

250CL-X

300CL-X

Owner's Manual

READ THIS
MANUAL
CAREFULLY

It contains important
safety information

This ROV should not be ridden by
anyone under 16 years of age.
Passenger under 12 are prohibited.

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Foreword

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

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

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

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

Your CFMOTO dealer knows your vehicle best and is interested in your total satisfaction. Be sure to return to your dealership for all of your service needs during, and after, the warranty period.

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

Depictions and/or procedures within this manual 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.

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

 **DANGER**

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

NOTE

Information in this publication is based on the latest production available at the time of approval for printing.

CFMOTO reserves the right to change product features, specifications, or components without notice or incurring obligation to the purchaser. Depictions, descriptions, and/or procedures in this publication may be different with the actual vehicle because of design updating, are intended for reference use only.

Signal Words

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

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

DANGER

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

WARNING

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

CAUTION

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

NOTE

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

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

 WARNING

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

 WARNING

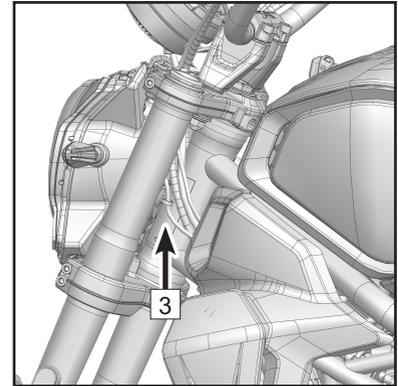
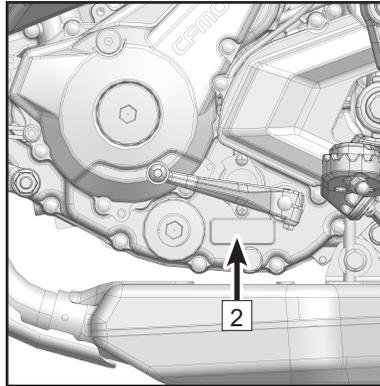
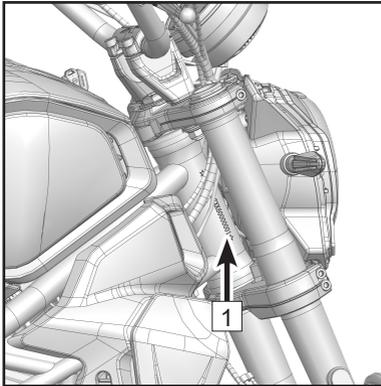
The engine exhaust gas from this product contains CO, which is deadly gas and could cause headaches, giddiness, loss of consciousness, or even death.

VIN and Engine Serial Number

Be sure to record the VIN number, engine serial number and name plate information in the spaces below:

Vehicle identification number:

Engine serial number:



1	VIN No.	2	Engine serial No.	3	Vehicle plate
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Specifications

	250CL-X
Performance	
Max. power	26.15 Hp (19.5 Kw) / 9200 rpm
Max. torque	16.24 Ft-lb (22 N•m) / 7250 rpm
Min. turn diameter	15.4 ft. (4.7 m)
Top designed speed	79.5 mph (128 km/h)
Size	
Length	79.5 in. (2020 mm)
Width	32.9 in. (835 mm)
Height	44.8 in. (1138 mm)
Wheelbase	53.7 in (1365 mm)
Seat height	31.3 in. (795 mm)
Ground clearance	5.9 in (150 mm)
Curb weight	341.7 lb. (155 kg)
Engine	
Type	Single cylinder, four stroke, liquid cooled, vertical type
Displacement	249 mL
Bore×Stroke	2.83 in. × 2.4 in. (72 mm × 61.2 mm)
Compression ratio	11.3 : 1
Starting system	Electric starter
Fuel supplying system	EFI

Ignition control system	ECU Ignition	
Lubricating system	Pressure / splash lubrication	
Engine oil type	First choice: SAE 10W-40 SJ JASO MA2 Second choice: SAE 10W-30 SJ / SAE 10W-50 SJ / SAE 20W-40 SJ / SAE 20W-50 SJ JASO-MA2	
Coolant capacity	1100 mL + (90-150) mL	
Idle Speed	1600 r/min \pm 160 r/min	
Transmission		
Transmission type	6-speed, manual gear shift	
Clutch type	Wet, multi-disc, manual	
Driving system	Chain drive	
Primary reduction ratio	2.095	
Final reduction ratio	3.067	
Gear ratio	1 st	2.353
	2 nd	1.714
	3 rd	1.333
	4 th	1.111
	5 th	0.966
	6 th	0.852

Chassis		
Tire size	Front	110/70 R17
	Rear	150/60 R17
Rim size	Front	MT3.0-17
	Rear	MT4.0-17
Capacity of fuel tank	3.83gal (14.5 L)	
Fuel consumption	0.84 gal (3.2 L) / 100 km	
Electric components		
Battery	12 V / 9 Ah	
Headlight	LED	
Tail / brake light	LED	
Turn signals	LED	

Specifications

	300CL-X
Performance	
Max. power	27.49 Hp (20.5 Kw) / 8750 rpm
Max. torque	18.65 Ft-lb (25 N•m) / 7000 rpm
Min. turn diameter	15.4 ft. (4.7 m)
Top designed speed	86.4 mph (139 km/h)
Size	
Length	79.5 in. (2020 mm)
Width	32.9 in. (835 mm)
Height	44.8 in. (1138 mm)
Wheelbase	53.7 in (1365 mm)
Seat height	31.3 in. (795 mm)
Ground clearance	5.9 in (150 mm)
Curb weight	341.7 lb. (155 kg)
Engine	
Type	Single cylinder, four stroke, liquid-cooled, vertical type
Displacement	292 mL
Bore×Stroke	3.07 in × 2.41 in (78 mm × 61.2 mm)
Compression ratio	11.0 : 1
Starting system	Electric starter
Fuel supplying system	EFI

Ignition control system	ECU Ignition	
Lubricating system	Pressure / splash lubrication	
Engine oil type	SAE10W / 40 SJ, JASOMA2	
Coolant capacity	1100 mL + (90-150) mL	
Idle Speed	1500 r/min ± 150 r/min	
Transmission		
Transmission type	6-speed, manual gear shift	
Clutch type	Wet, multi-disc, manual	
Driving system	Chain drive	
Primary reduction ratio	2.800	
Final reduction ratio	2.929	
Gear ratio	1 st	3.333
	2 nd	2.118
	3 rd	1.571
	4 th	1.304
	5 th	1.115
	6 th	0.963

Chassis		
Tire size	Front	110/70 R17
	Rear	150/60 R17
Rim size	Front	MT3.0-17
	Rear	MT4.0-17
Capacity of fuel tank	3.83gal (14.5 L)	
Fuel consumption	0.84 gal (3.2 L) / 100 km	
Electric components		
Battery	12 V / 9 Ah	
Headlight	LED	
Tail / brake light	LED	
Turn signals	LED	

Operator Safety

General Safety Precautions

WARNING

Failure to heed the warnings contained in this manual can result in serious injury or death. This vehicle is not a toy and can be hazardous to operate.

Read this owner's manual. Understand all safety warnings, precautions and operating procedures before operating this vehicle.

Age Restrictions

This vehicle is an ADULT VEHICLE ONLY. Operation is prohibited for anyone under the age of 18. No passengers under age 12 are allowed on CFMOTO vehicles designed to carry passengers.

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 for the general public. Therefore, we strongly recommend that consumers do 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. Any modifications to the original equipment of the vehicle create a substantial safety hazard and increase the risk of body injury. The warranty on your vehicle is terminated if any unapproved accessory equipment has been added to the vehicle, or if any modifications have been made to the vehicle that increase its speed or power.

Note:

The addition of certain accessory equipment which may change the handling and performance characteristics of the vehicle include, but are not limited to side boxes, exhaust and side wheels. Use only approved accessories, and familiarize yourself with their function and effect 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 eventually 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 collect rapidly, and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas.

To prevent serious injury or death from carbon monoxide:

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

Avoid Gasoline Fires and Other Hazards

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

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

Fuel Minimum Octane Rating and Safety Warnings

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

 **WARNING**

Gasoline is highly flammable and explosive under certain conditions. Allow the engine and exhaust system to cool before filling the tank. Always exercise extreme caution whenever handling gasoline. Always refuel with the engine stopped, and 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 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 contact during and shortly after operation to avoid burns.

Owner Responsibilities

Be Qualified and Responsible

Read this Owner's Manual and the warning decals on this vehicle carefully. Take a safety training course on open areas if available. Practice at low speeds. Higher speeds require greater experience, knowledge and suitable riding conditions. Become completely familiar with the operational controls and the general operation 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 stroke the clutch lever with the left hand, fully stroke the brake lever with the right hand, fully stroke the foot brake lever with the right foot, be able to firmly plant both feet on the foot pegs, and be able to balance the vehicle with the feet when stopped.

Carrying a Passenger

- Only carry one passenger. The passenger must be seated in the passenger seat.
- The passenger must be not less than 12 years old, should be tall enough to always be properly seated when holding handhold, and feet firmly planted 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 judge 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, includes:

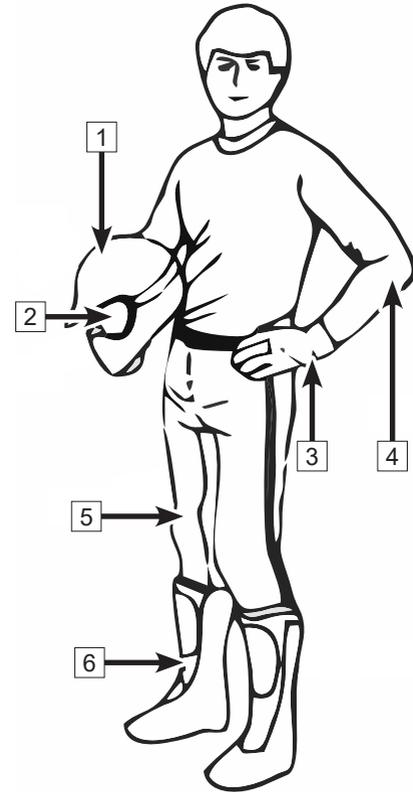
- 1 An approved helmet
- 2 Eye protection.
- 3 Gloves
- 4 Long sleeve shirts or jackets
- 5 Long pants
- 6 Over-the-ankle boots

According to the actual weather, you may need extra apparel, such as anti-fog eye protection, 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.

Helmet and Eye Protection

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

The helmet you choose should meet the standard for your country or area. 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 eye protection, as they are not rated for impact protection. Debris may fly up and or break the lens, causing eye injury.

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

Gloves

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

A pair of strong motorcycle gloves offer 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 it can help you avoid being distracted by adverse environmental elements. In case of an accident, good quality protective gear made of sturdy material may prevent or reduce injury.

In cool-weather riding, protect yourself against hypothermia. Hypothermia, a condition of low body temperature, 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 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 rain boots. Rubber rain boots may get trapped behind the foot brake pedal, impairing proper operation.

Other Riding Gear

Rain Gear

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

Hearing Protection

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

Avoid Danger Driving

The following operations may lead to serious results and must be avoided according to the instructions.

Incorrect Operation

⚠️WARNING: Incorrect operation may result serious hazard to the driver, passenger or people around.

Read the owner's manual to learn the operations and vehicle functions. Take the vehicle safety driving training to study different operations for different kinds of terrain and different situations.

Age Restriction

⚠️WARNING: It is prohibited for minors under 18 years old to drive this vehicle, and it is prohibited for minors under 12 years old to be passengers on this vehicle.

Severe injury and/or death could occur if a child under the minimum age recommendation operates this vehicle. Even though a child may be within the recommended age group for operating this kind of vehicle, he/she may not have the skills, abilities or judgment needed to operate this vehicle safely and could be susceptible to accident or injury. The operator must be at least 18 years old that acquire safety driving skill and get a driving license as required by local laws and regulations.

Incorrect Carrying Passengers

⚠️WARNING: Never carrying more passengers than the rated capacity.

Carrying more than the rated passengers is illegal and could seriously affect the driving performance, which may lead to serious vehicle accidents.

Operation on Unpaved Surfaces

⚠️WARNING: This vehicle is prohibited to operate on unpaved surfaces.

The tires for this vehicle are designed for on-road use, not suitable for unpaved surfaces such as sand, swamp, puddle and earth road, etc. Driving on unpaved surfaces greatly affects the vehicle handling, which will enlarge accidents risk. If it is unavoidable to drive for short time, slow down and do not make sudden turning or braking maneuvers.

