



USERS' MANUAL

# RX600

ADV TORQUE MASTER



Dear user:

Thank you for your trust and love !

The user should read the user' s manual carefully prior to using the product. The user shall have a proper command of basic operation functions, usage method and other common sense for the model. The data, technical specifications and performance parameters labeled in the manual are compiled based on the latest status. No entities or individuals shall be allowed to reproduce any part of the manual without the company' s written approval. We sincerely wish that you can tell us your opinions on the design, manufacture or quality of the product. Please inform us your opinions or suggestions by letter for ourtimely improvement.

For the contents that are not explained in this instruction manual, if you need to know more, please consult your local dealer or call the customer service hotline. Please purchase the original genuine parts and special oil manufactured by our company.

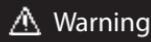
The pictures in this manual are for reference only, please refer to the actual product. If there are some inconsistencies between your motorcycle and this operation manual, the distribution and maintenance unit will provide you with correct guidance at any time. We reserve the right to make changes at any time.

### Symbolic meaning of security information in the User's Manual



Danger

It indicates there is potential high hazard. Failure to follow the instructions will lead to personal injury or death.



Warning

It indicates there is potential moderate injury hazard. Improper operation may cause personal injury and property safety.



Caution

It indicates a potential danger that may cause damages to the motorcycle if any misoperation.



Suggestion

The most efficient service information is available for faster warranty service and more understandable instructions.

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### Caution

Please read this manual carefully before using the motorcycle!



#### DANGER

1. Strictly abide by traffic regulations and drive safely.
2. It is prohibited to drive a motorcycle without a motor vehicle license and driving license.
3. Please don't lend the motorcycle to the one without driver's license.
4. In order to ensure driving safety, it is forbidden to drive after drinking or taking medicine.
5. This motorcycle model cannot be used for racing competitions. If mechanical accidents and personal injuries are caused thereby, the consequences shall be borne by yourself.
6. People with mental illness, history of mental illness, heart disease, deaf-mutes, and the disabled are prohibited from driving the motorcycle.



#### CAUTION

1. After unpacking, please check the attached accessories and various data according to the packing list.
2. The motorcycle can only carry one driver and one passenger. The maximum payload of the motorcycle is 150kg.
3. In areas requiring ethanol-gasoline, please pay attention to choosing ethanol-gasoline that meets the national standards, otherwise, the power, economy, and safety of the motorcycle could be reduced, violating provisions of relevant environmental protection policies.



#### WARNING

1. Please wear a helmet, dust-proof glasses, gloves and other protective equipment during driving. Do not hang articles on the steering handle, otherwise driving safety will be affected. Drivers and passengers should pay attention to the high temperature of the exhaust muffler to avoid contact and scald.
2. It is prohibited to wear loose clothing, flip-flops etc., as these may easily hook on the operating handle and accessories etc., and cause a safety hazard.
3. Do not refit any part of the motorcycle, otherwise, the reliability, stability, and comfort of the motorcycle could be affected.

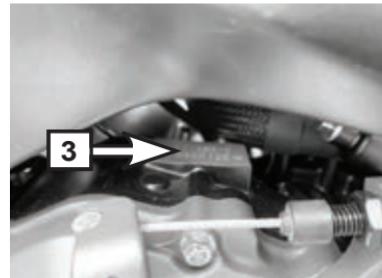
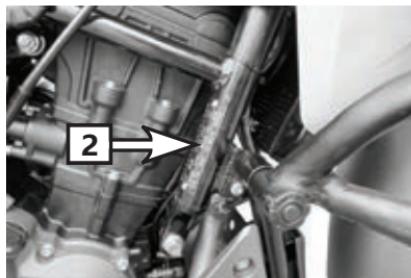
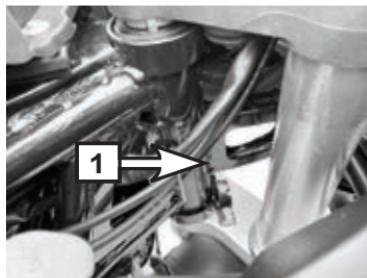


#### ADVICE

1. This operation manual is one of the essential products of the motorcycle. When reselling, please hand over this manual to the new owner.
2. During the running-in period or warranty period, the user shall regularly go to the dealer or the company's special maintenance service center for regular maintenance and adjustment.

## Vehicle identification code (VIN) and engine number

Vehicle identification number (VIN), engine number and vehicle certificate are used to apply for driving license and motorcycle account.

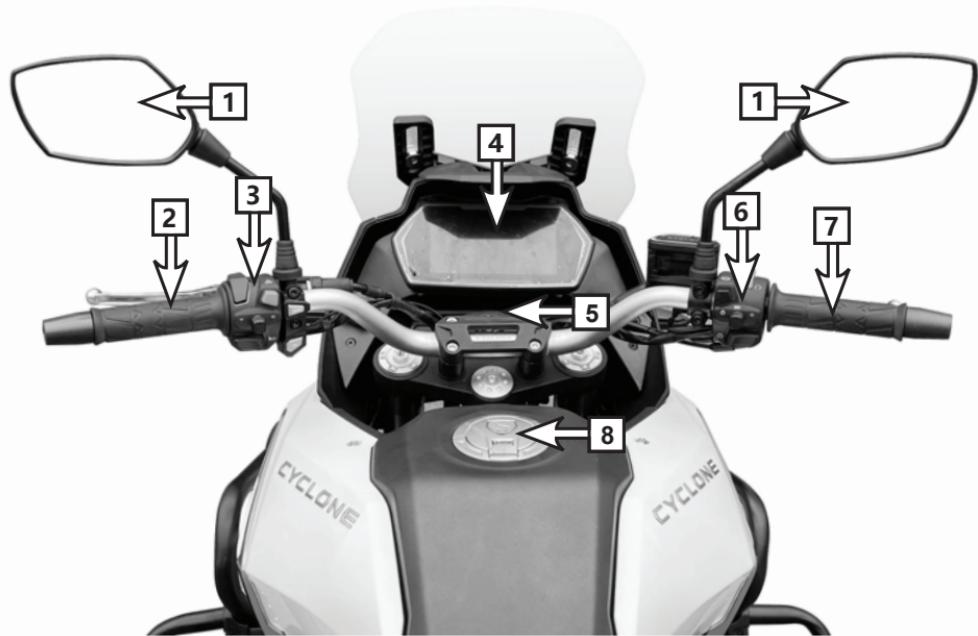


1. The vehicle identification number (VIN) is printed on the right side of the frame riser.
2. The vehicle nameplate is riveted on the suspension support pipe on the right side of the frame.
3. The engine number is engraved on the upper right end of the right crankcase body of the engine.

Please fill in the corresponding number for future inquiry:

Engine No.		Vehicle VIN	
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Introduction of the finished motorcycle



1. Rearview mirror
2. Left steering handle
3. Left combination switch
4. Instrument combination
5. Ignition lock
6. Right combination switch
7. Refueling handle
8. Fuel tank lock.

## Introduction of the Finished Motorcycle

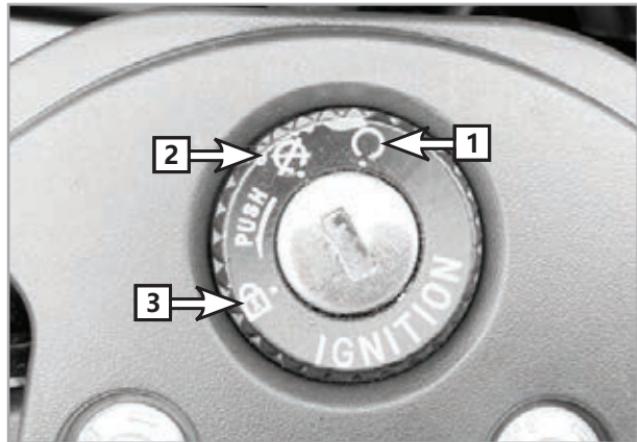


1. Tail box
2. Rear armrest
3. Seat lock
4. Fuel tank
5. Headlamp
6. Right box
7. Rear wheel
8. Rear brake caliper
9. Exhaust silencer
10. Rear brake pedal
11. Front right brake
12. Front wheel

Introduction of the finished motorcycle



1. Headlamp 2. Instrument 3. Fuel tank 4. Seat 5. Left side box 6. Front wheel 7. Left front brake  
8. Gear change pedal 9. Left front pedal 10. Side stand 11. Transmission chain 12. Rear wheel



The ignition switch mainly controls the ignition circuit and lighting circuit, and its operation is as follows:

Name	Function description
1. Ignition lock(Open)	Turn the key to the position "○", then the circuit can be started when connected, and the key cannot be taken out.
2. Ignition lock (off)	Turn the key to the position "⊗", the circuit is broken and cannot be started, and the key can be taken out.
3. Steering lock	Turn the key counterclockwise to PUSH position, and turn the key downward to "□" position to lock the direction.



