

**R310**  
MOTORCYCLE MANUAL

<https://www.motorcycle-manual.com/>

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## Preface

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Thank you for using ZONTES brand motorcycles. We use most advanced technology to design, test and produce the type of motorcycle, to provide you with joy, fun and safe driving. When you are fully familiar with all the essentials in this manual, you will feel riding a motorcycle is one of the most exciting sports, at the same time, can feel the real pleasure of driving.

This manual summarizes the right repair and maintenance methods of motorcycle. As long as in accordance with the provisions to do, your motorcycle will be durable. ZONTES distribution unit has trained technical personnel, with the complete tools and equipment, to provide you with high quality and service at any time.

The PDF version of the manual can be downloaded from the official website.

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## User instruction

There are all kinds of accessories on the market can be assembled on your motorcycle, and we cannot directly control the market quality and applicability of attachment. The inapplicable attachments will endanger the safety of the riding personnel. The selection of accessories and installation, therefore, must be especially careful. Though we can't examine the applicability of accessories for sell on the market, but your distribution unit can help you to choose high quality accessories on the market, and can be installed correctly.

### DANGER

Attachment installed incorrectly or modified motorcycles will change handling of the motorcycle, this will cause an accident. Never use inappropriate attachments, to ensure that attachments are installed correctly. All accessories and parts should use pure part of the company.

You should be properly installed accessories and spare parts, if you have any questions, please relate this company designated shop of distribute of engage by special arrangement or special repair shop.s company shop of distribute of engage by special arrangement or special repair shop.

Wind deflector, chair back, saddle bags, luggage, etc., are all laid attachments, easy to cause the instability of driving. Especially in the side wind or with large vehicles encountered. If the attachment installed wrong or poorly designed attachments, would endanger the safety.

Additional electrical accessories can make the electrical system overload, serious overload may damage the wiring, make the engine stalling when driving, and even destroy vehicles.

When transporting goods, they should be fixed in the low position as far as possible close to the motorcycle. Fixed goods incorrectly can lift the center of gravity which is very dangerous. It can make the motorcycle hard to control. The size of the goods will affect the air drag and motorcycle maneuverability. Please balance the left sides of the motorcycle, and fixed the goods.

### Modification

Motorcycle modification or removal device cannot guarantee the original motorcycle driving safety, and it is illegal. The user will lose the rights of quality guarantee if they modify the motorcycles..

### Safe driving instruction

Driving a motorcycle is a very interesting and exciting sport activity. It also requires special precautions to ensure the safety of drivers and motorists. Preventive measures are as follows:

#### Examination before driving

Read carefully "before they check" section of the instruction, and check item by item according to the instructions, we must never forget that it can guarantee the safety of drivers and train personnel.

#### Familiar with your motorcycle

Your driving skill and mechanical knowledge, is the foundation of safe driving. First practice at where there are fewer cars, until you can fully familiar with the mechanical performance and operation method of motorcycle. Remember that! Practice makes perfect.

#### Realize your own driving skills

At any time drive within the scope of your own skilled. Know your skills limit and not to be reluctant so as to avoid accidents.

#### Rainy day traffic alert

Rainy day driving should be paid attention to, keep in mind the braking distance is twice as many as sunny days. Drive away from the road marking paint, manhole covers, and oil on the road to avoid slippage. When you drive on the railway crossing, bars and Bridges, you have to be careful. In the case of a negative judgment road, you should slow down.

#### Speed limit

Any time don't let the speed to be too high, and don't let the noise of engine speed is too high, from the outside.

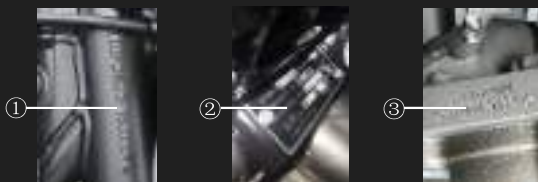
#### Strategy during driving

Most of the motorcycle accident are turning cars bumped into people who driving a motorcycle in front. Wise driving strategy is to make the other driver seeing you; even in the broad road you also should pay attention to during the day. Wear smart clothing with safety reflective materials. Don't get in the other driver's blind spot.





Code position



Vehicle identification code and engine number is for the registration of motorcycles, when ordering parts or entrust the special service, this number can make distribution unit provide a better service for you.

① Identity code will be carved on the turning vertical pipe , ② 3C nameplate card will be fixed in the bottom of the frame , ③ Engine code will be printed on the left side of the crankcase. Please write down the number in the space below for your reference.

Vehicle identification number:

Engine number:

Maintenance of muffler

This motorcycle muffler with catalyst can effectively reduce the operation process of motorcycle emissions of harmful substances into the atmosphere. To make the device work effectively, please refer to "maintain" the preventive maintenance in the section table.

In order to improve the service life of the muffler, and avoid faults caused by not-normal-use and maintenance of the mufflers rust, catalytic conversion efficiency decrease, please be sure to comply with the following items:

- Long time in high speed boom throttle is prohibited
- Long great load and low gear driving is prohibited
- Add muffler rust-proof oil or oil is prohibited
- Hot state muffler is washed with cold water directly is prohibited
- Slide when shut down is prohibited
- Use inferior oil is prohibited
- Use unleaded gasoline
- Keep clear the dirt of muffler to the rear and the surface
- Keep the engines running on good condition, regular maintenance and inspection. Avoid failure Leads to engine combustion exhaust gas in the exhaust pipe to cause secondary combustion catalyst sintering failure.
- Installing a muffler, be sure to properly installed muffler gasket.
- If you need to dismantle oxygen sensor, be sure to use the right tools, and be sure to stay muffler outfit after cooling to room temperature.

**⚠ DANGER**

Driving must pack up side racks, so as not to turn to when overturned vehicles, riding personnel casualties.

Rear brake system must be checked to see if it is working correctly before driving. If there is problem, please repair immediately

Driving is not allow to tie the helmet on the helmet pothook, to avoid helmets be involved in the wheel to make the vehicle turned over to cause casualties.

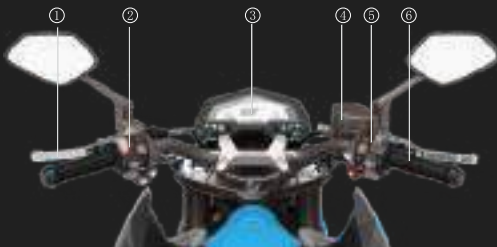
**⚠ DANGER**

Non-professional personnel do not pull the fuel pipe to discharge fuel, to avoid meeting flame and damaged vehicles; don't let the motorcycle muffler to touch other matter to avoid fire: motorcycle usage and storage environment cannot have fire hazard.

Vehicle maintenance need to replacement parts, - have to use the pure part of the company, the use of pure components, electrical components in particular, it might damage the motorcycle, and even destroyed vehicles.

Please don't add attachments at your will, especially the electrical components, if improper wiring or electrical load is too large, It could destroy vehicles.

Installation of component parts



- ① Clutch handle
- ② Switch on left handle
- ③ Meter
- ④ Front brake liquid cylinder
- ⑤ Switch on right handle
- ⑥ Accelerator control handle




- ⑦ Rear disk brake
- ⑧ Muffler
- ⑨ Rear brake pedal
- ⑩ Front disk brake
- ⑪ Ignition coil
- ⑫ Side stand
- ⑬ Gearshift pole

## Combination lock




There are two transponders for this motorcycle. Please safely put away one of them for back up.


There is a code on the transponder which is correlated to the PKE machine. The PKE machine can only respond to the transponder which is correlated. When you change the transponder, please follow below:

- 1.Short connect to the button “” on the handle bar.
2. Within 5 seconds, press the button on the transponder(as shown in picture 1), when you hear the hint voice, and it means that they are successfully matched.


Start the motorcycle:

Short press “”button, the motorcycle head lock will turn on automatically. After this, the whole motorcycle will be electrically connected. At that time, you can use the bike normally.

### ATTENTION

If you cannot turn on the motorcycle lock, the bike won't start. There will be some display for show this situation. Please turn the handle a little bit to wait for the whole bike to be connected or short connect the “” button again to restart the head lock.

Turn off the motorcycle

After the stop of motorcycle, the engine will be turn off. Turn the handle to the left side, and long press the “”button, the electricity will be cut off. The head lock will be automatically on.

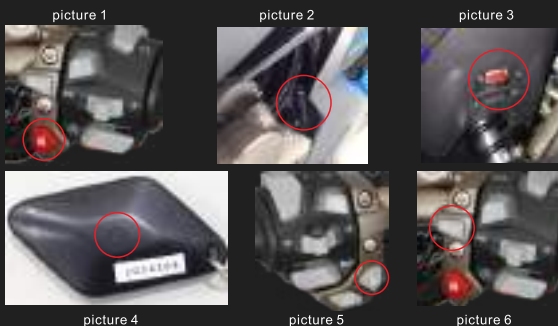
### ATTENTION

If the lock for motorcycle head is not successfully, there will be hints on the motorcycle. At that time, please turn lightly the handle left and right, and then the head lock will be on.

### ATTENTION

If during the drive or the engine is on, “electric door lock switch”, “seat lock switch”, “fuel tank lock switch” will be lose effect. There is a battery inside the responder, normally it can use for 1-2 years. If your responder is not sensitive, please consider to change the battery (the responder has a port, open the cover so that you can replace the battery. The battery is 2032 battery).

## PKE user manual



## PKE user manual

PKE (Keyless start system) user manual:

### 1. PKE start:

Shortly press the red start button (as shown in picture 1) on the right handle bar switch, then the turning signal light will flash for two times. The head lock will be unlocked automatically. After this, the buzzer will tweet for one time which means the motorcycle is electrically connected.

#### ATTENTION

If the head lock is not successfully unlocked, the motorcycle is not electrically connected. In this case, the buzzer will tweet for five times to give you hints that the system is not on yet. The problem might be that the handle bar stops the head lock stop shaft. You can try to shake the handle bar lightly to free the stop shaft. If there is still a problem to be electrically connected, shortly press the red start button again to restart the system.

If there is a problem to start the system after you shortly press the red button, the battery might be in sleep mode. Shortly press the battery wake up switch (as shown in picture 2) to wake up the battery. (after you press the wake up switch, the indication light on the switch will be on for 5 seconds. If the indication light is on for a long time, it means that the battery volume is enough; if the indication light is flashing slowly, it means that the battery is in half power; if the indication light is flashing quickly, it means that the battery volume is almost gone).

After you wake up the battery, shortly press the red start button, if you still can not start the system, please activate the key and check the PKE safety button (the safety button position is as shown in picture 3).

The steps to activate the key:

1. Press the red button on the right handle bar.

2. Within 5 seconds, shortly press the "O" position on the key (as shown in picture 4), the motorcycle will tweet for 2 times which means the key is activated.

Remark: PKE system can only recognize one key. If you activate one key, the other key will be cut off.

### 2. PKE shut down:

After you stop the motorcycle and turn off the engine, put the handle bar to the left for the most extent, long press the red button on the right side of handle bar for (2-3 seconds). The whole motorcycle is electrically disconnected, and the turning signal light will flash for 2 times, the head lock will be locked. After the lock, the buzzer will tweet for a time.

