrument panel will flash accordingly. To deactivate the turn signal, move the turn signal light switch to the center or press the switch downwards again.

#### WARNING:

When changing lanes or turning, turn on the turn signal light in advance and make sure no vehicle behind is passing. After changing lanes or turning, turn off the turn signal light in time to prevent affecting the normal driving of other vehicles and avoid accidents.

#### (5) Overtaking light switch

When crossing or overtaking, press this button continuously, and the high beam headlight will flash continuously to warn the vehicle ahead.

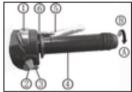
⑤ Instrument adjusting key

See "Instrument adjusting key" and "Mobile phone wireless projection function" on pages 5-7 above.

#### • Right handlebar

① Start/Stop switch

When the switch is moved to the "O" position, the motorcycle is powered on, and the engine can be started. When the switch is moved to



the "\overline{\text{W}}" position, the \underline{\text{\overline{O}} \overline{\text{O}}} \underline{\text{O}} \

#### WARNING:

During normal driving, do not move the switch from "O" to "S". Otherwise, the engine or exhaust system may be damaged. Do not use the stop switch except in case of an emergency.

#### 2 Hazard warning lamps switch

When the switch is moved to the "A" position, the left and right turn signal lights will be flashing and illuminating simultaneously, reminding you to alert danger. When the switch is moved to the "\* position, the left and right turn signal lights stop flashing.

(3) Electric start button

Make sure the engine start/stop switch is placed at the "O" position. Retract the side stand. Engage the transmission at neutral position. Press the electric start button "O", and the electric motor will run to start the engine.

#### WARNING:

If the engine cannot be started within 5 seconds, turn the ignition switch to the "A" (off) position. Wait for 10 seconds until the battery voltage is restored. Then, re-start the engine. If the engine fails to start after several attempts, contact your local QJMOTOR service center to inspect.

#### 4 Accelerator control grip

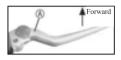
The accelerator control grip is used to control the engine speed. For acceleration, turn the accelerator control grip in the direction  $\oplus$ ; releasing or turning the accelerator control grip in the direction  $\oplus$  will slow it down.

#### (5) Front brake lever

Hold the brake lever of the right handlebar for applying the front brake according to the braking emergency conditions.

#### 6 Front brake lever adjuster

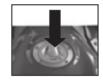
For ride comfort, adjust the front brake lever position by adjusting the position of the knob with the ring nut. Adjustment may be made by choosing one of four positions. Move just slightly the brake lever forward horizontally, and then rotate the ring nut adjuster for alignment with the



arrow ① to get the desired position. Also, the brake lever is furthest from the accelerator control grip at position 1 and nearest from the grip at position 4.

#### Refueling

When the fuel indicator on the instrument panel is flashing, refuel the fuel tank.



When refueling, first open the dust cover of the fuel tank cap, then insert the fuel tank key and rotate it

clockwise to pull and open the fuel tank cap together with the key. Upon completion of refueling, align the fuel tank cap with its guide pin and press it downwards to close the fuel tank cap. Remove the key after a locking sound occurs, and close the dust cover of the fuel tank cap.

#### WARNING:

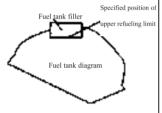
Do not overfill the fuel tank (it is recommended that the fuel tank should be filled up to 90% of the fuel tank capacity). For refueling, do not exceed the MAX mark of the fuel tank as shown in the figure below. Do not splash fuel on the hot engine; otherwise, the motorcycle may run abnormally or dangerous accidents may occur.

When refueling, turn off the engine and switch the ignition key to the "X" (off) position.

Lock the fuel tank cap after refueling to prevent excessive evaporation of fuel into the atmosphere, which wastes energy and pollutes the environment.

No smoking during refueling.

If gasoline overflows into the carbon canister and other parts and components, clean or replace the canister as soon as



possible at the QJMOTOR Service Center, because excessive gasoline entering the canister will cause that the activated carbon fails prematurely.

Always check that the fuel tank overflow drain port is unclogged to ensure free drainage and avoid external water from entering the tank inner chamber.

#### • Shift lever

This model of motorcycle is designed with the normally engaged six-speed international gear (non-cyclic) shift mode, which is operated as shown. Hold firmly the clutch lever and turn off the accelerator while operating the shift lever. The neutral gear position is located between the gear position 1 and gear position 2. From the neutral

position, step down the shift lever to engage the gear position 1. Move the lever upwards once to engage the next high-speed gear position; step down the lever once to engage the next low-speed gear position. For engaging the neutral position, step down or move upward the shift lever to the position between the gear position 1 and gear position 2.



Because of the ratchet mechanism, the gear position can only be shifted one by one.

#### Caution

When the transmission is placed at the neutral position, the neutral indicator light on the instrument panel will come on. Now, slowly release the clutch to determine whether the transmission is actually at the neutral position.

#### • Rear brake pedal

Engage the rear brake by stepping down the rear brake pedal. The brake light will come on when the rear brake is operated.



#### Side stand

The side stand is located on the left side of the motorcycle. When parking, deploy the side stand. The side stand has an automatic shutdown function: When the side stand is in the parking state (the side stand is deployed), the engine cannot be started or automatically shut down after start if the engine gear position is placed at a position other than neutral. The engine can be started normally only when the side stand is retracted.