### WARNING

The motorcycle must be parked in a safe place and the steering handle must be locked to prevent the motorcycle from being stolen.

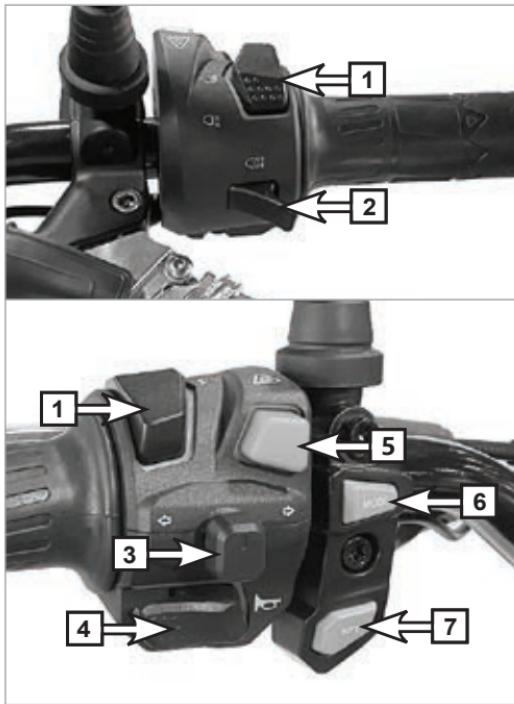
## TFT instrument indication



Please refer to the "RX600 TFT Instrument User Manual" for the functional settings and usage instructions of the TFT instrument.

## Left combination switch

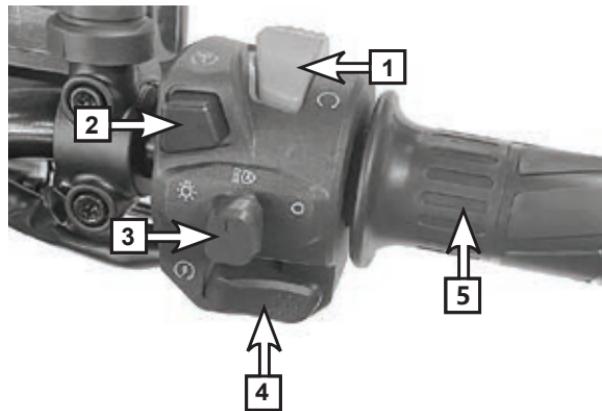
The main functions of the left combination switch are as follows:



Name	Direction for Use
1.Dimmer switch	When the lighting switch button is pressed to the position "  ", the high beam lamp is turned on. When the lighting switch button is pressed to the "  " position, the low beam lamp is turned on.
2. Overtaking light switch	When the motorcycle needs to overtake, press this "  " switch to prompt the front vehicle.
3.Turn signal switch	When the turn signal button is set to the"  " position, the left turn signal circuit is turned on. When the turn signal button is set to the"  " position, the right turn signal circuit is turned on.
4. Horn button	Press and hold this button"  " when the vehicle needs to sound.
5. Emergency switch	When this button is pressed, the hazard warning lamp will be turned on, and the left and right turn signals flash at the same time. When the button is pressed again, the hazard warning lamp will be turned off.
6. MODE key	For the operation mode, please refer to the Operation Manual of Sequron SR 600GY (RX600) TFT Instrument
7. SET key	For the operation mode, please refer to the Operation Manual of Sequron SR 600GY (RX600) TFT Instrument

## Right combination switch

The main functions of the right combination switch are as follows:



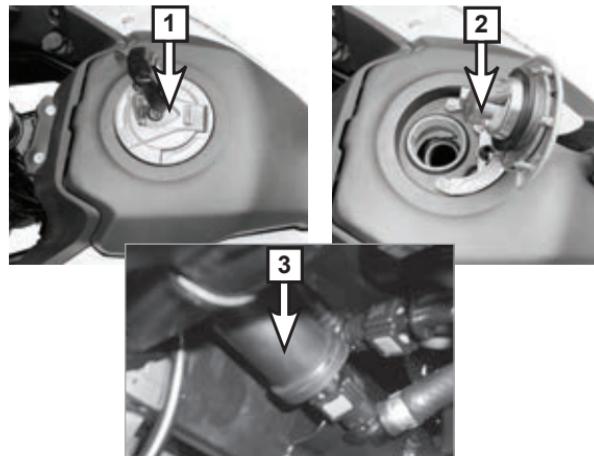
## WARNING

During electric starting, the starting time shall not exceed 5s each time, and the interval shall not be less than 10s each time. If the starting cannot be successful for 3 consecutive times, inspections shall be carried out.

Name	Direction for Use
1. Flameout switch.	When the switch is set to the "⊗" position, the motorcycle will quickly turn off. When the switch is set to the "⊗" position, the motorcycle can be started.
2. TCS switch	When the whole vehicle is powered on, the TCS off light is always on when the TCS switch is pressed for more than three seconds; when the TCS switch is continued to be pressed for more than three seconds, the TCS off light is off
3. Lighting switch	Turn the switch to "⊗" position, headlamp circuit is connected. When the switch is turned to the "⊗" position, the automatic headlamp function is turned on. When the switch is set to the "⊗" position, the lighting system is turned off.
4. Electric start button	If the motorcycle needs to be started by electricity, just press the "⊗" button.
5. Refueling handlebar.	Control the amount of mixed gas flow.

## Fuel tank

The fuel tank has a capacity of 18L. Please use gasoline with grade  $\geq 92$ .



Name	Instruction
1. Fuel tank cover (open)	Hold the key and turn it clockwise to open the fuel tank cap.
2. Fuel tank cover (closed)	Align the fuel tank cap with the filler, press the front side of the cap slightly to lock the fuel tank.
3. Fuel filter	Fuel must be filtered through fuel filter to ensure that the fuel is clean.



### DANGER

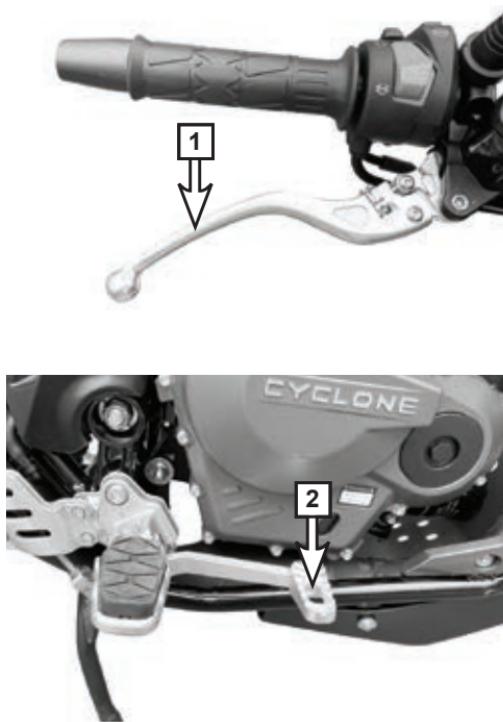
1. Turn off the engine when adding fuel and please add fuel in an open space. The fuel should be filtered. The fuel surface in the tank should not exceed the bottom of the refueling port of the tank.
2. When adding fuel, keep away from sparks and flames. Smoking is strictly prohibited to avoid fire caused by explosion of the motorcycle.



### CAUTION

Strictly use the specified type of gasoline, otherwise it will affect the usability of motorcycles; For motorcycles marked to use ethanol gasoline,  $\leq 15\%$  ethanol gasoline must be strictly used, otherwise the power, economy and safety of the motorcycle will be reduced, and the service life of the motorcycle will be shortened. The motorcycle damage caused by improper use of gasoline does not belong to the warranty scope of Zongshen Automobile.

## Control part



The brakes of this model are equipped with front and rear disc brakes, and the braking performance is reliable. Braking is related to personal and property safety and must be regularly and correctly adjusted and maintained to achieve the goal of safe driving

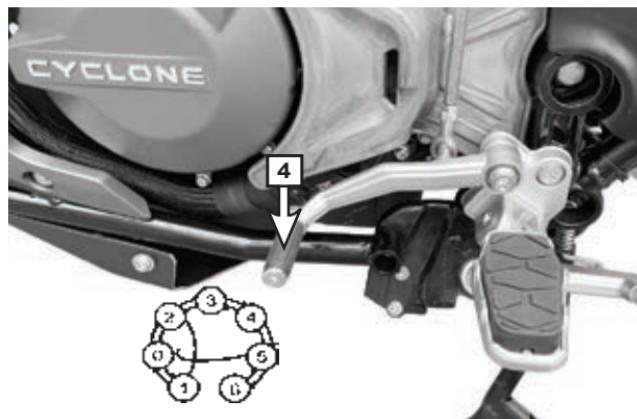
Name	Instruction
1. Front brake handle lever	Control the running speed of the front wheel, and its working stroke is: 10 mm ~ 20 mm.
2. Rear brake pedal	Control the running speed of the rear wheel, and its working stroke is: 20 mm ~ 30 mm.