#### ATTENTION

When you shut down the system, if you don't put the handle bar to the left for most extent. After the shut down, the motorcycle will tweet for 5 times which means that the head lock is not locked yet. However, the stop shaft has been pulled at this time already, once you put the handle bar to the left for most extent, the head lock will be locked.

When you turn off the system without the handle bar to the left, you are not allowed to move or let the motorcycle to go forward to prevent the danger of locking the head lock.

When you move the motorcycle forward or moving downhill, please make sure PKE system is shut down (head lock is locked at this time), or after when you start the PKE, get rid of the safety setting (setting position is shown in picture 3), the whole motorcycle is electrically disconnected (head lock is unlocked at this time).

3. After you start the PKE system and stop the motorcycle without the engine turning on, you can turn on the fuel tank lock and seat lock. When the engine is on or you are driving the motorcycle, it is in active mode for the red start button, fuel tank lock start button (picture 5) and seat lock start button (picture 6).

#### DANGER

During driving, if you find that the double flash signal is on along with some special noises, it means that there is an abnormal condition for the head lock, please turn off the motorcycle immediately and shut down the power. After several seconds, the head lock will be reset. After that, restart the system again, you can drive again when the double flash signal is gone.

## Instrument



Front view figure 1 (arrow: 1 left turn lights, 2 emergency light; 3 ABS anti-lock braking system light; 4 idling gear indication light; 5 distance light lamp; 6 right turn signals light; 7 engine speed record; 8 speedometer; 9 kilometer/miles identification; 10 battery fuel gauge of low voltage prompt label; 11 fuel oil level gage; 12 clock, 13 long term odometer"; 14 short trip odometer; 15 MODE "key"; 16 "SET" key; 17 gear display; 18 water temperature .

Short press the " " button ,the LCD screen displays all the contents, and then scans the engine until it reaches the maximum scale, then falls back and enters the normal working state.

**⚠ WARNING**

**Do not use high pressure water washing instrument directly.**

**Do not use with gasoline, kerosene, alcohol, brake fluid and organic solvent such as dishcloth instrument, otherwise the instrument can produce local crack due to exposure to organic solvents or discoloration.**

**1 Left turn signal light**

When the turn signal switch to the left, the left turn signal light will be flashing.

**2 Fuel injection emergency signal light**

Short press the " " button. It's a normal situation that the error indication light is on when the motorcycle is not started yet. If the signal light is not on, please do not start the motorcycle. When the engine is successfully getting start, in the process of running, there is some problem for the fuel injection system when the yellow fuel injection signal light is on.

**⚠ WARNING**

**When the fuel injection system is showing error, it will break the fuel injection system when you still drive the motorcycle. Please contact the after-sales dealership shop to check the fuel injection system.**

**3 ABS anti-lock braking system signal light**

ABS indication light: to show the working condition of ABS control system, press the " " button when the motorcycle is electrically connected yet in state mode, ABS indication light will be on in normal situation. when the speed is over 5km/h, ABS indication light will be turned off automatically. otherwise, there is some problems for the ABS system. Please contact the after-sales dealership shop to check for the problem.

**4 Idling gear indication light**

The motorcycle is using the international gear, and it will show the green idling gear light "N" .

**5 Distance light lamp**

When using the high beam headlights, indicator light will be lighter.

**6 Right turn signal light**

When press the right turn signal right to the right, it will be flashing.

**7 Engine speed recorder**

It shows the speed of the engine, indicating the number of revolutions per minute of engine crankshaft. 10000-12000rpm is red alert zone for engine speed (red printing section).

**8 Speedometer**

Speedometer shows the speed is how many kilometers per hour (/miles) .

**9 Kilometer/miles swift method**

In "ODO" MODE, long press MODE key to switch between speed in MPH, km/h, and in related, odometer unit in the mile, km switching.

**10 Battery low voltage prompt**

Low level voltage prompt symbol flashing, illustrate the vehicle level voltage below 11.5 + / - 0.25 V, please replace the battery with your designated company after-sales.

## Instrument

### 11 Fuel oil level gage

Fuel oil level gage shows the remaining gasoline level in the fuel tank. There is 8 level for the gage, level 8 means full oil level, when the fuel oil drop to level 1 and when the light is flashing, you should fill up gasoline as soon as possible.

#### WARNING

When the motorcycle is parked by using side stand, fuel oil gauge can't accurately show. Put the motorcycle into normal driving status, after we turn on the electrical door lock, we don't need to start the engine, and we have to wait about half minute to let it accurately show; or shut down the electrical door lock, turn it on again, the fuel oil level gage will demonstrate correct oil level information immediately.

### 12 Clock

The clock display in the 12 hours system.

According to the following method to adjust the clock:

ODO MODE: long press SET key, enter the time setting MODE, short press MODE key, increasing hours upward; SET key long press is a SET, very digits flashing, increasing MODE key up short by the hour; Long press SET key points a SET, a digit flashing, increasing MODE key up short by the hour; SET key long press finish time setting. fuel oil drop to level 1 and when the light is flashing, you should fill up gasoline as soon as possible.

#### ATTENTION

If the battery is removed or battery lost electricity, it will be shown from "12:00 clock.

13 ODO Long distance odometer /14 TRIP short distance odometer  
The LCD screen display area has two functions: ODO meter long and short TRIP odometer.

ODO long distance odometer records the motorcycle the total road mileage from start to now, it cannot be reset; maximum record 99999.9; TRIP records a single or accumulated mileage traveled for many times, it can be reset, maximum record of 999.9.

(See the speed table content unit switching method) fuel oil drop to level 1 and when the light is flashing, you should fill up gasoline as soon as possible.

#### WARNING

When driving a motorcycle, instrument operation is very dangerous. Leave handlebar will reduce the performance control of the motorcycle. Always put the hand on the handlebars while driving.

### 15 Mode button

Mode button is used to adjust the instrument, see related section content for instrument.

### 16 Set button

Adjust button is used to adjust the instrument, see related section content for instrument.

### 17 Gear display

The motorcycle is using international gear, and there are six gear display which is 1,2,3,4,5,6 shown on the instrument.

### 18 water temperature

When the water temperature reaches to 110 degree, it will start to flash. It might be that the cooling liquid is too hot or cold or the surface level of liquid is too low.

#### WARNING

If there is warning sign shown in water temperature table, please stop the motorcycle! Shut down the engine and check; also cool down the liquid surface. If it is necessary, please refill the cooling liquid. In order to cool down the liquid, we should avoid idling speed or low speed yet high rotation speed for a long time.

Instrument operation instruction:

Long press is defined as press the button for over 2S, short press is defined as press the button for less than 2S.

1. Shift to big and small mileage: under TRIP mode, short press MODE bottom, shift to ODO mode, Short press MODE button again, switch back to TRIP mode.

2. Adjust brightness: The meter back light has five levels of brightness adjustable. When it is TRIP mode, short press the SET button to lower the brightness level and the same way in turn.

3. Time setting: under ODO mode, long press SET bottom, it can head into time setting mode.

4. Change speed counter unit: under ODO mode, long press MODE bottom, change the speed unit, at the same time the mileage unit will also be changed accordingly.

5. Clear engine oil indication light: under ODO mode, long press MODE bottom.

6. Clear single trip mileage record: under TRIP mode, long press SET bottom, single mileage record will be cleared.

Left / Right handle control system



1. Clutch controller



Hold the handle when start the engine or shift the clutch friction plate separation, to cut off the power.

2. Overtaking warning lights

When speeding up, press the button warning the cars in front or behind.

3. Dimmer switch

Distance light operation

When the dimmer switch on  position, the distance light is flashing. At the same time on the surface of the dashboard in light is lit will switch to  dipped headlight will be turn on and distance light is turn off.



4. Danger warning button

Press the button, the four lights are flashing, and warned nearby vehicles to pay attention to the safety.

5. horn button

Press the button, the horn will ring.


6. Turn signal operation

When turn the switch to the left  the left turn light is flashing. When turn the switch to the right , the right turn light is flashing.

 **WARNING**

Whenever the road before changing lanes or turning, we must get into the habit of starting turn signals first. When gear changing lanes or turning is finished, they must be turn off.

7. ABS switch button:


Start ABS: 1. Press " " button and electrically connect the whole motorcycle to put it into the ready mode. The ABS indication light will be on (when the speed pass over 5 km/h, the light will be turned off), ABS system will start automatically; 2. ABS system has been turned off and the motorcycle is in ready mode, when you long press the button for over 3 seconds, and ABS indication light is quick flashing, you can loose the button. In that case, ABS indication light will be on, ABS system will be started.

Turn off ABS: when the motorcycle is in ready mode, long press the button for 3 seconds, and when ABS indication light is quick flashing and loose the button. ABS indication light will be flashing which shows that ABS system has been shut down.

 **ATTENTION**

when you drive, ABS system is in the original mode, you can't change the condition by using the switch of ABS.

8. fuel tank switch

Under the situation of the fuel tank cover shutting down, press " " button, the fuel tank cover will be automatically open.

9. seat lock switch

Under the condition of seat lock tied up, you can open the seat lock by pressing the switch.

 **ATTENTION**

If the seat is not installed into position, the seat will glide which will lead to the driver to lose control of the motorcycle. Please make sure the correct positioning of the seat safety lock.


Left / Right handle control system

10. ECO button

Before start the engine, please press ECO button. Instrument E indication light will be on, ECO button will eject and the indication light S will be on. E stand for simple economic mode, and S stand for sport mode.

11.Engine stop switch

This switch is installed on the right hand switch assembly, is a kind of wave plate card, shaft in wave plate center. Dial in  position, the circuit connected, the motor can start.

If the switch in  position, starting circuit completely cut off, the motor can't start. It's an emergency way to shut down the switch.

12.Front brake controller

When braking the front wheel, we must grip on the right side of the front wheel brake. Because using the vehicle hydraulic brake disc, the brake holding force doesn't need to be large. When you hold front brake handle, brake lights will light up automatically.

13.throttle control handle

Throttle control handle is used to control the engine speed. To his own side is accelerated; On the other hand, turn from his own side is slowing down.


14.electrical starting

The start-up circuit, press this button to connect at startup must set the gear in neutral position, to confirm whether the engine flame out switch in  the location, and hold the clutch handle, in order to protect security.


 **WARNING**

When continue starting the engine, consecutive start time not more than five seconds at a time. Because a large number of start can make some abnormal heating to circuit and start motor. If you still can't start it a few time, you should stop and check the oil supply system and start the circuit system. (please refer to "troubleshooting" section.)

15. Lamplight switch

-  position:front light, front position light, rear position light, and nameplate light are all on together.
- Position:front position light, rear position light and nameplate light are all on together.

16. Electric door lock switch

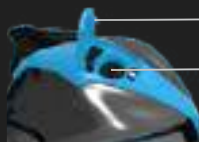
Press ""button, the ignition circuit will be connected. The instrument will be on and we can start at any time.



Fuel tank



①



②

③

Fuel oil tank is located inside the fuel tank cover in the front part of seat. When open the fuel tank cover, please make sure the engine turn off switch is off, and press the fuel tank switch button 1, cover board 2 will automatically open, rotate the fuel tank cover 3 anticlockwise. When you install the cover, please follow the opposite order to do that.

