400NK

650NK

CFMOTO

CF400-A
CF650-7B
SERVICE MANUAL

FORWARD

Thank you very much for choosing a CFMOTO vehicle.

Welcome to join our worldwide family of CFMOTO owners. We proudly produce exciting products such as sports vehicle, utility vehicle, and recreational vehicle.

- ●All terrain vehicle (ATV)
- ●Utility vehicle (Patrol, forest protecting and hunting)
- ●Motorcycles
- ●Travelling motorcyles
- ●Vehicles for government purpose

CFMOTO, a company which is specialized in production of liquid-cooled engine, is the top-level manufacturer in China. Compared to same displacement of air-cooled engine, engine cooling effect is better, oil temperature can be adjusted more freely, more powerful and lower fuel consumption, longer engine working life.

This motorcycle is designed for not only for working, but also for fun and adventure.

For safe and enjoyable operation of your vehicle, be sure to follow the instructions and recommendations in this owner's manual. Your manual contains instructions for minor maintenance, but information about major repairs is

outlined in the CFMOTO service manual and should be performed only by CFMOTO service dealer and technician authorized by CFMOTO.

Your CFMOTO dealer knows your vehicle best and is interested in your total satisfaction. Be sure to return to your dealership for all of your service.

This Model（CF400-A/CF650-7B）is subject to standard：Q/CFD 013
Compiling the owner's manual is accordance with standard：GB/T9969-2008 and GB/T19678-2005
Zhejiang CFMOTO power Co., Ltd reserves the final explanation rights of the owner's manual

IMPORTANT SAFETY INFORMATION

Your safety, and the safety of others, is very important. And operating this motorcycle safely is an important responsibility. To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

You will find important safety information in a below variety of forms, including:

 **DANGER**

This signal means "You WILL be KILLED or SERIOUSLY HURT if you don' t follow instructions".

 **WARNING**

This signal means "Vehicle could be Damaged if you don't follow instructions".

 **NOTE**

This signal means "More efficient and convenient driving points".

NOTE

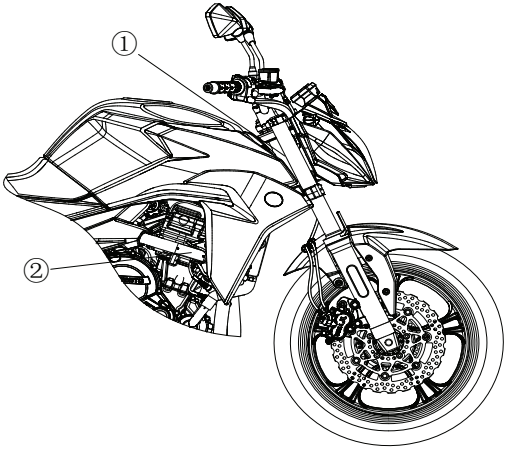
This motorcycle can only be used by eligible riders with proper way. At the same time, please pay attention to following instructions.
Do not make any modification on this motorcycle without our approval. Any modification about this motorcycle or electric components will cause potential side effect on performance, emission and noise control.
Be sure to follow your local traffic rules and laws when riding.

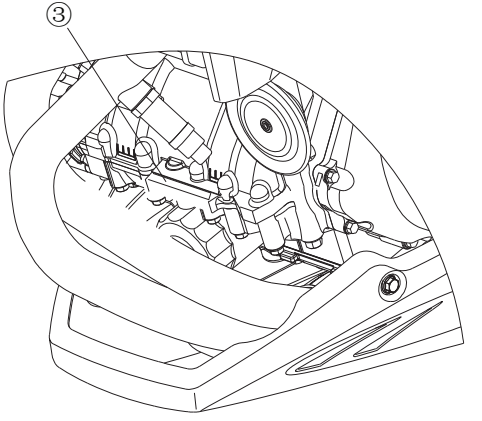
Most of the parts of CF400-A is interchangeable with CF650-7B. This manual based on CF400-A. The differences will be special signed (CF 650-7B)(Such as specifications).
CFMOTO reserves the right to make changes at any time without notice and without incurring any obligation.

CONTENT

VIN AND ENGINE SERIAL NUMBER

Be sure to record below VIN number, engine serial number and name plate number you're your maintenance purposes. At the same time, keep spare key in a safe place. If two keys are missing, then you have to replace every lock because all lock use same key.





① Vehicle identification number:_____

② Name plate:_____

③Engine serial number: _____

SPECIFICATIONS

Performance

Max. Power	29.5kW/9500r/min	45kW/8750r/min (CF650-7B)
Max. Torque	32N・m/7750r/min	56N・m/7000r/min (CF650-7B)
Min. turn radius	2.7m	

Size

Length：	2114mm
Width：	750mm
Height：	1100mm
Wheel base:：	1415mm
Seat height：	815mm
Min. ground clearance：	150mm
Dry weight：	206kg

Engine

Type：Two cylinder in line、4-strokes、liquid-cooled

Displacement：400.4mL		649.3mL (CF650-7B)
Bore×Stoke：	68.4mm×54.5mm	83mm×60mm (CF650-7B)

Compression ratio：11.1:1　　11.3:1 (CF650-7B)

Starting system：Electric starter

Number of cylinder：2

Firing order：from left to right，1－2

Carburetion system：EFI (electronic fuel injection)

Ignition system：ECU

Ignition timing（before compression to top dead point）: 10BTDC@1450r/min

(Advance angle of ignition)：33BTDC@6000r/min

Spark plug：CR8EI

Lubricating system：Forced lubrication (semi- dry sump)

Engine oil　　Type：ELF，SAE10W-40/SJ，JASO MA2

　　Capacity：2.6 L

Coolantcapacity：900mL

Reservoirtankcapacity:140mL

Transmission

Transmissiontype：6-speed，internationalstandardgear

Clutch：Wet，multidisc,manually

Driving system：Chain drive

Primary reduction ratio：2.146　　2.095 (CF650-7B)

Final reduction ratio：3.857　　3.067 (CF650-7B)

Gear ratio			
	1^{st}	2.500	2.353 (CF650-7B)
	2^{nd}	1.800	1.714 (CF650-7B)
	3^{rd}	1.333	1.333 (CF650-7B)
	4^{th}	1.111	1.111 (CF650-7B)
	5^{th}	0.966	0.966 (CF650-7B)
	6^{th}	0.852	0.852 (CF650-7B)

Chassis

Castor： 24.5°

Tire size： Front：120/70 ZR17 (58W)　　Rim size：Front： MT 3.50×17

Rear：160/60 ZR17 (69W)　　Rear： MT 4.50×17

Capacity of fuel tank：17L

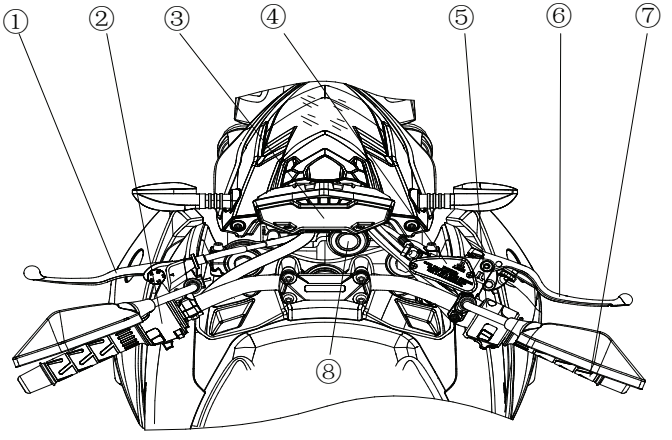
Electric components

Battery： 12V10Ah

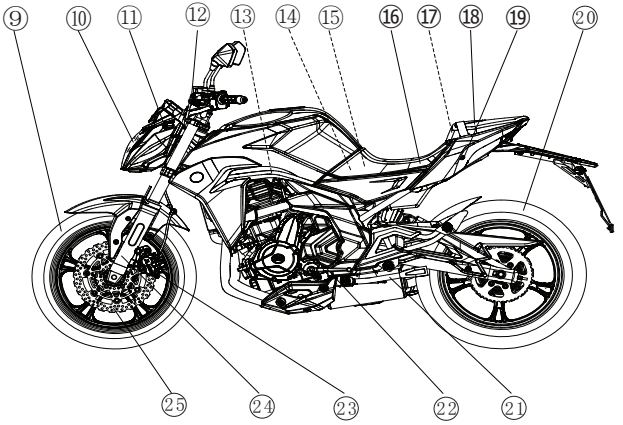
Headlight：35W×1　　LED (CF650-7B)

Tail/Brake light： LED

LOCATION OF PARTS

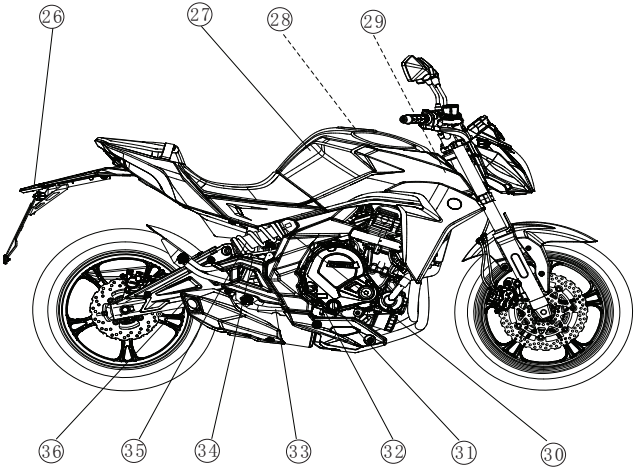


①Clutch lever
②Handlebar switches,LH
③Meter instruments
④Front brake fluid reservoir
⑤Handlebar switches, RH
⑥Front brake lever
⑦Throttle grip
⑧Ignition switch



⑨ Front wheel
⑩ Headlight
⑪ Turn signal light
⑫ Clutch cable
⑬ Air filter
⑭ Fuse box
⑮ Battery
⑯ Front seat
⑰ Tools
⑱ Rear seat
⑲ Rear seat lock
⑳ Rear wheel
㉑ Side stand
㉒ Shift pedal
㉓ Front brake caliper
㉔ Front shock absorber
㉕ Front brake disc

（Broken line means it cannot be seen）



㉖ Rear license light
㉗ Fuel tank
㉘ Cap, fuel tank
㉙ Reservoir tank
㉚ Regulating cam, rear shock absorber
㉛ Oil level inspection window
㉜ Cap, oil filler
㉝ Rear brake pedal
㉞ Switch, rear brake light
㉟ Rear shock absorber
㊱ Muffler
（**Broken line means it cannot be seen**）

LOAD AND ACCESSORIES INFORMATION

⚠ WARNING
Incorrect loading, improper installation or use of accessories or modification of your motorcycle may result in an unsafe riding condition. Before you ride the motorcycle, make sure that the motorcycle is not overloaded and that you have followed these instructions.

Always use CFMOTO genuine parts and accessories. Non-genuine parts or accessories, improper installation or use of accessories, or motorcycle modification, will void motorcycle warranty, can negatively affect performance and can even be illegal. In selecting and using parts or accessories, and in loading motorcycle, you are personally responsible for your own safety and the safety of person involved.

NOTE
CFMOTO parts and accessories have been specially designed for CFMOTO motorcycles. We strongly recommend that all parts and accessories you use are genuine CFMOTO components.

Motorcycle is sensitive to changes in weight and aerodynamic forces; you must take extreme care in carrying cargoes, passengers and/or in fitting of additional accessories.

Important Information Before Ride

1、Any driver and/or passenger should be completely familiar with motorcycle operation. The passenger can affect control of motorcycle by improper positioning during turning corner or sudden movements. So it's important for passenger to sit still while the motorcycle is in motion and not interfere with the operation of motorcycle. Do not carry animals on the motorcycle.

2、You should instruct any passenger before riding to keep his/her feet on the passenger footpegsand hold on the driver or grab rail. Do not carry a passenger unless he or she is tall enough to reach footpegs and footpegs are available.

3、All baggage should be carried as low as possible to reduce the effect on the motorcycle gravity. Baggage weight should also be distributed equally on both sides of motorcycle. Avoid carrying baggage that extends beyond the rear of the motorcycle.

4、Do not carry heavy or bulky items on a luggage rack. They are designed for light items, and overloading can affect handling due to changes of weight distribution and aerodynamic forces.

5、Do not install accessories or carry baggage that impairs the performance of motorcycle. Make sure that you have not adversely affected any lighting components, road clearance, banking capability (i.e., lean angle), control operation, wheel travel, front fork movement, or any other aspect of motorcycle's operation.

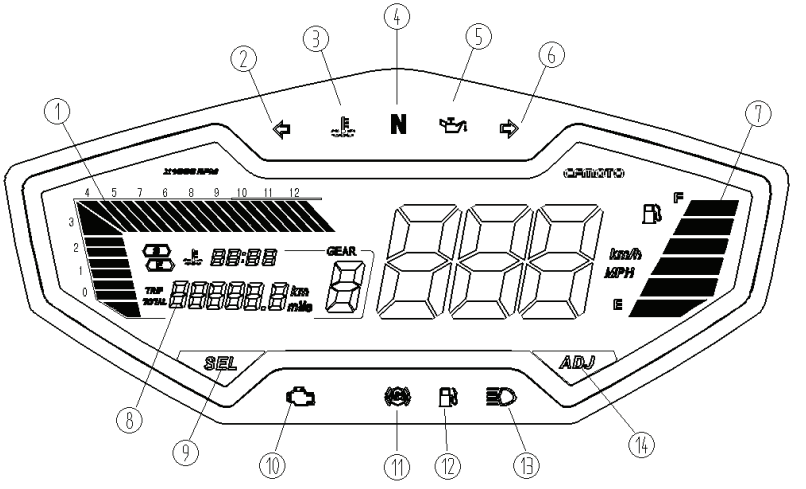
6、Weight attached to handlebar or front fork will increase the mass of steering and can result in unsafe riding condition.

7、Fairings, windshield, backrest and any other large items have the capability of adversely affecting stability and handling of the motorcycle. Not only because of their weight, but also aerodynamic forces acting on these surfaces while motorcycle is in operation. Poorly designed or installed items can result in unsafe riding condition.

