

# 450MT

---

## Owner's Manual

**READ THIS  
MANUAL  
CAREFULLY**

**It contains important  
safety information**

**Make sure the operator holds a valid driver  
license.  
Passenger under 12 are prohibited**

# TABLE OF CONTENTS

<b>FOREWORD</b> .....	<b>7</b>
EVAP System (Evaporative Emission Control System) .....	8
Key Signals .....	9
<b>VIN AND ENGINE SERIAL NUMBER</b> .....	<b>11</b>
<b>SPECIFICATIONS</b> .....	<b>12</b>
<b>OPERATOR SAFETY</b> .....	<b>15</b>
General Safety Precautions .....	15
Equipment Modifications .....	16
Owner Responsibilities.....	19
Safe Riding Gear.....	20
General Information .....	23
<b>AVOID DANGEROUS RIDING BEHAVIORS</b> .....	<b>24</b>
<b>VEHICLE VIEW</b> .....	<b>28</b>
Rear Left View.....	28
Front Right View.....	29
Bird View .....	30
<b>OPERATING PARTS</b> .....	<b>31</b>
Clutch Lever .....	31

Front Brake Lever .....	31
Handlebar Switch, LH .....	32
Handlebar Switch, RH.....	33
Throttle Grip .....	33
Locks .....	34
Gear Shift Lever .....	35
Rear Brake Lever .....	36
Side Stand.....	36
Passenger Handhold and Footrests.....	37
Windshield Height Adjustment .....	38
Electrical Parts Socket .....	38
<b>INSTRUMENT .....</b>	<b>39</b>
Activation and Testing .....	39
Instrument Indicators.....	40
Instrument Display .....	43
Instrument Menu .....	47
<b>OPERATING YOUR VEHICLE .....</b>	<b>78</b>
Break-in Period .....	78
Daily Safety Inspection.....	79
Starting.....	81

Starting Off .....	82
Shifting, Riding .....	82
Braking .....	84
Parking .....	85
<b>SAFE OPERATION .....</b>	<b>86</b>
Safe Riding Tips .....	86
Additional Cautions for High Speed Operation .....	87
Precaution for Gentle Off-Road Surfaces.....	88
<b>MAINTENANCE .....</b>	<b>89</b>
Improper Use .....	89
Key Points of Lubrication Schedule .....	90
Break-In Maintenance Chart .....	91
Periodic Maintenance Chart.....	94
<b>CLUTCH LEVER FREE-PLAY .....</b>	<b>100</b>
<b>GEARSHIFT LEVER ADJUSTMENT .....</b>	<b>101</b>
<b>TOOL KIT .....</b>	<b>102</b>
<b>FUEL SYSTEM .....</b>	<b>103</b>
Fuel Tank Refilling .....	103
Fuel Requirements .....	104
Octane Rating (RON).....	104

<b>ENGINE ASSEMBLY .....</b>	<b>105</b>
Oil Level Inspection .....	105
Oil and Oil Filter Replacement .....	106
Oil Capacity .....	108
Spark Plug .....	109
Idling .....	109
<b>AIR INTAKE AND EXHAUST SYSTEM.....</b>	<b>110</b>
Exhaust Detecting System .....	110
Air Intake Valve .....	110
Valve Clearance .....	111
Air Filter .....	112
Throttle Body .....	112
<b>COOLING SYSTEM.....</b>	<b>113</b>
Radiator and Cooling Fan .....	113
Radiator Hoses .....	113
Coolant .....	114
Coolant Level Inspection .....	116
Coolant Replenishment .....	117
<b>TIRES AND CHAINS .....</b>	<b>118</b>
Tire Specifications .....	118

Tire Friction .....	120
Drive Chain Inspection .....	122
Drive Chain Tension Adjustment .....	123
<b>BRAKE SYSTEM .....</b>	<b>126</b>
Front Brake Lever Inspection .....	126
Rear Brake Lever Inspection.....	126
Brake Fluid Level Inspection .....	127
Brake Fluid Replenishment .....	128
Brake Disc Inspection .....	130
Brake Caliper Inspection .....	130
Anti-lock Braking System (ABS) .....	131
<b>SHOCK ABSORBER .....</b>	<b>132</b>
Shock Absorber Inspection .....	132
Front Shock Absorber Adjustment .....	133
Rear Shock Absorber Adjustment .....	136
Seat Height Adjustment.....	138
Shock Absorber Adjustment Suggestion Chart .....	139
<b>ELECTRICAL SYSTEM AND LIGHTS .....</b>	<b>140</b>
Battery .....	140
Battery Removal.....	143

Battery Mounting .....	144
Lights.....	146
Fuses .....	147
<b>SIDE BOX AND TAIL BOX (available in select markets) .....</b>	<b>148</b>
<b>CATALYTIC CONVERTER .....</b>	<b>150</b>
<b>EVAPORATIVE EMISSION CONTROL SYSTEM .....</b>	<b>151</b>
<b>CLEANING AND STORAGE .....</b>	<b>152</b>
General Precautions .....	152
Washing the Vehicle.....	153
Polishing the Surface .....	154
Windshield and Other Plastic Parts.....	154
Chrome and Aluminum.....	154
Preparation for Storage.....	155
Preparation After Storage.....	156
<b>COMMON PROBLEMS AND CAUSES.....</b>	<b>157</b>
<b>GENERAL TORQUE CHART .....</b>	<b>160</b>
<b>CRUCIAL TORQUE CHART .....</b>	<b>160</b>
<b>CFMOTO RIDE App / TELEMATICS BOX.....</b>	<b>163</b>

## 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](http://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 production 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: CF400-8 / CF400-8F



**⚠ DANGER**

Operating, servicing and maintaining on-road or off-road vehicles can expose you to chemicals including engine exhaust, carbon monoxide, phthalate, 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 provided herein 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 from 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.

## Key Signals

Warning signals call attention to the safety signal or other signals, as well as the performance default signal or other signals. They also specify the danger's severity. This manual's standard signals are: "DANGER", "WARNING", "CAUTION" and "NOTE".

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

 <b>DANGER</b>
---

Indicating that it may cause deaths to operators or people around, if no measures are taken.
--

 <b>WARNING</b>
--

Indicating that it may hurt operators or damage components, if no measures are taken.
---

 <b>CAUTION</b>
--

Indicating that to prevent components from being damaged, precautionary measures should be taken.
---

### NOTE:

Indicating that there are easier or clearer information for operation. No signal is used in this circumstance.

**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.

** WARNING**

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

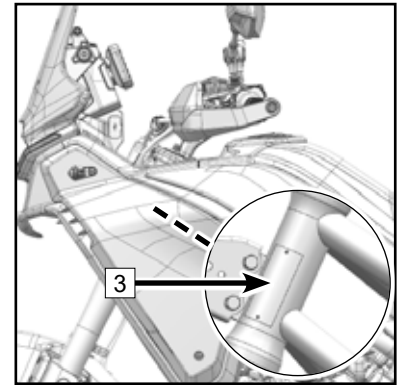
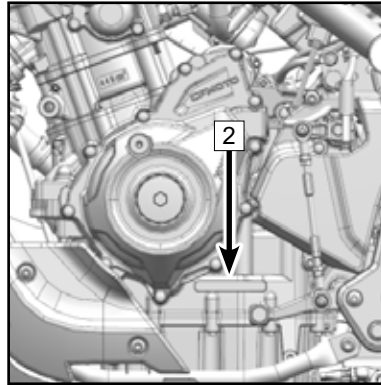
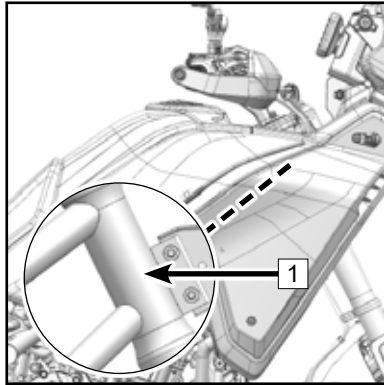
## VIN AND ENGINE SERIAL NUMBER

Please record the VIN number, motor serial number and nameplate at the position indicated on the following illustration.

**VIN:**

**Engine Serial Number:**

**Name Plate Number:**



1	VIN	2	Engine Serial Number	3	Vehicle Plate
---	-----	---	----------------------	---	---------------

## SPECIFICATIONS

	450MT	
	CF400-8	CF400-8F
<b>Performance</b>		
Max power	43.6 Hp (32.5 Kw) / 8500 RPM	41.6 Hp (31 Kw) / 8500 RPM
Max torque	32.4 ft-lb (44 Nm) / 6250 RPM	30.9 ft-lb (42 Nm) / 6250 RPM
Min. turn diameter	212.6 in (5.4 m)	
Top designed speed	94.4 mph (152 km/h)	
<b>Size</b>		
Length	87 in (2210 mm)	
Width	34.3 in (870 mm)	
Height	54.3 in ~ 56.3 in (1380 mm ~ 1430 mm) Adjustable windshield	
Wheelbase	59.3 in (1505 mm)	
Seat height	32.3 in (820 mm)	
Ground clearance	8.7 in (220 mm)	
Curb weight	407.9 lb (185 kg)	
<b>Engine</b>		
Type	Vertical, Cylinder in-line, Two Cylinder, Four stroke, Liquid cooled	
Displacement	449 CC	
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 supply 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 type	SAE 10W-40 SJ JASO MA2	
Coolant capacity	1300 mL + 240 mL (reservoir)	
Idle speed	1400 r/min $\pm$ 140 r/min	
<b>Transmission</b>		
Transmission type	6-speed, international standard gear	
Clutch type	Wet, multi disc, sliding	
Drive system	Chain drive	
Primary reduction ratio	2.088	
Final reduction ratio	3.357	
Gear ratio	1st	2.929
	2nd	2.056
	3rd	1.579
	4th	1.333
	5th	1.154
	6th	1.037
<b>Chassis</b>		
Tire size	Front	90/90-21 M/C 54H
	Rear	140/70 R18 M/C 67H
Rim size	Front	MT2.15 $\times$ 21
	Rear	MT3.75 $\times$ 18
Capacity of fuel tank	4.6 gal $\pm$ 0.13 gal (17.5 L $\pm$ 0.5 Liter)	

Storage Capacity of Fuel Tank When Meter Flashing (max)	0.74 gal (2.8 L)
Average fuel consumption per 100 km	≤ 1.2 gal (4.5 L)
<b>Electric components</b>	
Battery	12 V / 11.2 Ah
Headlight	Low beam LED: 26.2 W High beam LED: 12.8 W Position light LED: 0.28 W
Turning light	LED: 0.5 W
	Front Rear
Tail light	Brake light LED: 0.23 W Rear position light LED: 0.15 W
License light	LED: 0.2 W

# 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.

### **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 install 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. Modifications to the original equipment of the vehicle create substantial safety hazards and increase the risk of bodily 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 its effects 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, confusion 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, a 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 outdoors where the 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 eyes, or inhale gasoline vapor, see a doctor immediately.
- If gasoline spills on you, wash with soap and water and change your clothes.

### **Minimum Fuel 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 oil 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, hold the handlebar with both hands, fully operate the clutch lever with the left hand, fully operate the brake lever with the right hand, fully operate the rear brake lever with the right foot, be able to firmly put both feet on the foot pegs, and to balance the vehicle with the feet when stopped and seated.

### **Carrying a Passenger**

- 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 the handhold 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.

## Safe Riding Gear

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

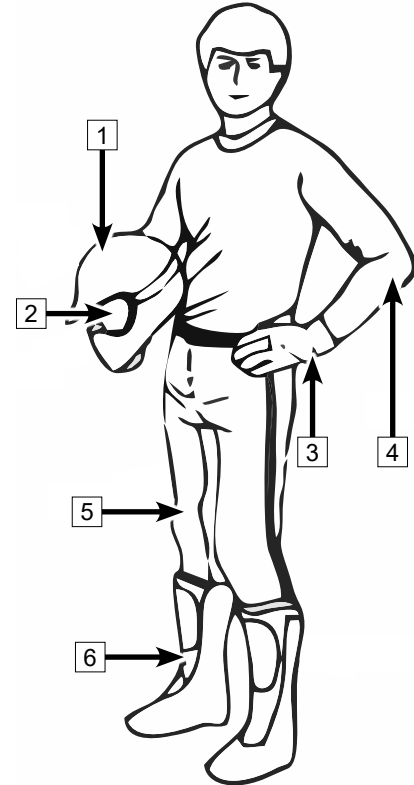
1. An approved helmet
2. Goggles
3. Gloves
4. Long-sleeved shirts or jackets
5. Long pants
6. Over-the-ankle boots

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 standards 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 cannot 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 may fly out or shatter in case of an accident to cause second damage, and they cannot prevent wind and airborne objects from getting into eyes.

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 can protect your hands from wind, sun, heat, cold, and water. 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 riding suit. Quality protective gear will provide comfort, and 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 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 plant your foot properly on the foot pegs. Avoid long shoelaces that could get tangled in the vehicle components. For winter riding conditions, 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 rear brake lever, 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 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 devices such as earplugs can help prevent hearing loss. Check local laws before using any hearing protective devices.

## General Information

### **General precautions before riding:**

Any passengers should be familiar with the vehicle performance. If the passenger sits in an inappropriate position, the center of gravity of the human body deviates too much from the center of the motorcycle during the riding, there are sudden movements, it may affect the operation and control of the motorcycle. Keep balance and sit stably while riding, do not influence the driver's operating. Do not carry animals.

In order to reduce the impact on the center of gravity of the motorcycle, all luggage carried must be placed as low as possible. The weight of the luggage must be evenly distributed on both sides of the motorcycle. Avoid extending the luggage too far behind the motorcycle.

Firmly secure the luggage on the motorcycle, ensure that the luggage is unmovable before riding. When riders feel that the motorcycle is unstable during riding, it is advised to make sure whether the luggage is firmly secured and should be readjusted if necessary.

Do not carry any overloaded or oversized luggage. Overload will affect the handling and power performance.

Do not mount any parts or carry luggage that reduce the motorcycle performance. Make sure that you do nothing that will affect any lighting system, ground clearance, brake performance, side tilt, operating performance, tire compression ratio stroke, front fork or other relevant riding performance of motorcycles.

Increased weight of the handlebar or front fork will affect the steering performance and cause riding hazards.

Air deflectors, backrests and other large components will affect the stability and operating performance. They will not only increase the weight, but also reduce the power performance. Lack of design verification may cause hazards after installation.

This vehicle cannot be modified into a side tricycle and cannot be used to tow a trailer or other vehicles. We will not be responsible for the damage or problems caused by self-modification.

If you need to carry luggage, for safety reasons we recommend the use of a specially designed and approved side box and tail box.

**Maximum loading weight setting in the factory: 782 lb (355 kg)**

**Maximum passenger number (including driver): 2 persons**



## AVOID DANGEROUS RIDING BEHAVIORS

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

### Operation Errors

**⚠️WARNING: Operation errors may cause serious damage to the operator, passenger and other people.**

Read every instruction in this manual and be familiar with every function of this vehicle. Operators must participate in safety training and know how to operate the vehicle properly in different situations and on different types of terrain.

### Age Limit

**⚠️WARNING: 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.

### Illegal Carrying

**⚠️WARNING: It is restricted to carry more passengers than allowed.**

Carrying more passengers than allowed is illegal and will much affect the vehicle's riding performance and may cause serious accidents.

## Safe Riding Gear

**⚠️ WARNING: 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

**⚠️ WARNING: Do not operate a vehicle under the influence of alcohol, medication or drugs.**

Drinking, taking medication and taking drugs will seriously affect driver's 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

**⚠️ WARNING: No speeding.**

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

## Stunts

**⚠️ WARNING: Do not try stunts.**

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

### **⚠️WARNING: Check the vehicle's condition before driving and maintaining 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

### **⚠️WARNING: Do not lift your hands off the handlebars or your feet off the pedals when driving.**

Even lifting only one hand or foot can reduce your ability to control the vehicle or cause you to lose your balance and fall 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

### **⚠️WARNING: Do not use tires with wrong gauge, wrong tire pressure or uneven tire pressure.**


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

## Modifications

### **⚠️WARNING: 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

** WARNING: Do not leave keys with the vehicle. Lock the stem lock before leaving the vehicle.**

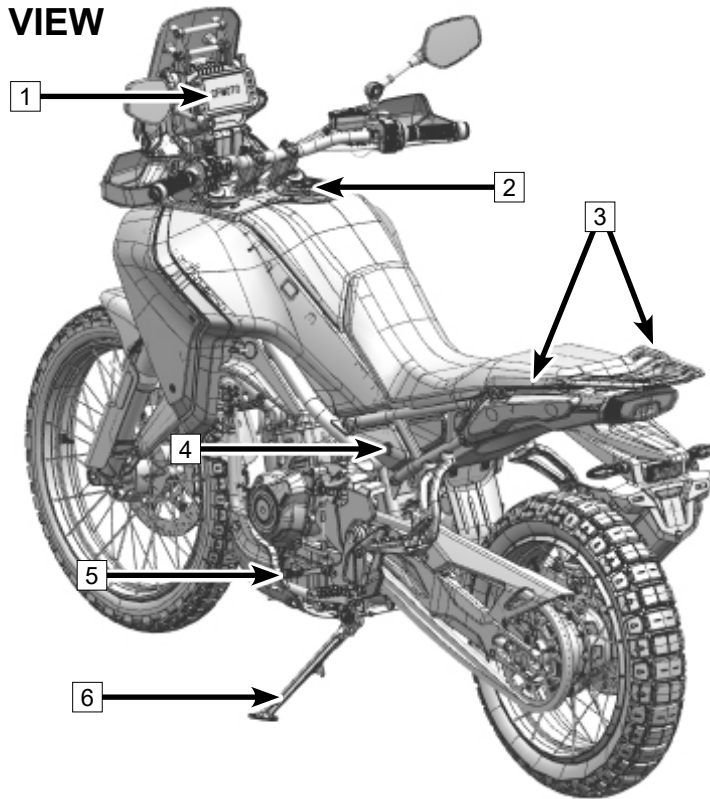
Keys left with the vehicle may result in unauthorized use of the vehicle, causing an accident or property damage, so please take the key when the vehicle is not in use.

## Dangerous Transport Goods

** WARNING: Do not transport flammable, explosive or other dangerous goods.**

Transportation of dangerous goods may cause serious injuries or accidents.