**⚠ DANGER**

Not excessively fill in oil, so as to avoid overflow of fuel flow to the high temperature engine. Fuel oil level height shall not exceed the fuel tank as shown at the bottom of the mouth, or fuel will overflow after the heat expansion, and will damage the motorcycle parts.

To turn off the engine when refueling, make sure the turn off switch is shut down. Do not close to fireworks.

Oil gun against excessive stretch into the fuel tank, so as not to damage the fuel sensor.

When you fill in the fuel, you should have some prevention measures, otherwise it will cause fire or fuel vapor into the eye. When you fill in the gas, go to the open air. Make sure the engine has been closed to avoid oil spills. No smoking, make sure no heat or fire source around. Avoid fuel vapor into the eye. When Refueling, keep children and pets away.

**⚠ ATTENTION**

Do not use high pressure water to rinse when washing the car fuel tank cover to avoid water to get in the fuel tank.



Shift lever

The motorcycle is equipped with six gear transmission, its operation as shown. Pick on, or change the gear shift lever (1), the shift lever will recover to the original position, so as for subsequent shift. Before in low position, please reduce the speed or increase the engine speed; Before in high-grade place, please raise the speed or lower engine speed. After this will prevent transmission system components and unnecessary tire wear.

**⚠ ATTENTION**

When the gear is in the neutral position, the neutral position indicator light is lit, please slowly release the clutch handle, to confirm whether really is in the neutral position.

Rear brake pedal

Press on the rear brake pedal, rear wheel brakes, brake lights up at the same time.

Rear shock absorber spring

The rear shock absorber spring is adjustable according to the will of the driver, the loading condition and road condition. The adjusting method is non-polar adjustment. You only need to stop the motorcycle with the side stand. And then you turn the spring adjustment to the needed position. The rigidity will decrease when we adjust it down; the rigidity will increase when we adjust it up.

Push the key in the lock hole and rotate clockwise, seat cushion lock switch will be opened, seat cushion can be removed. When you put the seat cushion, insert the front seat cushion, press the cushion tail down. When you hear "click" sound, it means the seat cushion is locked.

Side stand

When you are using the side stand, the side stand turn off switch will cut off the power if you don't hold the clutch handle and the shift level is on idle condition.

## Notes for fuel, engine oil and cooling liquid

### Fuel oil

You must use clean 92-95# unleaded gas. We suggest that you use 95# unleaded gas or above. It is because the unleaded gas can enlarge the service life of spark piston and muffler.

If there are tapping based on experience, you can use level higher gasoline or use other sellers of gasoline. Because there are differences between different brands.

### Engine oil

Use high quality SM or above level four-stroke engine oil can prolong engine life. Please choose API SJ level or higher level of "four stroke motorcycle engine oil". It is on sale on all franchise repair shops.

#### WARNING

The unleaded gasoline, poor quality fuel oil and engine oil can damage the system components, and it will shorten the service life of catalyst in spark plugs and muffler. Unclean fuel oil can block the oil-way, resulting in abnormal engine working, don't use that kind of oil.

#### WARNING

Please properly deal with waste engine oil, do not prevent the environment. We suggest that you will put waste oil into a sealed container to a local recycling center. Don't put them into the dustbin or directly into the ground.

### Engine cooling liquid

The cooling liquid we use is suitable for the aluminum radiator. The cooling liquid is a mixture of cooling liquid concentrate and water. If the outdoor temperature is higher than the freezing point of the cooling liquid, it can be used. When you add or cool the cooling liquid, please use alcohol as the foundation.

#### DANGER

It is bad for health if you swallow or absorb the cooling liquid. Therefore, when you use it, please don't eat and drink. After every work, please clean your hands, face or any skin parts demonstrated. If you swallow it mistakenly, please go to the hospital immediately. If you absorb it mistakenly, please breathe more fresh air in the environmental in where there is full of fresh air. If the cooling liquid runs into your eyes mistakenly, please wash your eyes with large amount of water at once. Also, keep the liquid away from kids and pets.

#### WARNING

The cooling liquid which splash out is possibly do harm to the surface of the motorcycle. Please be careful when you refill the cooling liquid. If it splash out, please clean it immediately.

### Distill water for cooling liquid

If you need to add water, please use the distill water. If you use other kinds of water, it would probably do harm to the cooling system.

### Anti-cooling liquid

Cooling liquid and anti-cooling liquid can prevent routing and lubricate the cooling liquid pump. Therefore, if the outdoor temperature is higher than the freezing point of the cooling liquid, it can be used.

#### ATTENTION

Please refer to the instruction of anti-cooling liquid product when you use it.

### The volume of cooling liquid

Cooling liquid volume (total volume): 1200 ml.

#### ATTENTION

Please choose the suitable anti-cooling liquid according to the driving air environment.

## Running-in of new motorcycle

The correct new running-in can prolong the service life of the motorcycle, it can also give full play to the performance of the new motorcycle. Below is a list of running in right way.

recommended maximum engine speed

First 500 kilometers	below 5500 turns/minute
Up to 1500 kilometers	below 8250 turns/minute
Over 1500 kilometers	below 11000 turns/minute

### Gear and speed of engine

Gear and speed of the engine often change, not to run in a gear and speed. During the running-in, it can be appropriately step on the gas, make it completely running-in.

### Running-in of tires

Like engine running-in, the adaptation of the new tires need to be correct to ensure the best performance. In use within the first 150 km new tires, we should gradually increase the turning Angle to connect the ground surface in order to achieve the best performance of the tire. In the use of new tires within the first 150 km, we should avoid nasty acceleration, a sharp turn, and emergency

### DANGER

If a tire is in bad adaptation, it will cause the skid, or out of control. After replacement of tires, do be careful with driving. In accordance with this section in tires, in the first 150 km, we should use wheel tires to avoid nasty acceleration, a sharp turn, and emergency braking.

### Avoid operation under fixed low speed

In fixed (light load) under operation at low speed, it will make the parts wear and bad matching. As long as no more than recommended throttle opening (i.e., no more than 3/4 of the opening of the throttle), it can make the engine speed under various rotational speed. However, during the period of the first 500 km, it should not be more than three quarters of the throttle opening.

### Let the engine oil cycling

No matter in hot or cold machine status, before starting, you should let the engine had good idle running time in order to make the oil flow to all lubrication part.

### Routine first time examination

The initial 1000 kilometers of maintenance is one of the most important work. During this period, all engine parts should have good running-in. In the case, maintenance and repair should put all the parts to readjust, tighten all fasteners, replace parts abrasive dust pollution of the oil. Repair, about 1000 kilometers seriously for the first time, will guarantee your motorcycle to play the best performance and prolong its service life.

### WARNING

According to the instruction for use in the inspection and maintenance of an execution section for 1000 kilometers Maintenance and repair. Please pay special attention to the danger and warning content of this section.

## Inspection before driving

If it's not well check before driving the motorcycle, and there is no proper maintenance, it will increase the risk of accidents and the risk of motorcycle damage. Always check the motorcycle during daily usage, make sure it is safe to run. Refer to the instruction manual inspection and maintenance of the chapters.

If the motorcycle use inappropriate tires, or operating motorcycle not correctly, or tire pressure is not correct, you will lose control of the motorcycle. have to use in this instruction manual provisions size and specifications of the tires. Always in accordance with the requirements of the inspection and maintenance section to keep proper tire pressure.

Keep proper wheel pressure

Inspection content	Key points for inspection
Steering system	Active steering, no block for moving, no working loose
Accelerator	Correct accelerator inhaul space, smooth operation; smooth holding for accelerator
Clutch	Correct controller free stroke and smooth operation
Brake	Normal operation on braking controller and braking pedal; braking liquid above The LOWER line of the braking liquid cylinder; no feeling of inactive braking; no brake drag and brake liquid leak; braking plate wear within range
Shock absorber	Smooth and active controlling
Fuel oi	Enough planning distance oil level
Transmission chain	No wear; clean and lubricate from time to time; correct looseness
Tires	Correct air pressure; proper depth of tread; no wear
Engine oil	Correct oil level
Cooling system	No oil leaking
Lamp/light	Normal working for all kinds of light in the motorcycle
Indicator light	Distance light, neutral position light, turn signal right working normally
Horn	Working normally
Brake switch	Working normally
Shut down switch	Working normally
Side stand/ignition interlock switch	Normal controlling

The importance of these tests can never be neglected. Complete all of the inspection before driving and necessary repairs.

 **DANGER**

When you do the inspection, engine running status is more dangerous for you to inspect. If your hand or clothes are moving parts involved in the motorcycle, it will cause serious damage to you. In addition to check the engine flame out switch and power to run the engine, shut down the engine when you perform other checks.

## Driving essentials

### DANGER

As you drive the motorcycle for the first time, we suggest you had better look for practice on the un-public road, until you are familiar with this motorcycle control method.

Driving with only one hand is the most dangerous, we should driving in both hands firmly in the grip and both feet on the foot. No matter any situation, no hands are allow to be away from the line.


When turning, try to lower the speed to safe speed.

Road surface is moist and smooth, tire friction will be small, braking ability and the ability to turn the naturally decrease, so you must lift the speed.

Horizontal wind is usually the most likely to happen in the tunnel, valleys or large vehicles from behind when overtaking. You must be calm and lower your speed.

Obey the traffic rules and speed limits

### Starting of the engine

When you start the system without key, all the motorcycle will be connected automatically. Check whether the engine turn off switch is in the position of . At this moment your motorcycle is in the neutral position, the neutral light will light up on the dashboard.

### WARNING

This motorcycle equipped with ignition circuit and the starter circuit interlock switch. Only under the condition of the following the engine will start:

1. Transmission is under neutral gear, hold the clutch handle, or

2. Transmission is not under neutral gear, side stand is packed up and you hold the clutch handle.

Dumping of sensor when the motorcycle is overturned, will cut off the power and stop the oil supply, and make the motorcycle stall, and fault indicator will light up. Motorcycle starting again, you need to turn off the ignition switch, after waiting for 1 minute, reopen the ignition switch, and starting the engine.

### When the engine is in cold machine status:

1. Pack up the side stand.


2. throttle control handle is on idling position.

3. Start according to the electric starting button "electric starting icon.

### When the engine is in cool machine status and hard to start:

1. Pack up the side stand.

2. Turn the throttle to open in 1/8 extent, at the same time start according to the electric starting button.

"" electric starting icon

3. After starting the engine, keep the engine turning to fully preheated.


### WARNING

The colder is the weather, the longer time the engine needs to preheat. After fully preheat, you can reduce the engine wear and tear.

### When the engine is in hot machine status

1. Pack up the side stand.


2. throttle control handle is on idling position.

3. Start according to the electric starting button "" electric starting icon. After the engine is starting, keep on letting the engine work to fully preheat.

### When the engine is in hot machine status and hard to start

1. Pack up the side stand.

2. Turn the throttle to open in 1/8 extent, at the same time start according to the electric starting button.

"" electric starting icon.

3. When after several times that the engine is hard to start, it is most likely that the cylinder submerged. In that case, you have to do the clear cylinder process: open the acceleration entirely, press the starting button for 3 seconds.

