

It contains important safety information. Make sure operator holds a valid driver license. Passengers under 12 are prohibited.

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### **FOREWORD**

Thank you for purchasing a CFMOTO vehicle, and welcome to our world-wide family of CFMOTO enthusiasts. Be sure to visit us online at www.cfmoto.com for the latest news, new product introductions, upcoming events, and more.

CFMOTO is an international company that specializes in the development, manufacture, and marketing of all-terrain vehicles, utility vehicles, large displacement motorcycles, and their core components. Founded in 1989, CFMOTO is devoted to the development of independent brand cultivation and R&D innovation.

CFMOTO products are currently distributed through more than 2000 companions worldwide in more than 100 countries and regions. CFMOTO is edging into the advanced ranks in the world of powersports, and aims to supply superior products to dealers and fans globally.

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. Information about major repairs is outlined in the CFMOTO Service Manual.

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 needs during, and after, the warranty period.

Due to constant improvements in the design and quality of productions components, some minor discrepancies may result between the actual vehicle and the information presented in this publication.

Depictions and/or procedures within are intended for reference use only.

Before every ride, please inspect your vehicle and follow the basic maintenance procedures before riding. Please keep this manual together with your vehicle, even when transferring the vehicle to others.

Zhejiang CFMOTO power Co., Ltd reserves the final explanation rights of the owner's manual.

This manual is for the following vehicles: CF400-10H/CF400-10AH

#### **MDANGER**

Operating, servicing and maintaining on-road or off-road vehicles can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.

Depictions and/or procedures within are intended for reference use only. The content in this publication is based on the latest production information available at the time of approval for printing. CFMOTO reserves the right to make changes at any time without notice and without incurring any obligation.

# **EVAP System (Evaporative Emission Control System)**

### (If equipped)

When required by environmental emissions regulations, this vehicle is manufactured with a fuel evaporation system (EVAP) to prevent fuel vapors entering the atmosphere from the fuel tank and fuel system.

During routine maintenance, visually inspect all hose connections for leaks or blockage. Ensure the hoses are not clogged or kinked, which could damage the fuel pump or distort the fuel tank. No other maintenance is necessary.

Contact your dealer if repair is required. Do not modify the EVAP system. Modifying any part of this system will violate environmental emissions regulations.

## **Signal Words**

A signal word calls attention to a safety message or messages, a property damage message or messages, and designates a degree or level of hazard seriousness. The standard signal words in this manual are: "DANGER", "WARNING", "CAUTION" and "NOTE".

The following signal words and symbols appear throughout this manual and on your vehicle. Your safety is involved when these words and symbols are used. Please be familiar with their meanings when reading the manual:

#### **↑** DANGER

This safety alert and icon indicates a potential hazard that may result in serious injury or death.

#### **∴WARNING**

This safety alert and icon indicates a potential hazard that may result in minor or moderate personal injury and/or damage to the vehicle.

#### **ACAUTION**

This safety alert and icon indicates a potential hazard that may result in damage to the vehicle.

#### NOTE:

A note or notice will alert you to important information or instructions.

# READ THE OWNER'S MANUAL FOLLOW ALL INSTRUCTIONS AND WARNINGS

#### **↑** WARNING

Read, understand, and follow all of the instructions and safety precautions in this manual and on all product labels. Failure to follow the safety precautions could result in serious injuries or deaths.

#### **MARNING**

The engine exhaust gas from this product contains CO, which is deadly and can cause headaches, giddiness, loss of consciousness, or even death.

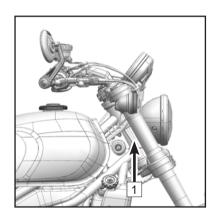
# **VIN AND ENGINE SERIAL NUMBER**

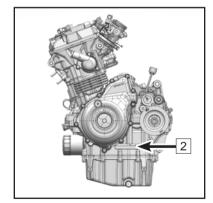
Please record the VIN, engine serial number and name plate information in the spaces below.

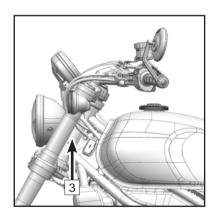
**Vehicle Identification Number:** 

**Engine Serial Number:** 

Name Plate Number:







1	VIN	2	Engine Serial Number	3	Vehicle Plate	1
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# **SPECIFICATIONS**

	450C	CL-C	
	CF400-10H CF400-10AH		
Performance			
Max Power	43.6 Hp (32.5 k	(w) / 9000 rpm	
Max Torque	31.1 ft-lb (42.2 N	√m) / 6250 rpm	
Min. Turn Diameter	18.4 ft (	(5.6 m)	
Top Designed Speed	95 mph (1	53 km/h)	
Size			
Length	86.9 in (2	208 mm)	
Width	32.6 in (8	329 mm)	
Height	44.5 in (1	130 mm)	
Wheelbase	58.5 in (1486 mm)		
Seat Height	27.8 in (705 mm)	28.1 in (715 mm)	
Ground Clearance	6.3 in (160 mm)		
Curb Weight	403 lb (183 kg)	390.2 lb (177 kg)	
Engine			
Туре	Vertical, Cylinder in-line, Two Cyli	nder, Four Stroke, Liquid Cooled	
Displacement	449	cm <sup>3</sup>	
Bore×Stroke	2.83 in × 2.17 in (72 mm × 55.2 mm)		
Compression Ratio	11.5(±0.3) : 1		
Starting System	Electric Starter		
Fuel Supplying System	EFI		

Ignition Control System		ECU Ignition
Lubricating System		Pressure splash
Oil Capacity		When changing an oil filter: 2.64 qt (2.5 L)
Engine Oil T	ype	SAE 10W-40 SJ and above JASO MA2
Coolant Cap	acity	1200 mL + (225 mL±20mL)(reservoir)
Idle Speed		1450 r/min ± 145 r/min
Transmission	on	
Transmissio	n Type	6-speed, international standard gear
Clutch Type		Wet, multi disc, sliding
<b>Driving System</b>	em	Belt drive
Primary Reduction Ratio		2.088
Final Reduct	tion Ratio	2.913
	1st	2.929
	2nd	2.056
Gear Ratio	3rd	1.579
Geal Rallo	4th	1.333
	5th	1.154
	6th	1.037
Chassis		
Tiro Sizo	Front	130/90-16 M/C 67H
Tire Size	Rear	150/80-16 M/C 71H
Rim Size	Front	MT3.0×16
IXIIII SIZE	Rear	MT3.50×16

Capacity of Fuel Tank	3.2 gal ± 0.13 gal (12L±0.5Liter)
Storage Capacity of Fuel Tank When Meter Flashing (Max)	0.52 gal (1.95L)
Average Fuel Consumption Per 100 Km	≤1.2 gal (4.5 L)
Electric Components	
Battery	12 V / 12 Ah
Headlight	LED
Turning Light	LED
Tail Light	LED
Shock Absorbers	
Front shock absorber travel	5.1 in (130 mm)
Front shock absorber rebound damping adjustment	Unadjustable
Front shock absorber compression damping adjustment	Unadjustable
Rear shock absorber travel	1.7 in (42 mm)
Rear shock absorber rebound damping adjustment	Unadjustable

Rear shock absorber compression damping adjustment	Unadjustable
Rear shock absorber spring preload	Factory setting: 3.5 in (90 mm) (distance from the upper end of the spring to the center of the upper mounting hole of the shock absorber)
	Adjustable range: 3.4 in ~ 4 in (86 mm ~ 102 mm) (distance from the upper end of the spring to the center of the upper mounting hole of the shock absorber)

## **OPERATOR SAFETY**

# **General Safety Precautions**

#### **↑**WARNING

Please read this manual carefully before operating the vehicle and understand all safety warnings, precautions and operating procedures.

#### **Age Limit**

This model is for adults only. The operator must acquire a driving license as required by local laws and regulations, and children under the age of 12 are not allowed to ride CFMOTO's passenger-carrying vehicles. Do not carry the passenger if the vehicle is not equipped with the cushion and footrest.

#### **Know Your Vehicle**

As the operator of the vehicle, you are responsible for your personal safety, the safety of others, and the protection of the environment. Read and understand your owner's manual, which includes valuable information about all aspects of your vehicle, including safe operating procedures.

## **Equipment Modifications**

CFMOTO is concerned with the safety of our customers and of the general public. Therefore, we strongly recommend that consumers should not mount on a vehicle, any equipment that may increase the speed or power of the vehicle, or make any other modifications to the vehicle for these purposes. Any modifications to the original equipment of the vehicle create substantial safety hazards and increase the risk of body injury. The warranty on your vehicle is terminated if any unapproved accessory equipment has been added to the vehicle, or if any modifications have been made to the vehicle that increase its speed or power.

#### NOTE:

Some equipment may change the handling and performance of the vehicle, including but not limited to side boxes, exhaust pipes, side wheels, etc. Use only approved equipment and familiarize yourself with its functions and roles on the vehicle.

#### **Avoid Carbon Monoxide Poisoning**

All engine exhaust contains carbon monoxide, a deadly gas. Breathing carbon monoxide can cause headaches, dizziness, drowsiness, nausea, giddiness and even death. Carbon monoxide is a colorless, odorless, tasteless gas that may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can accumulate rapidly, and you can quickly be overcome and unable to save yourself. Also, deadly concentration of carbon monoxide can remain for hours or days in enclosed or poorly ventilated areas.

To prevent serious injury or death from carbon monoxide:

- Never run the vehicle in poorly ventilated or partially enclosed areas.
- Never run the vehicle outdoor where engine exhaust can be drawn into a building through openings such as windows and doors.

#### **Avoid Gasoline Fires and Other Hazards**

Gasoline is extremely flammable and highly explosive. Fuel vapors can spread and be ignited by a spark or flame many feet away from the engine. To reduce the risk of fire or explosion, follow these instructions:

- Use an approved gasoline tank to store fuel.
- Strictly adhere to proper fueling procedures.
- Never start or operate the engine if the fuel cap is not properly mounted. Gasoline is poisonous and can cause injury or death.
- · Never siphon gasoline by mouth.
- If you swallow gasoline, get any in your eye (s), or inhale gasoline vapor, see a doctor immediately.
- If gasoline spills on you, wash with soap and water and change your clothes.

#### **Fuel Minimum Octane Rating and Safety Warnings**

The recommended fuel for your vehicle is E5 or 95(RON). Non-oxygenated (ethanol-free) fuel is recommended for best performance in all conditions.

#### **∴WARNING**

Gasoline is highly flammable and explosive under certain conditions. Allow the engine and exhaust system to cool before filling the tank. Always be highly cautious whenever handling gasoline. Always refuel the vehicle when the engine is stopped outdoors or in a well-ventilated area. Do not smoke or allow open flames or sparks in or near the area where refueling is performed, or where gasoline is stored.

Do not overfill the tank. Do not fill fuel to the tank neck.

If gasoline spills on your skin or clothing, immediately wash it off with soap and water and change clothing. Never start the engine or let it run in an enclosed area. Engine exhaust fumes are poisonous and can cause loss of consciousness or death in a short time. The engine exhaust from this product contains chemicals known to cause cancer, birth defects or other reproductive harm. Operate this vehicle only outdoors or in well-ventilated areas.

#### **Avoid Burns From Hot Parts**

The exhaust system and engine become hot during operation. Avoid touching them during and shortly after operation to avoid burns.

## **Owner Responsibilities**

#### Be Qualified and Responsible

Read this Owner's Manual and the warning labels on this vehicle carefully. Take a safety training course on open areas if possible and practice at low speed. Higher speed requires greater experience, knowledge and suitable riding conditions. Be familiar with the control technology and the general operations of the vehicle.

This vehicle is an ADULT VEHICLE ONLY. The operator must acquire a driving license as required by local laws and regulations. Operators must be tall enough with physical capacity to: be properly seated, be able to firmly put both feet on the foot pegs, hold the handlebar with both hands, fully operate the clutch lever with the left hand, fully operate the brake lever with the right hand, when properly seated, be able to touch the ground with both feet.

#### Carrying a Passenger

# Pre-conditions: Do not carry the passenger if the vehicle is not equipped with the cushion and footrest.

- Only carry one passenger. The passenger must be properly seated in the passenger seat.
- The passenger should be over 12 and be tall enough to always be properly seated when holding handhold (If equipped), and feet firmly put on the foot pegs.
- Never carry a passenger who has used drugs or alcohol, or is tired or ill. These slow reaction time and impair judgment.
- Instruct the passenger to read the vehicle's safety labels.
- Never carry a passenger if you think that their ability or judgment is insufficient to concentrate on the terrain conditions and adapt accordingly.

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# Safe Riding Gear

Always wear clothing suited to the type of riding for the driver and passenger, includes:

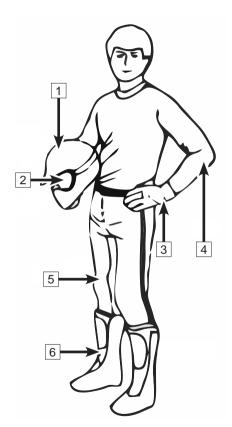
- 1. An approved helmet
- 2. Goggles
- 3. Gloves
- 4. Long-sleeved shirts or jackets
- 5. Long pants
- 6. Over-the-ankle boots

According to the actual weather, you may need extra apparel, such as anti-fog goggles, thermal underwear and a face guard for cold weather. The operator must never wear loose clothing that may get entangled in the vehicle or on tree branches and shrubs.

#### **Helmets and Goggles**

An approved helmet can prevent a serious head injury if an accident occurs. Please note that even the best helmet is no guarantee against injury.

The helmet you choose should meet the standard for your country or area and its size should suit you. A closed-face helmet with face shield will be better at preventing impacts from insects, flying rocks, dust and scattered debris, etc.



An open-face helmet can not offer the same protection for your face and jaw. Please wear detachable face masks and goggles when wearing an open-face helmet.

Do not depend on eyeglasses or sunglasses for enough eye protection, as they are not rated for impact protection. Debris may fly up and break a lens, causing eye injury, and cannot block the wind and airborne objects entering glasses.

Use tinted masks or goggles only during the day in bright light, do not use them at night or in poor light. They may affect your ability to distinguish colors. Do not use them if your color discrimination is affected.

#### **Gloves**

Full-finger gloves could protect your hands from wind, sun, heat, cold, and splash. Well-fitted gloves are helpful for steering and relieving hand fatigue. If the gloves are too heavy, it will be difficult to operate the vehicle.

A pair of strong motorcycle gloves offers protection for your hands in the event of an accident or turnover. Snowmobile gloves offer better protection when operating in cold areas.

#### Jackets, Pants and Motorcycle Suits

Wear a jacket or a long-sleeved shirt and long pants, or a full set of riding suit. Quality protective gear will provide comfort, and it can help you avoid being distracted by adverse environmental elements. In case of an accident, good quality protective gear made of sturdy material may prevent or reduce injury.

When riding in a cool weather, protect yourself against hypothermia which is a state of low body temperature and can cause loss of concentration, slowed reactions and loss of smooth, precise muscle movement. In cool conditions, proper protective gear like a windproof jacket and insulated layers of clothing are essential. Even while riding at moderate temperatures, you can feel very cold due to the wind. Protective gear that is appropriate for cold-weather riding may be too hot when the vehicle is stopped.

Dress in layers so that clothing can be removed as desired. Topping the protective gear with a windproof outer layer can prevent cold air from reaching the skin.

#### **Boots**

Always wear closed-toe, over-the-ankle boots. Sturdy over-the-ankle boots with non-slip soles offer more protection, and allow you to put your foot properly on the foot pegs. Avoid long shoelaces that could get entangled in the vehicle components. In winter, rubber-soled boots with either nylon or leather uppers and removable felt liners are best suited. Avoid rubber boots which may get trapped behind or in the foot brake pedal, impairing proper operation.