## ADVICE

For adjustment and maintenance of braking, it is recommended to visit our special service center for this service from time to time.

## Control part



The clutch of this model adopts manual wet multi plate. When shifting gears, if the engine stalls, idles, the clutch slips and is not completely separated, it will lead to acceleration. At this time, the clutch needs to be adjusted; Fine adjustment can be made through the adjusting screw at the clutch handle, or at the clutch support of the engine block.

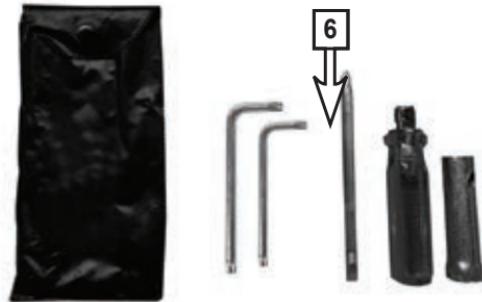
Name	Instruction
3.Clutch handle	It mainly controls the disengagement and engagement of the clutch. Its free stroke is: 10mm ~ 20mm
4.Gear change pedal	This motorcycle adopts a six-speed transmission mode with constant engagement and two-stage transmission. Please reduce the accelerator and use it together with the clutch when shifting gears. The shifting way is shown in the left figure.



## ADVICE

1. This model is a wet multi plate clutch. When starting, the gear must be shifted to neutral position.
2. In case of slipping or incomplete separation of the clutch, please go to a professional motorcycle maintenance shop or the company's special maintenance service center for repair.

## Control part



Name	Instruction
5. Throttle control	Control the amount of mixed gas flow, and its free stroke is: 2 mm ~ 6 mm.
6. Tools	<p>The on-board tools are suitable for some simple adjustment and maintenance during use.</p> <p>The specific list of on-board tools is as follows:</p> <ul style="list-style-type: none"><li>Tool bag 1</li><li>Spark plug sleeve 1</li><li>Double headed screwdriver handle 1</li><li>Double headed screwdriver 1</li><li>Hexagon socket wrench T30 1</li><li>Hexagon socket wrench T25 1</li></ul>

## Load limit



This model is designed to carry only one driver and one passenger. Please strictly follow the following requirements, otherwise the safety and stability of the motorcycle will be affected.

Factory-determined maximum payload of the finished vehicle : 150 kg.

1. The payload of plastic tail box and side box is 5kg each.
2. The effective load of aluminum alloy tailbox is 5kg, and the effective load of aluminum alloy side box is 10kg.



## DANGER

1. Strictly follow the above instructions. If traffic accidents occur due to overloading of users, causing injuries or deaths, the consequences will be borne by the user.
2. Before driving, in order to prevent the goods from loosening and causing danger, please be sure to fix the goods firmly and keep the weight of the goods as close to the center of the motorcycle as possible so as to keep the weight of the goods on both sides balanced.

### EFI System

The main function of the EFI system is to atomize the fuel supplied from the fuel tank, mix it with air to form a uniform mixture and introduce it into the combustion chamber. The EFI system mainly consists of an electronic control unit (ECU), a nozzle, a throttle valve body assembly, an intake air temperature, a pressure integrated sensor, an engine temperature sensor, an ignition coil, a crankshaft position sensor, an oil pump assembly and an oxygen sensor.

The motorcycle EFI system is equipped with an EFI malfunction indicator lamp on the meter. When the ignition system circuit is turned on, the indicator lamp will be on for a long time under normal working conditions. If there is a failure, the lamp will not be on. When the engine is started, the lamp goes out under normal working conditions. In case of failure, the lamp will turn on or flash continuously.

1. When abnormal conditions occur in the daily use of the vehicle, a recovery initialization operation shall be performed for the electronic injection system to clear the error information stored in the ECU.

The details are as follows:

#### Delphi electronic injection system

First turn off the key for 15 seconds-then turn it on and off 5 times in a row (on and off-on and off-on and off-on and off-on and off, each time with an interval of 0.5 seconds). In the process of key switch, each time the key oil pump is turned on, it is qualified only if it is started once; otherwise, the initialization operation needs to be repeated.)-keep the key closed for 15 seconds after the key switch is completed-initialization operation is completed.

#### UAES electronic injection system

Turn on the key and wait for five seconds --- hold the accelerator fully open for five seconds --- turn off the key and return the accelerator to the neutral position --- initialization operation is completed.

2. When the vehicle fails to start for many times, the engine will be flooded. A cylinder cleaning operation is required to remove unburnt combustion inside the engine.

The details are as follows:

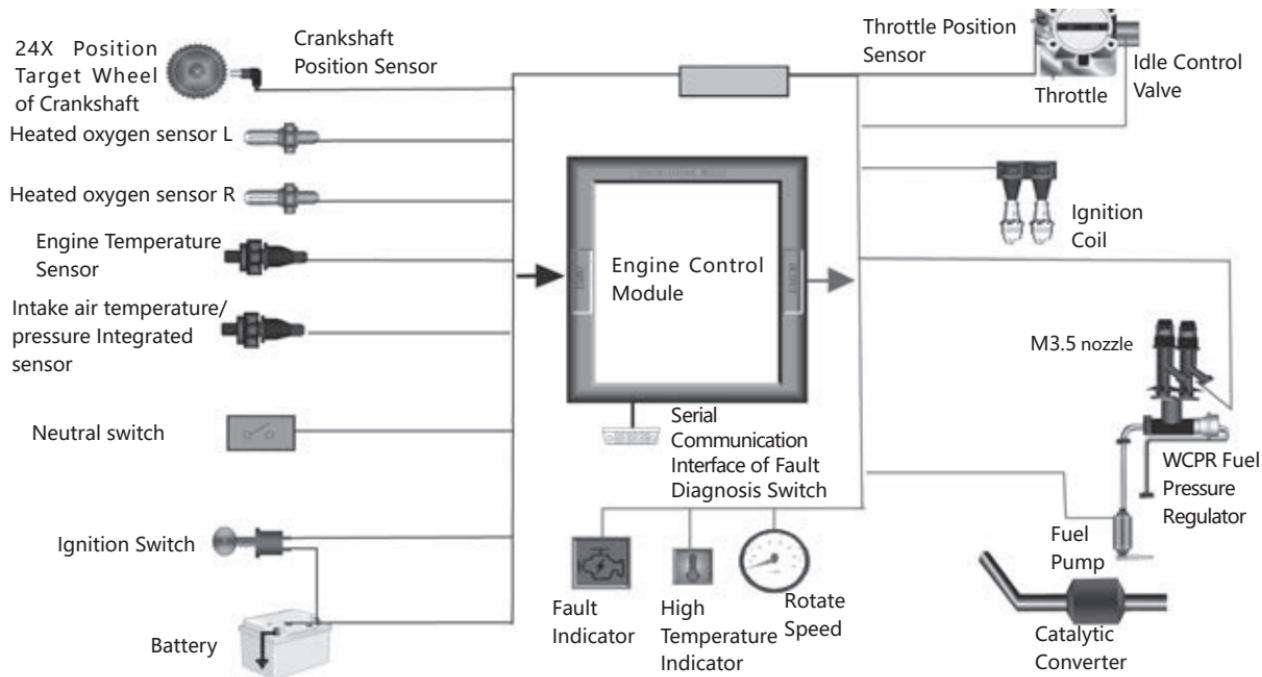
First, keep the key and flameout switch open-the throttle is fully open for 5 seconds (the nozzle will not inject oil in this state)-then press the start button and hold for 3-5 seconds-the cylinder cleaning operation is completed.