### DANGER

When starting the hang gear in neutral, throttle back to bottom, form a habit of holding the clutch handle before starting. Avoid - error, when it is starting, moving forward immediately.

When the motorcycle is starting, you must hold the clutch handle, or make the engine in the neutral condition, otherwise it can't start, don't forget to pack up side racks at the same time.

Dumping of sensor when the motorcycle is overturned, will cut off the power and stop the oil supply, and make the motorcycle stall, and FI indicator will light up. Motorcycle starting again, you need to turn off the ignition switch, after waiting for 1 minute, reopen the ignition switch, and starting the engine.

## Driving

Pack up the main stand, hold the clutch handle, just wait a moment, hit the hang first gear shift lever; step on the gas and slowly release the clutch handle gently, the motorcycle will start.

If you want to get to the next higher gear, speed up first, and then close the throttle, hold the clutch handle at the same time, the shift lever stepped down, hanging in the second gear. And then loose the clutch handle gently, gently step on the gas. In accordance with the main point to gradually shift can reach a top speed of gear.

### WARNING

This motorcycle is configured with side racks and ignition interlock switch. When we set up side racks, it will range from neutral to other gears, the engine will stop running.

### DANGER

When going downhill, we will not closed the ignition switch or engine flameout switch. Otherwise, it will reduce the life of the catalyst in the muffler.

Use the transmission system

The transmission system can make the engine running smoothly in the normal speed range. Variable speed ratio is carefully selected for the engine performance. Drivers shall select the most appropriate gear according to driving conditions, and never use low-grade in high speed driving. In any time, don't use the method of half clutch to control speed. Before changing in low level gear, lower the speed or increase the speed of the engine. before hanging into the high-end gear, improve the speed or reduce the engine speed.

Climbing driving

When climbing steep hills, motorcycles will have the phenomenon of underpowered slowdown. You should put the low gear, let the engine operates within the scope of normal power. Then shift should be quickly, to avoid the motorcycle to slow down too much.

When going downhill, we can use the engine to assist braking resistance, as long as the gear into a lower gear. If the brake to be continuous using, it will overheat, and reduce the braking ability.

### WARNING

When going downhill, you will not close the ignition switch or engine flameout switch, so as not to reduce the service life of catalyst in the muffler.

Brake and park

- (1) Turn the throttle control handle forward, and make the throttle fully return.
- (2) Brake by using the front brake controller and rear brake pedal at the same time.
- (3) When the speed is low enough, you can change it to low level gear so as to reduce the speed.
- (4) Hold the clutch handle (to clutch off), put the gear into a gap position and then stopped completely. After having into the gap position, the gap indication light is lit.
- (5) If a motorcycle with a side stand is going to park in gentle slope road, you should hang gear into the low level, as far as possible to get the car started up hill side, to avoid overturned because of side racks rotation. However, when restart, you must hang the files back to the neutral position.
- (6) turn the turn off switch on the right handle bar to the turn off gear position, the engine will stop.
- (7) turn the handle bar to the left for most extent, press the "🔒" button for 2-3 seconds, the handle bar will be locked and the electricity will cut off completely.
- (8) swing the handle bar to make sure the handle bar is locked.

### DANGER

High speed will extend the braking distance accordingly. Make sure the front vehicle or object to have proper distance with you to make your motorcycle braking. Otherwise it may cause collision.

Use only front and rear brake is very dangerous, the braking method causes skid and out-of-control. In the wet pavement as well as turn place, be careful gently use the braking system. In the uneven road surface or smooth roads, to have emergency braking, you can make the motorcycle out of control.

Emergency braking when the motorcycle is turning can make the motorcycle out of control. In this case, brake before the turning to reduce speed.

When the engine is working or just stalling soon, the temperature of the muffler is high, please do not touch to prevent burns.

Only use rear brake to brake will make brake system accelerated wear and tear so that the braking distance is longer and longer.

### WARNING

If you use other anti-theft lock, such as u-lock, brake disc, chain lock anti-theft lock; you have to remove the anti-theft lock before driving.

## Inspection and maintenance

### Maintenance schedule

The table below is the inspection for each regular maintenance should be done, the interval period should be used in months or mileage depending on which one reached first. Each check should be carried out in accordance with the project in the table below.

If your motorcycle has been used in harsh conditions, namely the continuous driving in large throttle or worked in wind sand, it should have special maintenance to keep the reliability of the motorcycle after driving. The repair units can provide you with further advice. Especially, shock absorber and wheel steering system are key parts, and they require specialized technology and careful maintenance. To be safe, we recommend the work best done by a qualified repair units.

#### DANGER

Initial 1000 km maintenance is the must-follow project, it can make your motorcycle always reliable and have superior performance.

When the engine is working and just stalling, the temperature of the muffler is high, please do not touch to prevent burns.

Improper maintenance or problems after maintenance will cause an accident. To keep your motorcycle in good condition, it request the company qualified maintenance unit complete with \* mark project. Refer to this section, if you have any mechanical maintenance experience, you can maintain the unmarked items; if you are not sure how to deal with the work, let your repair units to complete the maintenance.

#### WARNING

Pay attention to the maintenance regularly to see whether full compliance with the prompt or not carefully. The initial 1000 km maintenance, shall be carried out according to the method described in this section. "Dangerous" and "Warned," in this section should pay special attention to. Replacing the wrong parts can lead to motorcycle accelerated wear and tear, and shorten the service life of the motorcycle. When the motorcycle needs to replace parts, you can only use pure part of the company.

Waste in the maintenance process, such as cleaning agents and waste engine oil should be properly handled so as not to damage to the environment.

### Regular maintenance table

Inspection cycle	kilometer	First 1000	Each3000	Each6000	Each6000
Inspection item	months	First 3	each 15	Each30	Each45
Air filter (filter)		_____	Check	Check	Change
Muffler bolt, nut		Fastening	_____	Fastening	_____
Check valve clearance (cold) In 0.10-0.20 mm / 0.14-0.28 mm		_____	_____	_____	Check
Ignition plug		_____	Check	Change	Check
Engine oil		Change	Change	Change	Change
Engine oil filter		Change	_____	Change	_____
Clutch controller free stroke		Check	Check	Check	Check
Throttle body		Check	_____	Check	_____
Throttle digging line gap		Check	Check	Check	Check
Idling		Check	Check	Check	Check
Secondary air system		_____	_____	Check	_____
Fuel evaporative pollutants control system		_____	_____	Check	_____
Radiator rubber hose		_____	Check	Check	Check
Fuel pipe		_____	Check	Check	Check
Transmission chain		Check	Check	Check	Check
brake		Check	Check	Check	Check
brake liquid pipe		_____	Check	Check	Check
		Change once every four years			
brake liquid pipe		_____	Check	Check	Check
		Change once every two years			
tires		_____	Check	Check	Check
knuckle mechanic		_____	_____	Check	_____
front fork		_____	_____	Check	_____
rear shock absorption		_____	_____	Check	_____
Body and the engine installation of bolts and nuts		_____	Fastening	Fastening	Fastening

## Inspection and maintenance

**⚠ ATTENTION**

According to the project inspection table, if necessary, to further cleaning, lubrication, adjustment or replacement operations.

In poor road conditions and high power conditions for a long time, you should increase the inspection frequency.

**Toolkit**

Toolkit is put into the spare part case.

Fuel tank disassembly instruction



The steps for remove the fuel oil tank:

1. Remove the seat, remove the fixed expanding nails from the fuel tank outer cover and both the left and right side covers①. Then remove the left and right side covers ②, ③.
2. Remove the front radiator rack④.
3. Remove the left and right decoration cover ⑤, ⑥.
4. Remove the rear part of left and right decoration cover ⑦, ⑧.
5. Remove the two bolts⑨, remove the fuel tank lock main cable port⑩.
6. Remove oil pump port⑪, high pressure oil pipe⑫, fuel oil air absorption pipe⑬.
7. Remove the fuel tank from backward.

**⚠ WARNING**

Before installing the fuel tank, check the fuel tank leaking pipe and ventilation tube without bending.

Fuel tank location is correct

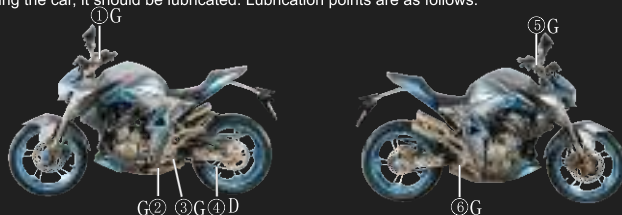
The pipe connection is correct

Adsorption pipe connection, to the end of the pipe clamp towards the outside

When installing the fuel pipe, prevent foreign body to get into the fuel pipe

**Lubricating point**

For safe driving, you have to keep good lubrication which can maintain the smooth operation, and prolong service life. After using in harsh conditions, after the vehicle is wet by the rain, or after washing the car, it should be lubricated. Lubrication points are as follows:



**⚠ WARNING**

Lubrication might damage the switch. Don't use grease or oil to lubricate the switch.

D chain oil  
G grease

- |  |   |
|--|---|
| ① clutch controller                        | ④ Transmission chain                        |
| ② Side parking axle and spring hook        | ⑤ The brake handle shaft                    |
| ③ left shift lever shaft axis and put feet | ⑥ right shift lever shaft axis and put feet |



## Storage battery



The battery is located below the driver seat. The lithium battery electrolyte is free of maintenance. For the first time use please let the dealership filling liquid electrolyte. Later it will no longer need to supplement electrolyte. After you install it well, it's ready to use.

- turn off the motorcycle power switch
- remove the cushion
- poke black protective cap, remove the negative (-), push aside red protective cap, remove the positive
- when install it, gently remove the battery and please according to opposite order

### **WARNING**

When you reinstall the battery, please keep your mind to reset some parts of the fuel injection. The process would be: turn on the electrical door lock and ignition switch. After 10 seconds, turn off the ignition switch. After 10 seconds, turn on the ignition switch and repeat it for twice.

Replace the battery, please note the following:

When you replace battery, you shall confirm the battery type and verify the models are consistent with the original battery. the specification of the battery in motorcycle design is considered as the relative match. if switch to a different type of battery, it could affect the performance and life of the motorcycle, and is likely to trigger circuit fault.

If you don't drive your motorcycle for a long time, please remove the battery and charge it once a month.

### **WARNING**

Battery should be checked regularly, if the voltage is lower than 12.8 v, we suggest for battery charging. Battery charging will shorten the life of the battery. Don't let the battery over charge.

Please charge the battery when you use the professional lithium battery. The charging voltage should not be over 15V.

Please properly deal with waste battery and waste electrolyte, don't damage to the environment.

We suggest that you will recycle waste battery and waste electrolyte to a local recycling center.

Don't discard it in the dustbin or discarded directly on the ground.

### **WARNING**

It means the battery volume is enough when the wake up light is on; it means that the battery volume is almost gone when the light is slowly flash. It will be recharged into full volume when it is idling speed or driving for at least half an hour. quick charge stand for manual charge needed( we have to wake up the battery when it is in manual charge mode).

## Air filter

The air filter is located below the seat. If the air filter is dirt jam, it can make the air intake resistance increases, the output power down, and fuel consumption increases. If driving in dusty conditions, you should increase air cleaner filter cleaning or replacement frequency. Complete the following steps to check clean air filter.