#### Other Riding Gear

#### Rain Gear

When riding in rainy weather, a rain suit or a waterproof riding suit is recommended. On long rides, it is a good idea to carry rain gear. Keeping clothes dry is beneficial for keeping operators being much more comfortable and alert.

#### **Hearing Protection**

Long-term exposure to wind and engine noise when riding can cause permanent hearing loss. Properly worn hearing protective gear such as earplugs can help prevent hearing loss. Check local laws before using any hearing protective gear.

## **AVOID DANGEROUS RIDING BEHAVIORS**

The following behaviors may cause serious consequences, so instructions must be followed to avoid dangerous behaviors.

### **Operation Errors**

# MARNING: Operation errors may cause serious damage to the operator, passenger and people around.

Read every instruction in this manual and be familiar with every function of this vehicle. Must participate in the safety training and know how to operate the vehicle properly in different situations and on different types of terrain. Do not carry the passenger if the vehicle is not equipped with the cushion and footrest.

#### **Age Limit**

# MARNING: It is restricted to allow underage people to ride the vehicle and people under 12 to be passengers.

Severe injury and/or death could occur if a child under the minimum age limit operates this vehicle. Even though a child may be within the recommended age group for operating, he/she may not have the skills, abilities, or judgment needed to operate safely and could be susceptible to accidents or injuries. The vehicle can only be operated by people of legal age with safe driving skills and the required license. Do not carry the passenger if the vehicle is not equipped with the cushion and footrest.

#### **Illegal Carrying**

## <u>MARNING: It is restricted to carry more passengers than allowed.</u>

Carrying more passengers than allowed is illegal and will much affect the vehicle's riding performance and may cause serious accidents.Do not carry the passenger if the vehicle is not equipped with the cushion and footrest.

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#### **Riding on Unpaved Roads**

## MARNING: The vehicle must not ride on unpaved roads.

The tires of this vehicle are designed to drive on paved roads, not suitable for use on unpaved roads such as sand, mud, puddles and dirt roads. Driving on unpaved roads will seriously affect vehicle handling, which will greatly increase the incidence of accidents. If it is impossible to avoid short periods of driving on unpaved roads, reduce your speed and ensure that you do not make sharp turns, sudden braking, etc.

## Safe Riding Gear

## MARNING: Riders must wear an approved helmet, goggles and protective clothing when riding.

Unapproved helmets increase the risk of head injury and death in the event of an accident. Failure to use goggles increases the risk of eye injury and death in the event of an accident. Always wear a whole set of gear to reduce accidents and increase your own protection.

#### **Drinking and Medication**

### MARNING: Do not operate a vehicle under the influence of alcohol, medication or drugs.

Drinking, taking medication and taking drugs will seriously affect drivers' judgment and reaction ability, as well as their perception and balance, which will greatly increase the incidence of accidents. Do not operate vehicles after drinking, taking medication or taking drugs.

#### Speeding

## MARNING: No speeding.

Speeding increases the risk of losing control of the vehicle, leading to accidents. Choose your driving speed based on vehicle load, terrain, visibility, driving conditions, and never exceed the maximum speed.

#### **Stunts**

## **<u>MARNING: Do not try stunts.</u>**

All stunts are dangerous, including but not limited to slippery tires, jumping, side-slip, front wheel upturn, etc. Stunt or demonstration riding can result in serious accidents. Always use normal driving methods.

#### **Inspections and Maintenance**

## MARNING: Check vehicle's conditions before riding and service the vehicle regularly.

Checking vehicle's conditions before driving can reduce the probability of accidents. Maintain the vehicle regularly to ensure the equipment is in good condition. Please follow the instructions for inspection and before driving and regular maintenance.

#### Lift Hands and Feet From the Vehicle

## <u>MARNING</u>: Do not lift your hands off the handlebars or your feet off the pedals when riding.

Even leaving with only one hand or foot can reduce your ability to control the vehicle or cause you to lose your balance and fall off from the vehicle. If the driver's feet are not firmly put on the pedal, they may be unable to operate the brake or accelerator in time or may be influenced by external environmental factors, resulting in an accident.

#### **Tire Size**

## MARNING: Do not use tires with wrong gauge, wrong tire pressure or uneven tire pressure.

Wrong tires may cause accidents. It is forbidden to use wrong tires. Check the tire pressure regularly to ensure that the tires are always within the normal pressure range.

#### **Modifications**

#### MARNING: Any non-standard modifications are prohibited.

Any modifications will affect vehicle handling, which can lead to accidents. It is prohibited to mount any equipment which would increase the speed or power of the vehicle, or to make any other modifications to the vehicle for these purposes. All equipment and accessories added to the vehicle must be original or designed for use on the vehicle.

## **Keys**

## MARNING: Do not leave keys on the vehicle. Lock the stem lock before leaving the vehicle.

Keys left on the vehicle may result in unauthorized use of the vehicle, causing an accident or property damage, so please take away the key when the vehicle is not in use.

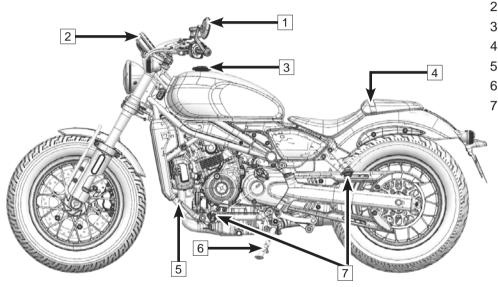
### **Dangerous Transportation**

### MARNING: Do not transport flammable, explosive or other dangerous goods.

Transportation of dangerous goods may cause serious injuries or accidents.

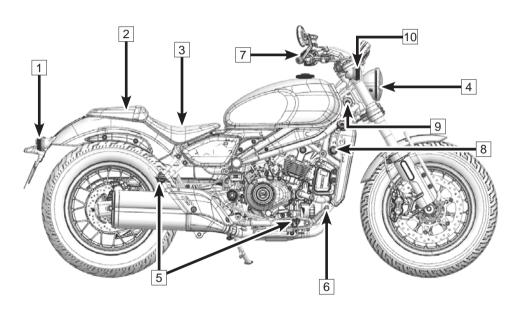
# **VEHICLE VIEW**

# **Left View (Two seats)**



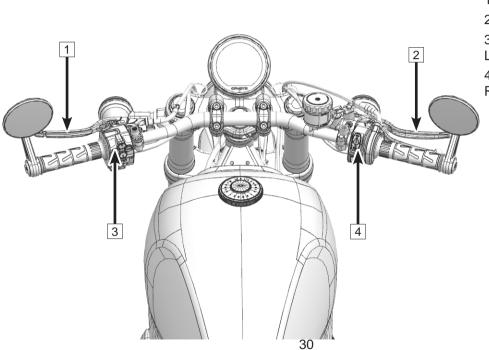
- 1: Rear View Mirror
- 2: Instrument
- 3: Fuel Tank Lock
- 4: Passenger Handhold
- 5: Gear Shift Lever
- 6: Side Stand
- 7: Footrest

# Right View (Two seats)



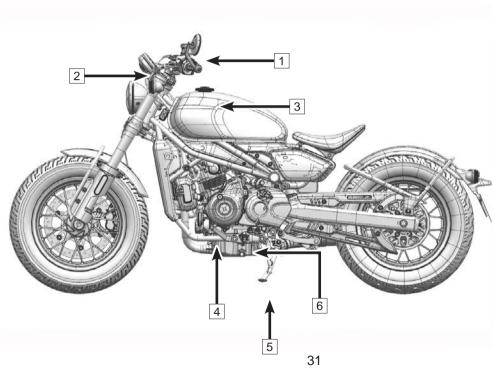
- 1: Rear Turning Light
- 2: Passenger Seat
- 3: Rider Seat
- 4: Headlight
- 5: Pedal
- 6: Rear Brake Pedal
- 7: Throttle
- 8: Ignition Switch Lock
- 9: Mechanical Stem Lock
- 10:Front Turning Light

# **Top View (Two seats)**



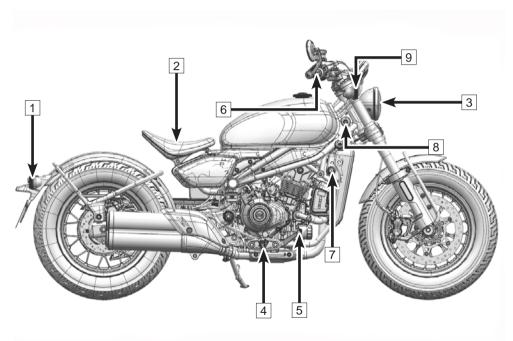
- 1: Clutch Handlebar
- 2: Front Brake Handlebar
- 3: Handlebar Switch, LH
- 4: Handlebar Switch, RH

# **Left View (Single seats)**



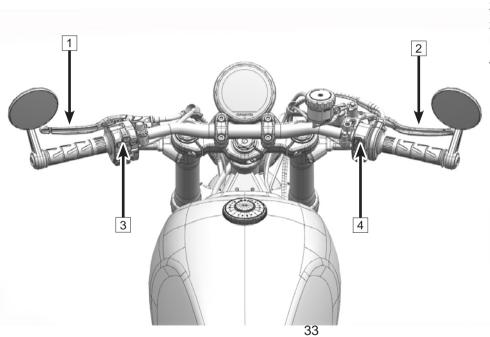
- 1: Rear View Mirror
- 2: Instrument
- 3: Fuel Tank Lock
- 4: Gear Shift Lever
- 5: Side Stand
- 6: Footrest

# Right View (Single seat)



- 1. Rear Turning Light
- 2. Rider Seat
- 3: Headlight
- 4: Pedal
- 5: Rear Brake Pedal
- 6: Throttle
- 7: Ignition Switch Lock
- 8: Mechanical Stem Lock
- 9. Front Turning Light

# Top View(Single seat)



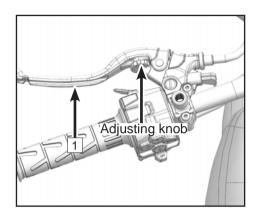
- 1: Clutch Handlebar
- 2:Front Brake Handlebar
- 3: Handlebar Switch, LH
- 4: Handlebar Switch, RH

#### **OPERATING PARTS**

#### **Clutch Lever**

Clutch lever 1 is on the left side of handlebar. The clutch is a cable clutch.

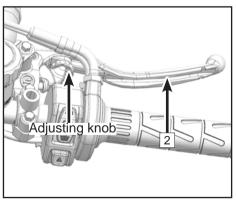
Adjust the clutch lever's distance to the handlebar by turning the clutch lever adjusting knob.



#### Front Hand Brake Lever

Front hand brake lever 2 is on the right side of handlebar. Front brake caliper activates braking by using the front hand brake lever.

Adjust the brake lever's distance to the handlebar by turning the brake lever adjusting knob.

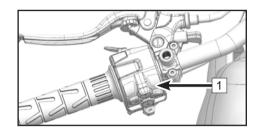


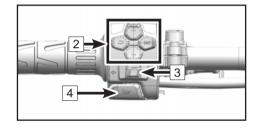
# Handlebar Switch, LH

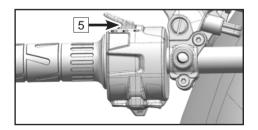
Left handlebar switch 1 is on the left side of the handlebar.

# **Functions of Left Handlebar Switch**

2	Instrument button	ı	Instrument operations are detailed in the instrument section of the manual.				
3	Turn light	4	Pushing this switch to the right activates the right turn light.				
	switch	$\Rightarrow$	Pushing this switch to the left activates the left turn light.				
4	Horn button	Press and the horn will sound.					
	Dimmer push switch	≣D	Turn to this position to activate passing lights.				
5		<b>≣</b> D	Turn to this position to activate low beam lights.				
		≣D	Turn to this position to activate high beam lights.				







# Handlebar Switch, RH

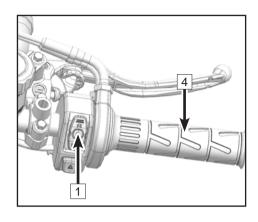
Right handlebar switch  $\boxed{1}$  is on the right side of the handlebar.

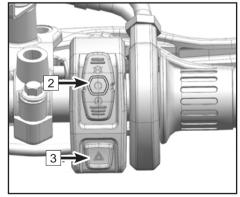
# **Functions of Right Handlebar Switch**

		X	Turn to this position to shut off the vehicle.		
2	Start and stop switches	C	Turn to this position to prepare the vehicle for starting.		
		(3)	Turn to this position to start the vehicle.		
3	Hazard flasher switch		Press to turn on the hazard flasher light.		

# **Throttle Grip**

Throttle grip 4 is on the right side of the handlebar.

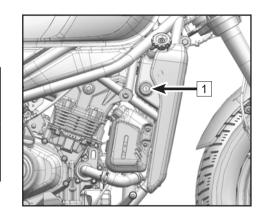




# Locks

# Ignition Switch 1

Stop	×	Turn the key to this position to stop the engine and disconnect the vehicle power circuits.				
Start	$\bigcirc$	Turn the key to this position to start the engine and connect the vehicle's power circuits.				

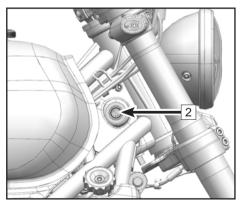


# Mechanical Stem Lock 2

1	Handlebar	Turn the handlebar to the left end, turn the key
		to this position and lock the handlebar.

# **ACAUTION**

After inserting the key to the stem lock, avoid damage to the key do not turn the handlebar to the right.



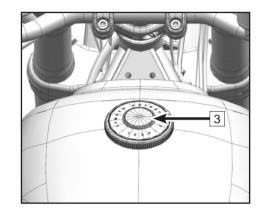
## Fuel Tank Lock 3

Before opening the fuel tank lock: Stop the vehicle and turn off the engine.

Pivot the gas tank lock cover to the right;

Insert and turn the key to release the lock.

Rotate the fuel tank cap and take it.



### **Gear Shift Lever**

The gear shift lever 1 is on the left side of the engine.

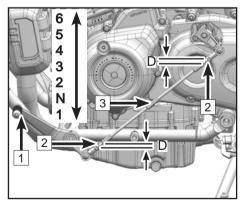
Both ends of the middle connecting rod are adjustable, and the adjusting range (D):  $0.19 \sim 0.43$  in  $(5mm\sim11mm)$ .

Loosen the locking nuts 2 at both ends.

Rotate the middle connecting rod 3 to adjust the height of the shift lever.

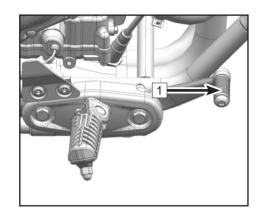
Relock the nuts.

Torque: 4.4 ft-lb (6 N•m)



## **Rear Brake Lever**

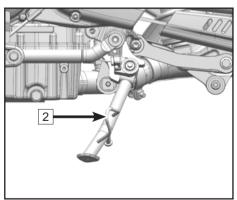
The rear brake lever 1 is on the right side of the engine. Rear brake caliper activates braking by stepping on the rear brake lever.



## Side Stand

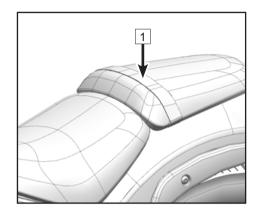
The side stand 2 is on the left side of the vehicle, and is used for parking.

When the side stand is lowered, the vehicle can only be started with the transmission in neutral.



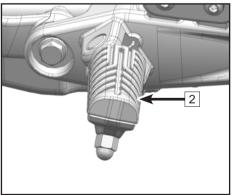
# **Concealed passenger Handhold (Two seats)**

A concealed passenger handhold 1 is mounted on the motorcycle and can be held by a passenger, including belt device, handlebar device, etc.