## VEHICLE VIEW

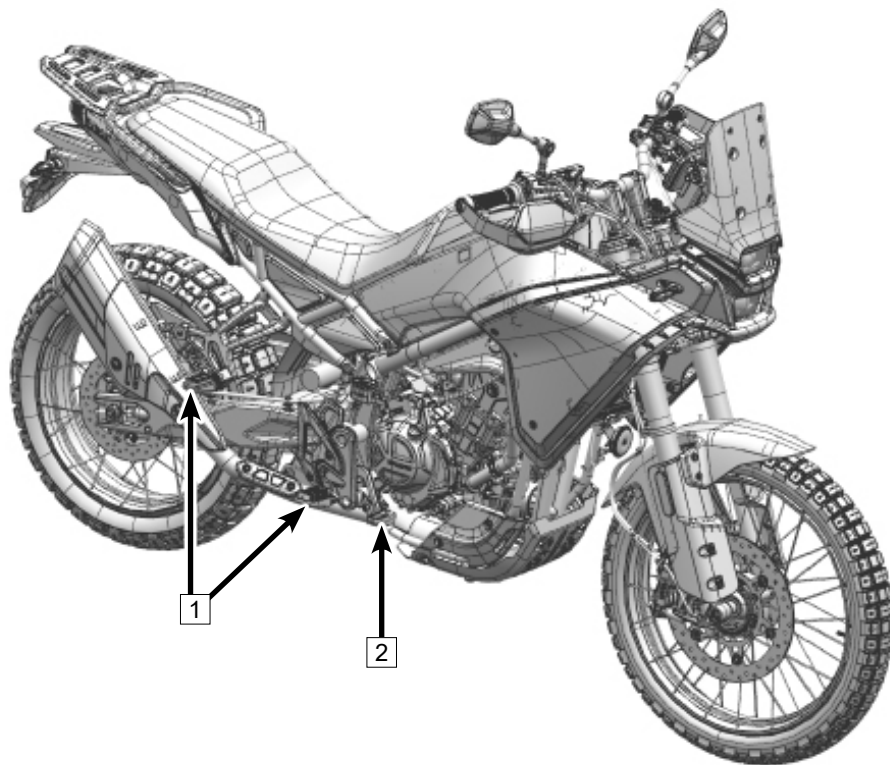


## Rear Left View

1. Instrument
2. Fuel Tank Lock
3. Passenger Handhold
4. Seat Lock
5. Gear Shift Lever
6. Side Stand

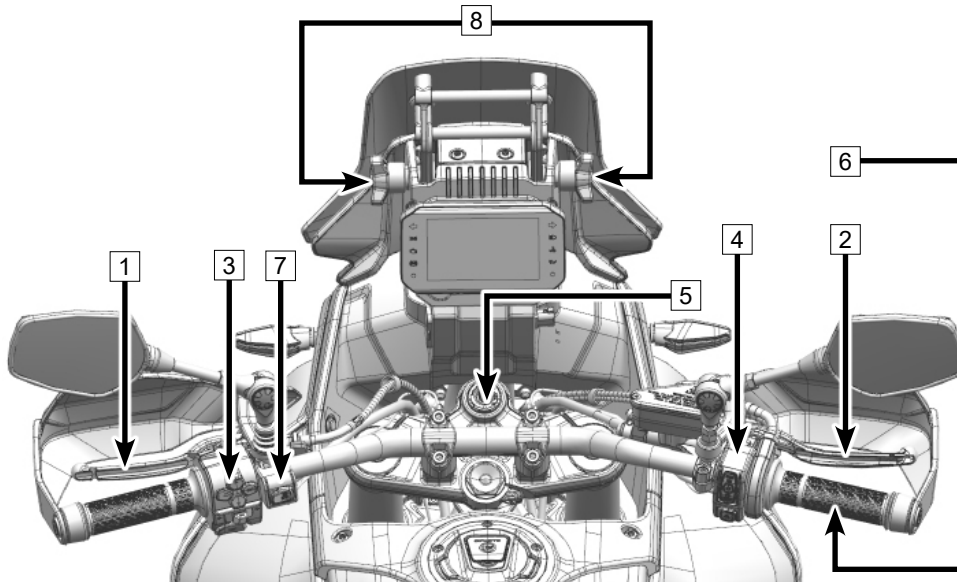
## Front Right View

1. Footrest Kit
2. Rear Brake Lever



## Bird View

1. Clutch Lever
2. Front Brake Lever
3. Handlebar Switch, LH
4. Handlebar Switch, RH
5. Ignition Switch Lock
6. Throttle Grip
7. Rear Wheel ABS Switch
8. Windshield Adjusting Knob

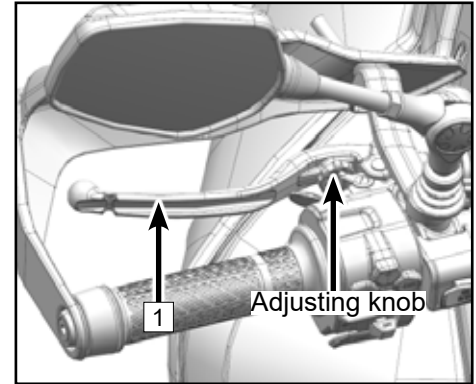


# OPERATING PARTS

## Clutch Lever

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

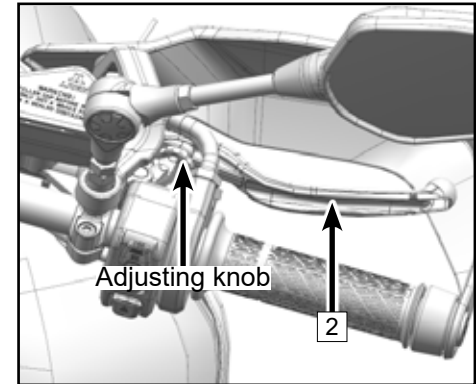
Adjust the clutch lever's distance to the handlebar by turning the clutch lever adjusting knob.



## Front Brake Lever

The front brake lever **2** is on the right side of handlebar. Using the front brake lever activates the front brake caliper, which activates braking.

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









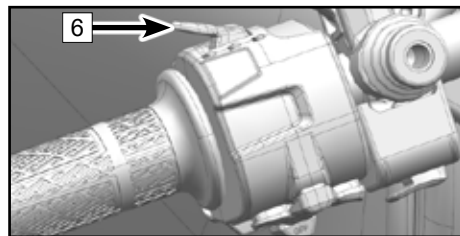
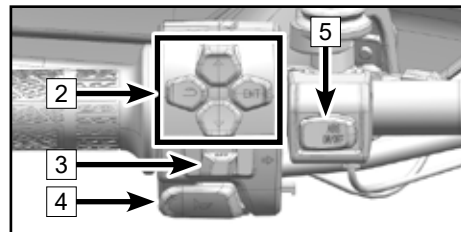
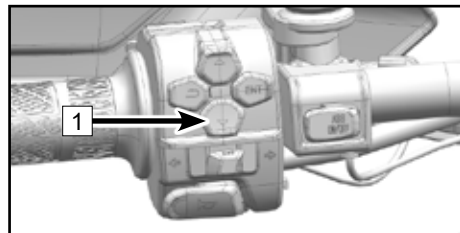


## Handlebar Switch, LH

The left handlebar switch **1** is on the left side of the handlebar.

### Functions of Left Handlebar Switch





<b>2</b>	Instrument button	Instrument operations, please refer to INSTRUMENT.	
<b>3</b>	Turning light switch		Push this switch to the right, the right turning light will be on.
			Push this switch to the left, the left turning light will be on.
<b>4</b>	Horn button		Press and the horn will sound.
<b>5</b>	Rear wheel ABS switch	ABS ON/OFF	When the vehicle is power on, and at rest, long press switch > 2 seconds. Rear wheel ABS function is turned off, press switch again, the function is turned on.
<b>6</b>	Dimmer push switch		Press this button, passing light will flash.
			Turn to this position, high beam lights will be on.
			Turn to this position, low beam lights will be on.



## Handlebar Switch, RH

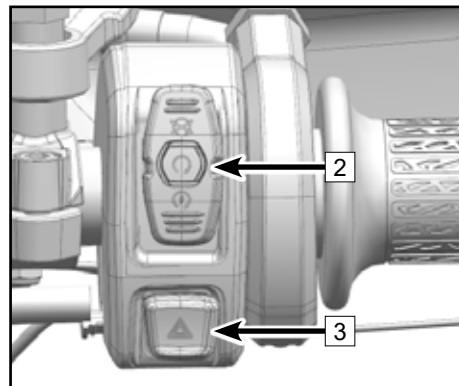
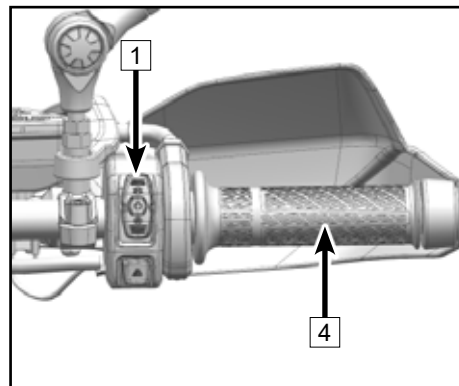
The right handlebar switch **1** is on the right side of the handlebar.

### Functions of Right Handlebar Switch

<b>2</b>	Start and stop switches		Turn to this position, the vehicle stops.
			Turn to this position, the vehicle is preparing for starting.
			Turn to this position, the vehicle starts.
<b>3</b>	Hazard flasher switch		Press to turn on the hazard flasher light.




## Throttle Grip

The throttle grip **4** is at the right side of the right handlebar.



## Locks

### Ignition switch 1

Handlebar lock		Turn the handlebar to the left, then turn the key to the lock indicator to lock the handlebar.
Stop		Turn the key to this position, the engine cannot be started and all the vehicle's power circuits are disconnected.
Start		Turn the key to this position, the engine can be started and all the vehicle's power circuits are connected.

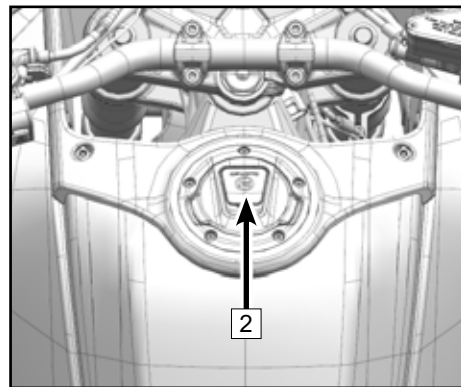
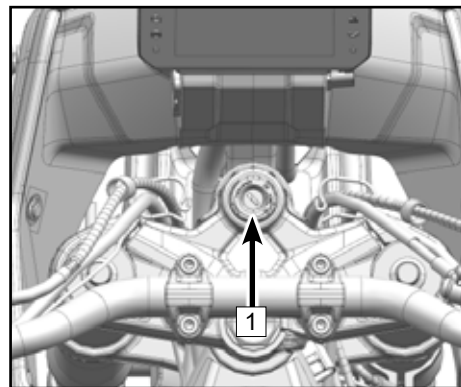
### Fuel Tank Lock 2

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

Open the fuel tank lock cover.

Insert and turn the key to release the lock.

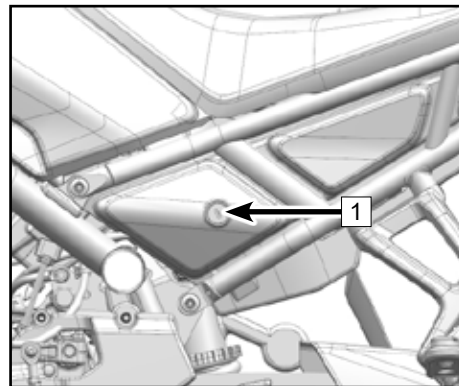
Open the fuel tank cap.



## Seat Lock

The seat lock **1** is on the left side of the vehicle.

The seat can be removed by inserting the key and turning to release the lock.



## Gear Shift Lever

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

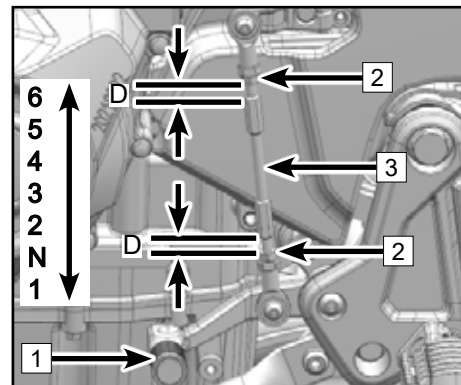
The exposed length  $D$  of the screw thread at both ends of the middle connecting rod is adjustable (the adjustment range is 0.19 in ~ 0.43 in).

Loosen the locking nuts **2** at both ends.

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

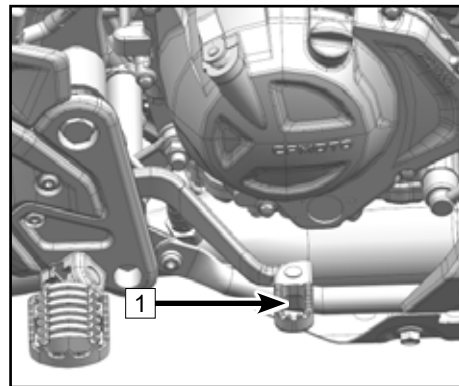
Relock the nuts.

Torque: 4.4 ft-lb (6 Nm)



## Rear Brake Lever

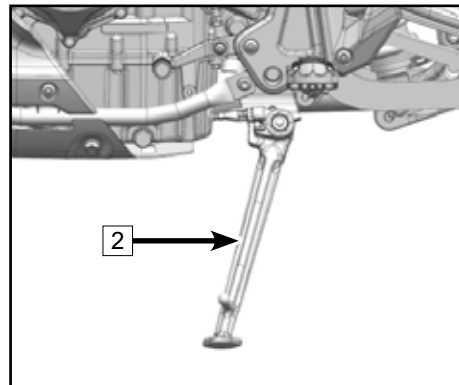
The rear brake lever **1** is on the right side of the engine. Stepping on the rear brake lever activates the front rear caliper, which activates braking.



## Side Stand

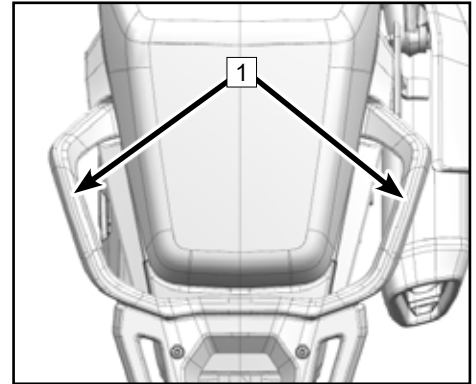
The side stand **2** is on the left side of the vehicle, and is used for parking.

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

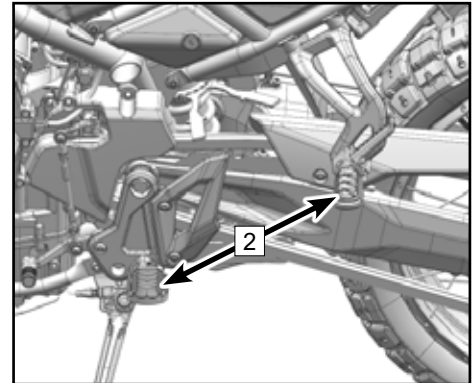


## Passenger Handhold and Footrests

The passenger handhold **1** is fixed on the motorcycle and can be held by the passenger, such as a pulling belt or handle, etc.



Footrests **2** are pedals or footboards fixed on the motorcycle for the operator and passenger to put their feet.

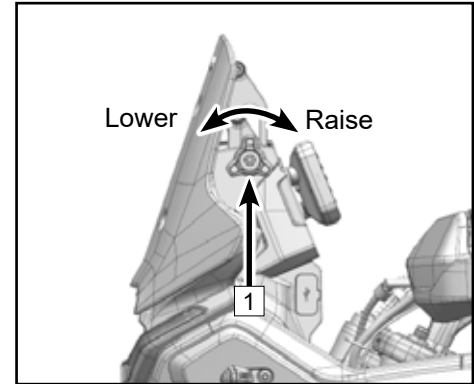


## Windshield Height Adjustment

The height of the windshield is adjustable, which can be adjusted by rotating the adjusting knob **1** to raise or lower the windshield. If the adjusting knob cannot be turned any further, it has reached the limit points.

Adjusting range: 2 in (50 mm)

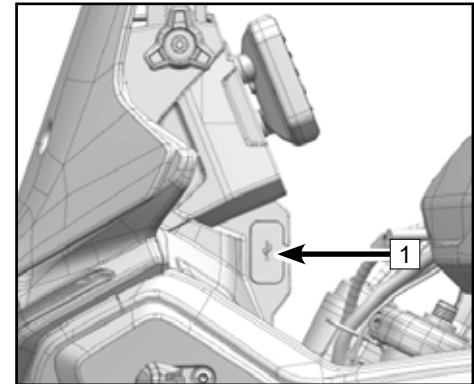
**Note: Restore to the factory setting (lowest point) when applying for the vehicle license at the local transportation department.**



## Electrical Parts Socket

The electrical parts socket **1** is on the left side of vehicle body, it can supply power to electrical parts.

The electrical parts socket has a USB connector and a Type-C connector.



# INSTRUMENT

## NOTE

With function adjustment and version updates of the instrument and renewed vehicle configurations, some contents of the instrument may change, please selectively refer to this chapter according to your vehicle.

### Instrument

The instrument is mounted at the front side of the handlebar and divided into two function areas:

1 : Instrument Indicators

2 : Instrument Display

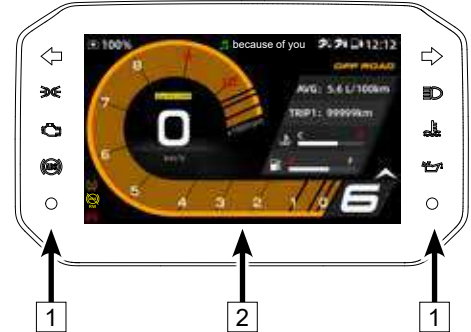
### Activation and Testing

#### Activation

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

#### Testing






The display screen shows a startup cartoon and the indicator light is turned on for self-inspection and at this time, the button will not respond until the cartoon is over.








# Instrument Indicators



Number	Symbol	State	
1		Turning light indicator	When turning signal indicators are flashing, the corresponding turning lights are on.
2		Position light indicator	When the position light indicator is on, the position light is turned on.
3		EFI fault indicator	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		ABS fault indicator	If the ABS system works normally, it will be on when the vehicle is in parking state or low-speed riding, which is a normal phenomenon. If there is any ABS fault, the ABS indicator will be on, and at this time, the ABS system will stop working, but general braking functions may still function normally. Please reduce the speed and avoid sudden braking, and promptly contact an authorized CFMOTO service center.
5		High beam indicator	When the high beam indicator is on, the high beam light is turned on.

6		Coolant temperature alarm indicator	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 to drop. And if this indicator turns on frequently, contact an authorized CFMOTO service center.
7		Engine oil pressure indicator	When the oil pressure indicator is on, the oil level is very low, so please replenish or replace the oil in time to avoid any engine faults.
8		Brightness Control indicator	When the Brightness Control indicator is enabled, the instrument automatically adjusts its brightness according to the external environment light.

## Instrument Display

### Sports camera

This feature records riding moments. It can be used only when equipped with a T-BOX, and it is only for Insta x3 (launch permission selectively). Users can pay for a subscription via the CFMOTO RIDE APP (monthly/semi-annually/yearly). Make sure the vehicle is connected to the camera via Bluetooth.

### Main functions:

1. Start shooting: When the sports camera is connected to the vehicle, long press the switch button ▽ on the LH handlebar for > 1 second to enable the preset function of recording/shooting.