### **⚠ WARNING**

If under the condition of dusty drive, you should increase the frequency of clean or replace filter.

It is dangerous to run the engine without air filter. If there is no air filter inside the filter block, engine flame from the engine will jet to air filter inlet chamber. Dirt will enter inside of the engine, to cause harm to the engine. If there is no air filter cartridge, do not run the engine.



- 1.Remove the right side cover, you will see the air filter
- 2.Remove two bolts of the air filter as shown in the graph
- 3.Pull out the filter element
- 4.Change new filter element
- 5.If there is no new filter element; we can also remove the dirty element. Firstly clean it with high pressure air, and then put back to the original position.

### **⚠ ATTENTION**

When you do the cleaning, always start from the clean side to the dirty side. If you do it the opposite way, the dust will stay in the gaps between the elements.

In addition, the broken filter can make the wastes get into the engine, and damage the engine. If you find that filter is broken, be sure to change a new filter.

- 6.Follow the steps in contrast to install cleaned filter, or install a new filter, confirm the filter installed to the correct position and properly sealed.

### **⚠ ATTENTION**

If the air cleaner filter installation position is not correct, the dust will bypass the filter into the engine which can damage the engine. Make sure the filter installed in the correct position. In addition, when you flush the motorcycle, don't let the water into inside the air filter; if there is water into the air filter, you can pull the release the product oil pipeline, and make sure there was no swelling in the empty filter before using the motorcycle.

Product oil pipeline

Get rid of the clamp with long flat nose pliers. After that you can get rid of the used oil. When you finish the process, you can install it parts with opposite order.



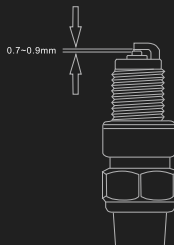
## Spark plug



Disassembly the spark plug

Follow the steps below:

1. disassembly the spark plug cap ,be careful not to use strong force, or you may break the spark plug.
2. to remove the spark plug with the spark plug wrench .
3. Check the spark plug .



The spark plug replacement guide

Use a hard wire or steel adhesion of carbon on the spark plug for removal of dirt, and then to use with a feeler gauge to adjust the spark plug gap between 0.7 ~ 0.9mm.

When remove adherent carbon deposition, you need to observe the spark plug tip of the porcelain two kinds of color at the same time. The color will tell you whether standard spark plug is fitted. If the spark plug is wet black, turned to high-pressure hot plug may be more appropriate. Normal working condition spark plug should be light brown. If it appears as white and light, the spark plug under the condition of overheating, then you should change it into cold type spark plugs.

Torch	Annotation
LDK8RTIP	Standard spark plug
LDK9RTIP	If the spark plug is overheating, switch to the spark plugs LDK9RTIP .

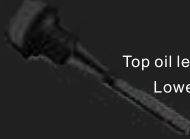
Install spark plug  
torque:20 N.M

**⚠ WARNING**

The incorrect installation of the spark plug will damage the engine. If the torque of the spark plug is too large, it will also do harm to the engine. Therefore we should carefully install the spark plug by hand. If we change a new spark plug, when we encounter broke force, we should use our fingers to move it for 1/2 round. If it is the case for old spark plugs, then move it for 1/8 round.

The unclean material will go through the spark plug and go into the engine to do harm to it. Therefore when we dismantle the spark plug, we have to use something to cover the installation hole of the spark plug.

## Engine Oil



Top oil level line  
Lowest oil level line

Whether the engine can be durable, it is very important to select the high quality oil and regular replacement of new oil. Check the oil level and oil change on a regular basis is two important tasks of maintenance project.

Check the oil level, according to the following steps to check oil level.

1. Use the side stand to park the motorcycle on flat ground, and then turn the handle bar to the left.
2. Start the engine and put it into idling mode for 10 minutes (if the temperature is under 10C, the idling mode should be 15 minutes).
3. Turn off the engine and wait for 3 minutes
4. Rotate out the engine oil ruler, use dry thing to clean and after that, rotate back to the original position. and then rotate out the engine oil ruler to look at engine oil position. The oil level should be between two lines.

### **WARNING**

When the engine oil is too much or too little, running the engine can damage the engine. Stop the motorcycle on the flat ground and check the engine oil level by the oil level gauge. The oil level must be between the lowest and the highest lines. When checking the oil level, make sure that the motorcycle is standing upright and slightly incline to either side may cause the inspection error.

### Engine oil replacement

At each maintenance cycle, we should replace the engine oil. Oil change should be performed under the condition of the engine, so the old engine oil can discharge more thoroughly. Steps are as follows:

1. Park the motorcycle with the side stand.
2. Remove the fuel tank cover, unscrew the oil feet counterclockwise.
3. Tear down the low cover.
4. To put oil bolt in the frame and engine oil drain bolt placed under the drainage plate.
5. Disassembly oil bolt with tools and pull out the old oil.

### **WARNING**

Please replace the oil in the franchised dealer or repair shop. Unauthorized replacement is not allowed. Please consult the professional staff to ensure correct disassembly when the lower fairing cover is removed. Please dispose the disused engine oil properly and don't pollute the environment. We recommend that you put the disused oil into a sealed container and send it to the local recycling center. Don't put it in the dustbin or pour it directly onto the ground.



6. Reinstall the drain bolt and washer. Use a wrench to screw down the drain bolt. (tightening torque would be 24+-4NM)
7. From the oil filler added about 1500ml (if changed engine oil filter, add 1600ml) of new SAE 10W-40/10W-50 API SM level or a higher four stroke motorcycle engine oil- added by two times( first half, then tighten oil ruler, start the engine for 2 minutes, then fill out the rest)

### **WARNING**

If you doesn't use the prescriptive engine oil, it might damage the engine.

8. With different speeds launch machine for 2 minutes. When engine is running, check leakage situation with dismantling parts.
9. Engine turns off for 5 minutes. Turn off the engine for 3 minutes, check oil level through oil foot calibration. If the oil level is lower than the oil feet minimum scale line, you should add new oil to the highest scale line. Once again, check for leaks.

## Engine oil filter



During each maintenance cycle, replace the engine oil filter. Change oil filter under the condition of releasing the engine oil. Steps are as follows:

1. Place discharge oil pan under the right crankcase cover
2. Use special tools to remove the three cap nut on the oil fine filter cover, and rotate oil fine filter cover to uncover the salient part of threaded holes.
3. Remove the oil filter cover, and replace the new filter.

### **WARNING**

Properly installed oil fine filter is very important, please don't put wrong for the oil fine filter, and remember to install the spring.



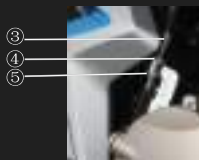
4. Remounted oil fine filter cover, tighten 3 cover nut in order, before fitted with oil precision filter device cover, please check carefully whether the fine filter oil seal installed in position, or oil fine filter cover o-rings are damaged, if damaged, they should be replaced timely by dealers. (Cover nut recommended tightening torque of  $12\text{ N} \cdot \text{m} \pm 1.5\text{ Nm}$ )

### The clutch controller free stroke

Measuring the clutch controller end free stroke, it should be between 10 ~ 15 mm. If free stroke is not correct, accord with the following method to adjust.

### Micro adjustment

1. Loose clutch digging line nut ①.
2. Rotate clutch digging line adjustor ② to get proper free stroke.
3. Screw down the clutch digging line nut ①.



### Large adjustment

1. Loose clutch digging line nut ④、⑤.
2. Rotate clutch digging line adjustor ③ to get proper free stroke.
3. Screw down the clutch digging line nut ④⑤.

### **WARNING**

If the clutch controller free stroke is too large, it is easy to cause clutch and shift institutions wear and failure

Maintain and adjust the clutch should be performed by the designated company service units.

## Throttle cable clearance



Adjustment progress:

- (1) Loose locknut ①.
- (2) Turn the adjusting screw (2) to adjust the clearance lasso, within the range of 2.0 ~ 4.0 mm.
- (3) After completion of clearance adjustment, tighten the locknut.

**⚠ WARNING**

After completing the clearance adjusting throttle cable, ensure the throttle hand turn automatically back to the closed position, do not make the engine idle speed by adjusting cable. It cannot appear the situation that the idling level is up when you turn the head of the motorcycle at the same time.

Idling

When you check the engine idle speed, it should be performed under the hot condition of the engine. engine idle speed range should be between 1300 to 1500 RPM.

**⚠ WARNING**

If the idle speed of engine is beyond the scope of regulation, please let the designated company service units to check the motorcycle.

Fuel evaporative pollutants control system

The motorcycle has a control system which can prevent fuel evaporation to the atmosphere. It should be regularly (every 6000 km or every 30 months) do the following.

- (1) Check whether every connection is reliable.
- (2) Check each line and the activated carbon tank (1) crack or damage, please replace the damage.
- (3) Confirm every line and activated carbon tank (1) whether blocking, clear or replace if necessary.

**⚠ DANGER**

If the fuel evaporative pollutants control system need to check and maintain, we strongly advise you to give this work to a qualified repair units to do it.

Cooling liquid

The cooling liquid surface level in the main water tank should be kept between the F line and L line at any time. If the surface level drops to below the L line, please add the cooling liquid according to the following steps:

1. Park the motorcycle with side stand.
2. Open the cover of the main water tank, add proper cooling liquid (when the motorcycle is in normal condition, the cooling liquid surface level can reach to F line).

**⚠ ATTENTION**

In order to correctly check the surface level of the cooling liquid, we should put the motorcycle into the cooling engine condition.

If the main water tank is empty, please check and repair the cooling system immediately. After you finish fixing the cooling system, add some cooling liquid inside.

**⚠ DANGER**

It is bad for health if you swallow or absorb the cooling liquid. Therefore, when you use it, please don't eat and drink. After every work, please clean your hands, face or any skin parts demonstrated. If you swallow it mistakenly, please go to the hospital immediately. If you absorb it mistakenly, please breathe more fresh air in the environmental in where there is full of fresh air. If the cooling liquid runs into your eyes mistakenly, please watch your eyes with large amount of water at once. Also, keep the liquid away from kids and pets.

change the cooling liquid

It is suggest that you change the cooling liquid completely every two years.

## Fuel pipe

### Fuel pipe

Check the fuel pipe for damage or leakage. If there is a problem, it is necessary to replace the fuel pipe.

**ATTENTION**

Don't rise the fuel pipe by your means.

## Transmission chain

### Transmission chain

This transmission chain is made of special material. The drive chain has a special o-ring, o-ring, seal the grease. When you need to replace the drive chain, please leave this work to the designated company service units. Keep daily check, and adjust the drive chain of the motorcycle before driving. Accord with the following method to check maintenance.

**DANGER**

In order to ensure safety, check and adjustment of transmission chain should be before driving.

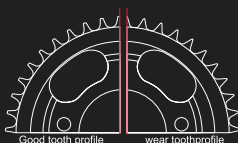
### Inspection of transmission chain

When check the drive chain, please check the following questions:

- ① loose chain pin
- ② damage roller
- ③ tears or rusty link
- ④ bad rotation link
- ⑤ undue wear
- ⑥ improper adjustment of chain

**WARNING**

If it is found that there is something wrong with the drive chain or improper adjustment, please, relate this designated company repair shop for repair.