8、The motorcycle cannot be modified to triple-wheel motorcycle and intended to be used for towing any trailer or other vehicle. CFMOTO cannot assume responsibility for the results of such unintended use of the motorcycle. Furthermore, any adverse effects on motorcycle components caused by the use of such accessories will not be remedied under warranty.

Maximum load：Not exceed 150kg (Including weight of rider, baggage and accessories).

Meter Instruments



①Tachometer
②Turn signal indicator, LH
③Alarm indicator,water temp.
④Neutral indicator
⑤Alarm indicator,engine oil
⑥Turn signal indicator, RH
⑦Fuel diaplay
⑧(Mileage, water temp., voltage, backlight) display
⑨Setting button
⑩Malfunction indicator
⑪ ABS indicator
⑫ larm indicator, fuel capacity
⑬ High-beam indicator
⑭ Adjusting button

Tachometer ①

The tachometer shows the engine speed in revolutions per minute. There's a "RED" zone in right side of tachometer. Engine RPM in the red zone is above maximum recommended engine speed and is also above the range for good performance.

When ignition key is turned to "↻" position, the tachometer needle momentarily point to last reading to check its operation. If the tachometer does not work correctly, have it inspected by an authorized CFMOTO dealer.

⚠CAUTION
Engine r/ min (RPM) should not be allowed to enter the red zone. Operation in the red zone will overstress the engine and may cause serious engine damage.

Turn Signal Indicator, LH ②

When the turn signal switch is pushed to "⇦", left turn signal indicator flashes.

Alarm Indicator, Water Temp. ③

⚠ CAUTION
When water temperature indicator "🌡" flashes, stop engine immediately and check coolant pipeline and reservoir tank capacity, or contact your dealer for consultation. Prolonged engine operation will result in severe damage from overheating when water temperature indicator "🌡" flashes.

Neutral Indicator ④

Light up when the transmission is in the Neutral.

Alarm Indicator, Engine Oil ⑤

When "🛢" is on, it means that oil level is very low or oil pump can not work normally or oil pipeline blocks up. Please stop engine and find the failuare cause.

Turn Signal Indicator, RH ⑥

When the turn signal switch is pushed to "⇨", right turn signal indicator flashes.

Fuel Display ⑦

Used to tell how much fuel remains. “F” indicates the total amount of fuel is 17L . When fuel tank is full, “E” indicates there is only about 3L fuel left, please refuel as soon as possible.

⚠WARNING
When “⛽” flashes，please fill fuel in order to protect fuel pump.Start engine after full-filled.

(Mileage, Water Temp., Voltage, Backlight) Display ⑧

Big and small mileage represent total mileage and phase mileage；Water display represents coolant temperature；Voltage display represents battery voltage；Backlight represents LCD brightness.

Setting Button ⑨

“S E L” is used for switching big/small mileage、water temperature、voltage and backlight display.

Malfunction Indicator ⑩

Indicator flashes when vehicle circuit is failed.

ABS Indicator ⑪

If ABS works normally，the light is twinkling when motorcycle is stopped，the light is extinct when motorcycle is running，If ABS is wrong , the light goes on；

Alarm Indicator, Fuel Capacity ⑫

When “⛽” flashes，please fill fuel in order to protect fuel pump.Start engine after full-filled.

High-Beam Indicator ⑬

When light switch turns to “☼” position and dimmer switch turns to “≣D” position，then high-beam indicator light is lit.

Adjusting Button ⑭

“A D J” adjusts backlight brightness under the backlight status.

Remark：“S E L / A D J” is used for setting clock、Metric Units / Imperial Units、Centigrade / Fahrenhite

Key

Can be used for ignition switch/steering lock, seat lock, and fuel tank cap. Keep your key safely. Remove the

spare key and store it in a safe place. If both original and spare keys are lost, go for your dealer for help.

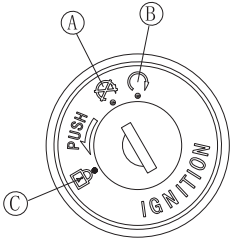
Ignition Switch/Steering Lock

This ignition switch has “” 、 “” 、 “” positions, etc.

: Engine can’t be started. ALL electrical circuits off.

: Engine can be started. ALL electrical equipment can be used.

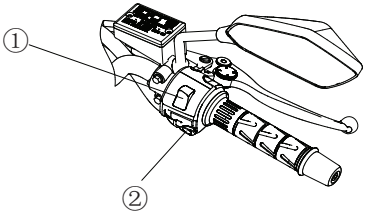
: Steering locked. ALL electrical circuits off.



A Turn off B Turn on C Steering Locked

NOTE
All lights can be lit when the ignition key is in the position. When headlight is on, it’s better to start the engine. Otherwise, prolonged lighting can cause battery being discharged, even damaged.

Handlebar Switches, RH



①Engine stop switch　　② Starting button

Engine Stop Switch ①

Both ignition switch and engine stop switch must be put in the "⟳" position before riding.

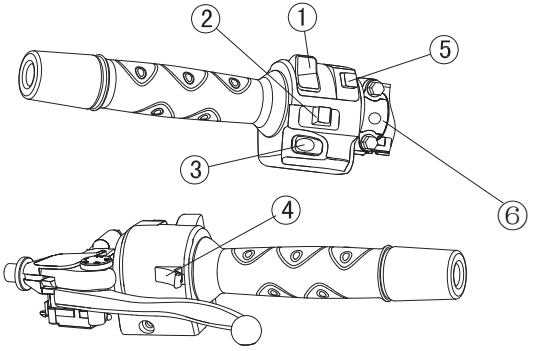
Engine stop switch is for emergency use. If some emergency cases require stopping the engine, turn the engine stop switch to "⊗" position.

⚠ NOTE
Although the engine stop switch could stop the engine, it doesn't turns off all the electrical circuits. Ordinarily, key should be used to stop the engine.

Starting Button ②

When both ignition switch and engine stop switch turn to the "↻" position, meanwhile, transmission is in the Neutral, push this button to start the engine.

Handlebar Switches, LH



①Dimmer switch ②Turn signal switch ③Horn button ④Override light switch ⑤EFI mode switch ⑥Alarm switch

Dimmer Switch ①

Dimmer switch includes “  ” 、 “” positions.

 ：When dimmer switch turns to this position，Hi beam light and Hi beam indicator are both lit.

 ：When dimmer switch turns to this position , Lo beam light is lit.

Turn Signal Switch ②

Turn signal switch includes： “⇦” 、 “●” 、 “⇨” position.

⇦ ：When turn signal switch moves to this position, left turn light and left turn signal indicator are on.

●：When this button is pushed in, turn light is off.

⇨ ：When turn signal switch moves to this position, right turn light and right turn signal indicator are on.

Horn Button ③

When the horn button is pushed in, the horn sounds.

Override Light Switch ④

When the driver needs overtaking, press this button alternately, Hi beam indicator will also be lit alternately.

⚠WARNING
When engine is stopped, turn light and dashboard indicator can not flash for more than 30 min. Otherwise, battery could be damaged.

EFI Mode Switch ⑤

It is used for switching engine mode（Economic mode/Sport mode）.

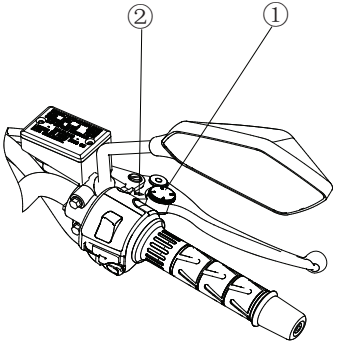
Alarm Switch ⑥

In emergency situations, please press alarm switch, and then all the turn lights are on.

Brake/Clutch Lever Adjuster

There is an adjuster on both the brake and clutch levers, with which the released lever position can be adjusted to suit the operator's hands. Push the Lever forward and turn the adjuster.

Range：103mm～118mm.



①Adjuster ②Mark

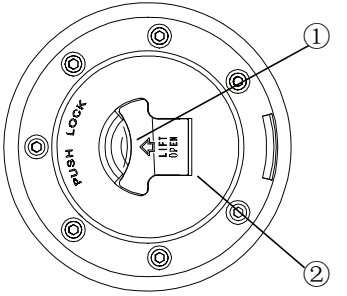
Fuel Tank Cap

Open the fuel tank cap, pull up the key hole cover. Insert the ignition key into the fuel tank cap and turn the key to the right.

Close the cap; push it down into place with the key inserted. The key can be removed by turning to the left/to

the original position.

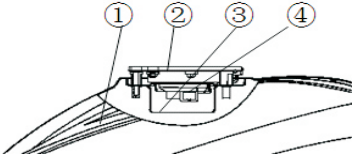
⚠ NOTE
The fuel tank cap cannot be closed without the key inserted, and the key cannot be removed unless the cap is locked properly. Don't push the key to close the cap, or the cap cannot be locked.



① Key Hole cover ② Fuel Tank Cap

Fuel Tank

Avoid spilling gasoline on the fuel tank when fill fuel, if so, wipe it off immediately to avoid pollution or causing dangers.



① Fuel tank ②Fuel tank cap ③ Top level ④ Filler neck

⚠ WARNING
Gasoline is extremely flammable and can be explosive under certain conditions. When refueling, turn the ignition key to "⊗" position . No smoking. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light. Never fill the tank so the fuel level rises to the filler neck. After refueling, make sure the fuel tank cap is locked securely. For example, wipe fuel off when overflow.

Fuel Requirement

This motorcycle is designed to use only unleaded 92# (V) or above gasoline.

⚠CAUTION
Don't use leaded gasoline, as this will destroy the catalytic converter（For further information ,refer to the catalytic converter section.

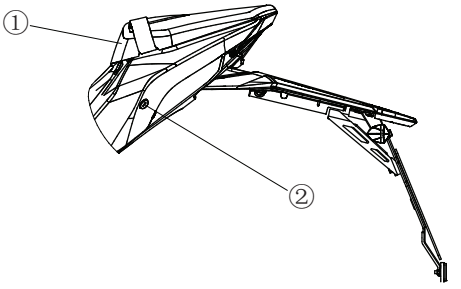
Octane Rating

The higher the RON is,the greater the gasoline's resistance to “knocking” is. The term commonly used to describe a gasoline's octane rating is the Research Octane Number (RON). Always use a gasoline with an octane rating equal to, or higher than RON 92(V).

⚠NOTE
If “knocking” or “pinging” occurs, use a different brand of unleaded gasoline or an unleaded gasoline with higher octane rating.

Seat Openning

After opened the rear seat, open the front seat with inner hex tools.

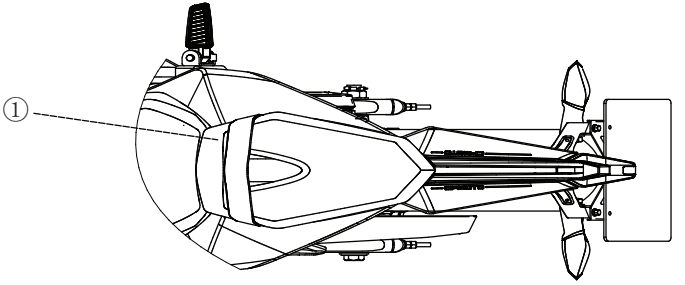


① Rear Seat Position

② Rear Seat Lock Position

Tool Kit

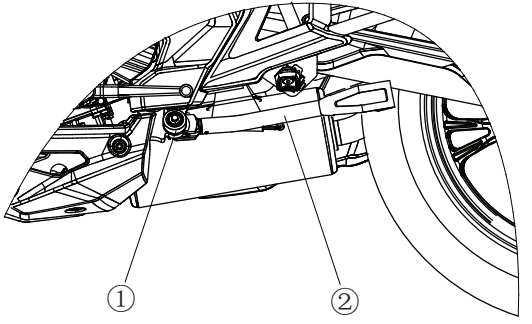
Be Stored under the seat. You can see it once you open the seat. The kit is helpful in making some simple repairs and adjustments.



① Tool kit

Side Stand

This motorcycle is equipped with a side stand.



① Side stand switch ②Side stand

NOTE
When using the side stand, turn the handlebar to the left. **Kick the side stand fully up before riding.** **This motorcycle is equipped with a side stand switch. Engine can not start when the gear is not in neutral and the side stand is not down.**

Rear View Mirror

Rear View Mirror Adjustment

Adjust the rear view mirror by slightly moving

The adjustment procedures of right & left rear view mirror are the same.

CUTION
Don’t push too hard when install and remove rear view mirror avoiding damaging bracket.

BREAK-IN

The first 1500km that the motorcycle is ridden is designated as the break- in period. The following rules should be observed during the "break-in" period.

- The table shows the maximum recommended engine speed during the break-in period.

Distance traveled	Maximum engine speed
0km ~ 800km	4000r/min
800km ~ 1500km	6000r/mim

- Don' t start the engine or run the engine immediately after starting it, even if the engine is already warm. Run the engine for 2 minutes or 3 minutes at idle speed to let the oil work up into all the engine parts.
- Engine speed shouldn't be too high when gear is in neutral.

⚠ WARNING

New tires are slippery which may lose control and damaged. Tire pressure should be specified during the break-in period of 1500 km., Avoiding sudden and maximum braking or acceleration, or hard cornering during break-in period.

It is extremely important that the owner have the initial maintenance service performed by an authorized CFMOTO dealer.

HOW TO RIDE THIS MOTORCYCLE

Starting the Engine

- Check that the engine stop switch is in the "○" position.
- Turn the ignition key to the "○" position.
- Make sure the transmission is in neutral.

⚠ NOTE
This motorcycle is equipped with a vehicle-down sensor (also called roll-over sensor). Engine will stop automatically and the FI indicator will flash when the motorcycle falls down. After righting the motorcycle, turn the ignition key from " ⊗ " position to the " ○ " position before starting the engine.