#### NOTE:

Do not support the motorcycle on an inclined slope. Otherwise, the motorcycle may roll over. Please check the position of the side stand before parking the motorcycle.

#### • Tools supplied with motorcycle

The tools supplied with the motorcycle are located under the driver seat cushion. Use the tools supplied with the motorcycle to make repairs, minor adjustments and parts replacement, etc.

#### • Front shock absorber adjustment

The front shock absorber on this model can be adjusted for shock absorption rebound damping and spring preload.

Rebound damping adjustment: turn the middle adjustment lever of the shock absorber clockwise with a straight



screwdriver (①) to increase the rebound damping force of the shock absorber. Turning the middle adjustment lever of the shock absorber counterclockwise with a straight screwdriver reduces the damping force of the shock absorber. The factory adjustment is -1 turn, i.e. the straight screwdriver is turned clockwise to the end and then counterclockwise by 1 turn. The left and right shock absorbers need to be adjusted to the same rebound damping state.

Spring preload adjustment: use a M14 wrench to turn the outer hexagon nut (②) clockwise for adjustment, and the spring preload will increase and the overall shock absorber will become hard; turn the outer hexagon nut counterclockwise for adjustment, the spring preload will decrease and the overall shock absorber will become soft; for factory settings, it is turned counterclockwise to the uppermost end; there is a corresponding slot on the column; left and right adjustments need to be consistent (use the calipers to measure the height).

#### WARNING:

Do not turn the adjuster beyond its limit, as this will damage the shock absorber.

Adjustments must be made simultaneously on both left and right sides, and the number of turns and positions for adjustment must be the same to ensure the balance of the motorcycle.

#### • Rear shock absorber adjustment

The rear shock absorber of the motorcycle is mainly composed of the shock absorbing spring and spring preload, which can be adjusted according to the driver's wishes, bearing conditions, road conditions and other factors. When adjusting, support the motorcycle on its side stand firmly.



According to the road conditions, adjust the spring preload by adjusting the upper adjusting nut ① of the shock absorber to increase the comfort of the driver.

#### WARNING:

The rear shock absorber preload (compression of spring) has been adjusted to the best riding state in the factory. The shock absorber will be skillfully adjusted. For adjustment, please contact the local QJMOTOR service center to adjust the shock absorber. Unauthorized adjustment may cause a safety accident due to uncoordinated adjustment.

#### Rollover automatic shutdown

This motorcycle has a rollover automatic shutdown function. When the motorcycle rolls over or tilts to a certain angle, the engine will automatically shut down to prevent the danger.

#### USB Interface

The USB interface is provided on the right side of the power supply switch, which can be used to charge mobile phones and other components.



#### • Adjustment of rearview mirror

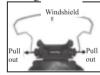
Turn the rearview mirror frame (1) and the mirror lever 2 to adjust the angle of the rearview mirror. Adjust properly the rearview mirror frame and the mirror lever until you can clearly see the condition



#### • Front windshield height adjustment

behind the motorcycle.

This model has two levels of windshield height. When the windshield height needs to be adjusted, pull out the height adjustment lever with both hands and push the lever up or down at the same time to adjust the windshield



#### Installation and removal of seat cushion

Insert the key into the keyhole of the seat cushion ①. Turn the key clockwise to remove the driver seat cushion.

To install the driver seat cushion, push the seat cushion from back to front, let the front retainer on the back of the

height.

seat cushion ② get stuck on the limit plate ③ on the fuel tank position, align the left and right retainer ④ on the middle of the back of the seat cushion with the lower snap ring ⑤, then align the locking hook ⑥ with the locking slot ⑦ and press down on the seat cushion to attach the driver seat cushion.

After removing the driver seat cushion, remove or reinstall the passenger seat cushion fixing screw (7) to remove or reinstall the passenger seat cushion.



### **Instructions for Use of Fuel Oil and Engine Oil**

#### Fuel oil

Unleaded gasoline with octane number 92 and above shall be used. If the engine makes a slight knocking sound, the fuel may be general grade and must be replaced.

#### NOTE:

Using unleaded or low-lead gasoline can prolong the service life of spark plugs.

#### **Engine oil**

Please use high-purity and high-performance totally synthesized engine oil meeting the requirements of SN grade. The factory recommended model is SN15W-50. [The loss of engine fault caused by the purchase of engine oil that does not meet the requirements will affect the warranty of the motorcycle]. Please go to the local QJMOTOR Service Center to buy special engine oil for this motorcycle. The engine oil viscosity should be determined according to the air temperature in the driving area.

#### Running-in

#### Maximum motorcycle speed

For a new motorcycle, during the initial running-in driving period of 1500km, do not make the engine run at a speed exceeding the maximum speed for the running-in period, do not accelerate or turn or brake suddenly, and do not make the speed in any gear position exceed 80% of its maximum RPM; do not operate with a throttle fully opened.

#### **Engine speed change**

The engine speed should not be kept fixed, but should be changed from time to time, which helps the running-in of parts.

During running-in, it is necessary to apply appropriate stress to all parts of the engine to ensure a complete fit, but do not to impose excessive load on the engine.

#### Avoid running at a constantly low speed

Running the engine at a constantly low speed (light load) will make the parts be excessively worn and bad fitted. As long as the recommended maximum speed limit is not exceeded, each gear position can be engaged to accelerate the engine, but the maximum accelerator position must not be used during the running-in period.

The following table shows the maximum engine speed during the running-in period.

