

**V250**  
MOTORCYCLE MANUAL

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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 riding.

This manual summarizes the right repair and maintenance methods of your 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 maintenance and service at any time.

All the data, illustrations, photos and specifications collected in this manual are compiled according to the updated products at the time of publication of this manual. However, due to the continuous improvement of products and changes in other aspects, your motorcycle may have some inconsistencies with this manual. The distribution unit will give you the correct guidance at any time.

The contents of this manual are updated quickly, and the official website shall prevail. 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 it can be assembled on your motorcycle, and we cannot directly control the market quality and applicability of accessories. The inapplicable accessories 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**

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

**You should be properly installed accessories and spare parts, If you have any questions, please contact the company's authorized dealership or special maintenance shop.**

Windshield, chair back, saddle bags, luggage, etc., are all laid accessories, easy to cause the instability of driving. Especially in the side wind or with large vehicles encountered. If the accessories installed wrong or poorly designed accessories, 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:

#### Inspection before driving

Carefully read the instructions in the "Inspection before driving" section, and check each item according to the instructions, do not forget, this can ensure the safety of the driver and passengers.

Your driving skill and mechanical knowledge, is the foundation of safe driving. First practice at where there are fewer motorcycle, 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.

#### Beware of driving on rainy days

Pay extra attention to driving on cloudy and rainy days, and keep in mind that the braking distance is twice that of sunny days. When driving, avoid road marking paint, manhole covers, and oily roads to avoid slippage. Drive with extreme caution over railroad crossings, iron fences and bridges. If you cannot clearly judge the road conditions, you should slow down.

#### Speed limit

Do not let the vehicle speed too high at any time, and do not let the engine rev too high to avoid accidents.

#### Description of product configuration

The motorcycles in this manual have many configurations. The illustrations in this manual can only represent one or several configurations, not all configurations. The specific configuration should be subject to the actual object.

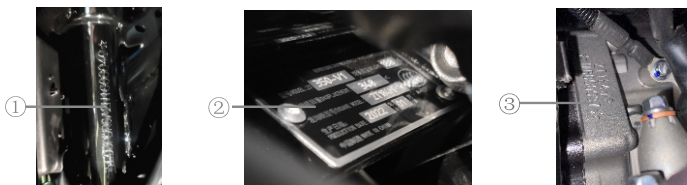
## Special warning

**⚠ WARNING**

**Accessories or cargo added to the locomotive, weakly alter the weight distribution of the locomotive, may change stability and handling. In order to avoid the possibility of accidents, the bearing mass of the rear tailstock is less than 10KG, and the bearing mass of the side box is less than 10KG. Please do not overload or modify the rear tailstock without permission.**



### Code positing



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 right 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:

- It is forbidden to hit the accelerator at high speed in place for a long time
- It is forbidden to drive in heavy-load low-speed for a long time.
- It is forbidden to add anti-rust oil or engine oil to the muffler.
- It is forbidden to directly flush the muffler with cold water when the motorcycle is hot
- It is forbidden to slide when shut off.
- It is forbidden to use inferior oil.
- 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**

Please pay attention to the following items and similar items. Any violation may cause damage to parts or vehicles, or even casualties of riders.

When driving, the side parking frame must be stowed to prevent the vehicle from overturning when turning, causing casualties to the riders.

When driving, you must check whether the braking system is working properly. If there is a problem, please repair it immediately.

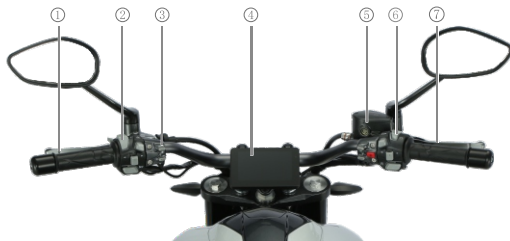
**⚠ DANGER**

Non-professionals should not unplug the fuel pipe to discharge the fuel, so as not to encounter open flames and damage the vehicle; do not let the muffler of the motorcycle contact foreign objects to avoid fire, and the use and storage environment of the motorcycle must not have fire hazards.

When vehicle maintenance needs to replace parts, be sure to use the company's genuine parts, use non-genuine parts, especially electrical parts, which may damage the motorcycle or even burn the vehicle

Please do not arbitrarily add accessories, especially electrical components, if the wiring is improper or the electrical load is too large, the vehicle may be burned.

Single sided swinging arm  
Component installation position



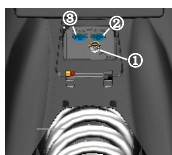
- ① Clutch lever
- ② Left handle switch
- ③ Left sub handle switch
- ④ Speedometer
- ⑤ Front disc brake oil cup
- ⑥ Right handle switch
- ⑦ Throttle



- ⑧ Rear disk brake
- ⑨ Muffler
- ⑩ Rear brake pedal
- ⑪ Front disk brake
- ⑫ Gear shift rod
- ⑬ Ignition coil
- ⑭ Side stand



PKE user manual



3D antenna sensing area



**PKE (Passive Keyless Entry) system user manual:**

The PKE system consists of 5 parts: a PKE accessory (Figure 1), a PKE host (Figure 2), a key (Figure 3), a non-electric inductive antenna (Figure 4) and a low frequency transmit antenna (Figure 5).

**PKE accessory (Figure 1) function description:**

① Battery charging DC port ② Charging fuse ③ PKE fuse

**1. How to use the PKE key**

A motorcycle is equipped with 2 PKE keys. Please keep one of them well as a spare key.

The 2 PKE key are marked with serial numbers, which correspond to the serial number of the PKE host. The PKE host can automatically identify one corresponding PKE key. No need to activate the key.

**⚠ ATTENTION**

There are 2 LEDs, green and red, on the PKE key. If power of battery in the key is sufficient, when the PKE host is on, the green LED on the key flashes every 3 seconds. If power of the battery is low, red LED flashes. (The LED flashes once when the battery is just installed. This helps judges if the key is battery status). Due to the limited capacity of the key battery, the normal battery life is about 6 months. If the key is not sensitive or the sensor key indicator flashes red, please consider replacing the battery (there is a pry opening on the back cover of the sensor key, which can be replaced by prying it open, the battery is a 1225 button battery).

**2. PKE working:**

When the PKE is connected to the power supply for the first time (such as connecting to the battery power supply or plugging in the PKE fuse), when the key is not within the sensing range of the vehicle, the vehicle will beep 4 times, representing

1. PKE normal reset working signal
2. Start button pressed signal (similar to pressing the START button). If the key is detected, the motorcycle will be on. If not, the motorcycle will enter non-electric inductive mode.
3. Long press start button, non-electric inductive mode on signal
4. Non-electricity inductive mode off signal.

**⚠ ATTENTION**

The non-electric induction detection is executed between the 3rd and the 4th beep. Detection period is 5 seconds.

**3. Turn on the PKE:**

Short press the START button on right sub handle switch (Figure 6). Turning lights flash 2 times. Steering lock is unlocked automatically. Then a beep signal while the circuit is on.

**⚠ ATTENTION**

If the steering lock is not unlocked successfully, it may be that the handle locks the connected lock shaft, gently turns the handle to allow the lock shaft to move freely, or the battery may be too low to unlock, please check if the battery is normal.

**⚠ ATTENTION**

If the battery power is normal, short press the red power button, the motorcycle cannot start up, but the main machine will give a "di" prompt, please try to use the induction key to start up without electricity (see the following instructions for specific operation). If the battery is normal and the host does not give a "di", please check whether the PKE fuse (the fuse position is as shown in FIG. 4) is normal. If the fuse is replaced, please be sure to replace the fuse of the same specification (15A).

When the battery is dead, please try to turn it on after charging.

PKE user manual

**⚠ ATTENTION**

**Note:** When the vehicle is on fire or moving, all buttons of the right auxiliary handle switch (Figure 6) are shielded and can only be used when the vehicle is stopped and the ignition is off.

**4. Turn off the PKE:**

After stopping and parking the motorcycle, put handlebar to the left, turn off the engine, long press the red power-on button on right handlebar, the turning signal will double flash twice, the steering lock will be locked automatically, then the buzzer "di" 1 sound to prompt, the electric circuit is disconnected.

**⚠ ATTENTION**

After turning off the motorcycle, please check if the steering lock is locked. If the steering lock is unlocked, please put the handlebar to the left, the motorcycle will be locked automatically.

If the handlebar is not put to the left and turn off the motorcycle, it is forbidden to push the motorcycle or let the motorcycle slide, in case to put the handlebar to the left to lock the head lock, it is dangerous.

When pushing the motorcycle or let the motorcycle slide from the hill, make sure the PKE is turned on (the steering lock is unlocked successfully)

**5. Non-electric induction start mode:**

When the battery power of the induction key is low or there is no key battery, you can start the machine through the non-electric induction mode. The specific steps are as follows:

1) Press and hold the red button "START" on the handlebar (Figure 6) in the off state, and hear a "di" sound, or unplug the PKE fuse (Picture 1), then re-plug the PKE fuse after 10 seconds, and hear the third "beep".