2. Stop shooting: When the camera is shooting, long press the switch button ▽ on the LH handlebar for > 1 second to stop shooting.
3. Connection: When the equipment is connected, the UI interface will display the connection status and remaining power of the sports camera.
4. Shooting status display: The camera icon on the dashboard will turn red with a breathing-blinking effect to remind the users of the changes in shooting status.
5. Delivery of vehicle information: Riding information (speed, gear, RPM, vehicle body tilt tendency, riding track, etc.) can be transmitted via Bluetooth. A CFMOTO module is available for editing the video.

## Engine RPM

The unit of engine speed is 1000 revolutions per minute.

During the break-in period, avoid high engine RPMs. Avoid engine speeds approaching the red zone at all times and as much as possible to increase engine life. Also avoid high engine speeds until the engine has heated up.



## Music/Calling

When playing music from the cell phone via Bluetooth, the current song will be displayed in this area of the instrument. While playing music, the user can select the priority for receiving calls. Press ENT on the LH handlebar to pick up the phone, and press ↶ on the LH handlebar to hang up the phone.

## Clock

The current time is displayed here.  
Set the current time through the menu.  
Switch between 12 hours and 24 hours through the menu.

## Bluetooth

Bluetooth is used to connect mobile phones and helmets.

When the user's mobile phone / helmet is connected to the motorcycle's instrument through Bluetooth, the area will display the mobile logo, helmet logo (helmet 1 and helmet 2), and the remaining power of the mobile phone, helmet 1 and helmet 2.

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

### Side Stand Indicator

When the side stand is used, its indicator light is on. At this time, the motorcycle cannot be started in gear, the vehicle can be started only in the neutral gear.

### Speed

The current speed per hour is displayed here. Metric km/h and British mph can be switched through the menu.

### TC indicator

Functions of TC indicator: TC work indicator (🟡), TC fault indicator (🔴!), TC off indicator (🟢).  
The TC indicator will flash when the TC indicator works, the TC fault indicator will be on when a fault occurs, and the TC indicator will be off when the TC indicator stops.

### RW ABS stop indicator

When the rear wheel ABS function is off, the indicator will be on.



### Gear display

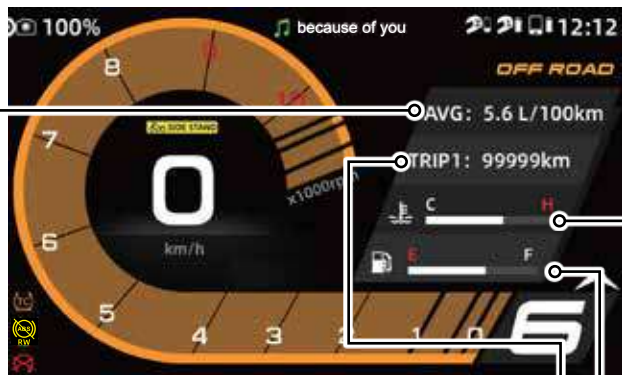
The vehicle's current gear is displayed here.  
The neutral gear is displayed in green.

### Upshift Alert

The user can enable the Upshift Alert in the menu. Remind the user to change gears when the engine speed reaches the recommended gear-shifting range.

### Stop Indicator Light

When the stop indicator light is on, the stop switch is turned off and the vehicle is off.



### Information 1

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

Information 1: ODO, TRIP1, TRIP2.

### Information 2

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

Information 2: Range, Voltage, Instant Fuel, Time, Average fuel, Average speed.

### Coolant Temperature

The coolant temperature is displayed using several bars. The more bars are lit up, the higher the coolant temperature. When the last bar turns red, the coolant has reached a dangerous temperature higher than 115 °C.

#### **⚠ WARNING**

Excessive temperature may damage the engine. If the coolant reaches a dangerous temperature, please park the vehicle in line with local laws and regulations and wait for the temperature to drop.

Please replenish the coolant to its proper level after the cooling system has been totally cooled. Under normal riding conditions, if the coolant frequently reaches the dangerous temperature, please promptly contact an authorized CFMOTO service center.

### Fuel

The current remaining fuel level is displayed here. If remaining fuel is low the indicator turns yellow. Replenish the fuel as soon as possible, insufficient fuel may cause damage to the fuel pump.

## Instrument Menu

Adjust the instrument settings to enhance the driving experience using the menu features.

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

### **WARNING**

The menu mode is only allowed when the motorcycle is stopped.

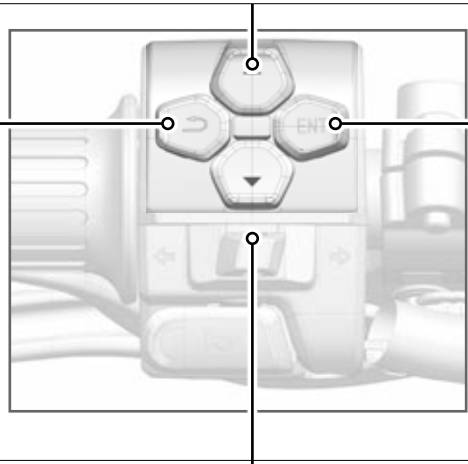
The menu buttons are on the left handlebar switch. Use them to operate the following instrument functions.





For Main interface: press it to switch Information 1.  
For the first-level menu, second-level and lower menu: press it to select the prior choice.  
For Music: at the main interface, press it to increase the volume and long press it to select the prior song. On the Menu interface, press it to increase the volume and long press it to select the prior song.  
When on the phone: press it to increase the volume.

For Main Menu: press it to clean the pop-up window.  
For the first-level menu, second-level and lower menu: press it to return to the prior menu.  
For Calling: press it to hang up the phone.  
For projection screen: press it to return to the projection screen interface.  
For Music: press it to return to the main interface.



For Main interface: press it to enter the first-level menu, and long press it to play the song (when Bluetooth is connected).  
For the first-level menu, second-level and lower menu: press it to enter the next menu or to confirm the choice.  
For Calling: press it to answer the call.  
For Music: at the main interface, press it to enter the first-level menu, and long press it to pause or play.  
For music: on the Menu interface, press it to pause or play.

For Main interface: press it to select Information 2.  
For the first-level menu, second-level and lower menu: press it to enter the next menu.  
When on the phone: press it to decrease the volume.  
For Music: at the main interface, press it to decrease the volume, and long press it to select the next song.  
For music: on the Menu interface, press it to decrease the volume, and long press it to select the next song.

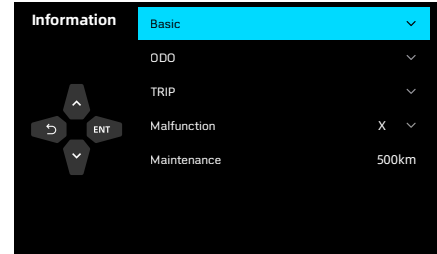
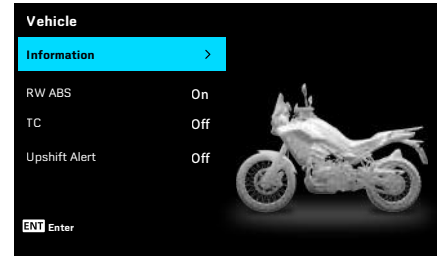
**Note: The priority of buttons is calling, music and then others.**

## Vehicle

Users can inspect, adjust, and set to the following items in the setting menu.

**Inspection items: Information (Basic, ODO, TRIP, Malfunction, Maintenance).**

**Adjustment and set items: RW ABS, TC, Upshift Alert.**



## Vehicle Information – Basic

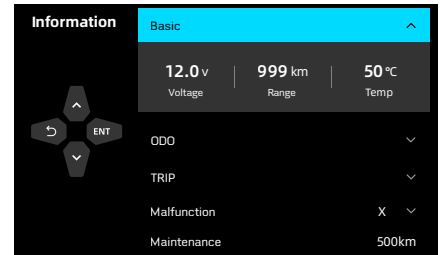
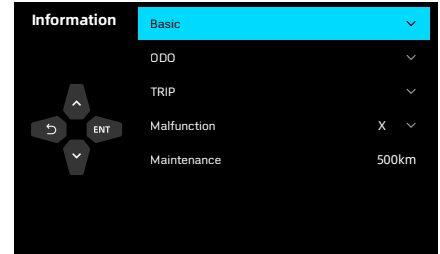
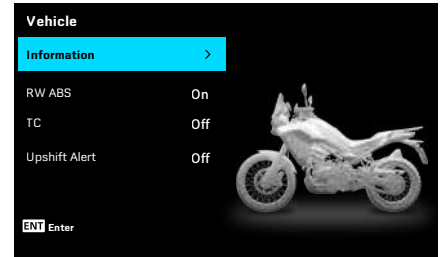
On the basic information interface, the user can check the voltage, mileage and coolant temperature.

Press ENT enter the menu interface.

Press  $\Delta$  or  $\nabla$  to select **Vehicle**, press ENT to enter.

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

Press  $\Delta$  or  $\nabla$  to select **Basic**, press ENT to enter the basic information, press ENT again to close the basic information.



## Vehicle Information – ODO

On the ODO information interface, the user can check the total mileage, driving time, speed and fuel consumption.

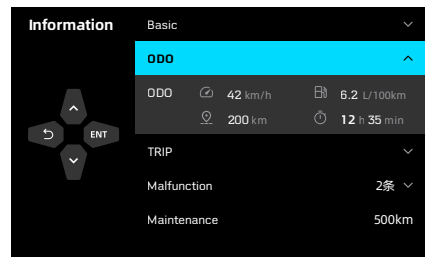
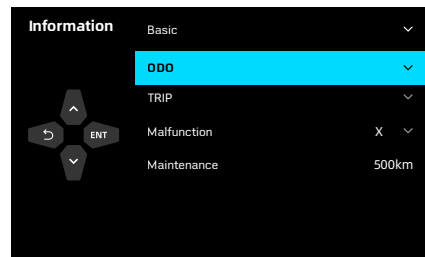
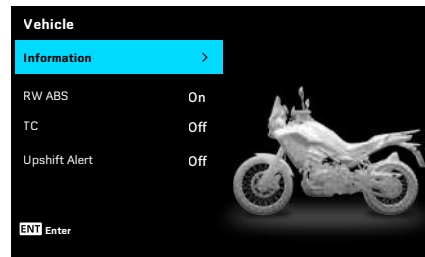
Press ENT to enter the menu interface.

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

Press  $\triangle$  or  $\nabla$  to select **Information** interface.

Press  $\triangle$  or  $\nabla$  to select **ODO**, press ENT to open the ODO information, press again to close the ODO information.

**ODO information cannot be reset.**



## Vehicle Information – TRIP

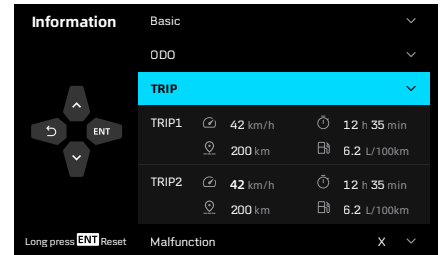
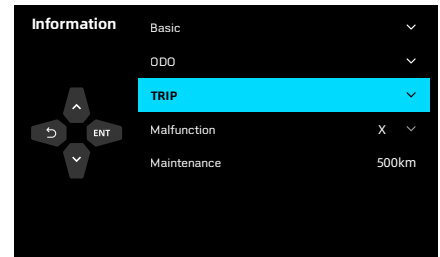
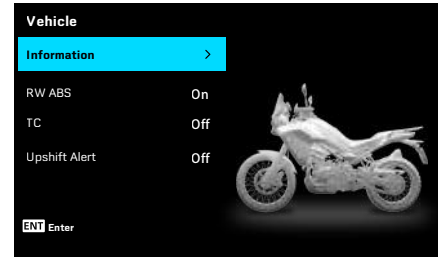
On the TRIP information interface, the user can check the TRIP1 mileage, TRIP2 mileage, riding time, speed and fuel consumption.

Press ENT enter the menu interface.

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

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

Press  $\triangle$  or  $\nabla$  to select **TRIP**, press ENT to open the TRIP information, press ENT again to close the TRIP information.



## Vehicle Information – TRIP – TRIP1/TRIP2 reset

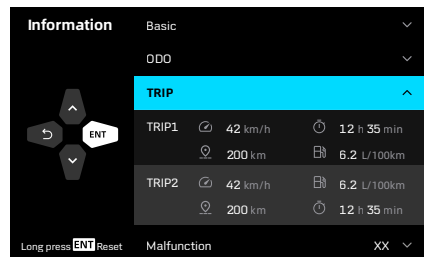
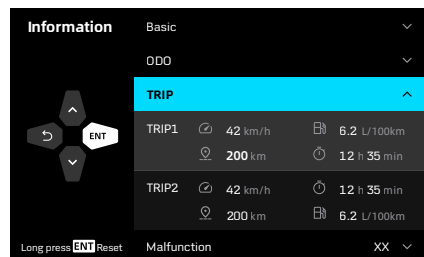
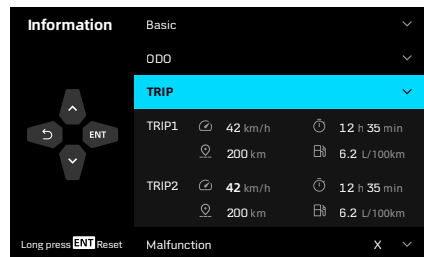
Press ENT enter the menu interface.

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

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

Press  $\triangle$  or  $\nabla$  to select **TRIP**, press ENT to open the TRIP information.

Press  $\triangle$  or  $\nabla$  to select **TRIP1 / TRIP2**, long press ENT to reset the TRIP1/TRIP2 data.



## Vehicle Information – Malfunction

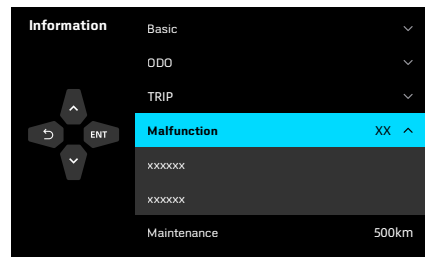
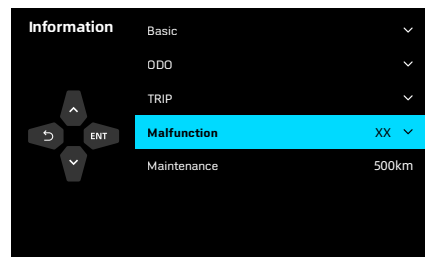
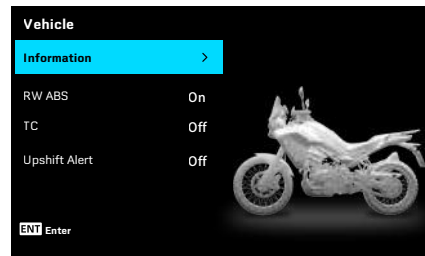
On the fault interface, the user can check the fault information or fault reminder, clear the fault when it occurs, contact an authorized CFMOTO after-sale service center if necessary.

Press ENT enter the menu interface.

Press  $\Delta$  or  $\nabla$  to select **Vehicle**, press ENT to enter the vehicle setting interface.

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

Press  $\Delta$  or  $\nabla$  to select **Malfunction**, press ENT to inspect the details (if the number of faults is zero, the faults cannot be checked), press ENT again to close the fault information.



## Vehicle Information – Maintenance

On the vehicle information interface, the user can inspect the remained service mileage information. When the mileage for the regular service is reached, the instrument will pop-up a window to remind the user to carry out the service at an authorized CFMOTO service center.

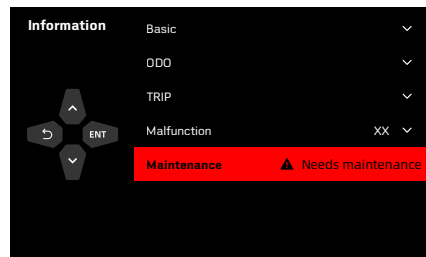
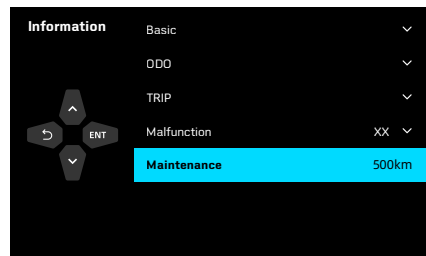
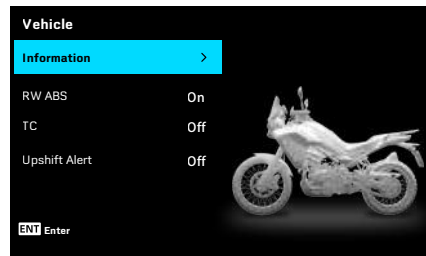
Press ENT enter the menu interface.

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

Press  $\triangle$  or  $\nabla$  to select **Information**, press ENT to enter. Inspect the remaining mileage information for the next service.

### Reset the remaining mileage for the next service:

Press  $\triangle$  or  $\nabla$  to select the mileage for the next service, press ENT for 10 s, and confirm to reset.





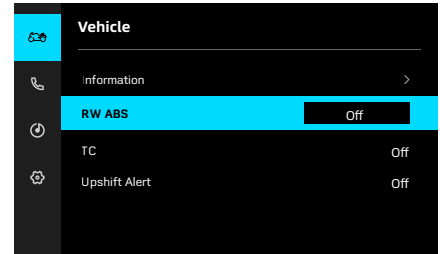
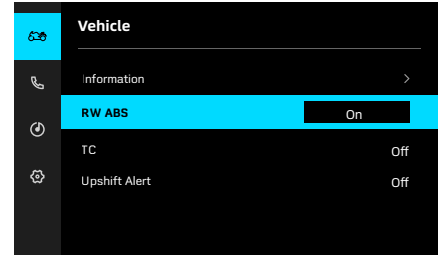
## RW ABS

On the vehicle setting interface, the user can turn on or off the rear wheel ABS function. (When the vehicle is powered on, this function will turn on by default).

Press ENT to enter the menu interface.

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

Press  $\triangle$  or  $\nabla$  to select **RW ABS**, press ENT turn on or turn off the rear wheel ABS, press  $\curvearrowright$  to confirm your selection.



## TC (Traction Control System)

The Traction Control System helps the vehicle get the best traction and stability possible for the riding conditions or speeding.

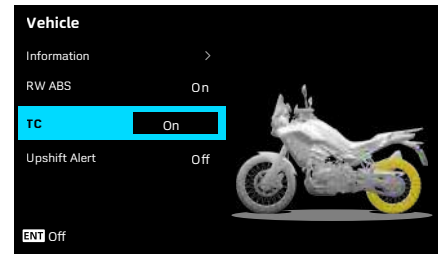
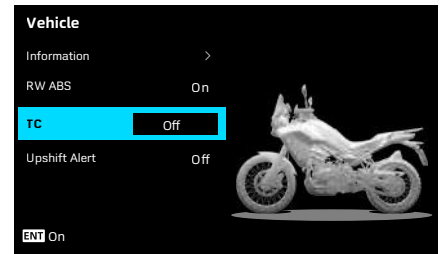
The main performance of traction control system:

1. Controlling engine power when there is idling at the wheels maintains stability and traction of the vehicle by reducing the amount of fuel injected to mitigate tire slippage caused by loss of tire traction.
2. When the motorcycle accelerates sharply, it can help to better control the power input. When the motorcycle appears to have tire slippage, it can maintain stability and traction of the vehicle by reducing the engine output power.
3. When the road gets wet, it can help to reduce the tire slippage, and increase the stability and traction of the vehicle.