Drive chain wear often means that the chain has also wear. Please check whether the sprocket exist the following problems:

- ① if the sprocket is excessive wear
- ② Tooth is broken or damaged
- ③ Sprocket fixed nut is loose or not

If you find any questions about the sprocket, please let the designated company repair shop to repair.

**WARNING**

When replacing the drive chain, you should check the wear condition of master-slave two drive sprocket; the chain should be replaced at the same time if necessary.

### Cleaning and lubrication of the transmission chain

Regular cleaning and lubricating transmission according to the following method

#### Chain:

1. Remove dirt and dust from the chain, be careful not to damage the sealing ring.
2. Clean the chain with seal chain cleaner or neutral detergent and water.

## Transmission chain

**WARNING**

Not properly cleaning chain might damage the seals and break the chain  
Do not use volatile solvent, such as coating thin sheen agent, gasoline  
Do not use high pressure cleaner to clean the chain oil.  
Do not use wire brush to clean the chain.

3. Use a soft brush cleaning chain, even if use a soft brush, be careful not to damage sealing ring.
4. Wipe off water and neutral detergent, and dry the chain.
5. Sealed with motorcycle chain special chain oil, lubricating the chain internally and externally.
6. After comprehensive lubricating chains, wipe away excess oil.
7. We suggest that the user to clean the chain every 1000km drive to prevent dust to break the sealing ring.

**WARNING**

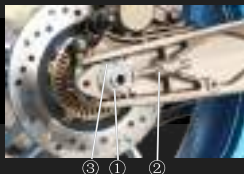
Some chain lubricant containing might damage the sealing ring of solvents and additives, so please use the special chain oil. If there is no chain oil for the seal chain, you can use high viscosity gear oil SAE90 instead.

Adjustment of transmission chain

Adjust the drive chain sags to the appropriate range. The drive chain adjustment frequency should accord with the driving conditions.

**WARNING**

If drive chain relaxation degree is too big, drive chain sprocket will drop out, and it will be an accident or severe damage to the engine. Before using the motorcycle, please check and adjust the transmission chain sags.



1. Use special support frame to support the motorcycle.
2. Loosen the rear axle bolt ①.
3. Rotating adjusting nut, to adjust the drive chain sags. At the same time to ensure that the front and rear sprocket wheel alignment, and reference marks on the regulator and the location of the flat fork, adjust the mark of the left and right side to the same location.
4. After the adjustment tighten the rear wheel shaft nut again (Rear wheel shaft nut torque: 110 Nm).

**WARNING**

The drive chain is made of special raw materials. If you replace the drive chain - need to choose the company integrity part (520 uo, 520). Use other drive chain may lead to early damage.



## Braking system

This motorcycle front and rear wheel assembly of the disc brake. The right brake operation is very important for safe driving. Remember to regularly check the braking system, and the inspection qualified maintenance unit to complete.

### **⚠ DANGER**

Brake is highly significant components of personal safety; you should regularly check and adjust the brake, and regular cleaning the sediment on the brake caliper, etc., to prevent obstacles to the movement of the piston.

If the brake system needs maintenance, we strongly advise you to give this work to a qualified maintenance unit. They have complete tools and skilled technology, and it is also the safest and most economical way to do the job.

No regular inspection and maintenance of motorcycle brake system will increase the risk of accidents. Confirmed before each use of motorcycle according to the brake system content. In accordance with the requirements of the regular maintenance table to maintain the braking system.

According to the following to check the braking system:

1. Check the brake cylinder liquid level position.
2. Check for leaks the front and rear brake system.
3. Check whether the brake fluid hose leakage or rupture.
4. Check the brake disc and brake wear condition.
5. Operate the front and rear brake system to check whether is flexible and effective or not.

### **⚠ WARNING**

The disc brake system is using high pressure brake. To ensure safety, the brake fluid hose and brake fluid replacement, shall not exceed this manual inspection and maintenance - the rules of the verse.



Front braking fluid



Rear braking fluid

Check the brake fluid level position in front and rear brake fluid cylinder. If the liquid level in the LOWER (low) below the mark, check the brake wear and brake fluid leakage.

### **⚠ DANGER**

Don't wash brake cylinder directly with high pressure water.

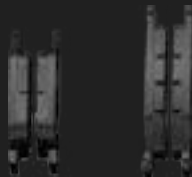
If swallowed into the brake fluid, it will cause harm to people, and even deadly. The brake fluid is harmful to both skin and eye contact. Brake fluid is toxic for animals. Don't puke if swallowed into the brake fluid. Immediately contact the poison control center or hospital. If the brake fluid gets into eyes, wash your eyes, and look for a doctor for help. Wash your hands thoroughly. Keep children and pets away from the brake fluid.

### **⚠ WARNING**

The use of the brake fluid is mixed with water, dust and impurities, and silicate liquid or oil, or else they could seriously damage the braking system. Do not use the brake fluid in the open container. You can't use the brake fluid from the last maintenance either. You can only use DOT3 brake fluid. When brake fluid splashed paint surface or plastic surface, it will corrode the surface of the material.

### Brake piece

Check whether the front and rear brake piece is wear and tear to the limit position. If wear to the limit position, please go to the designated company service units to change the front and rear brake pieces or in pairs.



Rear wheel brake piece    front wheel brake piece

## Braking system

### **⚠ DANGER**

If fail to brake piece inspection and maintenance, don't change in time or in the recommended replacement, it will increase the risk of accidents. If brake piece need to be replaced, please let the designated company service units to complete the job. It must accord with the method recommended by brake piece inspection maintenance.

If driving after the maintenance of the brake system or replace the motorcycle brake, operate only a few with the brake lever or brake pedal, braking effect will be worse, and the accident will happen. Maintenance of the brake system or replace the brake after operating brake handle, or the brake pedal several times, until the brake disc can be normal pressure brake disc, brake lever and brake pedal back to normal hydraulic resistance.

### **⚠ WARNING**

If you just change one pair of brake piece, it can cause the brake to not be smooth. You should replace a pair of brake at the same time.

If the location of the brake piece is wrong, please do not operate the brake handle or the brake pedal. If you operate on brake lever or the brake pedal, piston is hard to reset, and it can lead to the brake fluid leakage.

Brake disc

Front wheel

The main point to check the front brake disc is: to see if the thickness of the brake disc ① is less than 4 mm. If the thickness is less than 4 mm, you should change new brake disc.

Rear wheel

The main point to check the front brake disc is: to see if the thickness of the brake disc ① is less than 4 mm. If the thickness is less than 4 mm, you should change new brake disc.

### **⚠ DANGER**

When you just put on a new brake disc or braking, it is not allow to drive immediately. First catch several times for brake handle, brake disc to let the brake fully fit and return to normal grip force, and to make sure the stability of the brake fluid circulation.

After changing new brake disc or braking, braking distance is longer than the original braking distance likely, in about 300 kilometers, after the running-in of the brake disc and brake piece, it is fully able to achieve the best effect of braking, before that, attention should be paid to set aside enough braking distance when driving.

Adjustment of rear brake pedal

The rear brake pedal position shall be maintained properly. Or braking and brake disc will always friction which will damage the brake and the brake disc. Adjust the position of the brake pedal According to the following method.



1. Loosen the lock nut ①, the rotation of the screw ②, the brake pedal position at the top of the foot below 50 to 55 mm.

2. Lock nut ① to ensure that the screw ② in the right place.

### **⚠ WARNING**

If the adjustment is not correct, brake piece and brake disc will be forced all the time which can damage the brake and the brake disc, when it is severe it will lead to high temperature for the rear brake, produce gas resistance, the rear wheels lose braking force. Please adjusted brake pedal according to the content of this section correctly.

## Tires

**⚠ DANGER**

Do not pay attention to the following matters may be accident caused by the failure of the tire. Tires connect the motorcycle and ground, so it is very important. Observe the following rule:

Check the tires and tire pressure condition, adjust the tire pressure before each use.

Avoid the motorcycle overload.

Replace tires when tire wear to limit or tire surface has crack and wounds.

Always use specifications and regulations provided in the instruction manual for the size of the tires.

After installing tires, you should balance the wheels.

Read carefully the content of the instruction.

If tire running-in is not good, it will affect the occurrence of tire slip and lose of control. When motorcycle is using new tires, you must be driving carefully. According to the running-in - section in tires, avoid braking in the situation of nasty accelerated, a sharp turn, and emergency within 150 kilometers after the replacement of tires.

### Tire pressure and load

The right tire pressure and the right tire load is an important factor. Overload can lead to tire faulty and motorcycle will be out of control.

Check the tire pressure, payload in accordance with the contents of the table below before using the motorcycle. You should check and adjust tire air pressure before driving, During driving, rear tires will fever, and tire pressure will rise.

If tire pressure is too low will cause the difficulty of turning, it will also accelerates the tire wear. If the tire pressure is too high, the tire and ground contact area is reduced, it is easy to slip out of control.

Recommended tire pressure under the normal temperature condition :240 KPa .

**⚠ WARNING**

Regularly check the tire pressure, tire pressure is not allowed to be less than 240 kpa.

When feeling tire pressure drops, check whether there is a nail in the tire, small hole, round circle round (copper) profile is damaged. Tubeless tire is gradually deflated when small hole.

### Storage of Tires

When the motorcycle is not in use for a period of time, it is necessary to adjust the tire pressure to the specified pressure.

The tire is rubber product of semi-hot melt formula, which is not suitable for outdoor weather in extremely cold, otherwise it will cause frost crack of the product. Please store it in a place with higher temperature or indoor.

### Tire status and specifications

Incorrect tire status and incorrect tire size affect the performance of the motorcycle. If there is any breakage in the tire scratches, it can lead to faulty tires and make the vehicle out of control.

Excessive wear of tires can make tires perforation and the vehicle out of control. Tire wear is also affect the appearance of the tire, and change the operating performance of the tire.

Check the state of tire and air pressure before each use. If there is much obvious damage on the tires, such as: damaged, scratched, or tire wear to limit position, you must replace tires.



**⚠ ATTENTION**

The triangle labels the wear strip position. If the wear strip touches the ground, it shows that the tires have been wear to pass the limit. You have to change the tires. When you change the tires, make sure that the size and type of the tires is accorded with the list content below. If you change it to different sizes or type, it will influence the performance of the motorcycle and may even lead to the loss of control for the motorcycle.

Specification	front wheel	rear wheel
	110/70R17 54S	160/60R17 69S

**⚠ DANGER**

It will cause problems if you use the tires which are out of the range of the standard. We really suggest you use the standard tires.

## Disassembly of tires



Front axle tightening torque : 65N.m

Front axle lock bolt tightening torque : 23N.m

Brake pliers before installation bolt tightening torque : 26 N.m

1. Use special support frame to support the motorcycle .

2. Loosen the connected front brake caliper two bolts on the shock absorber (1), remove the front brake pliers.

**⚠ WARNING**

When you remove the front brake pliers, do not operate the brake controller. Operating the brake controller leads to brake caliper piston ejector, difficult to return; if forced to return, it can make the brake fluid leakage.