Safe Riding Gear

⚠️WARNING: Should wear an approved helmet, eye protection and protective clothing for driving.

Operating the vehicle without an approved helmet increases the risk of a severe head injury or death in the event of an accident. Operating without eye protection could result in an accident and could increase the chance of a severe eye injury in the event of an accident. Please always wear the whole kit of protective garment to reduce the accident risk and enhance the protection.

Consuming Alcohol or Drugs

⚠️WARNING: Never consume alcohol or drugs before or while operating the vehicle.

Consumption of alcohol and/or drugs could seriously affect operator judgment. Reaction time may be slower and operator balance and perception could be affected. Consumption of alcohol and/or drugs before or while operating the vehicle could result in an accident causing severe injury or death. Never consume alcohol or drugs before or while operating the vehicle.

Operating the Vehicle at Excessive Speeds.

⚠️WARNING: Never operating the vehicle at excessive speeds.

Excessive speed increase the operator 's chance of losing control of the vehicle, which can result in an accident. Always operate the vehicle at a speed that's proper for the load, terrain, visibility and operating conditions, and your experience. Never operate the vehicle exceeding the top speed.

Stunts Operation

⚠️WARNING: Never attempt stunts operation with the vehicle.

Stunts operation are dangerous, including but not limited to wheelies, jumps, slides, front wheels off the ground, or other exhibition driving which may cause serious accidents. Please operate the vehicle by normal driving skills.

Inspection and Maintenance

⚠️WARNING: Inspect the vehicle before operating. Properly maintain the vehicle periodically.

Always inspect your vehicle before each use, make sure it's in safe operating condition to reduce accidents. Always follow the inspection and maintenance procedures and schedules described in the owner's manual.

Hands Off and Feet Off

⚠️WARNING: Never removing hands from the handlebars or feet from the footrests during operation.

Removing even one hand or foot can reduce ability to control the vehicle or could cause loss of balance and ejection from the vehicle.

If the operator's foot is not firmly planted on the footrest, it may not be able to operate braking or throttle in time or lead to accident when contact with other external environment factor.

Tire Specification

⚠️WARNING: Never operating this vehicle with improper tires, or with improper or uneven tire pressure.

Use of improper tires, or operation of the vehicle with improper or uneven tire pressure, could cause loss of control or an accident. Always use the size and type of tires specified in the owner's manual. Always maintain proper tire pressure.

Vehicle Modification

⚠️ WARNING: Never Operating the vehicle with improper modifications.

Improper installation of accessories or modification of the vehicle may cause changes in handling which could lead to an accident. Do 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.

All parts and accessories added to the vehicle must be genuine parts or equivalent components designed for use on this vehicle, and they should be installed and used according to approved instructions. Consult your dealer for more information.

Vehicle Key

⚠️ WARNING: Never leave the key on the vehicle when leaving the vehicle.

Leaving the keys in the ignition can lead to unauthorized use of the vehicle, resulting in serious injury or death. Always remove the ignition key when the vehicle is not in use.

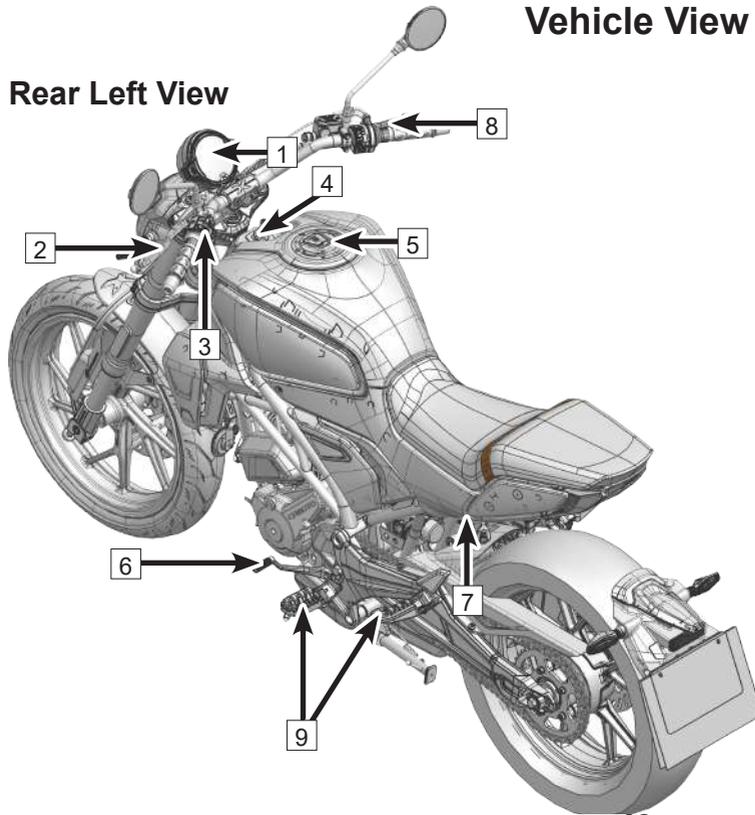
Dangerous Transporting

⚠️ WARNING: Never transport flammable, explosive or other dangerous goods.

Transporting dangerous goods may lead to serious injury or accident.

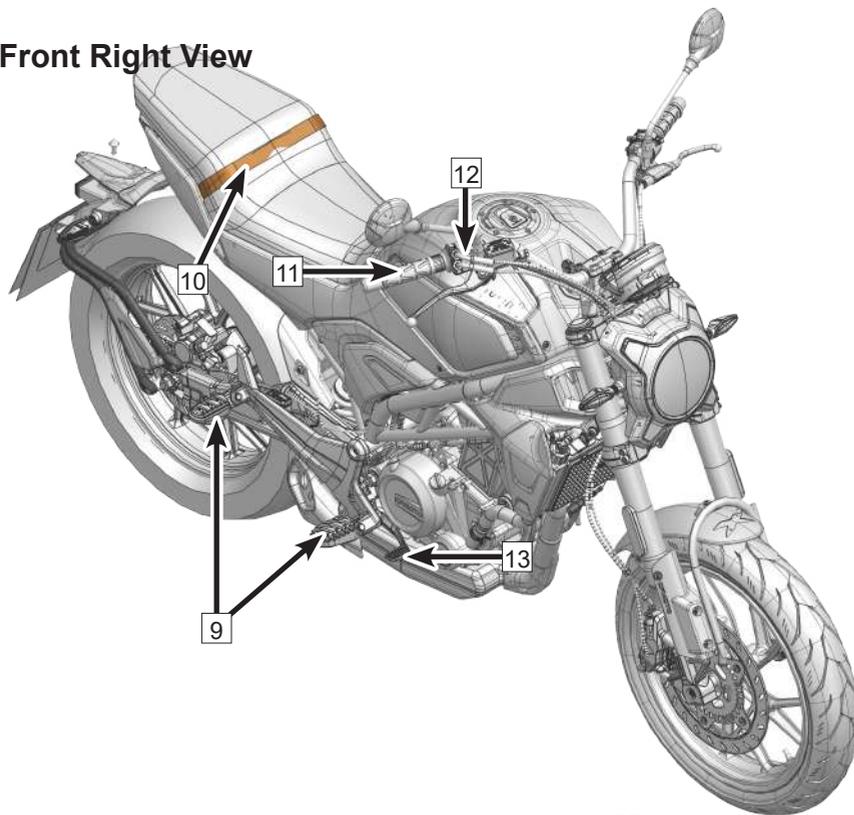
Vehicle View

Rear Left View



- 1: Instrument
- 2: Clutch lever
- 3: Handlebar switch, LH
- 4: Ignition switch lock
- 5: Fuel tank lock
- 6: Gear shift lever
- 7: Seat lock
- 8: Front brake lever
- 9: Footrests

Front Right View

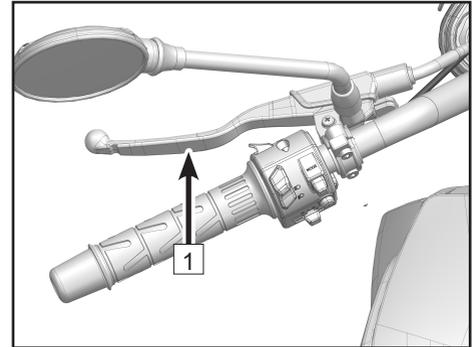


- 10: Passenger handrail
- 11: Throttle grip
- 12: Handlebar switch, RH
- 13: Rear brake lever

Controls and Features

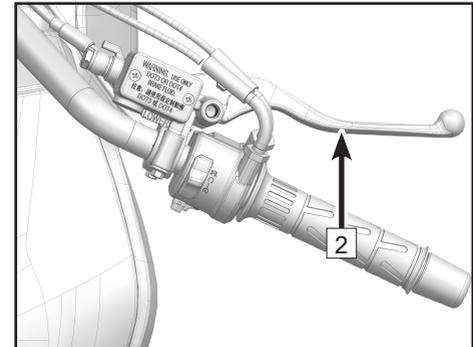
Clutch Lever

Clutch lever **1** is on the left side of handlebar. The clutch is cable-operated type.



Hand Brake Lever

Hand brake lever **2** is on the right side of handlebar. Front brake caliper activates braking by pulling in the hand brake lever.

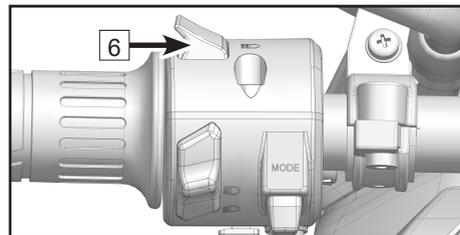
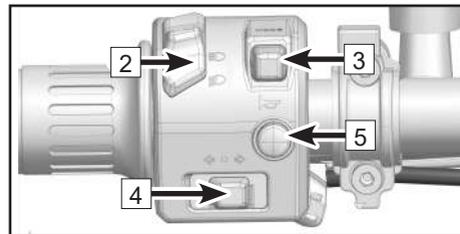
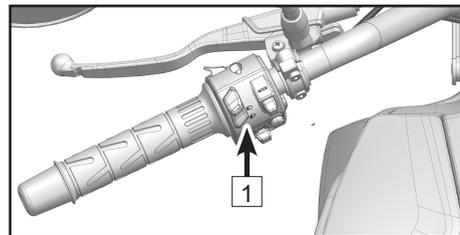


Handlebar Switch, LH

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

Function of left handlebar switch

2	Dimmer push switch		Turn to this position, high beam lights on.
			Turn to this position, low beam lights on.
3	Mode button	MODE	Press to shift between ECO mode and SPORT mode.
4	Turning light switch		Push this switch to the right, the right turning light will activate.
			Push this switch to the left, the left turning light will activate.
5	Horn button		Short press, the horn will sound.
6	Passing light switch		Turn to this position, passing light will flash.

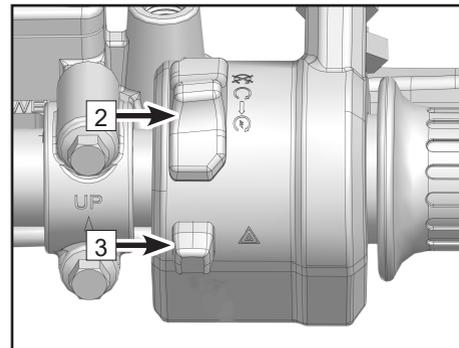
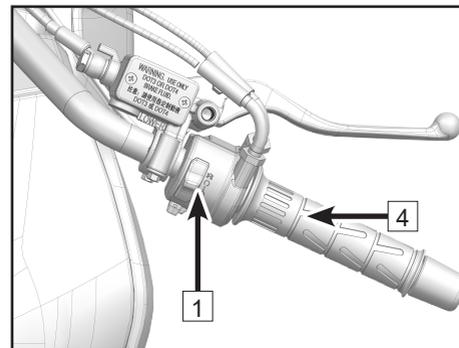


Handlebar Switch, RH

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

Right handlebar switch function

2	Start & Stop switch assy		Turn to this position, the vehicle turns off.
			Turn to this position, the vehicle is ready for starting
			Turn to this position to start the vehicle.
3	Hazard flasher switch		Short press to turn on the hazard flasher light.