### **Footrests**

Footrests 2 are mounted on the motorcycle for the operator and a passenger. (The two-seats version includes four footrest devices, the single- seat version includes two footrest devices)



# **INSTRUMENT**

### **NOTE**

Due to function, adjustment, and version updates of the instrument and renewed vehicle configurations by market, some contents of the instrument may change. Please selectively refer to this section according to your vehicle.

#### Instrument

The instrument is mounted at the front side of the handlebar



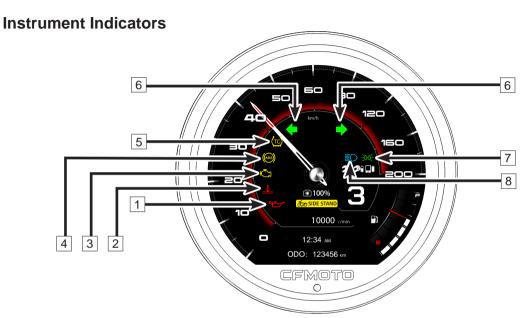
# **Activation and Testing**

#### Activation

The instrument is activated synchronously when the motorcycle is powered on.

### **Testing**

Upon activation, the instrument goes into self-inspection mode, in which a start-up animation displays and indicator lights are turned on. At this time, the selection button will not respond until the self-inspection has completed.



1	Oil pressure warning indicator	4	ABS fault indicator	7	Position light indicator
2	Coolant temperature warning indicator		TCS indicator (If equipped)	8	High beam light indicator
3	EFI fault indicator	6	Turning light indicator		

Number	Symbol		State		
1	4	Flash	When the oil pressure indicator is on, the engine oil level should be inspected immediately, or the oil replenished in time to avoid engine damage or fault.		
2	2 See On		When the coolant temperature is higher than 115°C, the coolant temperature warning indicator will be turned on. Please park the vehicle according to local laws and regulations to wait for the temperature drop. If this indicator turns on frequently, contact an authorized CFMOTO service center.		
3	3 On On On		is on. If the engine is not off but the fault indic means that the vehicle detects a fault in its ci shown in the Instrument Indicators area. Whon, please park the vehicle in line with local later.		When the vehicle is powered on and the engine is off, the fault indicator is on. If the engine is not off but the fault indicator is also on, then this means that the vehicle detects a fault in its circuit and the fault will be shown in the Instrument Indicators area. When this fault indicator is on, please park the vehicle in line with local laws and regulations, and contact an authorized CFMOTO service center.
4			If ABS system works normally, it will be on when the vehicle state or low-speed riding, which is a normal phenomenon.  ABS fault ABS indicator will be on, and at this time, the ABS indicator will be on, and at this time, the ABS indicator will be on and at this time.		

5	TC	On	(If equipped) When the vehicle occurs a TCS fault or the TCS indicator is on. when its function is off. The TCS function takes part in, the indicator is on.
6	6 Flash		When turning signal indicators are flashing, the corresponding turning lights are on.
7	-00-	On	When the position light indicator is on, the position light is turned on.
8		On	When the high beam indicator is on, the high beam light is turned on.

# **Instrument Display**

# **Optional Info**

You can select a message from the menu to be displayed here.

ODO, Total average riding speed, Average fuel consumption, Total riding time, TRIP1, TRIP 1 average speed, TRIP 1 average fuel consumption, TRIP 1 riding time, TRIP 2, TRIP 2 average speed, TRIP 2 average fuel consumption, TRIP 2 riding time. Instant fuel consumption, voltage, endurance mileage.

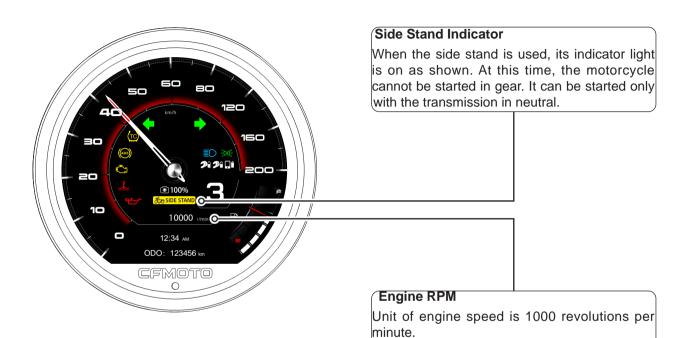


### Clock

Current time is displayed here.

Set the current time through the menu.

Switch between a 12-hour and 24-hour clock through the menu.



During the break-in period, avoid high engine RPMs. Avoid engine speeds approaching the limits at all times as much as possible, which will increase engine life. Also avoid high engine

speeds until the engine has heated up.

# **Sports Camera**

This feature records riding moments. It can be used only when equipped with T-BOX, and it is only for Insta x3 (launch permission selectively). Users can pay the fee via the CFMOTO RIDE APP(monthly/half-yearly/yearly).

Make sure the vehicle is connected to the camera effectively via Bluetooth.

### Main functions:

- 1. Start shooting: When the sporting camera is connected to the vehicle, long press the switch button  $\nabla$  on the LH handlebar for > 1 second, which can help to realize the pre-set function of recording/shooting.
- 2. Stop shooting: When the camera is shooting, to long press the switch button  $\nabla$  on the LH handlebar for >1 second, which could stop the shooting.



- 3. Connection: When the equipment is connected, the UI interface will display the connecting conditions and remaining power of the sporting camera.
- 4. Shooting state display: The camera icon on the dashboard will turn red with a breathing blinking effect, to remind the users of the changes in the shooting condition.
- 5. Delivery of vehicle information: riding information (speed, gear, RPM, vehicle body tilt tendency, riding track, etc.) can be transmitted via Bluetooth. When editing the video, a CFMOTO module is available.

## **Speed**

Current speed is displayed here.

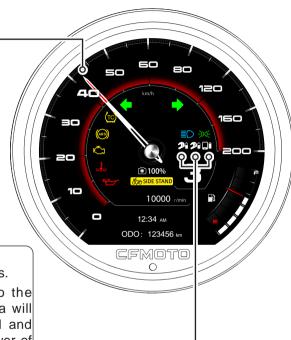
Metric km/h and imperial mph can be switched through the menu.

# Bluetooth

Bluetooth is used to connect mobile phones and helmets.

When your mobile phone/helmet is connected to the motorcycle's instrument through Bluetooth, the area will display the Mobile phone logo, helmet logo (helmet1 and helmet 2) the device condition and the remaining power of the phone.

Functions of navigation, music and calling can only be used when the phone is properly connected to the motorcycle.



# **Gear Display**

Current gear is displayed here.

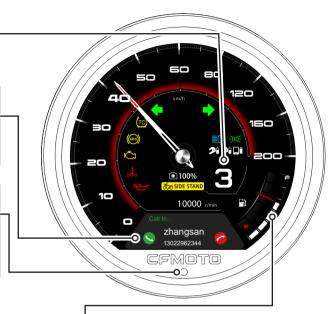
The neutral gear is green.

### Caller Identification

When the instrument is connected to the phone through Bluetooth and receives a call, the incoming call will be displayed in this area. Press the ENT button on the left handlebar to pick up the phone, and press the button on the left handlebar to hang up the phone.

### Photosensitive Sensor

When the instrument is set to the automatic brightness, the photosensitive sensor can automatically adjust the instrument brightness according to the external lightness.



### Remaining Fuel

Remaining fuel is displayed with white progress bars, more bars lit up, more remaining fuel, the remaining fuel progress bar is 0, the fuel warning indicator flashing.

When remaining fuel is low, please replenish the fuel as soon as possible. Insufficient fuel may cause damage to the fuel pump.

### **Instrument Menu**

Adjust instrument settings through the instrument menu to enhance the riding experience.

Press menu button on the left handlebar switch to enter the instrument menu.

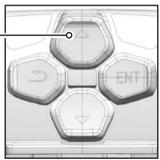
### **↑** WARNING

The menu mode is only allowed when the motorcycle is parked and safe.

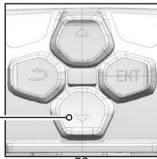
The menu button is on the left handlebar switch and is used to operate relevant functions of the instrument.



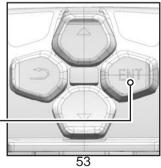
	Button action	Main interface	Main interface Call Information	Main Interface Music Information	Menu Interface	Navigation/ Projection	Menu Music Interface	Fault pop up
ſ	Press button up	Switch optional information display	Volume +	Volume +	Switch up	Invalid	Volume +	/
	Long press button up	Clear Trip	/	Last song(Optional information remains unchanged by default)	Invalid	Invalid	Last song(Optional information remains unchanged by default	/



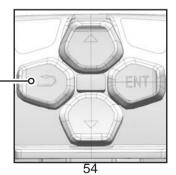
	Button action	Main interface	Main interface Call Information	Main Interface Music Information	Menu Interface	Navigation/ Projection	Menu Music Interface	Fault pop up
ſ	Press button down	Switch optional information display	Volume -	Volume -	Switch down	Invalid	Volume -	/
	Long press	/	/	Next song(Optional information remains unchanged by default)	Invalid	Invalid	Next song(Optional information remains unchanged by default)	/



Button action	Main interface	Main interface Call Information	Main Interface Music Information	Menu Interface	Navigation /Projection	Menu Music Interface	Fault pop up
	Enter the last log out option	COMING THE	Enter to the next level menu	Enter to the next level menu/ switch setting(This parameter is valid when the setting item contains a switch icon)	Invalid	Pause/ Play	/
Long press the confirm button		Invalid	Pause/Play	Invalid	Invalid	Invalid	/



Button action	Main interface	Main interface Call Information	Main Interface Music Information	Menu Interface	Navigation/ Projection	Menu Music Interface	Fault pop up
Press the return button	Invalid(If there is a fault popup, you can block the current fault popup)	higher than	Invalid	Return to last level menu/main interface	Return to last level menu	Return to last level menu	Block the current fault pop-up display and switch to the next fault pop- up display
Long press the return button	Invalid	Invalid	Invalid	Invalid	/	Invalid	/



## **Instrument Settings**

In the instrument settings, riders can adjust and set the following contents:

TCS (traction control system) (If equipped)

Overspeed Alarm

Units

**Equipment Connection** 

Optional Info

**Brightness Control** 

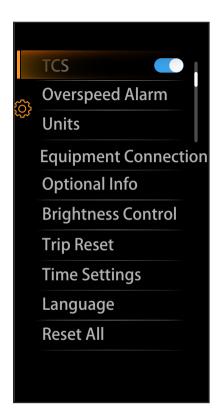
Trip Reset

Time Settings

Language

Reset All

Set (menu) all the submenus over 30 seconds will automatically return to the main interface.



## **Traction Control System (If Equipped)**

Traction Control System helps the vehicle get the best traction possible for the riding conditions.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Traction Control System, and press ENT to turn on or turn off the function.

When enabled, the Traction Control System can limit rear wheel power and reduce the risk of sideslips.

Under certain circumstances (mud, sand, snow or similar conditions), the Traction Control System should be temporarily disabled to restore power to the rear wheel. When conditions improve, the Traction Control System should be enabled again.





### **Overspeed Alarm**

Overspeed Alarm alerts you to speeding when your vehicle's actual speed exceeds the speed you set. Riders should not exceed the speed limit of a road at any time.

### **⚠ DANGER**

Speeding increases the risk of losing control of the vehicle, thus leading to accidents. Choose your riding speed based on vehicle load, terrain, visibility, riding conditions, and local laws and regulations, and never exceed the maximum speed.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\nabla$  to select **Overspeed Alarm**, and press ENT to enter.

Press ENT to turn on or turn off the alarm function.

The alarmed speed can be set after turning on the **Overspeed Alarm**.

Press  $\triangle$  or  $\nabla$  to adjust the alarmed speed (1km/h per gear).

Press \_\_\_\_ to return to the previous interface.





#### Units

Change units of speed, time and temperature to suit your preference.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\nabla$  to select **Units**, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select the unit you need to switch (**Speed/Time Format /Temperature**), and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select the unit, and press ENT to confirm your selection.





#### Connection

Navigation, telephone calls and music functions can be used after the helmet is connected to the instrument via Bluetooth.

Follow these steps to connect your phone Bluetooth:

Ensure that the Bluetooth of the mobile phone to be connected is turned on.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\triangledown$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\nabla$  to select **Connection**, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select **Mobile Device**, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select Bluetooth ID, and press ENT to connect.

The instrument will automatically search the available Bluetooth device If the mobile phone was connected, press  $\triangle$  or  $\nabla$  to select the **Bluetooth ID**, press ENT to connect it.

Your phone will pop up a window to connect it, press to confirm your selection. "Connected" will pop up if the connection is succeed.

If the mobile phone was connected, press  $\triangle$  or  $\nabla$  to select the **Mobile Device**, press ENT to enter the interface, and choose the correct Bluetooth ID to connect.

Follow these steps to connect the helmet Bluetooth:

Press  $\triangle$  or  $\nabla$  to select Equipment Connection, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select **Helmet 1** or **Helmet 2**, and press ENT to connect.

Ensure that the Bluetooth of the helmet to be connected is turned on.





### **Optional Info**

You can select one message from Optional Info 1 and Optional Info 2 to display on the main interface.

Press ENT to enter the Menu interface.

Press  $\, \triangle \,$  or  $\, \, \nabla$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\triangledown$  to select Optional Info, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select the information you want to display on the main interface, and press ENT to confirm your selection.

Optional Info: ODO, total average riding speed, total average fuel consumption, total riding time, TRIP1, TRIP1 average speed, TRIP1 average riding time, TRIP2, TRIP2 average speed, TRIP2 average fuel consumption, TRIP2 riding time. Instant fuel consumption, voltage, endurance mileage.





### **Brightness Control**

You can manually adjust the brightness of the instrument, or the instrument automatically adjusts its brightness according to the ambient light.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\nabla$  to select **Brightness**, and press ENT to enter.

Press ENT to turn on or turn off automatic brightness adjustment.

After turning off the automatic brightness adjustment, the brightness can be adjusted manually.

Press  $\triangle$  or  $\nabla$  to adjust the brightness, adjust to the wanted brightness, press to return to the previous interface.





### **Trip Reset**

You can reset trip data manually, and clear the related data at same time.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\triangledown$  to select TRIP Reset, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to reset **TRIP 1 or TRIP 2**, and press ENT to reset.

Press  $\triangle$  or  $\nabla$  to select NO/YES, press ENT to confirm reset.





## **Time Settings**

You can adjust the time displayed on the main interface.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\nabla$  to select **Time Settings** and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select **Hours or Minutes** (when the 12-hour clock is set), and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to adjust **Hours or Minutes**, and press ENT to confirm your selection.





## Language

You can adjust the instrument's language, switch between Chinese and English to suit your preference.

Press ENT to enter the Menu interface.

Press  $\, \triangle \,$  or  $\, \, \nabla$  to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\nabla$  to select **Language**, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select **Chinese**, **English** or **Espanol**, and press ENT to confirm.





#### Reset All

You can reset all instrument settings to factory defaults.

**NOTE:** This function does not reset ODO or related functions.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  key to select Settings, and press ENT to enter the Settings interface.

Press  $\triangle$  or  $\nabla$  to reset settings to their factory state, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select **no/yes**, and press ENT to confirm your selection.

**NOTE:** This function does not reset ODO or related functions.





### **Vehicle Information**

In the Vehicle Information menu, users can inspect the following contents.

Information

Miles Info

Warning

Service

Version





#### Information

On the Information interface, you can view the coolant temperature, battery voltage and endurance mileage.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select the Vehicle Information, and press ENT to enter the Vehicle Information interface.

Press  $\triangle$  or  $\nabla$  to select **Information**, and press ENT to enter.