Initial 800 km	Below 5000 rpm
Up to 1500 km	Below 7000 rpm
Over 1500 km	Below 8000 rpm

#### Before driving, circulate the engine oil first

Before riding the motorcycle in high temperature state after the engine is running or in low temperature state, the engine shall sufficiently idle to allow the engine oil to flow to all the lubricating parts.

#### Routine initial maintenance inspection

The maintenance of the initial 1000km is the most important for a motorcycle. During such maintenance, all adjustments must be made, all fasteners must be tightened, and dirty engine oil must be replaced. The maintenance of the initial 1000km carried out in time will ensure long engine service life and good performance.

#### CAUTION:

Maintenance of initial 1000 km shall follow the methods described in the "Inspection and Maintenance" section. Pay special attention to the "CAUTION" and "WARNING" in the "Inspection and Maintenance" section.

After the initial running-in to 1000 km, please entrust the QJMOTOR Service Center to replace the oil filter and engine oil, and clean the filter screen, etc. (Afterwards, follow the "Maintenance schedule"). At the same time, check the engine oil level frequently. Add special engine oil or the engine oil specified in this instruction if necessary.

#### **Inspections before Riding**

Before riding, be sure to inspect the following. Do not ignore the importance of these inspections. Complete all inspection items before riding.

Inspection item	Key points of inspection			
	1)To rotate smoothly			
Handlebar	2) To rotate flexibly			
	3) No axial play or loosening			
Brake	1) A correct clearance can be found between the handle and the brake pedal.			
	2) No brake malfunction			
	3) No oil leakage			
	1) Correct tire pressure			
Tire	2) Appropriate tread depth			
	3) No crack or damage			
Fuel oil level	Filled with sufficient fuel for the planned distance traveled			
Light	Operate all lights - headlight, position light, brake light, instrument panel light, turn signal light, etc.			
Indicator lights	High beam indicator light, gear position indicator light, and turn signal indicator light			
Horn, front brake	Normal function			

handle and rear brake pedal	
Engine oil	Correct oil level
Accelerator	1) The accelerator steel cable has proper clearance.
	2) Smooth acceleration and deceleration
Clutch	1) The steel cable has proper clearance.
	2) Smooth operation
Drive chain	1) To be tensioned properly
Dire chall	2) To be lubricated properly
Coolant	Coolant level is within the standard range

#### Riding a motorcycle

#### **Engine starting**

Turn the ignition switch to the "O" position, and confirm that the transmission is placed at the neutral position, and the neutral indicator light on the instrument panel comes on.

Press the start switch "O" on the right handlebar. When the accelerator is turned off, press the electric start switch "O" to start the engine.

#### **CAUTION:**

Hold the clutch lever to start the engine when the transmission is in the neutral position.

#### WARNING:

The emitted exhaust contains harmful substances such as carbon monoxide. Inhalation of these hazardous substances can cause serious injury or even death.

Do not start the engine in a room with poor ventilation or without ventilation equipment. Shut down the engine and power off the motorcycle when the motorcycle is unattended.

#### **CAUTION:**

Do not run the engine for a long time when not riding, otherwise, the engine may be overheated. An overheated engine can cause damage to the internal parts and components of the engine.

If the motorcycle does not run immediately, shut down the engine.

#### Starting to move

With the side stand retracted, hold firmly the clutch lever, pause for a few seconds, and step down the shift lever to engage the previous gear position. Rotate the accelerator control grip towards the driver's body while slowly and smoothly releasing the clutch handle. Now, the motorcycle can start to move forward.

#### Use of transmission

The transmission can ensure that the engine may run smoothly within the normal operating range. The driver should select the most appropriate gear position for the general conditions. Don't slip the clutch to control the motorcycle speed. Preferably, slow down the engine to run within the normal operating range.

#### Driving on a slope

When climbing a steep slope, the motorcycle will start to slow down and present insufficient power. If this is the case, shift to the low-speed gear position so that the engine can resume normal power output. The gear position shall be shifted quickly to avoid the motorcycle losing power for a short time.

When running downhill, shift to the low-speed gear position to facilitate braking. Do not run the engine beyond the required speed range.

#### Use of brake and parking

To completely turn off the accelerator, release its control grip while using the front and rear brakes evenly. Shift to a low-speed gear position to decelerate.

Before stopping the motorcycle, hold firmly the clutch

lever (at the open position) and shift to the neutral position. Observe the neutral indicator light to identify whether the transmission is placed at the neutral position.

#### NOTE:

The braking system is an important safety component. Please contact the local QJMOTOR service center for repair or replacement of the braking system. Improper maintenance of the braking system can adversely affect braking performance and therefore result in death or serious injury.

#### WARNING:

Use the front and rear brakes evenly. Preferring to use front or rear braking will accelerate brake wear and impair the braking performance. Riding with a brake excessively worn can cause brake failure, possibly resulting in death or serious injury.

A motorcycle shall be parked on a solid and flat ground. Please do not park in places that block traffic.

Move the ignition switch to the "\( \overline{\mathbb{N}} \)" position to shut down the engine. Lock the steering handlebar to prevent the motorcycle from being stolen. Remove the key from the ignition switch.