3. Loosen lock bolt shaft (2) .

4. The special equipment is placed under the engine , jacking the front of the motorcycle, until the front wheel had just left the ground .

5. The wheel axle (3) rotated counterclockwise and pull out.

6. Move the front wheel forward .

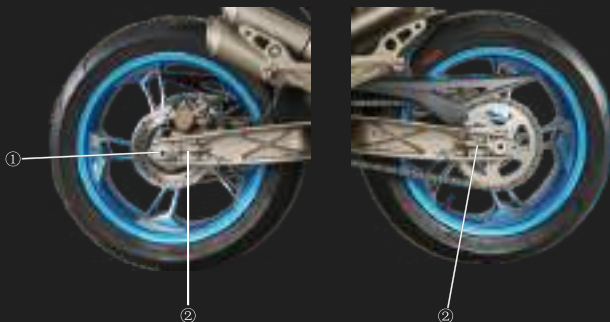
7. Install the front wheels in the operation contrary to the above .

8. After installing the front wheel, operate a few times for front brake controller in order to make its restore to normal grip force.

**⚠ DANGER**

After installing the front wheel brake, if the brake block position is not correct, it will affect the braking effect and may cause an accident. Before driving, operating brake controller for several times, until there is certain pressure to the brake disc when you grip it. Also, you can feel the handle grip force back to normal. Also check the wheel to see whether the rotation is flexible.

## Disassembly of tires



Rear wheel nut tightening torque: 110N.m

1. Use special support frame to support the motorcycle.
2. Remove the rear wheel nut (1).
3. Loosen the adjusting nut of left and right sides of the transmission chain (2).
4. Taking wheel.
5. Taking front moving rear wheel, remove drive chain sprocket from the rear sprocket.
6. Remove the rear wheel from behind.
7. Install back the rear wheels according to the reverse order.
8. Adjust the drive chain looseness.
9. After the installation, operate the brake pedal for several times, to check whether the rear wheel rotation is flexible.

**WARNING**

Remove the rear wheel, don't hit the brake pedal. Stamping on the rear brake pedal brake piece will make it difficult to return.

**DANGER**

If the drive chain adjustment is incorrect, or shaft didn't tighten correctly, it can cause accident. After installation of the rear wheel, adjust the drive chain according to the transmission chain adjustment section for drive chain. Make sure the torque tighten the wheel nuts in accordance with the relevant provisions. If you don't know how to operate, please let the designated company service units to complete the work.

After installation of the rear wheel, brake position is not correct will affect the braking effect and may cause an accident.

Before use, operating the brake pedal repeatedly, until the brake piece has certain pressure to the brake disc, you can feel the drag brake pedal returned to normal. Also check whether rear wheel rotation is flexible.

## — Illumination and signal —

Please refer to the instruction of the front part "check before driving" for the illumination and signal inspection.



Front brake switch



Rear brake switch

### Front brake switch

The front brake switch, housed in a former brake controller. When you slightly feel pressure before holding brake controller, the brake light is up.

### Rear brake switch

The rear brake switch located in the bolt of brake hose. When you feel the pressure on the rear brake pedal slightly, the brake lights up.

### Lamp bulb change

We use imported LED light product for the front light. In that case, we don't need to change the lamp bulb during the usage life of the motorcycle since it is very durable.

### Headlamps beam height adjustment

With type PH2 phillips screwdriver (6 mm in diameter), inserted into the storage box on the right side of the hole that move light, tooth alignment adjustment bolt type, a clockwise cross-screwdriver raised beam, the phillips screwdriver counterclockwise to trim beam.



### Fuse wire

Main fuse wire, light fuse wire, ECM fuse wire and ABS fuse wire are located in the fuse wire box under the seat. Also, the liquid control motor fuse wire, liquid control ECU fuse wire are located in the electric parts box under the seat.

1. Main fuse wire protect all the electric circuit.
2. Light fuse wire protect front light, position light, tall light and brake light.
3. ECU fuse wire protect ECU, relay and fuel oil pump relay.
4. ABS fuse wire protect ABS system.
5. Liquid control motor fuse wire protect liquid control motor.
6. Liquid control ECU fuse wire protect liquid control ECU.

### **⚠ DANGER**

Don't use not-in-specification fuse wire or other direct lap. Otherwise it will have serious absence made of circuit system, or even cause fire or burning vehicles, loss of engine power, it is very dangerous

### **⚠ WARNING**

Pay attention to the selection rules of the rated current of fuse. Do not use a substitute, such as aluminium or iron wire, etc. If the fuse wire frequently fuse in a short time, it shows the electrical system has fault. You should immediately make maintenance unit overhaul

### Accelerant

Catalyst can effectively cut your vehicle exhaust pollutant, the protection and preservation of our environment; Due to the life of the catalyst is under the precondition of normal use unleaded gasoline vehicle design, banned the use of leaded gasoline in the love of your car, because lead can make a reduction of the catalytic converter systems component failure. The normal operation of the engine to the catalyst is also very important, if the engine is not effective when the ignition or without adequate cooling, will cause the exhaust gas gathered in catalytic combustion, catalytic overheating caused permanent damage to the catalytic conversion ability, banned in situ long maintain high engine speed.

## Trouble shooting

The content of the troubleshooting can help you to find the cause of the general issues.

### **⚠ WARNING**

**Improper maintenance and adjustment can damage the motorcycle and cannot determine the cause of the problem. We can't guarantee such damage. If you are not sure how to correct operation, consult the designated company service units.**


**Before the troubleshooting, best to consult the company repair units. Repair units will try to solve for you.**

### Fuel system inspection

If instrument engine fault indicator light is on, there is something wrong with the fuel injection system. You should send the motorcycle to the designated company service units. Refer to instrument a section of the content of the engine failure indicator, it shows the interpretation.

### Ignition system inspection

1. Remove the spark plug, and connect to the spark plug cap

2. paste spark plug on the engine, turn on the electrical door lock, engine shut down switch is on  position. put the gear in neutral, cut off the clutch (hold the clutch handle). According to the electric start button, if ignition system works properly, the spark plug electrodes have a blue spark. If there is no spark, contact with your designated company maintenance unit to maintain the motorcycle.



### **⚠ DANGER**

**Do not put the spark plug fixed near the spark plug hole to make the inspection. Because of the combustible mixture in the cylinder may be ignited by a spark and fire.**

**In order to reduce the possibility of electric shock, and spark plug shell metal parts, with best posted near to the parts without painting.**

**To avoid the possibility of electric shock lead to disaster, people who have heart disease or wear heart pacemaker should avoid doing this job.**

### Engine inoperation

1. Make sure the fuel tank has enough fuel

2. When you successfully start the engine, in the process of engine running, it shous abnormal situation when the yellow fuel injection signal light is on. In that case, please contact after-sales dealership to check your fuel injection system.

3. Check whether the ignition system is normal .

4. Check the idle. The correct idle speed of 1300-1500 revolutions per minute .

### **⚠ DANGER**

**Don't make the fuel flow everywhere, the container should be income. Don't let the fuel close to high temperature of the engine and the muffler. When doing the inspection, it should be far away from the fireworks, also don't close to fire and heat source.**

### Engine short of power

When engine power significantly decreased or a larger decline on original top speed, it may be the blocking of the engine fuel system make the work of engine is not normal, please immediately go to the company dealers maintenance unit for inspection.

### **⚠ WARNING**

**Fuel system block is probably because of the not clean gasoline.**

## Fuel injection attention

### Fuel injection attention:

1. Before the installation of battery for new motorcycle, we should inspect that whether the connection for the fuel injection spare parts is fixed and reliable including the installation of oxygen sensor. Moreover, make sure to fill in the gas.

2. When you install the battery, you should use tools to fix the positive and negative anodes according to the positive and negative anodes of battery. Do not tie it up by hand.

3. Please keep the gas level to not less than 3 liter in the fuel tank; otherwise it will influence the normal working of fuel injection system. In that case, please refill the gas when the gas level is lower than or equal to level 1.

4. When you install new motorcycle or there are errors for motorcycles, we should reset some of the hardware of fuel injection system. The process would be: turn on the electrical door lock and turn on the switch. After 10 seconds, turn of the switch. And then after 10 seconds, turn on the switch again. Repeat the process for 2 times.

5. When you don't use the motorcycle for a long time, it is hard to restart it for the first time. We can turn the throttle line to 1/8 level to start.

6. If after several tries, you cannot still start, it might be the situation that the cylinder occupied by water. We should take the clear cylinder process. Turn the throttle line all the way down to full open, and then turn on the switch for 3 seconds.

7. If the battery voltage is flashing on the instrument, it indicates that the voltage level is too low, please recharge the battery at once; low voltage will lead to the abnormal working condition of the fuel injection spare parts so that the motorcycle won't start or the power is not enough.


#### WARNING

For new motorcycles or motorcycles which have no fuel inside the fuel tank, please don't turn off the switch. If got to refuel some level of fuel before you turn off the switch. Otherwise, the fuel pump will rotate without fuel so as to lower the service life for the fuel pump.

#### WARNING

Please do not unplug the cable port of all different spare parts and do not clean it with water.

When the engine is working, if the yellow error signal light is on, it shows there is error for the spare parts of fuel injection system.

1. Short press the "" button, after the motorcycle is electrified, turn on the shut-off switch, turn the switch on and off for several times in 2 seconds.

2. The error code would be 4 digits, read the code according to the flashing times of the error signal light. The "0" code will be shown by flashing 10 times, the other number would be the same as the flashing times.

3. After getting rid of the error, and you start the engine again, the yellow error signal light will be off.

4. If the spare parts are broken, please select the original spare parts again from the same factory, otherwise, it might lead to the abnormal working condition of the system.

Code	Error description	Code	Error description
0107	Intake pressure sensor short connect to ground or cut off	0201	Oil injector broken
0108	Intake pressure sensor short connect to power	0336	Camshaft position sensor signal disturb
0112	Intake temperature sensor short connect to ground	0337	Camshaft position sensor no signal
0113	Intake temperature sensor short connect to power	0351	High pressure package broken
0117	Cylinder temperature sensor short connect to ground	0505	Idling control valve broken
0118	Cylinder temperature sensor short connect to power or cut off	0562	Low System voltage
0122	Restrictor position sensor short connect to ground or cut off	0563	High system voltage
0123	Restrictor position sensor short connect to power	0032	Oxygen sensor heater end short connect to power
0131	Oxygen sensor short connect to ground	0031	Oxygen sensor heater end short connect to ground
0132	Oxygen sensor short connect to power	0850	Side stand turn off switch broken



## Fuel injection attention

Example: 0131 Oxygen sensor short connect to ground.

Broken light first flash for 10 times, and then 1 time, and then 3 times, and then 1 time.

### **ATTENTION**

When the engine is running, broken light is not on. When you turn off, the signal light is flashing. It means that is historical error and it has nothing to do with the whole motorcycle. After that it will disappear forever.

## USB Port

Charge USB port data:

Input voltage:12V-24V; output voltage:5V; output current: 1A.

Characteristic:

1. Waterproof cover can prevent water and dust from getting inside to extend the usage life of the charger.
2. Intelligent IC design. It will automatically adjust the charging speed according to the battery volume and type.
3. With the protection of over voltage and current, we can make sure the safety of charging.