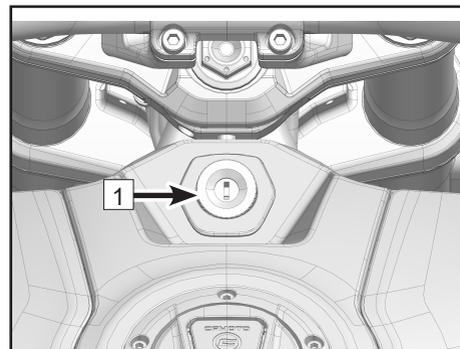
Throttle Grip

Throttle grip **4** is on 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.
Turn off		Turn the key to this position, the engine cannot be started and the vehicle power circuit is disconnected.
Start		Turn the key to this position, the engine can be started and the vehicle power circuit is connected.



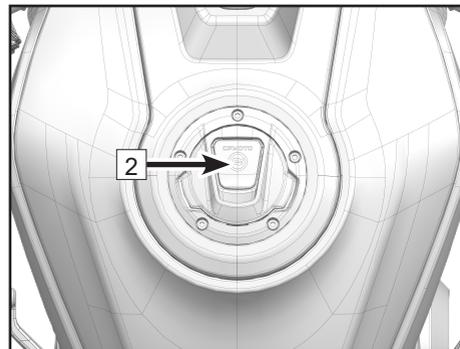
Fuel Tank Lock 2

Follow the items below before opening the fuel tank: The vehicle is stopped. Engine is off.

Open the fuel tank lock cover.

Insert the key and turn to release the lock.

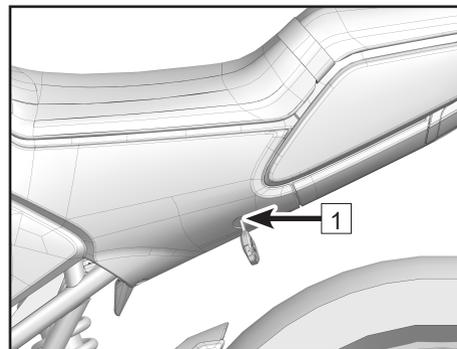
Open the fuel tank cap.



Seat Lock 1

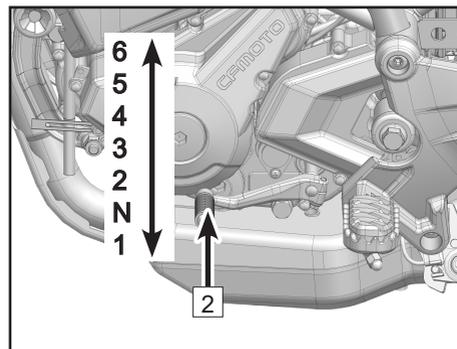
The seat lock is on the left side of the vehicle.

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



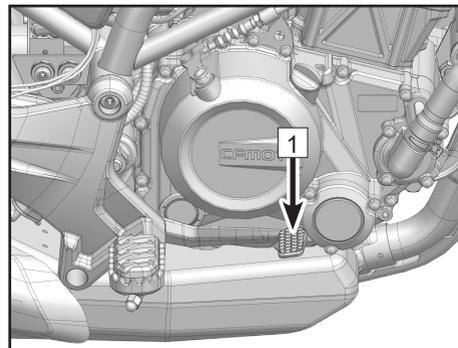
Gear Shift Lever

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



Rear Brake Lever

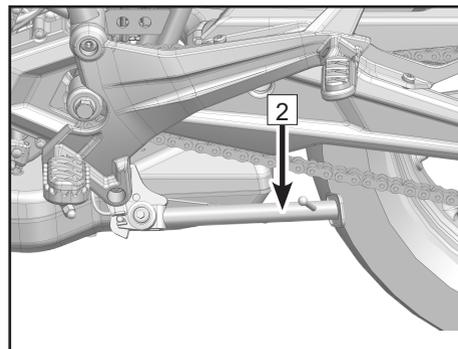
The rear brake lever **1** is on the right side of the engine. Activate the rear brake by pushing down on the rear brake lever.



Side Stand

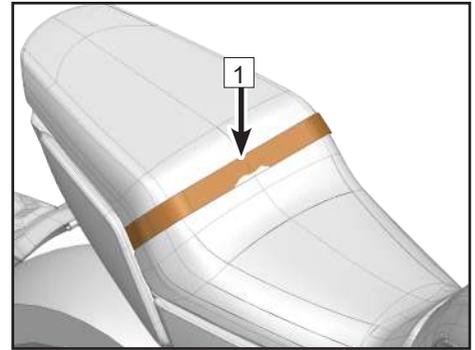
The side stand **2** is on the left side of the vehicle, and is used for parking.

NOTE: When the side stand is down, the engine starting system only activates in neutral gear.

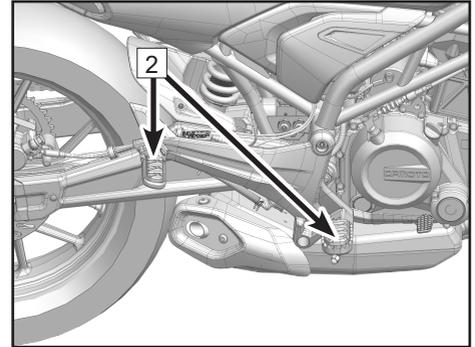


Passenger Handhold and Footrest

A passenger handhold **1** is mounted on the motorcycle seat for passenger to hold on during riding.

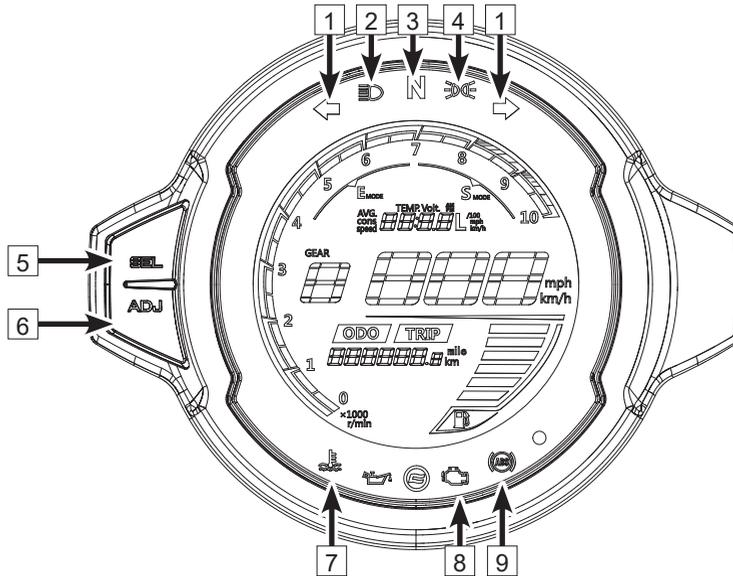


Footrests **2** are mounted on the motorcycle for the operator and passenger.



Instrument

Instrument Indicators



1	Turn light indicator	4	Position lamp indicator	7	Coolant temp. warning indicator
2	High beam indicator	5	SEL button	8	Fault indicator
3	Neutral indicator	6	ADJ button	9	ABS indicator

Turn signal indicator- 1

When turning light switch is on this position“”, left turn signal indicator will flash.

When turning light switch is on this position“”, right turn signal indicator will flash.

High beam indicator- 2

When the light switch is on this position“”, and the dimmer switch is on this position“D”, high beam indicator will light on.

Neutral indicator- 3

When the vehicle gear is in neutral position, this indicator will be on.

Position lamp indicator- 4

When the lamp switch is on the position “”, and the dimmer switch is on the position “”, position lamp indicator will light on.

SEL button- 5

To adjust or set the instrument functions together with ADJ button.

ADJ button- 6

To adjust or set the instrument functions together with SEL button.

Coolant temperature warning indicator- 7

The coolant temperature warning indicator will flash when the coolant temperature is higher than 115°C.

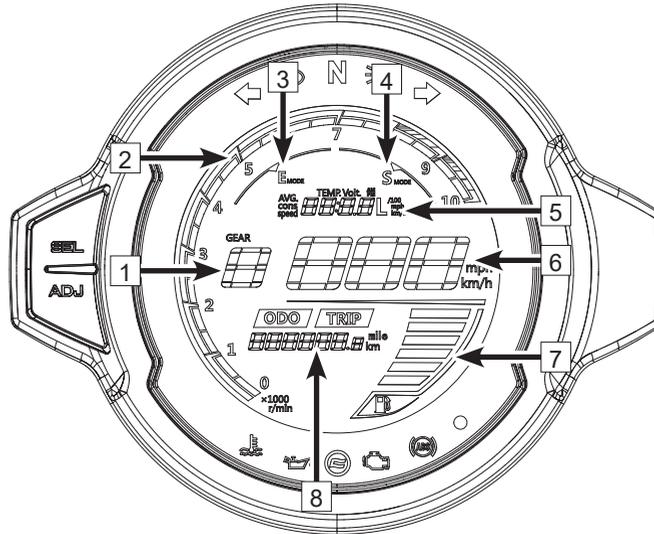
Fault indicator- 8

When the vehicle circuit inspects with any faults, this fault indicator will be on.

ABS indicator- 9

When ABS works normally, this indicator is flashing when vehicle is in parking state, and the indicator will be off when it is in running state. If there is any fault, ABS indicator will keep on.

Instrument Indicators



1	Gear display	4	Sport Mode	7	Fuel display
2	Tachometer	5	Rider Information Center	8	Odometer display
3	Economic Mode	6	Speed display		

Gear display- 1

Display the current vehicle gear position.

Tachometer- 2

Display the current engine rotating speed.

Economic mode- 3

When the mode button shifts to the economic mode, this area will light on.

Sport mode- 4

When the mode button shifts to the sport mode, this area will light on.

Rider Information Center- 5

The rider information center displays several information, include: time, average speed, instantaneous fuel consumption, battery voltage and coolant temperature.

Speed display- 6

Display the current vehicle speed.

Fuel Display- 7

Display the current fuel volume. When the fuel gauge indicator flashes, please arrange your travel properly and fill fuel as soon as possible.

Odometer display- 8

Display vehicle odometer, trip or fault code. If multiple fault codes, the next one will be displayed every three seconds. When the fault codes are displayed in turn, shot press SEL to return to odometer display.

Instrument Navigation / Settings / Adjustments

					
Item	Display	SEL	ADJ	Operation	Result
Odometer	ODO	Short press		Shift to trip meter	Trip meter
Trip meter	Trip		Long press	Trip meter resets to zero	Trip meter
Trip meter	Trip	Short press		Shift to engine hour	Engine hour
Engine hour	Engine hour	Short press		Shift to dashboard brightness	Level of dashboard brightness
Dashboard brightness	Dashboard brightness		Short press	Adjust 5 levels of brightness	Desired level of brightness
Dashboard brightness	Level of dashboard brightness	Short press		Shift to EFI fault code display	Fault code
Display fault code	Fault code	Short press		Shift to odometer	Odometer

AVG.
cons
speed

88.88L

/100
mph
km/h

Rider Information Center

Item	Display	SEL	ADJ	Operation	Result
Home interface	Home interface	Long press		Shift to time setting	Hour setting interface
Time setting	Hour setting interface	Short press		Shift to hour setting	Minute setting interface
			Short press	Adds 1 hour for every press	Hour set
			Long press	Hour value continues increase	Hour set
	Minute setting interface	Short press		Shift to minute setting	Minute setting interface
			Short press	Adds 1 minute for every press	Minute set
			Long press	Minute value continuous increase	Minute set
Time format	Time format setting	Short press		Shift to unit setting interface	Unit setting interface
			Short press	12/24hr format shifting	Unit set

Item	Display	SEL	ADJ	Operation	Result
Unit setting	Unit setting interface	Short press		Back to home interface	Home interface
			Short press	Shift the unit (speed, odometer, trip meter, average speed)	Unit setting interface
Time display	Time display		Short press	Shift to instantaneous fuel consumption display	Instantaneous fuel consumption
Instantaneous fuel consumption	Instantaneous fuel consumption		Short press	Shift to average fuel consumption/100Km	Average fuel consumption/100Km
Average fuel consumption/100Km	Average fuel consumption/100Km		Short press	Shift to average speed	Average speed
Average speed	Average speed		Short press	Shift to coolant temperature	Coolant temperature
Coolant temperature	Coolant temperature		Short press	Shift to battery voltage	Battery voltage
Battery voltage	Battery voltage		Short press	Shift to time display	Time display

Operating Your Vehicle

Break-in Period

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

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

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

Total odometer	Top engine RPM
0 km ~ 500 km	4000 r/min
500 km ~ 1000 km	6000 r/min

DANGER

New tires are slippery which may lose control and cause damage. Tire pressures should be at the specified value during the 1000 km break-in period. Avoid sudden and maximum braking/acceleration and hard cornering during the break-in period.