#### Inspection and repair

The following table shows the regular repair time limit for the mileage (km) traveled. At the end of each time limit, inspection, check, lubrication and prescribed maintenance must be carried out in accordance with the specified methods. The steering system, center and side stands as well as wheel system are key components and should be carefully repaired by specialized personnel. For safety reasons, we recommend that you entrust the QJMOTOR Service Center with inspections and repairs.

Maintenance schedule: I: Inspect. If necessary, clean, adjust, lubricate or replace C: Clean R: Replace A: Adjust L: Lubricate

Content Interval  Maintenance item		Maintenance mileage	Odometer reading (Note 2)					
		Remarks	1000 km	6000 km	12000 km	18000 km	24000 km	30000 km
*	Fuel pipeline		I	Ι	I	I	I	I
*	Accelerator operations		I	I	I	I	I	Ι
	Air filter	Note 1	I	Ι	R	I	R	I
**	Spark plug		I	Ι	R	I	R	I
**	Valve clearance			Every 42000 km: A				
	Engine oil		R	Ι	R	I	R	I
	Engine oil filter		R	Ι	R	I	R	I
*	Engine oil screen		С	С	С	С	С	С
**	Cooling system		I	Ι	I	I	I	I
*	Drive chain	Note 3	I		Every	1000 km: I,	L, A	

Content Interval		Maintenance mileage	Odometer reading (Note 2)					
Maint	tenance item	Remarks	1000 km	6000 km	12000 km	18000 km	24000 km	30000 km
	Brake pad wear			Ι	I	I	I	I
**	Braking system		I, A	I, A	I, A	I, A	I, A	I, A
	Headlight beam adjustment			I	I	I	I	I
	Clutch equipment		I	I	I	I	I	I
	Stand			I	I	I	I	I
*	Shock absorber system			I	I	I	I	I
*	Nuts, bolts and fasteners	Note 3	I		I		I	
**	Wheel/wheel rim	Note 3	I	I	I	I	I	I
**	Steering gear		I			I		I

<sup>\*</sup> represents that it must be overhauled by the QJMOTOR Service Center: The owner shall bring his/her own qualified tools and motorcycle inspection data, and the part shall be overhauled by those holding the mechanical certificate. If the owner overhauls himself/herself, he/she shall also refer to the maintenance instructions.

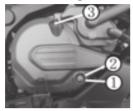
<sup>\*\*</sup> For this item, we suggest that it should be overhauled by the QJMOTOR Service Center for safety.

Note: 1. Motorcycles used in dusty areas should be inspected and repaired more frequently. Especially for the air filter maintenance cycle that needs to be shortened, the initial maintenance is carried out at 500 km, and the subsequent cleaning is carried out every 1000 km.

<sup>2.</sup> If the odometer reading exceeds this value, repeat the schedule shown in this table for continuous inspection.

<sup>3.</sup> When riding the motorcycle on uneven roads and other harsh conditions, please maintain it frequently to keep the good performance of the motorcycle.

#### • Engine oil level and oil change



Check the engine oil level before starting the engine. When checking the oil level, keep the motorcycle upright on a flat ground and observe whether the oil level is between the MIN mark (①) and the MAX mark (②) through the engine oil level sight glass. When the oil level is lower than the MIN mark, open the upper oil filler cap ③ and add engine oil to a level between the MAX mark and the MIN mark.

#### Replacement of engine oil and oil filter:

#### NOTE:

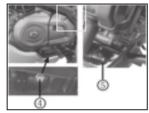
The engine oil change should be performed from a hot engine and with the motorcycle supported on its center stand (ensuring that the motorcycle is level and the motorcycle body is upright) to make ensure that the engine oil can be drained quickly and completely.

The engine oil capacity is 2.7 L, which is about 2.4 L for replacement.

(1) When draining the oil, put the oil basin below the oil drain position and remove the drain bolt ①. After completely draining the oil from the tank, reinstall the drain

bolt with a torque of  $20 \sim 25$  N.m. At the same time, replace the oil filter ② by following these steps:

- ① Use a special tool for oil filter removal to clamp the oil filter, rotate it counterclockwise, and remove the oil filter that needs to be replaced.
- ② Use a clean cloth to wipe out the oil filter and engine mounting surface.
- ③ Use a new oil filter of the same model and apply



a layer of lubricating oil to the O-ring seal .

#### NOTE:

Please do not remove the O-ring seal of the oil filter, as this will cause incorrect installation of the O-ring seal, which will result in oil leakage or engine damage.



- 4. Install the new oil filter on the engine by hand until you can't rotate it, and then use a torque wrench to tighten the oil filter with a torque of  $15 \sim 20$ N.m.
- (2) Inject about 2.4 L of engine oil that meets the

specifications into the engine.

- (3) Install the engine oil filler cap.
- (4) Start the engine, keep the engine at idle speed for a few minutes, and then turn the engine off.
- (5) Check the engine oil level again to ensure that the liquid level is between the MAX mark and the MIN mark and that no leakage is found from the engine.
- (6) If the engine oil splashes, please wipe it clean.

#### • Spark plug

For the initial 1000km and every 3000km traveled, use a small metal brush or spark plug cleaner to remove the carbon deposits attached to the spark plug, and use the spark plug gap feeler gauge to readjust the spark plug electrode gap to keep it between  $0.8\!\sim\!0.9$ mm.



#### **CAUTION:**

Do not over-tighten the spark plug or allow the threads to be staggered to avoid damage to the threads of the cylinder head. When removing the spark plug, do not let impurities enter the engine through the spark plug hole in the cylinder head.