 CAUTION

1. It is strictly prohibited to disassemble ECU and other EFI components when the motorcycle is on.
2. When disassembling and installing EFI components, do not drag and drop EFI components and their wiring harnesses excessively.
3. When installing parts equipped with rubber sealing rings such as nozzles and intake pressure temperature sensors, appropriate amount of lubricating grease should be applied to the sealing ring to avoid damage to the sealing ring during assembly. After removing the oxygen sensor, apply a small amount of anti sintering agent on the thread of the oxygen sensor to avoid sintering.
4. In order to avoid the blockage of the oil pump, if there are too many impurities or rust in the oil tank, the oil pump must be removed and the oil tank must be thoroughly cleaned. When removing the oil circuit, cover the removal place with a rag first, remove the oil pressure of the oil circuit, and avoid safety accidents caused by the ejected fuel.
5. It is strictly prohibited to start the oil pump without sufficient fuel in the oil tank to submerge the oil pump, otherwise the oil pump may burn out.
6. It is prohibited to apply any applied voltage to EFI components. The main cable shall not be damaged during maintenance and modification, and the additional equipment should be installed away from the sensors and ECU Installed more than 300mm.
7. When installing the fuel injector, pay attention to the limit between the fuel injector and the intake pipe to ensure that the angle of the fuel injector is correct.
8. According to the requirements of national IV regulations, EU IV and EU V, the EFI fault indicator will not go off immediately after troubleshooting, but only when the fourth cycle is started after three operating cycles.
9. If the initialization (reset) mode cannot repair the vehicle, please temporarily clear the internal fault.
10. If the vehicle is not to be used for long time, it is recommended to ride for 20 minutes every 2 months.
11. EFI parts must be replaced with those of the same model made by Zongshen. Even if the ECU hardware model is the same, it cannot be exchanged between different models. The EFI parts of different models shall not be interchanged unless it is confirmed that the parts are of the same model.
12. Clean the vehicle air filter element every 10,000KM; Clean the throttle body.
13. The motorcycle EFI system has passed the commissioning before leaving the factory. When the EFI system fails, it is strictly prohibited to adjust the idle screw on the throttle valve body and to replace or adjust the components of the EFI system by yourself. If you have any questions, please visit our special service station for maintenance.

## EFI System

Structural schematic diagram of EFI system



## EFI fault

Common faults	Classification	Possible causes	Troubleshooting method
Oil pump does not work	Electrical equipment	The battery power supply is not connected properly	Check and tighten the battery
		Poor contact or burnt out of the fuse	Check and replace the fuse
		Damaged oil pump relay	Check and replace the oil pump relay
	EFI	Oil pump failure	Replace with a new oil pump
		ECU failure or no program	Replace the ECU
The whole vehicle can not start	Intake and exhaust	Leakage in the air intake system causes the air-fuel ratio to be too lean for ignition	Check the installation position of the fuel injector, the installation surface of the intake pipe and the engine, the installation connection between the throttle body assembly and the intake pipe, and whether the desorption pipe of the intake pipe leaks
	EFI	Ignition coil fault	Replace the ignition coil
		Fuel injector failure or blockage	Check and replace the fuel injector
		Insufficient oil pump pressure	Check or replace the oil pump
		Throttle position sensor fault	Check or replace the throttle position sensor
		Oxygen sensor is damaged	Check or replace the oxygen sensor
		The temperature sensor is damaged	Check or replace the intake air temperature sensor or cylinder head temperature sensor
	Engine	Trigger coil failure	Check the trigger coil and harness
		Poor ignition of spark plug	Check the connector or replace the spark plug or spark plug cap
		Poor contact between spark plug cap and spark plug	
		Cylinder pulling or leakage on the valve sealing	Check and replace the engine
	Electrical equipment	Battery power supply is not connected well or power loss	Check and tighten the battery

Common faults	Classification	Possible causes	Troubleshooting method
The whole vehicle can not start	Electrical equipment	Poor contact or burnt out of the fuse	Check and replace the fuse
		Damaged oil pump relay	Check and replace the oil pump relay
High idle speed or unstable idle speed	Intake and exhaust	Leakage in the intake system causes lean air-fuel ratio and unstable speed	Check whether there is air leakage at the installation position of fuel injector, the installation surface of intake pipe and engine, and the installation connection between throttle body assembly and intake pipe
		The throttle cable is too tight and does not return to zero, and the leakage of the valve body is too large	Check and adjust the tightness of throttle cable or replace the valve body
		The channel beside the valve body seriously blocked by carbon deposit	Clean up carbon accumulation
High idle speed or unstable idle speed	EFI	Step loss of step motor	Re initialize to reset the stepping motor, so as to eliminate the step loss of the stepping motor
		Damaged step motor	Replace the step motor
		Throttle position sensor fault	Check or replace the throttle position sensor
		Insufficient oil pump pressure	Check or replace the oil pump
High idle speed or unstable idle speed	Engine	Poor ignition of spark plug	Check the connector or replace the spark plug and spark plug cap
		Poor contact between spark plug cap and spark plug	
		Engine valve clearance is too small	Check the engine valve clearance
Excessive refueling, shaking and flameout	Engine	Poor ignition of spark plug	Check the connector or replace the spark plug or spark plug cap
		Poor contact between spark plug cap and spark plug	
		Valve clearance is too small or uneven	Check and adjust valve clearance
		Cylinder pulling or leakage on the valve sealing	Check and replace the engine

Common faults	Classification	Possible causes	Troubleshooting method
Excessive refueling, shaking and flameout	EFI	Fuel injector failure or blockage	Check and replace the fuel injector
		Impurities in the fuel filter	Replace fuel filter
		Step loss of step motor	Re initialize to reset the stepping motor, so as to eliminate the step loss of the stepping motor
		Throttle position sensor fault	Check or replace the throttle position sensor
		Insufficient oil pump pressure	Check or replace the oil pump
	Intake and exhaust	The filter screen of air filter is too dirty or the exhaust is blocked	Clean the filter screen of the air filter and replace the muffler
High fuel consumption	EFI	Oxygen sensor failure	Check and replace the oxygen sensor
		Intake air temperature / pressure sensor failure	Check or replace the intake air temperature sensor
		Cylinder head temperature sensor failure	Check or replace the cylinder head temperature sensor
	Engine	Poor ignition of spark plug	Check the connector or replace the spark plug or spark plug cap
		Poor contact between spark plug cap and spark plug	
	Other	Cylinder pulling or leakage on the valve sealing	Check and replace the engine
	Intake and exhaust	The filter screen of air filter is too dirty or the exhaust is blocked	Clean the filter screen of the air filter and replace the muffler
	Other	Bad driving habits, improper tire pressure , serious wear of transmission chain or belt, abnormal braking system	

## Inspection before driving

Before driving, check in accordance with the following requirements to ensure users' safe driving and successful driving.

No.	Items	Inspection	Remark
1	Fuel system	Inspect the fuel capacity and fuel valve for oil leakage	
2	Lubricating oil,brakefluid	Check whether the lubricating oil is deteriorated and whether the capacity is lower than the lower scale line.	According to the mileage and working conditions, regularly carry out three-level maintenance on the motorcycle:
3	Electrical part	Check whether the power supply and energization of the electrical parts of the finished vehicle are normal.	Level I maintenance: From 1,000 km~2,000 km, taking lubrication and fastening as the main contents.
4	Battery	Check whether the voltage is lower than 12V	
5	Brake handle	Check whether the free stroke is within the specified value	
6	Rear brake pedal	Check whether the brake pedal stroke is within the specified value	Level II maintenance: From 3,000 km~6,000 km, the main contents are inspection, adjustment, lubrication and fastening.
7	Throttle handle	Check the flexibility and the stroke of the throttle handle	
8	Steering mechanism	Check the flexibility and stability of steering mechanism	Level III maintenance: from 6,000 km ~ 10,000 km, with overall analysis, cleaning, inspection and adjustment, lubrication and fastening, replacement of worn parts and elimination of hidden dangers as the main tasks.
9	Transmission chain	Check the stork, wear and lubrication of the chain.	
10	Tire/wheel	Check tire pressure and wear	
11	Lighting/signal indicator	Check whether the lighting lamp/signal indicator lamp is working.	Regular three-level maintenance is recommended to the company's special maintenance service center for installation, commissioning and maintenance
12	Brake	Check the wear of brake shoes and whether the braking performance is good.	
13	Main bracket/side bracket	Check whether the main bracket/side bracket is bent and deformed, and whether the return position is good	
14	All-vehicle fastener	Check whether the fasteners of the finished vehicle are loose or fall off	

## Start up and preheating



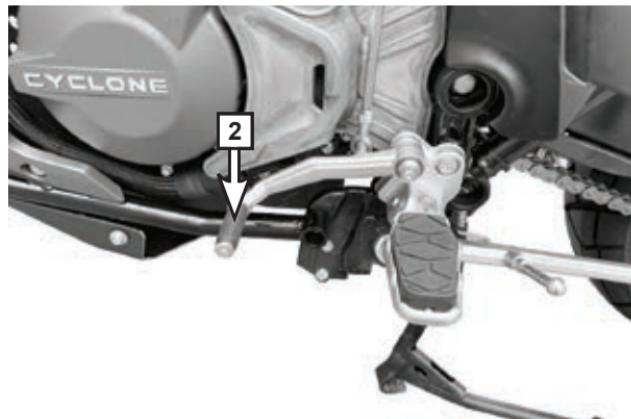
Cold motorcycle startup and preheating steps are as follows:

1. Turn on the ignition lock, wait for the fuel pump to run for several seconds and stop, and check whether the instrument indicator light of the motorcycle works normally.
2. Hold the front brake handle or step on the rear brake pedal, fully hold the clutch handle or the engine is in N gear, and turn on the electric start control switch.
3. Press the electric start button to start the motorcycle.
4. After starting, preheat for 3 ~ 5 minutes under the idling state. Only after the motorcycle is warmed up can it run normally.