Daily Safety Inspection

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

Item	Content
Coolant	Inspect the coolant level for correct level in the coolant reservoir.
Engine oil	Inspect the oil level is at the correct level.
Rear brake fluid reservoir	Inspect the rear brake fluid reservoir is at the correct level.
Rear wheel	Inspect the rear wheel and tire for excessive wear, cracks or cuts, embedded items or other damage. Inspect the rear tire pressure is in the standard range.
Rear brake	Inspect the thickness of rear brake pad. Inspect the thickness of rear brake disc and check for any dirt or damage.
Chain and Sprockets	Inspect the drive chain and sprockets for dirt and wear, and inspect if the chain tightness is appropriate.
Front wheel	Inspect the front wheel and tire for excessive wear, cracks or cuts, embedded items or other damage. Inspect front tire pressure is in the standard range.
Front brake	Inspect the thickness of front brake pad. Inspect the thickness of front brake disc and check for any dirt or damage.
Front brake fluid reservoir	Inspect the front brake fluid reservoir is at the correct level.
Luggage/Cargo (if equipped)	Inspect the luggage/cargo is fastened securely, make sure the luggage/cargo height is within the requirement of local regulation.

Dashboard	Check the fault indicator.
Fuel Level	Check if the fuel tank volume is sufficient.
Rearview Mirrors	Check rearview mirrors for appropriate view angle.
Light	Check if all the lights work well, and if the beam height for front lights meets the local regulations.
Operating parts	Inspect the handlebar, steering, front and rear brake, throttle and switches for smooth operation.
Side stand \ main stand	Check if any looseness or damage for the return spring of side stand \ main stand.
Stop switch	Check that the stop switch works correctly.

 DANGER

Inspect the vehicle every time before riding the vehicle.

The operator must have the related driver's license to ride the vehicle.

Learn the local regulations, and do not ride in the 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 cause death.

Starting

Sit on the vehicle with side stand up.

Turn on the ignition switch.

Place the transmission in Neutral.

Turn the stop switch to position “

CAUTION

Engine running at high RPMs in cold temperatures negatively impacts the lifespan of engine. Always warm the engine at a low speed.

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

Pull the clutch lever and shift into a gear with side stand up, the vehicle can be started.

When the transmission is in Neutral position with side stand up, the vehicle can be started.

If shifting into 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 quickly.

Starting Off

Pull in the clutch lever, shift the gearshift lever downward for gear 1, then slowly release the clutch lever while at the same time applying gentle throttle input.

Shifting, Riding

Pull in the clutch lever and release the throttle.

Shift the gearshift lever upward for gears.

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

Hold the handle bar at all times with both hands when driving with the throttle applied.

WARNING

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

Adjust the speed according to road conditions and 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 at a standstill.

The passenger must be seated properly on the passenger seat with feet on the rear foot pegs, wearing a helmet and other safety protection, and holding onto the operator or grab handle.

 **WARNING**

Comply with the local traffic regulations for minimum passenger age.

Comply with all local traffic regulations. Ride defensively and foresightedly to detect sources of danger early on.

When the tires are cold, their road grip performance is reduced. Use caution and drive with average speed for several kilometers until the tires arrive at their available temperature.

Do not exceed the permitted full payload. Full payload includes the vehicle weight with full fuel tank, driver, passenger and luggage/cargo.

Luggage/cargo sliding will effect the handling performance, inspect that it is fixed tightly on the vehicle, and that the width does not exceed 0.15m from the handle bar 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 transmission.

Operate the throttle according to the road conditions and climate. Do not shift gears and be careful operating the throttle during turning.

Brake

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

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

On long distance downhills, use the engine to compression brake and shift to lower gears, but do not allow the engine to operate with high RPM. When using engine brake effect, it helps to reduce the braking force required of the brake system, and reduce the chance of overheat.

WARNING

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

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

Take your foot off the foot brake lever when you are not braking. Long-time pressing of the foot brake will cause brake lining overheating and excessive friction, which will affect service life and safety.

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

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

Parking

Stop the vehicle with brake.

Shift the transmission to Neutral.

Turn off the ignition switch.

Park the vehicle on firm, level ground.

Use side or middle stand (if equipped) to support vehicle.

Turn the handlebar to the maximum left angle, and lock the handle bar with the key.

Remove the key.

WARNING

When 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 will be very high for some parts. Do not touch any parts such as the exhaust system, cooling system, engine, or brake system before the vehicle parts have cooled down.

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

Using incorrect procedures when parking may cause vehicle to roll away and fall over, which will lead to significant damage.

The middle stand (if equipped) is only intended to support the vehicle and luggage/cargo. When using the middle stand to park the vehicle, do not sit on it. Doing so could damage the middle stand, or damage the frame, and the vehicle may fall over.

Safety Operation

Safe Riding Technique

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

- For safety, eye protection and a helmet are strongly recommended. You must be aware of safety regulations prior to riding the motorcycle. Gloves and suitable footwear should also be used for added protection.
- Wear protective apparel when riding in case of any collision. Protective apparel cannot protect the body safely if it is not worn.
- Before changing lanes, look over your shoulder to make sure the way is safe. Do not rely solely on the rearview mirrors. You may misjudge a vehicle's distance and speed, which can easily cause an accident.
- When going up steep slopes, shift to a lower gear so there's plenty of power and engine torque rather than overloading the engine.
- When applying the brakes, apply both the front and rear brakes at the same time. Applying only one brake for sudden braking may cause the motorcycle to skid and lose control.
- When going down long downhill slopes, control vehicle speed by releasing the throttle. Use the front and rear brakes for auxiliary braking.
- In wet conditions, rely more on the throttle to control vehicle speed and less on the front and rear brakes. The throttle should also be used judiciously to avoid skidding the rear wheel during rapid acceleration or deceleration.

- Riding at the proper speed and avoiding unnecessary acceleration are important not only for safety and low fuel consumption, but also for longer vehicle life and quieter operation.
- When riding in wet conditions or on loose roadway surfaces, vehicle performance will be reduced. All of your actions should be smooth under these conditions. Sudden acceleration, braking or turning may cause loss of control.
- Practice your operating skills. In an empty area, exercise cautiously, slow down, and grip the fuel tank with the knees for better stability. When quick acceleration is necessary as in passing, shift to a lower gear to obtain the necessary power.
- Do not downshift at high rpm to avoid damage to the engine.
- Avoid unnecessary use of fabric tape which may entangle the rider or motorcycle.

Additional Cautions for High Speed Operation

Brakes: Braking is very important, especially during high speed operation. It cannot be over-forced. Check and replace pads more often to get better performance.

Handling: Looseness in the handling parts may cause loss of control. Check to see whether the handlebar turns freely but has no shaking, and that the wheels turn without shaking or looseness.

Tires: High speed operation requires that tires be in good condition. Good condition tires are crucial for riding safety. Inspect their overall condition, inflate them to the proper pressure, and check the wheel balance.

Fuel: Have sufficient fuel onboard for high speed operation.

Engine oil: To avoid engine failure which could result in a 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 level lines.

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

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

DANGER

Follow all traffic regulations. Do not ride on the highway over posted speed limits. Riding at too high speed on the highway will violate related regulations. Motorcycles may be forbidden to operate on the highway in some areas.

Maintenance

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

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

NOTE:

Periodic service and adjustments are critical. If you are not familiar with performing safe service and adjustment procedures, have a qualified dealer perform the required maintenance for you.

Pay special attention to the engine oil level during cold weather operation. A rise in engine oil level can indicate contaminants collecting in the oil sump or crankcase. Change oil immediately if the oil level begins to rise. Monitor the oil level, and if it continues to rise, discontinue use and determine the cause, or see your dealer.

Severe Use Definition

CFMOTO defines severe vehicle use as:

- Drive in muddy, water or sand terrain for high frequency.
- Racing or race-style high RPM use
- Prolonged low speed, heavy load operation
- Extended engine idle
- Short trip cold weather operation
- Vehicles used in commercial or rental operations

If your vehicle use matches any of these definitions, decrease the service intervals by 50%.

Key Points of Lubrication Schedule:

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

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

Item	Lubricant	Method
Engine oil	First choice: SAE 10W-40 SJ JASO MA2 Second choice: SAE 10W-30 SJ / SAE 10W-50 SJ / SAE 20W-40 SJ / SAE 20W-50 SJ JASO MA2	Inspect the level from the engine oil view window.
Brake fluid	DOT3 or DOT4	Keep level between upper and lower lines

Break-in Maintenance Schedule

Item		Break-in Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Remarks
Engine					
■	Engine oil and oil filter	-	600	1000	Replace
	Idle	-	600	1000	Inspect
	Throttle system	-	600	1000	
	Drive chain and sprockets		600	1000	Inspect / Adjust
Electrical system					
■	Functions of electrical parts	-	600	1000	Inspect
	Battery	-	600	1000	
	Fuses or circuit breakers	-	600	1000	
Brake system					
	Brake discs	-	600	1000	Inspect
	Brake pads	-	600	1000	
	Brake fluid level	-	600	1000	
	Brake lever	-	600	1000	Inspect for free play
■	Brake hoses	-	600	1000	Inspect for damage and sealing

► = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorized dealer perform repairs that involve this component or system.

Item	Break-in Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Remarks	
Wheels					
	Tire condition	-	600	1000	Inspect
	Tire pressure	-	600	1000	
	Wheel bearings		600	1000	
Suspension system					
■	Rear shock absorber and front forks	-	600	1000	Inspect for leaking (maintain front forks and rear shock absorber according to the requirement)
Cooling system					
	Coolant level	-	600	1000	Inspect
■	Coolant	-	600	1000	
■	Radiator fan function	-	600	1000	
	Coolant hoses	-	600	1000	
Steering system					
■	Steering bearings	-	600	1000	Inspect

► = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorized dealer perform repairs that involve this component or system.

Item	Break-in Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Remarks	
Other parts					
■	Diagnostic connector	-	600	1000	Read with PDA
■	Moving parts	-	600	1000	Lubricate. inspect for flexibility
■	Bolts and nuts	-	600	1000	Inspect for fastness
■	Cables and wires	-	600	1000	Inspect for damage, bending and routing

► = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorized dealer perform repairs that involve this component or system.

Periodic Maintenance Schedule

Item	Periodic Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Remarks	
Engine					
	Engine oil and oil filter	6M	3000	5000	Replace
	Oil strainer	6M	3000	5000	Clean
■	Clutch	-	3000	5000	Inspect
	Idle	-	6000	10000	
■	Coolant	24M	21000	35000	Replace
	Throttle system	-	3000	5000	Inspect
■	Throttle valve	-	3000	5000	Clean
▶ ■	Air filter element	-	3000	5000	Clean
		24M	12000	20000	Replace
■	Spark plug	-	3000	5000	Inspect
		-	6000	10000	Replace
■	Valve clearance	-	24000	40000	Inspect

▶ = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorised dealer perform repairs that involve this component or system.

Item		Periodic Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Remarks
Electrical system					
■	Functions of electrical parts	12M	6000	10000	Inspect, service or replace if necessary
	Battery	6M	3000	5000	Inspect, charge if necessary
	Fuses or circuit breakers	6M	3000	5000	Inspect, replace if necessary
■	Wires	12M	6000	10000	Inspect for damage, bending and routing
Wheels					
	Tire condition	12M	6000	10000	Inspect, service or replace if necessary
	Tire pressure	12M	6000	10000	Inspect, inflate if necessary
■	Wheel bearings	-	6000	10000	Inspect, service or replace if necessary

▶ = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorised dealer perform repairs that involve this component or system.

Item	Periodic Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Remarks	
Brake system					
	Front and rear brake system	12M	6000	10000	Inspect, service or replace if necessary
	Brake discs	12M	6000	10000	
▶	Brake pads	12M	6000	10000	
	Brake fluid level	12M	6000	10000	Inspect, add brake fluid if necessary
	Brake lever	12M	6000	10000	Inspect for free play
■	Brake hoses	12M	6000	10000	Inspect for damage and sealing
■	Brake fluid	24M		-	Replace

▶ = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorized dealer perform repairs that involve this component or system.

Item	Periodic Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Remarks	
Suspension system					
■	Suspension system	-	3000	5000	Inspect
■	Rear shock absorber and front forks	12M	6000	10000	Inspect for leaking (maintain according to requirement)
Frame system					
	Frame	-	18000	30000	Inspect, service or replace if necessary
Steering system					
■	Steering bearings	12M	6000	10000	Inspect, service or replace if necessary

► = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorized dealer perform repairs that involve this component or system.