Press ENT to enter the menu interface.

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

Press  $\triangle$  or  $\nabla$  to select **TC**, press ENT turn on or turn off the TC function, press  $\rightarrow$  to confirm your selection.



## Upshift Alert

Shifting at the right RPM can effectively reduce the shifting pauses, protect the clutch and so on. Opening and setting the appropriate Gear Change Reminder can help the driver to become familiar with the vehicle more quickly.

The recommended upshifting speed is 6500 rpm.

Press ENT to enter the Menu interface.

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

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

Press  $\triangle$  or  $\nabla$  to select **Upshift Alert**, and press ENT to turn on or turn off Gear Change Reminder.

Reminded speed can be set after turning on Gear Change Reminder.

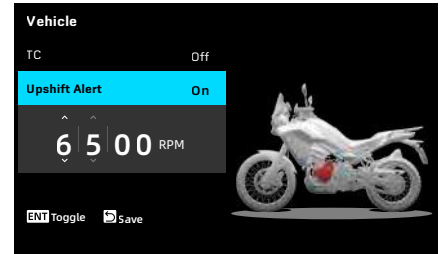
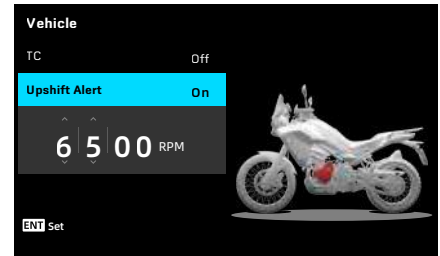
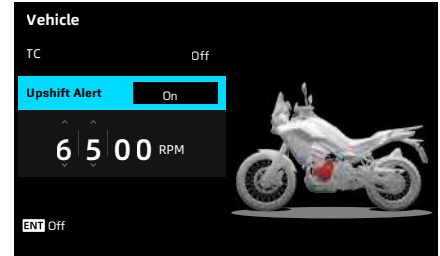
Press  $\nabla$  to select upshifting RPM column, and press ENT to activate the column. At this time, the button icons ' $\wedge$ ' ' $\vee$ ' above and below the kilobit value '6' will light up. (Press  $\triangle$  to adjust the number from 0-9, press  $\nabla$  adjust the number from 9-0).

Press ENT to cycle switching between the kilobit value and hundreds value.

Kilobit value adjustment range: 2-9

Hundred value adjustment range: 0-9

After adjustment, press  $\rightarrow$  to confirm your selection.



## Phone

In the Telephone menu, users can check the following contents.

Contacts

Recents

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



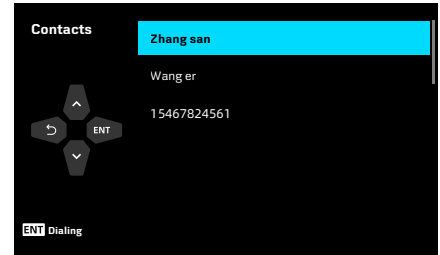
## Contacts

On the Contacts interface, users can view the contacts recorded by their Bluetooth-connected mobile phone and dial the numbers. Press ENT to enter the Menu interface.

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

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

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



## Recents

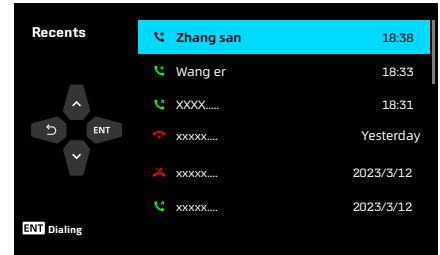
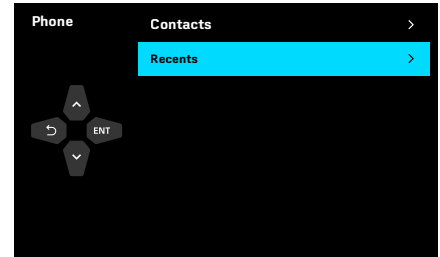
On the Recent Calls interface, users can view the recent calls recorded by the Bluetooth-connected mobile phone and dial the numbers.

Press ENT to enter the Menu interface.

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

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

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



## Music

On the Music interface, users can play songs on the phone through Bluetooth. With the button on the LH handlebar users can switch between the previous and the next song, or pause and continue music, adjust the volume and use other functions.

Press ENT to enter the Menu interface.

Press  $\Delta$  or  $\nabla$  to select the **Music** and press ENT to enter the Music interface.

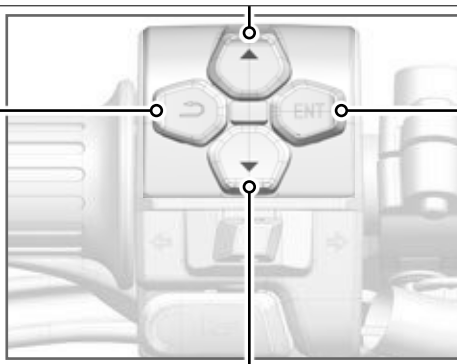
Playing songs on your phone.



For Music: on the main interface, press it to increase the volume, long press it to switch to the previous song.

For Music: on the menu, press it to increase the volume, long press it to switch to the previous song.

For Music: on the menu, return to the main interface.



For Music: on the main interface, press it to enter the first-level Menu, and long press it to pause or play.

For music: on the Menu interface, press it to pause or play.

For Music: on the main interface, press it to decrease the volume, long press it to switch to the next song.

For Music: on the menu, press it to decrease the volume, long press it to switch to the next song.

## Settings

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

Theme

Device Connection

Information 1

Information 2

Auto Brightness

Unit

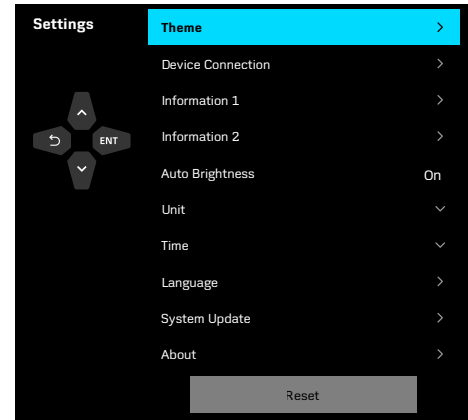
Time

Language

System Update

About

Reset





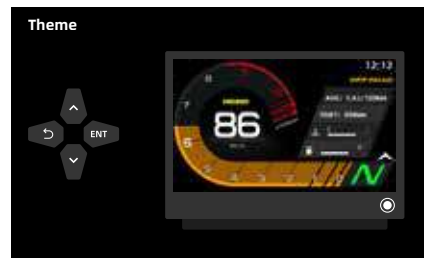
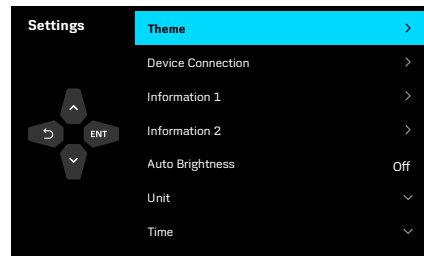
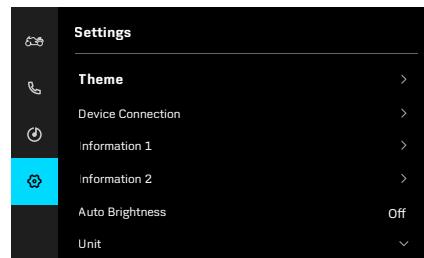
## Theme

The main interface of the instrument is equipped with multiple sets of subject styles, and you can choose your favorite one in the menu.

Press ENT to enter the Menu interface.

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

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



## Device Connection – (3 - 1)

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

Press ENT to enter the Menu interface.

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  $\nabla$  to select **Settings**, and press ENT to enter.

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

Press  $\triangle$  or  $\nabla$  to select **Phone**, press ENT to enter, and the instrument will automatically search for available Bluetooth devices.

Press  $\triangle$  or  $\nabla$  to select your wanted equipment, and press ENT to connect.

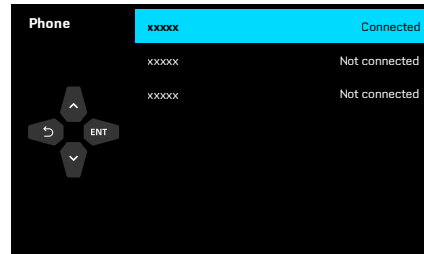
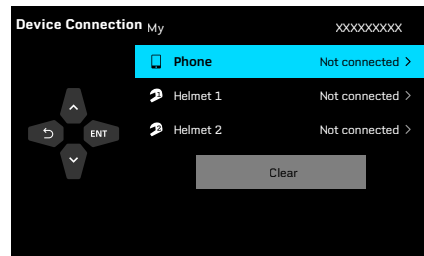
On your phone, it will pop up a window to confirm, click to connect it.

Wait until your equipment is connected.

When the connection is established, 'connected' will be displayed on your phone.

### Disconnection

Press  $\triangle$  or  $\nabla$  to select your **Connected** Bluetooth phone, and press ENT to disconnect.



## Device Connection – (3 - 2)

Follow these steps to connect your helmet Bluetooth:

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

Press ENT to enter the menu interface.

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

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

Press  $\triangle$  or  $\nabla$  to select **Helmet 1 / Helmet 2**, press ENT to enter, and the instrument will automatically search for the Bluetooth device.

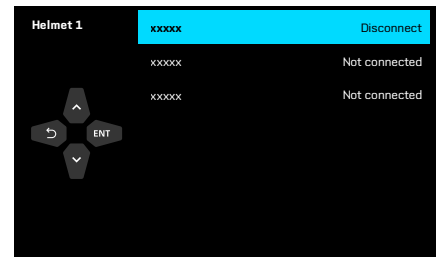
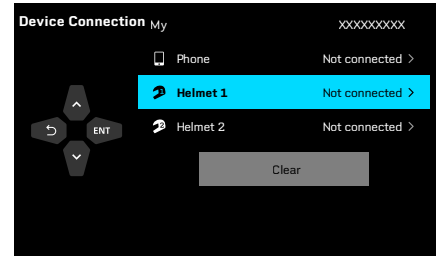
Click your wanted connection equipment.

Wait until your equipment is connected.

When the connection is established, 'connected' will be displayed on your phone.

### Disconnection

Press  $\triangle$  or  $\nabla$  to select your connected Bluetooth helmet, press ENT to disconnect.



### Device Connection – (3 - 3)

Following these steps to disconnect.

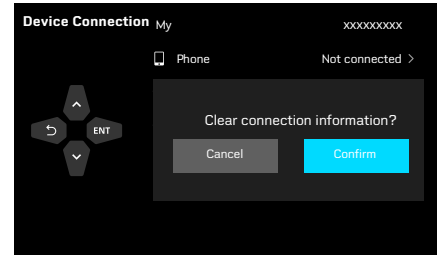
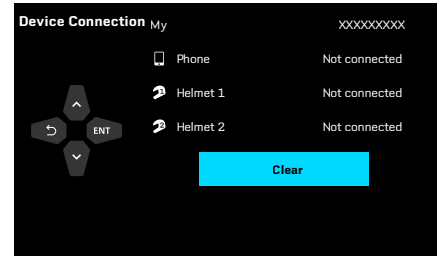
Press ENT to enter the menu interface.

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

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

Press  $\triangle$  or  $\nabla$  to select **Clear**, and press ENT to enter the pop-up window.

Press  $\triangle$  or  $\nabla$  to select **Cancel/Confirm**, and press ENT to enter.



## Information 1

Select one message from Information 1 to display on the main interface.

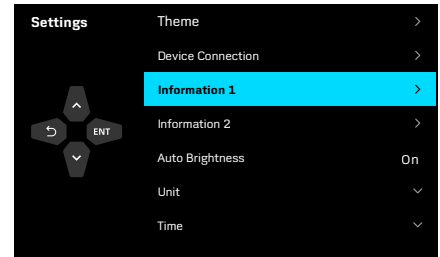
Press ENT to enter the Menu interface.

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

Press  $\Delta$  or  $\nabla$  to select **Information 1**, and press ENT to enter.

Press  $\Delta$  or  $\nabla$  to select the Information you want to display on the main interface, and press ENT to enter.

**Information 1: ODO, TRIP1, TRIP2.**



## Information 2

Select one message from Information 2 to display on the main interface.

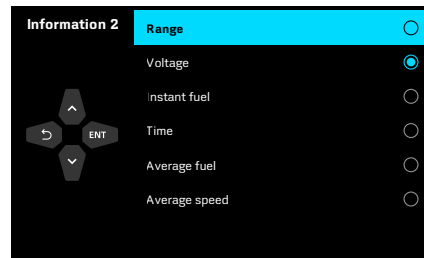
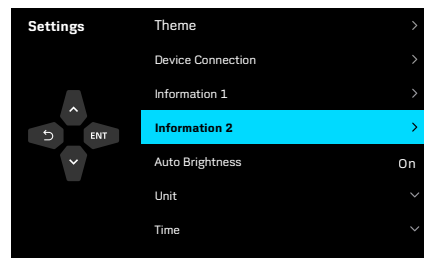
Press ENT to enter the Menu interface.

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

Press  $\triangle$  or  $\nabla$  to select **Information 2**, 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 enter.

**Information 2: Range, Voltage, Instant fuel, Time, Average fuel, Average speed.**



## Auto Brightness

Manually adjust the brightness of the instrument, or the instrument automatically adjusts its brightness according to the external environment light.

Press ENT to enter the Menu interface.

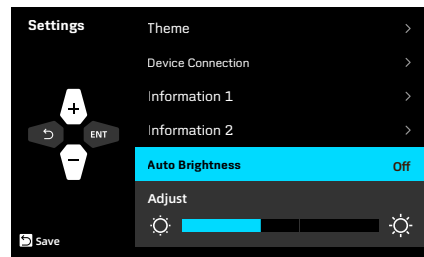
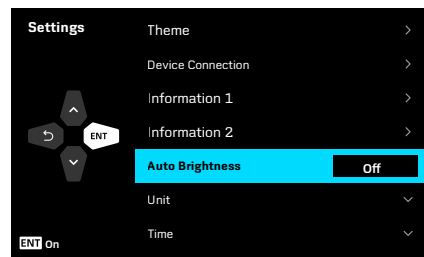
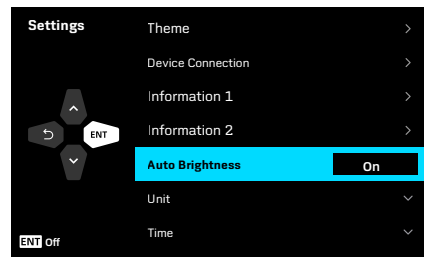
Press  $\triangle$  or  $\nabla$  to select **Settings**, and press ENT to enter Settings interface.

Press  $\triangle$  or  $\nabla$  to select **Auto Brightness**, and 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 select the brightness adjustment column, and press ENT to activate it.

Press  $\triangle$  or  $\nabla$  to adjust the brightness and press  $\curvearrowright$  to confirm your selection.



## Unit

Change units of speed and temperature to suit your reading habits.

Press ENT to enter the Menu interface.

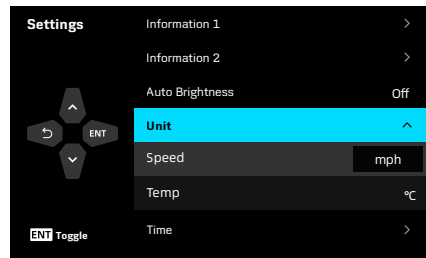
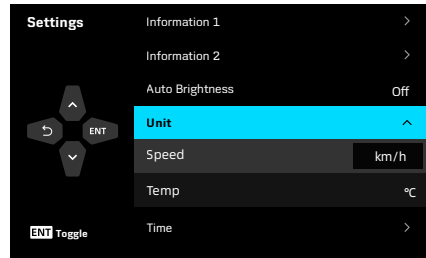
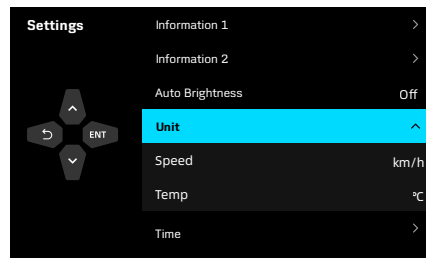
Press  $\triangle$  or  $\nabla$  to select **Settings**, and press ENT to enter Settings interface.

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

Press  $\triangle$  or  $\nabla$  to select the unit you need to switch (**Speed/Temp**), and press ENT to switch the unit. Otherwise, press  $\rightarrow$  to confirm your selection.

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

km/h..... mph  
°C ..... °F





## Time

Adjust the time displayed on the main interface.

Press ENT to enter the Menu interface.

Press  $\Delta$  or  $\nabla$  to select **Settings**, and press ENT to enter Settings interface.

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

Press  $\Delta$  or  $\nabla$  to select the **time format**, and press ENT to switch (12 hours/24 hours).

Taking 12 hours format as example, press  $\nabla$  to select the AM/PM adjustment column.

The button icons ' $\wedge$ ', ' $\vee$ ', will light up above and below the 'AM' in the time adjustment column.

Press  $\Delta$  or  $\nabla$  to select the time period 'AM' or 'PM' (24 hours time format don't have this option, as illustrated in the third figure).

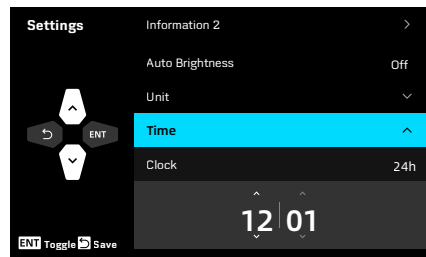
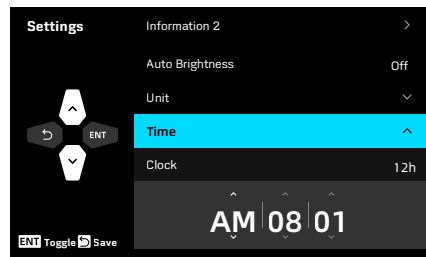
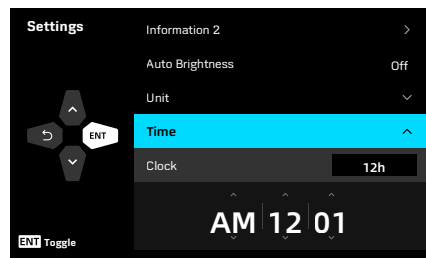
Press ENT to validate and to select the hour adjustment column (08).  
Press ENT to validate and to select the minute adjustment column (01).  
With 24 hours format, only the hour and minute columns can be selected, as illustrated in the third figure .

Press  $\Delta$  or  $\nabla$  to adjust the time you want, and press  $\rightarrow$  to confirm your selection.

