



The Instruction Manual for The  
Two-wheeled Motorcycle ZF500GY-A



## To the owner

Instruction Manual for The Two-wheeled Motorcycle ZF500GY-A  
Edition (May 2023)

First of all, congratulations on your purchase of a brand new KOVEMOTO!

If you choose products of KOVEMOTO, you will become a member of the KOVEMOTO family.

This Instruction Manual introduces the main specifications, basic structure, adjustment method and maintenance knowledge of the motorcycle. It will guide you to master the basic operation of the motorcycle and eliminate or reduce common faults, which can effectively ensure driving safety, play the best performance of the vehicle, and improve the service life of the vehicle.

**This Instruction Manual contains the introduction of the basic configuration of the motorcycle. The contents and pictures are for reference only, please refer to the physical object.**

**Due to the production time, user needs and design improvements, the actual motorcycle may be different from the contents of the Manual. We reserve the right to make changes at any time, and we will no longer notify and assume any obligations. Sorry for any inconvenience caused.**

The Instruction Manual is one of the necessary accessories of the motorcycle, and when it is sold to others, it should be attached to the motorcycle.

The copyright of this Instruction Manual belongs to the company, and no reproduction is allowed without the written consent of the company, and violators will be prosecuted.

To ensure your safety, and increase your riding pleasure:

- Please read the Instruction Manual carefully.
- Please follow all recommendations and procedures in the Instruction Manual.
- Please pay close attention to the safety information recorded in the Instruction Manual and pasted on the motorcycle body.

## Safety Precautions

The safety of you and others is very important, and the safe driving of this motorcycle is an important responsibility.

To help you make an informed decision about your safety, we provide steps and other information on the safety label and in the Instruction Manual to remind you. This information is intended to alert you to the potential danger of harm to you or others.

It is impractical for us to list all the hazards associated with motorcycle riding and maintenance, and you must make the right judgment yourself.

It is forbidden to install electrical equipment, because the battery used in the motorcycle is a lithium battery. Its battery capacity is small, and the installation of electrical equipment may cause a loss of power. The motorcycle is equipped with a high-speed engine. For your driving safety, it is recommended that you reduce violent driving.


You'll see important security information in a variety of forms, including:

- Safety labels on the body of a motorcycle;
- The safety information is preceded by a safety warning symbol  and one of the following three warnings : Caution, danger, and warning.


**The meanings of the three warnings are as follows:**

 **Caution** - If you do not follow the instructions, you may be injured.

 **Danger** - If you do not follow the instructions, you will cause serious casualties.

 **Warning** - If you do not follow the instructions, you will cause serious casualties.

**Other important information is listed under the following headings:**

 **Caution** - Information to help you avoid damage to your motorcycle, other property, or the environment.

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## Motorcycle safety

This section contains important information about the safe riding of motorcycles, please read this section carefully.

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## Safety instructions

To enhance your driving safety, please follow these guidelines:

- Perform all routine and routine inspections as specified in the Instruction Manual.
- Before filling the tank, turn off the engine and keep away from sparks and open flames.
- Do not start the engine for a long time in a closed or semi-closed space, because the exhaust gas contains carbon monoxide, which is a toxic gas and can be fatal.

### Always wear a helmet

It has been proven that helmets and protective clothing can significantly reduce the chance of injury to the head and other parts, and reduce the degree of injury. Therefore, please be sure to wear a certified motorcycle helmet and protective clothing when driving.

### Before the ride

Make sure you're in good physical condition, paying attention, and not drinking or taking medication. Make sure that you and your passengers are wearing a certified motorcycle helmet and protective clothing. You instruct your passenger to hold onto the grab handle or hold your waist, place his/her feet on the pedals, and lean with you when you turn, even when the motorcycle is stopped.

### Take time to study and practice

Even if you have driven other motorcycles, you should practice riding this motorcycle in a safe area to familiarize yourself with the operation and operation of this motorcycle and adapt to the size and weight of the motorcycle.

### Have a sense of protection when riding

Always pay attention to the vehicles around you, do not think that other drivers can see you, always be prepared to make emergency brakes or avoid detours.

## Make yourself easier to see

Especially at night, wear bright reflective clothing to make yourself more eye-catching, stop so that other drivers can see you, turn on the signal light before turning or changing the lane, and when necessary, use the horn to remind pedestrians.