### CAUTION

1. If it cannot be started electrically, turn off the ignition lock, wait for a few seconds to protect the battery, and then restart it. Do not exceed 5S at each start, and each interval should not be less than 10s. If the startup fails 3 consecutive times, check the vehicle.
2. In order to prolong the service life of the motorcycle, when driving under cold conditions, please make sure that the user warms up for 3-5 minutes before driving, and at the same time stop high-speed driving. During preheating, it is forbidden to increase the throttle.

### Driving operation



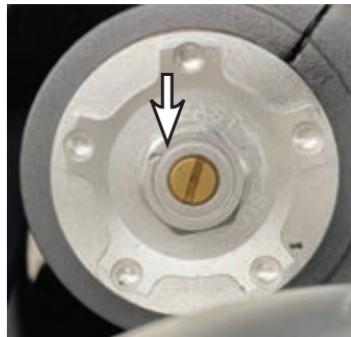
1. After starting preheating, retract the side support, hold the clutch handle (Figure 1) and disengage the clutch. Press the shift arm with the left toe (Figure 2) (Note: the brake is in braking state before starting and engaging gear), and shift the gear to the first gear.
2. Release the front brake handle or rear brake pedal, slowly rotate the accelerator handle to accelerate, so as to start the motorcycle. After the driving is smooth, then gradually shift from low gear to high gear.



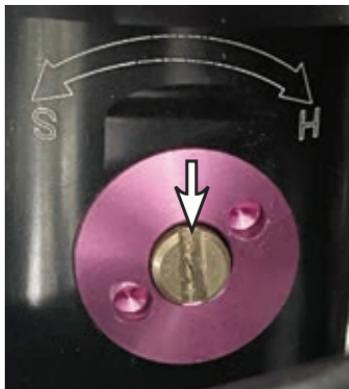
#### DANGER

1. Please wear protective equipment (e.g. helmet, protective gloves, protective glasses, protective clothing, etc.) before driving.
2. It is forbidden to increase the throttle when starting the motorcycle.

## Damping adjustment



When the damping recovery resistance is large (slow rebound), use a slotted screwdriver to adjust the adjuster screw counterclockwise to reduce the resistance. On the contrary, adjust clockwise to increase resistance.



### Operation of New Motorcycle

After buying a new motorcycle, users shall pay attention to the running-in of the new motorcycle (the running-in period is 1,000km at the beginning, and the odometer reading shall prevail). The running-in quality of the new motorcycle directly affects the service life of the motorcycle, so the user should control the rotation speed to about 6500r/min (the speed is not more than 50km/h, depending on the speedometer) within the first 1000km. After the running-in period is completed, an initial maintenance should be carried out to compensate for the initial slight wear, prolong the service life of the engine and ensure the best performance of motorcycle. Change the company's special oil every 300km. In case of any engine failure during the running in period and trial operation, please contact the local dealer or the company's special maintenance service center.

1.0km ~ 150km :

During driving, the speed shall be controlled at about 4,000r/min, and the refueling hand shall control the stroke at about 1/4. After driving for 1 hour, the engine shall be cooled for (5 ~ 10) minutes.

2.150km ~ 500km :

During driving, the speed shall be controlled at about 5,000r/min, and the refueling hand shall control the stroke at about 1/2. After driving for 1 hour, the engine shall be cooled for (5 ~ 10) minutes.

3. 500km ~ 1,000km :

When driving, the speed shall be controlled at about 6,000r/min, and the refueling hand should control the stroke at about 3/4.

## Safe driving instruction

### 1. Precautions for driving up and down ramps

When driving on mountain roads with twists and turns and undulating slopes, the driving speed shall be adjusted according to the actual situation to avoid engine overload.

① When going up a steep slope, increase the throttle in advance to increase the output power of the engine. In case the motorcycle stalls.

② When driving down steep slopes, you should gear up and change gears in time according to the road conditions to avoid engine heating. Use the engine speed to control the motorcycle speed. It is forbidden to use neutral taxiing.

### 2. Precautions for driving on wet and slippery road (or in rain and fog)

When driving on rainy days or on wet roads, the adhesion coefficient between the tire and the ground is poor, which is easy to cause floating phenomenon. Therefore, it is not suitable to drive at high speed, which is easy to cause falling, which is very dangerous. In this case, please note the following points to ensure driving safety:

① Maintain a reasonable speed and avoid sudden acceleration or braking. Do not use severely worn tires. If the tire wear exceeds the maintenance limit by 2mm, reduce the vehicle speed and do not use the brake urgently.

② When driving on muddy roads, try to keep driving at a low speed to avoid sudden start, acceleration, steering and braking.

### 3. Precautions for driving on ice and snow ground

When driving on ice and snow roads, install tyre anti-skid chains on tyres or use anti-skid tyres.

① Drive at a low speed as far as possible to avoid falling; Sudden acceleration, sudden braking or sharp turning are prohibited. When decelerating, return the speed regulating handle to decelerate the vehicle, which is conducive to improving the braking efficiency. Do not hold the brake pedal to the bottom at one time, but brake from light to heavy.

② When turning, reduce the speed and turn the steering handle slowly. Avoid driving the motorcycle at high speed so that the wheels do not slip and idle.

### Safe driving instruction

#### 4. Precautions for driving braking

The higher the speed of the motorcycle, the longer the braking distance. Therefore, during braking, the brake shall be controlled according to the vehicle speed and the required braking distance.

① In rainy and foggy days, the visibility is low, and the adhesion between the tire and the ground is poor, which is easy to produce "floating", resulting in difficulty in controlling the steering mechanism and braking system. So the drivers shall reduce the speed when driving on rainy days, foggy days and wet roads. When driving at high speed through the mountain pass, overtaking or passing through the tunnel entrance, it will be affected by the lateral wind. At this time, the vehicle speed shall be properly controlled to avoid accidental shaking of the vehicle. When using the motorcycle brake, the user shall first use the rear brake, and then use the front brake to control the running speed of the motorcycle.

② During driving, fingers and toes should be placed on the brake handle and rear brake pedal to prevent emergencies. When driving in water or after washing the motorcycle, drive at a low speed and gently hold the front and rear brake handles intermittently to dry the front and rear brakes. After driving on muddy land, sand dune land and roads with poor road conditions, the brake drum, brake shoe and brake disc shall be cleaned in time to avoid excessive wear

③ When driving down steep or long slopes, please do not step on the brake pedal for a long time or brake too frequently, otherwise the brake will overheat and affect the braking performance, and braking shall be carried out according to the actual situation. When driving on rainy, wet and slippery roads, it is forbidden to drive at high speed.

#### 5. Precautions for exhaust emission pollution

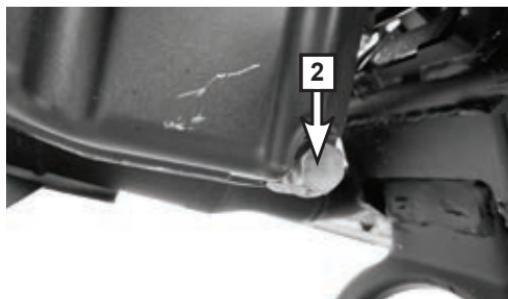
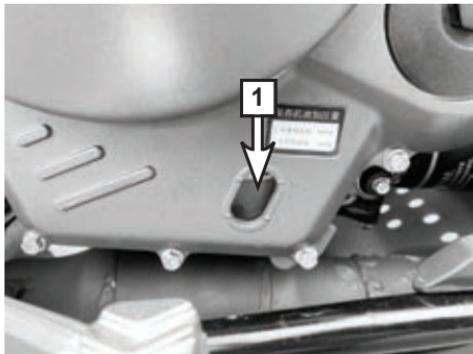
Please try not to breath the exhaust gas discharged by the motorcycle, because the exhaust gas contains carbon monoxide (CO), which is harmful to human body. It is strictly prohibited to start and operate the motorcycle in the garage or other closed areas. The exhaust muffler shall ensure that the exhaust gas is unobstructed without blockage, so as to facilitate the diffusion of exhaust gas. Check the exhaust muffler for air leakage and ensure that the exhaust gas diffuses from the tail of the exhaust silencer.