#### Miles Info

ODO, TRIP 1, TRIP 2, average speed, fuel consumption, driving time can be inspected here.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select the Vehicle Information, and press ENT to enter the Vehicle Information interface.

Press  $\triangle$  or  $\nabla$  to select **Miles Info**, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to switch ODO-related information or TRIP 1- and TRIP 2 -related information.





## Warning

On the Warning interface, you can view faults or warnings when the vehicle system detects a fault. When a fault occurs, please remove it as soon as possible, and contact an authorized CFMOTO service center if necessary.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select the Vehicle Information, and press ENT to enter the Vehicle Information interface.

Press  $\triangle$  or  $\nabla$  to select **Warning**, and press ENT to enter.





#### Service

On the Service interface, you can view the service information of the vehicle. When the service mileage is reached, the vehicle will remind you to carry out service.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Vehicle Information, and press ENT to enter the Vehicle Information interface.

Press  $\triangle$  or  $\nabla$  to select **Service**, and press ENT to enter.

#### **Reset Service Reminder**

On the Service interface, press  $\triangle$  and ENT for 10 seconds at same time, and then a notice for confirmation will pop up.

Confirm your choice and the reset will be finished.





#### **Version**

Software and hardware versions of the instrument are displayed here.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Vehicle Information, and press ENT to enter the Vehicle Information interface.

Press  $\triangle$  or  $\nabla$  to select **Version**, and press ENT to enter.





### **Telephone**

On the Telephone interface, you can check the following contents:

Recent calls

Contacts

**NOTE:** Before using the telephone, the equipment must be correctly connected, and the phone helmet should be connected to the instrument.





#### **Recent Calls**

Ensure your phone is Bluetooth connected to your vehicle.

On the Recent Calls interface, you can view recent calls recorded by the mobile phone and dial the numbers.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Telephone, and press ENT to enter the Telephone interface.

Press  $\triangle$  or  $\nabla$  to select **Recent Calls**, and press ENT to enter.

Press  $\triangle$  or  $\nabla$  to select the number in the latest calls, and press ENT to dial the number.





#### **Contacts**

Ensure your phone is Bluetooth connected to your vehicle.

On the Contacts interface, you can view the contacts recorded by the mobile phone and dial the numbers.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Telephone, and press ENT to enter the Telephone interface.

Press  $\triangle$  or  $\nabla$  to select **Contacts**, and press ENT to enter.

Press  $\triangle$  or  $\triangledown$  to select the number, and press ENT to dial the number.





# Telephone Interconnect (If equipped-available only in select countries)

The Telephone Interconnect interface allows you to use the projection screen function after it is connected.

The vehicle owner has two options through the CFMOTO RIDE app to achieve this function:

- 1. The Easy Connection
- 2. Scan the QR Code

#### Option 1:

The vehicle owner opens the CFMOTO RIDE app and selects the Easy Connection to enter the projection interface.

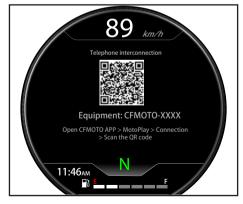
#### Option 2:

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Telephone Interconnect, and press ENT to enter.

The vehicle owner opens the CFMOTO RIDE app and selects Scan the QR Code to enter the projection interface.





In the interconnected condition, navigation data can be projected to the Telephone Interconnect interface.

When in the projection interface, press 'return' to return to the navigation map. Without input, it will automatically return to the main interface after 30 seconds. Press 'return' again to return to the menu. Conversely, press ENT twice to return to the projection interface.

When users close the CFMOTO RIDE app or the Internet is disconnected, the interface on the instrument will return to the main interface.

#### Music

Ensure your phone is Bluetooth connected to your vehicle.

Ensure your helmet is Bluetooth connected to your vehicle.

On the Music interface, you can play songs on the phone through Bluetooth, and through the instrument you can switch songs, pause music, adjust volume and use other functions.

Press ENT to enter the Menu interface.

Press  $\triangle$  or  $\nabla$  to select Music, and press ENT to enter the Music interface.

Play songs on your phone.





### **OPERATING YOUR VEHICLE**

#### **Break-In Period**

The break-in period for this vehicle is the first 600 miles (1000 km). Maintain the vehicle according to the break-in period requirements.

The following items should be observed during the break-in period:

- 1. Do not run high engine speeds immediately after the engine starts. Allow the engine to warm for  $2 \sim 3$  minutes at idle speed and let oil flow into all engine lubricating parts.
- 2. Do not run the engine at high RPM when the transmission is in neutral.
- 3. During the break-in period, CFMOTO suggests the top engine speeds as below:

Odometer	Maximum Engine RPM
0 km ~ 500 km	4000 r/min
500 km ~ 1000 km	6000 r/min

#### **ADANGER**

New tires can be slippery. Unsafe riders may lose control and cause damage. Tire pressures should be at the specified value during the break-in period. Avoid sudden, maximum braking/acceleration and hard cornering during the break-in period.

# **Daily Safety Inspection**

Inspecting the following items before daily riding will help keep your vehicle safe and reliable. If anything abnormal appears, please refer to the Maintenance and Adjustment section or contact your dealer. Do not operate the vehicle in an abnormal condition, as it may lead to serious damage or accidents.

Item	Content
Engine oil	Inspect the oil level to see whether it is proper.
Rear brake fluid reservoir	Inspect the rear brake fluid level to see whether it is proper.
Rear wheel	Inspect the rear wheel and tire for excessive wear, cracks, aging or cuts, embedded items or other damage. Inspect the rear tire pressure to see whether rear tire pressure is within the standard range.
Rear brake	Inspect the thickness of rear brake pad. Inspect thickness of rear brake disc and inspect for any dirt or damage.
Drive belt	Inspect the belt transmission system work normality, for any cuts, cracks, embedded items and other abnormality.
Front wheel	Inspect the front wheel and tire for excessive wear, cracks or cuts, embedded items or other damage. Inspect the front tire pressure to see whether is within the standard range.
Front brake	Inspect the thickness of front brake pad. Inspect thickness of front brake disc and inspect for any dirt or damage.
Front brake fluid reservoir	Inspect the front brake fluid level to see whether it is proper.

Luggage	Inspect the luggage to see whether it is fastened securely, and make sure the
""	, ,
(If equipped)	luggage height is in line with local regulations.
Coolant	Inspect the coolant level to see whether it is proper.
Instrument	Inspect the instrument's fault indicators and inspect the fuel to see whether the fuel is enough.
Rear view mirrors	Inspect the rear view mirrors to see whether they are in an appropriate view angle.
Lights	Inspect all the lights to see whether they all work well and whether the beam height
Ligitio	for front lights meets the local regulations.
Operating parts	Inspect the steering, front and rear brakes, throttle and switches to see whether they
Operating parts	can be operated smoothly.
Side stand	Inspect the return spring of the side stand for any looseness or damage.
Stop switch	Inspect the stop switch to see whether it works properly.

### **⚠DANGER**

Inspect the vehicle every time before riding.

The operator must have the appropriate license to ride the vehicle.

Learn the local regulations, and do not ride the vehicle in the areas where motorcycles are not allowed.

Do not start the vehicle in a closed area or an area without good ventilation. The exhaust generated during engine operation may cause people to lose consciousness or even cause deaths.

### **Starting**

Sit on the vehicle supported with the side stand up.

Turn on the ignition switch.

Place the gear in Neutral.

Turn the stop switch to position "(3)".

#### **ACAUTION**

Running an engine at high RPMs in low temperatures will impact the lifespan of the engine. Always warm the engine at a low speed.

Do not start the vehicle with the start switch until the instrument self-inspection has completed.

The vehicle is equipped with a clutch switch. If you pull the clutch lever and shift into a forward gear with the side stand up, the vehicle can be started.

The vehicle is equipped with a side stand switch. When the transmission is in neutral and the side stand is up, the vehicle can be started.

If you shift into a gear with the side stand down, the engine will turn off.

Do not press the start switch for more than 5 seconds. Please wait for more than 15 seconds to press the start switch again, or it will cause the battery to discharge.

It is recommended that the vehicle should not idle for a long time. Idling for 30 minutes or more will cause the battery temperature to be too high, which affects battery life.

### **Starting Off**

Grip the clutch lever, put the vehicle into gear 1, then slowly release the clutch lever while at the same time gently applying the throttle.

### Shifting, Riding

Grip the clutch lever and release the throttle.

Shift the gearshift lever upward for higher gears as required.

Release the clutch lever and slowly apply the throttle at the same time to complete the gear shift.

Hold the handlebar at all times with both hands when driving with the throttle open.

#### **↑** WARNING

Avoid any abrupt load alterations or strong brake operation, which can cause loss of control.

Adjust your speed according to road conditions and the situation around you.

When the engine RPM is high, do not shift into lower gears. Release the throttle first to reduce the engine speed.

All adjustments for vehicle operation should be made when the vehicle is parked.

If your vehicle is equipped with the seat and rear foot pedal. The passenger must be seated properly on the passenger seat with feet on the rear foot pedals, wearing a helmet and with other safety protection, and holding onto the operator or grabbing the handle(If equipped).

Comply with local traffic regulations for minimum passenger age. Do not carry passenger if your vehicle is not equipped with the seat and rear foot pedal.

Comply with all local traffic regulations, and ride defensively and cautiously to detect danger as early as possible.

When the tires are cold, their road grip performance is reduced. Driving carefully in the first few kilometers and riding the vehicle with a moderate speed. Be cautious and ride at a safe speed until the tires reach operating temperature.

Do not exceed the maximum full load, which includes the motorcycle, driver, passenger (single-seat version is not allowed carry passenger) and luggage.

#### **<b>∴WARNING**

Luggage sliding will affect riding performance, so inspect luggage to confirm it is properly secured on the vehicle and to ensure that its width does not exceed 0.15m from the handlebar on either the left or right side.

In the event of an accident, the damage from crashing could be more serious than it looks. Inspect the vehicle completely to make sure it is safe, or take the vehicle to a CFMOTO dealer for inspection.

Improper gear shifting may lead to damage of the gear box.

Apply the throttle according to the road conditions and climate. Do not shift gears or aggressively rotate the throttle during turns.

Apply the throttle according to the road conditions and climate. Do not shift gears or aggressively rotate the throttle during turns.

### **Brake**

Release the throttle when applying the brake, and use front and rear wheel brakes for braking at the same time.

Finish braking before turning, and shift to a lower gear according to the speed required.

On a long downhill ride, please leverage the brake force of the engine and shift to lower gears, but do not allow the engine to operate with high RPM. When using engine's brake force, it helps to reduce the braking force required of the brake system, and the brake will not be overheated.

#### **↑** WARNING

Moisture and dirt will impair the brake system. Brake carefully several times to dry out moisture and remove dirt from the brake pads and discs.

If the hand brake lever and foot brake lever feel soft, stop riding until the brake system is fully inspected and the problems are eliminated.

Take your foot off the foot brake lever when you are not braking. Extended braking will cause the brake pads to overheat and excessively wear, which will affect their service life and safety.

When carrying a passenger(Do not carry passenger if your vehicle is not equipped with the passenger sea and rear foot pedal) or luggage, the required braking distance to stop will increase. Please adjust your brake time according to the vehicle load.

When ABS is enabled, you can achieve maximum braking power - even on low-grip surfaces such as sandy, wet or slippery roads - without locking the wheels.

### **Parking**

Stop the vehicle with brake.

Shift the gear to Neutral.

Turn off the ignition switch.

Park the vehicle on a firm, level ground.

Use a side stand to support the vehicle.

Turn the handlebar left to the maximum, and lock the steering with the key.

Remove and take away the key.

#### **↑** WARNING

When the engine is running, do not leave the vehicle unattended.

Secure the vehicle against use by unauthorized people.

Lock the steering when leaving the vehicle unattended.

After using the vehicle, the temperature of some parts will be very high. Do not touch parts such as the exhaust system, cooling system, engine, or brake system.

Do not park the vehicle near materials that are highly flammable or explosive. High temperature parts may ignite those materials.

Improper parking may cause the vehicle to slip and roll over, which will lead to severe damages.

### SAFETY OPERATION

### Safe Riding Tips

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

For safety, goggles and a helmet are strongly recommended. You must be aware of traffic regulations for the safe riding. Safe riding gear such as gloves and suitable footwear should also be used for protection.

Wear protective apparel when riding in case of any collision with other vehicles. Without protective apparel, no safety can be ensured. Before changing lanes, look over your shoulder to make sure the way is safe. Do not rely solely on the rear view mirrors. You must judge distance and speed of other cycles, or accidents may occur.

When climbing up steep slopes, shift to a lower gear to increase the motor's torque output, thus avoiding overloading.

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

When going down long downhill slopes, control vehicle speed by releasing 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 the rear wheel during rapid acceleration or deceleration.

Riding at the proper speed and avoiding unnecessary acceleration are important not only for safety and low fuel consumption, but also for longer 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 and flexible under these conditions. Sudden acceleration, braking or turning may cause loss of control.

Practice your operating skills cautiously and slowly in an open area and hold the fuel tank with the knees for better stability. When there is a quick acceleration, shift to a lower gear to obtain the necessary power. Do not downshift at high RPM to avoid damage to the engine.

Avoid unnecessary use of fabric tape which may entangle the rider or motorcycle.

### **Additional Cautions for High Speed Operation**

Brakes: Braking is very important, especially during high speed riding and the braking force cannot be too large. Inspect and adjust the brakes to get better performance.

Handling: Looseness of the handling parts may cause loss of control. Inspect the steering to see whether it can turn freely without shaking.

Tires: High speed operation requires the tires to be in good condition. Good-condition tires are crucial for safe riding. Inspect their pressure and the wheel balance.

Fuel: Ensure that there is enough fuel and a smooth supply of fuel for high speed operation.

Oil: To avoid engine failures which could result in loss of control, make sure the oil level is maintained between the upper and lower level lines, try to keep it in the middle level line.

Coolant: To avoid overheating, check and make sure that the coolant level is between the two level lines.

Electrical Equipment: Make sure that the headlights, tail/brake light, turn signals, horn, etc. Work properly. Fasteners: Make sure that all nuts and bolts are tight and that all safety-related parts are in good condition.

# **↑** DANGER

Do not speed on expressways. Obey the relevant laws and regulations. Motorcycles may be banned on expressways in some markets unless they are approved by traffic authorities and operators have the appropriate skills and protection.

### **MAINTENANCE**

Careful and periodic maintenance will help keep your vehicle in the safest, most reliable condition. Inspection, adjustment, and lubrication of important components are explained in the Periodic Maintenance Chart.

Inspect, clean, lubricate, adjust, and replace parts as necessary. When inspection reveals the need for replacement of certain parts, always use original parts from your dealer.

#### **♠NOTE**

Periodic maintenance and adjustments are critical. If you are not familiar with maintenance procedures, have a qualified dealer do that for you.

Pay special attention to the oil level during cold weather operation. A rise in oil level can indicate that there are contaminants collecting in the oil sump or crankcase. Change oil immediately if the oil level begins to rise. Monitor the oil level, and if it continues to rise, stop using the vehicle and inspect for reasons or see your dealer.

# **Improper Use**

CFMOTO defines improper use of the vehicle as:

- Often immersed in mud, watery or sandy places.
- Racing or race-style use of high RPM.
- · Running at low speed for a long time, and carry heavy load.
- Idle the engine for a long time.
- Short-distance operation in a cold weather.
- · For commercial use.

If this vehicle is used in a way that matches any of these definitions, decrease the maintenance intervals by 50%.

### **Key Points of Lubrication Schedule**

Check all components at the intervals outlined in the Periodic Maintenance Chart. Items not listed in the schedule should be lubricated at the general lubrication interval.