## Don't drink and ride


Alcohol and driving are not compatible. Never exceed your personal ability when driving, and do not exceed the speed specified by the vehicle, fatigue and negligence will weaken your ability to make correct judgments and safe driving.

## Keep your motorcycle in a safe state

It is important to take good care of your motorcycle so that your motorcycle is always in good condition. Check your motorcycle before each ride and complete all recommended maintenance and repairs. **Do not modify motorcycles or add accessories that will affect safety without authorization, and overload is strictly prohibited.**

## Dealing with incidents

Your personal safety is your first priority. If you or anyone else is injured, you should first carefully evaluate the severity of the injury and determine whether it is safe to continue driving, and call for emergency assistance if necessary. If other persons or vehicles are involved in a collision, the applicable local laws and regulations should also be followed.

If you decide to continue driving, first turn the ignition switch to the “” (off) position, and then evaluate the condition of the motorcycle. Check whether there is oil leakage, check whether the key nuts and bolts are fastened, and check the steering handle, steering column, brake and wheel to ensure that the personnel and vehicle are safe. Please drive slowly and carefully.

Your motorcycle may have suffered damage that will not be immediately apparent, please submit it to a special repair shop or a qualified special repair shop of KOVEMOTO for a thorough inspection as soon as possible.

## Carbon monoxide hazard

The exhaust gas contains toxic carbon monoxide, a colorless and odorless gas, and inhaling higher concentrations of carbon monoxide can cause people to lose consciousness and may even be fatal.

If you start the engine in a closed or semi-closed space, the air you breathe may contain a dangerous amount of carbon monoxide, and do not start the engine in a garage or other enclosed space.

### Warning

- If the engine is started for a long time in a closed or semi-closed space, it may cause a rapid accumulation of toxic carbon monoxide gas.
- Inhaling this colorless, odorless gas causes rapid loss of consciousness and death.
- Motorcycle engines should only be started in well ventilated outdoor areas.

## Safety Precautions

- Be careful when riding, always keep your hands on the handlebars and your feet on the pedals.
- Make sure that the passenger grasps the rear armrest or hugs your waist while driving, and puts his/her feet on the pedals.
- Always pay attention to the safety of riders, passengers and other drivers on the road.

### Protective clothing

Make sure that you and any accompanying passenger are wearing a certified motorcycle helmet, goggles and eye-catching protective clothing, and drive carefully according to the weather and road conditions.

#### ■ Helmet

It is certified to safety standards, eye-catching, and sized to fit your head size.

- It must be safe and comfortable and secured with a chin strap.
- It does not obstruct the line of sight of the mask or other certified goggles.

#### ■ Gloves

High wear-resistant all-finger leather glove.

#### ■ Boots or riding shoes

Boots that are strong and slip-resistant and protect the ankle.

#### ■ Clothing

It includes a protective eye-catching long-sleeved shirt suitable for riding and wear-resistant pants (or protective suits).

#### Warning

- Not wearing a helmet increases the chance of serious injury in an accident.
- Make sure that you and your passengers always wear certified helmets and protective clothing.

## Riding precautions

### Run-in period

Follow these guidelines during the first 500 km of driving to ensure the motorcycle's later reliability and performance.

- Avoid full throttle start or rapid acceleration.
- Avoid emergency braking and rapid downshifting.
- Ride carefully.

### Brake

Follow the following guidelines:

- Avoid excessive emergency braking and downshifting
  - ▶ Sudden braking will reduce the stability of the motorcycle.
  - ▶ Slow down before turning, or you may slip.
- Be careful when driving on slippery roads
  - ▶ Tyres are easier to slide on slippery surfaces and require longer braking distances.
- Avoid continuous braking
  - ▶ In the long and steep slope down the slope, repeated braking will lead to serious overheating of the brake, affecting the braking effect. You should use the engine brake and use the brake intermittently to slow down.
- The front and rear brakes can be used at the same time to achieve a complete braking effect.

## ■ Anti-lock brake system (ABS)

This model is equipped with an anti-lock braking system to prevent tire lock-up during emergency braking.

- When the vehicle speed is less than 10 km / h, the anti-lock braking system does not work.
- During braking, after ABS intervention, the hand brake lever or foot brake lever may slightly rebound, which is a normal phenomenon.
- Always use the recommended tyres to ensure that the anti-lock braking system works correctly.