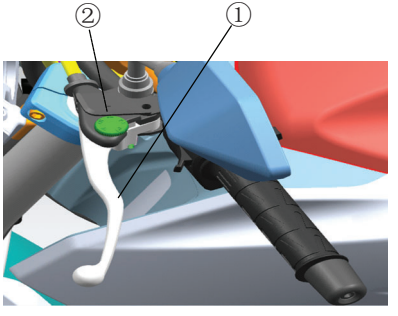
⚠ WARNING
Don't depress the starter button for more than 5 seconds, otherwise the starter motor will overheat and the battery power will drop temporarily. Wait for 15 seconds between every operation of the starter to let it cool and battery power recover.

NOTE

This motorcycle is equipped with a clutch switch. Engine can be started when the transmission in fist gear and the clutch lever is pulled and the side stand is fully up.

WARNING

Don't let the engine at idle speed longer than 5 minutes, otherwise the engine will be overheated and other parts will be damaged.



①Clutch lever ②Clutch switch

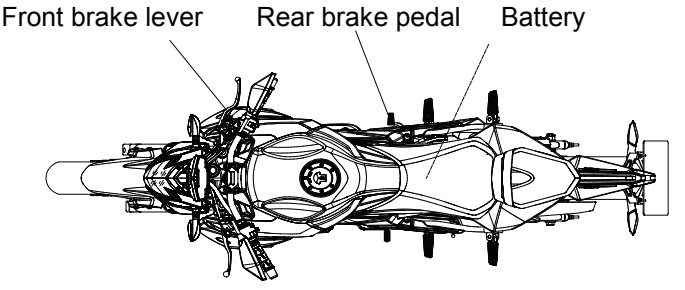
Jump Starting

If your motorcycle battery is “run down”, it should be removed and charged. If this is an emergency case, a 12V booster battery can be used to start the engine.

WARNING
Battery acid generates hydrogen which is flammable and explosive under certain conditions. It will gather within the battery, even leaking out. Keep all flames and sparks (cigarettes) away from the battery. Wear eye protection when working on a battery. In the event of the battery acid contact with skin, eyes, clothing, wash the affected areas immediately with water for at least 5 minutes and seek for medical attention.

Connecting Jumper Cables

- Remove seat
- Make sure the ignition key is in “⊗” position.
- Connect a jumper cable from the positive(+) terminal of the booster battery to the positive（+） terminal of the battery.
- Connect negative(-) terminal of jumper cables with motorcycle footrest or other unpainted metal surface. Don’t connect negative (-) terminal of vehicle battery directly.



WARNING

Don't make the last connection at the fuel system or battery, or it may cause fire. Don't touch the positive and negative cables together and don't lean over the battery when making the last connection. Don't jump start a frozen battery. It could explode. Don't reverse the polarity by connecting the positive (+) to negative (-),or a battery explosion or serious damage to the electrical system could occur.

- Following the standard engine starting procedure.

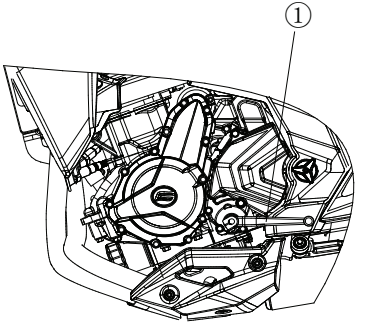
⚠CAUTION

Don't operate the starting button continuously for more than 5 seconds, or the starter will be overheated and the battery power will drop temporarily. Wait for 15 seconds between each operation of the starter to let it cool and the battery power recover.

- After the engine started, disconnect the jumper cables.
- Re-install the parts.

Driving Preparation

- Check if the side stand is fully up.
- Grip the clutch lever.
- Shift into 1st gear.
- Open the throttle a little, and release the clutch lever very slowly.
- When the clutch starts to engage, open the throttle a little more, give the engine enough fuel to keep it from stalling.



① Gearshift pedal

⚠WARNING

This motorcycle is equipped with a side stand switch. Engine cann't start when the transmission is not in neutral and the side stand is not down.

Shifting Gears

- Release the throttle while pulling in the clutch lever.
- Use shift pedal for shifting gears.

⚠DANGER

Reduce engine speed fist when shift gears. Otherwise, engine could be damaged orthe rear wheel may skid and cause accidents. Shifting should be done below 5,000r/min (rpm) for each gear.

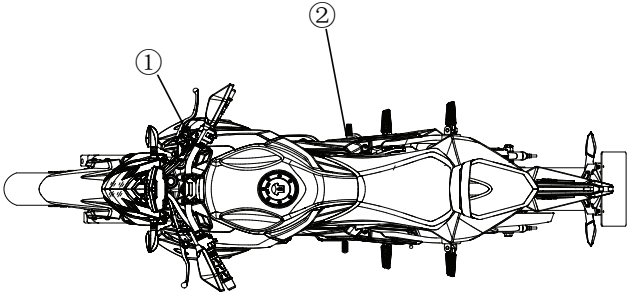
- Open the throttle slowly, while releasing the clutch lever.

⚠NOTE

When parking, shift gear into Neutral position. Lift shift pedal up while shift into Neutral.

ABS Braking

- Close the throttle completely, leaving the clutch engaged so that vehicle will slow down.
- Shift to 1st gear.
- When parking, always apply front &rear brake at the same time. Normally, the force of front brake is a little smaller than the rear. Shift down or fully disengage the clutch to keep the engine from stalling when necessary.
- Never lock the brakes, or it will cause the tires become skid. When turning a corner, brake force should be light. Reduce your speed before get into the corner.
- Emergency braking, disregard downshifting and applying the brakes hard can cause skid.
- When turning a corner, it is better to limit braking and reduce speed before you get into the corner.



① Lever, front brake ② Pedal, rear brake

Stopping the Engine

- Close the throttle completely.
- Shift the transmission into Neutral.
- Turn the ignition key to "⊠" position.
- Locking the steering lock.

NOTE
The motorcycle is equipped with a roll-over sensor. Engine will stop automatically and malfunction indicator light will flash when the motorcycle falls down. After righting the motorcycle, turn the ignition key from "⊗" to "○" before starting the engine.

Stopping the Motorcycle in an Emergency

This switch is for driving safety and convenience, at the meantime, for meeting design and safety requirements. It is essential that this switch can protect you, the owner and operator from danger when dangerous situations. Two of the most common causes of throttle failure are:

1、Improper service or wrong valve clearance may allow dirt and dust enter into air inlet system.

2、During removal of the air cleaner, dirt may enter and block fuel injection system.

In an emergency situation such as throttle failure, your vehicle can be stopped by applying the brakes and holding the clutch lever. Once thoes stopping procedures are initiated, the engine stop switch can be used to stop the engine. If the engine stop switch is used, turn off the ignition switch at "⊗" position .

Parking

- Shift the transmission into neutral and turn off the ignition key.
- Support the motorcycle on a firm, level surface with the side stand.

⚠CAUTION
Do not park the vehicle on a soft or steeply inclined surface; otherwise, the motorcycle may fall over.

- If parking inside a garage or other structure, be sure it is well ventilated and the motorcycle is not close to any source of flame or sparks; This includes any appliance with a pilot light.

⚠WARNING
The muffler and exhaust pipe are very hot while the engine is running or just stopped. This can ignite a fire, resulting in property damage or severe personal injury. **Do not idle or park your vehicle in an area where grasses or dry leaves or other flammable materials may contact with muffler or exhaust pipe.**

⚠WARNING
Gasoline is extremely flammable and can be explosive under certain conditions.

- Lock the steering to prevent theft.

NOTE
When parking the vehicle near road at night, turn taillight on for greater visibility, but do not leave the taillight on for too long, or the battery will discharge.

Catalytic Converter

This motorcycle is equipped with a catalytic converter in the exhaust system. Platinum and rhodium in the converter will react with carbon monoxide and hydrocarbons, and then convert them into carbon dioxide and water resulting in much cleaner exhaust gases to be discharged into the atmosphere.

For proper operation of the catalytic converter, the following caution must be observed:

● **Only use unleaded gasoline. Never use leaded gasoline. Leaded gasoline significantly reduces the service life of the catalytic converter.**

Do not coast the vehicle with the ignition switch and/or engine stop switch off. Do not attempt to start the engine by rolling the vehicle if the battery is discharged. Do not operate the vehicle or piston when gear is in neutral. Under these conditions, unburned air/fuel mixture flow into exhaust system and accelerate reaction with the converter allowing the converter become overheated and damaged when the engine is hot, or reduce converter performance when the engine is cold.

NOTE

Follow the below structions to protect catalytic converter.

1、Only use unleaded gasoline. With only small amounts of lead can even stain your precious metals in catalytic converters causing catalytic converter failure.

2. Do not add antirust oil or engine oil into muffler which may result in catalytic converter failure.

Fuel evaporation system

Please contact CFMOTO dealer when fuel evaporation system is failed. Don't change the fuel evaporation system. Tube connection should be well connected without air leakage, blocking, squeezing, broken and damage etc. after maintenance.

Fuel steam from fuel tank will be released into carbon tank through absorption tube. Absorbing fuel steam by active carbon when engine stops; Fuel steam of carbon tank will follow into combustor for burning when engine works, avoiding environment pollution in case of fuel stem released into air directly. Meanwhile, Air pressure of fuel tank should be balanced by absorption tube. If inner pressure of fuel tank is lower than outside, it is available to replenish air pressure by air tube of carbon tank or absorption tube. So, All tube system should be smooth running without blocking and squeezing, otherwise fuel pump will be damaged, fuel tank also will be deformed or broken.

SAFETY OPERATION

Safe Riding Technique

The following cautions are applicable for daily motorcycle use and should be carefully observed for safe and effective vehicle operation.

For safety, eye protection and a helmet are strongly recommended. You should be aware of safety regulations in force prior to riding your motorcycle. Gloves and suitable footwear should also be used for added protection.

You should wear protective apparel when riding in case of any collision.

Before changing lanes, look over your shoulder to make sure the way is safe. Do not rely solely on the rear view mirror; you may misjudge a vehicle's distance and speed which can easily cause accidents.

When going up steep slopes, shift to a lower gear so that there's plenty of power to spare rather than overloading the engine.

When applying the brakes, use both the front and rear brakes. Applying only one brake for sudden braking may cause the motorcycle to skid and lose control.

When going down long slopes, control vehicle speed by closing the throttle. Use the front and rear brakes for auxiliary braking.

In wet conditions, rely more on the throttle to control vehicle speed and less on the front and rear brakes. The throttle should also be used judiciously to avoid skidding when the rear wheel rapid acceleration or deceleration.

Riding at the proper rate of speed and avoiding unnecessarily fast acceleration are important, not only for safety

and low fuel consumption but also for long vehicle life and quieter operation.

When riding in wet conditions or on loose roadway surfaces, vehicle performance will be reduced.

All of your actions should be smooth under these conditions. Sudden acceleration, braking or turning may cause loss of control.

On rough roads, exercise cautiously, slow down, and grip the fuel tank with the knees for better stability. When quick acceleration is necessary as in passing, shift to a lower gear can obtain the necessary power.

Do not downshift at too high r/min (rpm) to avoid damage to the engine.

Avoid unnecessary weaving wrap rider and motorcycle.

Daily Safety Inspection

Check the following items each day before you ride, habitual performance of these checks will ensure you a safe, reliable ride.

If any irregularities are found during these checks, refer to the Maintenance and Adjustment chapter or contact your dealer for the action required to return the motorcycle to a safe operating condition.

WARNING
Continue to ride after finding any irregularity may result in serious damage or a severe accident.

Fuel·····Adequate supply in tank, no leaks.

Engine oil·····Oil level between upper and lower level lines.

Tires·····tire pressure(when cold):

Front wheel	Load：236kg	Pressure：250kPa
Rear wheel	Load：325kg	Pressure：280kPa

Install the air valve cap

Drive chain…… Slack 30mm~40mm , lubricate drive chain if dry.

Nuts, bolts,fasteners……Check steering and suspension components, axles, and all control parts whether are properly tightened or fastened.

Steering……Action smooth but fasteners cann't be loose. No binding of control cables.

Brakes ……Brake pad wear: Lining thickness is more than 1 mm. No brake fluid leakage.

Throttle…… Throttle grip play：2mm～3mm

Clutch……Clutch lever play 2mm~3mm，clutch lever operates smoothly.

Coolant…… No coolant leakage.
Coolant level between level lines (when engine is cold).

Electrical equipment……All lights(Headlight,Tail/Brake Lights,Turn Signal Lights, Warning/Indicator Lights) and horn can work normally.

Engine stop switch……Stop engine.

Side stand…… Return spring can not be weak or damaged.

Alarm system……work normally

Refer to all warning labels attached to the motorcycle.

Additional Cautions for High Speed Operation

Brakes: Brakes are very important, especially during high speed operation. It cannot be overemphasized. Check and adjust to get better performance.

Steering: Looseness in the steering can cause loss of control. Check to see whether the handlebar turns freely but has no play.

Tires：High speed operation is hard on tires, and good tires are crucial for riding safety. Examine their overall condition, inflate them to the proper pressure, and check the wheel balance.

Fuel：Have sufficient fuel for the high fuel consumption during High speed operation.

Engine oil：To avoid engine seizure and result in loss of control, make sure the oil level is between level lines, better in the middle.

Coolant：To avoid overheating, check that the coolant level is between level lines.

Electrical Equipment：Make sure that the headlights, tail/brake light, turn signals, horn, etc., all work properly.

Fasteners：Make sure that all nuts and bolts are tight and that all safety related parts are in good condition.

⚠ **WARNING**
Riding at too high speed on highway will violate related regulations. Do not try high speed operation unless you have received sufficient training and have the required skills. It is forbidden to ride a motorcycle on highway in China.

MAINTENANCE AND ADJUSTMENT

The maintenance and adjustment outlined in this chapter must be carried out and must be done in accordance with the Periodic Maintenance Chart to keep the motorcycle in good running condition.

The initial maintenance is vitally import and must not be neglected.

With a basic knowledge of mechanics and the proper use of tools, you should be able to carryout many of the maintenance items described in this chapter. If you lack proper experience or doubt your ability, all adjustments, maintenance, and repair work should be completed by a qualified technician. You can contact your dealer for help if you have other questions.

Periodic Maintenance Chart

■： Should be serviced by an authorized CFMOTO dealer.