2) Press the key induction area (picture 3) against the non-electric induction area (picture 4) within 5 seconds.

**⚠ ATTENTION**

You can also place the key induction area (Fig. 3) against the non-electric induction area (Fig. 4) first, and then proceed to step 1.

The key is no longer detected after power-on without electric induction, please pay attention to power off when leaving the vehicle.

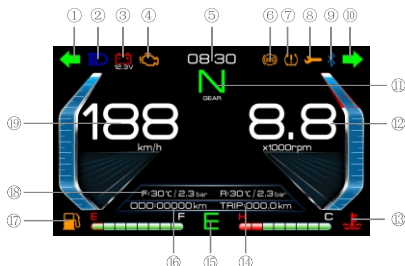
**PKE Host buzzer sound**

The PKE host buzzer prompts the user to detect an abnormal condition by a combination of long and short "Bi" other prompt sounds. The specific meanings are as follows:

START button stuck	One long and two short	After power on, it is detected that the button is stuck, and the alarm is once, and the detection time is 10 seconds.
Fuel tank lock button stuck	One long and four short	After turning on the machine, it is detected that the key is stuck, the fuel tank lock is opened and an alarm is issued, and the detection time is 10 seconds.
Seat lock button stuck	Two long	After the power on, it is detected that the key is stuck, the seat cushion lock is turned on and an alarm is issued, and the detection time is 10 seconds
High frequency reception abnormality	Two long and one short	Abnormal high frequency reception of the PKE host is detected when powering on, and an alarm will be given if it is not turned on
no paired remote	Two long and three short	The abnormal high frequency reception of the PKE host is detected when it is turned on, and it will alarm once when it is not turned on.
The remote control battery is low	Three long	After the power is turned on, the battery of the transponder is detected to be low, and an alarm is given once.
Main lock open abnormal	Five short	When the power is turned on, it detects that the unlocking in-position signal is abnormal, and the alarm is once not turned on.
Main lock is abnormal	Five short	When the power is turned on, it detects that the unlocking in-position signal is abnormal, and the alarm is once not turned on.
Low frequency transmitting antenna is abnormal	Three long and one short	Abnormal low-frequency transmitting antenna is detected when the machine is turned on, and an alarm is given once
Induction key away from detection area	Eight short	the key is not detected after turning on normally, the alarm is once and the machine is turned off



### TFT Instrument



The meter consists of four different interfaces which are leisure, racing, street and simplicity version, respectively. The interface can be switched and selected according to personal preference. A brief description of the meter is made with the leisure interface shown in the picture below.

Front view figure arrow: 1 Left turn lights, 2 Distance light lamp; 3 Battery fuel gauge of voltage prompt table; 4 Emergency light; 5 clock; 6 ABS anti-lock braking system light; 7 Tire pressure indicator light; 8 Maintenance indicator light; 9 Bluetooth; 10 Right turn signals light; 11 Gear display; 12 Engine speed record; 13 Water temperature; 14 Tripmeter; 15 E/S model; 16 Odometer; 17 Fuel level gauge; 18 Driving information; 19 Speedometer;

#### **WARNING**

Do not use high pressure water washing instrument directly.

Do not use dishcloth with organic solvent such as gasoline, kerosene, alcohol, brake fluid to wipe the instrument. Otherwise, the instrument may cause local cracks or discoloration due to exposure to organic solvents.

Short press the " " button of meter, then the meter will perform the process of self-test.

#### 1. Left turn light

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

#### 2. Distance light lamp

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

#### 3. Battery voltage prompt

When the engine is off, if the detection voltage is less than 11.9V, the display symbol will alarm in the way of flashing this flashing frequency is 1Hz. When the detection voltage is greater than 12.1V, the alarm will be canceled automatically.

When the engine is on, if the detection voltage is less than 12.6V, the display symbol will alarm in the way of flashing this flashing frequency is 1Hz. When the detection voltage is greater than 12.8V, the alarm will be canceled automatically.

When the low voltage indicator of the battery flashes, it means the voltage of the vehicle is lower than the set value. If the indicator is continuously on for a long time, it means that it is an abnormal phenomenon. Please contact our company for after-sales inspection. After the inspection, if the battery is dead, charging the battery will make it back to normal. If the battery is damaged, the battery needs to be replaced.

#### **ATTENTION**

If the voltage is higher than 16V, you must stop using the vehicle immediately and contact after-sales service point of the company for inspection.

#### 4. Fuel injection error signal light

After the engine is successfully started, during normal running, the EFI fault light is off; if the EFI fault light is on at this time, it indicates that the EFI system is faulty.

#### **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.

#### 5. Clock

The clock display in the 24 hours system.

#### **ATTENTION**

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

TFT Instrument

**6. ABS anti-lock braking system signal light**

ABS working situation.

**7. Tire pressure indicator light**

When the tire pressure and temperature are abnormal, it will flash an alarm and need maintenance and inspection.

**8. Maintenance indicator light**

The first indication is 1000km. After every 3000km, the maintenance reminder will flash, and long press SET to clear it. 200km in advance each time, it will flash for 5 seconds after power-on to indicate maintenance.

**⚠ WARNING**

When the oil indicator light is on, it means that the motorcycle has already traveled to a certain mileage. Therefore, it is necessary to change the oil to maintain the engine. Otherwise, if you continue to drive the motorcycle without maintenance, the engine and the transmission system will be damaged.

When the oil indicator light is on, please turn off the engine firstly, and then check the oil level to confirm whether the oil capacity is correct or not, and whether the oil needs to be replaced or not.

**9. Bluetooth**

The indicator light will be on when the phone is connected to Bluetooth, and will be off when disconnected.

**10. Right turn signal light**

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

**11. Gear display**

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

**12. Engine tachometer**

Displays the engine speed, which means the number of revolutions of the engine shaft per minute.

**13. Water temperature**

After the power is turned on, turn off the engine switch of the handle. After the EFI is powered on, the water temperature state is displayed. One grid indicates that the water temperature is lower than or equal to 60 ° C, 61-70 ° C shows two grids, and 71-80 ° C shows three grids, 81- 90 ° C shows four grids, 91-100 ° C shows five grids, 101-110 ° C shows six grids, 111-120 ° C shows seven grids, and 121 ° C above shows eight grids. When the water temperature is greater than 111 ° C, the water temperature indicator will start to alarm and the cooling system needs to be checked.

**14. Tripmeter**

There are two functions in the display area of the screen, which are the TRIP MODE and the ODO MODE.

The TRIP MODE records accumulated mileage per drive, long press MOD key to clear zero, the maximum recorded value is 999.9.

**15. E/S model**

"E" means economy mode, "S" means sport mode.

**16. Odometer**

The ODO MODE records the driving mileage in total from the beginning to the present. The recorded information cannot be cleared, and the maximum recorded value is up to 999999.

**17. Fuel level gauge**

The fuel level gauge shows the amount of fuel remaining in the fuel tank. The fuel level gauge shows 8 segments, indicating that the fuel tank is full. When the remaining fuel is low, the fuel indicator flashes, and fuel should be added as soon as possible.

**⚠ WARNING**

When the motorcycle is parked by using side stand, fuel gauge can't accurately show. Put the motorcycle into normal driving status, after we turn on the red power-on button, 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 red power-on button, turn it on again, the fuel level gage will demonstrate correct oil level information immediately.

**18. Driving information**

The record displays motorcycle information such as fuel consumption, average speed, cruising range, tire temperature and air pressure. The average fuel consumption is displayed when the motorcycle is stationary, and the instantaneous fuel consumption is displayed after the motorcycle is started.

**19. Speedometer**

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

## TFT Instrument



Figure 1

### As shown in figure 1: Main menu

Menu operation: Short Press the SET button on the main interface to enter the main menu. Long Press the SET button at any time to return to the main interface, or the screen can automatically return to the main interface without any operation for 8 seconds. Short press the MOD button, then the cursor will move downwards, short Press SET button to enter the secondary menu or set options.

#### ① Interface style

The four interface styles are leisure, racing, street, and simplicity, respectively .

Short press MOD button to move the cursor to select the option, short press SET button to confirm the option, then it will automatically return to the previous level.

#### ② Clock Setting

The clocks and minutes are set individually in digital bits. When entering the clock setting, press digit setting from left to right, short press MODE key to increase digits, loop around, short press SET key to determine the current digit key, and then switch to the lower digit setting. After the last digit setting is completed, short press SET key to determine, and the interface will automatically return to the upper menu.



### ③ Instrument backlight brightness adjustment (figure 3)

Press the MOD key to change the backlight brightness gear (auto, 1, 2, 3, 4, 5) and press the SET key to confirm the selection.