#### • Adjustment of accelerator steel cable

- 1. Check whether the accelerator grip can be freely rolled between fully open and fully closed positions, from steering full left lock to full right lock.
- 2. Measure its free stroke on the flange of the accelerator grip. The standard free stroke shall be  $10^{\circ} \sim 15^{\circ}$ .



This motorcycle is equipped with a dual-wire structure accelerator steel cable, the accelerator steel cable @is the oil supply cable and the accelerator steel cable @is the oil return cable. For adjusting the free stroke of the accelerator grip, proceed as follows:

- (1) Remove the dust cover of the accelerator cable.
- (2) Loosen the lock nut ③.
- (3) Fully tighten the adjusting nut ④.
- (4) Loosen the lock nut ①.
- (5) Turn the adjusting nut ② so that the free stroke of the accelerator control grip is  $10^{\circ} \sim 15^{\circ}$ .
- (6) Tighten the lock nut ①.
- (7) Adjust the nut 4 so that the accelerator grip can rotate flexibly.
- (8) Tighten the lock nut ③.

#### • Clutch adjustment

The free stroke of the clutch should be  $10\sim20\mathrm{mm}$  before the clutch starts to disengage, based on the tip of the clutch lever. In case of abnormality, adjust as follows at the lever end of the clutch cable:

- (1) Remove the clutch cable dust cover.
- (2) Loosen the lock nut ①.
- (3) Screw or unscrew the adjusting screw ② to make the free stroke of the clutch meet the specified requirements.
- (4) Tighten the lock nut①.



If the handle end of the clutch cable cannot meet the free stroke requirements when it is adjusted to the limit position, adjustment is carried out with the cable and the lock nut Aand the adjusting nutB on the engine.



#### • Engine idling adjustment

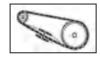
The stepper motor configured in the motorcycle automatically adjusts the idle speed to the appropriate range. If adjustment is required, please contact the local QJMOTOR Service Center.

#### • Drive chain

The service life of the drive chain depends on proper lubrication and adjustment. Improper maintenance may lead to premature wear of the drive chain and the sprocket. Under harsh use, maintenance must be carried out frequently.

#### Drive chain adjustment:

Inspect chain slack and wheel alignment every 1000 km of trip. Turn the rear wheel to find the tightest position of the drive chain and measure the vertical swing between



the front and rear sprockets (drive chain slack). The standard chain slack is  $28\sim35$  mm. According to your riding condition, the chain may need to be adjusted frequently.

#### WARNING:

These recommendations are maximum interval of adjustment. In fact, the chain should be inspected and adjusted before riding. Excessive loosening of the chain may cause accidents in which the chain is detached or serious damage to the engine.

Adjust the chain as follows:

- (1) Support the motorcycle with the support frame.
- (2) Loosen the rear axle nut ①.
- (3) Loosen the two lock nuts ② left and right.



- (4) Turn the adjusting bolt © to the right or the left to adjust the chain slack, and adjust the chain slack to  $28 \sim 35 \text{mm}$ .
- (5) Inspection of wheel alignment: to keep the chain and the wheel correctly aligned, there are concave scale lines on the chain adjusters on the left and right sides of the rear wheel (A). Inspect and ensure that the concave scale lines on both sides of the chain are at the same level of scale marks. Note: you can also use a ruler or a rope to inspect whether the wheel alignment is accurate.
- (6) Tighten the two lock nuts left and right. Re-tighten the rear axle nut with a torque of 100-140 N.m. Inspect the wheel alignment again and inspect the chain slack at the tightest position of the drive chain. Re-adjust it if necessary.

Incorrect wheel alignment can cause abnormal wear and may result in the motorcycle being ridden in a dangerous condition.

#### NOTE:

When replacing it with a new chain, inspect both sprockets for wear, and replace them if necessary.

During regular inspection, inspect the chain for:

- (1) Loose pins
- (2) Damaged roller
- (3) Dry and rusty links
- (4) Kinked or seized links
- (5) Excessive damage

(6) Loose chain

If the above problems occur on the chain, the sprocket is likely to be damaged. Inspect the sprocket for:

- (1) Excessively worn gear teeth
- (2) Broken or damaged gear teeth
- (3) Loose sprocket fixing nuts

#### Cleaning and lubrication of drive chain

Use a dry cloth and special cleaning agent for motorcycle chain to clean the chain. Clean the dirt on the chain with a soft brush. After cleaning, wipe dry and fully lubricate the chain with a special lubricant for the chain.

#### • Brake

The motorcycle is equipped with a dual-channel ABS disc braking system. Correct brake operation is very important for safe riding. Remember to ask a qualified service center to inspect the braking system regularly.

#### Adjustment of rear brake

The free stroke of the rear brake pedal should be  $5\sim15$ mm.

"Free stroke" means the distance moved by the rear brake pedal before the brake starts to work.

For adjusting the free stroke of the rear brake pedal, proceed as follows:



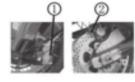
- (1) Loosen the nut ①.
- (2) Screw or unscrew the push rod ②, and adjust the free

stroke of the brake pedal.

- (3) Screw or unscrew it until the free stroke meets the specified value. Tighten the lock nut ①.
- (4) After adjustment, no drag shall occur on the brake.