### **ATTENTION**

Make sure to close the USB cover when there is rain or you don't use that.  
Please don't use when there is not enough battery volume.



## Adding electrical parts

The original motorcycle has been equipped with a modified port: as is shown, the modified port is located on the lower left side of the oil tank and above the guard bar. The modified port is a waterproof plug, which supplies power only when the engine is started, and can be installed the spotlight without destroying the original circuits.



## Storage method

### Storage method

If you are not using motorcycle for a while, the motorcycle needs special maintenance, this requires some special materials, equipment and technology. For this reason, it is recommended that you choose the company service units to complete the maintenance work. If you want to complete the work, please click the following method:

#### Motorcycle

Thoroughly clean the motorcycle. Use the main parking stand to park the motorcycle on a flat ground. The handlebars to the left, long press the bottom of electrical door lock, the motorcycle will be electrically cut off, the head lock will be also locked automatically.

#### Fuel

With the method of the siphon or other appropriate approach to pull out the fuel from the fuel tank into the appropriate containers.

#### Engine

1. Remove the spark plug, put a tablespoon of oil into each of the spark plug hole, reinstall the spark plug, and let the engine crankshaft rotate for several rounds.
2. Through dry the oil, and add new oil again.
3. With cloth containing new oil to cover the new oil filter of the air inlet and exhaust muffler to avoid.

#### Storage battery

1. Remove the battery refer to the content in battery section.
2. Use neutral soap water to clean surface of the battery, remove rust from the terminals and wiring connector.
3. Storage the battery indoor where the temperature is over 0 C.

#### Tires

Adjust the tire pressure to the regulated pressure.

#### The surface of motorcycle

Put rubber protective coating on the surface of resin and rubber parts.  
The antritrust paint spraying on the surface of the parts that have no surface treatment.  
Use the car wax coating paint the surface.

#### Maintenance during storage period

Storage battery has to be charged each month. Standard:  
Charging method: 0.6AX5-10 hours.

#### Restart method

1. Clean the motorcycle completely.
2. Remove dishcloth for air filter and the intake muffler exhaust.
3. Pull off all the engine oil. According to this instruction manual related content, replace the oil filter and add new engine oil.
4. Remove the spark plug. Let the engine turned several rounds. Reinstall the spark plug.
5. Reinstall the battery referring to battery content section.
6. Make sure motorcycle lubrication is normal.
7. Inspect the motorcycle in accordance with the content of instruction for use in the inspection section before driving.
8. Restart the motorcycle in accord with the instruction.

#### Corrosion prevention

Maintain the motorcycle carefully. Corrosion prevention is very important. In doing this, your motorcycle will look like new even after many years.

#### Key points to prevent corrosion

##### Factors that lead to corrosion:

- Salt road salt, the accumulation of dirt, moisture and chemicals.
- Small stones or gravel damage on the surface of the painting, or by knock against scratches.
- Salt road, wind, industrial pollution and high humidity environment will lead to rust.

#### How to prevent corrosion

Clean the motorcycle at least once a month. Try to keep the motorcycle clean and dry at your best. Remove dirt on the surface of the motorcycle. Salt road salt, chemicals, asphalt and materials such as SAP, bird droppings, and industrial emissions will damage your motorcycle. Remove the dirt as soon as possible. If it is hard to clean with water, use detergent to clean. When using the cleaning agent, you must comply with cleaner product requirements.

Clean up the damage as soon as possible. A careful examination of the motorcycle on the surface of the paint damage is a must. If you find any burr or scratches, immediately repair it, avoid damage more. If the burr and scratch is throughout the surface of parts, please let the designated company maintenance unit to maintain it.

Put the motorcycle in dry and ventilated place. If you often wash the motorcycle in the garage, and parked inside, the garage will become very wet. High humidity can increase the corrosion. If air does not flow, even in high temperature environment, damp motorcycle will rust.

Cover the motorcycle. Avoid the sun at noon to shine upon the motorcycle, it would lead to paint, plastic color changed or fade. Using high quality and breathable cover can avoid the sun ultraviolet radiation hit on the motorcycle, and reduce air pollution and dirt deposition on the motorcycle. Distribution unit of the company can help you choose your motorcycle cover.

## Motorcycle cleaning

Clean the motorcycle

Clean the motorcycle accord with the following:

1. Use cold water to wash away dirt and mud on the surface of the motorcycle. You can use the soft sponge or soft brush to clean. You could scratch appearance parts with hard materials to clean.
2. Use neutral detergent or a car wash soap, thoroughly clean sponge or soft cloth motorcycle. Sponge or soft cloth should be frequent infiltrate cleaning agent.

If you use the motorcycle in salt road surface or the beach, after use, you should wash it in cold water immediately. You must use cold water. Hot water will accelerate corrosion.

Avoid spray cleaning, avoid water flow to the following location:

- Ignition lock
- Ignition plug
- Fuel tank lock
- Fuel injection system
- Braking fluid tank

### WARNING

Don't use high-pressure water to clean the motorcycle, throttle body and oil injector.

3. After cleaning the surface dirt, use water to rush residual cleaning agents
4. After rinse, wipe the motorcycle with wet soft leather or cloth, and dry in the shade.
5. Carefully check the paint surface. If it has any damage, follow these steps, use repair material to repair the damage surface:
  - a. Clean and dry the area of damage
  - b. Stir repair material and use small brush to smear lightly at the site of the injury
  - c. Thoroughly dry the patch

### WARNING

After cleaning motorcycle or rain when you drive, there will be water mist in headlamps. Open the front light, water mist will gradually dissipate. Start the engine to power the headlamps; clear water to avoid the battery discharge.

### WARNING

When you cleaning the motorcycle, don't use cleaner containing alkaline and acidic detergent, do not use gasoline, brake fluid, or other solvents which can damage the motorcycle. You can only use soft cloth with neutral detergent with warm water.

Motorcycle waxing

After cleaning, it is recommended that the waxing polishing, which not only it can protect the parts, but also it makes the parts more beautiful.

Use high quality wax and polish

When using wax and polish wax and polish matters, you need to pay attention on the use instruction of the products.

## Inspection after cleaning

In order to prolong the service life of the motorcycle, lubricate the motorcycle according to the instruction.

### DANGER

It is very dangerous to drive a motorcycle when the brake is wet. Wet brake is unable to provide braking force such as dry brake. This can cause an accident. After cleaning the motorcycle, you can test the brake system with low speed. If needed, operate brake for several times to make brake dry.

Inspect the problem after the use of the motorcycle accord with the instruction.

Transportation

Motorcycle fuel must be discharged before transport. Fuel is easy to combust and under certain conditions it can cause explosion. When drain the fuel, storage fuel or injected fuel, it is forbidden to open fire, be sure to stop the engine, to operate in a well-ventilated place. Drain fuel as follows.

- (1) Stop engine rotation, and shut down the electrical door lock switch.
- (2) With the method of the siphon or other appropriate approach to pull out fuel from the fuel tank and put into the appropriate containers.

### WARNING

When transport motorcycles, - pull all the fuel out of the fuel tank. Let the motorcycle in the moving state when transport, in case of oil leakage.

## The use instruction of storage battery

### 1 The start of the new storage battery

#### Installation

- a. Connect first positive (+) polar (red wire), followed by the negative (-) polar, note: don't connect the reverse way. Otherwise it will damage voltage rectifier electric parts, etc.
- b. After tightening bolts on the bolt, nut, terminal butter or vaseline, to avoid poor contact rust.

#### 2 Use and maintenance

- 2.1 Each electric start-up time not more than 5 seconds, if you continue trying a few times and it can't start, you should check the oil supply system and starting, ignition system.
- 2.2 The following situation will cause the battery discharge or charge, shorten service life.
  - a. Frequent electric starting and short distance driving
  - b. Low speed driving for a long time
  - c. Hold the brake controller when driving to make the brake light on usually.
  - d. Install additional electrical accessories or change with high-power light bulb
- 2.3 When starting, the motor rotation is weak, lights not bright, horn not loud, you should immediately added electricity.
- 2.4 when you did not use the motorcycle for a long time, please charge the battery before use, and charge electricity once a month.

#### 2.5charging

- a. please charge the battery with the special charger. Cut off all the connection with the motorcycle when you charge, or you can do damage to the motorcycle or battery.
- b. The charging voltage will be not over 15V.
- c. There are two ways of charging: standard charging and quick charging. If there is no emergency, try to use the standard charging for better battery life.

#### 3. Attention

- 3.1 It is not allowed to open or modify the battery secretly. It is not allowed to put the battery to the high temperature place or places with fire.
- 3.2 When you charge or use the battery, please don't put it near fire, or the battery and motorcycle will be broke.
- 3.3 If there is special smell, serious heat, color change, form change or any strange situation happen for the battery, remove the battery immediately from the motorcycle and stop using it.
- 3.4 The battery is only matched with the motorcycle, so it is not allow to use that for other functions.
- 3.5 Equipped with anti-theft alarm, the battery has a certain influence. It is recommended to use the burglar alarm recommended by the company. If use other anti-theft alarm, it may cause abnormal circuit system, and even damage the battery, voltage regulator rectifier electric parts, etc.

#### Fuel consumption

"Consumption" of powered by fuel motorcycle, refers to the vehicle with the fuel consumption at least one driving speed constant speed.

— Specification table —

Length.....	2051mm
Width.....	765mm
Height.....	1116mm
Wheel base .....	1390mm
Ground clearness .....	165mm
Seat height.....	807mm
Full load weight.....	145kg
Gross weight .....	155kg

Engine

Type .....	Single cylinder ,upright, four-strokes, wind and oil cooling
Cylinder number .....	1
Cylinder bore .....	80mm
Stroke .....	62mm
Displacement .....	312ml
Compression ratio .....	12.5:1
Start-up mode .....	Electric starting
Lubricating system .....	Pressure splash-type
Power.....	26kW

Transmission system

Clutch .....	wet-type multiple-piece
Transmission .....	6 gears tooth transmission
Forward gear .....	3.1
Gear ratio 1 gear .....	2.909
2 gear .....	1.933
3 gear .....	1.4
4 gear .....	1.182
5 gear .....	1
6 gear .....	0.846
Transmission chain .....	Oil-seal chain

Main performance index

Fuel consumption .....	3.2L/100km
Maximum speed .....	150km/h
Braking system .....	7m

Travel system

Turning circle diameter.....	5m
Front wheel specification .....	110/70R17 54S Tubeless tires
Rear wheel specification .....	160/60R17 69S tubeless tires
Electric System ignition method .....	Inductance discharge type
Spark plug type .....	LDK8RTIP
Storage battery specification .....	12.8V,4.4Ah
Fuse wire specification .....	15A
Headlight specification .....	12V,7.5W/7.5W
Front position light specification .....	12V,0.6W
Turn signal light specification.....	12V,1.8W
Tail lights/brake lamp specifications.....	12V,2.2W/2.4W
Rear license plate lamp specifications .....	12V,0.4W

Volume

Effective Fuel tank volume .....	15L
Engine oil volume.....	1800ml
Engine oil, replace the oil filter at the same time.....	1600ml
Engine oil, don't change the oil filter .....	1500ml

# Circuit diagram