Automatic transmission: the old instrument has the darkest backlight when the headlight switch is turned on, and the backlight is the brightest when the headlight switch is turned off, automatically switching between two brightness levels; the new instrument automatically adjusts the backlight brightness and darkness according to changes in the light sensing environment.

#### ④ Unit setting

Short press the SET button to alternately switch the unit display, and the speed unit can be switched between mph and km/h. Correspondingly, the mileage unit can be switched between mile and km.

#### ⑤ Language setting

Short press the SET button to switch language between Simplified Chinese and English.

#### ⑥ Bluetooth connection

Short press SET button to turn on and off Bluetooth.

#### ⑦ Malfunction information ( figure 4)

Current fault code, historical fault code, software version number.

#### Tire pressure monitoring function (figure 5)

The tire temperature and pressure data can be viewed on the main interface by short-pressing MOD to switch driving information or entering the "Main Menu-Tire Pressure Settings".

There are three pressure units: Psi, Kpa and Bar. Short press the SET button to switch, short press MOD to confirm and jump to the next item.



## TFT Instrument

### Tire pressure function description:

#### 1. Tire pressure and temperature alarm

When the instrument receives that the tire pressure temperature information from the sensor exceeds the limit value, the instrument interface displays the corresponding tire pressure temperature alarm text, and the tire pressure indicator flashes (1 Hz).

#### 2. Low voltage alarm

When the tire pressure sensor detects that the battery voltage value is lower than 2.6V, the interface shows that the sensor battery is low, the alarm will not disappear until the new sensor is re-matched, and the tire pressure indicator flashes (1Hz).

#### 3. Air leakage alarm

When the sensor detects the change of tire pressure (decompression), it will prompt a leak alarm and the tire pressure indicator will flash (1 Hz).

#### 4. Unlearned alarm

When the meter does not match the sensor and the tire pressure setting interface displays "Not Learned", the main interface displays "Not Learned Alarm" and the tire pressure indicator flashes (1 Hz).

#### 5. Sensor loss alarm

When the signal from the sensor is not received, the meter shows that the sensor is missing and the tire pressure indicator flashes (1 Hz).

Remove alarm: The alarm disappears after receiving valid data.

#### 6. Sensor failure alarm

When the meter receives the sensor chip fault information, the interface displays the sensor fault alarm and the tire pressure indicator flashes (1 Hz). At this time, the sensor needs to be replaced, otherwise the tire pressure information cannot be displayed normally.

#### 7. System failure alarm

When the chip that receives the signal inside the instrument fails, the instrument interface displays a system failure alarm and the tire pressure indicator flashes. At this time, the instrument needs to be replaced, otherwise the tire pressure information cannot be displayed normally.

#### 8. Learning matching function

① First adjust the motorcycle meter to the learning mode, that is: power on the meter → enter the menu → tire pressure setting interface → operate the instrument button to set the front (rear) wheel to "learning..." and wait for the tire pressure sensor to learn information.

② Continue to inflate or deflate the corresponding front wheel or rear wheel until "Success" is displayed.

③ When the meter receives the matching signal from the tire pressure sensor, after the match is successful, the text "Learning..." on the tire pressure setting interface will be displayed as "success". At this time, the meter can receive the tire pressure temperature information of the sensor.

If the learning is unsuccessful, you need to repeat the above operation and increase the time of inflation and deflation.

## Mobile interconnection operation instructions

### Android system:

1. On the home screen, press SET to enter the secondary menu, select "Easy Connected" to enter the wireless screen, and scan the QR code at the upper right corner of the screen to download "Driving Partner".

2. The mobile phone interconnection defaults to the Android system. If it is an IOS, please press the SET button, then press the MOD button to switch to the IOS system, and finally press the SET button to confirm the switch.

3. Turn off the WLAN, set the mobile network sharing place, and set the account and password of the hotspot(the account and password should be the same as those displayed on the meter. Note that the English letters of the account only have lowercase "o" and no uppercase "O", enter Errors will cause the connection to be unsuccessful), then turn on the hotspot, and you can check whether it is connected to the corresponding device on the connected device side. (AP frequency band is set to 5GHZ)

4. After the hotspot is successfully connected, open the "Driving Partner" APP, and you can enter the Yilian screen projection interface on the meter. By clicking on the mirror image screen, you can project the application on the mobile phone to the meter.

5. If the connection is unsuccessful for a long time, please turn off the mobile WIFI, keep the hotspot on the mobile phone, turn off the meter and wait for 30s, then turn it on again, and wait for automatic connection.

6. Short press the MOD button to exit the connection and return to the home screen.

Wireless projection interface



Hotspot settings



Successful screen projection interface



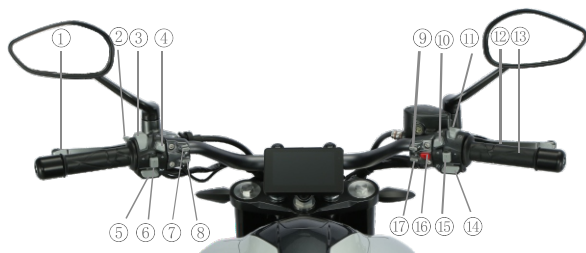
### IOS system:

1. Set the meter to IOS system mode, short press the SET button on the mobile phone interconnection interface, then short press the MOD button to switch to the IOS system, and finally short press the SET button to confirm.

2. Enter the mobile phone settings--Wi-Fi--select the account with the same name displayed on the instrument and input the password "88888888". Wait for the successful connection, and then open the Driving Partner APP to realize the interconnection.



Single arm/double arm(upgrades)  
Left/Right handle control system



1. Clutch controller

When starting the engine or shifting gears, hold the handle to separate the clutch discs to cut off the power transmission.

2. Overtaking warning lights

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

3. Dimmer switch

high beam&low beam operation

When the dimmer switch on  $\Rightarrow$  position, the distance light is flashing. At the same time on the surface of the dashboard in light is lit will switch to  $\Rightarrow$  dipped headlight will be turn on and distance light is turn off. At the same time the high beam indicator on the dashboard surface lights up. When the switch is changed to  $\Rightarrow$ , the low beam lights up.

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  $\Leftarrow$ , the left turn light is flashing. When turn the switch to the right  $\Rightarrow$ , the right turn light is flashing. The indicator light on the instrument surface also flashes at the same time.

**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. SET: Enter the main menu/confirm the option.

8. MOD: Select the next (Move the cursor to select the option).

9. Fuel tank lock switch

When the engine does not start, press " Fuel " button, the fuel tank cover will be opened automatically.

10. ECO button

Press the ECO button, the indicator E of the instrument lights up, and E represents the economy mode; press the ECO button again, the indicator S of the instrument lights up, and S represents the sport mode.

**ATTENTION**

In any case, E and S modes can be switched.

11.Engine flameout 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  $\odot$  position, the circuit connected, the motor can start.

If the switch in  $\otimes$  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, hold the brake handle on the right side. 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 rotating speed. When turn towards to the user's side is acceleration; On the other hand, turn towards to the opposite user's side is reduction.

## Single arm/double arm(upgrades) Left/Right handle control system

### 14. Electrical starting button

Press this button to turn on the start-up circuit. When starting, you must set the gear position to the neutral position, confirm that the engine flame-off switch is in  $\odot$  position, and hold the clutch handle to ensure safety.

#### **⚠ 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. Light switch

☼ Position: When the engine is working, the left and right hand switches backlight, 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. Red power-on button

When the host is in the sleeping version, press the "START" button in short time to wake up the host. After detecting the response signal of the key and the signal of the handle bar lock, the whole vehicle will START up. Press the "START" button in long time, the host will enter into sleep version, and the whole vehicle will be shut down.

### 17. Seat cushion lock switch

When the engine is not starting with the seat cushion locking, press the SEAT switch to open the seat cushion lock.

#### **⚠ ATTENTION**

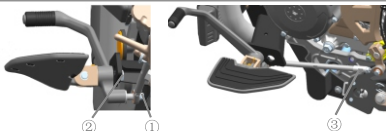
If the seat is not installed into position, the seat will glide which and will lead to the driver to lose control of the motorcycle. Make sure the seat cushion is locked in the correct position.

For details of the operation of MOD button and SET button, please refer to the main menu of the meter.

## Front pedal installation

#### **⚠ ATTENTION**

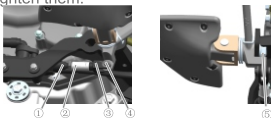
The front pedal is installed in the frontmost position before leaving the factory. User can adjust installation position by himself according to his demand.



### 1. Adjust the position of the front left pedal

Tools: No. 8 open-ended wrench, No. 10 open-ended wrench, No. 14 Torx wrench

1. Use a wrench to unscrew the M6×30 bolt ①;
2. Remove the front fender bushing ③ from the adjusting screw to shorten the adjusting screw;
3. Remove the support mounting bolts M10×25 ②, install the pedal support on the rear hole, retighten the M10×25 bolts, and tighten them.