#### Friction plate

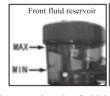
Inspect whether the friction plates in the front brake caliper ① and rear brake caliper ② are worn to the groove bottom mark ③. If the friction plates are worn to exceed the mark, replace them with new ones.

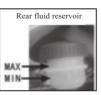




#### **Brake fluid**

After the friction plate is worn, the fluid in the reservoir will be automatically injected into





the hydraulic pipe, causing the fluid level to decrease. The front brake fluid reservoir is installed above the right handlebar. If the fluid level is lower than the MIN mark of the fluid reservoir, add the specified brake fluid. The rear brake fluid reservoir is located in the middle of the right

side of the motorcycle. Ensure that the fluid level of the reservoir is between the MIN and MAX marks. If the fluid level is lower than the MIN mark, add the specified brake fluid. During routine maintenance, the brake fluid must be added.

#### CAUTION:

DOT4 brake fluid is used for this motorcycle. Do not use the remaining fluid from the cylinder and the brake fluid left by the last maintenance, because the old fluid has absorbed moisture in the air. Be careful not to splash brake fluid on painted or plastic surfaces because it will erode the surface of these substances.

#### **Braking system**

Inspect the braking system daily as follows:

- (1) Inspect the brake fluid level in the front and rear brake fluid reservoirs.
- (2) Inspect the front and rear wheel braking systems for fluid leakage.
- (3) Inspect whether there is a suitable stroke of the brake lever and that of the brake pedal, and whether they are always reliably connected.
- (4) Inspect the wear of the friction plate. If both friction plates exceed the groove bottom mark, replace them together.

If the braking system or friction plate needs to be repaired or replaced, we advise you to ask the service center to conduct repair or replacement. They have complete tools and skills to conduct the repair or replacement in the safest and most cost-effective way. Do not ride the motorcycle immediately if a new disc friction plate has just been used. Grasp and release the brake lever a few times to fully extend the friction plate and restore the normal handlebar support force, and make the brake fluid cycle stable.

#### • Tire

Correct tire pressure will ensure the highest stability, ride comfort and tire durability. Check the tire pressure and adjust it as needed.

Front tire pressure	220±10 kpa
Rear tire pressure	(250±10) kPa

#### NOTE:

Inspect the tire pressure when the tires are "cool" before riding.

The pattern depth on the tire crown pattern should be greater than or equal to 0.8mm. If it wears down to less than 0.8mm, replace it with a new tire.

#### NOTE:

After replacing or repairing a tire or a rim, the tire should be balanced and aligned using a balance aligner or an equivalent equipment.

#### **WARNING:**

Do not attempt to repair a damaged tire. Wheel balance and tire reliability may be deteriorated.

Improper tire inflation will cause abnormal tread wear and therefore threaten safety. Insufficient tire inflation may cause tire slippage or disengagement, or even rim damage, which may result in the motorcycle out of control and therefore occurrence of danger.

Riding a motorcycle with a tire excessively worn is very dangerous, which will affect the road holding and riding adversely.

#### • Air filter maintenance

Maintain the air filter regularly, and more frequently if the motorcycle runs in a dusty or sandy area.

- (1) The air filter can be seen by removing the seat cushion, the guard plate and the fuel tank respectively.
- (2) Remove the fixing screws ① of the air filter outer cover, remove the



- air filter outer cover, and then remove the filter element ②.
- (3) Replace it with a new paper filter element.
- (4) Reassemble the parts and components.

The air filter element must not be cleaned (including not removing dust with compressed air). Any type of cleaning may cause functional degeneration of the filter element and damage the engine.

Do not let the filter element be stained with oil or water when replacing the paper filter element. Otherwise, the filter element will be blocked and fail. It is recommended that such work should be done by the local QJMOTOR service center.

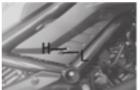
#### CAUTION:

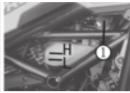
If a motorcycle is used in a more humid or dusty environment than usual, depending on the riding conditions, it is necessary to shorten the filter element replacement interval. If the filter element is blocked, damaged or dusty, the engine power drops obviously, or the fuel consumption rises, replace the filter element immediately. Do not wait until maintenance.

Starting the engine without an air filter will damage the engine by trapping dust in the cylinders.

#### Coolant

Coolant: Please use genuine anti-freezing coolant. Using other non-compliant coolant/mixture will cause damage to the engine.





When a new motorcycle leaves from the factory, it is already filled with coolant. Inspect the coolant level in the coolant reservoir during maintenance.

When the coolant becomes cloudy or reaches the repair interval, change the coolant at your local QJMOTOR service center.

The coolant reservoir is located in the front guard plate at the right side of the motorcycle. Inspect the coolant level of the reservoir frequently.

Inspect the coolant in the coolant reservoir only after the engine has been shut down and cooled down. When inspecting, keep the motorcycle level and the motorcycle body upright. Observe whether the coolant level is between the MIN (L) and MAX (H) marks. If the coolant level is below the MIN (L) mark, open the cap on the reservoir ① or go to the local QJMOTOR service center to add the coolant.

Add the coolant only after the engine has been shut down and cooled down. To avoid burning, do not open the coolant filler cap until the engine has been cooled down. The cooling system is under pressure. In some cases, coolant contains substances that are flammable and produce an invisible flame (if ignited). Combustion of leaking coolant can result in serious burning. Therefore, leaking coolant on hot motorcycle parts and components should be avoided.