- Change lubricants more often under severe conditions, such as being used in wet or dusty conditions.
- Lubricate before long periods of storage, after pressure washing, or after submerging drive system.

Item Specifications		Method
Engine oil	SAE 10W-40 SJ and above JASO MA2	Inspect the oil level from the oil view window.
Brake fluid	DOT4	Keep the level between upper and lower lines.

### **Break-In Maintenance Chart**

Item	Break-In Maintenance Interval (Service whichever interval comes first)					
	Calendar	Miles	Km	Notes		
Engine						
Oil and oil filter	-	600	1000	Replace		
■ Coarse oil filter	-	600	1000	Clean		
Idle	-	600	1000			
■ Coolant	-	600	1000	Inspect		
Throttle system	-	600	1000			
Electrical system						
■ Functions of electrical parts	-	600	1000			
Battery	-	600	1000	Inspect		
Fuses or circuit breakers	-	600	1000			
Brake						
Brake discs	-	600	1000			
Brake pads	-	600	1000	Inspect		
Brake fluid level	-	600	1000			
■ Brake hoses	-	600	1000	Inspect brake hoses for damage and to see whether they are sealed.		
Brake lever	-	600	1000	Inspect free play.		

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

Item	Break-In Maintenance Interval (Service whichever interval comes first)			
	Calendar	Miles	Km	Notes
Wheels				
Tire condition	-	600	1000	Inchect
Tire pressure	-	600	1000	Inspect
Suspension				
Rear and front shock absorbers	-	600	1000	Inspect for oil leakage(maintain front forks and the rear shock absorber according to the requirement and purpose).
Cooling system				
Coolant level	-	600	1000	
Coolant	-	600	1000	Inspect
■ Radiator fan function	-	600	1000	
Coolant hoses	-	600	1000	
Steering system				
■ Steering bearings	-	600	1000	Inspect

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

	Item		Break-In Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Notes	
Drive	belt					
	Drive belt	-	600	1000	Inspect	
	Inspect drive belt, driven pulley, and engine output pulley for wearness	-	600	1000	Inspect.	
Othe	r parts		,			
	Fault control memory	-	600	1000	Read with PDA.	
-	Movable parts	-	600	1000	Lubricate, and inspect their flexibility.	
	Bolts and nuts	-	600	1000	Inspect their firmness.	
	Cables	-	600	1000	Inspect them for damage, bending and inspect their setting.	

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

### **Periodic Maintenance Chart**

Item		Periodic Maintenance Interval (Service whichever interval comes first)						
	Calendar	endar Miles Km Note		Notes				
Engine								
Oil and oil filter	6M	3000	5000	Replace				
Coarse oil filter	6M	3000	5000	Clean				
Clutch	-	3000	5000	Inspect and repair or replace if necessary.				
Idle	-	3000	5000	Inspect and adjust if necessary.				
■ Coolant	24M	21000	35000	Replace				
Throttle	-	3000	5000	Inspect and adjust if necessary.				
■ Throttle body	-	3000	5000	Clean				
▲■ Air filter elements	-	3000	5000	Clean				
Air filter elements	24M	12000	20000	Replace				
- Charleplus	-	3000	5000	Inspect and replace if necessary.				
Spark plug	-	6000	10000	Replace				
■ Valve clearance	-	24000	40000	Inspect and adjust if necessary.				

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

	Item	Periodic Maintenance Interval (Service whichever interval comes first)					
		Calendar	Calendar Miles Km		Notes		
Elec	trical system						
	Functions of electrical parts	12M	6000	10000	Inspect and repair or replace if necessary.		
	Battery	6M	3000	5000	Inspect and recharge if necessary.		
	Fuses or circuit breakers	6M	3000	5000	Inspect and replace if necessary.		
	Wires	12M 6000		10000	Inspect for any damage and bending when they are being set.		
Whe	eels						
	Tire condition	12M	6000	10000	Inspect and repair or replace if necessary.		
	Tire pressure	12M	6000	10000	Inspect and replenish if necessary.		
	Wheel bearings	-	6000	10000	Inspect and repair or replace if necessary.		

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

	Item	Periodic Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Notes
Brake					
F	ront and rear braking systems	12M	6000	10000	
E	Brake discs	12M	6000	10000	Inspect and repair or replace if necessary.
▲ E	Brake pads	12M	6000	10000	replace if necessary.
E	Brake fluid level	12M	6000	10000	Inspect and replenish if necessary.
<b>■</b> E	Brake hoses	12M	6000	10000	Inspect them to see whether they are damaged and sealed.
E	Brake pedals	12M	6000	10000	Inspect free play.
	Brake fluid	24M	-	-	Replace

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

Item		Periodic Maintenance Interval (Service whichever interval comes first)				
		Calendar	Miles	Km	Notes	
Susp	ension					
	Suspension system	-	3000	5000	Inspect and repair or replace if necessary.	
•	Front and rear shock absorbers	12M	6000	10000	Inspect for oil leakage(maintain front forks and rear shock absorber according to the requirement and purpose).	
Fram	e					
	Frame	-	18000	30000	Inspect and repair or replace if necessary.	
Steer	Steering system					
	Steering bearings	12M	6000	10000	Inspect and repair or replace if necessary.	

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

Item		Periodic Maintenance Interval (Service whichever interval comes first)					
		Calendar	Miles	Km	Notes		
Cooli	Cooling system						
	Coolant level	12M	6000	10000	Inspect and replenish if necessary.		
	Radiator fan function	12M	6000	10000	Inspect and repair or		
	Cooling hoses	12M	6000	10000	replace if necessary.		
Drive	belt						
<b>A</b>	Drive belt	6M	3000	5000	Inspect and adjust the tension if necessary.		
		-	12000	20000	Replace		
	Inspect drive belt, driven pulley, and	6M	3000	5000	Inspect and replace if necessary.		
	engine output pulley for wearness	-	12000	20000	Replace		

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

Item		Periodic Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Notes
Other parts					
	Fault control memory	12M	6000	10000	Read with PDA.
•	Movable parts	12M	6000	10000	Lubricate, and inspect their flexibility.
	Bolts and nuts	12M	6000	10000	Inspect their firmness.
-	Cables	12M	3000	5000	Inspect them for damage, bending and inspect their setting.
•	Pipes, ducts, hoses and sleeves	12M	6000	10000	Inspect them to see whether they have cracks, are sealed and set corrected.

<sup>▲ =</sup> Maintenance interval shortens by 50% if the motorcycle is subjected to severe use.

<sup>■ =</sup> An authorized dealer should perform repairs that involve this component or system.

### **CLUTCH LEVER FREE PLAY**

Inspect the flexibility of the clutch lever.

Straighten the handlebar.

Slowly apply the clutch lever until the resistance is evident. The free play distance of the clutch lever is within the following range.

To keep the clearance of free play at A between 0.079 in(2 mm) is approriate.

#### **↑** WARNING

No free play for the clutch lever can strain the clutch cable and the engine end of clutch in semi-linkage state, causing slippage and excessive wear.

Inspect the free play every time before running the engine.

Set the free play as stipulated when necessary.

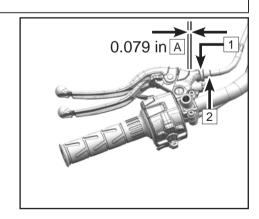
### Fine adjustment of clutch lever free play

Straighten the handlebar.

Loosen lock nut 1.

Rotate the adjusting nut 2 for adjustment.

Tighten the lock nut 1.



### **GEARSHIFT LEVER ADJUSTMENT**

The gearshift lever is adjustable to suit personal riding habits.

Range: ± 0.2 in (5 mm)

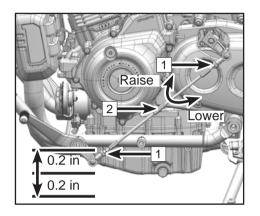
### Adjusting the gearshift lever

Loosen the lock nuts 1.

Rotate clockwise the center connecting rod 2 to raise the gearshift lever.

Rotate counterclockwise the center connecting rod  $\boxed{2}$  to lower the gearshift lever.

Re-tighten the lock nuts 1.



### **FUEL SYSTEM**

# **Fuel Tank Refilling**

Avoid spilling fuel to the outside of the fuel tank when filling. If a spill occurs, wipe it off immediately to avoid pollution or causing danger.

Fuel tank volume: 3.2 gal (12 L) / 3.2 gal ± 0.13 gal (12L±0.5Liter)

#### **↑** DANGER

Gasoline is flammable, so fuel should be filled in a ventilated area. Before refueling, turn off the engine and wait for the engine and muffler to cool. No smoking or any acts that cause sparks are allowed in the fuel filling area or fuel storage area.

Never fill the tank excessively. Avoid the fuel from overflowing onto high-temperature parts. The fuel level should not exceed the maximum fuel level surface. As temperature rises, fuel can heat and expand, and then may spill over and damage motorcycle parts.

Fuel is toxic and harmful to health. Avoid touching the skin, eyes and clothes. Do not inhale fuel vapor.

If the fuel touches the skin, wash the skin with plenty of clean water.

If the fuel touches the eyes, wash eyes immediately with clean water and see a doctor immediately.

If the fuel touches the clothes, change the clothes immediately.

If the fuel is swallowed by mistake, see a doctor immediately.

After maintenance or disassembling parts of the fuel system, please contact your dealer for complete inspection to avoid fuel leaks or other dangers.

Dispose of fuel properly to avoid damage to the environment.

### **Fuel Requirements**

The recommended fuel for your vehicle is E5 or 95(RON). Non-oxygenated (ethanol-free) fuel is recommended for best performance in all conditions.

### **ACAUTION**

Do not use leaded gasoline, as it will destroy the catalytic converter. For further understanding, please consult related materials about the catalytic converter.

Be sure to use fresh gasoline. Gasoline oxidation will result in loss of octane and volatile compounds. It also produces colloidal and lacquer deposits which could damage the fuel system.

# Octane Rating (RON)

'RON' is a technical term commonly used to describe the octane rating of gasoline. The higher the number RON, the greater the resistance to knocking and detonation. Always use unleaded gasoline with an octane rating equal to 95# or higher.

#### **ACAUTION**

If the engine has a knocking cylinder or detonation, use a unleaded gasoline of higher quality or higher RON.

### **ENGINE ASSEMBLY**

For the engine, transmission, clutch and other parts to work properly, make sure that the oil level is between the upper and lower lines from the oil view window, and check and replace the oil according to the Periodic Maintenance Chart. Long time use of engine oil will not only produce dirt and metallic impurities, but the oil will also consume itself.

#### **↑** DANGER

Riding the motorcycle with insufficient, deteriorated or highly contaminated oil will cause accelerated wear and may result in engine or transmission's damage, which could cause an accident and/or personal injury.

### Oil Level Inspection

Make sure the vehicle is turned off.

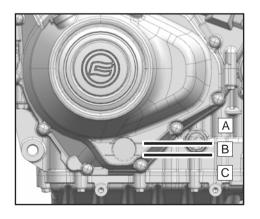
If the engine had just been running, please wait for 2 to 3 minutes for the oil to settle.

Support the vehicle vertically on a level surface, and then view the oil level inspection window:

If the oil level is at area A, drain out the oil until the level is within area B.

If the oil level is at area B, it is at the proper level.

If the oil level is at area C, or no oil level can be viewed, replenish the engine with the same brand oil until the level is within area B.



# Oil and Oil Filter Replacement

Use side stand to support the vehicle on level ground. Idle the engine for several minutes. Then turn off the engine.

#### **AWARNING**

Warming up the engine for a long period may lead to high temperature of the engine and oil. Please wear suitable protective clothing and gloves when changing oil. In the event of scalding, wash the scaled area immediately with running water for more than 10 minutes until feeling no pain and see a doctor.

Place an oil basin under the oil drain.

Remove the magnetic oil drain bolt and washer 1.

Drain out completely the used oil.

#### **MARNING**

Oil is a toxic substance, so used oil should be disposed of properly.

Replace the oil filter 2 and mount a new one.

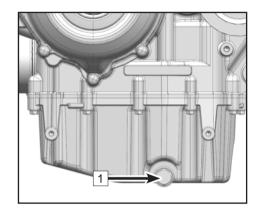
#### **<b>∴WARNING**

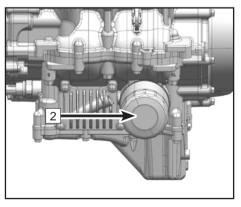
Apply an oil film on the seal ring of filter when mount the oil filter.

Clean the oil drain bolt and the area around the oil drain hole.

Place a new washer on the oil drain bolt, and then remount the oil drain bolt and washer.

Torque: 18.4 ft-lb (25 N•m)





Remove the oil filler screw plug 3.

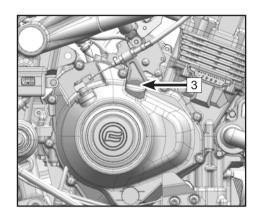
Fill with 2.64 qt (2.5 L) oil of SAE 10W/40 SJ, JASOMA2.

Remount the oil filler screw plug.

Idle the engine for several minutes, allowing the oil to flow into the oil filter.

Turn off the engine.

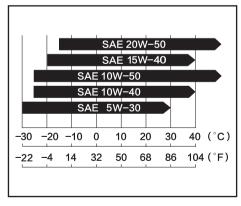
Inspect the oil level and adjust it as necessary until the required level is reached.



# **Oil Capacity**

Replace oil and filter: 2.64 qt (2.5 L).

CFMOTO recommends oil with API 'SJ' or higher. JASO-MA2 is the primary choice, and JASO-MA is an acceptable alternative. Although 10W-40 oil is the recommended oil for most conditions, the oil viscosity may need to be changed to accommodate atmospheric conditions in your riding area. Please choose oil viscosity according to the chart.



### **Spark Plug**

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

Its disassembly should only be performed by an authorized dealer.

Spark plug type: BN8RTI

Spark plug clearance 1 : 0.03 in ~ 0.04 in (0.8 mm ~ 1 mm)

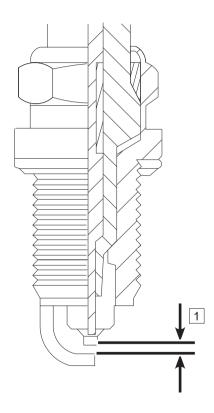
Torque: 8.8 ft-lb ~ 11.1 ft-lb (12 N•m ~ 15 N•m)

# **Idling**

The idling speed of this vehicle has been adjusted at the factory and cannot be adjusted by users, otherwise its performance will be affected. When parts affecting idling speed need to be replaced, contact your dealer for replacement and recalibrate the ECU with PDA.

#### **⚠DANGER**

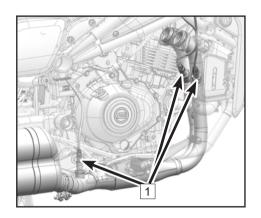
Improper adjustment of idling may cause serious consequences.



## AIR INTAKE AND EXHAUST SYSTEM

# **Exhaust Detecting System**

Exhaust detecting system depends on oxygen sensors 1 mounted on exhaust pipes, and they can detect the air & fuel combustion degree by measuring oxygen density and transferring it as an electrical signal to the ECU. If the ECU determines that combustion is not thorough, it will adjust fuel injection in accordance with signals from the Throttle Position Sensor and Intake Air Temperature sensors. By this way, the ratio of air to fuel can be optimized for thorough combustion.



### Air Intake/Exhaust Valve

An air intake valve is a valve which inhaling the fresh air into the engine to mix with the fuel for combustion. To provide the engine with the necessary oxgen and fuel, to finish the combustion process. Have a dealer inspect the air intake valves in accordance with the Periodic Maintenance Chart. Also, have the air intake valves inspected whenever stable idling cannot be performed stably, engine power is greatly reduced, or there are abnormal engine noises.