## ■ Engine brake

When you release the throttle, the engine brake will help the motorcycle slow down. If you want to slow down, you can downshift to a low gear. When descending a long and steep slope, the engine should be braked and the brake should be used intermittently to slow down.

## ■ A humid and rainy environment

In a wet and rainy environment, the road surface will be wet and slippery, and the wet brake will also reduce the braking efficiency. You need to be very careful when braking. If the brake is wet, it can be intermittently repeated during low-speed driving and riding, which helps to dry the brake quickly.

## Parking

- Stay on solid, flat ground.
- If you must stop on a slightly inclined or loose ground, make sure to stop the motorcycle and make sure that the motorcycle cannot move or tip over.
- Ensure that high temperature parts do not come into contact with flammable materials.
- Do not touch the engine, muffler, brake and other high temperature parts before cooling.
- To avoid the possibility of theft, be sure to lock the steering handle and remove the key before leaving the unattended motorcycle.

■ Stop the motorcycle with the side support

1. Extinguish engine.
2. Lower side support.
3. Tilt the motorcycle slowly to the left until its weight is concentrated on the side bracket.
4. Turn the steering handle completely to the left.

▶ If the steering handle is turned to the right, it will reduce stability and may cause the motorcycle to fall.

5. Turn the ignition switch to the “” (lock) position and remove the key.

## Fueling / brake fluid and fuel guide

Follow these guidelines to protect your engine and catalytic converter:

- Use only unleaded gasoline.
- It is recommended to use high octane gasoline. The use of low octane gasoline will reduce the performance of the engine.
- It is not recommended to use ethanol gasoline, which will reduce the performance of the engine.
- Do not use spoiled or contaminated gasoline, or oil-gasoline blends.
- Prevent dirt and water from entering the tank.
- Since the brake fluid has a certain corrosive effect, be sure to avoid splashing into the eyes, adhering to the skin and avoiding contact with non-metallic materials of the vehicle when adding.

## Spare parts and modifications

We strongly recommend that you do not use any accessories other than KOVEMOTO, and do not modify the original design of the motorcycle, which will cause the motorcycle to be unsafe. Unauthorized modifications to your motorcycle will void your warranty service and result in your motorcycle being unable to legally drive on public roads and highways. Before you decide to add accessories to your motorcycle, first determine which modifications are safe and legal.

**It is prohibited to attach a trailer or a sidecar to a motorcycle and to modify or install other equipment at the engine installation point. Your motorcycle does not have the design of these accessories, and their use will seriously damage the maneuverability and safety of the motorcycle.**

### Warning

- Improper accessories or modifications may cause safety accidents, in which you may be seriously injured or even life-threatening.
- Please follow all instructions in the Instruction Manual for accessories and modifications.

## Loading guide

- The additional load will affect the maneuverability, braking and stability of the motorcycle. When riding with heavy loads, be sure to maintain a safe speed.
- Please keep within the specified loading limit, the maximum payload of the whole vehicle is 180kg, do not overload.
- Fix all luggage and place it evenly and smoothly near the center of the motorcycle.
- Do not place objects in the headlights or mufflers.

### Warning

- Overloading or improper loading will lead to accidents, resulting in serious casualties.
- Please follow the loading instructions in the Instruction Manual.