### 2. Adjust the position of the front right pedal

Tools: No. 14 open-ended wrench, No. 10 open-ended wrench, No. 14 Torx wrench

1. Remove the cotter pin and pin ④, and use the No. 10 and No. 14 open-end wrench to unscrew the extension rod ② and U-shaped joint ③;
2. Connect the U-shaped joint directly to the rear brake main pump ①;
3. Remove the support mounting bolts M10×25 ⑤, install the pedal support on the rear hole, retighten the M10×25 bolts, and tighten them.

Fuel tank



The fuel tank is located in the fuel tank shell in front of the seat cushion. When opening the outer fuel tank cover, make sure that the engine shutdown switch is turned off.

Press the fuel tank cap switch button ①, the cover plate ② opens automatically, and turn the fuel tank cap ③ counterclockwise to open. When assembling the cover, proceed in the reverse order.

**⚠ DANGER**

Do not refuel excessively, so as to avoid overflow fuel flow to the high temperature engine. When refueling, the fuel level should not exceed the bottom of the fuel tank filler opening. Otherwise, the heated fuel will overflow and cause damage to other components.

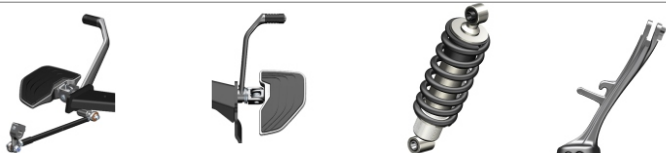
Turn off the engine while refueling. Be sure the flameout switch is at OFF position. Stay away from any flame.

Refueling gun should not insert too deeply in the filler opening in case the fuel sensor is damaged.

Precautionary measure is necessary while refueling so as to avoid fire accident or inhalation of fuel vapor. The motorcycle should be refuel in well ventilated location. Be sure the engine is turned off. Avoid fuel from overflowing. Flame is prohibited. Be sure that there is no heat or fire source in surrounding. Avoid inhalation of fuel vapor. While refueling, please keep children and pets away.

**⚠ DANGER**

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



Gear shift lever

The motorcycle is equipped with 6 gear transmission. Down pedaling or up lifting the lever can switch gears. Afterwards, the lever will return to original position so as for subsequent gear shifting. Before shifting to lower gear, please reduce the speed or increase the RPM. Before shifting to higher gear, please increase the speed or reduce the RPM. Hence unnecessary wearing on transmission components and rear tire can be prevented.

**⚠ 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

When press on the rear brake pedal, rear wheel brake will work, brake lights up at the same time.

Rear shock absorber spring

The rear shock absorber's spring is adjustable according to willing 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.

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.



## Fuel, engine oil and coolant

### Fuel

The pure 95# or more unleaded gasoline must be used. The pure 92# unleaded gasoline can only be used in a short time in case of emergency, otherwise the engine lifetime will be shortened.

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 SN or above level four-stroke engine oil can prolong engine life. Please choose ZONTES API SN level or higher level of "four stroke motorcycle engine oil", it is on sale in all ZONTES 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

### Engine coolant/antifreeze

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

#### **⚠ DANGER**

It is bad for health if you swallow or absorb the coolant/antifreeze. 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 coolant/antifreeze 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.

#### **⚠ WARNING**

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

### Distill water for coolant/antifreeze

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.

### coolant/antifreeze

coolant/antifreeze can prevent routing and lubricate the coolant/antifreeze pump. Therefore, if the outdoor temperature is higher than the freezing point of the coolant/antifreeze, it can be used.

#### **⚠ ATTENTION**

Please refer to the instruction of coolant/antifreeze product when you use it.

When adding coolant/antifreeze, ensure that the engine is cold. Do not open the tank cover of the hot engine, which may cause danger!

After the tank is filled with coolant/antifreeze, do not close the tank cover and start the engine idling (Appropriate fueling) for a period of time. At this time, air is discharged from the water inlet. After the air is discharged, add more coolant/antifreeze. Once, until there is no air discharge from the water inlet, it can be considered that the water tank has been filled up before the water tank cover can be closed.

The sub tank coolant/antifreeze is added between "L" and "H".

### The volume of coolant/antifreeze

coolant/antifreeze volume (total volume): 1580ml.

#### **⚠ ATTENTION**

Please choose the suitable coolant/antifreeze according to the driving air environment.



Water tank cover

## 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 RPM
Up to 1500 kilometers	below 8250 RPM
Over 1500 kilometers	below 10000 RPM

### Maximum RPM recommended

The gear and speed of the engine should be changed from time to time, and do not run continuously in a certain gear and speed. During the run-in period, the accelerator can be appropriately increased to make it fully run-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 150km 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 150km, we should avoid nasty acceleration, a sharp turn, and emergency braking.

#### DANGER

**If the tires are not well run in, it will cause the tires to slip and lose control. After changing tires, drive with extreme caution. Use the tires correctly according to the contents of this section, and avoid sharp acceleration, sharp turns and sudden braking during the first 150 kilometers of using the tires.**

### Avoid riding constantly under low RPM

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 (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 500km, 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.**

## Check list before riding

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 uses 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 oil	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
Lamplight	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.

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

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. First pinch the clutch and then press the electric start button (⊗) to start.

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

1. Pack up the side stand.

2. Turn the throttle 1 / 8th opening, and at the same time pinch the clutch before pressing the electric start button (⊗) to start.

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

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

**⚠ 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. First pinch the clutch and then press the electric start button (⊗) to start.

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

1. Pack up the side stand.

2. Turn the throttle 1 / 8th opening, and at the same time pinch the clutch before pressing the electric start button (⊗) to start.

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.

whether the gear is in neutral or not, you need to squeeze the clutch handle first, otherwise it will not start, and do n't forget to put away the side stand.

**Do not start motorcycle without fuel and engine oil.**

## Riding

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.

Riding uphill

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.

Braking and parking

- (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 motorcycle 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.

### 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

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. For security, we recommend the work best done by a qualified repair units.

### DANGER

Initial 1000km 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 1000km maintenance, shall be carried out according to the method described in this section. "Danger" and "Warning" 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 list

Inspection item	Inspection cycle	kilometer months	First 1000 First 3	Each5000 Each15	Each10000 Each30
Air filter (filter)			---	Check	Change
Muffler suspension hollow buffer glue			---	Check	---
Muffler bolt, nut			Fastening	---	Fastening
Check valve clearance (cold) In 0.11-0.20mm / Out 0.18-0.30mm			---	---	Check
Ignition plug			---	---	Check
Engine oil			Change	Change every 3000km (If not exceeding 3000km a year, change every year)	
Engine oil filter			Change	---	Change
Clutch controller free stroke			Check	---	---
Throttle body			Check	---	Check
Throttle digging line gap			Check	Check	---
Idling			Check	Check	---
Fuel evaporative pollutants control system			---	---	Check
Radiator rubber hose			---	Check	---
Fuel pipe			---	Check	---
Transmission chain			Check	Check	---
			Checked and washed per 1000km		
Anti-wear block of rear fork lift			---	Check	Check
Brake			Check	Check	---
Brake liquid pipe			---	Check	---
			Change once every four years		
Brake liquid pipe			---	Check	---
			Change once every two years		
Tires			---	Check	---
Bolts and nuts in steering gear			Fastening	Fastening	---
Internal moving mechanism of faucet lock			---	---	Check, clean and lubricate
Steering Bearings in Steering Mechanisms			Check, clean, lubricate every 5,000 kilometers	---	---
Front shock absorption			---	---	Check
Rear shock absorption			---	---	Check
Body and the engine installation of bolts and nuts			Fastening	Fastening	---
coolant			---	Check	---
			Change once every 3 years or 30000km		
Eccentric chain regulator NK50-25 needle roller bearing			Check, clean and lubricate every 6000km		

Initial maintenance for the first 1000 km or 3 months (whichever comes first), every 5,000 km or 15 months (whichever comes first) Regular maintenance.

## 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.

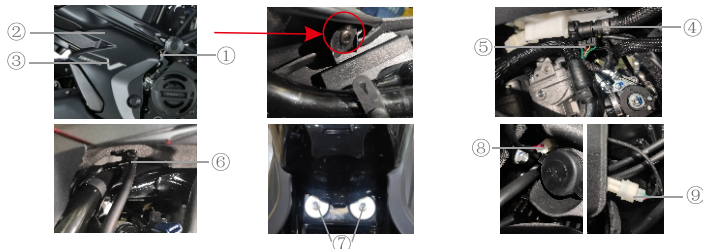
#### Toolkit

Open the seat cushion and place the toolkit under the cushion, as shown in the figure.

#### Toolkit



#### Fuel tank disassembly instruction



The Disassemble steps of the fuel tank:

1. Disassemble the cushion, disassemble the decorative ball of right guard bar ① Remove the expansion screw ② at the joint between the right side cover.