Item		Periodic Maintenance Interval (Service whichever interval comes first)			
		Calendar	Miles	Km	Remarks
Cooling system					
	Coolant level	12M	6000	10000	Inspect, add coolant if necessary
■	Radiator fan	12M	6000	10000	Inspect, service or replace if necessary
■	Coolant hoses	12M	6000	10000	
Chain					
▲	Chain lubrication	-	-	600	Check after riding on rainy days
▲	Chain tightness	-	-	1000	Inspect
▲	Chain, rear sprocket and engine sprocket wear condition	-	12M	10000	Inspect, replace if necessary
	Chain guard	-	12M	10000	

▶ = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorized dealer perform repairs that involve this component or system.

Item	Periodic Maintenance Interval (Service whichever interval comes first)				
	Calendar	Miles	Km	Remarks	
Other parts					
■	Diagnostic connector	12M	6000	10000	Read with PDA
■	Moving parts	12M	6000	10000	Lubricate, inspect for flexibility
■	Bolts and nuts	12M	6000	10000	Inspect for fastness
■	Cables and wires	12M	3000	5000	Inspect for damage, bending and routing
■	Pipes, ducts, hoses and sleeves	12M	6000	10000	Inspect for cracks, sealing and routing

► = Severe Use Item. Reduce interval by 50% on vehicles subjected to severe use.

■ = Have an authorized dealer perform repairs that involve this component or system.

Clutch Lever Freeplay

Check clutch lever smoothness.

Turn handlebar towards the left to the end.

Slowly pull the clutch lever until the resistance is evident. Check clutch lever position where the clearance is for freeplay.

Free play: 0.39 in. ~ 0.78 in. (10 mm ~ 20 mm)

WARNING

If there is no free play for clutch lever, the clutch will start to slip.

Check lever free play every time before starting the engine.

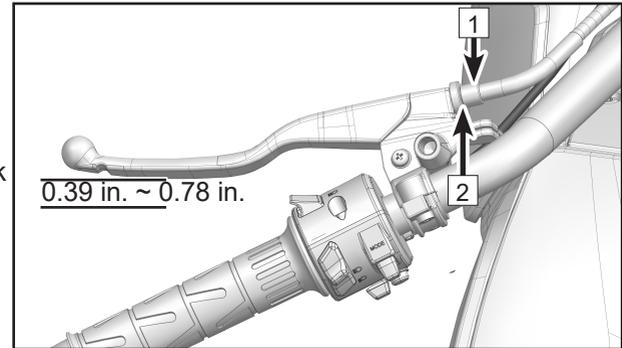
Set the clutch lever freeplay when necessary.

Clutch lever free play fine adjustment

Turn handlebar towards the left to the end.

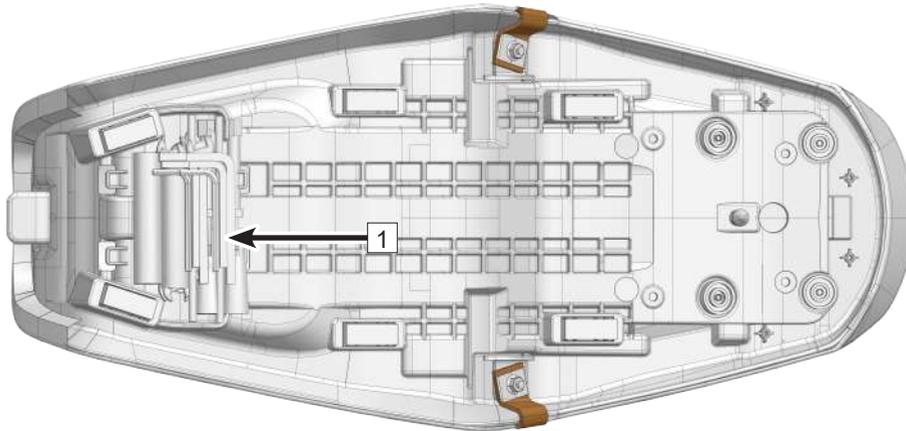
Loosen lock nut **1** and rotate the adjusting nut **2** for adjustment.

Once the desired freeplay is achieved, tighten the lock nut **1**.



Tool Kit

Tool kit **1** is located under the seat. The tools supplied with the vehicle are helpful for partial maintenance, disassembling and assembling.



Fuel System

Fuel Tank

Avoid spilling gasoline on the fuel tank when fill with fuel. If a spill occurs, wipe it off immediately to avoid pollution or causing danger.

Fuel tank volume: 3.83 gal (14.5 L)

DANGER

Gasoline is extremely flammable and can be explosive under certain conditions. Always fill fuel in a properly ventilated area. Before refueling, turn off the engine and wait for the engine and muffler to cool. No smoking or any acts that cause sparks is allowed in the fuel filling area or fuel storage area.

Never fill the tank excessively. Avoid overflowing onto high temperature parts. The fuel level should not exceed the tank opening. As temperature rises, fuel can heat and expand, possibly spilling over and damaging motorcycle parts.

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

If touched skin, wash with plenty of clean water.

If touched to eyes, wash eyes immediately with clean water and see a doctor immediately.

If touched to clothes, change the clothes immediately.

If swallowed fuel by mistake, see a doctor immediately.

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

Dispose of fuel properly to avoid damage to the environment.

Fuel Requirement

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 refer to more information related to the catalytic converter)

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

Octane Rating Class

The higher the octane rating of the fuel, the better ability to against engine knocking or detonation. Please always use E5 or 95(ROn) or higher unleaded gasoline.

CAUTION

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

Engine Assy

For the engine, transmission, and clutch to work properly, maintain the engine oil between the upper and lower lines on the oil window. During the engine lubrication process, oil not only builds up carbon by-product and metallic impurities, but may also consume itself by a small amount.

Inspect and change the oil in accordance with the Periodic Maintenance Chart.

DANGER

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

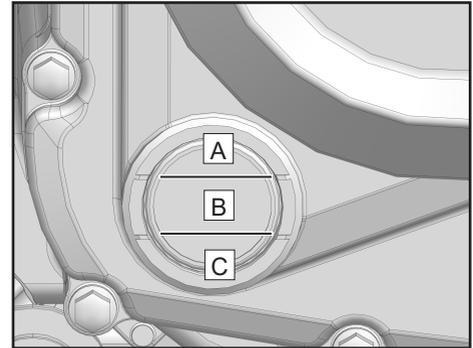
Engine Oil Level Inspection

Make sure the vehicle is turned off.

If the running was operated prior to turning off, please wait for 2 to 3 minutes for the oil to settle.

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

- If oil level is at A area, drain engine oil until it reaches B area.
- If oil level is at B area, it is qualified.
- If oil level is at C area or not visible, add engine oil of same brand until it reaches B area.



Change Engine Oil and Oil Filter

Park the vehicle by side stand on level ground.

Idle the engine for several minutes to warm up the oil, then shut off the engine.

WARNING

Warming up the engine for a long period may lead to high temperature of the engine and engine oil. Please wear suitable protective clothing and safety gloves when changing oil. In the event of scalding, wash the affected area immediately with running water for more than 10 minutes and seek medical attention.

Place an oil pan under the oil drain bolt.

Remove the magnetic oil drain bolt and washer **1** .

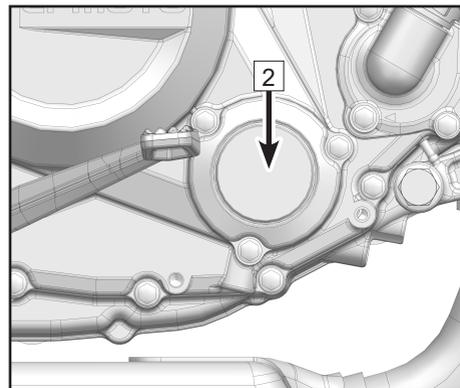
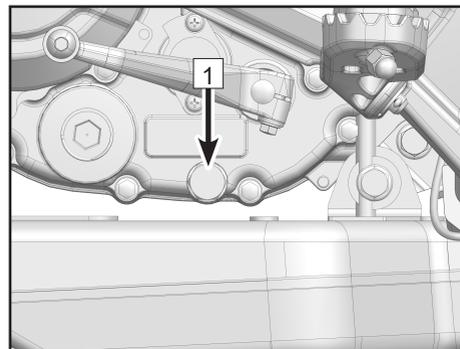
Drain out completely the used oil.

WARNING

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

Remove the oil filter **2** and replace with a new oil filter.

Install the new oil filter (6N•m) .



⚠ CAUTION

Before mounting the oil filter cover, applying a thin layer of oil on the seal ring prevents the filter from becoming stuck on the engine case.

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

Place a new washer on the oil drain bolt, then reinstall it. Torque the drain bolt to specification (25N•m).

Remove the oil filling screw plug **3** .

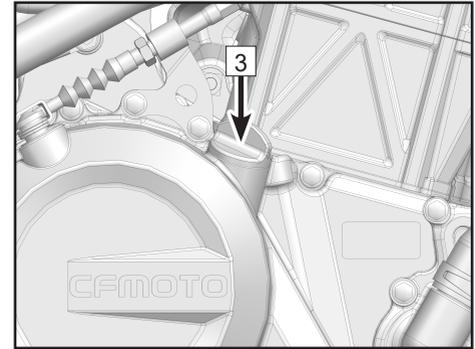
Fill with engine oil (SAE10W/40 SJ JASOMA2) by 1.47 qt (1.4 L) oil.

Remount the oil filling screw plug.

Start and idle the engine for several minutes, allowing the oil to flow into the oil filter while checking for leaks.

Turn off the engine.

Inspect the oil level and adjust according to the level result.



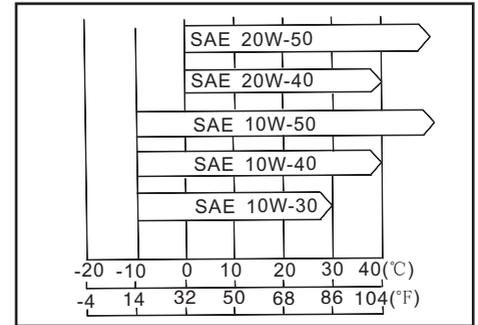
Engine Oil Capacity

Change with oil filter: 1.47 qt (1.4 L)

CFMOTO recommends motorcycle engine oil with API-rating SJ or higher and JASO-MA2 as the primary choice. An acceptable alternative is JASO-MA.

Although 10W-40 engine 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 plugs should be replaced in accordance with the Periodic Maintenance Chart.

Spark plug maintenance should only be performed by an authorized dealer.

Spark plug type: CR8EI

Spark plug clearance 1 : 0.027 in. ~ 0.035 in. (0.7mm~0.9mm)

Tightening torque: 18 N•m

Idling

The idling speed for this vehicle is already adjusted when shipped from the factory. The owners do not need to adjust the idling speed, or it may affect the vehicle performance. When need to replace the parts that related with idling speed, please have your authorized CFMOTO for replacement and calibrate the ECU with diagnosis tool.

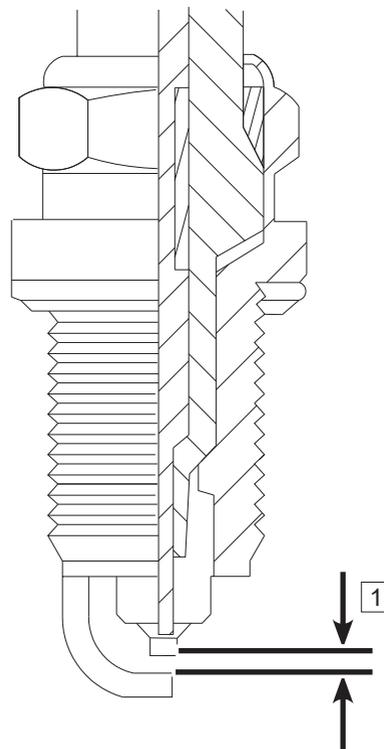
DANGER

Improper adjustment for idling speed may lead to serious result.