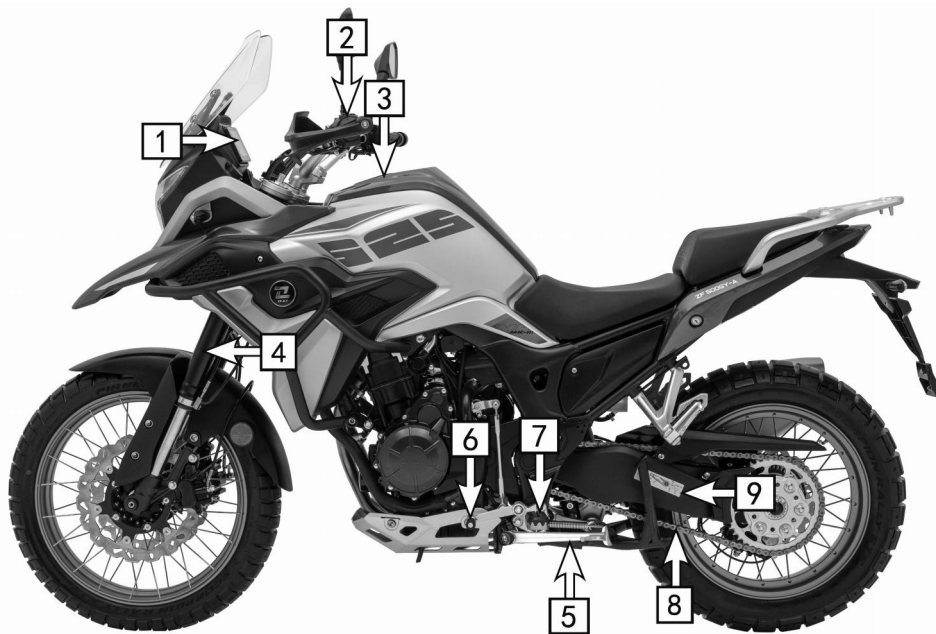
# Operating instructions

**This section contains important information about the operation of the motorcycle, please read this section carefully.**

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## Component location diagram

### Single arm version



1.Instrument 2. Left combination switch 3. Fuel tank filler cap 4. Clutch handle 5. Side stand 6. Shift lever 7. Rider footrests 8. Chain 9. Link fork

## Component location diagram

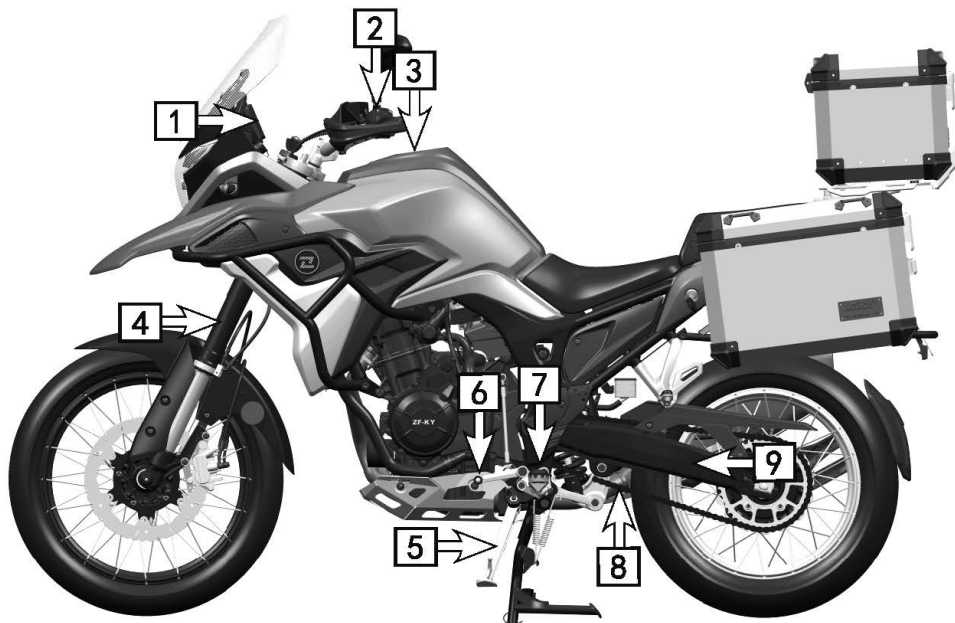
### Single arm version



1. Rearview mirror 2. Emergency OFF switch 3. Fuel tank 4. Hand brake lever 5. Engine 6. Rider footrests 7. Foot brake lever 8. Muffler 9. Seat