2. Disassemble the decorative ball of left guard bar and the left side cover by the same method.

3. Disassemble high-pressure fuel pipe ④, electric connector of the fuel pump ⑤, and the fuel vapor absorber tube.

4. Disassemble the two fixed bolts ⑦ at the rear of the tank.

5. Hold the fuel tank with both hands and move it about 50mm in the backward direction, then stabilize the fuel tank.

6. Disassemble the USB connector on the left ⑧, disassemble the fuel tank lock electric connector ⑨ on the right.

7. Hold the fuel tank with both hands and move it backwards to disassemble the entire fuel tank from the vehicle and place it in a safe area.

### ⚠ ATTENTION

The fuel tank is in the correct position.

The pipe connection is correct.

When installing the fuel pipe, prevent foreign matter from entering the fuel pipe.

Before installing the fuel tank, check that the fuel vapor adsorption pipe is not bent or compromised.

#### 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 vehicle, 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 lever axle ② Side stand axle and spring hook ③ Gear shift lever axle and foot rest axle

④ Chain

⑤ Brake lever axle

⑥ Brake pedal axle and foot rest axle

## Battery



gel battery

The battery is located under the driver's seat cushion, please connect the positive and negative poles and install the battery straps for the first time.

**Disassemble the battery in the following steps:**

- a. Turn off the motorcycle power switch.
- b. Remove the cushion.

c. Loosen the battery strap

d. Poke black protective cap, remove the negative extreme ( - ), push aside red protective cap, remove the positive extreme ( + ).

**⚠ WARNING**

When reinstalling the battery after removing the battery, you need to pay attention to straighten out the surrounding wiring harness, especially the position of the positive pole of the battery and other red. The wires need to avoid touching metal such as the frame and the battery box bracket, and the battery needs to be completely inserted into the battery box and the battery bandage must be tied (installed small cover) to ensure that the positive position of the battery is within the protection range of the positive protective plate.

When reinstalling the battery, starting or when the whole vehicle has power failure, battery dormancy restarting, abnormal idle speed, plug and unplug fuse and other similar situations, please pay attention to reset individual hardware of the electronic injection. Steps: Turn on the electric door lock switch and the engine flameout switch, start the engine with the clutch of neutral gear. Turn off the engine flameout switch after 10 seconds and turn on the engine flameout switch after 10 seconds. Repeat 2 more times.

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.

**⚠ WARNING**

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

Battery should be checked regularly, if the voltage is lower than 12V, 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.

If the battery voltage is greater than 12.3V, the meter restarts with a black screen when igniting, you need to short-circuit the start relay to see if the same situation exists, such as

If the situation is the same, do not ignite for a long time (and each ignition time needs <3S) or stop the ignition, you need to go to the nearest dealer to check

Whether the vehicle starting mechanism is normal, otherwise there may be a risk of burning the battery.

**⚠ WARNING**

Please purchase and use our special charger to ensure the extension of the service life of the battery. There are lead-acid battery chargers for sale in Zontes shop. Users who need them can go to Zontes shop to purchase the corresponding chargers according to the batteries equipped with the model.

It is not allow to use the unqualified charger to charge the original battery.



## Instruction of charger

When the battery feed cannot be started due to the long time of not cycling or other reasons, please recharge the battery as the following steps:

- a. Open the left side cover of the vehicle (Figure 1).
- b. Insert the DC output line end plug of the charger into the battery DC charging port (if there is no response during charging, you can unplug the Check whether the PK E fuse is charged normally, and then plug it back into the fuse after charging).
- c. Charger input AC seat directly into the home 110-220V power supply, after charging is completed, unplug the charger and plug it back into PKE fuse.



Picture 1



Picture 2

**⚠ ATTENTION**

**Do not perform operations such as switching the machine, ignition, etc. while charging**

LED indicator

Gel battery charger	light is not on	The charger is in the no-load state with no battery/DC charging port connected.
	The charging light is flashing	The battery voltage is too low due to over-discharge of the battery. After charging for a period of time, wait for the voltage to rise to enter the stable charging stage.
	Red light	Charging mode
	Green light	Trickle mode charging
	Colorful gradient	Reverse connection indicator light, need to connect the positive and negative poles correctly



Gel battery charger

**⚠ ATTENTION**

Please purchase our special charger, which is sold in Zontes shop. It is forbidden to use other unqualified chargers to charge the battery.

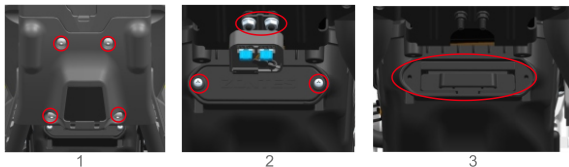
## Air filter

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.



### Maintenance/replacement of oil filter element:

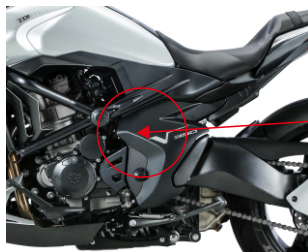
1. As shown in Figure 1, remove the 4 hexagon socket head bolts on the left and right sides, and take off the electrical device box cover.
2. As shown in Figure 2, first remove the two nuts and put down the charging socket. Remove the two screws and take out the air filter rear cover.
3. As shown in Figure 3, pull out the oil filter element (note: please see the official website video for details).
4. Observe the extracted oil filter element, and use a high-pressure air gun to blow off the contaminants from the clean side. If there is serious pollution or damage, the oil filter element must be replaced.
5. Install the restored vehicle in reverse order.

### ⚠ ATTENTION

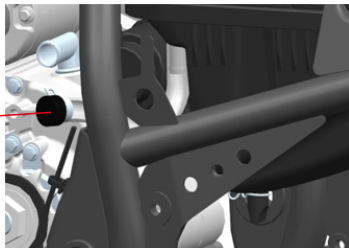
If the air cleaner filter installation position is not correct, the dust will bypass the filter into the engine which can damage the engine. Make sure the filter installed in the correct position. In addition, when you flush the motorcycle, don't let the water into inside the air filter; if there is 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

1. As shown in Figure 4, remove the left cover (refer to step 1 of removing the fuel tank).
2. As shown in Figure 5, after removing the left cover, remove the clamp with needle-nose pliers, drain off the waste oil, and then install it back to its original state in reverse order.



4



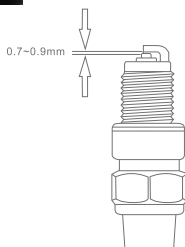
5

Spark plug



Disassembly the spark plug  
Follow the steps below:

1. Pull out the spark plug high voltage wire.
2. Remove the spark plug with a spark plug wrench.



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. The ignition area of the normal spark plug used is light brown. If the insulator is burnt white and the electrode is ablated, it is more appropriate to use a cold type spark plug.

Torch	Annotation
LDK8RTAIP	Standard spark plug
LDK9RTIP	Use the spark plug if the ambient temperature is too high and the spark plug is overheating.

**Install spark plug**

Torque: 20N.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. If there is no torque wrench when installing or replacing a new spark plug, screw it until there is resistance and then tighten it for 3/8 turn (135°). If used the old spark plug, screw the spark plug until there is resistance and then tighten 1/12 turn (30°). However, the spark plug should be screwed to the required torque as far as possible.

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 spark plug.

It is forbidden to use spark plugs below LDK8RTAIP.

## Engine Oil

Maximum oil level marking

Minimum oil level marking



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. Park the motorcycle on a level surface and keep it upright.
2. Start the engine and run it at idle speed for 3-5 minutes.
3. Turn off the engine and wait 3-5 minutes.
4. Keep the vehicle upright and observe the oil inspection window. The oil level should be between the minimum and maximum oil level markings.

### **⚠ 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 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:

It is strictly forbidden to start or run the engine during the process of draining the oil. Before starting the engine, it must be ensured that there is enough oil in the engine.

1. Park the motorcycle on a flat surface with the side frame.
2. Unscrew the oil filler plug counterclockwise.
3. Place an oil drain pan under the engine oil drain bolt.
4. Remove the oil drain bolt with a tool and drain 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.



Engine oil drain bolt

5.Reinstall the drain bolt and washer. Use a wrench to screw down the drain bolt. (tightening torque would be  $24 \pm 4N.m$ )

6.Add 1600ml from the engine oil filling hole (if the oil filter element is replaced, add 1700ml), the viscosity is SAE 5W-40 (ring ambient temperature  $-20^{\circ}C \sim 20^{\circ}C$ )/10W-50 (ambient temperature above  $0^{\circ}C$ ), "ZONTES" motorcycle four-stroke engine of API SN level or higher oil, and then tighten the oil filler plug.

### **⚠ WARNING**

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

7.With different speeds launch machine for 3 minutes. When engine is running, check leakage situation with dismantling parts.