*： Regarding odometer readings, repeat at the frequency interval established here.

#： Service more frequently when operating in severe conditions: dusty, wet, muddy, high speed, or frequent starting/stopping.

1. Periodic Inspection (Engine Related Items)

Item(Engine Item) \ Frequency	Whichever comes first → ↓ Every	*Odometer Reading km×1000 1	6	12	18	24	30	36	See Page
■Air cleaner element—clean				●		●		●	76
■Valve clearance—inspect	42000km								76
Throttle system （clearance,smooth return）—inspect	1 year	●		●		●		●	77
Idle speed—inspect		●		●		●		●	79
■Fuel leak（fuel hose and pipe）—inspect	1 year	●		●		●		●	—
■Fuel hoses damage—inspect	1 year	●		●		●		●	—
■Fuel hoses installation—inspect	1 year	●		●		●		●	—
■Throttle body—clean			●	●	●	●	●	●	
Coolant level—inspect		●		●		●		●	71
Coolant leak—inspect	1 year	●		●		●		●	71

Radiator hose damage—inspect	1 year	●		●		●		●	68
Radiator and water hose installation—inspect	1 year	●		●		●		●	68
■Air inlet system damage—inspect				●		●		●	74

2. Periodic Inspection（Chassis Related Items）

Frequency / Item(Chassis items)	Whichever comes first → ↓ Every	* Odometer Reading km×1000 1	6	12	18	24	30	36	See Page
Clutch and drive chain									
Clutch operation（clearance, engagement, disengagement）—inspect		●		●		●		●	80
Drive chain lubrication condition—inspect #	600km								83
Drive chain slack—inspect #	1000km								84
Drive chain wear—inspect #				●		●		●	88
■Drive chain guide wear—inspect				●		●		●	—

Wheel and tires									
Tire air pressure—inspect	1 year	●		●		●		●	101
Wheel/tires damage—inspect				●		●		●	102
Tire tread wear, abnormal wear—inspect				●		●		●	102
■wheel bearing damage—inspect	1 year			●		●		●	—
Footrest—lubricate		●		●		●		●	109
Sprocket bearing—inspect				●		●		●	—
Brake system									
Brake fluid leak—inspect	1 year	●	●	●	●	●	●	●	92
Brake hoses and pipe damage—inspect	1 year	●	●	●	●	●	●	●	92
Brake pad wear—inspect #			●	●	●	●	●	●	95
Brake hose installation—inspect	1 year	●	●	●	●	●	●	●	95
Brake fluid level—inspect	6 months	●	●	●	●	●	●	●	93
Brake operation（effectiveness, clearance, drag）—inspect	1 year	●	●	●	●	●	●	●	95
Brake light switch operation—inspect		●	●	●	●	●	●	●	96
Suspensions:									
Front forks/rear shock absorber operation（damping and smooth stroke）—inspect				●		●		●	97
Front forks / rear shock absorber oil leak—inspect	1 year			●		●		●	98

Steering System									
■steering play—inspect	1 year	●		●		●		●	—
■steering stem bearings—lubricate	2 years					●			—
Electrical System									
Lights and switches operation—inspect	1 year			●		●		●	—
Headlight aiming—inspect	1 year			●		●		●	109
Side stand switch operation—inspect	1 year			●		●		●	—
Engine stop switch operation—inspect	1 year			●		●		●	—
Alarm system—inspect	1 year			●		●		●	
Chassis									
■Chassis parts—lubricate	1 year			●		●		●	—
■Bolts and nuts torque—inspect	1 year	●		●		●		●	—
■fuel vapourization system—inspect			●						

3、Periodic replacement

Item \ Frequency	Whichever comes first → ↓ * Odometer Reading km×1000						See Page
	Every	1	12	24	36	48	
■Air filter element#	2 years						76
Engine oil#	6 months	Every 3000km（first time:500km）					61
Oil filter	6 months	Every 6000km					64
■Fuel hoses	4 years					●	—
■Coolant	2 years				●		69
■Radiator , water hoses	2 years				●		—
■Brake fluid hoses and pipe	4 years					●	—
■Brake fluid（front/rear）	2 years			●		●	92
■Rubber parts of master cylinder	4 years					●	—
■Spark plug			●	●	●	●	73
■damper, sprocket seat			●	●	●	●	—

Engine Oil

In order for the engine, transmission, and clutch function properly, maintain the engine oil at the proper level, change the oil and replace the oil filter in accordance with the Periodic Maintenance Chart. During lubrication processes, not only produces dirt and metallic impurities, also will consume itself.

⚠ WARNING
Motorcycle operation with insufficient, deteriorated or contaminated engine oil will cause accelerated wear and may result in engine or transmission seizure,accident and injury.

Oil Level Inspection

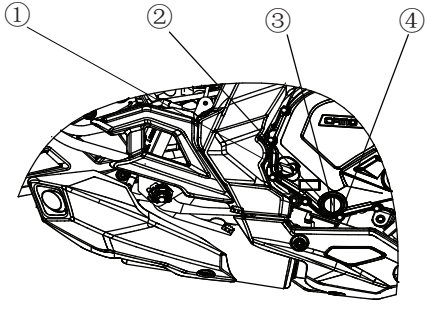
- If the oil has just been changed, start the engine and run it for several minites at idle speed. This fills the oil filter with oil. Stop the engine, and then wait several minutes until the oil settles.

⚠ CAUTION
Racing the engine before the oil reaches every part can cause engine seizure.

- If the motorcycle has just been used, wait several minutes for all the oil to drain down.
- Check the engine oil level through the oil level mirror. With the motorcycle held level, the oil level should come

up between the upper and lower level lines.

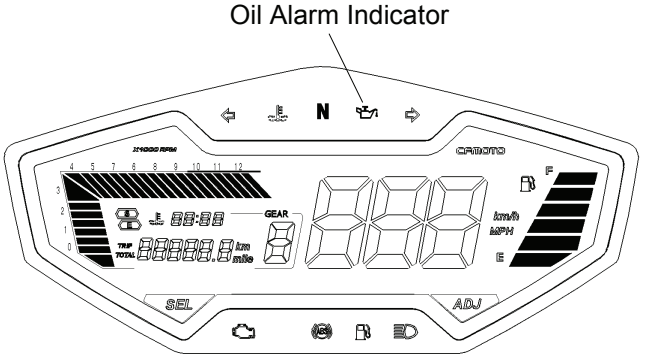
- If the oil level is too high, remove the excess oil.
- If the oil level is too low, add the oil to reach the correct level. Use the same type and brand of oil.

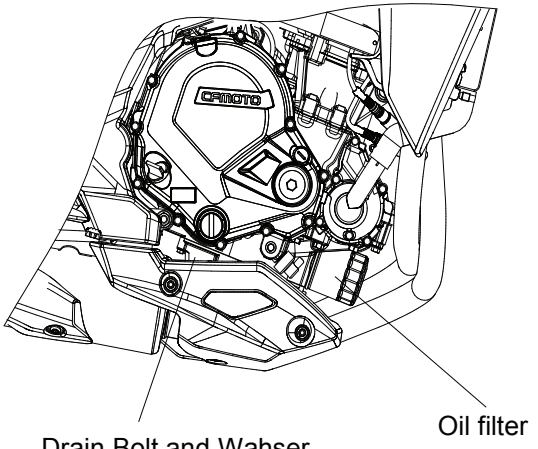


①Oil filler opening ② Upper level line
③Oil level gauge ④ Lower level line

CAUTION

If the engine oil level is extremely low or the oil pump does not function properly or oil passages are clogged, the warning light will be on. If the light stays on, stop the engine immediately and find the cause.





Oil and Oil Filter Change

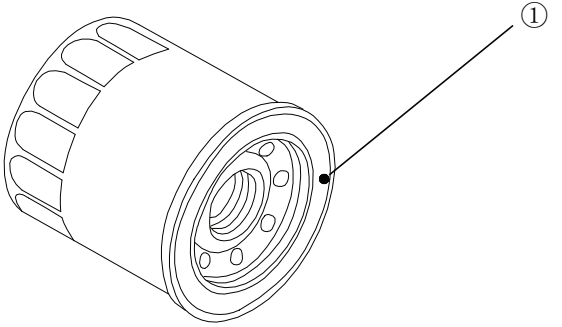
- Pack the vehicle on the level ground.
- Warm up the engine thoroughly , and then stop it.
- Place an oil pan beneath the engine.
- Remove the engine oil drain bolt.
- Let the oil completely drain.

⚠ DANGER
Oil is a toxic substance. Dispose of used oil properly.

- Remove the oil filter and replace it with a new one.

⚠ NOTE
Contact your local dealer to get special tools

- Apply a thin film on seal ring and tighten the cartridge to the specified torque.



① Apply a thin film

- Replace new gasket before install the drain bolt.

WARNING
Replace all gaskets with new ones.

- Fill the engine between upper and lower level line with a good quality engine oil as bellow.
- Start the engine.
- Check the oil level and oil leakage.

Tightening Torque

Engine oil Drain Bolt: 30N • m

Oil filter: 17.2N • m

Recommended Engine Oil:

Type：SJ JASO MA2

Viscosity：ELF 10W-40

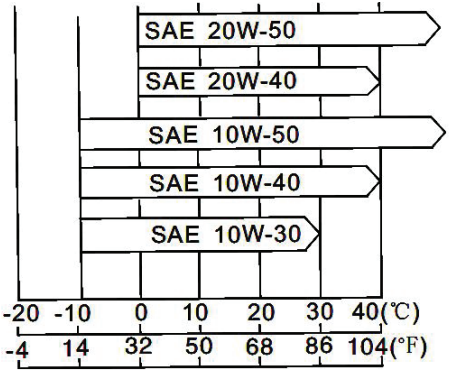
Engine Oil Capacity：

When filter is not removed：2.0L

When filter is removed：2.2L

When engine oil is completely empty：2.6L

We recommend use APISH oil or above, JASO MA2 oil is the first choice，secondary is JASO Ma oil. Although 10W-40 engine oil is the recommended oil for most conditions, the oil viscosity may need to be changed to accommodate atmospheric condition in your riding area.



Cooling System

Radiator and Cooling Fan

Check the radiator fins for obstruction by insects or mud, clean off any obstructions with a stream of low-pressure water.

⚠ WARNING
Keep your hands and clothing away from the fan blades when it's working.

⚠ CAUTION
Using high-pressure water could damage the radiator fans and impair the radiator's effectiveness. Do not obstruct or deflect airflow through the radiator by installing unauthorized accessories in front of the radiator or behind the cooling fan. Interference with the radiator airflow can lead to overheating and consequent engine damage.

Radiator Hoses

Check the radiator hoses for leakage, cracks or deterioration, and connections for leakage or looseness each day before riding the motorcycle, and in accordance with Periodic Maintenance Chart.

Coolant

Coolant absorbs excessive heat from the engine and transfers it to the air by the radiator. If the coolant level becomes low, the engine overheats and may suffer server damage, Check the coolant level each day before riding the motorcycle, and in accordance with the periodic maintenance chart and replenish coolant if the level is low. Change the coolant in accordance with the periodic Maintenance Chart.

Coolant Information

To protect the cooling system (consisting of the aluminum engine and radiator) from rust and corrosion, the use of corrosion and rust inhibitor chemicals in the coolant is essential. If coolant contains corrosion and rust, then inhibitor chemicals is not needed. Over a period of time, the cooling system accumulates rust and scales in the water jacket and radiator. This will clog up the coolant passages, and considerably reduce the efficiency of the cooling system.

⚠ **WARNING**
Coolant contains corrosion inhibitors which made specifically for engines and radiators in accordance with the instructions of rule. Chemicals are harmful to the human body.

Distilled water must be used with the antifreeze (if the coolant comes to low).

⚠WARNING

If hard water is used in the system, it causes scales accumulation in the water hose, and considerably reduces the efficiency of the cooling system.
If the lowest temperature encountered falls below the freezing point of water, use permanent antifreeze in the coolant in protect the cooling system against and radiator freeze-up, as well as from rust and corrosion.

Mixture ratio of antifreeze (distilled water, ethylene glycol, and chemical inhibitors those for preventing the engine, radiator and other aluminum oxide from corrosion) and coolant should be compounded in accordance with environment temperature.

⚠WARNING

Permanent types of antifreeze on the market have anti-corrosion and anti-rust properties.
When it is diluted excessively, it loses its anti-corrosion property. Dilute a permanent type of antifreeze in accordance with the instructions of the manufacturer.

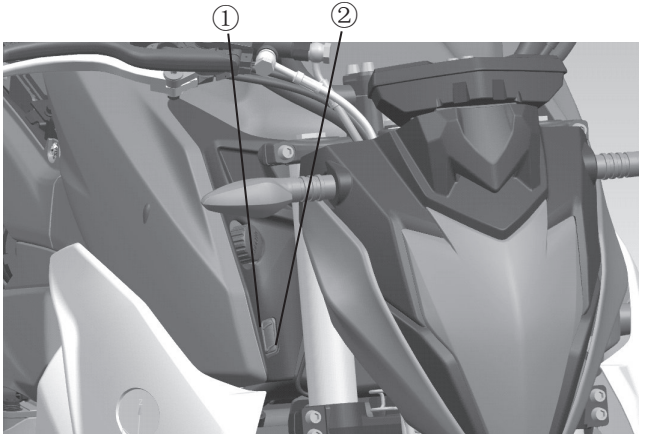
⚠NOTE

When fill the coolant in the cooling system, it's colored agree and contains ethylene glycol. It is mixed at 50% and has the freezing point of -35℃.

Coolant Level Inspection

- Situate the bike so that it is perpendicular to the ground.
- Check the coolant level if it is between the F (Full) and L (Low) level lines.

⚠NOTE
Check the level when the engine is cold (room of atmospheric temperature).