Press  $\Delta$  to plus the number, press  $\nabla$  to reduce the number.

Hour format switch range: 01-12

Minute format switch range: 00-59



## Language

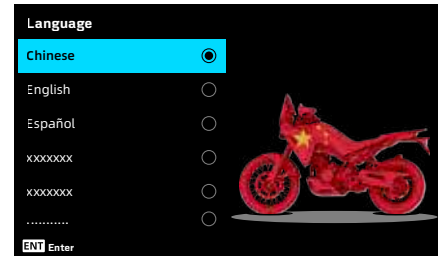
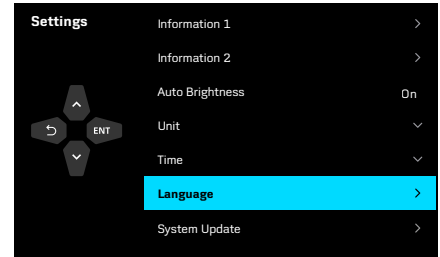
Adjust the instrument's language by switching between the displayed languages to suit your reading habits.

Press ENT to enter the Menu interface.


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

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

Press  $\triangle$  or  $\nabla$  to select **Your wanted language**, and press ENT to confirm.



## System Update

When the vehicle detects a new version, the system upgrade module displays a pop up a window to remind it. If the user cannot upgrade immediately, press  to disregard the upgrade window this time. When the user is available, enter the system settings to perform the upgradation.

Follow these steps to operate:

Press ENT to enter the Menu interface.

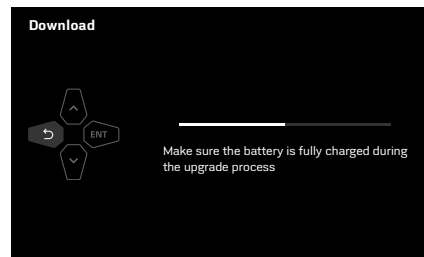
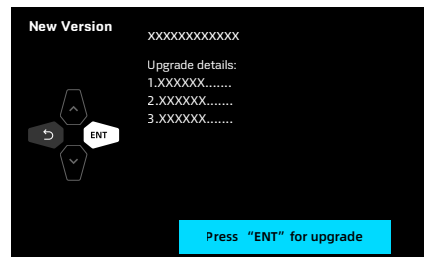
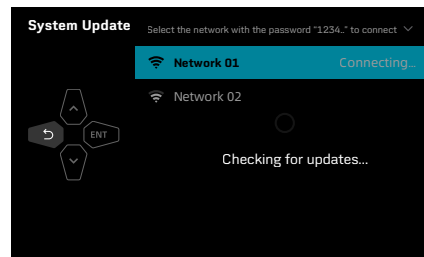
Press  $\Delta$  or  $\nabla$  to select **Settings**, and press ENT to enter Settings interface.

Press  $\Delta$  or  $\nabla$  to select **System Update**, press ENT to confirm and automatically search for an available network connection.


Press  $\Delta$  or  $\nabla$  to select your wanted network, press ENT to connect.

When the connection is established, the system will automatically search for the newest version.

When the newest version is found, press ENT to upgrade, and wait the installation package has been downloaded and installed.



**NOTE:**

- 1. Don't turn off the vehicle's power supply during the installation. If the power supply is turned off, the installation will be aborted, and the user will have to download the installation package again.**
- 2. If the internet connection is interrupted for half a minute, the download will fail.**
- 3. The user can press  to cancel the download, and return to the New Version interface (as illustrated in the second figure).**
- 4. Make sure the battery is sufficiently charged for the system upgrade.**
- 5. If the download has failed, press ENT to download the installation package again.**

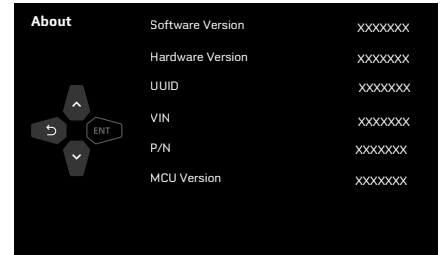
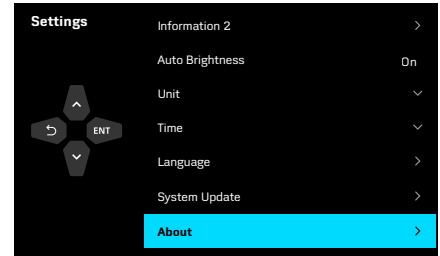
## About

On the vehicle information interface, user can check the current software version, hardware version, UUID, frame number, parts code, MCU version.

Press ENT to enter the Menu interface.

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

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



## Reset

Reset all instrument settings.

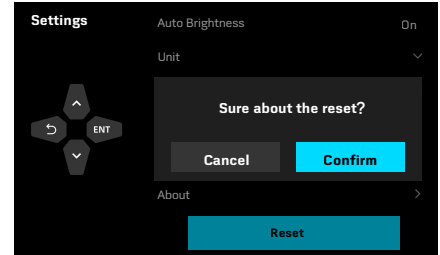
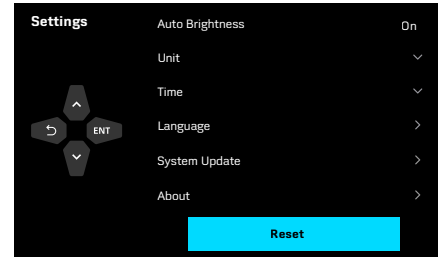
**NOTE:** This function does not reset ODO or related functions.

Press ENT to enter the Menu interface.

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

Press  $\triangle$  or  $\nabla$  to **Reset**, and press ENT to enter the pop-up window.

Press  $\triangle$  or  $\nabla$  to select **Cancel or Confirm**, and press ENT to make sure you really want to reset the settings.



# OPERATING YOUR VEHICLE

## Break-in Period

The break-in period for this vehicle is 1000 km. Maintain the vehicle according to the break-in period requirements.

The following regulations should be observed during a break-in period:

1. Do not press the starting button during riding and do not run the engine at high speeds immediately when it is just started. Allow the engine to warm for 2~3 minutes at idle speed and let the lubricant flow into all the engine parts.
2. Do not run the engine at high RPM when the vehicle is in neutral gear.
3. During the break-in period, CFMOTO suggests the top engine speeds as follows:

Odometer	Maximum Engine RPM
0 km ~ 500 km	4000 RPM
500 km ~ 1000 km	6000 RPM

### DANGER

New tires are slippery and can cause a loss of control and injury. The specified tire pressure must be guaranteed during a 1000 km break-in period. During the break-in period, avoid sudden or hard braking, sudden acceleration or sharp turns.

## 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 if anything is abnormal, 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 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 the rear brake pad. Inspect the thickness of the rear brake disc and inspect for any dirt or damage.
Chain and sprockets	Inspect the drive chain and sprockets for dirt and wear, and inspect their tension to see whether it is proper.
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 the front brake pad. Inspect the thickness of the 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 (if equipped)	Inspect the luggage to see whether it is fastened securely, and make sure the 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 for front lights meets the local regulations.
Operating parts	Inspect the steering, front and rear brakes, throttle and switches to see whether they 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 driver's license to ride the vehicle.

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

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

## Starting

Sit on the vehicle and support it with the side stand up.

Turn on the ignition switch.

Place the gear in Neutral.

Turn the stop switch to position "⊘".

Press the start button.

### CAUTION

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

Before the instrument self-inspection, do not start the vehicle with the start switch.

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

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

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

Do not press the start switch for more than five (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 longer than 30 minutes. Idling for a long-time 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 tightening 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 tighten 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 tightened.

### **WARNING**

Avoid any abrupt load alterations or strong brake operations, which can cause the vehicle to lose control.

Adjust the 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 and reduce the engine speed.

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

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.

Comply with local traffic regulations for minimum passenger age.

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

When the tires are low in temperature, their road grip performance is reduced. Be cautious and ride at an average speed until the tires are at their available temperature.

Do not exceed the maximum full load, which includes the motorcycle, driver, passenger and luggage.

 **WARNING**

Luggage sliding will affect the riding performance. Inspect the luggage to see whether it is fixed tightly on the vehicle, and to ensure that the width does not exceed 0.15 m from the handlebar for both left and right sides.

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.

Tighten the throttle according to the road conditions and climate. Do not shift gears, and be cautious to tighten the throttle, especially in turns.

## Braking

Release the throttle when applying the brakes, 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 the 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 front brake lever and rear brake lever feel soft, stop riding until the brake system is fully inspected and the faults eliminated.

Take your foot off the rear brake lever when you are not braking. Extended braking will cause brake pad overheating and excessive wear, which will affect service life and safety.

When carrying a passenger or luggage, the required braking distance will be increased. Please adjust the brake time according to the vehicle load.

When ABS is used, you can achieve maximum braking power even on low grip surfaces such as sandy, wet or slippery roads with no risk of locking of the wheels.

## Parking

Stop the vehicle by braking.

Shift the gear to neutral.

Turn off the ignition switch.

Park the vehicle on firm, level ground.

Use the 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 persons.

Lock the steering when leaving the vehicle unattended.

After running the vehicle, the temperature of some parts will be very high. Do not touch any 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 the materials.

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

## SAFE 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 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 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 the 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 the 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 quick acceleration, shift to a lower gear to obtain the necessary power. To avoid damage to the engine, do not down-shift at high RPM. Avoid unnecessary loose clothing, 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.

**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.

 <b>DANGER</b>
---

Do not speed on expressways, and obey the relevant laws and regulations. Motorcycles are banned on expressways in some regions unless they are approved by traffic authorities and their operators have the relevant skills and protection conditions.
--



## Precaution for Gentle Off-Road Surfaces

Driving on off-road surfaces (unpaved road) is different from on a paved road. It requires driving experience, and errors may lead to serious injury. Consider joining a riding club to get more off-road instruction, driving routes, and driving areas.

Always keep a safe distance from other riders ahead of you and behind of you when riding in a group. Never operate carelessly or make unexpected maneuvers with other vehicles close by. Stay on designated trails and riding areas, and discourage others from operating in unauthorized locations.

Pay attention to the following safety precautions to prevent accidents on gentle off-road roads:

### **Danger**

1. Cargo weight carried in the left and right side boxes (if equipped - available only in selected countries) should try to be equal. Balance is very important when driving off-road, especially in soft sand terrain or wetland terrain where it is easy to get stuck, drift, or where additional throttle is required to maintain constant speed.
2. When driving off-road in complex or extreme surface conditions, reducing the tire pressure appropriately can help for better operating control, ground holding, and stability.
3. Keep constant throttle opening during off-road driving and prevent abrupt throttle changes.
4. Keep the handlebar stable during off-road driving to prevent steering wagging.
5. Try to use the rear brake and engine braking to reduce speed and maintain steering control.
6. Plan a sensible driving route. Avoid serious conditions or surfaces that are beyond your driving ability. Pay high attention to the conditions during driving and try to choose solid ground.
7. Try to avoid deep puddles or muddy ground. Test the water depth and surface condition, and if you can, avoid riding through it.

Consult your authorized CFMOTO dealer for more safety information.

# 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 crucial. If you are not familiar with maintenance procedures, have a qualified dealer take care of these 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 the oil immediately if the oil level begins to rise. Monitor the oil level, and if it continues to rise, stop using the vehicle and trouble-shoot or see your dealer.

## Improper Use

CFMOTO defines improper use of the vehicle as:

- Often immersed in mud, watery or sandy places.
- Racing or racing-style use of high RPM.
- Running at low speed for a long time, and carrying heavy loads.
- Idling the engine for a long time.
- Short-distance operation in cold weather.
- 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, for example if used in wet or dusty conditions.
- Lubricate before long periods of storage, after pressure washing, or after submerging the drive system.

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

## Break-In Maintenance Chart

Item		Break-In Maintenance Interval (maintain the item that reaches the interval first)			
		Calendar	Miles	Km	Notes
<b>Engine</b>					
■	Oil and oil filter	-	600	1000	Replace.
■	Coarse oil filter	-	600	1000	Clean.
	Idle	-	600	1000	Inspect.
■	Coolant	-	600	1000	
■	Throttle system	-	600	1000	
<b>Electrical system</b>					
■	Functions of electrical parts	-	600	1000	Inspect.
	Battery	-	600	1000	
	Fuses or circuit breakers	-	600	1000	
<b>Brake</b>					
	Brake discs	-	600	1000	Inspect.
	Brake pads	-	600	1000	
	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.

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

Item	Break-In Maintenance Interval (maintain the item that reaches the interval first)				
	Calendar	Miles	Km	Notes	
<b>Wheels</b>					
	Tire condition	-	600	1000	Inspect.
	Tire pressure	-	600	1000	
■	Rim spoke	-	600	1000	Inspect and adjust if necessary.
<b>Suspension</b>					
■	Rear and front shock absorbers	-	600	1000	Inspect for oil leakage (maintain the front forks and the rear shock absorber according to the requirement and purpose).
<b>Cooling system</b>					
	Coolant level	-	600	1000	Inspect the coolant level for leakage.
■	Coolant	-	600	1000	
■	Radiator fan function	-	600	1000	Inspect for normal operation.
	Coolant hoses	-	600	1000	Inspect hoses for leakage and clean.
<b>Steering system</b>					
■	Steering bearings	-	600	1000	Inspect and lubricate.

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

Item		Break-In Maintenance Interval (maintain the item that reaches the interval first)			
		Calendar	Miles	Km	Notes
<b>Other parts</b>					
■	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.

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

## Periodic Maintenance Chart

Item		Periodic Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Notes
<b>Engine</b>					
	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.
		24M	12000	20000	Replace.
■	Spark plug	-	3000	5000	Inspect and replace if necessary.
		-	6000	10000	Replace.
■	Valve clearance	-	24000	40000	Inspect and adjust if necessary.

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

Item	Periodic Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Notes	
<b>Electrical system</b>					
■	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.
■	Cables	12M	6000	10000	Inspect for any damage and bending when they are being set.
<b>Wheels</b>					
	Wheel condition	12M	6000	10000	Inspect and repair or replace if necessary.
	Wheel pressure	12M	6000	10000	Inspect and replenish if necessary.
■	Wheel bearings	-	6000	10000	Inspect and repair or replace if necessary.
■	Rim spoke	-	3000	5000	Inspect and adjust if necessary.

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.



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

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

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

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

Item	Periodic Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Notes	
<b>Cooling system</b>					
	Coolant level	12M	6000	10000	Inspect and replenish if necessary.
■	Radiator fan function	12M	6000	10000	Inspect and repair or replace if necessary.
■	Cooling hoses	12M	6000	10000	
<b>Sprocket and chain</b>					
▲	Chain lubrication	-	350	600	Inspect immediately after riding on rainy days.
▲	Chain tightness	-	600	1000	Inspect and adjust if necessary.
▲■	Wear of chain, rear sprocket and engine sprocket	12M	6000	10000	Inspect and replace if necessary.
■	Chain guard	12M	6000	10000	Inspect and replace if necessary.

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

Item		Periodic Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Notes
<b>Other parts</b>					
■	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.
■	Windshield	-	-	25000	Inspect for shaking. If the clearance between the front and rear, left and right sides is greater than 0.19 in (5 mm), replace the windshield bracket and windshield gear.
■	Exhaust gasket	12M	3000	5000	Inspect exhaust connecting parts for leakage, and inspect gasket for damage. Replace it if necessary. After disassembling the muffler, replace the gasket.

▲ = The maintenance interval is shortened by 50 % if the motorcycle is used badly.

■ = Have an authorized dealer repair involved components and systems.

## CLUTCH LEVER FREE-PLAY

Inspect the flexibility of the clutch lever.

Straighten up the handlebar.

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

**Free-play: 0.39 in ~ 0.79 in (10 mm ~ 20 mm)**

### WARNING

If there is no free play for clutch lever, the clutch cable will strain. When the clutch of the engine end in the semi-linkage state, it will easily cause slip and wear.

Inspect the free-play every time before running the engine.

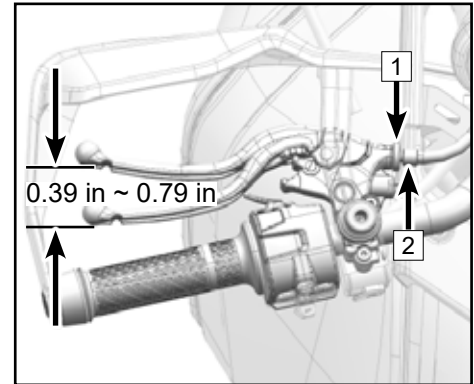
Set the free-play as stipulated when necessary.

### Fine adjustment of clutch lever free play

Loosen the 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:  $\pm 0.39$  in (10 mm)**

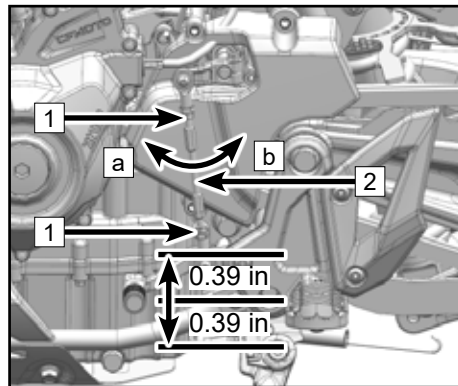
### Adjusting the gearshift lever

Loosen the lock nut **1**.

Follow the direction 'a' to rotate the center connecting rod **2** to raise the gearshift lever.

Follow the direction 'b' to rotate the center connecting rod **2** to lower the gearshift lever.

Re-tighten the lock nut **1**.

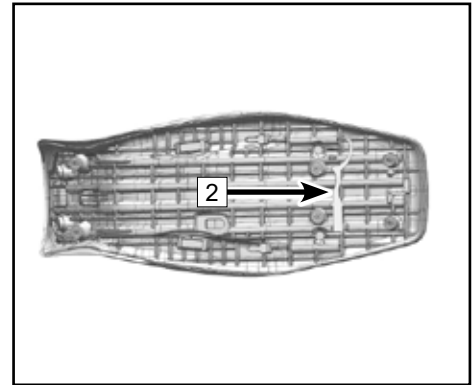
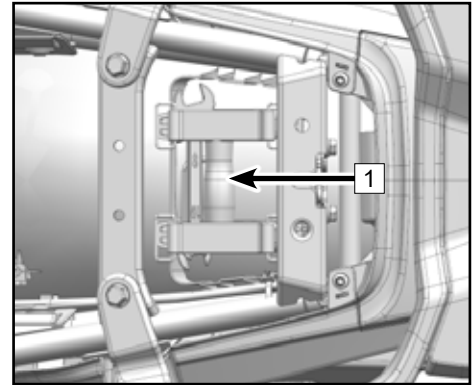


## TOOL KIT

The tool kit [1] is placed in the storage slot on the frame base plate (inspect the tool kit when removing the cushion), fixed with pull strap. The tools supplied can be helpful for partial maintenance and disassembling of some parts of the vehicle.

The shock absorber spring pre-load adjustment wrench [2] is placed under the cushion.

Note: The accessory kit is equipped with a tool package ex-works including simple and basic service tools.