## Component location diagram

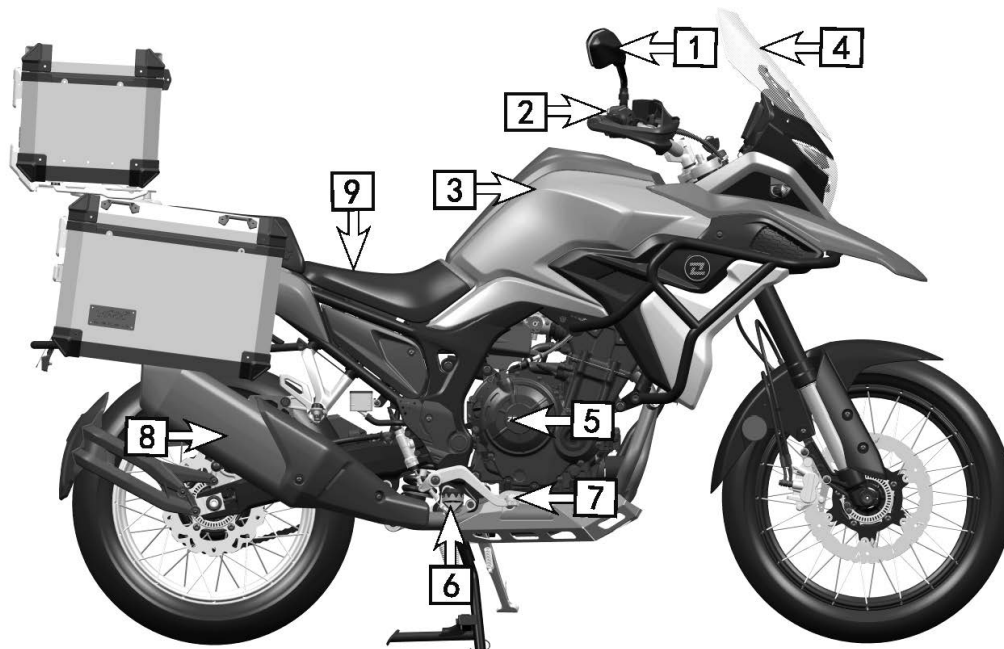
### Classic version



1. Instrument 2. Left combination switch 3. Fuel tank filler cap 4. Clutch lever 5. Side stand 6. Shift lever 7. Rider footrests 8. Chain 9. Link fork

## Component location diagram

### Classic version



1. Rearview mirror 2. Emergency OFF switch 3. Fuel tank 4. Hand brake lever 5. Engine 6. Rider footrests 7. Foot brake lever 8. Muffler 9. Seat


## Instruments

### Model 2022

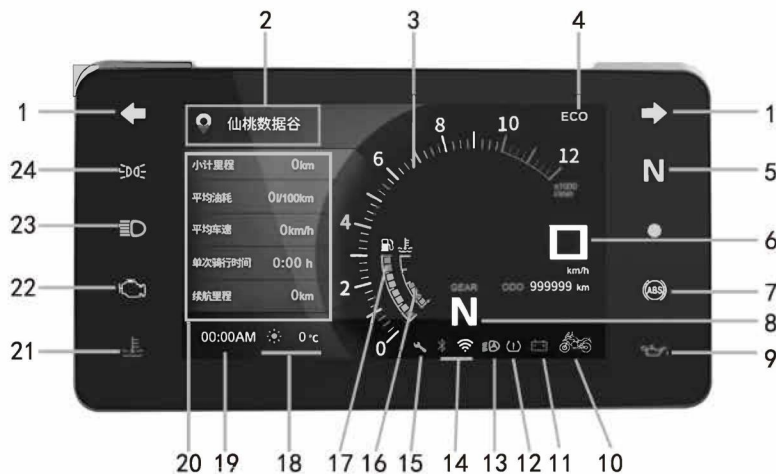


Light-sensitive hole

### Display check

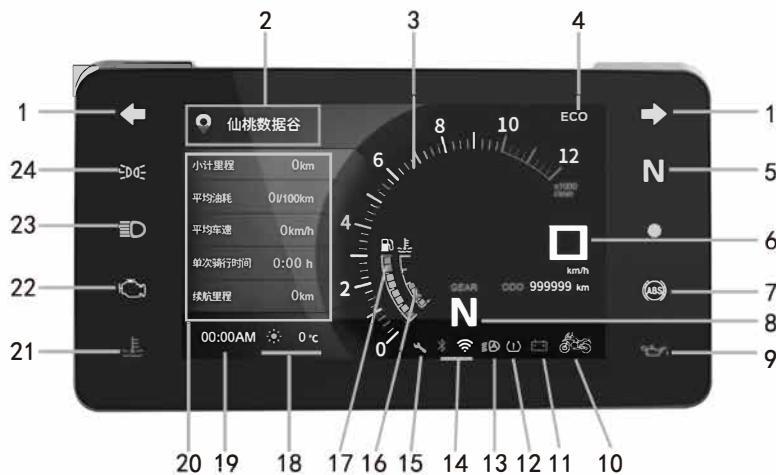
When the ignition switch is turned to “” (ON), the instrument is powered on to play the start-up animation, and then self-test is performed, and all functional modules and symbols are displayed. If the display is missing during self-test, Please go to the special repair shop of KOVEMOTO for repair.