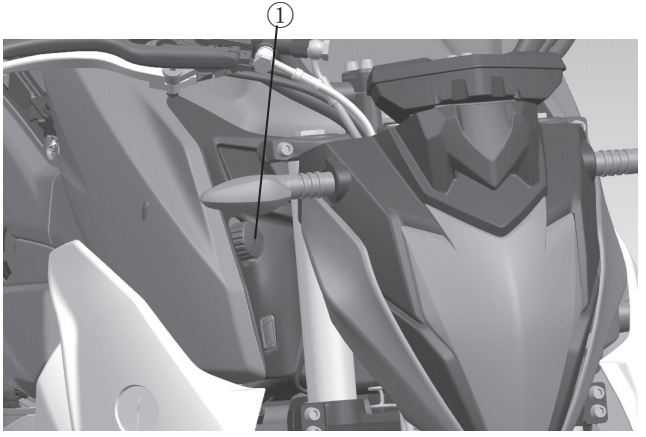
① F (Full) level line ②L (Low) level line

● If the coolant level is lower that low level line, remove the right side cover and add coolant into the reservoir tank until the coolant is between F and L level line.

Coolant Filling

● Remove the right glove box cover.

● Open the reservoir tank cap and add coolant until itis between F and L level line.



① Reservoir tank cap

- Close reservoir tank cap.
- Close the right glove box cover.

NOTE
In an emergency you can add distilled water to coolant reserve tank, however it must be returned to the correct mixture ratio by the addition of antifreeze concentrate as soon as possible.

WARNING
If coolant must be added often, or the reserve tank completely runs dry, there is probably leakage in the system. Have the cooling system inspected by your authorized dealer.

Coolant Change

Have the coolant changed by an authorized dealer.

Spark Plug

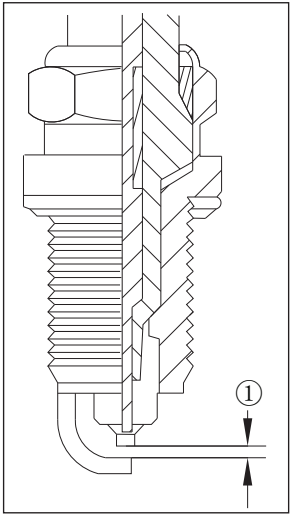
The spark plugs should be replaced in accordance with the Periodic Maintenance Chart.

Spark plug removal should be done by an authorized dealer.

Spark Plug type：CR8EI

Spark Plug Gap：0.7mm～0.9mm

Tightening Torque：15N • m



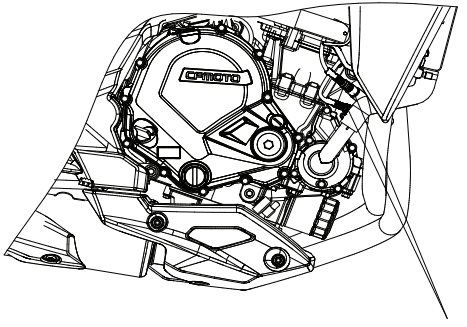
① Spark Plug Gap

Air System

Fuel & Exhaust Detecting System

Fuel & Exhaust System is detected by Oxygen Sensor.There is an Oxygen Sensor installed on exhaust pipe. It detects Air & Fuel combustion condition by measuring oxygen density and transferring it to electrical signal to ECU.When ECU judges that combustion is not completely, ECU will give signals to TPS and Intake air

temperature sensor to adjust fuel injection. By this way, the ratio of air against fuel can be optimized and make combustion completely.



Air Suction Valve

The air suction valve is essentially a check valve which allows fresh air to flow only from the air cleaner into the exhaust port. Any air that has passed the air suction valve is prevented from returning.

Inspect the air suction valves in accordance with the Periodic Maintenance Chart. Also, inspect the air suction valves whenever stable idling cannot be obtained, engine power is greatly reduced, or there are abnormal engine noises.

Air suction valve removal and inspection should be done by an authorized dealer.

Valve Clearance

Valve and valve seat will be worn and need to be adjusted afer using for a period.

⚠ CAUTION
If valve and valve seat is not adjusted, wear will eventually cause the valves remain partly open ,without clearance, lower performance or making noise and may cause serious engine damage. Valve clearance for each valve should be checked and adjusted in accordance with the Periodic Maintenance Chart. Inspection and adjustment should be done by an authorized dealer.

Air Filter

A clogged air filter restricts air intaking, increasing fuel consumption, reducing engine power, and causing spark plug fouling.

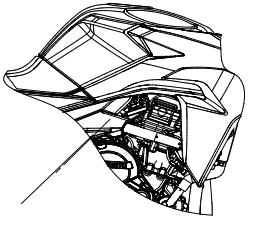
The air filter element must be cleaned in accordance with the periodic Maintenance Chart. In dusty, rainy, or

muddy condition, the air filter element should be serviced more frequently than the recommended interval by an authorized dealer.

Oil Draining Hose

● Oil Draining hose located on the top of rear shock absorber(RH) where is to see if any oil or water has run down from the air filter housing.

● If there are any oil/water in the hose, remove oil draining hose to drain it.



Oil storage pipe and plug

⚠ WARNING

Be sure to install the drain hose after oil/water draining. Oil on tires will make them slippery and can cause an accident or injury.

Throttle Control System

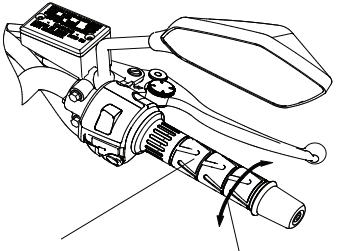
Check the throttle grip play in accordance with the periodic Maintenance Chart, and adjust it when necessary.

Throttle Grip

The throttle grip controls the butterfly valves in the throttle body. If the throttle grip play is too big resulting in throttle coordinating. It means cable is too long which will cause a delay in throttle response, especially at low engine speed. Also, the throttle valve may not open fully at full throttle. On the other hand, if the throttle grip is too samll, the throttle will be hard to control, and the idle speed will be erratic.

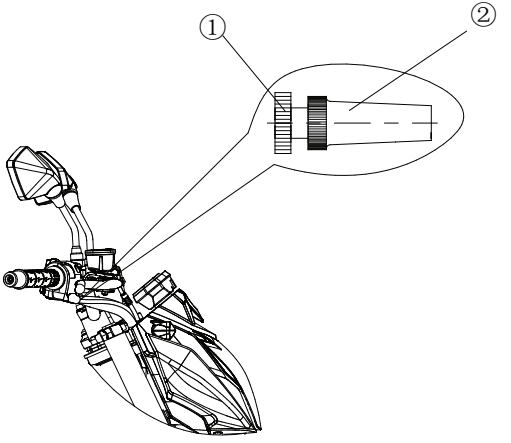
Inspection

- Check that the throttle grip play is neatly.
- Adjust throttle grip if there is improper play.



Throttle Handlebar Grp Play

Throttle Grip Play：2mm～3mm



①Lock nut ②Adjusting nut

Adjustment

- Loosen the lock nut of the throttle cable and turn adjusting nut of throttle cable so that throttle grip play is ok.
- Adjusting throttle cable clearance until throttle grip is completely closed.
- Tighten the lock nut.
- Loosen the lock nut of throttle until a play of 2mm~3mm is obtained at the throttle grip.
- Tighten the lock nut.

⚠ CAUTION
Operation with improperly adjusted, incorrectly routed, or damaged cables could result in an unsafe riding condition.

Idle Speed

The idle speed of your vehicle has been done before out of factory, there is no need to do any adjustment by yourself, otherwise vehicle's performance will be affected. If there is any parts which will affect idle speed need to be replaced, contact with authorized local dealer and use PDA to diagnose and have calibration.

⚠ CAUTION
Improperly adjustment of idle speed could result in an unsafe riding condition. **Idle Speed：1450r/min±145r/min**

Throttle Body

Limit screw on throttle body had been set accurately, and can not be adjusted. Check if the idle speed is stable, if not, please contact specified professional people for maintenance.

Clutch

Due to friction plate wear and clutch cable stretch over a long period of use, the clutch operation performance should be checked each day before riding the motorcycle, and in accordance with the Maintenance Chart.

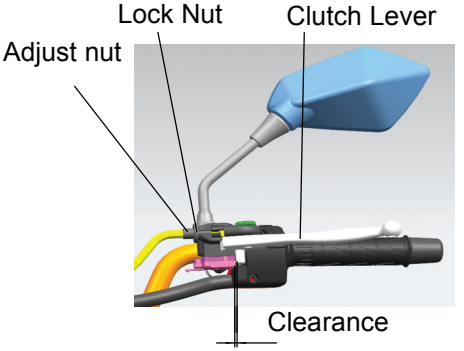
⚠ CAUTION
To avoid serious burn, never touch a hot engine or exhaust pipe during adjustment.

Inspection

● Check if clutch lever operates properly and inner cable slider smoothly .If there is any irregularity, have the clutch cable checked by an authorized dealer.

● Check the clutch lever play. Clutch Lever play：2mm～3mm

If the play is incorrect, adjust the lever play as following.



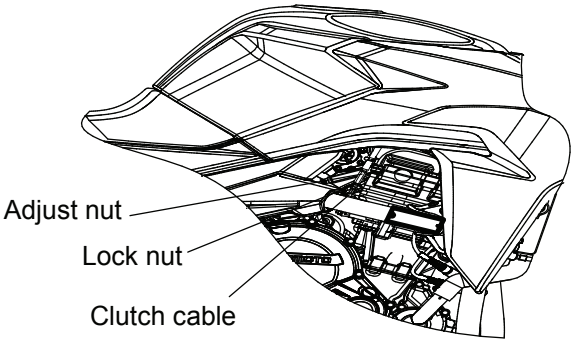
Adjustment

● Loosen the locknut, and turn the adjuster so that the clutch lever will have the proper play.

⚠WARNING
Be sure outer cable of the upper end of the clutch is fully seated in its fitting, or it could slip into place later, creating enough cable play to prevent clutch disengagement, resulting in a hazardous riding condition.

● If it stil cannot meet lever play requirements when the clutch cable lever at the limitation ,adjust the nuts at the lower end of the clutch cable.

⚠NOTE
After the adjustment is done, start the engine and check if the clutch can release properly.



Drive Chain

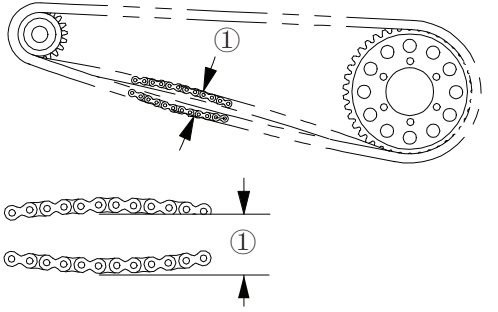
The drive chain slack and lubrication must be checked each day before riding in accordance with the Periodic Maintenance Chart for safety and to prevent excessive wear. If the chain becomes badly worn or maladjusted, it will result in chain is too loose or too tight, jump off or break.

⚠ WARNING
A chain that breaks or jumps off the sprockets could reduce engine performance or lock the rear wheel, severely damaging the motorcycle and causing vehicle out of control.

Chain Slack Inspection

- Set the motorcycle up on its side stand
- Rotate the rear wheel to check if the chain is too tight, and measure the maximum chain slack by pulling up and pushing down the chain midway between the engine sprocket and rear wheel sprocket.
- If the drive chain is too tight or too loose ,adjust to the standard value.

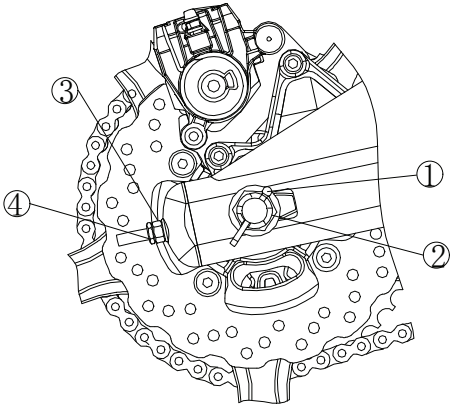
standard value：30mm~40mm



① Chain Slack

Adjustment

- Loosen the left and right chain adjuster locknuts.
- Remove the cotter pin, and loosen the rear axle locknut.
- If the chain is to loose ,turn the left and right chain adjust nuts clockwise and evenly.
- If the chain is too tight, turn the left and right chain adjust nuts anticlockwise, and evenly.
- Turn both chain adjusting nuts evenly until to drive chain has the correct value of slack.
- Keep rear wheel shaft move same on left and right fork.



① Cotter pin ②Axle locknut
③ Chain adjust nut ④Chain locknut

NOTE

Rear wheel shaft should be installed at same level on left and right rear fork.

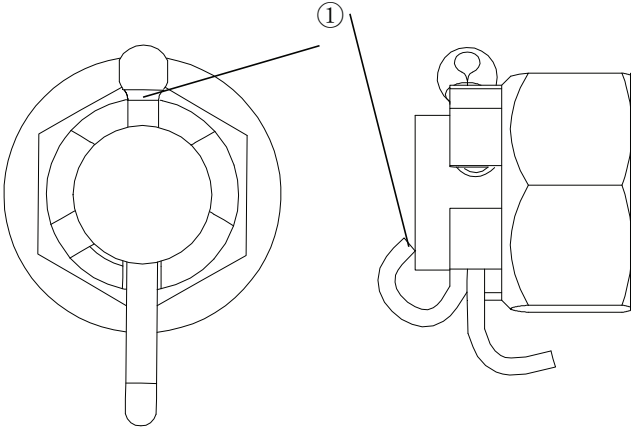
WARNING

Misalignment of the wheel will result in abnormal wear, and may result in unsafe riding condition.

- Tighten both chain adjuster locknuts.
- Tighten the rear axle nut to the specified torque.
- **Tightening Torque：110N • m**

NOTE
If there is no torque wrench, contact an authorized dealer.

- Rotate rear wheel, measure the chain slack again and readjust if necessary.
- Install a new cotter pin through the rear axle nut and axle and spread its ends.