# FUEL SYSTEM

## Fuel Tank Refilling

Avoid spilling fuel on the outside of the fuel tank when filling. If a spill occurs, wipe it up immediately to avoid pollution and potential danger.

Fuel tank volume: 4.6 gal  $\pm$  0.13 gal (17.5 L  $\pm$  0.5 Liter)

### DANGER

Gasoline is flammable, so the 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 other act that causes sparks is allowed in the fueling area or fuel storage area.

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

Fuel is toxic and harmful to the health. Avoid having it contact 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 other disassembly of parts of the fuel system, please contact your dealer for a complete inspection to avoid fuel leaks and 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.

### CAUTION

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 RON number, the greater the resistance to knocking and detonation. Always use unleaded gasoline with an octane rating equal to 95# or higher.

### CAUTION

If the engine has a knocking cylinder or detonation, use 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. Extended use of lubrication will not only produce dirt and metallic impurities, but the lubrication will also be consumed.

### DANGER

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

### Oil Level Inspection

Make sure the vehicle is turned off.

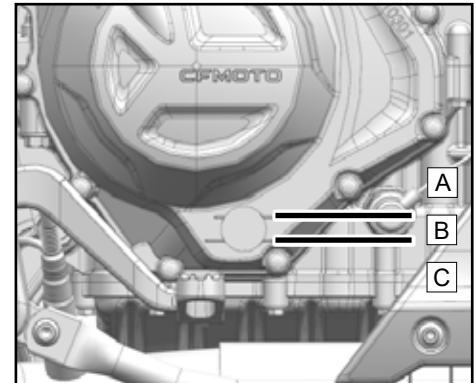
If the engine had just been running, please wait for 2 to 3 minutes for the oil to settle.

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, fill the engine with the recommended oil until the level is within area B.



## Oil and Oil Filter Replacement

Park the vehicle using the side stand on level ground. Idle the engine for several minutes to warm up the engine, then turn off the engine.

### **⚠ WARNING**

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 scalded area immediately with running water for more than 10 minutes until feeling no pain and see a doctor.

Remove four bolts.

Remove the engine lower panel.

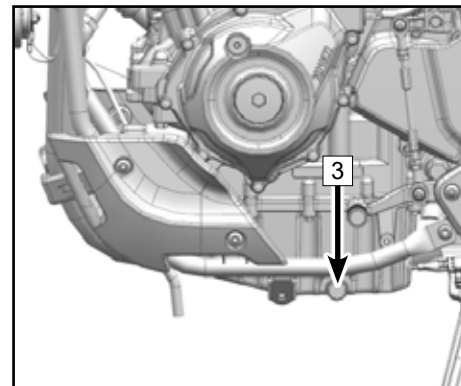
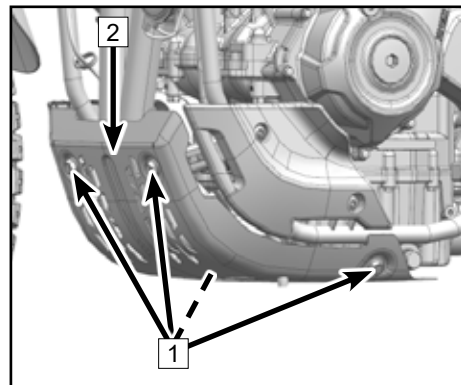
Place an oil basin under the oil drain bolt position (left side of engine).

Remove the magnetic oil drain bolt and washer **3**.

Drain out completely the used oil.

### **⚠ WARNING**

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



Remove the oil filter **4**.

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

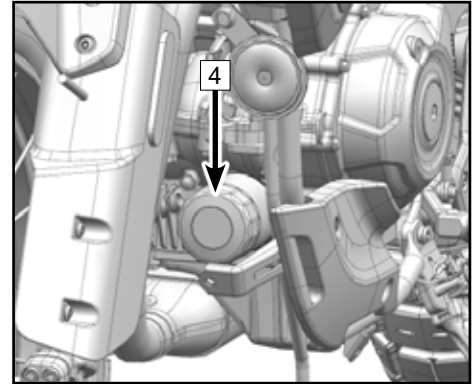
Replace with a new washer.

Place a new washer on the oil drain bolt, and then remount the oil drain bolt and washer **3**, tighten until the specified torque.

**Tightening torque: 18.4 ft-lb (25 Nm)**

Install the engine lower panel **2**.

Install four bolts **1**.



Remove the oil filler screw plug [5].

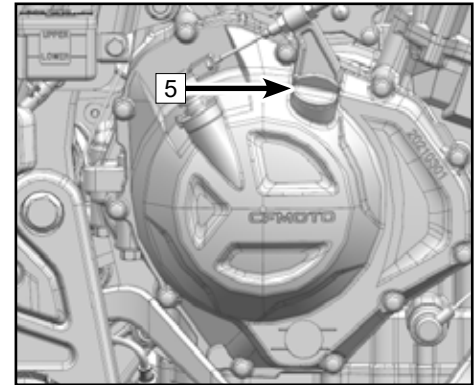
Fill with 2.64 qt (2.5 L) oil of SAE10W/40 SJ, JASO MA2.

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 according to the real level.

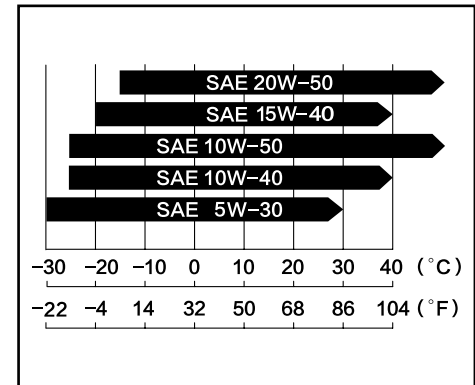


## Oil Capacity

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

CFMOTO recommends the kind of oil with API 'SJ' or higher, with JASO MA2 as the primary choice and JASO MA as 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)

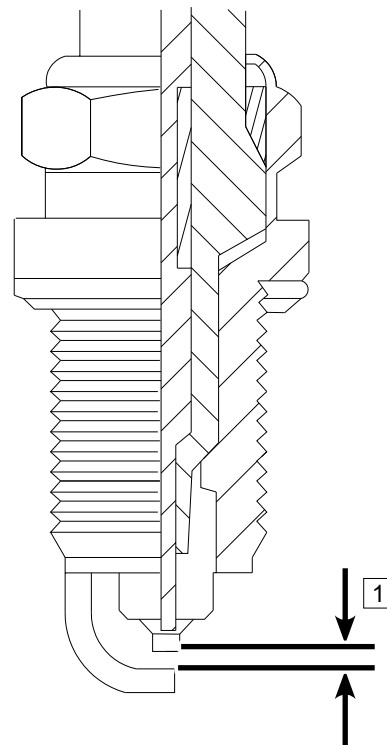
**Tightening torque:** 8.8 ft-lb ~ 11.1 ft-lb (12 Nm ~ 15 Nm)

## 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 a PDA.

**⚠ DANGER**

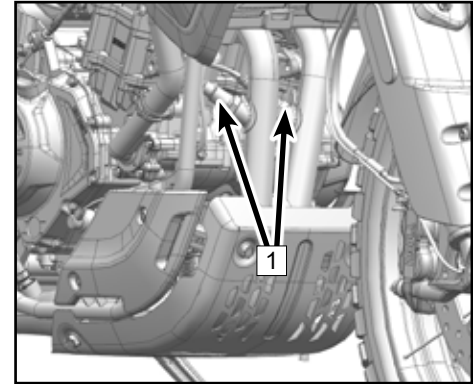
Improper adjustment of idling may cause serious consequences.



# AIR INTAKE AND EXHAUST SYSTEM

## Exhaust Detecting System

The exhaust detecting system depends on two oxygen sensors **1** mounted on the 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 thinks that combustion is not thorough, it will adjust fuel injection in accordance with signals from the Throttle Position Sensor and Intake Air Temperature sensors. In this way, the ratio of air to fuel can be optimized for thorough combustion.



## Air Intake Valve

An air intake valve is a valve which allows fresh air to flow only from the air filter into the engine. Any air that passes through the air intake valve is prevented from returning. Have a dealer inspect the air intake valves in accordance with the Periodic Maintenance Chart. Also, have the air intake valves inspected whenever idling cannot be performed stably, engine power is greatly reduced, or there are abnormal engine noises.

Air intake 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**

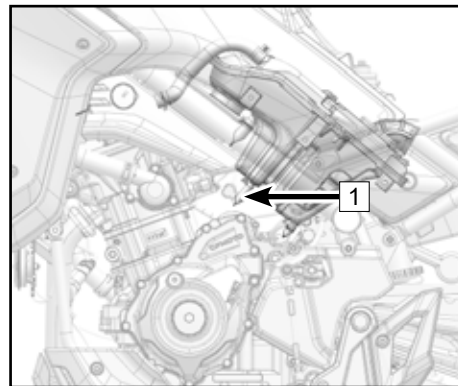
As valves and valve seat tappets are worn during use, if adjustment of the valve clearance is not performed, it will eventually result in no clearance or cause the valves to remain partly open, which reduces performance, creates valve noise, and can cause serious engine damage. Valve clearance for each 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 plugs to be flooded with the oil. 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 maintained by an authorized dealer more frequently than recommended in the Periodic Maintenance Chart.

The air filter storage hose **1** 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 and plastic or other parts will cause damage.

If the engine takes in unfiltered air, it will have a negative effect on its service life.

Never use the vehicle without an air filter.

## Throttle Body

The stop screws on the throttle body have been set precisely, and must 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, keep your hands and clothing from getting inside the fan to avoid any injury.

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

Mounting unauthorized 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 pipe is obstructed more than 20 % by irremovable obstructions or irreparably deformed fins, then replace it with a new radiator.

## Radiator Hoses

Inspect the radiator hoses for leaks, cracks, aging, rust, and corrosion, and the connections for leaks or looseness daily and 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 via the radiator. If the coolant level is too low, the engine will overheat and may suffer severe damage. 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 already has these chemicals, there is no need to add them separately.

### **DANGER**

Coolant is toxic and harmful to the 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 material from the engine and radiator should be disposed of by special instructions, because the chemicals in them are harmful to the human body.

 **CAUTION**

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

Commercially available, bottled antifreeze 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, check that it is green and contains ethylene glycol. When the ambient temperature is below -31 °F (-35 °C), please ensure the coolant has a freezing point below -31 °F (-35 °C).

## Coolant Level Inspection

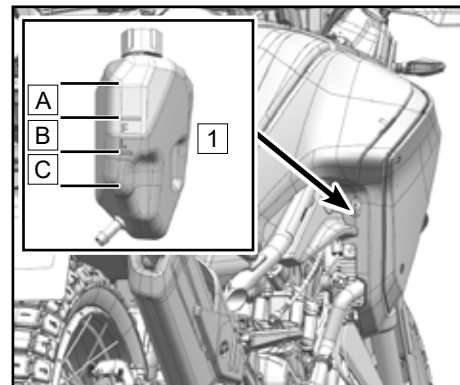
Support the vehicle upright on a level surface.

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.

Do not open the radiator cover, radiator hoses, reservoir or other cooling-related parts before the engine or cooling system has cooled down completely.

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

## Coolant Replenishment

Open the reservoir cover and replenish coolant to area B.

### CAUTION

If the 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 coolants may lead to engine damage.

## TIRES AND CHAINS

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 install an inner tube inside a tubeless tire.

### Tire Specifications

<b>Tire specifications</b>	Front wheel	90/90-21 M/C 54H
	Rear wheel	140/70 R18 M/C 67H
<b>Tire pressure</b>	Front wheel	225 kPa
	Rear wheel	225 kPa
<b>Minimum tread depth</b>	Front wheel	0.03 in ~ 0.04 in (0.8 mm ~ 1 mm)
	Rear wheel	

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

Make periodic inspections of the tire pressure using a tire pressure gauge and adjust the tire pressure accordingly.

Low tire pressure may cause the tire to wear improperly or overheat.

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 ambient temperature and altitude. If the ambient temperature and altitude change greatly 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 100 km/h until 24 hours after, and the speed cannot exceed 130 km/h at any other time.

The front and rear tires should come from the same manufacturer with the same tread pattern.

New tires can be slippery and may cause 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. A normal friction surface will be formed after a 160 km break-in period. Avoid sudden braking, heavy acceleration, and high-speed sharp turns during the break-in period.



## 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 worn down to the minimum allowable tread depth.

Visually inspect the tire tread for cracks and cuts, and replace the tire with a new one 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 from the tread.

### CAUTION

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

Do not use the side stand to park the vehicle long-term in winter. Use the rear-wheel stand 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.

## Spoke Rim Maintenance

This vehicle is equipped with straight-pull mesh spoke rims, which offer good strength, high elasticity, impact resistance, light weight, low resistance and other advantages.

The inspection of spoked rims is mainly focused on checking the condition of the spokes and whether the rims are deformed.

Tight spokes produce a clear sound when struck. Loose spokes sound dull when struck. If a spoke is loose, please contact your CFMOTO authorized dealer for maintenance. If a spoke is bent or damaged, replace it with a new one. Have the rims and spokes checked and repaired timely, if they are struck while riding. Replace the whole rim if necessary. Spoke rim maintenance should only be performed by professional maintenance technicians.

A well-adjusted rim does not bounce or appear bent while riding. Have a technician adjust the spokes if this condition appears. Replace with a new rim if necessary. Contact your authorized CFMOTO dealer for maintenance.



## Drive Chain Inspection

The looseness and lubrication of the drive chain must be inspected daily before riding and safety cautions in the Periodic Maintenance Chart must be observed to prevent excessive wear. If the chain becomes badly worn or maladjusted, it will cause the chain to be too loose or too tight.

If the chain is too tight, it will accelerate the wear on the chain, sprocket, rear sprocket and rear rim. Some parts may crack or break when the vehicle is overloaded.

If the chain is too loose, the chain may fall off of the sprocket or rear sprocket, which may cause locking of the rear wheel or damages to engine.

The service life of the drive chain largely depends on the maintenance.

### Chain dirt inspection

Inspect periodically or inspect the chain for dirt after driving in severe conditions.

If the chain is extremely dirty, flush any large dirt particles with a soft flow of water. Clean any residual dirt and residual lubricant with a proper chain cleaner.

Spray the chain with a proper chain lubricant after the chain is dry.

#### **WARNING**

When spraying chain lubricant, do not splash the lubricant onto other parts. Lubricant on the tires will decrease the tire grip, and lubricant on the brake discs will decrease the brake performance. Clean these components with a proper cleaner if over-spray occurs.

## Chain tension inspection

Shift the gear into Neutral.

Park with the side stand.

Push up the chain to inspect its tension.

If the chain tension is not in line with relevant specifications, then adjust it to the standard.

**Standard value: 1.18 in ~ 1.57 in (30 mm ~ 40 mm).**

### NOTE:

The wear of the chain is not always uniform, and the tension should be repeatedly measured by rotating the rear wheel several times in different positions.



## Drive Chain Tension Adjustment

Loosen the rear wheel shaft nut **1**.

Loosen the left and right locking nuts **2**.

Screw the left and right adjusting bolts **3** to adjust the chain tension, ensuring the alignment marks on the left and right chain tensioners **4** are the same with the reference mark position.

Ensure that the left and right adjusting bolts **3** are close to the chain tensioner **4**, so that there is no free play.

Tighten the left and right locking nuts **2**.

Tighten the rear wheel shaft nut **1** until the specified torque.

**Torque: 77.4 ft-lb ~ 81.1 ft-lb (105 Nm ~ 110 Nm)**



123

## Wear inspection

Shift the gear into Neutral.

Support the vehicle with the side stand.

Apply chain tensioning or hang a 22 lb (10 kg) object on the chain.

Measure the elongated length between 20 links.

If the measured length exceeds the standard limit, replace the chain with a new one.

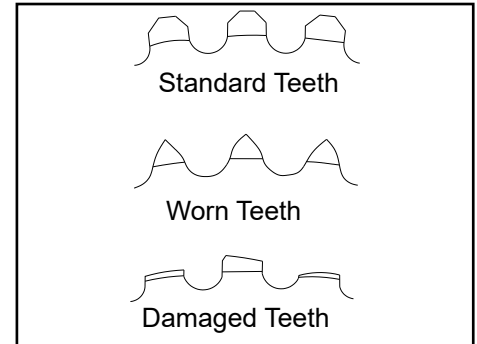
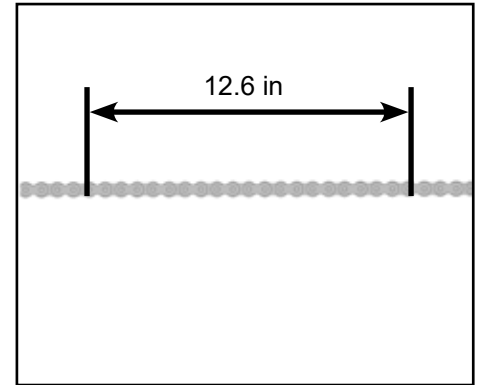
**Standard limit: 12.6 in (320.7 mm).**

### DANGER

For your safety, please use the standard chain. When the chain is elongated, never cut the chain and use it again. Have it replaced by an authorized CFMOTO dealer.

Inspect the rear sprocket and engine sprocket tooth surface for any kind of wear.

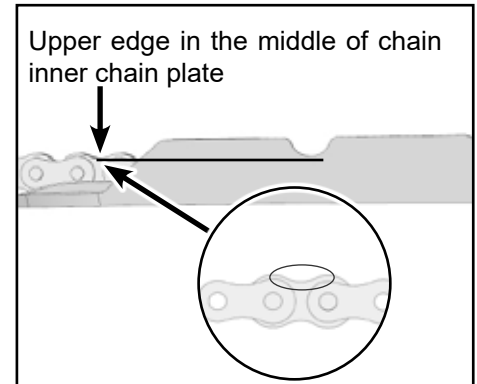
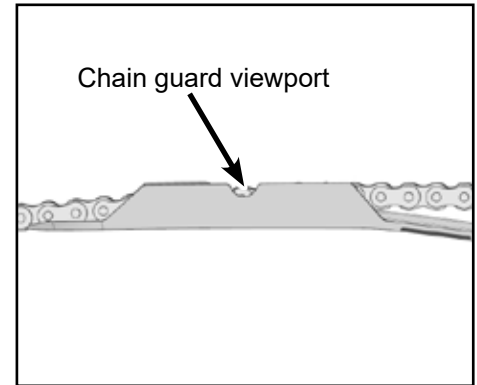
If the engine sprocket or rear sprocket is worn, then replace the whole transmission set.



### Chain guard wear inspection

Shift the gear into Neutral and push forward the vehicle until the upper chain strand hangs down on the chain guard.

Inspect the chain guard looking through the viewport from the side of the vehicle. It is recommended to replace the chain guard if the upper edge of the center of the inner chain link is at the same height as the lower edge of the viewport or lower.



## BRAKE SYSTEM

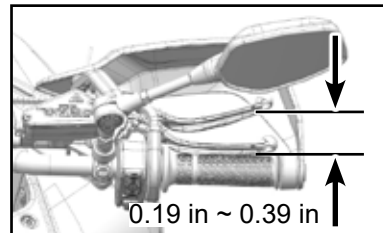
In order to guarantee excellent performance of your vehicle and personal safety, please inspect and maintain the vehicle according to the Periodic Maintenance Chart. Make sure all the parts of the brake system are in good condition. If any damage occurs to the brake system, please stop riding and have 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 play.