8.Operate the engine at idle speed for 5 minutes, and then turn off the engine for 3 minutes, check oil level through oil foot calibration. If the oil level is lower than the oil inspection port minimum scale line, you should add new oil to the highest scale line. Once again, check for leaks.

### **⚠ DANGER**

When the engine is running, it is forbidden to open the oil filler plug to prevent the high temperature oil from splashing and hurting people.

## Engine oil filter

Please properly recycle and handle the used oil and oil filter.

1. Place the oil unloading tray under the right crankcase cover.
2. Remove 3 cap nuts on the oil filter cover with the special tool. Loosen the oil filter cover by the rotating softly from left and right, and disassemble the oil filter cover. It is strictly forbidden to pick up the oil filter cover with a hard object, otherwise it will lead to oil seepage.
3. Disassemble the oil filter cover, and disassemble the old oil filter, the seal ring of oil filter will be stuck to the old oil filter. If don't replace the seal ring, please remove it and use again, but must not forget this seal ring.
4. Wipe off residual oil and impurities with a clean paper towel, check and install the filter spring and replace a new oil filter.

### ATTENTION

It is very important to install the oil fine filter correctly, please use the original oil fine filter, please do not install the oil fine filter in reverse, spring and fine filter

Do not forget to install the sealing ring. Be sure to double check that the use of a non-original oil fine filter or incorrect installation may result in contamination or missing oil cause serious damage to the engine.



5. Before re-installing the oil filter cover: If necessary please replace the oil filter seal ring and O-ring on the oil filter cover, align the filter cover with the screw hole and press it in parallel with the mounting hole. Hold the fine filter cover by hand and pre-tighten the 3 cap nuts, the end face (A side) of the filter cover is attached to the end face (B side) of the mounting hole. Pre-tightening 3 nuts to make sure that the filter cover can not bounce and then tighten the three cap nuts evenly. The standard torque is  $12 \pm 1.5\text{N.m}$ .

### ATTENTION

Before installing the fine filter cover, please carefully check whether the O-ring on the oil fine filter cover is damaged. When installing the fine filter cover, the O-ring, the phenomenon of trimming should not occur. If there is damage or trimming, please ask the dealer to replace it in time, otherwise it will cause oil leakage.

Be sure to install the fine filter cover according to the correct steps, otherwise it will cause oil leakage.

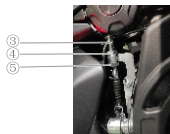
Free path of clutch lever

Measuring the clutch controller end free stroke, it should be between 10 ~ 15mm. 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. The adjustment and maintenance of the clutch shall be carried out by a dealer authorized by ZONTES.

## Throttle cable clearance



Adjustment progress:

- (1) Loose lock nut ①.
- (2) Turn the adjusting screw ② to adjust the clearance lasso, within the range of 0.5~1.0mm.
- (3) After completion of clearance adjustment, tighten the lock nut.

**⚠ 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 speed

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 1500 to 1700RPM.

**⚠ 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 10000km or every 30 months) do the following.

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

coolant/antifreeze

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

1. Park the motorcycle with side stand.
2. Open the cover of the main water tank, add proper coolant/antifreeze (when the motorcycle is in normal condition, the coolant/antifreeze surface level can reach to H line).
3. Please note the cover of auxiliary radiator should be toward the fuel tank.



**⚠ ATTENTION**

In order to correctly check the surface level of the coolant/antifreeze, 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 coolant/antifreeze inside.

**⚠ DANGER**

It is bad for health if you swallow or absorb the coolant/antifreeze. 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 coolant/antifreeze 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 coolant/antifreeze

It is suggest that you change the coolant/antifreeze completely every 3 years or 30000 kilometers.

## Fuel tube

### Fuel pipe

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

#### **⚠ ATTENTION**

**When removing the fuel tank, please pull out the fuel pipe first. Do not lift the fuel tank forcibly to avoid damage to the fuel pump outlet.**

## Transmission chain

### Transmission chain

This transmission chain is made of special material. The drive chain has a special seal ring, the seal ring contains grease. When you need to replace the drive chain, please hand over the maintenance work to an authorized dealer. 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.**

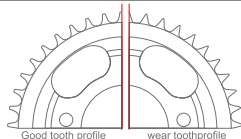
### Inspection of transmission chain

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 contact the authorized dealer of zontes 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 contact the authorized dealer of zontes for 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.

#### **⚠ WARNING**

**Improper cleaning of the chain may damage the seal and destroy the chain.**

**Do not use volatile solvents such as paint thinner, gasoline.**

**Do not use a high pressure cleaner to clean chain oil.**

**Do not use a 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 .
- 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.

## Transmission chain

**⚠ WARNING**

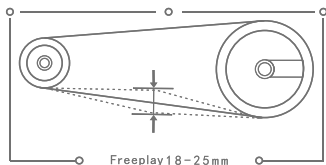
Some chain lubricant containing might damage the sealing ring of solvents and additives, so please use the special chain oil. If there is no chain oil for the seal chain, you can use high viscosity gear oil SAE90 instead.

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.



**⚠ WARNING**

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

Do not use a wire brush to clean the chain.

(Single arm) Follow the steps below to adjust the drive chain:



①



②



③



④

Step 1: Use the 6# Allen wrench to remove the M8 hexagon socket bolt shown in the picture, then carefully remove the vice rear fender, taking care not to pull the wire.

Step 2: Loosen the M16x1.5 bolt shown in the picture with a torque wrench of 100N and the outer hex 21#. Note that it does not need to be completely unscrewed.

Step 3: Use the special chain adjustment tool to clamp the teeth of the eccentric chain adjuster as shown in the picture, and then turn the eccentric chain adjuster with force (note: Clockwise is loose, counterclockwise is tight. If you feel too tight to move, then loosen the M16 bolt until you can rotate the eccentric chain adjuster) and turn the chain adjuster to adjust it to fit the tightness.

Step 4: After adjusting the chain, use the 100N torque wrench and the outer hex 21# to tighten the loose bolts in step 2.

Step 5: Use the 6# Allen wrench to install the vice rear fender removed in step 1.



## Transmission chain

(Single arm) Eccentric chain regulator NK50-25 needle roller bearing maintenance steps:



Step 1: Remove the locking spring stuck on the rear axle, and then use a 200N torque wrench and a 42mm metric 12-angle standard socket, the Stanley model is 89-642-1-22 to loosen the M35 nut. Tighten the foot brake to prevent the motorcycle from turning. Be careful not to remove the M35 nut completely.

Step 2: Use a 4# Allen wrench to loosen the locking bolt of the sprocket stopper and remove the sprocket stopper

Step3: As shown in steps 1, 2 and 3 of chain adjustment, remove the rear auxiliary fender and loosen the M16 bolts to adjust the chain to the loosest state.

Step4: Use a 110N torque wrench and hexagon 19# to loosen the 5 M12×1.5 nuts shown in the picture (note that the nuts should be loosened diagonally). When loosening, you need to tighten the foot brake to prevent the motorcycle from rotating. Completely remove the M12 nut.

Step5: Use the stool to stand up the motorcycle, paying attention to the position of the motorcycler. In addition, other cart aids can be used.

Step6: Remove the 5 M12 nuts that lock the wheel, and then pull the wheel straight out.

Step7: Take out the M35 nut, and then pull out the outer shell and inner shell of the sprocket seat together.

Step8: Use a 14# sleeve to loosen the locking bolt of the rear caliper at the position shown in the figure, and place the rear caliper in place.

Step9: Pull out the rear axle, clean it with gasoline or kerosene, and check the bearing position and spline position for wear.

Step10: Use the circlip pliers to remove the circlip at the position shown in the figure, and then take out the disc brake mounting plate.

Step11: Take out the eccentric chain adjuster, clean the bearing inside the eccentric chain adjuster with gasoline or kerosene, check whether the bearing is damaged, whether the rotating bearing is smooth, whether there is noise, etc. If there is a problem with kerosene, apply sufficient lubrication after cleaning. Grease at the bearing location.

## 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 brake fluid  
low oil level line



Front braking fluid



Rear brake fluid high oil level line  
Rear brake fluid low oil level line

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 pad**

Check that the front and rear wheel brake pads are worn to the extreme position. The extreme position refers to the bottom of the friction material groove. If it is worn to the limit position, please go to the maintenance shops and replace the front or rear brake pads in pairs.



Rearfront wheel brake piece

## Braking system

### **⚠ DANGER**

If it is not replaced when the service life is reached, please contact the authorized dealer of zontes for repair.

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

Check the front brake disc: see if the thickness of the brake disc is less than 4.5 mm. If the thickness is less than 4.5 mm, the brake disc should be replaced.

##### Rear wheel

Check the rear brake disc: see if the thickness of the brake disc is less than 4 mm. If the thickness is less than 4.0 mm, the brake disc should be replaced.