Coolant is highly toxic. Avoid touching and inhaling it, and keep it away from children and domestic animals. If you inhale coolant, seek medical care immediately. If your skin or eyes accidentally come in contact with coolant, rinse them with water immediately.

#### • Catalytic converter

The muffler of this motorcycle model is equipped with a catalytic converter to meet the needs of environmental emission.

The catalytic converter contains precious metals, which can purify harmful substances (including carbon monoxide, hydrocarbons, NOx, etc.) in motorcycle exhaust.

Since the catalytic converter is very important, faulty catalytic converter may pollute the air and damage your engine performance. Please remember to use genuine parts and components or ask the local QJMOTOR Service Center to replace them if necessary.

#### NOTE:

The catalytic converter is located in a high-temperature area. Please do not touch it.

#### • Carbon canister

This model is equipped with a motorcycle fuel evaporation control device: a carbon canister.

The carbon canister is filled with activated carbon particles that can adsorb vapor, inhibiting excess fuel vapor from volatilizing into the atmosphere, thus achieving fuel saving and environmental protection.

If gasoline overflows into the carbon canister and other parts and components, clean or replace the canister as soon as possible at your local QJMOTOR service center, because excessive gasoline entering the canister will cause the activated carbon to fail prematurely.

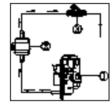
## • Installation and removal of radiator water hose clamps

For the radiator water hose, the non-regularly removal end is fixed with disposable clamps and the regularly removal end is fixed with plate-type clamps. After the clamps are removed, the used disposable clamps can not be reused and the plate-type clamps may be reused. The clamp ② can be correctly reinstalled using a special clamp wrench ①. Otherwise, the clamp cannot be reinstalled in place, causing coolant overflowing and resulting in motorcycle fault or personal injury.



#### • Fuel injector and fuel circuit

The fuel pump ① is provided with 1 connector. The fuel enters the injector ③ from one of the connectors of the pump through the fuel filter ②. Finally, the fuel is injected into the engine intake pipe.



Please connect the inlet and return pipes as shown in the figure.

#### • Parts and components lubrication

Proper lubrication is essential to maintain every part and component of motorcycle in normal running and prolong its service life and ensure safe driving. Lubricate your motorcycle after riding it for a long mile or if the motorcycle is wet due to rain or washing.

- Motorcycle lubricant ☐ Grease
- $\bigcirc$  Rear brake pedal shaft  $\square$   $\bigcirc$  Side stand joint and spring hook  $\square$
- ③Shift lever pin shaft ☑ ④ Accelerator cable ∑
- $\mbox{\font}$  Front brake lever pin shaft  $\mbox{\font $\square$}$   $\mbox{\font $\square$}$  Clutch lever (pin shaft)  $\mbox{\font $\square$}$

#### • Battery

The battery is located under the driver seat cushion. The battery equipped with this motorcycle is a valve-controlled wet-charged MF battery. It is strictly forbidden to pry the battery case. Before and during operation, the battery will not be filled with electrolyte.

Before operation, read and observe the following precautions:

1. When using the battery for the first time, test the battery terminal voltage. If the voltage is less than 12.6V, the battery needs to be changed by a charging voltage of  $14.4\pm0.02V$  and a charging current limited to 11.2A until the current drops down to 0.2A (or refer to the parameters printed on the battery surface). During charging, if the battery



temperature is higher than 45°C, stop charging immediately and re-charge the battery after it is cooled down.

- 2. The red battery terminal is the positive electrode, and the black one is the negative electrode. Switch off the power supply when wiring. Connect the positive electrode firstly and then the negative one; when disconnecting, disconnect the negative electrode firstly and then the positive one.
- 3. Test the charging system: After the motorcycle is started, the displayed battery voltage from  $13.5V{\sim}15V$  shows that the charging system is normal.
- 4. Test the leakage current of complete motorcycle: Switch off the power supply of the complete motorcycle. Connect

the positive or negative electrode with a multimeter in series (at the current position). The circuit of the complete motorcycle is normal if the current is less than 3mA.

5. If the motorcycle is not in use for a long time, recharge it once a month, or remove the battery and place it separately, and test the voltage once every three months. Recharge it if the voltage is lower than 12.6V. Do not store an undervoltage battery

When the battery is removed for inspection, proceed in the following order:

- a. Turn off the power supply switch of the motorcycle.
- b. Remove the seat cushion.
- c. Remove the mounting screws and battery pressure plate assembly.
- d. Remove the negative electrode (-) and then the positive electrode (+).
- e. Take out the battery gently.

Battery installation shall be carried out in reverse order of the removal. Connect the positive terminal (+) and then the negative terminal (-).

#### NOTE:

When reinstalling the battery, be sure to connect the battery cables correctly. If the battery cable is connected in reverse, the circuit system and the battery itself will be damaged. The red cable must be connected to the positive terminal (+), and the black cable must be connected to the negative terminal (-).

When inspecting or replacing the battery, be sure to turn off the power supply switch (key).

## When replacing the battery, please pay attention to the following:

When replacing the battery, confirm the motorcycle model and verify whether it is consistent with the original battery model. The battery specifications have been matched for the motorcycle during design. If you use batteries of different models, it may affect the performance and service life of the motorcycle and may cause circuit fault.

#### WARNING:

The battery will produce flammable gas during use and charging, so the battery should not approach open flames or sparks during charging.