## 仪表界面



Serial Number	Name	Functional description
1	Turn indicator light	When the left turn light is on, the left indicator flashes, and when the right turn light is on, the right indicator flashes
2	Message display	①Position information display (after connecting with the Bluetooth of the mobile phone) ②Fault information display (in case of failure) ③PP message push (need to be set in the mobile phone PP) ④Caller display (after connecting with the mobile phone Bluetooth)
3	Tachometer	Engine speed display
4	Riding mode	The economy mode displays ECO, and the sports mode displays SPORT
5	Neutral light	When in neutral, this light is on
6	Speedometer	Display the current speed
7	ABS malfunction indicator light	This light is on when a fault occurs After the whole vehicle is powered on, this lamp flashes as a normal phenomenon (0.5S on, 0.5S off). When the vehicle speed is > 5km / h, the ABS self-test is extinguished immediately after passing
8	Gear indication	Display the current gear
9	Oil pressure indicator	This light is on when the oil pressure is insufficient
10	BS status display	Front and rear wheels show white outline: Front and rear wheels BS open The rear wheel shows yellow fill: Rear wheel ABS off Front and rear wheels show yellow fill: Front and rear wheels BS closed
11	Low voltage indicator	This light is on when the battery voltage is too low
12	Tire pressure alarm	When the tire pressure data is abnormal, this lamp is on
13	Automatic headlights	This light is on when the automatic headlight function is turned on
14	Bluetooth and network display	Light up when connected to Bluetooth or WIFI of mobile phone (gray symbol when not connected)
15	Service indicator light	When the motorcycle reaches the maintenance setting condition, this lamp is on

## Instrument interface



Serial Number	Name	Functional description
16	Water temperature display	<p>① When the water temperature is lower than 0 °C, the first cell flashes. It is necessary to confirm whether the coolant is frozen, and it can be started after confirming that it is normal.</p> <p>②When the water temperature indicator block displays red and lights up the water temperature alarm lamp, it means that the water temperature is too high. In the case of ensuring safety, stop for inspection, and continue driving after the water temperature drops</p> <p>③When the water temperature data is abnormal, all water temperature color blocks and icons will flash together (when the flameout switch is off, the flashing is a normal phenomenon)</p>
17	Fuel display	<p>It shows the amount of fuel</p> <p>①When the oil level is lower than 1 bar (after a period of continuous use, the red oil level will flash at the same time as the oil level symbol), please replenish the fuel as soon as possible</p> <p>②If the fuel symbol flashes with all the oil level color blocks at the same time, indicating that the oil level signal is abnormal, please submit it to the special repair shop of KOVEMOTO for repair as soon as possible</p>
18	Temperature and weather indication	It is displayed after connecting with the Bluetooth of the mobile phone
19	Time display	Display the instrument time
20	Vehicle data / Simple navigation	Vehicle data display (when not navigating); Simple navigation display (it is necessary to connect the Bluetooth of the mobile phone, and set the navigation in the dedicated APP of the mobile phone)
21	Water temperature alarm indicator light	When the water temperature is too high, this light is on
22	Electronic injection mal function indicator light	When the electronic injection system fails, this lamp lights up (after the engine is powered on and started normally, the failure lamp goes out as abnormal phenomenon)
23	High beam indicator light	This light is on when the high beam is switched on
24	Position indicator light	When the position light is on, the light is on

## Instrument full-screen navigation interface



S.N.	Name	Functional description
1	Navigation interface	Display the full screen navigation screen.
2	ABS status display	Front and rear wheels show a white profile; Front and rear wheel ABS open; The rear wheel shows yellow fill; Rear wheel ABS off; Front and rear wheels show a yellow fill; Front and rear wheel ABS off
3	Gear indication	Display the current gear.
4	Oil level indication	It shows the remaining fuel quantity.