**Free play: 0.19 in ~ 0.39 in (5 mm ~ 10 mm)**

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

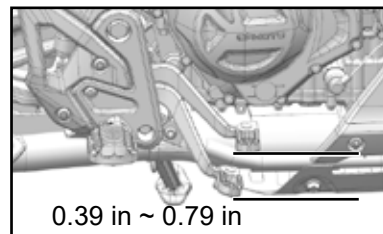


### Rear Brake Lever Inspection

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

**Free play: 0.39 in ~ 0.79 in (10 mm ~ 20 mm)**

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



### **WARNING**

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 that the brake fluid reservoirs are level.

Inspect the front and rear brake reservoir fluid levels.

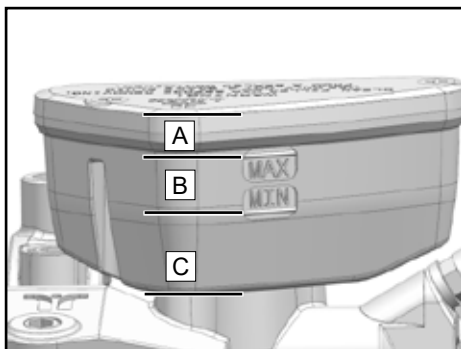
If the brake fluid level is at area 'A': Drain out the redundant fluid until it is at area 'B'.

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

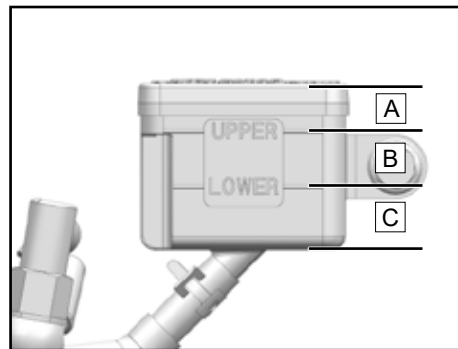
If the brake fluid level is at area 'C' or cannot be seen: Replenish it with the same brake fluid until the level is at area 'B'.

### 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 and 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 to use 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

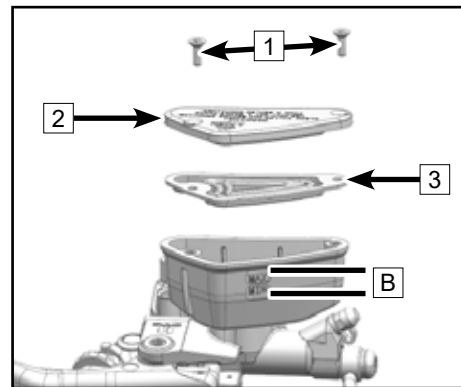
Remove the bolts [1].

Remove the reservoir cover [2] and reservoir seal ring [3].

Replenish the brake fluid to area 'B'.

Mount the reservoir seal ring [3] and reservoir cover [2].

Mount the bolts [1].



### Rear brake fluid reservoir

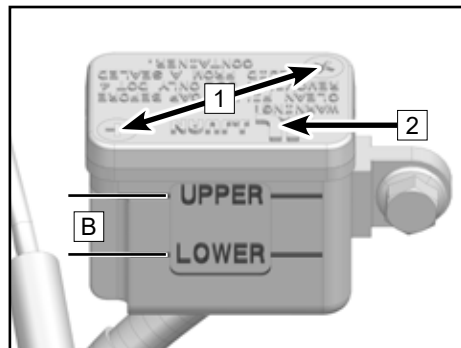
Remove the bolts [1].

Remove the cap and reservoir gasket [2].

Replenish the brake fluid to area 'B'.

Mount the cap and reservoir gasket.

Mount the bolts [1].

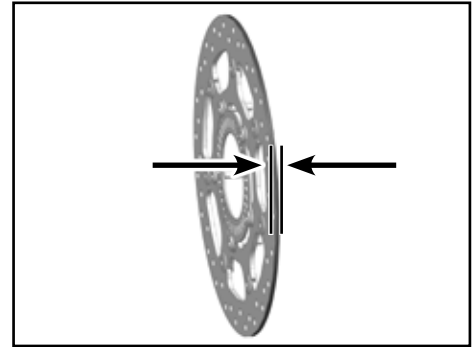


## Brake Disc Inspection

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).**



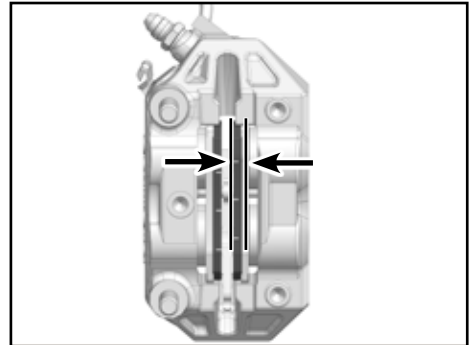
## Brake Caliper Inspection

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: 0.05 in (1.3 mm).**

If the 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.

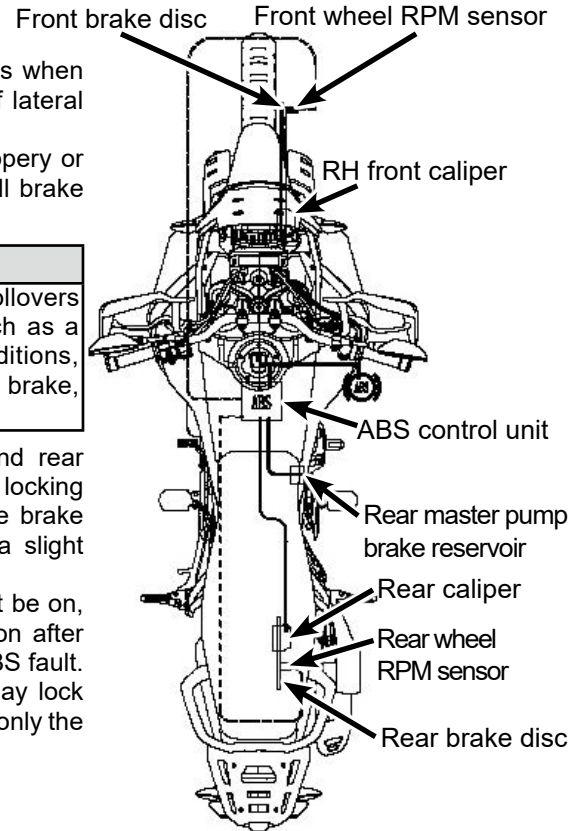
With the assistance of ABS, when riding on gritty, wet, slippery or other low-adhesive-force roads, the vehicle can use its full brake force and will face no risk of wheel locking.

### **⚠ DANGER**

Driving assistance can only prevent a motorcycle from rollovers within physical limits. In extreme driving conditions, such as a high baggage load center of gravity, 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 levers.

When turning on the ignition switch, the ABS indicator must be on, and then be off after starting. If the ABS indicator is still on after starting or lights up again during riding, there must be an ABS fault. If a fault occurs, the ABS cannot work, and the wheels may lock during braking. The braking system itself is still working, and only the ABS adjustment system itself is failing.



# SHOCK ABSORBER

## Shock Absorber Inspection

Holding the handlebar and front brake, compress the front fork for several times to inspect it to see whether it works smoothly.

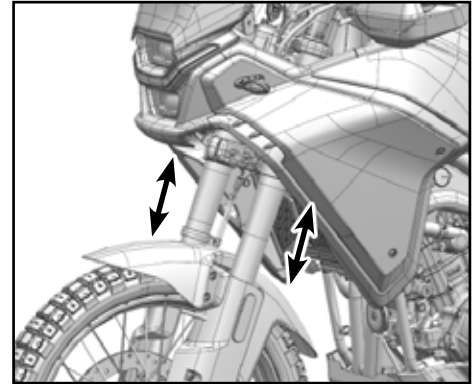
Visually inspect the front shock absorbers for oil leaks and front fork hose parts for scratches or friction noise.

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

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 leakage.

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



## Front Shock Absorber Adjustment

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

### Rebound Damping Adjustment

Rebound damping: TEN

Rebound damping affects the response speed of the shock absorber. The higher the rebound damping adjuster setting 1, the slower the rebound speed of the suspension. The lower the rebound damping setting, the faster the rebound speed of the suspension.

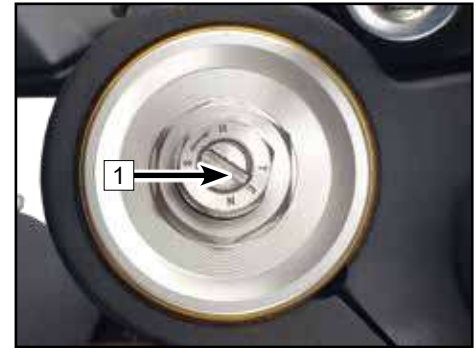
Factory setting: 10

Total available settings:  $20 \pm 2$

Rotate the adjuster counter-clockwise (S direction) with a straight screwdriver and record the number of clicks to decrease rebound damping. Rotate the adjuster clockwise (H direction) with a straight screwdriver and record the number of clicks to increase rebound damping.

Fully rotate the adjuster back from the recorded clicks to restore the factory setting, or rotate the adjuster counter-clockwise (S direction) to the end, then rotate it clockwise (H direction) to the 10<sup>th</sup> click.

Contact a CFMOTO dealer before attempting any rebound damping adjustment. Please do not adjust without having proper knowledge of the effects of such an adjustment.



Front shock absorber oil:  
KHL15 - 10

Front shock absorber  
volume:  $365 \pm 2$  mL

## Compression Damping Adjustment

Compression damping: COMP.

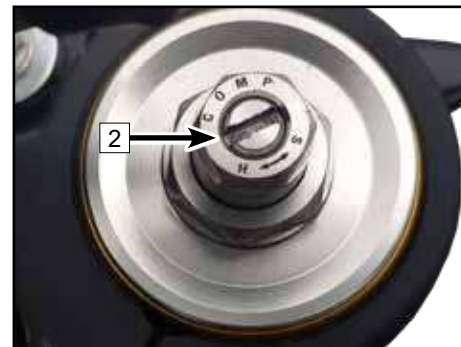
Compression damping affects the response speed of the shock absorber. The higher the compression damping setting [2], the slower the compression speed of the suspension. The lower the rebound compression setting, the faster the compression speed of the suspension.

Factory setting: 10 clicks    Total available settings:  $20 \pm 2$  clicks

Rotate the adjuster counter-clockwise (H direction) with a straight screwdriver and record the number of clicks to decrease compression damping. Rotate clockwise (S direction) with a straight screwdriver and record the number of clicks to increase compression damping.

Fully rotate the adjuster back from the recorded clicks to restore the factory setting, or rotate the adjuster counter-clockwise (S direction) to the end, then rotate it clockwise (H direction) to the 10<sup>th</sup> click.

Contact a CFMOTO dealer before attempting any damping adjustment. Please do not adjust without having proper knowledge of the effects of such an adjustment.



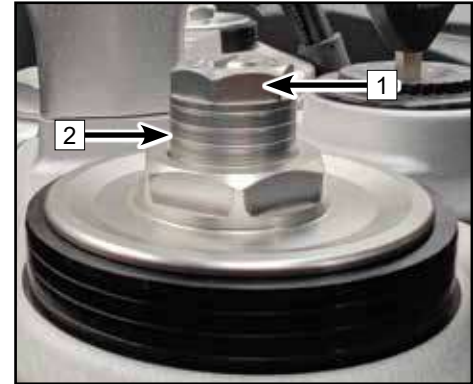
## Preload Adjustment

Front shock spring preload influences the force needed for spring compression. The higher the preload, the more force will be needed to compress the spring a certain distance. The lower the preload, the less force will be needed to compress the spring the same distance. That is: the higher the preload, the harder the spring.

Turn the preload adjusting nut **1** clockwise (H direction) to add spring preload. Turn the preload adjusting nut **1** counter-clockwise (S direction) to reduce spring preload.

When adjusting the preload, ensure the number of mark lines **2** appear equally on both left and right preload adjusters.

Contact a CFMOTO dealer before attempting any preload adjustment.





## Rear Shock Absorber Adjustment

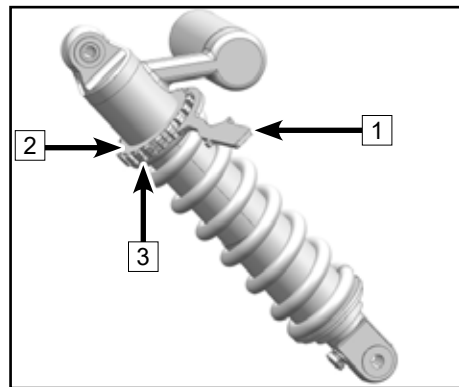
The shock absorber has been adjusted at the factory to the position which is best suitable for most situations.

### Spring Preload Adjustment

When driving on a hard road surface or loading with the maximum load, increasing the spring preload could have a more steady driving experience.

Loosen the lock nut **2** with an absorber adjusting wrench **1**, then turn the adjusting nut **3** to the desired spring preload and re-tighten the lock nut.

Contact your CFMOTO authorized dealer to adjust the spring preload. Please do not adjust without having proper knowledge of the effects of such an adjustment.



Rear shock absorber: K2C

Rear shock absorber volume:  
220 ± 2 mL

## Rebound Damping Adjustment

Rebound damping affects the response speed of the shock absorber. The higher the rebound damping adjuster setting **1**, the slower the rebound speed of the suspension. The lower the rebound damping setting, the faster the rebound speed of the suspension.

Factory setting: 10

Total available settings: 20 ± 2

Adjust the angle as illustrated in the figure on the right.

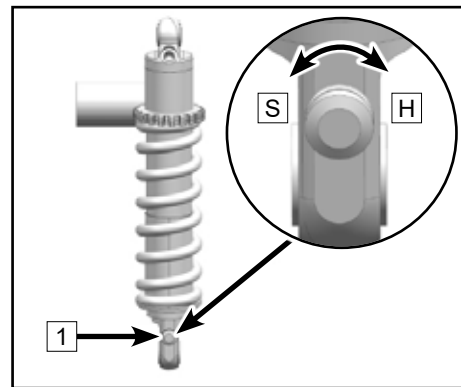
Rotate the adjuster clockwise (H direction) with a straight screwdriver and record the number of clicks to increase rebound damping.

Rotate the adjuster counter-clockwise (S direction) with a straight screwdriver and record the number of clicks to decrease rebound damping.

## Rebound Damping Restore Factory Setting

Fully rotate the adjuster back from the recorded clicks to restore the factory setting, or rotate the adjuster counter-clockwise (S direction) to the end, then rotate it clockwise (H direction) to the 10<sup>th</sup> click.

Contact a CFMOTO dealer before attempting any rebound damping adjustment. Please do not adjust without having proper knowledge of the effects of such an adjustment.



### **⚠ DANGER**

This part contains high-pressure nitrogen. Improper operation may cause an explosion. Read the relevant instructions. Do not throw it into fire, make holes in it or open it.

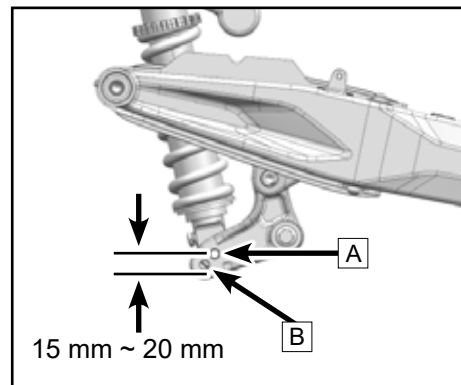
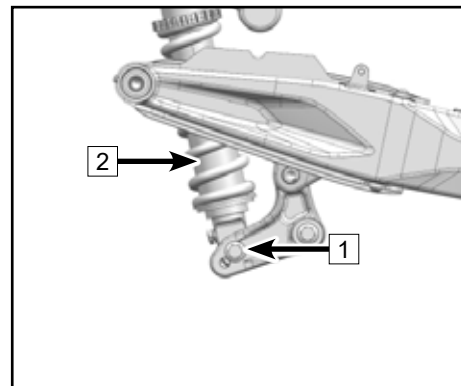
## Seat Height Adjustment

Remove the bolt and nut **1** at the lower end of the rear shock absorber.

Lower the rear shock absorber **2** from the high mounting point **A** of the swingarm to its low mounting point **B** to decline the cushion height by 15 mm ~ 20 mm.

Install the bolt and nut **1** at the lower end of the rear shock absorber.

Rear shock absorber nut torque: 33.2 ft-lb ~ 36.88 ft-lb  
(45 Nm ~ 50 Nm)



## Shock Absorber Adjustment Suggestion Chart

Type \ Absorber	Main items		Auxiliary items			Speed control
	Rear shock absorber		Front shock absorber			
	Spring preload	Rebound damping	Spring preload	Compression damping	Compression damping	
If not equipped with three boxes (side box + tail box)	Factory setting, spring height: 8 inch	10 gears	Screw sleeve convex 0.5 inch	10 gears		/
If equipped with three boxes (side box + tail box)	Based on the factory setting, adjust the preload adjuster nut by four turns	10 gears	/	10 gears		Below 75 mph
If not equipped with three boxes (decline the seat height)	Keep the factory setting	10 gears	Factory setting	10 gears		/
If equipped with three boxes (decline the seat height)	Based on the factory setting, adjust the preload adjuster nut by six turns	10 gears	Factory setting	10 gears		Below 75 mph

\* Recommended for general road and light off-road.

\* Shock absorber is only suitable for one person (the rider).

# ELECTRICAL SYSTEM AND LIGHTS

## Battery

The battery in this vehicle is a maintenance-free battery. Therefore, it is unnecessary to inspect the amount of battery electrolyte or add distilled water. To ensure optimum service life of the battery, keep the battery charged properly to ensure the battery has reserve capacity available for the starter motor. When the motorcycle is used frequently, the battery charge is maintained by the motorcycle charging system. If the motorcycle is only used occasionally, or used for a short time during each ride, the battery can remain discharged. Batteries can also self-discharge from infrequent use. The rate of discharge varies with battery type and ambient temperature. When the environment temperature rises for example, the rate of discharge could increase by a factor of 1 for every 15 °C temperature rise.

In cold weather, if the battery is not charged properly, it can easily cause the electrolyte to freeze, which may lead to battery cracking or warped electrode plates, which appear as a bulge on the battery sides. Proper, full charging of the battery improves its freeze-proof capability.

### CAUTION

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

## Battery sulphation

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

## **Battery Maintenance**

Always keep the battery fully charged, or else 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. Do not use an automotive quick-charger that may overheat and damage the battery.

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.

Maintenance-free batteries require special chargers (constant low voltage/ampere). Using traditional battery chargers will reduce battery life.

If the vehicle is not in use for one month or longer, please remove the battery and place it in a dry and cool place. Before remounting, fully charge the battery.

The battery must be removed from the vehicle when it is being charged.