### **⚠ DANGER**

When you have just replaced a new brake disc pad, do not drive immediately. Grab the brake handle several times or pedal the brake pedal several times to make the brake disc and the brake pad fit together to restore the normal grip and stabilize the brake fluid circulation.

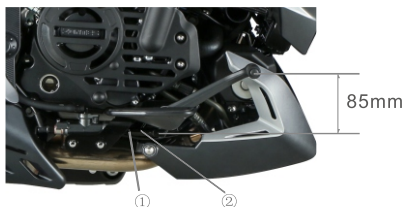
After replacing the new brake disc or brake pad, the braking distance may be longer than the original braking distance. After 300 km or so, the brake disc and the brake disc can be fully meshed to achieve better. Braking effect, before this, pay attention to leave enough braking distance when driving.

#### 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 85mm.

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 are 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 tire get hot and pressure rises.

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: 280kPa.

**⚠ WARNING**

**Check tire pressure regularly and keep tire pressure within the recommended range.**

**When you feel the tire pressure drop, check the tire for nails, small holes, and damage to the side of the rim (hub). Tubeless tires will gradually deflate when they have small holes.**

### 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 are much obvious damages 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 replace the tires. When you replace the tires, make sure that the size and type of the tires is accorded with the list content below. If you replace 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.

	front wheel	rear wheel
Specification	120/70ZR17 (58W)	180/55ZR17 (73W)

**⚠ 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: 20N.m

Brake pliers before installation bolt tightening torque: 45N.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 the axle locking bolt ②.
4. Put special equipment under the engine and jack up the front of the motorcycle until the front wheel just leaves the ground.
5. Rotate the axle ③ counter clockwise and pull it out.
6. Move the front wheel forward.
7. The installation of the front wheel can be carried out in the reverse operation of the above.
8. After installing the front wheel, operate the front brake handle several times to restore the normal grip.

### ⚠ DANGER

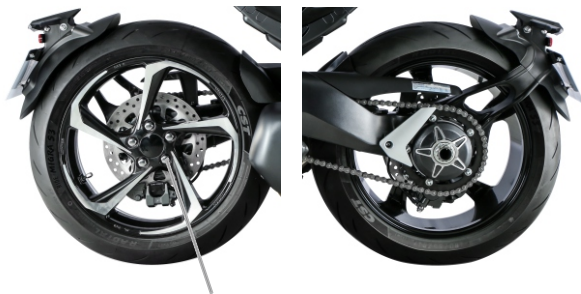
After installing the front wheel brake, if the brake block position is not correct, it will affect the braking effect and may cause an accident. Before driving, operating brake controller for several times, until there is certain pressure to the brake disc when you grip it. Also, you can feel the handle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

## Check the wheel

### Inspection of rim

1. Parking motorcycle and pay attention to whether the ground is smooth and firm.
2. The damaged location of rim was detected by visual inspection.
3. Have the repair shop check the damaged rims and replace them if necessary. It is better to let the ZONTES agent finish the work.

Disassembly of tires



M12×1.5 nuts  
Rear wheel nut tightening torque: 110N.m

**Rear wheel disassembly**

1. Use a special support stand to prop up the motorcycle.
2. Use the 110N torque wrench and the outer hex 19# to loosen the 5 pcs M12×1.5 nuts shown in the picture (note that the nuts should be loosened diagonally).
3. Then pull the wheel straight out.
4. Install the tires and replace the rear wheels in the opposite order.
5. After installation, operate the brake pedal several times to check if the rear wheel 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 contact the authorized dealer of ZONTES for repair

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 locates on front brake lever. Braking lights are on when rider grab the brake lever with a slightly tight feeling.

### 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 replace the lamp bulb during the usage life of the motorcycle since it is very durable.

### Headlamps beam height adjustment

1. Disassemble the 2 expansion bolt on both sides of headlight decorative cover(Figure 1) and remove the decorative cover.

2. Use a #6 internal hexagonal wrench to loosen the bolt on both sides of headlight on Figure 2. Adjust the headlight to angle required. Align the scale. (Unit scale is 0.5° ). Retighten the bolts.

### Headlamps beam height adjustment



### Fuse wire

Main fuses, ECM fuses, constant power fuses, hydraulic unit motor fuses, hydraulic unit ECU fuses, light fuses, spare fuses are located in two main fuse blocks, starter fuses, ABS fuses, auxiliary fuses, and other fuses are located in the secondary fuse box.

1. The main fuse protects all circuits.
2. ECM fuse protects ECM, ECM relay, oil pump relay and other electrical components
3. Constant power supply protection fan, instrument, anti-theft device connector
4. Hydraulic unit motor fuse protection ABS hydraulic unit motor
5. Hydraulic unit ECU fuse protection hydraulic unit ECU
6. Light fuse protection headlights
7. Start fuse protection start circuit
8. ABS fuse protection ABS controller
9. Auxiliary fuse protection auxiliary parts (position light, turn signal, tail light, brake light, license plate light, horn, overtaking light)
10. Other fuse protection deputy handle switch (except faucet lock switch), instrument, windshield, anti-theft device joint)

### **⚠ 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 motorcycle, because lead can make a reduction of 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 any sens 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.

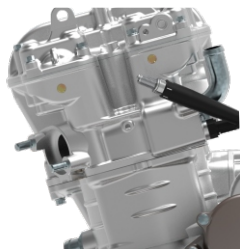
### Fuel system inspection

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 red power-on button. engine shut down switch is on "Q" 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, please contact a dealer authorized by zontes for repair.



**⚠ 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.The engine starts successfully. During the running process, if the orange EFI fault signal light is on, and the EFI failure is reported, it means that the EFI system is abnormal. Please contact our after-sales shop to check the EFI system.

3.Check whether the ignition system is normal.

4.Check the idle. The correct idle speed of 1500-1700 revolutions per minute.



## Trouble shooting

**⚠ 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.

## Carbon deposit cleaning

In order to generate as little carbon as possible, the recommendations are as follows:

1. The motorcycle rides for a short time or for a long time or for a long time under 5000 rpm. It is recommended to clean the carbon deposit every 5000 kilometers or every 6 months. If the motorcycle often rides at more than 5,000 rpm, the motorcycle's heat engine is also sufficient, and the mileage for cleaning up carbon deposits can be extended to every 10,000 kilometers or every 12 months.

2. The motorcycle has difficulty in starting. Remove the spark plug for cleaning in time, and perform the cylinder cleaning procedure. Press the start button for 3 seconds when the clutch is fully opened.

There are several ways to clean up carbon deposits:

1. Scavenging to clean up carbon deposits. During riding, when conditions permit, appropriately increase the throttle at high gears to increase the engine speed to more than 7000, and the cumulative riding is not less than 2 minutes, which can effectively clean up the deposits by high-speed scavenging.

2. Use standard brand fuel oil to clean up carbon deposits and add according to the instructions, but it is not recommended for frequent use. Frequent use may cause damage to the fuel supply pipeline.

3. Use throttle body cleaner to clean up carbon deposits, remove the stepper motor and three-in-one sensor from the throttle body, spray a small amount of throttle body cleaner into the throttle body and around the valve plate, and use a clean rag to clean up carbon deposits on the motor head.

## Notes for EFI system

### 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 reinstalling the battery, starting or when the whole vehicle has power failure, battery dormancy restarting, abnormal idle speed, plug and unplug insurance and other similar situations, please pay attention to reset individual hardware of the electronic injection. Steps: Turn on the electric door lock switch and the engine flameout switch, start the engine with the clutch of neutral gear. Turn off the engine flameout switch after 10 seconds and turn on the engine flameout switch after 10 seconds. Repeat 2 more times.

5. If the motorcycle is not driven for a long time (parking time is more than 3 hours), please make sure that the fuel pump has completed accumulating pressure before starting for the first time (that is, the bike is powered on, the flameout switch is turned on, and the buzzing in the fuel tank stops) before starting.

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 te 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. It 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.

1. When the engine is running, if the EFI failure indicator on the instrument is on, it indicates that there is a fault in the EFI component that needs to be eliminated.

a. Turn the throttle to the maximum before energizing the motorcycle and keep it in the fully open position, then turn on the electric lock and engine switch. If the system detects a fault, the fault light will start to flash.

b. The fault code has 4 digits. Read the fault code according to the number of flashes. For example: P0201 flashes in the following ways: continuous flashing 10 times→pause 1 second→continuous flashing 2 times→pause 1 second→continuous flashing 10 times→pause 1 second→continuous flashing 1 time.

c. If there is more than one fault, the next fault code will flash after the fault light is off for 4 seconds. Therefore, after the fault light is off during the flashing process, waiting for more than 5 seconds and still no longer lights up, it means that the fault code has been flashed.

d. If you need to observe the flashing code again, you need to turn off the engine switch first, then turn it on again, and keep the throttle fully open.