Idling speed:

CF250CL-X: 1600 r/min \pm 160 r/min

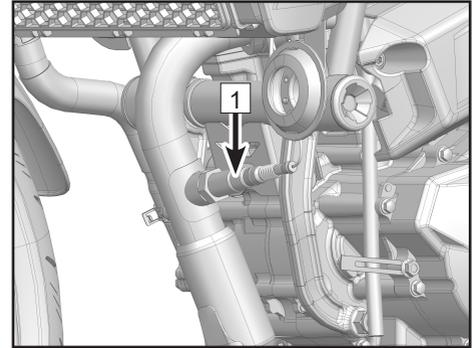
CF300CL-X: 1500 r/min \pm 150 r/min



Air Intake and Exhaust System

Fuel & Exhaust Detecting System

Fuel & exhaust system optimization is detected by oxygen sensors **1**. An oxygen sensor installed on each exhaust pipe detects air & fuel combustion condition by measuring oxygen density and transferring it as an electrical signal to the ECU. If the ECU determines that combustion is not optimal, it will make adjustments to fuel injection in accordance with signals from the TPS and Intake Air Temperature sensors. By this way, the ratio of air against fuel can be optimized for complete combustion.



Air Intake Valve

An air intake valve is essentially 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 stable idling cannot be obtained, 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 engine valves and valve seats wear during operation. Adjustment of the valvetrain components should be performed by a dealer technician in accordance with the Periodic Maintenance Chart.

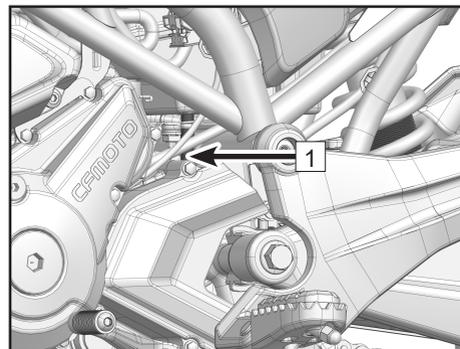
WARNING

If adjustment of the valve clearance is not performed, it will eventually result in no clearance or cause the valves remaining partly open, which reduces performance, creates valve noise, and can cause serious engine damage. Valve clearance for each valve should be checked 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 power, and causes spark plug fouling. The air filter element must be cleaned in accordance with the periodic Maintenance Chart. When driving in dusty, rainy, or muddy conditions, the air filter element should be serviced more frequently than the recommended interval in the periodic Maintenance Chart. Due to the vehicle's design, air filter service should be only performed by an authorized dealer.

Indicator hose **1** is located at the rear of the engine, alerts to excessive dirt, residual oil or water in the air filter.



⚠ CAUTION

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

If engine intakes with the unfiltered air, will have a negative effect on the service life of the engine.

Never start to use the vehicle without an air filter.

Throttle Body

The throttle limit screw on the throttle body has been precisely set and can not be adjusted. Inspect the vehicle idling speed, if not stable, have your authorized CFMOTO dealer for service.

Cooling System

Radiator and Cooling Fan

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

 **WARNING**

Keep your hands and clothing away from the fan blades when it is working to avoid any injury.

Using high-pressure water to wash the vehicle could damage the radiator fins and impair the radiator's effectiveness. Installing unauthorized accessories in front of the radiator or behind the cooling fan may cause interference with the radiator airflow, and can lead to overheating and consequent engine damage.

If the radiator fins are damaged by more than 20% of their surface area by obstructions, and it is unable to be cleared, then replace with new radiator.

Radiator Hoses

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

Coolant

Coolant absorbs excessive heat from the engine and transfers it to the air by the radiator. If the coolant level is low, the engine will overheat and may suffer severe damage. Check the coolant level daily before riding the motorcycle and perform maintenance in accordance with the periodic maintenance chart. Replenish coolant if the level is low.

To protect the cooling system (engine and radiator contain aluminum parts) from rust and corrosion, the use of corrosion and rust inhibitor chemicals in the coolant is essential. Purchase only commercially available coolant that contains corrosion and rust inhibitor chemicals, so there is no need to add separately.

⚠ DANGER

Coolant is toxic and harmful for health.

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

If coolant is swallowed, see a doctor immediately.

If coolant contacts the skin, flush the contact position with plenty of water immediately.

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

If coolant splashes on clothes, change the clothes.

Any corrosion or rust flushed from the engine and radiator should be disposed of following special instructions. The chemicals inside are harmful to the human body.

⚠ CAUTION

Do not add tap water to the coolant system. It will cause deposit accumulation inside the cooling system.

Available bottled antifreeze on the market contains anti-corrosion and anti-rust properties. When it is diluted excessively, it loses its anti-corrosion and anti-rust performance. Keep the diluted concentration of antifreeze the same as the instructions from the manufacturer.

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

Coolant Level Inspection

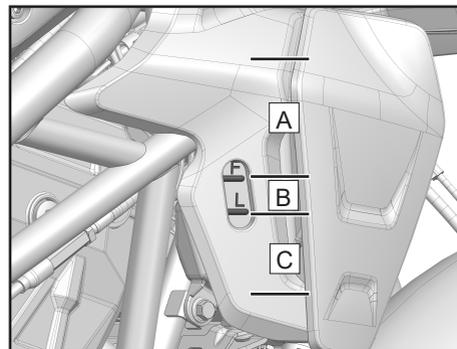
Park the vehicle by side stand on level ground.

Inspect the coolant level in the reservoir.

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

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

If the level is at area 'C' or cannot see the level: Refill with the same coolant until the level is at area 'B'.



⚠ WARNING

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

Before the engine or cooling system has cooled down, do not open the radiator, radiator hose, reservoir or other cooling system related parts.

In the event of scalding, wash the affected area immediately with running water for more than 10 minutes and seek medical attention.

Coolant Filling

Open the reservoir cover and add coolant to area B.

 **CAUTION**

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

Contact your dealer for replacing coolant. Mixing different coolant may lead to engine damage.

Tire and Chain

This vehicle only uses tubeless tires, rims and inflating valves. Only use the recommended standard tires, rims and inflating valves. Do not install inner tube tires on tubeless rims. Do not install a inner tube inside a tubeless tire. If tires are not installed properly, it may cause tire air leakage.

Tire Specification

Tire specification	Front wheel	110/70R17 M/C 54H
	Rear wheel	150/60R17 M/C 66H
Tire pressure	Front wheel	32.6 psi (225 kPa)
	Rear wheel	32.6 psi (225 kPa)
Minimum tread depth	Front wheel	0.031 in. ~ 0.039 in. (0.8 mm ~ 1 mm)
	Rear wheel	0.031 in. ~ 0.039 in. (0.8 mm ~ 1 mm)

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

Make periodic inspections of the tire air pressure using a tire pressure gauge. Adjust tire pressure accordingly.

Excessive low tire pressure may cause tire improper wear or overheating.

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

NOTE:

Inspect the tire pressure when the tires are cold.

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

Most countries have their own regulation for minimum tread depth. Please follow local regulations. When installing new rims or tires, always inspect for wheel balance.

⚠ CAUTION

In order to keep the handling safety and stability, please only use the tire and pressure recommended. If the tire is punctured and repaired or used within 24 hours after repairing, the vehicle speed should not exceed 100km/h, and cannot exceed 130 km/h at any other time. A punctured tire should be repaired as soon as possible.

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

New tires can be slippery and may cause a loss of control and injury if proper break-in is not performed. Please drive the vehicle at moderate speeds using different tilt angles to have the tires create friction with the ground over the entire surface area. Normal friction surface will be formed after a 160km break-in period. Avoid sudden braking, heavy acceleration, and high speed sharp turns during the break-in period.

Tire Friction

When tire tread wear exceeds the use limit, the tire becomes more susceptible to punctures and failure. An accepted estimate is that 90% of all tire failures occur during the last 10% of tread life, so it is unsafe to continue to use tires until they are bald. In accordance with the Periodic Maintenance Chart, measure the depth of the tread with a depth gauge, and replace any tire that has worn down to the minimum allowable tread depth.

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

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

CAUTION

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

Do not use side stand to park vehicle for long time in winter. Use the middle stand (if equipped) or park stand bracket to park the vehicle, as the tires should not bear the vehicle weight.

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

When parking vehicle for long time outside in winter, use a ground covering under tires that will insulate and protect them.

Drive Chain Inspection

The drive chain slack and lubrication must be checked daily before riding in accordance with the Periodic Maintenance Chart for safety and preventing excessive wear. If the chain becomes badly worn or maladjusted, it will lead excessive component wear and possible failure.

If the chain is too tight, will accelerate the wear for chain, sprocket, rear sprocket and rear rim. Some parts may crack or break when placed under a load.

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

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

Chain dirt inspection

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

If the chain is dirty, flush any large dirt particles with a soft jet 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

Place the transmission into Neutral gear.

Park with the side stand on level ground.

Push up the middle of the chain until it stops, and measure the distance of chain movement.

If the chain tension is out of specification, adjust it to the standard.

Standard value: 0.79 in. ~ 1.18 in. (20 mm ~ 30 mm)

NOTE:

Rotate the rear wheel to different positions and repeat the measurement before adjusting chain slack.

Chain Tension Adjustment

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

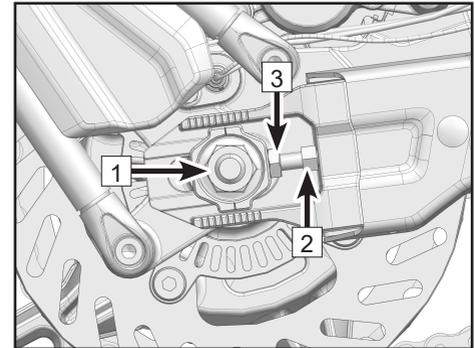
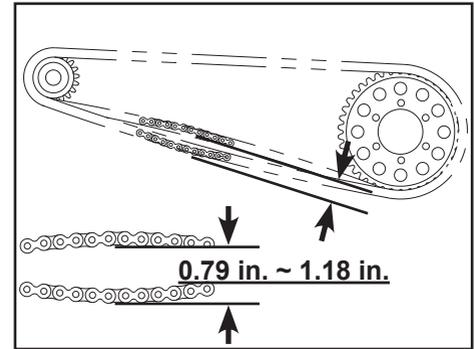
Loosen the left and right locking nuts **2**.

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

Make sure the swing arm end is touching tightly to the adjusting bolt.

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

Tighten the rear wheel shaft nut and install the cotter pin.



Wear inspection

Place the transmission into Neutral gear.

Support the vehicle with side stand.

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

Measure the length between 20 links for elongation. If the measured length exceeds the standard limit, replace the chain with a new one.

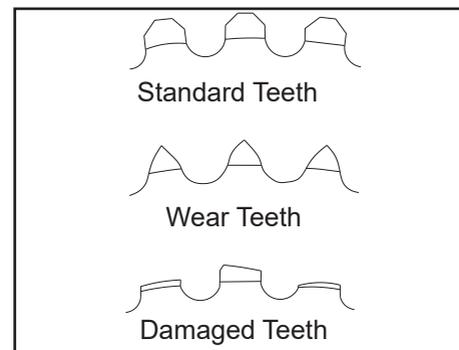
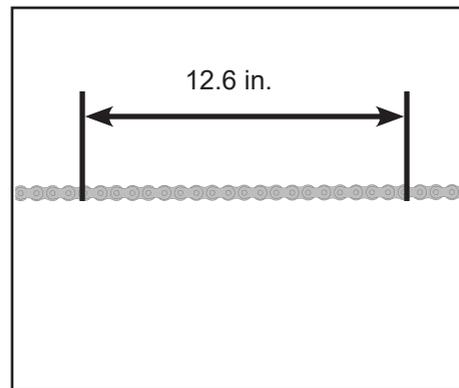
Standard limit: 12.6 in. (320.7 mm)

⚠ DANGER

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

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

If the engine sprocket or rear sprocket is worn, then replace the both sprockets as a set.



Brake System

In order to guarantee excellent performance of your vehicle and personal safety, please repair and maintain the vehicle according to the Periodic Maintenance Chart. Make sure all the parts of the brake system are in good state. If any damage occurs to the brake system, have your vehicle inspected by authorized dealer.

Front Brake Lever Inspection

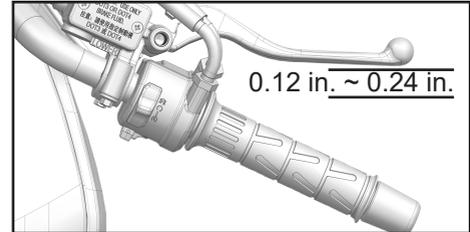
Park with the side stand on level ground.

Grip lightly the front brake lever and inspect its free travel.

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

Inspect the front brake lever for any cracks or abnormal noise.

Replace with new parts if problems are discovered.



Rear Brake Pedal Inspection

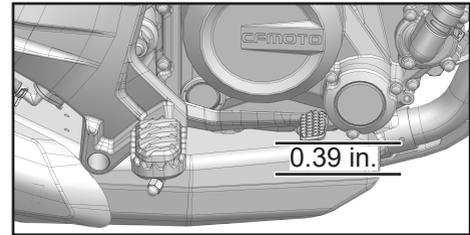
Park with the side stand on level ground.