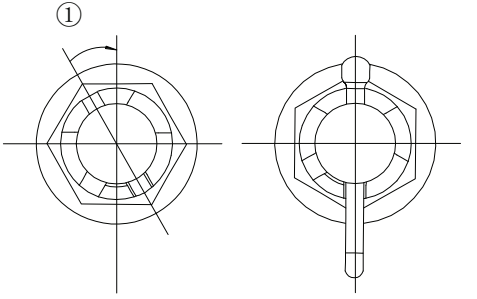
① Cotter pin

⚠ NOTE

When inserting the cotter pin, if the slots in the nut do not align with the cotter pin hole in the axle shaft, tighten the nut clockwise up to the next alignment. It should be within 30 degree. Loosen once and tighten again when the slot goes past the nearest hole.

⚠ WARNING

If the rear wheel axle nut is not securely tightened or the cotter pin is not installed, may result in an unsafe riding condition.



① Turn clockwise

● Rear brake Inspection（Refer to Brake Chapter）.

Wear Inspection

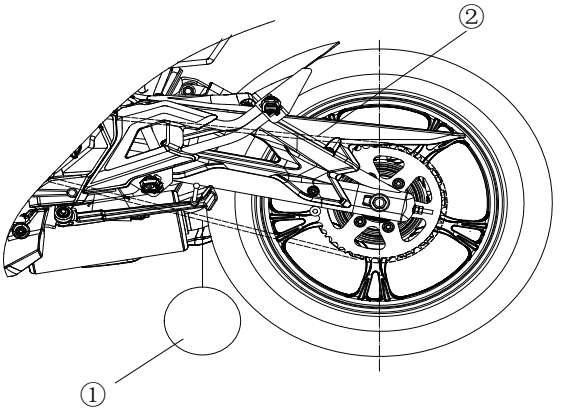
●Stretch the chain taut either by using the chain adjusters, or by hanging a 10 kg weight on the chain.

● Measure the length of 20 links on the straight Part of the chain from pin center of the 1st pin to pin Center of the 21st pin.

● If the length exceeds the service limit, the chain should be replaced.

Drive chain 20-Link Length

Service Limit：323mm



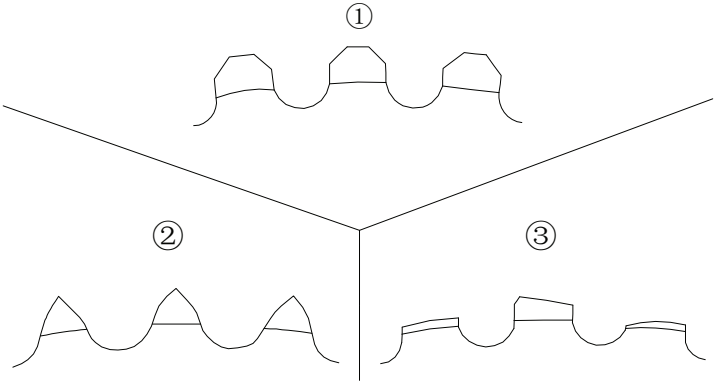
① Measuring ②Hang weight

⚠WARNING
For safety, please use the standard chain, It is an endless type and should not be cut for installation; Have it installed/replaced by an authorized CFMOTO dealer.

● Rotate the rear wheel to inspect the drive chain for damaged rollers, loose pins and links.

- Also inspect the sprockets for unevenly or excessively worn teeth, and damaged teeth.

⚠NOTE
Sprocket wear is exaggerated for illustration as following.



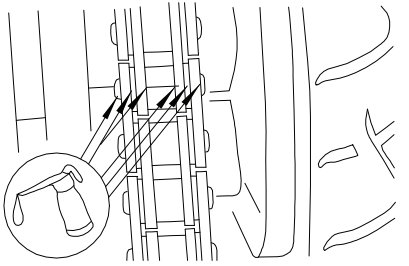
① Standard Teeth ② Worn Teeth ③ Damaged Teeth

- If there is any irregularity, have the drive chain and/or the sprockets replaced by an authorized CFMOTO Dealer.

Lubrication

Lubrication is also necessary after riding through rain or on wet roads, or any time that the chain or sprocket appears dry. A heavy oil such as SAE 90 is preferred to a lighter oil because it will stay on the chain longer and provide better lubrication.

- Apply lubricant to the sides of the rollers so that it will penetrate to the rollers and bushings.

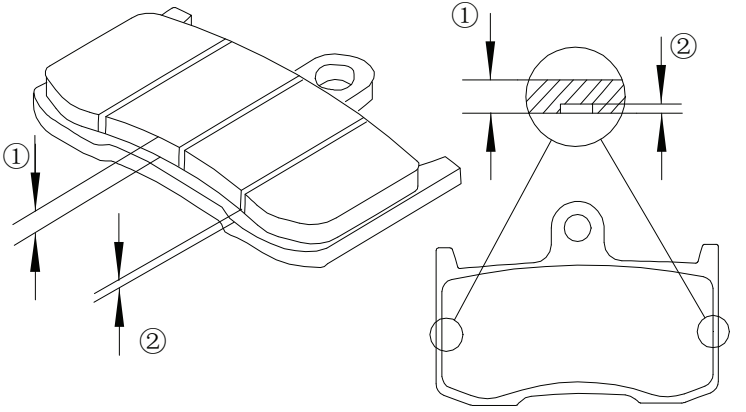


- If the chain is especially dirty, clean it by using diesel oil or kerosene and then apply oil as mentioned above.

Brake

Brakes wear Inspection

Inspect the brakes for wear. Inspect front and rear disc brake caliper, If the thickness of either pad is less than 1mm, replace both pads in the caliper as a set. Pad replacement should be done by an authorized CFMOTO dearler.



① Brake Pad Thickeness ② 1mm

Brake Fluid

In accordance with the Periodic Maintenance Chart, inspect the brake fluid level in both front and rear brake fluid reservoirs and change the brake fluid. The brake fluid should also be changed if it becomes contaminated with dirt or water.

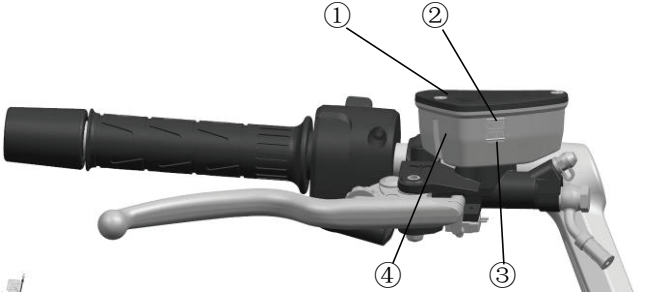
Fluid Requirement

Use DOT4 brake fluid from a container marked.

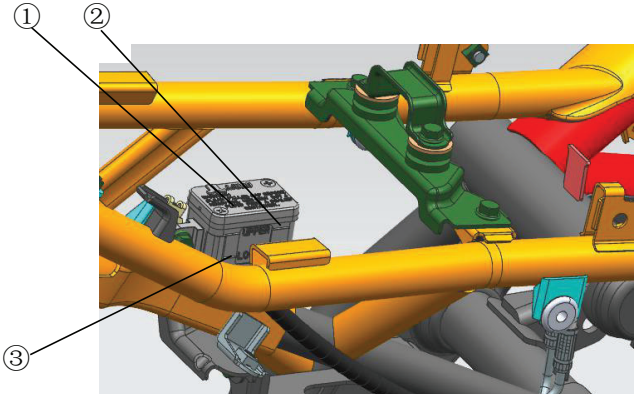
⚠ CAUTION
Do not spill brake fluid onto any painted surface. Do not use fluid from a container that has been left open or that has been unsealed for a long time. **Check for fluid leakage around the fittings.** **Check brake hose for damage.**

Fluid Level Inspection

- Check if the brake fluid level in the front and rear brake fluid reservoir is between the upper and lower lines.



① Front Brake Fluid Reservoir Cap ② Upper level line ③ Lower level line ④ Front Brake Fluid Reservoir



① Rear Brake Fluid Reservoir ② Upper level line ③ Lower level line

● If the fluid level in either reservoir is lower than the lower level line, check for fluid leakage , and fill the reservoir to the upper level line. Inside the front brake fluid reservoir is a stepped line showing the upper level line. It can be seen after open reservoir cap.

⚠WARNING

Do not mix different brands of brake fulid. Change the brake fluid in the brake line completely if the brake fluid must be refilled but the type and brand of the brake fluid that is already in the reservoir are unidentified.

Fluid Replacement

Have the brake fluid changed by an authorized CFMOTO dealer.

Front and Rear Brakes

Disc and disc pad will be worn after long period use. Check or replace them as maintenance chapter specified.

⚠WARNING

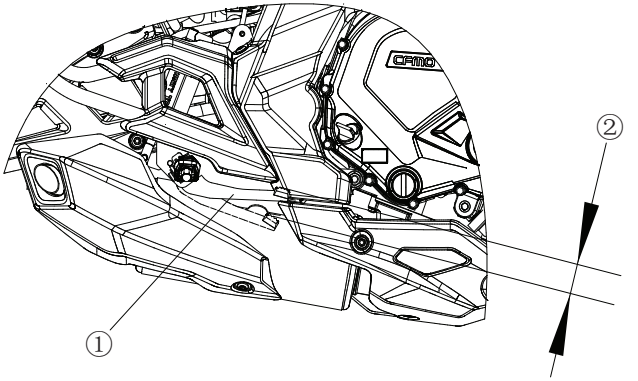
If the brake lever or pedal feels mushy when it is applied, there might be air in the brake lines or the brake may be defective. Since it is dangerous to operate the motorcycle under such conditions, have the brake checked immediately by an authorized CFMOTO dealer.

Inspection

- Turn the ignition key to "ON" position.
- The brake light should go on when the front brake is applied.

Check front brake switch by dealer.

- Check rear brake switch. Brake light should be lit when press rear brake pedal.



① Rear brake pedal ② Rear brake pedal travel

- If brake light can not be lit, check cable connectors of front & rear brake switch.

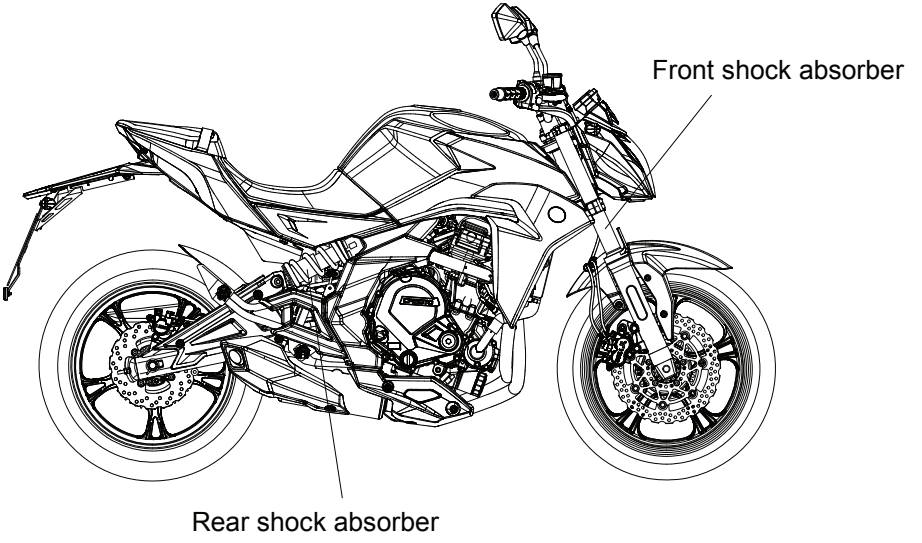
Rear brake pedal travel：10mm

Front Fork

The front fork operation and oil leakageinspection should be checked in accordance with the Periodic Maintenance Chart.

Front Fork Inspection

- Holding front brake lever, pump the front fork up and down by several times for inspection of smooth stroke.
- Visually inspect the front fork for oil leakage, scoring or scratches.
- If you have any doubt about the front fork, contact authorized CFMOTO dealer.



Rear Shock Absorber

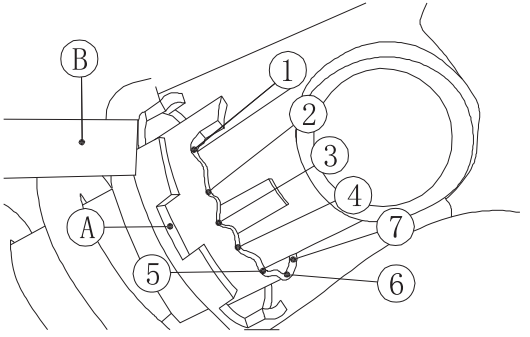
The rear shock absorber operation and oil leakage should be checked in accordance with the Periodic Maintenance Chart.

Rear Shock Absorber Inspection

- Press down on the seat several times to check if the rear shock absorber stroke is smooth.
- Visually inspect the rear shock absorber for oil leakage.
- If you have any doubt about the rear shock absorber, contact authorized CFMOTO dealer.

Spring Preload Adjustment

The spring preload adjuster on the rear shock absorber has 7 positions which can be adjusted by special tools.



A Rear shock absorber B Special wrench

Gears	1	2	3	4	5	6	7
Spring force	Spring force increaing						

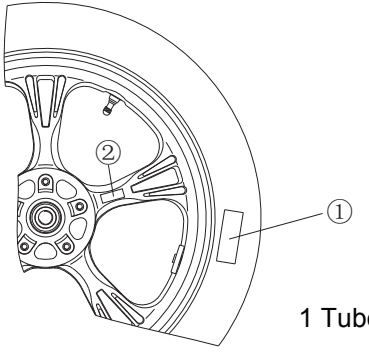
⚠ WARNING

This unit contains high pressure nitrogen gas. Mishandling can cause explosion. Read Service Manual for instructions. Do not incinerate, puncture or open it.

Wheels

Tubeless tires are installed on the wheels of this motorcycle.

The indication of TUBELESS on the tire side wall and the rim show that the tire and rim are specially designed for tubeless use.



1 Tubeless tires 2 Tubeless rims

⚠ WARNING

The tires, rims, and air valves on this motorcycle are designed only for tubeless type wheels. Only use recommended standard tires, rims and air valves. Do not install tube-type tires on tubeless rims.
The beads may not seat properly on the rim causing tire deflation.
Do not install a tube inside a tubeless tire.