The battery is filled with sulfuric acid (electrolyte), which is highly corrosive. Therefore, it is necessary to prevent the human body, clothes, vehicles, etc., from contacting the electrolyte. Once they contact it, rinse them with water immediately. In case of contact with eyes, rinse them promptly with plenty of water and seek medical treatment in time. Skin or eye contact with the electrolyte may cause severe burns.

The electrolyte is a toxic substance. Beware of children playing with them. Please place the battery safely to prevent children from touching it.

During transportation, the battery should not be subjected to strong mechanical impact and exposure to the sun and rain and should not be inverted.

During removal and installation, handle the battery with care. Do not throw or roll over it or apply a heavy load on it.

Do not remove the insulating protective cover of the positive and negative electrodes of the battery.

#### • Fuse replacement

The fuse is located under the driver seat cushion next to the battery.

As shown in the figure, ① is the fuse box; ② is the starter relay. The main fuse is mounted on the starter relay.



If the fuse burns frequently, it indicates that there is a short circuit or the circuit is overloaded. Please entrust the local QJMOTOR Service Center with timely repair.

#### WARNING:

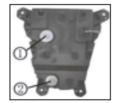
Before inspecting or replacing the fuse, move the ignition switch to the "OFF ( $\nearrow$ ")" position in order to avoid short circuit and damage to other electrical components.

Do not use other fuses outside the specified specifications. Otherwise, there may be serious adverse effects on the circuit system, and even burnt lights or fire may occur, and the engine is lack of tractive force, which is very dangerous.

#### • Adjustment of the headlight beam

The headlight beam can be adjusted vertically up and down.

The low beam adjusting screw ① and the high beam adjusting screw ② are located at the back of the headlight. Switch on the headlight and turn the beam height adjusting screw clockwise or



counterclockwise to adjust the low- and high-beam up or down simultaneously.

#### NOTE:

When adjusting the height of the beam, the driver should sit on the seat cushion of the motorcycle, and ensure that the motorcycle is vertical.

#### • Replacement of light bulb (light source)

When replacing a broken bulb, be sure to use a bulb with the same rating. If a bulb with a different wattage rating is used, the circuit system may be overloaded, and the bulbs may be damaged prematurely.

This motorcycle model's illumination and light signal devices use LED light sources that are not easy to be damaged. If you need to replace them, please contact the QJMOTOR service center for help.

#### • ABS use and repair instructions

After the motorcycle is powered on, the ABS indicator light on the instrument panel will come on. After the riding speed reaches 5km/h, the ABS indicator light will go off. At this time, the ABS is in a normal working state; if it remains on or flashes, the ABS is not working.

If ABS is not working, please inspect whether the ABS connector is assembled in place and that the clearance between the ABS wheel speed sensor and the ring gear is  $0.5 \sim 1.5 \text{mm}$ .

If the ABS wheel speed sensor is damaged, the ABS indicator light will come on, and the ABS will not work. The ABS wheel speed sensor may absorb some metal

substances due to its degree of magnetism. Please keep the ABS wheel speed sensor clean and free of foreign matters. Adhesion of foreign matters will cause damage to the ABS wheel speed sensor.

If the ABS system is abnormal, please contact the QJMOTOR Service Center.

#### **Storage Guide**

#### Storage

If the motorcycle is to be stored for a long time, take certain maintenance measures to reduce the influence of the long-term storage of the motorcycle on its quality.

- 1. Change the engine oil.
- 2. Lubricate the drive chain.
- 3. Empty the fuel tank and the fuel injection unit as practical as possible.

#### NOTE:

Gasoline will be deteriorated if it is stored in the fuel tank for a long time, which may cause difficulty in starting.

#### **WARNING:**

Gasoline is extremely flammable and may explode under certain conditions. Do not smoke or create spark nearby the motorcycle when draining the fuel tank.

- 4. Remove the battery and store it separately in a place free from being frozen and direct sunlight.
- 5. Clean and dry the motorcycle. Wax all the painted surfaces.
- 6. Inflate the tire to a proper tire pressure. Place the motorcycle on a cushion block with the two tires off the ground.
- 7. Cover the motorcycle (do not use plastic or coating materials) and keep it in a dry and unheated place with

minimal temperature change. Do not store the motorcycle in the direct sunlight.

#### Use of the motorcycle after storage

Remove the covering and clean the motorcycle. Change the engine oil if the motorcycle has been stored for more than four months.

Inspect the battery, and charge (as needed) and then install it in place.

Carry out a comprehensive inspection before driving. Perform a motorcycle test run at a low speed in a safe area away from the road.

# Specification and Technical parameters (SVT 650 X)

#### Size and mass

Length
Width950mm
Height
Wheel-base
Curb mass
Engine
Type QJ2V81MT-A, 2-cylinderV, eight-valve, water-cooled
Broke × stroke81.0 × 62.6mm
Displacement645ml
Maximum power56.0kW/9000rpm(35.0kW/7000rpm)
Maximum torque65.0N.m/8000rpm (56.0N.m/5750rpm)
Ignition modeECU electronic control ignition
Starting modeElectric starting
Brake
Front braking modeManual disc brake (ABS)
Rear braking modePedal disc brake (ABS)
Tire
Front tire specification110/80R19 (Spoke)
Rear tire specification150/70R17 (Spoke)
Fuel
$Fuel \ tank20 {\pm} 0.5 L$
Fuel typeUnleaded gasoline only