## Menu description

Level 1 menu	Level 2 menu	Note
Riding mode	SPORT	Set the engine power output mode. SPORT:ECO: Sport: The Sport Model; ECO: The Economic Model. The riding mode has a memory function.
	ECO	
BS mode	Open the front and rear wheels	Set the ABS working status, and the current ABS working status is displayed through the instrument icon.
	Turn off rear wheel	
	Close front and rear wheels	
Tire pressure	Alarm limits	Set upper and lower limit values of tire pressure alarm, factory default is upper limit: 2.9br; lower limit: 2.0br. The user can adjust according to the act
	Single round match	Match with tire pressure sensor. This function is normally only used when replacing the tire pressure sensor.
	Tire pressure unit	Unit conversion
	Tyre ID code	Display the tire pressure sensor ID.
	Version number	Tire Pressure Module Version Number.
The ride data is set	Subtotal mileage	Set the vehicle data display items in the main interface, and the selected items will be displayed on the first page first (After the number exceeds the number of displayed columns, it will automatically row back). Unselected items are queued to the next page. Weather conditions can set the display on or off. Note: 1. When the average vehicle speed = 0, the average vehicle speed displays “—” 2. When the vehicle needs to be refueled, the range display “—” 3. The average fuel consumption and mileage calculation results are affected by many factors such as vehicle working conditions and riding habits, and the display data is only for reference 4. Long press the BCK key to pop up the subtotal mileage clearing menu, and operate according to the prompt.
	Average speed	
	Average fuel consumption	
	Riding time	
	Range	
	Battery voltage	
	Front and rear tire pressure	
	.....	

Level 1 menu	Level 2 menu	Note
Setup	Connection setting	Set the Bluetooth / WIFI of the mobile phone (In order to ensure normal connection, the mobile phone special APP needs to open relevant permissions according to the prompt, When connecting to the WiFi, you cannot choose to use the instrument WiFi to access the Internet, otherwise it will affect the mobile phone Internet access function)
	Screen setup	Display mode: Users can choose the day and night UI mode that has been used according to their preferences, and the factory default is automatic Display brightness: Users can choose the screen brightness level that has been used according to their own preferences, and the factory default is automatic
	Automatic headlights	Set the automatic headlights on or off.
	Time / date	The user can manually set the instrument time / date. If you select automatic, when connected to the mobile phone Bluetooth, automatically synchronized with the mobile phone time.
	Language setting	Chinese / English menu switch
	Maintenance setting	Setting and clearing of maintenance mileage or time. 500km 1500km The first guarantee is 500km or one year, the second guarantee is 1500km or one year. This default parameter cannot be modified. After that, the user can set the maintenance reminder cycle according to the actual situation. SET Maintenance prompt clearing method: Long press ENT key under the maintenance service interface to pop up the clearing dialog box, and operate according to the prompt content
	Unit setting	Display unit switch

**The instrument functions operate as follows:**

**View vehicle data:**

Under the instrument main interface, you can turn the page by short pressing the up / down key to view the relevant vehicle data.

**Information check:**

1. When an information prompt (for example, failure information) appears in the main interface, you can short-press “SET” key to view details, and short-press “BACK” key to clear.
2. When the mobile phone Bluetooth is in the connected state, the message display section will reflect the mobile phone push information, short press the SET key to see the details, and short press the BACK key to clear.

**Instrument navigation operation:**

When it is normally connected to the Bluetooth / WIEI of the mobile phone and the navigation is set by the special APP of the mobile phone, long press the UP key to enter the full-screen navigation of the instrument, long press the key to enter the simple navigation of the instrument, and short press the “BACK” key to exit the instrument navigation interface.

**Function setting:**

According to the man-machine dialogue menu, set the riding mode (SPORT or ECO), ABS mode, instrument brightness, riding data, automatic headlights (on or off), time, language and other parameters.

**Connection between the meter and the mobile phone:**

1. The positioning function, navigation function, information push function, weather function, automatic time function, altitude display and other functions in the TFT instrument need to install relevant APP, and can be realized after connecting with the mobile phone.
2. Mobile app installation steps: ① Enter the instrument setting menu; ② Select the connection setting; ③ Select Bluetooth connection, use the two-dimensional code in the mobile phone scanning interface connected to the Internet, and download and install the APP according to the prompt (In order to make you have a better experience, when using the mobile APP, please pay attention to check the related help for APP)
3. When the meter needs to be disconnected from the connected mobile phone, enter the reset connection menu, and choose to disconnect Bluetooth or disconnect WIFI.

Notes

- To modify the ABS mode, it must be done in the parking state.