Lightly apply the rear brake pedal and inspect its free travel.

Free travel: 0.39 in. (10 mm)

Inspect the rear brake pedal for any cracks or abnormal noise.

Replace with new parts if problems are discovered.



⚠ WARNING

If the brakes feel soft when applying the brake lever or brake pedal, there may be air in a brake fluid hose or lack of fluid. If the vehicle has this dangerous condition, do not drive the vehicle. Have the brake system checked immediately by an authorized CFMOTO dealer.

Brake Fluid Level Inspection

Park the vehicle with side stand.

Inspect the front and rear brake reservoir fluid levels.

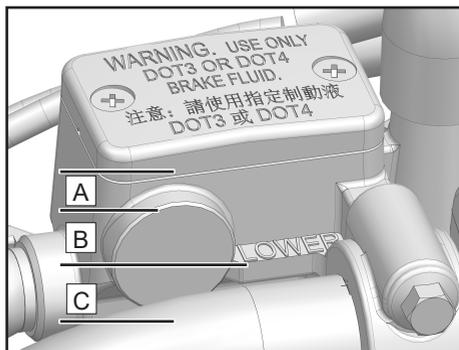
If the brake fluid level is located at area 'A': Drain out the redundant fluid until it arrives at area 'B'.

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

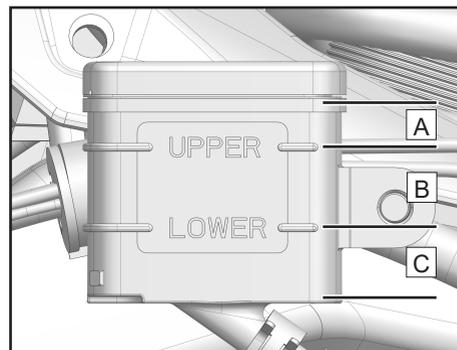
If the brake fluid level is located at area 'C' or cannot see the level: Refill with same brake fluid until the level arrives at area 'B'.

WARNING

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



Front brake fluid reservoir



Rear brake fluid reservoir

Adding Brake Fluid

WARNING

Brake fluid causes skin irritation. Rinse the affected area with plenty of water in the event of contact with the skin.

Keep brake fluid out of the reach of children.

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

Consult a doctor immediately if brake fluid has been swallowed.

Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.

If brake fluid spills onto your clothing, change the clothing.

WARNING

Brake fluid used for long time without replacement will reduce braking efficiency. Please change the brake fluid according to the Periodical Maintenance Schedule. Only use the same type DOT3 or DOT4 brake fluid as marked on the fluid reservoir. The mixing of different brake fluid types may cause brake system damage or failure. 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 to reservoir gasket sag. Remove the reservoir cap to release the pressure. Adjust the reservoir gasket and then install the gasket and cap.

Front brake fluid reservoir

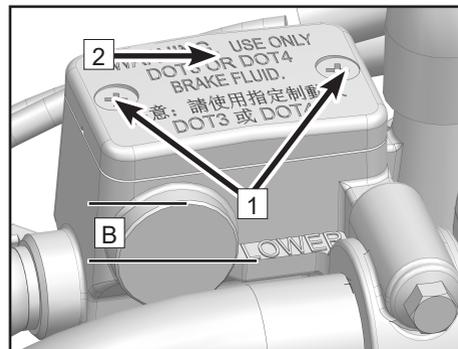
Remove screws [1] .

Remove the cover and reservoir gasket [2] .

Refill brake fluid to area 'B'.

Reinstall the cover and reservoir gasket.

Install the screws.



Rear brake fluid reservoir

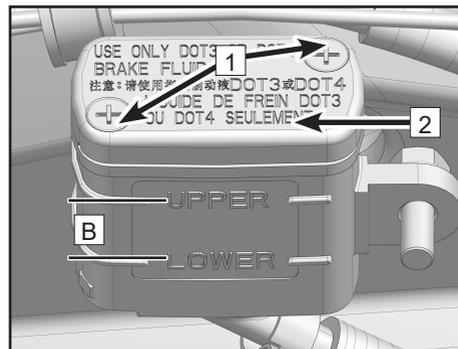
Remove screws [1] .

Remove the cover and reservoir gasket [2] .

Refill brake fluid to area 'B'.

Reinstall the cover and reservoir gasket.

Install the screws.



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 reduce the braking distance. If brake discs are damaged or exceed the wear limit, contact an authorized dealer to replace with new brake discs immediately.

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

Front and rear brake discs wear limit: 0.12 in. (3 mm)

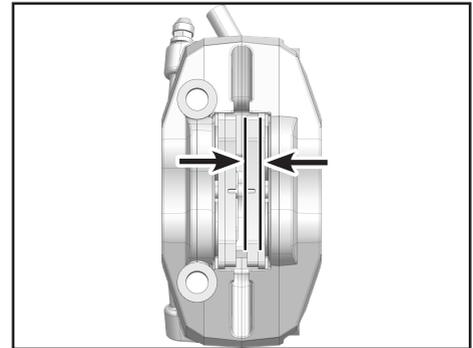
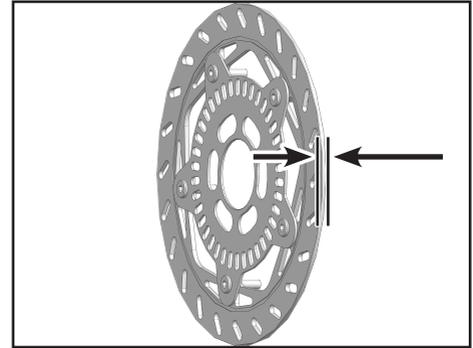
Brake Caliper Inspection

Inspect the brake calipers before riding. Inspect the brake pads for minimum thickness periodically. If the brake pad is too thin, it will cause the steel plate to rub the brake discs, which will severely reduce brake effect and damage the brake system.

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 pad plate is damaged, please contact an authorized dealer immediately to repair the brake system.



Anti-lock Braking System (ABS)

ABS is a safety system that prevents locking of the wheels when driving straight ahead without the influence of lateral forces.

With the assistance of ABS when fully braking or braking in gritty, ponding, sliding or other low-adhesive force road conditions, the vehicle will handle with full brake force and will not lock the wheels, which could cause an accident.

DANGER

It is not always possible to prevent vehicle rollover in extreme riding situations, e.g. luggage/cargo loaded with a high center of gravity, varying road surfaces, steep descents, full braking without the clutch released. Adapt your riding style to the road conditions and your driving ability.

ABS operates with two independent brake circuits (front and rear brakes) . When the brake electronics control unit detects a locking tendency in a wheel, ABS begins regulating the brake pressure. Operators will feel the regulating process as a slight pulsing of the hand or foot brake levers.

When turning on the ignition switch, the ABS indicator should light up and go out after driving has started. If the ABS indicator does not go out after driving has started, or if it lights up during driving, this indicates that there is a fault in the ABS system. If a fault occurs, ABS will not work, and the wheels may lock during heavy braking. The brake system stays fully functional, but ABS is not available to correct potential wheel lock-up.

Shock Absorber

Shock Absorber Inspection

Holding the handle bar and front brake, compress the front fork for several times to inspect for smooth function. Visually inspect the front shock absorbers for oil leaks, scratches or friction noise.

After riding, check the front shocks for any mud, dirt or debris. Clean these surfaces periodically. Failure to maintain them could lead to oil seal damage and shock oil leak.

Press down on the seat with your weight several times to check if the rear shock absorber works smoothly. Visually inspect the rear shock absorber for an oil leak.

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

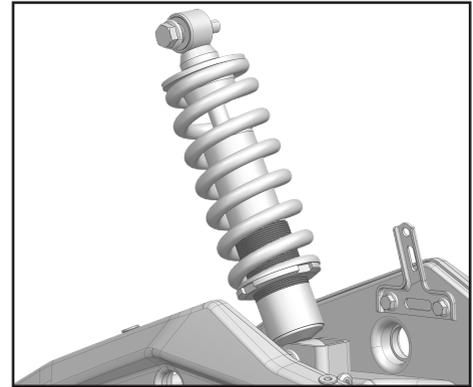
Rear shock absorber adjustment

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

Contact your authorized CFMOTO dealer to make spring preload adjustment. Do not make the adjustment by yourself.

DANGER

This component contains high-pressure nitrogen. Improper operation may cause an explosion. Read the relevant instructions. Do not expose it to fire, make holes, or open it.



Electrical System and Light Signal

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 at the starter motor. When the motorcycle is used frequently, battery is charged 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 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 battery is not charged properly it can easily cause freeze the electrolyte, which may lead to battery cracking and warp electrode plates out of shape. Proper, full charging of the battery improves freeze-proof capability.

Battery Sulfation

A common battery failure is battery sulfation. When the battery is lack of power for a long time, sulfation may occur in the electrolyte. Sulfation is an abnormal product produced by chemical reaction in the battery. If the battery occurs sulfation, and still continue to let the battery discharge, the battery plates may damage permanent, and the battery can not be charged. When such a fault occurs, the only way is to replace with a new battery.

Battery Maintenance

Always keep the battery fully charged, or may it damage the battery and result in a shorter life.

If the vehicle is driven infrequently, inspect the battery voltage weekly with a voltmeter. If it drops below 12.8 volts, the battery should be charged with an appropriate charger (check with your dealer). If you will not use the vehicle for longer than 2 weeks, the battery should be tended with an appropriate trickle charger. Do not use an automotive type quick-charger that may overheat the battery and damage it.

Battery Recharger

Contact your dealer for battery charger specifications.

Battery Disassembly

Put the vehicle on the level ground and park.

Turn off the engine and the vehicle power.

Insert the key into the seat lock.

Remove the seat **1**.

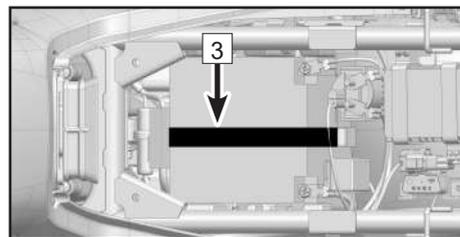
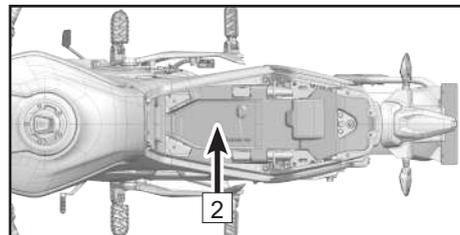
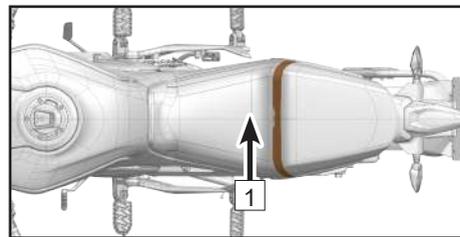
Remove the dust cover **2**.

Remove the black negative wire(-).

Remove the red positive wire(+).

Remove the battery belt **3**.

Take out the battery.



Battery Charging

Remove the battery from the vehicle before charging.

Connect the positive and negative wires from the charger and charge the battery at a rate 1/10th Amp of the battery capacity. For example, the charging rate for a 10Amp-hour battery would be 1.0 ampere.

Ensure that the battery is fully charged before installation.

WARNING

Do not install a conventional wet-cell battery in this motorcycle. The electrical system will not work properly and damage will result.

When removing the battery, remove the negative terminal first, then the positive terminal. When installing, the connecting order is opposite of battery removal.

NOTE:

When charging a maintenance-free battery, always follow the instructions shown on the label.

Battery maintenance

Apply a mixture of baking soda and water with a soft brush to clean the battery top and terminals.

Clean away dirt and any corrosion on positive and negative wire terminals with a stiff brush.

A special battery charger (constant low voltage / ampere) is required for recharging low-maintenance batteries. Using a conventional battery charger may shorten the battery life.

If the vehicle will not be used for a month or longer, take out the battery and store it in a cool, dry place.

Completely recharge the battery before re-installation. When charging the battery, it should be taken out from the vehicle.

Battery Assembly

Put the vehicle on the level ground and park.

Make sure the key is on "OFF" position.

Mount the battery in place.

Mount the battery belt.

Mount the red positive wire(+).

Mount the black negative wire(-).

Mount the dust cover and seat.

WARNING

Avoid contact with skin, eyes or clothing, and always shield eyes when working near batteries.