## Regular maintenance periodical table

Maintenance cycle	Odometer km				Remark
	Running in period 1,000km	Every 5,000km	Every 10,000km	Every 20,000km	
Crankcase lubricating oil *	Replace every 300km	Replace			1.Preheat the engine before draining the oil.  2.**:This item refers to medium weight wheel lubricating oil.  3.*: It is recommended to visit the company' s special maintenance service center for maintenance on a regular basis.  4.When driving in abnormally wet or dusty areas, the periodic maintenance cycle shall be appropriately shortened.
Fuel filter *		Every 10,000Km			
Oil fine filter *		Replace once after the run-in period and every 10000km thereafter			
Spark plug *		Check / clean / replace (every 10,000Km or in case of failure)			
Air filter *		Clean	Replace		
Throttle		Every 10,000km			
Throttle cable		Check / adjust free stroke			
Brake (friction plate) *	Inspection / adjustment / exhaust	Inspection / adjustment / exhaust			
Drive chain sprocket **		Inspection / adjustment/lubrication every 500km			
Battery *	Inspection / tightening	Check / tighten / charge			
Tire	Check/adjust air pressure	Check/adjust air pressure			
Wheel bearing **	Check	Inspection/lubrication	Inspection / replacement / lubrication	Replace	
Steering bearing **		Inspection/lubrication		Replace	
High pressure oil pipe		Check whether the clamp is loose		Replace	
Valve clearance		Inspection / adjustment (every 10,000Km or in case of failure)			
Coolant	Inspection / supplement	Inspection / supplement		Replace	
Disc brake oil	Inspection / supplement	Inspection / supplement		Replace	
Fasteners (triaxial and nut)	Inspection / tightening	Inspection / tightening			

## Inspection and replacement of engine oil

Change the engine oil regularly; Please change the oil after preheating for 3 minutes, and change the oil in strict accordance with the standard.



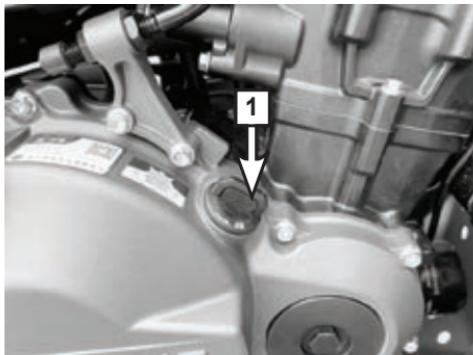
1. Place the engine horizontally and stop it for 3 minutes after idling for 60 seconds. Check the level of engine oil. If its height is below the score line under the observation window, then make up the engine oil to the middle position of the oil observation window. At the same time, check whether the phenomena of blackening, deterioration, etc., of the engine oil exist, and replace the engine oil if there is above phenomenon.

2. Place an oil pan under the engine bottom; Remove the oil drain bolt(Figure 2) to drain the oil until the residual oil flows out completely, and install the oil drain bolt (tightening torque  $25 \sim 30 N \cdot m$ ), add engine oil according to the standard.

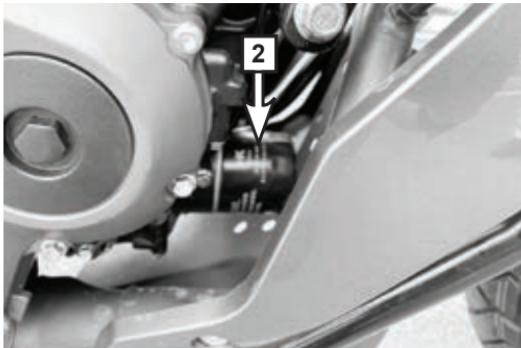


### CAUTION

1. It is forbidden to dump waste oil everywhere. Please contact the local professional environmental protection unit to dispose of the waste oil.
2. It is forbidden to remove the oil drain bolt when the engine is at high temperature, so as to burn the human body and damage the thread.
3. When replacing with new lubricating oil, it must be filtered.



Engine oil filter



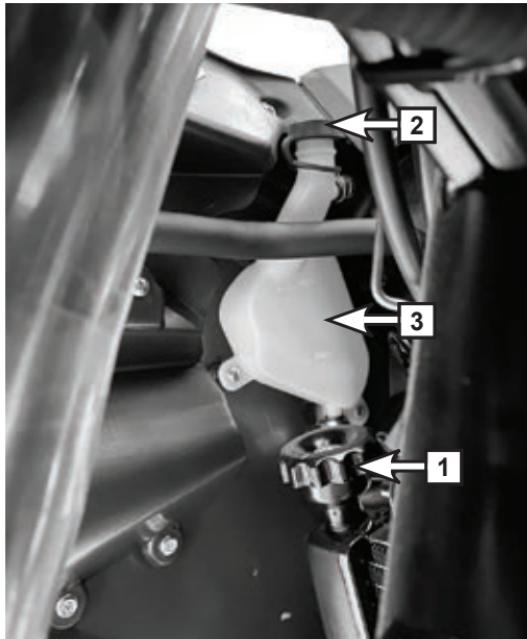
3. Remove the oil plug on the right cover, add the corresponding brand of lubricating oil from the oil plug on the right cover, observe the oil level while adding oil, and stop refueling until the oil level reaches the upper line of the oil observation window. In the end, install the oil plug on the right cover and tighten it.
4. Start the engine and let it run for several minutes, and check whether there is oil leakage at the disassembled parts of the engine.
5. Turn off the engine and wait a few minutes before checking the oil level. The oil level should be between the upper and lower limits of the oil dipstick.

Instructions for use of oil filter: 1. Replace it every 10000KM or 250h.

2. Apply a little oil on the sealing ring, and then install and tighten it.
3. Start the engine and check whether there are any oil leaks and oil levels.

Tightening torque of oil filter: 17.2N. m

## Inspection and addition of antifreeze



1. The antifreeze used by our company is ethylene glycol type, which is a slightly toxic liquid. The antifreeze sold on the market is generally dyed, mostly blue or green. The original antifreeze of our company is in blue.

2. It is recommended to add genuine antifreeze from our company. Please pay attention to the production date of antifreeze and the shelf life at normal temperature is 2 years.

3. When filling antifreeze, open the radiator cap when it is cold (Figure 1) for pressure relief,

then fill antifreeze from the upper auxiliary water tank filler (Figure 2), pay attention to observe the liquid height of the auxiliary water tank, which is generally at the upper and lower limits of 2/3 position (Figure 3).

It is recommended to add antifreeze within one year after the new vehicle is replenished, and replace them all after more than one year.

4. Concentrated antifreeze sold on the market is not recommended.



## WARNING

1. Do not open the water tank cover when the engine is at high temperature, otherwise, under high pressure, the high-temperature antifreeze may spray out and hurt people.

2. Ethylene glycol is an organic solvent, which shall not be splashed on the paint surface or touch the human body. If you are accidentally splashed with ethylene glycol, please immediately clean the affected area with clean water and go to the nearest hospital for medical treatment.

3. Antifreeze of different brands and models cannot be mixed.

## Cleaning of air filter



After the filter element of the air filter is blocked by dust, the resistance of the intake system will increase, the mixture is too rich, the power will decrease and the fuel consumption will increase. Therefore, the filter element should be checked, cleaned and replaced regularly.

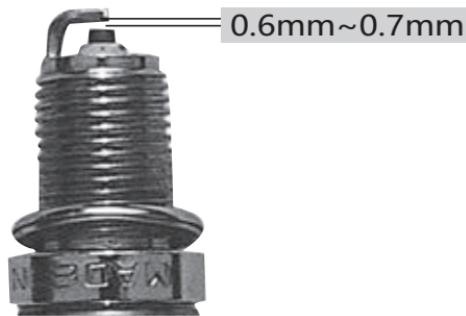
1. Remove the air cleaner element.  
2. Wipe the inner cavity of the air filter with a clean dry cloth, and blow away the floating dust with compressed air from the inside to the outside.

When the filter element is damaged or too dirty, replace the filter element.

### DANGER

1. When installing the filter element, it should be correctly installed in a fixed position. When driving in areas with heavy dust, the maintenance period of the filter element should be shortened.
2. It is forbidden to use the following cleaning agents to clean the filter screen, such as gasoline, low ignition point solvent, acidic, alkaline and organic volatile oil.
3. When the filter element is not installed, the motorcycle cannot be started, otherwise the piston, piston ring and cylinder block will be excessively worn.
4. The cleaning of air filters should be carried out regularly at our special service center for maintenance and replacement of filter elements.