Code	Description	Code	Description
P0030	Upstream 1 cylinder oxygen sensor heating control is open circuit	P0116	Engine coolant temperature sensor signal is unreasonable
P0031	Upstream 1 cylinder oxygen sensor heating control circuit voltage is too low	P0117	Engine coolant temperature sensor circuit voltage is too low
P0032	Upstream 1 cylinder oxygen sensor heating control circuit voltage is too high	P0118	Engine coolant temperature sensor circuit voltage is too high
P0106	Intake pressure sensor/barometric pressure sensor is unreasonable	P0122	Throttle position sensor circuit voltage low limit
P0107	Intake pressure sensor is short circuit to ground	P0123	Throttle position sensor circuit voltage high limit
P0108	Intake pressure sensor is short circuit to power supply	P0130	Signal of the upstream 1 cylinder oxygen sensor is unreasonable

Fuel injection attention

Code	Description	Code	Description
P0112	Intake temperature sensor signal voltage is too low	P0131	Signal of the upstream 1 cylinder oxygen sensor is too low
P0113	Intake temperature sensor signal voltage is too high	P0132	Signal circuit voltage of the upstream 1 cylinder oxygen sensor is too high
P0134	Upstream 1 cylinder oxygen sensor circuit signal failure	P0627	Oil pump relay control circuit is open
P0201	1 cylinder injector control is open circuit	P0629	Oil pump relay control circuit is short circuit to the power supply
P0261	1 cylinder injector control circuit is short circuit to ground	P0650	MIL lamp driver stage circuit failure
P0262	Intake pressure sensor is short circuit to power supply	P0444	Canister solenoid valve open
P0322	Speed-Sensorless pulse signal (open circuit or short circuit)	P0459	Canister solenoid valve is shorted to power supply
P0480	Fan control is open circuit	P0458	Canister solenoid valve is shorted to ground
P0691	Fan control circuit is shorted to ground	P2300	1 cylinder ignition coil is shorted to ground
P0692	The fan control circuit is short circuit to the power supply	P0628	Oil pump relay control circuit voltage is too low
P0511	Idle speed actuator control is open circuit	P1098	Dump sensor signal voltage is too low
P0563	System battery voltage is too high	P1099	Dump sensor signal voltage is too high

2. Extinguishing conditions of the instrument fault light:

Manually clear the historical fault operation: power on → turn on the engine switch → start, turn the throttle in neutral to 4000 rpm or more, hold for 10 seconds → release the throttle, turn off the engine switch, the motorcycle does not need to be powered off, wait for 10 seconds or more; the fault light will go off after repeating the above operation 4 times.

**⚠ 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.

## USB interface

Charge USB port data:

Input voltage: 12V-24V; output voltage: 5V; output current: 2A.

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**

**USB must be covered with waterproof cover, when not in use, during raining time or washing of the bike. water is likely to cause damage to the internal components. If water enter the USB, dry before use by using a hair dryer to blow the USB port. Please don't use when there is not enough battery volume.**



## Installing electrical accessories

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.

**⚠ WARNING**

**It is forbidden to use GPS, spotlights and other electrical equipment to directly take power on the positive and negative poles of the battery.**

**Not allow electrical equipment to put wiring around the battery.**

**Installed electrical equipment must be kept away from the EFI ECU, relay combination, PKE controller 300mm or more**

**Unauthorized breakage modification and installation location do not meet the requirements, and the consequences are borne by owners**

**The total power of external electrical equipment shall not exceed 60W**

Anti-theft device plug: As shown in Figure 2, an anti-theft device plug (6 pin) is reserved under the seat, which can be installed by an anti-theft device or a GPS device.  
line color and definition are:

No	line color	Definition
1	blue and white	engine speed signal
2	red	power supply 12V
3	green	power supply 0V
4	light blue	right turn signal
5	orange	left turn signal
6	Black	ACC 12V

In addition, two red short-circuit single lines are reserved for emergency assistance.



①



②

## Storage methods

### 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 button of red power-on button, 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 antirust paint spraying on the surface of the parts that have no surface treatment.

Use the motorcycle wax coating paint the surface.

#### Maintenance during storage period

Please use our dedicated charger to charge the battery once a month.gel battery charger charging: (charging voltage 14.5V ~ 14.8V). The batteries can not be charged for less than 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 motorcycle 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 shipping the motorcycles, the fuel in the fuel tank must be discharged clean to prevent fuel leakage and explosion. The vehicle should be shipped in a normal riding posture to prevent oil leakage from the outlet of the reducer box during shipping.



## Notes for battery

### 1 The start of the new storage battery

#### Storage battery installation

- a. Connect first positive (+) polar (red wire), followed by the negative (-), 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 conditions will cause the gel battery to be over-discharged or under-charged to shorten the battery life:
  - a. Frequent invalid electric start.
  - b. Short riding time, short driving distance, long time low speed driving.
  - c. No ignition after long-time startup.
  - d. Install extra electrical devices without independent power supply or install high-power spotlights and other electrical equipment
- 2.3 When the starting motor rotates weakly, the brightness of each light is reduced, the horn sound is abnormally loud, and the ignition instrument restarts, such as abnormal phenomena, the battery should be recharged immediately to prevent the over-discharge from causing the ordinary charging method to fail to charge.
- 2.4 When the motorcycle is not used for a long time, it is best to remove the battery and store it separately, or disconnect the battery cable. And recharge the gel battery before the motorcycle is stopped, it is best to recharge it once a month.
- 2.5 Charging Precautions:
  - a. When charging, please use the charger that has passed the test to charge. You can use the motorcycle's own charging port or remove the battery to charge separately.
  - b. The charging voltage at both ends of the battery shall not be higher than 15V.
  - c. Use standard charging as much as possible when charging. It is best to avoid frequent fast charging to extend battery life.
  - d. Do not overcharge the battery. Overcharging will cause the battery to leak, swell or even burst, resulting in varying degrees of danger.

### 3. Attention

- 3.1 This battery is a maintenance free gel battery. It is strictly forbidden to open or modify the battery without permission. Do not add electrolyte or water without permission. It is strictly prohibited to put it in a place with high temperature and open flame.
- 3.2 It is forbidden to approach the open flame when using and charging the gel battery, and avoid short circuit of the positive and negative electrodes and reverse connection of the positive and negative terminals, otherwise it may cause damage to the battery and the motorcycle or even personal safety.
- 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 gel battery is standard for motorcycles, please do not use it for other purposes than the start of the motorcycle..
- 3.5 The installation of security devices, spotlights and other external devices have a certain impact on the battery and the circuit. If it is indeed necessary to add, you need to select a regular product that has passed the test and connect it to our reserved interface. Otherwise, it may cause abnormal operation of the circuit system of our company, damage caused by excessive discharge of the gel battery, and interference with the signals of other electrical devices
- 3.6 Do not drop the battery. The electrolyte contains strong acid. Avoid splashing on skin, eyes and clothing. Once contacted, please wash with plenty of water immediately. In severe cases, you need to go to the nearest hospital for treatment in time

### Fuel consumption

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

**Each vehicle will be equipped with "vehicle parts list" and it is also available for you to get the electronic version from our official website.**

### Single sided swing arm specification table

Length.....	2080mm
Width.....	860mm
Height.....	1350mm
Wheel base.....	1430mm
Ground clearness.....	170mm
Seat height.....	765mm
Net weight.....	176kg
Full load weight.....	188kg

Engine	
Type .....	Single cylinder ,upright, four-strokes, wind and oil cooling
Cylinder number .....	1
Cylinder bore .....	84.5mm
Stroke .....	62mm
Displacement .....	348ml
Compression ratio .....	12.3:1
Start-up mode .....	Electric starting
Lubricating system .....	Pressure splash-type
Power.....	29kW

Transmission system	
Clutch .....	wet-type multiple-piece
Transmission .....	6 gears tooth transmission
Forward gear .....	2.857
Gear ratio 1 gear .....	2.583
2 gear .....	1.867
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 .....	129km/h
Braking system .....	7m

Travel system	
Turning circle diameter.....	5m
Front wheel specification .....	120/70ZR17(58W) Tubeless tires
Rear wheel specification .....	180/55ZR17(73W) tubeless tires
Electric System ignition method .....	Inductance discharge type
Spark plug type .....	LDK8RTAIP
Storage battery specification .....	12 V, 10Ah
Fuse wire specification .....	1A/10A/15A/25A
Headlight specification .....	12V,36.8W/14.3W
Front position light specification .....	12V,5.8W
Turn signal light specification.....	12V,1.8W
Tail lights/brake lamp specifications.....	12V, 1.2W/1.2W
Rear license plate lamp specifications .....	12V,0.4W

Volume	
Effective Fuel tank volume .....	15L
Engine oil volume.....	2000mL
Engine oil, replace the oil filter at the same time.....	1700mL
Engine oil, don't change the oil filter .....	1600mL





# CIRCUIT schematic English version(A)

Note: Use this circuit diagram with the (A) logo on the main safe