Keep out of reach of children. Keep batteries away from sparks, flames, cigarettes or other sources of ignition. Ventilate the area when charging or using in a closed space.

Battery acid antidote:

EXTERNAL: Flush with water.

INTERNAL: Get prompt medical attention.

EYES: Flush with water for 15 minutes and get prompt medical attention.

DANGER

Wrong operating sequence for positive and negative wires installation or disassembly may lead to short circuit between battery and the vehicle.

Light

Headlight and fog light is adjustable. Rotate the light adjusting knob **1** to adjust light.

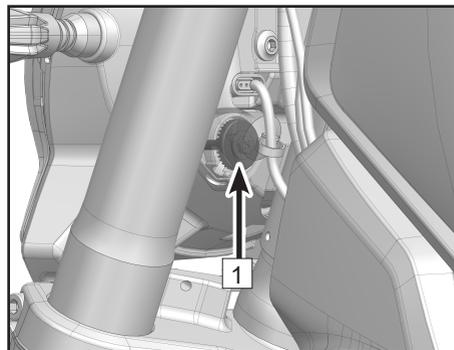
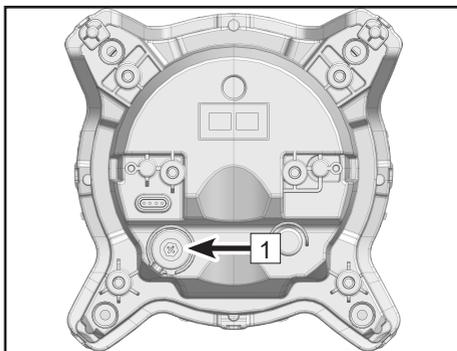
⚠ CAUTION

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

All the lights are LED structure, which cannot be repaired if damaged or failed. Have your dealer replace the entire assembly if an LED is damaged or has failed.

⚠ CAUTION

Do not leave the power turned on for a long time if engine will not be started. Headlight constantly on will use battery capacity and cause the engine to fail to start.

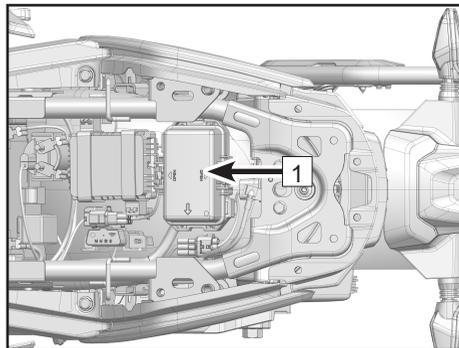


Fuse

Fuse box **1** is located under the seat, it is visible after removing the seat and the dust cover. If a fuse is blown, inspect the electrical system for damage and replace with the same new fuse.

⚠ WARNING

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



Catalytic Converter

This motorcycle is equipped with a catalytic converter in the exhaust system. Platinum and rhodium contained inside the converter reacts with the engine exhaust of carbon monoxide and hydrocarbons to convert them into carbon dioxide and water, resulting in cleaner exhaust gases discharged into the atmosphere.

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

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

Do not coast the vehicle with the engine and transmission engaged, and the ignition switch and/or engine stop switch off. Do not attempt to start the engine many times when the battery is discharged. Under these conditions, unburned air/fuel mixture can flow into exhaust system, accelerating the reaction with the converter which leads the converter to become overheated and damaged when the engine is hot, or reduce converter performance when the engine is cold.

CAUTION

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

Fuel Evaporation System

This vehicle is equipped with an EVAP System. Fuel vapors from the fuel tank are drawn into a carbon tank through an absorption tube. The fuel vapors are absorbed by canister that contains active carbon when the engine is stopped. When the engine is running, fuel vapors absorbed in the carbon canister flow into the air intake and burn as a normal part of combustion, avoiding environmental pollution instead of being released into the air directly. Meanwhile, air pressure inside the fuel tank is balanced by the EVAP system. If inner pressure of fuel tank is lower than outside, it is available to replenish air pressure through the air tube of the carbon canister and absorption tube. The EVAP tube system should always remain clear without blocking or squeezing, otherwise the fuel pump could be damaged, and the fuel tank can also become deformed or broken.

Please contact CFMOTO dealer if a fuel evaporation system component has failed. Do not modify the fuel evaporation system, or the system will not meet requirements for environmental regulations. Tube connections should be well connected after any repair without air leakage, blocking, squeezing, being broken or damaged etc.

Motorcycle cleaning and storage

General Precautions

Keeping your motorcycle clean and in best performance will extend the vehicle service life. Covering your motorcycle with a high quality, breathable motorcycle cover will help to protect the vehicle during storage.

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

Washing Vehicle

- Rinse with cold water to remove any loose dirt.
- Mix a mild detergent specific for motorcycles or automobiles with water in bucket. Use a soft cloth or sponge to wash your motorcycle. If necessary, use a mild degreaser to remove any oil or grease build-up. Start at the top of the motorcycle and wash bottom parts last.
- After washing, rinse your motorcycle with clean water to remove any residue (residue from the detergent can damage the components of your motorcycle).
- Dry off your motorcycle with a soft cloth to avoid scratches.
- Start the engine and allow it idle for several minutes. The heat from the engine will help dry off the vehicle in moist areas.
- Carefully ride the motorcycle at a low speed and apply the brake several times. This will help to dry the brakes and restores 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, applying an anti-corrosion spray to all metal or chrome surfaces will help prevent corrosion. In the case of riding during a rainy day or just washing the motorcycle, condensation may form on the inside of the headlight lens. If this happens, start the engine and turn on the headlight to remove the moisture.

Protect the Surface

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

Windshield and Other Plastic

After washing, use a soft cloth to gently dry off plastic parts. When the vehicle is dry, treat the windshield, headlight lens, and other unpainted plastic parts with an approved plastic cleaner or polish.

CAUTION

Plastic parts may deteriorate and break if they come in contact with chemical substances or household cleaning products such as gasoline, brake fluid, window cleaners, thread fastener glue, or other harsh chemicals. If a plastic part comes in contact with any harsh chemical substance, wash it off with water, and then inspect for damage. Avoid using abrasive pads or brushes to clean plastic parts, as they will damage the plastic surface.

Chrome and Aluminum

Chromium alloy and uncoated aluminum parts exposed to the air can oxidize, become dull and lackluster. These parts should be cleaned with a detergent and polished with a spray polish. Painted and unpainted aluminum wheels should be cleaned with special detergent.

Leather, Vinyl, and Rubber Products

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

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

 DANGER

Special care must be taken when treating tires, that rubber protective agent applied will not affect the tire tread function. If not applied correctly, it may decrease the traction between the tire and ground, possibly causing a loss of control.

Preparation for Storage

Clean the entire vehicle thoroughly.

Run the engine for about 5 minutes, stop the engine, then change the engine oil and filter.

 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.

Fill with fresh engine oil.

Fill with fuel and appropriate fuel additive.

 DANGER

Gasoline is extremely flammable and explosive under certain conditions. Turn the ignition key to “” position when operation the vehicle. 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 period.

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

Spray a corrosion inhibitor on all unpainted metal surfaces to prevent rusting. Avoid spraying on rubber parts or on the brakes.

Lubricate the drive chain and all cables.

Remove the battery. Store it out of the sun and in a cool, dry place. Ensure that the battery is fully charged according to periodic maintenance chart.

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

Put a cover over the motorcycle to keep dust and dirt from collecting on it.

Preparation After Storage

Remove the plastic bags from the Muffler.

Verify the battery condition. Charge it if necessary, then install the battery in the motorcycle.

Lubricate any pivot points as necessary (handle bar levers, foot pedal, etc).

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

Test ride at slow speed to verify the vehicle functions normally.

Transporting Your Vehicle

If your vehicle needs to be transported, it should be carried on a motorcycle trailer, a flatbed truck, or trailer that has a loading ramp or lifting platform, and be secured with motorcycle tie-down straps. Never try to tow your vehicle with a wheel or wheels on the ground.

General troubles and causes

Problem	Components	Possible 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, too long time usage	Clean or replace
		Spark plug cap failure: Poor contact or burning	Clean or replace
		Ignition coil failure: poor contact or burning	Clean or replace
		ECU failure: Poor contact or burning	Clean or replace
		Trigger coil failure: poor contact or burning	Clean or replace
		Stator failure: poor contact or burning	Clean or replace
		Wiring failure: poor contact	Inspect or adjust
	Cylinder compression	Starting mechanism failure: worn or damaged	Clean or replace
		Intake and exhaust valves, valve seats faulty: too much fuel colloidal or too long time use	Clean or replace
		Cylinder, piston, piston ring failure: too much fuel colloidal or wear	Clean or replace
		Intake manifold leakage: too long time use	Clean or replace
		Valve timing faulty	Clean or replace

Insufficient power	Valve and piston	Intake and exhaust valves, piston excessive carbon deposits: poor fuel quality and poor oil quality	Repair or replace
	Clutch	Clutch slips: poor oil, too long time use and overloaded	Adjust or replace
	Cylinder and ring	Cylinder, piston rings wear: poor oil quality and too long time use.	Replace oil
	Brake	Incomplete separation of brake: the brake is too tight	Adjust
	Main chain	The drive chain is too tight: improper adjustment	Adjust
	Engine	Engine overheats: too rich or too lean mixture, poor oil, fuel quality, shelter, etc	Adjust or replace
Insufficient power	Spark plug	Improper spark plug gap, normal specification is 0.8mm -0.9mm	Adjust or replace
	Intake pipe	Air leakage of intake pipe: too long time use	Adjust or replace
	Cylinder head	Air leakage for cylinder head or valves	Adjust or replace
	Electric system	Electrical system failure	Inspect or repair
	Air filter	Clogged air filter	Replace
Headlights and tail lights do not work	Cable	Poor connections	Adjust
	Left and right switches	Switch poor contact or damage	Adjust or replace
	Headlight	Bulb and lamp holder failure or damage	Adjust or replace
	Regulator	Inspection. Loose connection or burnt	Inspect or replace
	Magneto	Inspect the coil: poor connection or burnt	Inspect or replace

Horn not work	Battery	No electricity	Recharge or replace
	Left switch	Horn button fault or damage	Adjust or replace
	Cable	Poor connection	Adjust or repair
	Horn	Horn damage	Adjust or replace

The items listed are the common faults of a motorcycle. If your motorcycle has failed (especially the electronic fuel injection system, fuel evaporation system, or alarms system), please contact a CFMOTO authorized dealer to check and repair the vehicle.

 Danger

Do not try to fix faults without professional help, otherwise it could cause an accident. You become responsible for accidents related to any repairs or maintenance not performed by a CFMOTO dealer.

General Torque Sheet

Type	Torque N•m	Type	Torque N•m
M5 bolt, nut	5±1	M5 screw	4±1
M6 bolt, nut	10±1	M6 screw	9±1
M8 bolt, nut	20~30	M6 flanged bolt, nut	12±1
M10 bolt, nut	30~40	M8 flanged bolt, nut	20~30
M12 bolt, nut	40~50	M10 flanged bolt, nut	30~40

Vehicle Key Parts Torque Sheet

Type	Thread	Piece	Tightening Torque N•m
Engine rear lower mounting nut	GB/T6187 M8	1	25~30
Engine front upper mounting bolt	GB/T5789 M10×90	1	45~50
Engine front lower mounting nut	GB/T5789 M10×140	1	45~50
Frame front lower mounting nut	GB/T5789 M10×170	1	45~50
Side stand bolt	A000-030006	1	15~20
Side stand bolt and nut	GB/T6187 M10×1.25	1	5~10
Front wheel axle	6KJ0-070001 M12×1.25×192	1	50~80
Rear fork tightening nut	GB/T6187 M15×1.5	1	80~100
Rear wheel axle tightening nut	GB/T6187 M14×1.5	1	80~100
Steering column tightening nut	A000-050007 M35×1	1	20
Upper triple clamp locking screw	A000-050003 M26×1	1	110
Upper and lower triple clamp absorber locking screw	GB/T 70.1 M8×25	6	20~25

Rear absorber upper mounting bolt	GB/T5789 M10×1.25×45	1	35~40
Rear absorber lower mounting nut	GB/T6187 M10×1.25	1	35~40
Rear fender mounting bolt	GB/T70.1 M8×20	3	25~30

Telematics BOX (Available in Selected Markets)

Some CFMOTO vehicles are equipped with an intelligent vehicle terminal - Telematics BOX (T-BOX). It builds a communication bridge between the owner and the vehicle through CFMOTO APP. Please search and download CFMOTO APP.



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