### Inspection and adjustment of spark plug



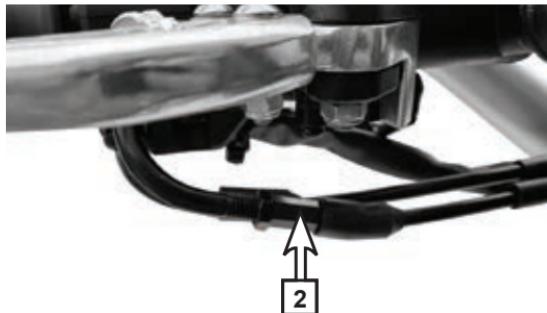
Remove the spark plug. If the skirt of the spark plug insulator is gray white, replace the spark plug of the same model. If the spark plug insulator is dark black or the surface is seriously greasy and dark black carbon deposit, clean the air filter and check whether there are other faults in the whole vehicle. If the skirt of spark plug insulator is brown, the engine combustion is normal.

Spark plug model: TORCH\_CR8EI

Spark plug gap: 0.6mm~0.7mm

Spark plug torque: 17.5N.m(1.75kgf.m)

## Adjustment of accelerator cable



Adjust the throttle wire pull rope by turning the adjusting nut to achieve the correct free stroke of the throttle handle.

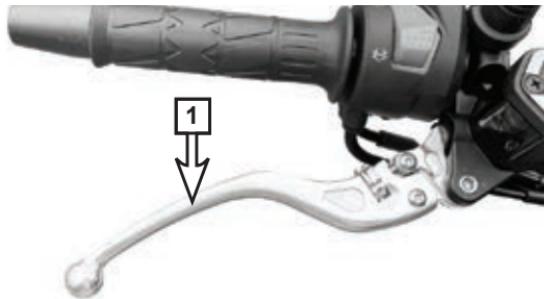
1. When the free stroke of the throttle handle (Figure 1) is greater than or less than the standard value, it needs to be readjusted.
2. Adjustment method for free stroke of throttle wire cable(Figure 2): loosen the locking nut, turn in or out the adjusting nut until the specified free stroke is reached, and tighten the locking nut.

Standard value of throttle handle: 2mm ~ 6mm

**WARNING**

In case of interference and wear of throttle steel wire cable, the acceleration handle and steel wire cable must be removed for cleaning or replacement, and lubricating grease shall be added.

## Inspection and adjustment of front brakes



The front and rear brakes of this model are equipped with disc configuration, which has the advantages of stable braking performance, safety, reliability, labor saving, excellent heat dissipation, etc.

1. When the front stroke of the throttle handle is greater than or less than the standard value, it needs to be readjusted.
2. Check the oil level of the oil storage cylinder from the observation hole. When the oil level of the oil storage cylinder is lower than the lower limit position, the brake oil shall be replenished to the upper limit position.
3. Check the wear of friction plate and brake disc. If the thickness of friction plate is less than the maintenance limit value of 2.0mm and the thickness of brake disc is less than the limit value of 3.0mm, replace the friction plate and brake disc.

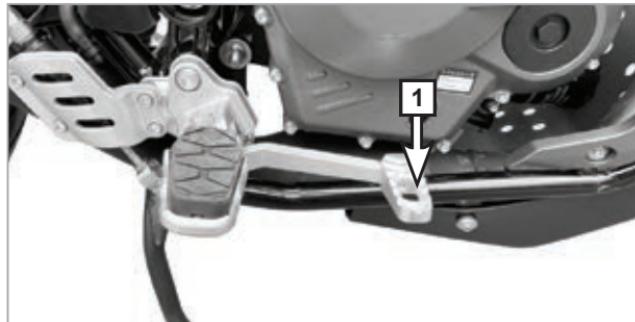
Standard value of stroke of brake handle: 10 mm ~ 20 mm

Recommended brake oil: DOT4

**DANGER**

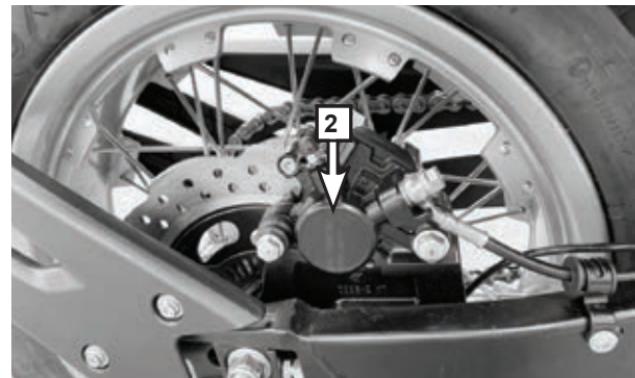
1. When the front brake is soft and loose, it indicates that there is air in the hydraulic brake, which must be checked and adjusted by our company's special maintenance service center.
2. Brake oil cannot be mixed with other lubricating oils. The replaced brake oil cannot be used again, and different brands of brake oil cannot be mixed, otherwise, the service performance of hydraulic brakes will be seriously damaged.

## Inspection and adjustment of rear brakes



1. When the free stroke of the brake pedal is greater than or less than the standard value, it needs to be readjusted.
2. Open the left cover and check the oil level of the storage cylinder from the observation window, when the oil level of the storage cylinder is lower than the lower limit, the brake oil should be added to the upper limit.
3. Remove the friction plate of the rear brake and check the wear condition of the friction plate. If the thickness is less than the maintenance limit of 2.0mm, it should be replaced.

Standard value of travel of rear brake pedal: 20 mm ~ 30 mm



1. When adjusting the rear brake and replacing the brake friction plate, please be sure to visit our special maintenance service center to replace the original genuine parts.
2. Regularly check and adjust the special maintenance service of our company.

## Inspection of wheels



When adjusting the spoke nut, please carry out the adjustment according to the torque value requirements to avoid the spoke breaking during driving due to the excessive torque value after the adjustment. Torque value of front spoke nut: 3.2~3.5N · m; Torque value of rear spoke nut: 3.5~3.8N · m.

## Outer tire wear limit value

Outer tire wear limit value	Front wheel	Twi scale mark
	Rear wheel	Twi scale mark

## Yaw limit value of wheel

Yaw limit value of wheel	Axial direction	2.0mm
	Radial direction	2.0mm

## Instructions for use of selecting semi hot melt tires

- Precautions for use in cold weather:  
a. Precautions for parking in low temperature environment (below - 10C °).When the outdoor environment is lower than - 10C ° and the vehicle needs to be parked for a long time: it is recommended to park indoors: it is recommended to avoid the use of side braces, and the parking frame should be used for parking,keep tires free from vehicle gravity: It is recommended to avoid parking tires on ice and snow.
- Storage of tires.The recommended tire storage temperature is higher than -5C°.It is recommended to park the tire for 24h under the environment of no less than 0 ° when changing the tire.
- Optimum operating temperature of tire.At the beginning of driving in cold weather, it is necessary to warm the tires and drive slowly at a speed of 40-50km. After driving for 3-5 km, when the temperature of the tires rises by more than 30C °, you can exert good grip.  
※ The temperature range for semi hot melt to exert the best grip is 40-60C °
- After the semi-hot melt tire is used, the bottom of the tread groove will appear flexure lines (similar to skin wrinkles).The reason is that the semi hot melt tire has good grip and large hysteresis, which only occurs on the surface. It will not extend to the inside of the tire and will not affect the use.

 DANGER

- If the tire pressure is too high, the riding comfort will be reduced and the wear of various parts will be accelerated. If the tire pressure is too low, the rolling resistance of the tire will get increased and the fuel consumption will be increased. In serious cases, part delamination of the tire will result in tire burst.
- If the inner tube valve core leaks, repair or replace the valve core. Repair or replace the tube when it leaks.
- Regularly check and adjust the wheels at our special service center.

## Battery



## Motorcycle Modification Instructions



The load power of external equipment at the reserved port shall not exceed 20W; Do not refit the vehicle without authorization, otherwise, the company will not bear any consequences.

This motorcycle adopts a wet charged colloidal battery with DC power supply, and its ready-to-use specification is MTX14-RS (12V12Ah). Battery (wet charged).

If the terminal voltage of the battery is below 12.5V under sufficient voltage state, the battery must be charged and used after sufficient voltage.

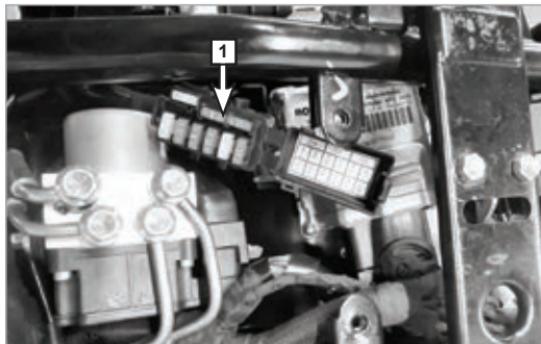


### DANGER

1. Regularly visit our company's special maintenance service for checking and charging.
2. It is forbidden to disassemble the battery. The battery contains corrosive substances, which should be avoided from contacting or polluting the environment. If it is accidentally splashed on the skin and eyes, it should be immediately cleaned with a large amount of water and sent to the hospital for diagnosis and treatment.
3. When charging, keep good ventilation and avoid fire source near the battery. In the charging process of lithium ion battery, if the battery is hot, deformed and other abnormalities occur, stop charging immediately, disconnect the charger, place the battery in a ventilated and open place, and notify the professional to handle after the battery shell temperature recovers to normal temperature.
4. Waste batteries will cause serious pollution to the environment. Please be sure to send the waste batteries to the designated recycling station nearby and properly dispose of the waste batteries according to relevant regulations.