An exhaust valve is a valve that expels the waste gas from the combustion to help dissipate heat and to prevent the engine from overheating. Have a dealer inspect the exhaust valve in accordance with the Periodic Maintenance Chart. Inspect the exhaust valve if the acceleration is powerless, slightly backfires when sharply applying the throttle, there is abnormal noise from exhaust pipe noise, or the vehicle is failure to start.

Air intake/exhaust valve removal and inspection should only be performed by an authorized CFMOTO dealer.

## **Valve Clearance**

The valves and valve seats will wear during operation, thus the need for adjustment after being used for a period of time.

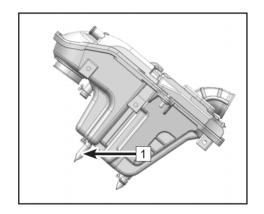
## **↑**WARNING

When valves and valve seat tappets are wore during use, and if adjustment of the valve clearance is not performed, it will eventually result in no clearance or cause the valves remaining partly open, which reduces performance, creates valve noise, and can cause serious engine damage. Valve clearance for each valve should be inspected and adjusted in accordance with the Periodic Maintenance Chart. Inspection and adjustment should be performed by a CFMOTO dealer.

### Air Filter

A clogged air filter restricts air flow, increases fuel consumption, reduces engine performance, and causes spark plug drowning. The air filter element must be cleaned in accordance with the Periodic Maintenance Chart. When riding in dusty, rainy, or muddy conditions, the air filter element should be serviced more frequently than the recommended interval in the Periodic Maintenance Chart. Due to the vehicle's design, air filter service should be performed only by an authorized dealer.

The air filter storage 1 hose is set at the back of the engine. If the air filter housing has oil or water residue inside, it should be drained manually.



### **↑**CAUTION

Oil on tires, plastic or other parts will cause damage.

Intaking unfiltered air will have a negative effect on the service life of the engine.

Never use the vehicle without an air filter.

# **Throttle Body**

The stop screws on the throttle body have been set precisely, and can not be adjusted. Inspect the vehicle to see whether its idling is stable, and if the idling is not stable, please ask CFMOTO to assign professional technicians to deal with this problem.

## COOLING SYSTEM

# **Radiator and Cooling Fan**

Inspect the radiator fins for deformation and obstruction by mud, and clean off any obstruction with clean water.

### **↑**WARNING

When the fan is working, prevent your hands and clothing from getting inside the fan to avoid any injury.

Using high-pressure water to clean the vehicle could damage the radiator fins and reduce the radiator's effectiveness.

Mounting accessories in front of the radiator or behind the cooling fan may obstruct or change the radiator airflow, and can lead to overheating and damage.

If the radiator is obstructed more than 20% by irremovable obstructions or irreparable deformed fins, then replace it with a new radiator.

## **Radiator Hoses**

Inspect the radiator hoses for leaks, cracks, aging, rust, corrosion and connections for leaks or looseness daily before riding the motorcycle. Inspect the vehicle in accordance with the Periodic Maintenance Chart.

## Coolant

Coolant absorbs heat from the engine and transfers it to the air by the radiator. If the coolant level is too low, the engine will overheat and may suffer from severe damages. Inspect the coolant level daily before riding the motorcycle and perform maintenance in accordance with the Periodic Maintenance Chart. Replenish the coolant if its level is too low.

To protect the cooling system (engine and radiator are made of aluminum) from rust and corrosion, the use of anti-corrosion and anti-rust chemicals in the coolant is essential. If the coolant has already these chemicals, there is no need to add them separately.

## **<u>∧</u>DANGER**

Coolant is toxic and harmful to health.

Do not allow the coolant to touch skin, eyes or clothing.

If coolant is swallowed, see a doctor immediately.

If coolant touches the skin, flush the skin with plenty of clean water immediately.

If coolant touches the eyes, flush the eyes with plenty of clean water and see a doctor immediately.

If coolant splashes on clothes, change the clothes and wash them immediately.

Any corrosion or rust remains from the engine and radiator should be disposed of by special instructions, because the chemicals inside are harmful to the human body.

### **ACAUTION**

Do not add tap water to the coolant system, for it will cause deposit inside the cooling system. When the temperature is below 0°C, ice will occur and severely affect the coolant system.

Available bottled antifreeze in the market contains anti-corrosion and anti-rust chemicals. When it is diluted, it loses its anti-corrosion and anti-rust function. Keep the diluted concentration of antifreeze the same as the instructions from the manufacturer.

When replenishing the coolant which color is green and contains ethylene glycol. When the environment temperature is below -31°F (-35°C), please ensure the coolant has a freezing point below -31°F (-35°C).

## **Coolant Level Inspection**

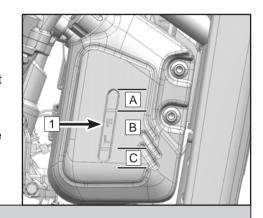
Support the vehicle upright on a level surface.

Inspect the coolant level in the reservoir 1.

If the level is at area 'A': Drain out the redundant coolant until it is at area 'B'.

If it is at area 'B': The coolant is at the proper level.

If the level is at area 'C' or cannot be seen: Replenish it with the same coolant until the level is at area 'B'.



### **↑**WARNING

When the vehicle is running, the coolant will have a very high temperature and stay in a state of compression.

Before the engine or cooling system has cooled down completely, do not open the radiator pressure cap, radiator hoses, reservoir or other cooling-related parts.

In the event of scalding, wash the scaled area immediately with running water for more than 10 minutes until the pain can not be felt and see a doctor.

## **Coolant Replenishment**

Open the reservoir cover and replenish same coolant to area B.

## **ACAUTION**

If coolant needs to be replenished frequently, or the reservoir is completely dry, there is probably a leak in the system. Have the cooling system inspected by an authorized dealer.

Only recommend the original CFMOTO coolant. Contact your dealer for replacing coolant. Mixing different coolant may lead to engine damage.

## TIRES AND DRIVE BELT

This vehicle only uses tubeless tires, rims and inflating valves. Only use the recommended standard tires, rims and inflating valves. Do not mount inner tube tires on tubeless rims. Improper mounting of tires may cause air leakage. Do not mount an inner tube inside a tubeless tire.

# **Tire Specifications**

Tire specifications	Front wheel	130/90-16
	FIOHL WHEEL	130/90-16
	Rear wheel	150/80-16
Tire pressure	Front wheel	29 psi (200 kPa)
	Rear wheel	29 psi (200 kPa)
Minimum tread denth	Front wheel	0.03 in ~ 0.04 in (0.8 mm ~ 1 mm)
	Rear wheel	0.03 in ~ 0.04 in (0.8 mm ~ 1 mm)

Improper tire pressure or exceeding the tire load limit may affect the vehicle handling and performance, causing a loss of control.

Make periodic inspections on the tire pressure by a tire pressure gauge and adjust tire pressure accordingly.

Too-low tire pressure may cause the tire improper wear or overheating.

Proper tire pressure offers the best comfort and the longest service life.

#### NOTE:

Inspect the tire pressure when the tires are cold.

Tire pressure is affected by the change of environment temperature and altitude. If the environment temperature and altitude have a big change during riding, tire pressure should be adjusted and inspected accordingly.

Most countries have their own regulations of minimum tread depth. Please follow local regulations. When mounting new rims or tires, always inspect the wheel balance of the tires.

### **⚠CAUTION**

In order to ensure safe and stable operation, please only use the tire and tire pressure recommended. If the tire is punctured and repaired, please do not ride the vehicle over 60 mph (100 km/h) until 24 hours after, and the speed cannot exceed 80 mph (130 km/h) at any other time.

The front and rear wheel should from same manufacture, and keep the same tread pattern.

New tires can be slippery and may cause a loss of control and injury. Please ride the vehicle in proper ways and use different tilt angles to have the tires create friction with the ground over the entire surface. Normal friction surface will be formed after a break-in period of 100 miles (160 km). Avoid sudden braking, heavy acceleration, and high-speed sharp turns during the break-in period.

## **Tire Payload**

The maximum recommended payload is 330.7 lb. (150 kg), including driver, luggage/cargo and accessories.

### **Tire Friction**

When tire tread wears too severely and the tire cannot be used, the tire becomes more susceptible to punctures and failures. An accepted estimate is that 90% of all tire failures occur during the last 10% of tire service life, so it is unsafe to continue to use bald tires. In accordance with the Periodic Maintenance Chart, measure the depth of the tread with a depth gauge, and replace any tire that has been worn down to the minimum allowable tread depth.

Visually inspect the tire tread for cracks and cuts, and replace it with a new tire if it is severely damaged. For example, if partial expansion appears on the tire, it means the tire is broken.

Remove any embedded stones or other foreign particles form the tread.

#### **ACAUTION**

When the environment temperature is below 14°F (-10°C), it is recommended to place the vehicle indoors if required to be stored for a long time.

Do not use side stand to park the vehicle for long time in winter. Use the center stand (if equipped) or parking frame to park the vehicle, to let the tires be free of the wheel weight.

Do not allow the tires to sink into snow or ice for a long time when parking the vehicle in winter.

When parking the vehicle for a long time outside in winter, it is recommended to put objects that can preserve the heat such as branches, paper or sand under the tires.

# **Drive Belt Inspection**

## **Daily Inspection**

Before daily riding, inspect the condition of drive belts, inspect the drive belt system whether work normally or not. Inspect drive belt for breaks, cracks and side wear, fluffy or flaky side canvas, disappeared teeth, crushed belt or extra matters.

## **Periodic Inspection**

Regularly inspect the tension of the drive belt and the parallelism of the pulley. Abide by the safety precautions specified in the regular maintenance to prevent excessive wear of drive belts.

## **Periodic Inspection of Drive Belt Tension**

If the tension of drive belts is too high, it will lead to cuts or fractures of the teeth. Many drive belts with high tension have clear traces of teeth wear on the surface. Teeth root cracks usually extend to its adjacent cracks through the core wire, and individual drive belt's teeth will slowly fall off. Excessive pressure on the surface will cause wear in a large area of drive belts, and finally expose the core wire. In order to prevent such problem, the appropriate tension must be set accurately.

If the tension is too low, it will also lead to early failures. Usually, the failure mode of drive belts caused by low tension is tooth skipping which means that the teeth of drive belts climb out of its corresponding wheel grooves, and its root will no longer bear the load. The transmission load further acts on the side of the drive belts to bend the teeth and then jump. The rolling of the teeth can cause the rubber to tear along the core line from the tooth root. With the diffusion of the rubber tear, the teeth begin to separate from the drive belt in a strip.

When tooth parts of drive belts climb out of pulley grooves and are tensioned automatically, drive belts are prone to tooth skipping before the rubber is torn and the tooth part falls off. The damage to drive belts' core

wires caused by tooth skipping often lead to the early failures of drive belts' strength. The damage are similar to fractures of folded core wires (neat fracture) and also similar to fractures of impact load (serrated and angular). If drive belts do not suffer from tooth skipping and continues to run during self-tensioning, excessive wear of the drive belts' teeth often occurs. This kind of tooth wear is called hook wear because the teeth will not match the pulley.

Hook wear is caused by insufficient tension of drive belts and changes of center distance of unstable transmission system under the condition of low tension.

### **Periodic Pulley Parallelism Inspection**

When drive belts are running, the axle forms a certain angle, or the load applied to drive belts is uneven, then there will be uneven extrusions between belt teeth. Failures of drive belts often start from cracks of the tooth root or the side of drive belts with the largest tension and extends to the whole drive belts, resulting in cuts of the teeth. Due to the large fiber tension, the side of drive belts with serious extrusion may also have obvious wear, and the drive belt may climb out or roll to the edge of the pulley.

When drive belts run on a pulley with non-parallel retaining edges, if drive belts are squeezed in two opposite retaining edges, it will cause serious wear on both their sides. In this case, they will tear from the root crack or from both sides. This tear will eventually extend to entire drive belts, resulting in shear of the teeth. There may be root cracks below the wear area. Drive belts' strength or tooth surface's fatigue will eventually lead to earlier failure of drive belts.

### Drive belt cleanness and precautions

Before riding, inspect the drive belt tooth or surface for any sand, debris and other impurities, if has, rinse it with clean water in time. Avoid riding in harsh environments, such as sandy, or muddy places, it can damage the belt. Clean the driven belt immediately after riding in the harsh environment. Use a clean cloth, sponge, or soft brush to remove the stubborn stain. Gently cleaning the belt during the cleanness, thus can avoid scratching or damaging the surface and dry or blow them off before riding.

- Keep the drive belt dry, do not remove the belt guard if not necessary, and dry or blow drive belt off in time when the it gets wet.
- Do not drive aggressively when riding in the rain and the belt is wet, and dry or blow dry the drive belt promptly after riding.
- Do not lubricating the drive belt.
- Do not adjust the tension of the drive belt on your own, improper operation will cause the belt to kink or flip, thus lead the drive belt being broken.
- Make sure to use the specialized motorcycle detergent to clean the drive belt if has stubborn stains
  on it, and follow the detergent instruction to use it. Rinse it with clean water for each part after the
  cleanness, and blow or dry off the drive belt.
- Do not use detergent (Non-specialized for drive belt), ethyl alcohol, gasoline, acidic or alkaline solution to clean the drive belt.
- Do not use grinding agents, abrasive paper, steel wool, and other rough materials to clean the drive belt. It may scratch or wear the surface, thus can lead to reduce its service life.

#### **Drive Belt Tension**

Proper tension will prevent drive belts from tooth skipping under overload operation. Too much or little tension will reduce the service life of components.

Drive Belt Tension: 68Hz±2Hz

Please use a professional sonic tension meter or pen tension meter to measure the tension of drive belts, or contact authorized CFMOTO dealer for regular inspection.

Motorcycles driven by drive belts are different from those driven by chains. If you do not have special equipment or have received professional training, you are forbidden to adjust the tension of drive belts. Improper tension or wrong adjustment methods will lead to serious consequences.

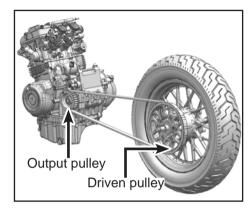
### **Pulley Parallelism**

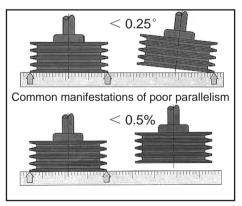
The parallelism difference of pulley is the most common failure mode of drive belts. It will wear the drive belt and degrade its performance. According to the severity, drive belts may fail in a few hours or days. For users, there are two simple ways to determine whether there is a deviation in the parallelism of the pulley.

Make sure the vehicle is turned off, prepare a ruler that is long enough and does not bend. Put one end close to the side of the driving wheel (engine side), and then inspect the gap between the ruler and the driven wheel (tire side). If there is a gap, it indicates that there is a problem with the parallelism of the pulley and needs to be adjusted.

If you don't have that kind of ruder, you can slowly and manually , use frame to support the vehicle up, and gear shift to the N, let drive belts run in the pulley, and then look at the speed and direction of the deviation. After many manual drives, at usual, drive belts will slowly deviate in one direction. Then stop and drive in the opposite direction. Drive belts will deviate in the opposite direction and its speed will be the same as before. If drive belts still deviate in the original direction, it indicates that there is a problem with the parallelism of the pulley and needs to be adjusted.

The accurate measurement and adjustment of parallelism requires professional technicians. If there is a problem with the parallelism of the pulley, contact the authorized CFMOTO dealer for maintenance and adjustment.





## **BRAKE SYSTEM**

In order to maintain excellent performance of your vehicle and personal safety, please inspect and maintain the vehicle according to the Periodic Maintenance Chart. Make sure all the parts of the brake system are in a good state. If any faults occurs to the brake system, please stop riding and have your vehicle inspected and maintained by an authorized dealer.