Tires

Payload and Tire Pressure

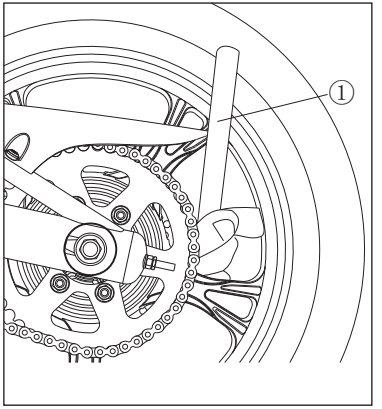
Failure to maintain proper inflation pressures or observe payload limits for your tires may adversely affect handing and performance of your motorcycle and can result in loss of control.

The maximum recommended load on addition to vehicle weight is 356kg, including rider, baggage and accessories.

- Remove the air valve cap.
- Check the tire pressure often, using an accurate gauge.
- Make sure to install the air valve cap securely.

NOTE

Measure the tire pressure when the tires are cold (that is, when the motorcycle has not been ridden more than 3 hours).
Tire pressure is affected by changes in ambient temperature and altitude and so the tire pressure should be checked and adjusted when your riding involves wide variations in temperature or altitude.



① Tire pressure Gauge

Tire Air Pressure（When cold）

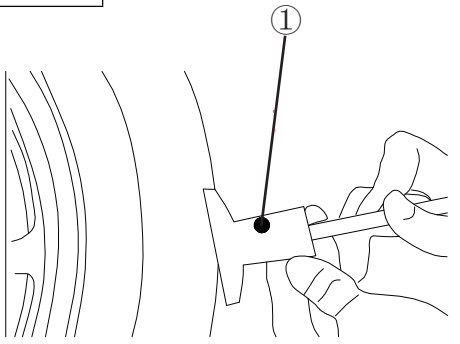
Front	250kPa
Rear	280kPa

Tire Wear, Damage

As the tire tread wears down, the tire becomes more susceptible to puncture and failure. An accepted estimate is that 90% of all tire failures occur during the last 10% of tread life (90% worn). So it is false economy and unsafe to use the tires until they are bald. In accordance with the Periodic Maintenance Chart, measure the depth of the tread with a depth gauge, and replace any tire that has worn down to the minimum allowable tread depth.

Minimum Tread Depth

Front	0.8mm～1mm
Rear	0.8mm～1mm



① Tire Depth Gauge.

- Visually inspect the tire for cracks and cuts, replacing the tire in case of bad damage. Swelling or high spots indicate internal damage, requiring tire replacement.
- Remove any imbedded stones or other foreign particles form the tread.

NOTE

Most countries may have their own regulations requiring a minimum tire tread depth; Be sure to follow them.
Have the wheel balance inspected whenever a new tire is installed.

WARNING

To ensure safe handling and stability, use only the recommended standard tire and pressure. Tires that have been punctures and repaired do not have the same capabilities as undamaged tires. Do not exceed 100km/h within 24 hours after repair and 180km/h at any time after that.

NOTE

When operating on public roadways, keep maximum speed under traffic law limits.

Standard Tire (Tubeless)

Front	Size：120/70 ZR17 M/C 58W
Rear	Size：160/60 ZR17 M/C 69W

⚠ WARNING
Use the same manufacturer's tires on both front and rear wheels.

⚠ DANGER
New tire is smooth which can cause loss of control and injury. Normal friction surface can be formed after 160km break-in period. Avoid sudden, great brakes, enormous acceleration and sharp turns during break-in period.

Battery

The battery in this vehicle is maintenance-free battery. Therefore, it is unnecessary to inspect the amount of battery electrolyte or add distilled water. There is no need to remove the seal strip once the electrolyte is added into the battery. To ensure optimum service life of the battery, charge the battery properly to ensure the battery have enough power to the starter motor. When the motorcycle is used frequently, battery will be fully charged by the motorcycle charging system. If the motorcycle is only occasionally used, or used in a short time during each ride, the battery could be discharged. Battery can also discharge automatically.

The rate of discharge varies with battery type and ambient temperature.

When environment temperature rises, for example, the rate of discharge could increase one time when

temperature rises every 15℃.

Battery charged in the cold weather is not proper which may easily cause electrolyte freezes, battery cracking and metal plate's deformation. Battery fully charged can increase the frost resistance capacity.

Battery Sulfation

Sulfation occurs when the battery is left in a discharged condition for an extended time. Sulfate is a normal byproduct of the chemical reactions within a battery. But when continuous discharge allows the sulfate to crystallize in the cells, the battery plates become permanently damaged and will not hold a charge. If this happens, you must replace it with a new battery.

Battery Maintenance

Always keep the battery fully charged. Failure to do so can damage the battery and result in a shorter life. If you ride your vehicle infrequently, inspect the battery voltage weekly with a voltmeter. If it drops below 12.8 volts, the battery should be charged with an appropriate charger (check with your dealer). If you will not use the vehicle for longer than 2 weeks, the battery should be charged with an appropriate charger. Don't use an automotive-type quick charger that may overcharge the battery and damage it.

Battery recharger

Contact your dealer for the charger specification.

Battery Charging

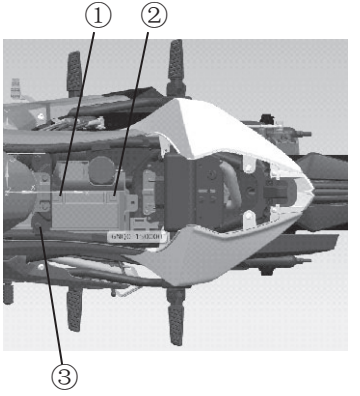
- Remove the battery from the vehicle（refer to Battery Removal）
- Attach the leads from the charger and charge the battery at a rate that is a tenth of the battery capacity. For example, the charging rate for a 10Ah battery would be 1.0 ampere.
- Ensure that the battery is fully charged before installation.（see Battery Installation）.

⚠ CAUTION
Never remove the sealing strip, or the battery can be damaged. Don't install a conventional battery in this motorcycle, or the electrical system can't work properly.

⚠ NOTE
If you charge the sealed battery, never fail to observe the instructions shown in the label on the battery.

Battery Removal

- Remove the seat. Remove munting bolt of fuel tank.
- Disconnect the wires from the battery, first from the (-) terminal, then the (+) terminal.
- Lift fuel tank rear part up, take the battery out of the case.
- Clean the battery with a solution of baking soda and water. Ensure that the wire connections are clean.



① (-) terminal ② (+) terminal

③Mounting bolt, fuel tank

Battery Installation

- Place the battery in the battery case.
- Connect the wire to the (+) terminal first, then connect the wire to the (-) terminal.

CAUTION
(+) terminal and (-) terminal connecting order is opposite with battery removal when install battery.

WARNING
Incorrct terminal could serious damage electrical system.

- Coat the terminals with dielectric grease to prevent corrosion.
- Cover the terminals with their caps.
- Reinstall the removed parts.

Foot Pedal

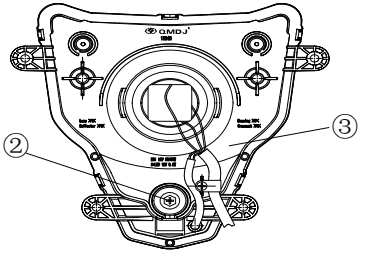
Lubricate foot pedal with silicone oil periodically (refer to maintenance chart for more information).

Headlight Beam

Low-beam Light Adjustment

Low-beam light is adjustable. When low-beam light is not suitable, adjust bolt of low-beam light.

- Adjusting bolt until light beam is suitable.



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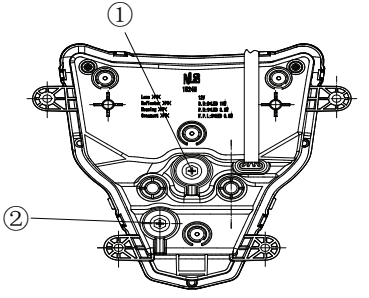


(CF650-7)

① Adjusting bolt, Hi beam light

② Adjusting bolt,low-beam light

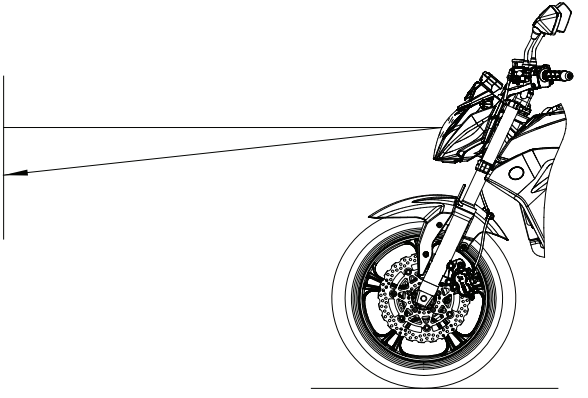
③ Rear part,headlight

Headlight Beam Adjustment

When high-beam light is not suitable, adjust bolt of high-beam light.

- Adjusting bolt until light beam is suitable.

⚠NOTE
Front and rear wheels touchdown and driver were on the vehicle to adjust high/low beams.Adjustment of high/low beams should accordance with local regulations.



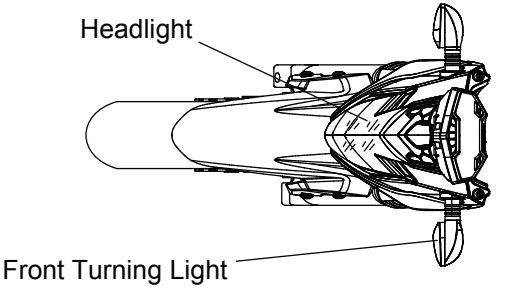
Rear Turn Signal Light

Rear turn light can be replaced alone when damaged. There is no need to replace the whole set of light.

Front Turn Signal Ligh

Front Turn Signal Light：LED

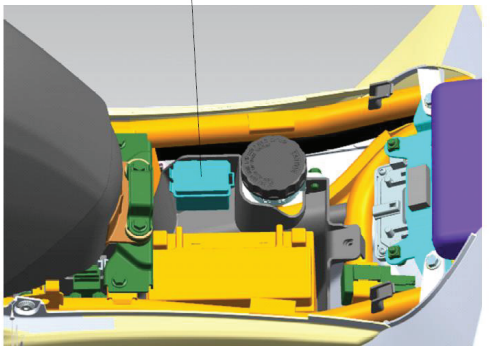
Remove headlight when replacement.



Fuses

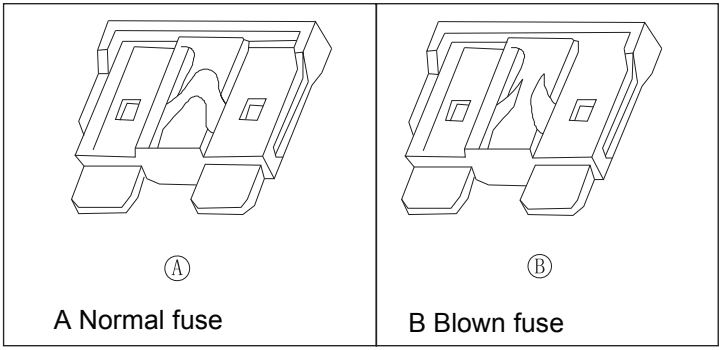
Fuse box is located under the front seat. The main fuse is fitted on the starter relay under the left side cover. If a fuse is blown, inspect the electrical system to determine the cause and replace it with the same ampere.

Fuse Box



- Remove seat
- Remove side cover

⚠ WARNING
Don't use any substitute for the standard fuse. Replace the blown fuse with a new one of the same ampere . Ampere value is shown on fuse.



Cleaning Your Motorcycle

General Precautions

Keeping your motorcycle clean will improve its appearance, optimize its performance and extend the life of various components. Covering your motorcycle with a high quality, breathable motorcycle cover will help protect its finish from harmful UV rays, pollutants, and reduce the amount of dust reaching its surfaces.

- Always wash the motorcycle after the engine and muffler cool down.

- Avoid applying degreaser to seals, brake pads, and tires
- Always use non-abrasive wax and cleaner.
- Avoid all harsh chemicals, solvents, detergents, and household cleaning products like ammoniabased window cleaners.
- Gasoline, brake fluid, and coolant will damage the finish of painted and plastic surfaces: Wash them off immediately.
- Avoid wire brushes, steel wool, and all other abrasive pads or brushes.
- Be careful when washing the windshield, headlight cover, and other plastic parts as they can be easily scratched.
- Avoid high water pressure, as it may penetrate seals and electrical components, resulting in vehicle damage.
- Avoid spraying water in delicate areas such as air intakes, fuel line, brake components, electrical components, muffler outlets and fuel tank openings.
- Rinse with cold water from a garden hose to remove any loose dirt.
- Mix a mild neutral detergent (specified for motorcycles or automobiles) and water in bucket. Use a soft cloth or sponge to wash your motorcycle. If needed, use a mild degreaser to remove any oil or grease build up.
- After washing, rinse your motorcycle with clean water to remove any residue (residue from the detergent can damage the components of your motorcycle.)

- Dry off your motorcycle with a soft cloth to avoid scratches.
- Start the engine and allow it idle from several minutes. The heat from the engine will help dry off the moist areas.
- Carefully ride your vehicle at a low speed and apply the brake several times. Doing so help dry the brakes and restores them to normal operating performance.
- Lubricate the drive chain to prevent rusting.

NOTE
After a ride in an area where the roads are salted or near the ocean, immediately you're your motorcycle with cold water. Don't use warm water to wash your vehicle as it accelerates the chemical reaction of the salt. After drying, apply an anti-corrosion sprays on all metal or chrome surfaces to prevent corrosion. In the case of riding in the rain or washing the motorcycle, condensation may form on the inside of the headlight lens. To remove the moisture, start the engine and turn on the headlight, gradually the condensation formed on the inside of the lens will clear off.

Painted Surfaces

After washing your motorcycle，coat the painted surfaces, both metal and plastic, with a commercially available motorcycle/automobile wax. Wax should be applied once every three months or as conditions require. Always use non-abrasive products and apply them according to the instructions on the container.