### Replacement of fuse

The fuse is connected in series to all electrical components of the vehicle. When the current exceeds the specified value, the fuse will automatically fuse to protect the battery and electrical components.

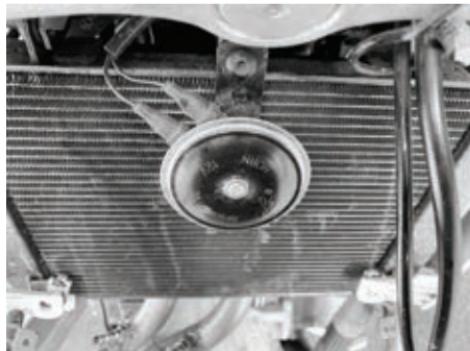


#### CAUTION

Replace the corresponding fuse of the same model in strict accordance with the identification on the fuse box.

### Adjustment of electric horn

After the motorcycle has been running for a period of time, the fixing nut and adjusting screw of the electric horn may become loose, resulting in hoarseness or silence of the electric horn. The adjustment of the electric horn must be carried out at the special maintenance service center of the company.



#### CAUTION

Users are not allowed to adjust the fixing nut and adjusting screw of the electric horn at will, otherwise, the company will not guarantee "three guarantees" (for repair, replacement or compensation of faulty products)

## Cleaning and storage

### 1. Motorcycle cleaning

Before cleaning the vehicle, the vehicle must be in the flameout state. After the engine is cooled, block the air outlet at the tail of the exhaust pipe, and then wash the outside of the vehicle. During cleaning, pay attention to that the water gun pressure should not be too high, otherwise the lubricating grease will be washed clean (such as wheel bearings, steering column bearings, oil seals, etc.).

When washing the motorcycle, try to avoid high-pressure water washing directly into electrical parts (such as switches, instruments, voltage regulators, relays, etc.), electronic injection parts, and avoid high-pressure water spraying into internal parts (such as the back of lamps and instruments, slot of storage box, etc.), so as to prevent electrical short circuit and water entering the storage box. (3). After cleaning, wipe the surface of the motorcycle with a clean cotton cloth or clean towel. (4). After cleaning, it is necessary to stand for more than 10 minutes so that the water accumulated on the motorcycle can be drained before starting the vehicle.

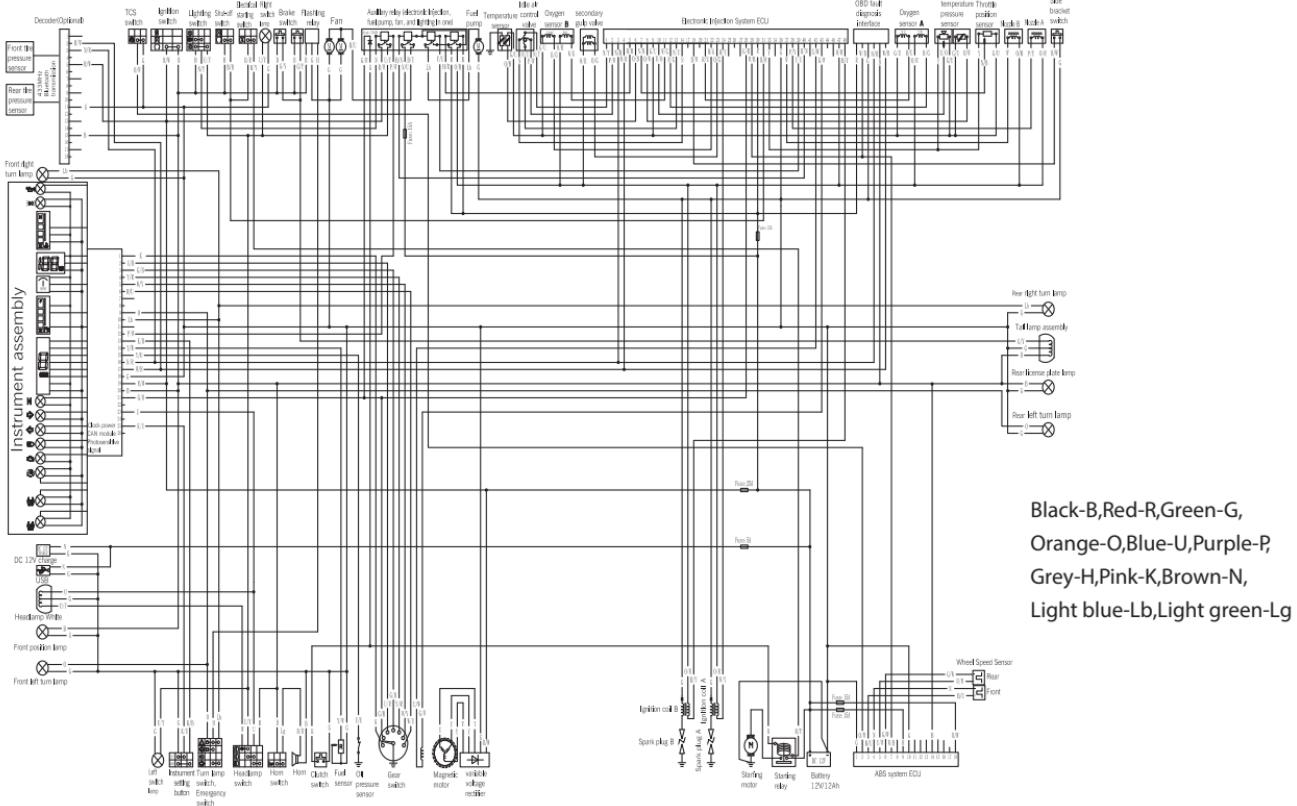
### 2. Storage of motorcycle

(1). Before long-term parking, drain the fuel from the fuel tank and oil pipe, and then install the fuel tank cover. Motorcycle that have not been used for a long time should be started at least once a month to avoid blockage of oil passages. (2). Remove the spark plug, pour 5ml of new lubricating oil into the spark plug hole, inject it into the cylinder, and install the spark plug. And rotate the engine crankshaft for several turns, so that the injected lubricating oil can be evenly distributed in the combustion chamber to lubricate the cylinder wall.

(3) Remove the battery and charge it slowly for one time. Store the battery in a dry, dark and indoor environment. Do not store the battery in an overheated or humid environment: below 0°C or above 30°C. (4) Remove the control cable for cleaning and lubrication. After filling the tire pressure to the specified value, use wood blocks to raise the tire so that the tire does not contact the ground. (5) After storage, it should be stored in a ventilated, dry, clean, rain-proof and sun-proof environment, away from flammable, chemical corrosive and other harmful substances. (6). When used after storage, it should be fully cleaned and checked once, then fuel should be added and the battery should be slowly charged once. If it is stored for more than 4 months, the engine lubricating oil shall be replaced.

## Technical specifications and performance parameters

Items	SR600GY Specifications/parameters	SR600GY-A Specifications/parameters
Outer contour dimension (length × width × height)	2230×990×1399mm	2180×870×1399mm
Wheelbase	1425mm	
Minimum ground clearance	175mm	
Minimum turning circle diameter	5350mm	
Complete vehicle curb mass	230kg	219kg
Maximum capacity	150kg	
Engine model	ZS272MS-2	
Engine type	DOHC Parallel-Twin,four stroke,Liquid-cooled	
Cylinder diameter × stroke	71mm×67.6mm	
Volume	550ml	
Compression ratio	11:1	
Electronic control unit ECU	MT05	
Lubricating system	Splash lubrication plus pressure lubrication	
Starting mode	Electric starting	
Maximum net power/ corresponding rotation speed	43.5(1±5%)/8500(1±5%)	
Maximum torque/ corresponding speed	55(1±5%)/6500(1±5%)	
Minimum no-load stable speed	1400±140(r/min)	
Fuel consumption under operating conditions	3.4L/100km	
Maximum speed	165km/h	
Fuel tank capacity and fuel model	18L , ≥92#	
Type and capacity of lubricating oil	SN-10W/40 , full capacity 3.2L, maintenance exchange capacity 2.8L, exchange capacity of replacement fine filter 3.0L	
Tyre size/Air Pressure	Front 110/80R19M/C/225kPa/ Rear 150/70R17 M/C/250kPa	



## Memorandum

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April 2023