# **Front Brake Lever Inspection**

Park the vehicle with the side stand on level ground. Grip lightly the front brake lever and inspect its free travel.

### Free travel: 0.12 in ~ 0.24 in (3 mm ~ 6 mm)

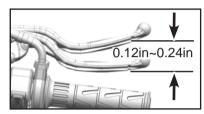
Inspect the front brake lever for any cracks or abnormal noise. If these problems occur, replace the front lever with a new one.

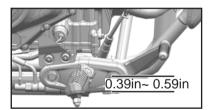
# **Rear Brake Pedal Inspection**

Park the vehicle with the side stand on level ground. Lightly grip the rear brake pedal and inspect its free travel.

### Free travel: 0.39 in ~ 0.59 in (10 mm ~ 15 mm)

Inspect the rear brake pedal for any cracks or abnormal noise. If these problems occur, replace the rear lever with a new one.





### **MARNING**

If the brake levers and pedals feel soft, there may be air or lack of fluid in a brake fluid hose. If the vehicle has this dangerous condition, do not ride the vehicle. Have the brake system inspected immediately by an authorized CFMOTO dealer.

## **Brake Fluid Level Inspection**

Support the vehicle vertically on level ground, and confirm the brake fluid reservoirs are level.

Inspect the front and rear brake reservoir fluid levels.

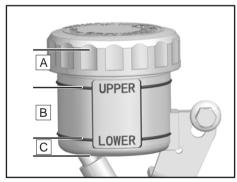
If the brake fluid level is at the area 'A'. Drain out the redundant fluid until it is at area 'B'.

If the brake fluid level is at area 'B': The level is proper.

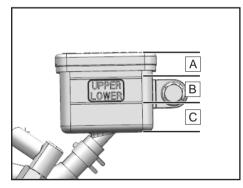
If the brake fluid level is at area 'C' or cannot be seen: Replenish it with same brake fluid until it is at area 'B'.

#### **∴WARNING**

If the brake fluid level drops to area 'C' frequently, the brake system is leaking, not sealed, or is damaged. Have the brake system inspected immediately by an authorized CFMOTO dealer.



Front brake fluid reservoir



Rear brake fluid reservoir

# **Brake Fluid Replenishment**

### **↑**WARNING

Brake fluid can irritate the skin.

Keep brake fluid out of the reach of children.

Keep brake fluid away from skin, eyes or clothing. Wear protective clothing and goggles when operating the vehicle.

If brake fluid is swallowed, see a doctor immediately.

If brake fluid touches the skin, wash the skin with plenty of clean water.

If brake fluid touches the eyes, wash eyes immediately with clean water and see a doctor immediately.

If brake fluid spills onto your clothing, change the clothing and wash it immediately.

## **⚠ WARNING**

Brake fluid used for a long time will reduce braking efficiency. Please change the brake fluid according to the Periodical Maintenance Chart. Only use the same type DOT4 brake fluid as marked on the fluid reservoir. The mixing of different brake fluids may cause brake system damage or failure, so it is recommended to always use the original CFMOTO brake fluid. If you cannot make sure the original brand, please contact your authorized CFMOTO dealer for brake fluid maintenance.

### **NOTE**

When the brake fluid level goes down, it causes negative pressure inside the fluid reservoir, which may lead the reservoir gasket to sag. Remove the reservoir cap to release the pressure, adjust the reservoir gasket and then remount the gasket and cap.

#### Front Brake Fluid Reservoir

Remove the cover and reservoir gasket 1. Replenish brake fluid to area 'B'.

Remount the cover and reservoir gasket.

#### Rear Brake Fluid Reservoir

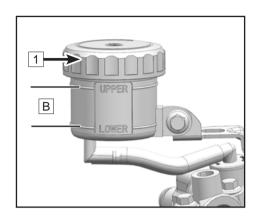
Remove the bolt 1

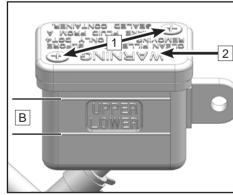
Remove the cover and reservoir gasket 2.

Replenish brake fluid to area 'B'.

Mount the cover and gasket gasket 2.

Mount the bolt 1.





## **Brake Disc Inspection**

Inspect brake discs periodically for any damage, out of shape, cracks or wear. Damaged brake discs may cause braking failure. Worn-out brake discs will decrease braking performance. If brake discs are damaged or exceed the wear limit, contact an authorized dealer to replace them with new ones immediately.

Inspect the thickness of front and rear brake discs in several positions.

Front and rear brake discs wear limit: 0.16 in (4 mm).

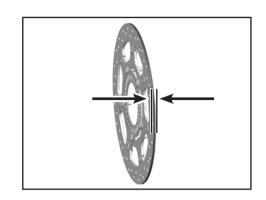


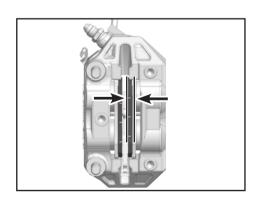
Inspect the brake calipers before riding. Inspect the minimum thickness of brake pads periodically. If the brake pads are too thin, their brackets will rub the brake discs, which will severely reduce brake effect and damage the brake pads.

Inspect the minimum thickness of brake pads on all brake calipers.

#### Brake pad minimum thickness: 0.04 in (1 mm)

If brake pad thickness is less than the minimum limit, or the brake pads are damaged, please contact an authorized dealer immediately to replace the pads in pairs.





# **Anti-Lock Braking System (ABS)**

ABS is a safety system that prevents locking of the wheels when riding in a straight line or a curve without the influence of lateral forces.

With the assistance of ABS, when riding on gritty, water-logging, sliding or other low-adhesive force roads, the vehicle can use its full brake force and will face no risk of wheel locking.

### **↑** DANGER

Driving assistance can only prevent rollovers within certain physical limits. In extreme driving conditions, such as a high center of gravity from cargo, changing road conditions, steep slopes and full-speed braking without releasing the brake, motorcycle rollovers may occur.

ABS works with two independent brake circuits (front and rear brakes). When the brake electronics control unit detects a locking tendency in a wheel, ABS begins to work by adjusting the brake pressure. The adjusting process can be felt through as a slight bouncing of the front or rear brake pedals.

When turning on the ignition switch, the ABS indicator will on, and turn off after start. If the indicator still on after start, or light up during the riding,

When turning on the ignition switch, the ABS indicator will turn on and then turn off after the motorcycle begins traveling. If the ABS indicator is still on after travel begins or it lights up again during riding, the ABS unit has detected a fault. If a fault occurs, ABS will deactivate, and the wheels may lock during hard braking. The brake system itself will function normally, but ABS is not available to prevent wheel lockup.

## **SHOCK ABSORBERS**

## **Shock Absorber Inspection**

Holding the handlebar and front brake, compress the front fork for several times to inspect it to see whether its working is smooth.

Visually inspect the front shock absorbers for oil leaks and front fork for scratches or friction noise.

After riding, inspect the front fork to see whether it has mud, dirt or debris, and if so, clean them, or they will lead to oil seal damage and shock absorber oil leak.

Press down the seat several times to inspect it to see whether the rear shock absorber works smoothly. Inspect the rear shock absorber for oil leak.

If you have any doubt about the front or rear shock absorber performance, please contact an authorized CFMOTO dealer.

# **Rear Shock Absorber Adjustment**

The shock absorber has been adjusted at the factory to the best position which is suitable for most situations.

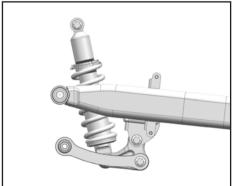
Contact your dealer to adjust the spring preload. Do not adjust it by yourself.

#### **↑** DANGER

This part contains high-pressure nitrogen, incorrect operation may cause explosion.

Read relevant instructions.

Do not put it into the fire, drill holes in it or open it.



## **ELECTRICAL SYSTEM AND LIGHTS**

# **Battery**

It is equipped with lead-acid battery for starting. When the vehicle is not in use for a long time (≥2 months), the battery needs to be removed for storage. However, for optimal battery life, you must properly charge the battery to provide enough power for the starter motor. When the vehicle is in frequent use, the vehicle charging system automatically charges the battery. If the vehicle is used only occasionally or for a short period of time, the battery may be low in power.

#### **↑** CAUTION

To avoid battery damage and power loss, do not idle the vehicle for more than 30 minutes. Otherwise, the vehicle cannot be started.

Batteries can also self-discharge which speed depends on battery type and environment temperature. When environment temperature rises for example, the speed could increase by a factor of 1 for every 15°C temperature rise.

## **Battery Sulfation**

A common battery failure is sulfation. When the battery is short of power for a long time, electrolyte can be sulfated. Sulfation is an abnormal product produced by chemical reaction in battery. If battery sulfation occurs, the battery discharging can cause the battery plate permanent damage, and cause the battery to be impossible to be charged. When such a fault occurs, the only way is to replace the battery with a new one.

#### **Battery Maintenance**

Clean the battery case with a soft brush dipped in a mixture of baking soda and water. Use a wire brush to remove corrosion on the positive and negative lug plates and positive and negative anodes.

Always keep the battery fully charged, or the battery may be damaged.

If the vehicle is driven infrequently, inspect the battery voltage weekly with a voltmeter. If it drops under 12.8 volts, the battery should be charged (contact your dealer for an inspection). If you will not use the vehicle for longer than 2 weeks, the battery must be charged with a charger. If the vehicle is not in use for one month or longer, please remove the battery and place it in a cool, dry place. Before remounting, fully charge the battery. It must be removed from the vehicle when it is being charged.

## **Battery Charger**

Contact your dealer for battery charger specifications.

## **Battery Charging**

Do not use an automotive quick-charger that may overheat and damage the battery. Batteries require special chargers. Using traditional battery chargers will reduce battery life. Using traditional battery chargers will reduce battery life.

Remove the battery from the vehicle.

Connect the charger wire, and ensure that the charging current is 1/10 A of the battery capacity, for example: for the capacity of 10 Ah battery, its charging current should be 1 ampere.

Ensure that the battery is fully charged before mounting.

## **MARNING**

Do not remove the battery's sealing strip, or the battery will be damaged. Do not mount an ordinary battery in this motorcycle, or the electrical system will not work properly. When removing the battery, firstly disassemble the negative pole and then the positive pole. During mounting, the connection sequence of positive and negative poles is opposite to that of disassembly.

#### NOTE:

When charging a maintenance-free battery, always follow the instructions in this manual.

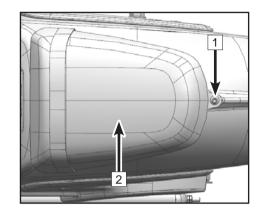
# **Battery Removal(two-seats version)**

Place the vehicle on flat ground and park it.

Completely turn off the engine and power supply of the vehicle.

Remove bolt 1.

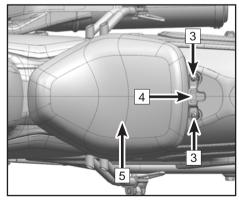
Remove the rear cushion assy 2.



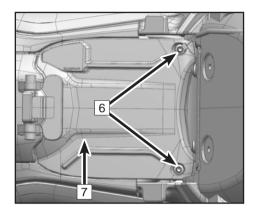
Remove bolt 3.

Remove the cushion fixed plate 4.

Remove the front cushion assy 5.



Remove bolts 6.
Remove the battery box cover 7.

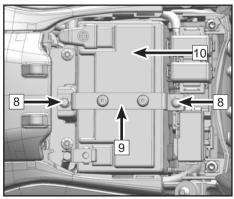


Remove bolts 8. Remove the batter

Remove the battery fixed bracket 9.

Remove the fixed bolt, then remove the black negative wire (-). Remove the fixed bolt, then remove the red positive wire (+).

Take out the battery 10.



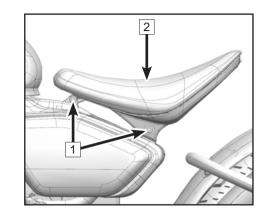
# **Battery Removal(single-seat)**

Place the vehicle on flat ground and park it.

Completely turn off the engine and power supply of the vehicle.

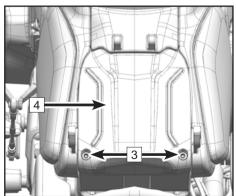
Remove bolts 1 (LH&RH, total four)

Remove the seat kit 2.

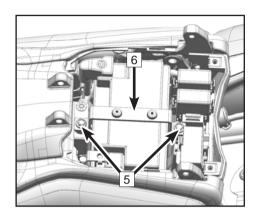


Remove bolts 3

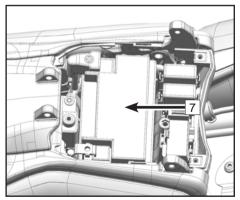
Remove the battery box cover 4



Remove bolts 5;
Remove the battery fixed bracket 6.



Remove the fixed bolt, then remove the black negative wire (-). Remove the fixed bolt, then remove the red positive wire (+). Take out the battery 7.



# **Battery Mounting**

Park the vehicle on flat ground.

Ensure that the vehicle's key is in the closed position.

Put in the battery.

Mount the battery fixed bracket and fixed it with bolts.

Mount the red positive wire (+), and fixed it with bolts.

Mount the black negative wire (-), and fixed it with bolts.

Mount the battery box cover and secure it with bolts.

Remount the cushion.(Install in reverse order of removal, refer to the battery removal)

#### **↑** WARNING

Avoid direct touching with the skin, eyes and clothing. Always protect eyes when working near the battery. Keep the battery out of reach of children. Keep the battery away from sparks, open flames, cigarettes, or other ignition points. When using or charging batteries in a confined space, ventilate the area.

Battery acid detoxification treatment:

External: Rinse the touched area with clean water.

Internal: See a doctor immediately.

Eyes: Rinse the eyes with clean water for 15 minutes and see a doctor immediately.

#### **↑** CAUTION

Improper disassembly and assembly of positive and negative wires may lead to a short circuit between the battery and the vehicle body.

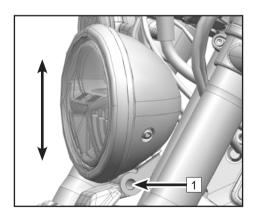
# Lights

The headlights is adjustable, loosen the bolt 1, hold the headlight and setting the bolt 1 as the axis to adjust the front headlights, adjust it to a proper positions, secure the bolt 1.

## **ACAUTION**

Adjustment of high / low beams should be in accordance with local regulations. The standard is based on the light emitted when front and rear wheels touch down the ground and the rider sits on the vehicle.

All the lights are LED lights. Have your dealer replace the entire assembly if any LED is damaged or has failed.

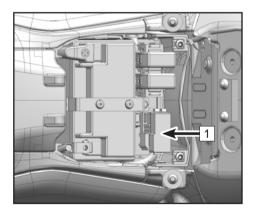


## **Fuses**

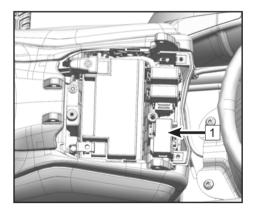
Fuse box 1 is under the battery box cover, it is visible after removing the battery box cover(refer to the battery removal). If a fuse is blown, inspect the electrical system for damage and replace the fuse with the new one.

### **↑** WARNING

Do not use any wire to substitute for the standard fuse. Replace a blown fuse with a new one of the same ampere. Ampere value is shown on fuse.



two-seats version



single-seat

## CATALYTIC CONVERTER

This motorcycle is equipped with a catalytic converter in the exhaust system. Platinum and rhodium contained inside the converter will react with carbon monoxide and convert hydrocarbons into carbon dioxide and water.