## **Battery Charger**

Contact your dealer for battery charger specifications.

## **Battery Charging**

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 it.

 **WARNING**

Do not remove the battery's sealing strip, or else the battery will be damaged. Do not mount an ordinary battery in this motorcycle, or else the electrical system will not work properly.

When removing the battery, first 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

Place the vehicle on flat ground and park it.

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

Insert the key **1** into the cushion lock, and turn the key counter-clockwise to release the cushion.

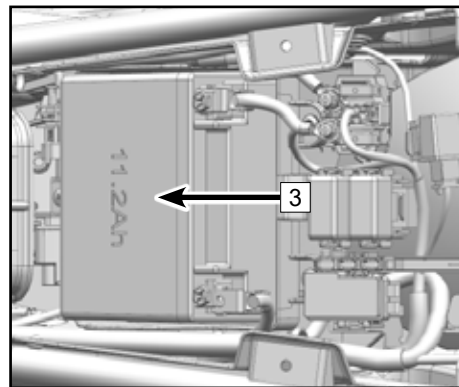
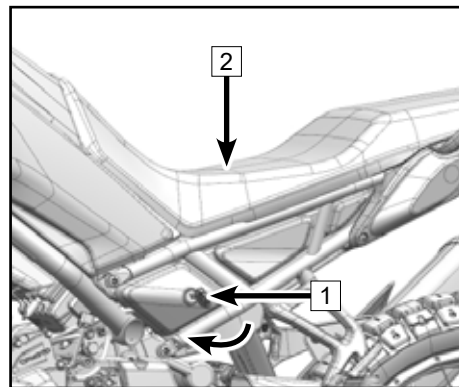
Remove the cushion **2**.

Remove the black negative wire (-).

Remove the red positive wire (+).

Remove the battery belt.

Remove the battery **3**.





## Battery Mounting

Place the vehicle on flat ground and park it.

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

Put in the battery.

Mount the battery belt.

Mount the red positive wire (+).

Mount the black negative wire (-).

Remount the cushion.

### **WARNING**

Avoid direct contact 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, and other ignition points. When using or charging batteries in a confined space, ventilate the area.

Battery acid detoxification treatment:

External: Rinse the contact area with clean water.

Internal: See a doctor immediately.

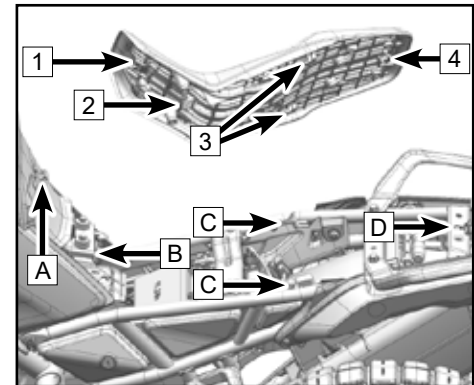
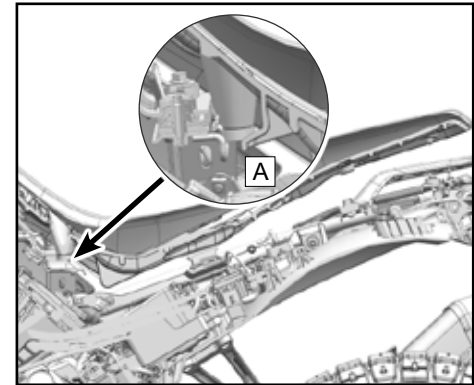
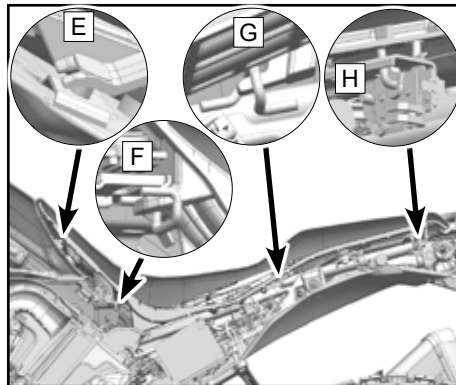
Eyes: Rinse the eyes with clean water for 15 minutes and see a doctor immediately.

### **CAUTION**

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

## Cushion Installation

Align the cushion to the contour of the vehicle. Place the rubber cushion on the metal plate (as illustrated in figure A), and raise the tail part. Press down the front end of the cushion, gently push it forward, and latch the fixed point at the rear of the fuel tank (part **A**) into slot **1** on the seat (as illustrated in figure E). Press down the middle part of cushion while slowly pushing it forward, and latch tongue **2** into hook **B** behind the fuel tank. Attach cushion tongues **3** to the fixed hooks on the frame **C** (as illustrated in figures G, F). Press the cushion down and into position. Press the tail part of the cushion and ensure that lock tongue **4** latches into seat lock **D** (as illustrated in figure H). The installation of the cushion is now completed. After installing it, slightly shake the cushion to confirm that it is affixed properly.



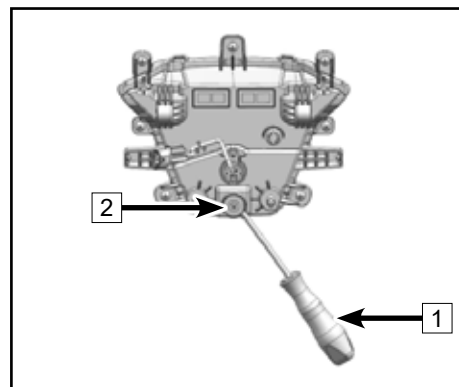
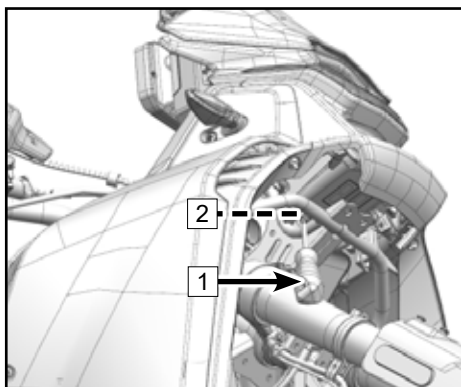
## Lights

The headlight beam is adjustable. Rotate the light adjusting knob **2** with a screwdriver **1** to adjust the light.

### **⚠ CAUTION**

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 are touching the ground and the rider is sitting on the vehicle.

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

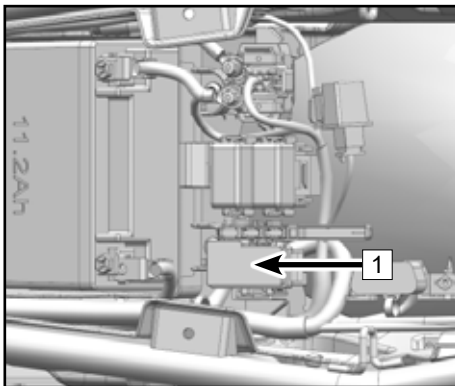


## Fuses

A fuse box **1** is under the seat, and is visible after removing the seat. 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. The ampere value is shown on the fuse.



## SIDE BOX AND TAIL BOX (available in select markets)

Refer to the load and speed requirements if you want to equip your vehicle with an approved side box and tail box

### Correct Loading

#### **WARNING**

Overloading or uneven loading will affect the stability of the vehicle. Do not exceed the permissible gross weight and follow the loading instructions.

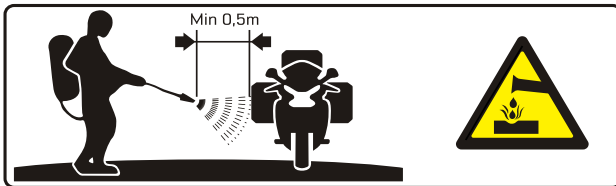
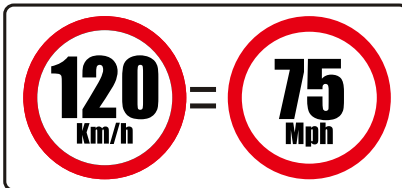
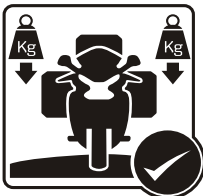
1. The spring preload and shock absorber settings must be adjusted to the gross weight.
2. The volume of the left and right side boxes should be even.
3. The weight carried on the left and right side should be well distributed.
4. Heavy luggage should be placed at the bottom or inside of the side box.
5. Follow the maximum load and speed rules.

Side box payload	Tail box payload
Maximum: 18 lb (8 kg)	Maximum: 11 lb (5 kg)

### Considerations when riding at high speed

When riding at high speed, vehicle performance will be affected by conditions such as:

1. Misadjusted spring and shock absorber system
2. Uneven distribution of load
3. Loose clothing
4. Low tire pressure
5. Poor tire tread



**MAX VALUE** ✓

	=				=		
TAIL BOX						SIDE BOX	

## ⚠ WARNING

1. Before riding, check that the side and tail box supports are firmly in place, the quick-lock system is engaged, and that all box covers are locked!
2. It is not allowed to stand, squat, sit or kneel on the side boxes!
3. It is recommended that the load on each side does not exceed 8 kg. Make sure that both sides carry a similar weight. It is recommended that the load of the tail box does not exceed 5 kg. Overloading or uneven loading will affect the safety!
4. When riding the vehicle equipped with side boxes and tail box, the maximum speed on general and pavement roads should not exceed 120 km/h. Please drive slowly and carefully on unpaved roads!
5. Make sure that the left and right boxes are fitted on the correct side and that they are not interchanged. The side boxes may only be opened from the rear. If a side box is not properly locked, it can easily open when driving at high speed, which may lead to fatal consequences!
6. After installing the aluminium alloy box, please pay attention to the changed vehicle width and adjust the speed accordingly!
7. Please adjust the tire pressure according to the load of the aluminium alloy box (increase pressure by 1.0 ~ 0.2 bar)
8. Do not spill acid or alkaline liquid on any part of the box!
9. Please note the key number of the aluminium alloy box. If you accidentally lose the key, please contact your dealer who will provide you with a new one free of charge!
10. If you encounter any problems during use, please do not hesitate to contact your dealer!

## CATALYTIC CONVERTER

This motorcycle is equipped with a catalytic converter in the exhaust system. The platinum and rhodium in the converter react with the engine exhaust gases (carbon monoxide and hydrocarbons) and convert them into carbon dioxide and water. This results in cleaner exhaust gases that are released into the atmosphere.

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

Use only unleaded gasoline. Never use leaded gasoline. Leaded gasoline significantly reduces the service life of the catalytic converter.

Do not let the vehicle coast with the engine off, gear engaged, and the ignition switch and/or stop switch off. Do not attempt to start the engine for a longer time when the battery is low on 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 the 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

Use only 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**

Please contact a CFMOTO dealer if the EVAP System has failed. Do not modify the system, or else the system will not meet requirements for environmental regulations. After disassembly and repair, tube connections should be well connected without air leakage, or blockage, and tubes should not be 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 the 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 from being discharged directly into the air. Meanwhile, air pressure inside the fuel tank can be balanced by the absorption tube. If the 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. The anti-toppling valve should be mounted correctly, as 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 at best performance will extend the vehicle's service life. Protect 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.
- 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, or any 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 pressure washer, as the water may penetrate into seals and electrical components to damage the vehicle.
- Avoid spraying water into water-sensitive 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.
- Lubricate the drive chain to prevent rusting.

### **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, apply an anti-rust and anti-corrosion oil to all unpainted metal surfaces. In case of riding during a rainy day or just washing the motorcycle, condensation 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 it according to the instructions.

## Windshield 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 and uncoated aluminum parts exposed to the air can oxidize, and thus will become dull and 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 a special cleaning/care product for leather for cleaning. Washing leather accessories with detergents and water will damage them and shorten their life. Vinyl parts should be cleaned separately. Tires and other rubber components should be treated with a rubber protective agent to prolong their life.

**⚠ DANGER**

Special care must be taken when treating tires, so that the protective agent applied does not affect the function of the tire tread. If not applied correctly, traction between tire and ground may be reduced and leading to a loss of control.

## Preparation for Storage

Clean the entire vehicle thoroughly.

Run the engine for about 5 minutes, stop the engine, then drain the engine oil out completely.

**⚠ DANGER**

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

Replenish with new engine oil.

Replenish fuel and fuel additive.

**⚠ DANGER**

Gasoline is extremely flammable and explosive under certain conditions. Turn the ignition key to "⊗"  
" position before operation. Do not smoke. Make sure the area is well ventilated and free of any source of flame or sparks. This includes any appliance with a pilot light. Gasoline is a toxic substance. Dispose of gasoline properly. Keep the used oil out of reach of children. If skin contacts the oil should be treated immediately.

Reduce tire pressure by 20 % during storage periods.

Raise wheels off the ground using wood boards or other material to to keep the vehicle away from moisture. Apply an anti-corrosion agent on all unpainted metal surfaces to prevent rusting. Avoid spraying agent on rubber parts or on the brakes.

Lubricate the drive chain and all cables.

Remove the battery. Store it away from the sun, in a cool and dry place. Ensure that the battery is fully charged according to the Periodic Maintenance Chart.

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

Put a cover over the motorcycle to keep out dust and dirt.

## **Preparation After Storage**

Remove the plastic bags from the muffler.

Mount the battery. If necessary, charge the battery before installing it in the motorcycle.

Check all points listed in the Pre-Ride Inspection section.

Lubricate any pivot points as necessary (handlebar levers, foot lever, etc).

Take a test ride at slow speed to verify that the vehicle is operating normally.

## COMMON PROBLEMS AND CAUSES

Problem	Component	Cause	Solution
Engine fails to start	Fuel system	No fuel in fuel tank	Refuel.
		Pump blockage or damage: poor fuel quality	Clean or replace.
	Ignition system	Spark plug failure: excessive carbon deposits, prolonged use	Inspect or replace.
		Spark plug cap failure: poor contact or burning	Inspect or replace.
		Ignition coil failure: poor contact or burning	Inspect or replace.
		ECU failure: poor contact or burning	Inspect or replace.
		Trigger coil failure: poor contact or burning	Inspect or replace.
		Stator failure: poor contact or burning	Inspect or replace.
		Wiring failure: poor contact	Inspect or adjust.
	Cylinder system	Starting mechanism failure: worn or damaged	Inspect or replace.
		Intake and exhaust valves, valve seats faulty: too much fuel colloidal or prolonged use	Inspect or replace.
		Cylinder, piston, piston ring failure: too much fuel colloidal or wear	Inspect or replace.
		Intake manifold leakage: prolonged use	Inspect or replace.
		Valve timing faulty	Inspect or replace.

Insufficient power	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, prolonged use and overloading	Adjust or replace.
	Cylinder and ring	Cylinder, piston rings wear: poor oil quality or prolonged use	Replace oil.
	Brakes	Incomplete separation of brake: brake too tight	Adjust.
	Main chain	Too-tight drive chain: improper adjustment	Adjust.
	Engine	Engine overheating: mixture too rich or too lean, poor oil and fuel quality, shelters, etc	Adjust or replace.
Insufficient power	Spark plug	Improper spark plug clearance	Adjust or replace.
	Intake pipe	Air leakage of intake pipe: prolonged use	Adjust or replace.
	Cylinder head	Air leakage at cylinder head or valves	Inspect or replace.
	Electric system	Electrical system failure	Inspect or repair.
	Air filter	Air filter clogged	Clean or adjust.
Failed head-lights and taillights	Cables	Poor connections	Adjust.
	Left and right switches	Poor switch contact or switch damage, blown fuse	Adjust or replace.
	Headlight	Bulb and lamp holder failure or damage, blown fuse	Adjust or replace.
	Regulator	Inspection: loose connection or burning	Inspect or replace.
	Magneto	Inspect the coil: poor connection or burning	Inspect or replace.

Horn is not working	Battery	No electricity, blown fuse	Charge or replace.
	Left switch	Horn button failure or damage	Adjust or replace.
	Cables	Poor connection	Adjust or repair.
	Horn	Horn damage	Adjust or replace.

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

**⚠ DANGER**

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



## GENERAL TORQUE CHART

Type	Torque (Nm)	Type	Torque (Nm)
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

Type	Thread	Number	Tightening Torque (Nm)	Thread-locker
Engine front LH mounting bolt	M10×1.5×60	1	50~55	Yes
Engine front RH mounting bolt	M10×1.5×30	1	50~55	Yes
Engine middle RH mounting bolt	M10×1.5×30	1	50~55	Yes
Engine middle LH mounting bolt	M10×1.5×60	1	50~55	Yes
Engine rear upper mounting bolt	M10×1.25×155	1	45~50	Yes
Engine rear lower mounting bolt	M10×1.25×170	1	45~50	Yes
Sub-frame mounting bolt	M10×1.25×25	4	50~55	Yes
Front wheel shaft	M16×1.5	1	80~85	Yes

Rear wheel shaft nut	M16×1.5	1	105~110	No
Upper triple clamp lock screw	M25×1.5	1	20~25 (before securing the upper triple clamp shock absorber lock screw)	Yes
Upper triple clamp steering column lock bolt	M8×25	1	20~25	Yes
Upper & lower side triple clamp shock absorber lock screw	M8×30	6	20~25	Yes
Front shock absorber lock front shaft bolt	M8×25	2	20~25	Yes
Rear shock absorber upper side mounting bolt	M10×1.25×50	1	45~50	Yes
Rear shock absorber lower side mounting bolt	M10×1.25×50	1	45~50	Yes
A swing arm lower side mounting bolt	M12×1.25×104	1	50~55	Yes
A swing arm upper side mounting bolt	M12×1.25×110	1	50~55	Yes
Rod assy mounting bolt	M10×1.25×130	1	45~50	Yes

Front brake caliper mounting bolt	M10×1.25×60	2	45~50	Yes
Steering support seat mounting bolt	M10×1.25×60	2	45~50	Yes
Steering block mounting bolt	M8×25	4	20~25	Yes
Rear fork shaft bolt	M12×1.25×35	2	105~110	Yes
Front LH/RH pedal bracket mounting bolt	M8×20	2	20~25	Yes
Rear LH/RH pedal bracket mounting bolt	M8×20	4	20~25	Yes
Rear armrest mounting bolt	M8×20	4	20~25	Yes

## CFMOTO RIDE App / TELEMATICS BOX

CFMOTO RIDE is an intelligent, networked, mobile service platform that provides a 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 a T-BOX is 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.



CFMOTO RIDE App

Scan the QR code to download the CFMOTO RIDE App from the Apple App Store for iPhone or Google Play for Android.



CFMOTO RIDE Facebook

Scan the QR code to follow CFMOTO RIDE on Facebook and be first to receive notices on App updates and news.



CFMOTO RIDE Website

Scan the QR code to explore the CFMOTO RIDE intelligent platform on the CFMOTO global website.

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!

6AQV-380101-6200-12 EU23C

ZHEJIANG CFMOTO POWER CO., LTD.

No.116,Wuzhou Road,Yuhang Economic Development Zone,  
Hangzhou 311100,Zhejiang Province,China

Tel: 86-571-86258863 Fax: +86-571-89265788

E-mail: [service@cfmoto.com.cn](mailto:service@cfmoto.com.cn) <http://global.cfmoto.com>