Windshield and Other Plastic Parts

After washing, use a soft cloth to gently dry off plastic parts. When dry, treat the windshield, headlight lens, and other unpainted plastic parts with an approved plastic cleaner/ polisher product.

⚠CAUTION
Plastic parts may deteriorate and break if they come in contact with chemical substances or household cleaning products such as gasoline, brake fluid, window cleaners, threadlocking agents, or other harsh chemicals. If a plastic part comes in contact with any harsh chemical substance, wash it off with water and a mild neutral detergent immediately, and then inspect for damage. Avoid using abrasive pads or brushes to clean plastic parts, as they will damage the plastic parts' finish.

Chrome and Aluminum

Chrome plating and uncoated aluminum parts exposed to road salt or salt in the air in coastal areas are susceptible to corrosion if not properly cleaned. Coated aluminum should be cleaned with a mild neutral detergent and finished with a spay polish. Both painted and unpainted aluminum wheels can be cleaned with non-acid based wheel spray cleaners.

Leather, Vinyl, and Rubber

If your motorcycle has leather accessories, special care must be taken. Use a leather cleaner/treatment to clean and care leather accessories. Washing leather parts with detergent and water will damage them, shortening their life.

Vinyl parts should be cleaned with the rest of your motorcycle, then treated with a vinyl treatment. The sidewalls of tires and other rubber components should be treated with a rubber protectant to preserve their life.

WARNING
Special care must be taken not to get any rubber protectant on the tire tread surface when treating. This may decrease the traction between tire and ground, causing the vehicle loss of control.

STORAGE

Preparation for Storage

- Clean the entire vehicle thoroughly.
- Run the engine for about 5 minutes to warm the oil, shut it off, then drain the engine oil.

> **⚠WARNING**
>
> **Motorcycle oil is a toxic substance. Dispose the used oil properly. Contact your local authorities for approved disposal methods or possible recycling. Plus, keep the used oil out of reach of children.**

- Fill in fresh engine oil.
- Empty the fuel tank with a fuel pump or siphon.

> **⚠WARNING**
>
> **Gasoline is extremely flammable and explosive under certain conditions. Turn the ignition key to "⊗" position. Don't smoke. Make sure the area is well ventilated and free of any source of flame or sparks; this includes any appliance with a pilot light. Gasoline is a toxic substance.**
> **Dispose of gasoline properly. Keep the used oil out of reach of children.Contact your local authorities for approved disposal methods.**

- Empty the fuel system by running the engine at idle speed until the engine stalls.（if left in for a long time, the fuel will break down and clog the fuel system.）

- Reduce tire pressure by 20% during storage period.
- Set the motorcycle on a box or stand so that both wheels are raised off the ground. (If this can't be done, put boards under the front and rear wheels to keep dampness away from the tire rubber.)
- Spray oil on all unpainted metal surfaces to prevent rusting. Avoid getting oil on rubber parts or in the brakes.
- Lubricate the drive train and all cables.
- Ensure that the battery is fully charged before storage. Remove the battery and store it out of the sun and in a cool, dry place.
- Tie plastic bags over the muffler to prevent moisture from entering.
- Put a cover over the motorcycle to keep dust and dirt from collecting on it.

Preparation after Storage

- Remove the plastic bags from the muffler.
- Install the battery in the motorcycle and charge it if necessary.
- Fuel the fuel tank.
- Check all the points listed in Daily Safety Checks section.
- Lubricate the pivots, bolts and nuts.

WARNING LABELS ON MOTORCYCLE

Please read all warning labels on the motorcycle and heed their instructions before your first riding.
If any of the labels depicted in this manual differ from the labels on your motorcycle, always read and follow the instructions of the labels on the motorcycle.

EFI ERRORS CODING TABLE

Self-diagnosis Outline

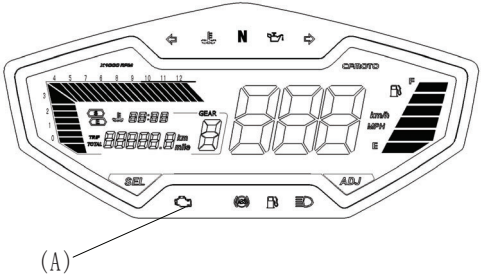
ECU constantly monitor sensors, actuators and circuits, FI indicator light and battery voltage, etc, even ECU itself and inspect the sensor output signal, actuator drive signal and internal signal (such as close loop control, coolant temperature, idle speed control and battery voltage control, etc.) for reliablity. If any process or signal is suspect, ECU records the trouble code in the RAM memory.

Faulty information is recorded in the form of trouble code, and in the sequence of which trouble comes first. Fault can be divided into “Current Fault” and “History Fault”.

When servicing, using PDA and FI indicator, the defective parts can be promptly foud to improve the service efficiency and quality.

Self-diagnosis Procedures

In case of a problem occurs in the EFI system and ignition system, the MIL (LED) [A] goes on.



Note

Use a fully charged battery when conducting self-diagnosis. Otherwise, the light (LED) blinks very slowly or doesn't blink.

MIL is On

- MIL has two control ways.
- If EFI system detected any electric part got trouble when the engine on running. The trouble indicator light on. Stop the engine and turn on the ignition switch again. If the system detected the history trouble solved. Trouble indicator light still on, and off when the engine started. If the trouble still on. The indicator light keeps on. Stop the engine and turn on the ignition switch again. If EFI has no trouble. The trouble indicator on, and off when the engine start.

- Flashing code control: Flashing code needs special trigger condition. Before the engine start (Speed is 0 and engine RPM is 0), turn the throttle into full opened (Or throttle opened over valve value 65.1) and keep the throttle full opened. Then turn the EFI lock on. If the EMS system hasn't diagnosed the trouble out, the indicator light will be off after shining for 4s. If the EMS diagnosed the trouble, Indicator light will blinking the code.Trouble light will stop blinking for 1s between 2 numbers. If EMS diagnosed two troubles at the same time, indicator light will blink from the sequnce of troubles. Indicator light will be off for 4s as troule code interval. After blinking, MIL turns off automatically. If you need to observe flash codes again, turn off EFI lock

first and the turn is on, meanwhile keep throttle fully opened.

- Read fault information through flashing code

Turn ignition switch on; K line connects ground for more than 2.5s. For example,if fault code has already in ECU fault memory, then MIL will output flashing code, that is P-CODE. For example：P0203 blink way：Blink 10 times continuously-stop–blink 2 times-stop-blink 10 times continuously-stop-blink 3 times.

EFI Fault Code

No	Pcode	Decription(UAES)
1	P0030	O2 Sensor 1 Heater Contr. Circ. open
2	P0031	O2 Sensor 1 Heater Contr. Circ. Low Input
3	P0032	O2 Sensor 1 Heater Contr. Circ. High Input
4	P0052	O2 Sensor 2 Heater Contr. Circ. open
5	P0051	O2 Sensor 2 Heater Contr. Circ. Low Input
6	P0050	O2 Sensor 2 Heater Contr. Circ. High Input
7	P0107	Air inlet pressure sensor Short to Ground
8	P0108	Air inlet pressure sensor Short to Power

No	Pcode	Decription(UAES)
9	P0112	Intake Air Temp. Sensor Signal. Low Input
10	P0113	Intake Air Temp. Sensor Signal. High Input
11	P0117	Engine Coolant Temp.Circ. Low Input
12	P0118	Engine Coolant Temp. Sensor Circ. High Input
13	P0122	Throttle Pos.Sensor Circ. Low Input
14	P0123	Throttle Pos.Sensor Circ. High Input
15	P0130	O2 Sensor Circ.,Bank1-Sensor1 Malfunction
16	P0131	O2 Sensor Circ.,Bank1-Sensor1 low Voltage
17	P0132	O2 Sensor Circ.,Bank1-Sensor1 High Voltage
18	P0134	O2 Sensor Circ.,Bank1-Sensor1 Malfunction
19	P0150	O2 Sensor Signal.,Bank1-Sensor2 Malfunction
20	P0151	O2 Sensor Circ.,Bank1-Sensor2 low Signal
21	P0152	O2 Sensor Circ.,Bank1-Sensor2 High Voltage
22	P0154	O2 Sensor Circ.,Bank1-Sensor2 Malfunction
23	P0201	Cylinder 1- Injector Circuit Open

No	Pcode	Decription(UAES)
24	P0261	Cylinder 1- Injector Circuit Low
25	P0262	Cylinder 1- Injector Circuit Short
26	P0202	Cylinder 2- Injector Circuit Open
27	P0264	Cylinder 2- Injector Circuit Short To Ground
28	P0265	Cylinder 2- Injector Circuit Short to Power
29	P0501	Vehicle Speed No Sensor
30	P0508	Idle Air Control Circuit Short To Ground
31	P0509	Idle Air Control Circuit Short to Power
32	P0511	Idle Air Control Circuit Open
33	P0560	System Voltage Malfunction
34	P0562	System Voltage Low Voltage
35	P0563	System Voltage High Voltage
36	P0627	Fuel Pump “A” Control Circuit /Open
37	P0629	Fuel Pump “A” Control Circuit Short to Power

No	Pcode	Decription(UAES)
38	P0650	Malfunction Indicator Lamp Control Circ. failure
39	P0691	cooling fan control Circuit Short To Ground
40	P0692	cooling fan control Circuit Short to Power
41	P0480	cooling fan control Circuit Open
42	P2300	Ignition Coil “A” Primary Control Circuit Low
43	P2303	Ignition Coil “B” Primary Control Circuit Low

ABS ERRORS CODING TABLE

If the ABS indicator light [B] lighted, and then it means ABS system has something wrong. Please use PDA to read errors code. Below table shows what kind of error that every flashing condition stands for:

No.	ERROR CODE	ERRORS DESCRIPTION
1	C1D90	Front wheel speed sensor-el. Fault
2	C1D91	Front wheel speed sensor-Extrapolation Fault
3	C1D92	Front wheel speed sensor-Periodic Fault
4	C1D93	Front wheel speed sensor-Start Recognition Fault
5	C1D94	Fault wheel speed sensor-Phase-Length-Supervision Fault
6	C1D95	Front wheel speed sensor-Double Frequency Check
7	C1DA0	Rear wheel speed sensor-el. Fault
8	C1DA1	Rear wheel speed sensor-Extrapolation Fault
9	C1DA2	Front wheel speed sensor-Periodic Fault
10	C1DA3	Rear wheel speed sensor-Start Recognition Fault
11	C1DA4	Rear wheel speed sensor-Phase-Length-Supervision Fault
12	C1DA5	Rear wheel speed sensor-Double Frequency Check
13	C1DD3	O OSEK Fatal Error
14	C1DF0	Pump defective
15	C1DF1	Pump-connection
16	C1DF2	Hardware Fault

No.	ERROR CODE	ERRORS DESCRIPTION
17	C1DF5	Internal Hardware Fault (main driver, valves, …)
18	C1DF3	Voltage low
19	C1DF4	Voltage low
20	C1DF7	Voltage high
21	C1E59	Vehicle variant coding Error
22	C1E5A	ABS Switch Failure

General troubles and causes

Problem	Components	Possible cause	Solution
Engine fails to be started	Fuel system	No fuel	Refuel
		Pump blockage or damage: poor fuel quality	Clean or replace
	Ignition system	Spark plug failure: excessive carbon deposits, too long time use	Inspect or replace
		Spark plug cap failure: Poor contact or burning	Inspect or replace
		Ignition coil failure: poor contact or burning	Inspect or replace
		ECU failure: Poor contact or burning	Inspect or replace
		Pick up coil failure: poor contact or burning	Inspect or replace
		Stator failure: poor contact or burning	Inspect or replace
		Wiring failure: poor contact	Inspect or adjust
	Cylinder compression	Starting mechanism failure: worn or damaged	Inspect or replace
		Intake and exhaust valves, valve seats faulty: too much fuel colloidal or too long time use	Inspect or replace
		Cylinder, piston, piston ring failure: too much fuel colloidal or wear	Inspect or replace
		Intake manifold leakage: too long time use	Adjust or replace
		Valve timing faulty	Adjust or replace
Horn doesn't work	Battery	Flat	Charge or replace
	Left switch	Faulty horn button	Adjust or replace
	Cable	Poor connection	Adjust or repair
	Horn	Horn faulty	Adjust or replace

Problem	Components	Possible cause	Solution
Insufficient power	Valve and piston	Intake and exhaust valves, piston excessive carbon deposits: poor fuel quality and poor oil quality	Inspect or replace
	Clutch	Clutch slips: poor oil, too long time use and overloaded	Adjust or replace
	Cylinder and ring	Cylinder, piston rings wear: poor oil and too long time use	Replace oil
	Brake	Separation of brake is incomplete: the brake is too tight	Adjust
	Main chain	The drive chain is too tight: improper adjustment	Adjust
	Engine	Engine overheats: too rich or too lean mixture, poor oil, fuel quality, shelter, etc	Adjust or replace
	Spark plug	Improper spark plug gap, specification is 0.8mm -0.9mm	Adjust or replace
	Intake pipe	Air leakage of intake pipe: too long time use	Adjust or replace
	Cylinder head	Cylinder head or valves leak	Inspect or replace
	Electric system	Electrical system failure	Inspect or repair
	Air cleaner	Clogged air filter	Clean or adjust
Headlights and tail lights do not work	Cable	Poor connections	Adjust
	Left and right switches	Switch faulty or damaged	Adjust or replace
	Headlight	Faulty bulbs, lamp holder	Adjust or replace
	Regulator	Loose connection or burnt	Inspect or replace
	Magneto	Faulty or burnt stator	Inspect or replace
Alarm system fault	Battery	Flat	Charge or replace
	Cable	Poor connection	Adjust or repair
	Speaker, alarm light	Damaged	Replace
	Alarm control box	Damaged	Adjust or replace

Listed above are the common faults of the motorcycle.If your motorcycle has failed (especially the electronic fuel injection system, fuel evaporation system and alarms system), please contact “CFMOTO SERVICE STATION” timely to check and repair vehicle

Caution: Do not try to fix faults by yourself, otherwise it will cause accidents easily.You are responsible for the accidents if you fail to follow the caution.

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