For proper operation of the catalytic converter, the following cautions must be followed:

Only use unleaded gasoline. Never use leaded gasoline which will significantly reduce the service life of the catalytic converter.

Do not let the vehicle skid when the ignition switch or the stop switch is off. Do not attempt to start the engine for a longer time when the battery is low in power. When the gear is not in Neutral, do not drag the vehicle or let the piston move. Under these improper conditions, extra unburned air/fuel mixture can flow into exhaust system, accelerating the reaction with the converter which will damage the heated engine, or reduce the converter performance when the engine is cooled off.

### **↑**CAUTION

Only use unleaded gasoline. Even only a little lead can damage the precious metals inside the catalytic converter, causing catalytic converter failure. Do not add anti-rust oil or engine oil into the muffler, which may result in catalytic converter failure.

## **EVAPORATIVE EMISSION CONTROL SYSTEM**

This vehicle is equipped with an EVAP System. Please contact a CFMOTO dealer if the EVAP System has failed. Do not modify the System, or the System will not meet requirements for environmental regulations. After disassembly and repair, tube connections should be well connected without air leakage, blocking, and tubes should be without being squeezed, broken or damaged, etc. Fuel vapors from the fuel tank are drawn into a carbon tank through an absorption tube. The fuel vapors are absorbed by active carbon in carbon tank when the engine is stopped. When the engine is running, fuel vapors absorbed in the carbon tank will flow into the engine combustion chamber and get burned, avoiding environmental pollution by preventing fuel vapors being discharged directly into the air. Meanwhile, air pressure inside the fuel tank can be balanced by the absorption tube. If inner pressure of fuel tank is lower than the outside, it can be balanced through the air tube of the carbon tank and absorption tube. In this context, all tubes should always remain clear without being blocked or squeezed, etc, and the anti-toppling valve should be mounted correctly, otherwise the fuel pump could be damaged, the fuel tank can also become deformed or broken or other parts may be damaged.

## **CLEANING AND STORAGE**

### **General Precautions**

Always keeping your motorcycle clean and in best performance will extend the vehicle's service life. Protecting your motorcycle with a high quality, breathable motorcycle cover.

- Always clean the motorcycle after the engine and exhaust system have cooled.
- Avoid applying detergents on seals, brake pads, and tires.
- Clean the vehicle by hand. Do not use high-pressure spray.
- Avoid all chemicals, solvents, detergents, and household cleaning products like ammonium hydroxide.
- Gasoline, brake fluid, and coolant will damage painted surfaces. Wash them off with water immediately if splashed on any surface.
- Do not use metal brushes, steel wool, and all other abrasive pads or brushes to clean the vehicle.
- Be cautious when washing the windshield, headlight cover, and other plastic parts as they can be easily scratched.
- Avoid high-pressure sprayers, as the water may penetrate into seals and electrical components to damage the vehicle.
- Avoid spraying water into waterproof areas such as air intakes, fuel system, electrical components, muffler outlets and the fuel tank lock.

## Washing the Vehicle

- Rinse the vehicle with cold water to remove any loose dirt.
- Mix a bucket of detergent (specialized for motorcycles or automobiles) with water. Use a soft cloth or sponge to wash your motorcycle. If necessary, use a mild degreaser to remove any oil or grease.
- 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 and inspect it for any scratches.
- Start the engine and allow it to idle for several minutes. The heat from the engine will help dry off the vehicle in moist areas.
- Carefully ride the motorcycle at low speed and apply the brake several times. This will help to dry the brakes and restore their normal operating performance.

### NOTE:

When riding in areas where the roads are salted or near the ocean, clean the motorcycle after your ride with cold water immediately. Do not use warm water to wash your vehicle as it accelerates the chemical reaction of the salt. After drying the vehicle, applying an anti-rust and anti-corrosion oil to all metal unpainted surfaces. In the case of riding during a rainy day or just washing the motorcycle, spray may form on the inside of the headlight shade. If this happens, start the engine and turn on the headlight to remove the moisture.

# **Polishing the Surface**

After washing your motorcycle, polish the painted metal and plastic surfaces with a specialized motorcycle/ automobile wax. Wax should be applied every three months or as required, to avoid the surface from having satin lines or being lackluster. Always use non-abrasive wax and apply them according to the instructions.

# Windshield(If equipped) and Other Plastic Parts

After washing, use a soft cloth to gently dry off plastic parts. When the motorcycle is dry, use specified cleaning or glazing procedures for windshield glass, light shades and other uncoated plastic parts.

### **∴** CAUTION

Plastic parts may deteriorate and break if they are exposed to chemical substances or household cleaning products such as gasoline, brake fluid, window cleaners, thread fastening glue, or other chemicals. If a plastic part is exposed to any chemical substance, wash it off with water immediately, and then inspect for damage. Avoid using abrasive pads or brushes to clean surfaces of plastic parts, as they will damage their luster.

### **Chrome and Aluminum**

Chromium alloy (if equipped) and unpainted aluminum parts exposed to the air can oxidize, and thus will be lackluster. These parts should be cleaned with a detergent and polished with a lustering agent. Painted and unpainted aluminum wheels should be cleaned with specialized detergents.

Leather, Vinyl, and Rubber Products.

If your motorcycle has leather accessories, use specialized detergents to clean them. Washing leather accessories with detergents and water will damage them and shorten their life.

Vinyl parts (if equipped) should be cleaned separately.

Tires and other rubber components should be treated with a rubber protective agent to prolong their life.

#### **ADANGER**

Special care must be given to tires, and it should be noted that rubber-protective agents applied to tires will not affect their functions. If tires are not treated properly, it may decrease the adhesive force between the tire and ground, possibly causing a loss of control.

### **Preparation for Storage**

Clean the entire vehicle thoroughly.

Run the engine for about 5 minutes, stop the engine, then empty all engine oil.

#### **∴DANGER**

Motorcycle oil is toxic. Dispose of used oil properly. Keep the used oil out of reach of children. If skin touches the oil it should be washed off immediately.

Replenish new engine oil.

Replenish fuel and fuel additive.

#### **↑** DANGER

Gasoline is extremely flammable and explosive under certain conditions. Turn the power key to "position before operating. Do not smoke. Make sure the area is well ventilated and free of any source of flame or sparks and any appliance with a pilot light. Gasoline is a toxic substance. Dispose of it properly.

Reduce tire pressure at least by 20% during storage period.

Raise wheels off the ground using wood boards to keep the vehicle away from moisture.

Spray a film of engine oil on all unpainted metal surfaces to prevent rusting. Avoid spraying on rubber parts or on the brakes.

Lubricating all cables.

Remove the battery. Store it in a cool and ventilated place. In accordance with Periodic Maintenance Chart to charge the battery during the storage, ensure that the battery is fully charged.

Wrap plastic bags over the muffler exhaust pipe to prevent moisture from entering.

Put a cover over the motorcycle to prevent dust and dirt.

### **Preparation After Storage**

Remove the plastic bags from the muffler.

Charge the battery if necessary, then mount the battery.

Do all daily safety inspections.

Lubricate any pivot points as necessary.

Take a test ride.

## **COMMON PROBLEMS AND CAUSES**

Problem	Component	Cause	Solution
	Fuel evetem	No fuel in fuel tank	Refuel
	Fuel system	Pump blockage or damage: poor fuel quality	Clean or replace
		Spark plug failure: excessive carbon deposits, too long-time usage	Inspect or replace
		Spark plug cap failure: Poor contact or burning	Inspect or replace
	Ignition system	Ignition coil failure: poor contact or burning	Inspect or replace
		ECU failure: Poor contact or burning	Inspect or replace
		Trigger coil failure: poor contact or burning	Inspect or replace
Engine fails to		Stator failure: poor contact or burning	Inspect or replace
start		Wiring failure: poor contact	Inspect or adjust
		Starting mechanism failure: worn or damaged	Inspect or replace
		Intake and exhaust valves, and valve seats failure: 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 pipe leakage: too long-time use	Inspect or replace
		Valve timing failure	Inspect or replace

	Valve and piston	Intake and exhaust valves, excessive carbon deposits in the piston: poor fuel quality and poor oil quality	Repair or replace
	Clutch	Clutch slips; poor oil quality, too long-time use and overloading	Adjust or replace
Insufficient power	Cylinder and ring	Cylinder, piston rings wear; poor oil quality and too long-time use	Replace oil
	Brake	Incomplete separation of brake; too-tight brake	Adjust
	Drive belt	Too-tight or too-loosen drive chain; improper adjustment	Adjust
	Engine	Engine overheating; too-rich or too-lean mixture, poor oil and fuel quality, shelters, etc	Adjust or replace
	Spark plug	Improper spark plug clearance	Adjust or replace
	Intake pipe	Air leakage of intake pipe; too long-time use	Adjust or replace
Insufficient power	Cylinder head	Air leakage for cylinder head or valves	Adjust or replace
	Electric system	Electrical system failure	Inspect or repair
	Air filter	Air filter clogging	Clean or adjust

	Cables	Poor connections	Adjust	
	Left and right switches	Poor switch contact or switch damage	Adjust or replace	
Failed headlights and taillights	Headlight	LED and circuit board failure or damage	Replace	
and tallignts	Regulator Poor connection or burning  Magneto Magneto coil inspection; Poor connection or burning		Inspect or replace	
			Inspect or replace	
	Battery	No electricity	Charge or replace	
Failed horn	Left switch	Horn button failure or damage	Adjust or replace	
	Cables	Poor contact	Adjust or repair	
	Horn	Horn damage	Adjust or replace	

The listed above are the common problems of a motorcycle. If your motorcycle has certain problems (especially in the electronic fuel injection system, fuel evaporation system), please contact an authorized CFMOTO dealer to inspect and repair the vehicle in time.

#### **↑** DANGER

Do not try to fix the problems without professional help, otherwise there may be safety risks or accidents. The user shall be responsible for any accident related to any repairs or maintenance not performed by a CFMOTO dealer.

## **GENERAL TORQUE CHART**

Туре	Torque (N•m)	Туре	Torque (N•m)
M5 bolt and nut	5±1	M5 screw	4±1
M6 bolt and nut	10±1	M6 screw	9±1
M8 bolt and nut	20~30	M6 flange bolt and nut	12±1
M10 bolt and nut	30~40	M8 flange bolt and nut	20~30
M12 bolt and nut	40~50	M10 flange bolt and nut	30~40

## **CRUCIAL TORQUE CHART**

Туре	Thread	Number	Tightening Torque (N•m)	Thread-locker
Engine LH front mounting bolt	M10×1.5×70	1	45~50	Yes
Engine RH front mounting bolt	M10×1.5×22	1	45~50	Yes
Engine RH middle mounting bolt	M10×1.5×22	1	45~50	Yes
Engine LH middle mounting bolt	M10×1.5×45	1	45~50	Yes
Engine rear upper mounting nut	M10×1.25×150	1	45~50	Yes
Engine rear lower mounting nut	M10×1.25×170	1	45~50	Yes
Sub-frame mounting bolt	M10×30	4	40~50	Yes
Upper&lower triple clamp and shock absorber locking bolt	M8×25	6	20 ~ 25	Yes

Upper triple clamp upper side fixed screw		1	20~25N.m (Before the upper triple clamp shock absorber lock screw is tightened)	NO
Lower side of front shock absorber and front wheel axle locking screw	M8×25	2	20~25	Yes
Upper triple clamp and steering column locking screw	M8×25	1	20~25	Yes
Rear upper shock absorber and frame connecting bolt	M10×50	1	45	NO
Rear lower shock absorber and a-shape swing arm connecting bolt	M10×50	1	45	NO
A swing arm and rear fork connecting bolt	M12×80	1	60	NO
A swing arm and rod connecting bolt	M12×110	1	60	NO
Rod assy and frame connecting bolt	M10×130	1	45~50	Yes
Rear fork shaft nut	M16×1.5	1	110	NO
Front wheel axle	M16×1.5	1	75~85	NO
Tooth ring, brake discs and rim bolt	M8×28	5	25	Yes
RPM sensor and front shock absorber bolt	M6×16	2	8	NO
RPM sensor and rear caliper bolt	IVIOX IO		O	INO
Front RPM sensor cable wire clip bolt				
Front brake fluid inlet hose and lower triple clamp bolt	M6×12	2	8	NO

M6×12	2	8	NO
	1	38~42	NO
M10×60	2	40~50	Yes
	1	38~42	NO
		After finger-tighten (7~9)	
	4	N⋅m, turn angle 120°- 150°	NO
	1	38~42	NO
	1	28	NO
M6×12	2	8	NO
M6×22	2	10	NO
M8×25	2	10	Yes
	2	25	Yes
M6×16	1	8	NO
M8×25	1	25	Yes
M8×1.25	1	25	Yes
Built in bolt	1	6	NO
M8×25	4	20~25	Yes
	M10×60  M6×12  M6×22  M8×25  M6×16  M8×25  M8×1.25  Built in bolt	1 M10×60 2 1 1 4 4 1 1 1 M6×12 2 M6×22 2 M8×25 2 2 M6×16 1 M8×25 1 M8×1.25 1 Built in bolt 1	1 38~42  M10×60 2 40~50 1 38~42  After finger-tighten (7~9) 4 N·m, turn angle 120°- 150° 1 38~42 1 28  M6×12 2 8  M6×22 2 10  M8×25 2 10  M8×25 1 25  M8×1.25 1 25  Built in bolt 1 6

Balance block screw (Inner hexagon screw)	M6×35	2	8	NO
Rear axle shaft nut	M16×1.5	1	105~110	NO
Oil pump muounting bolt	M5×20	5	5	NO
Gearshift swing arm and engine axle locking bolt	M6×22	1	Until tighten	Yes
Jointing bearing and gearshift pedal, gearshift swing arm bolt	M6×16	2	6	Yes
Gearshift connecting rod adjusting nut	M6/M6LH	2	6	NO
Gearshift lever pedal and front pedal bracket screw (It is the same bolt that is fixed to the frame with the front pedal bracket)	M8×35	1	25	Yes
Front nodal brooket and from a halt	M8×50	1	25	Yes
Front pedal bracket and frame bolt	M8×35	3	25	
Rear pedal bracket and frame bolt (two-seats version)	M8×20	4	25	Yes
Rear pedal seat rubber fixed screw (two-seats version)	M6	4	6	Yes
Sub reservoir mounting bolt	M6×25	2	5	NO
Upper and lower mounting point of radiator and connecting bracket assy connecting bolt	M6×25	2	5	NO
Front cushion supporter fixed screw (Inner hexagon screw)	M8×16	2	20	Yes
Rear cushion fixed screw and rear fender assy (Inner hexagon screw) (two-seats version)	M6×12	1	6	NO
Driven pulley and rear rim locking bolt	M8×25	6	28	Yes

NOTE: A vacant thread area indicates a bolt / screw that comes with non-standard parts or purchased parts.

# **CFMOTO RIDE App / TELEMATICS MODULE**

CFMOTO RIDE is an intelligent, networked, mobile service platform that provides human-vehicle interconnection as its core. CFMOTO RIDE is committed to providing full-featured services for motorsport enthusiasts online.

The telematics module, or T-BOX, is an intelligent vehicle terminal that builds a communication bridge between owners and vehicles through the CFMOTO RIDE App. When T-BOX equipped, the owner can enjoy the smart features of CFMOTO RIDE.

The telematics module is optional in select markets. Check with your dealer to determine if your vehicle is equipped with telematics (T-BOX), or download the CFMOTO RIDE App, send your question via the [feedback] option, and CFMOTO will check for you.



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CFMOTO RIDE provides various smart features such as the vehicle owner's manual, riding details, navigation, Over-The-Air (OTA) updates, geofence, static reminders, etc. Available features will vary according to vehicle / model configuration and global market requirements.

Please download CFMOTO RIDE and enjoy the intelligent riding experience!