## Instruments

### Model2023

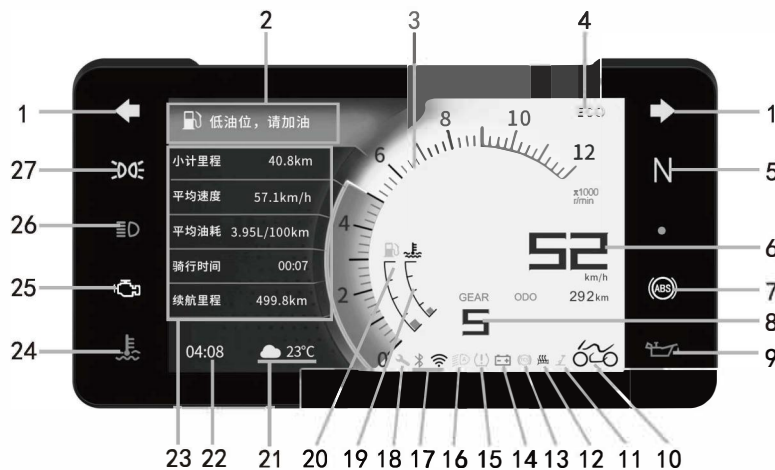


Light-sensitive hole

### Display check

When the ignition switch is turned to “” (ON), the instrument is powered on to play the start-up animation, and then self-test is performed, and all functional modules and symbols are displayed. If the display is missing during self-test, Please go to the special repair shop of KOVEMOTO for repair.

## Instrument interface



Serial Number	Name	Functional description
1	Turn indicator light	When the left turn light is on, the left indicator flashes, and when the right turn light is on, the right indicator flashes
2	Message display	<ul style="list-style-type: none"> <li>● Position information display (after connecting with the Bluetooth of the mobile phone)</li> <li>● Fault information display (in case of failure)</li> <li>● PP message push (need to be set in the mobile phone PP)</li> <li>● Caller display (after connecting with the mobile phone Bluetooth)</li> </ul>
3	Tachometer	Engine speed display
4	Riding mode	The economy mode displays ECO, and the sports mode displays SPORT
5	Neutral light	When in neutral, this light is on
6	Speedometer	Display the current speed
7	ABS malfunction indicator light	This light is on when a fault occurs. After the whole vehicle is powered on, this lamp flashes as a normal phenomenon (0.5S on, 0.5S off). When the vehicle speed is > 5km/h, the ABS self-test is extinguished immediately after passing.
8	Gear indication	Display the current gear
9	Oil pressure indicator	This light is on when the oil pressure is insufficient
10	ABS status display	Front and rear wheels show white outline. Front and rear wheels BS open. The rear wheel shows yellow fill: Rear wheel ABS off. Front and rear wheels show yellow fill: Front and rear wheels BS closed.
11	Low voltage indicator	This light is on when the battery voltage is too low
12	Tire pressure alarm	When the tire pressure data is abnormal, this lamp is on
13	Automatic headlights	This light is on when the automatic headlight function is turned on
14	Bluetooth and network display	Light up when connected to Bluetooth or WIFI of mobile phone (gray symbol when not connected)
15	Service indicator light	When the motorcycle reaches the maintenance setting condition, this lamp is on

## Instrument interface



Serial Number	Name	Functional description
16	Automatic headlights	This light is on when the automatic headlight function is turned on
17	Bluetooth and network display	Light up when connected to Bluetooth or WIFI of mobile phone (gray symbol when not connected)
18	Service indicator light	When the motorcycle reaches the maintenance setting condition, this lamp is on
19	Water temperature display	① When the water temperature is lower than 0 °C, the first cell flashes. It is necessary to confirm whether the coolant is frozen, and it can be started after confirming that it is normal. ②When the water temperature indicator block displays red and lights up the water temperature alarm lamp, it means that the water temperature is too high. In the case of ensuring safety, stop for inspection, and continue driving after the water temperature drops ③When the water temperature data is abnormal, all water temperature color blocks and icons will flash together (when the flameout switch is off, the flashing is a normal phenomenon)
20	Fuel display	It shows the amount of fuel ①When the oil level is lower than 1 bar (after a period of continuous use, the red oil level will flash at the same time as the oil level symbol), please replenish the fuel as soon as possible ②If the fuel symbol flashes with all the oil level color blocks at the same time, indicating that the oil level signal is abnormal, please submit it to the special repair shop of KOVEMOTO for repair as soon as possible
21	Temperature and weather indication	It is displayed after connecting with the Bluetooth of the mobile phone
22	Time display	Display the instrument time
23	Vehicle data / Simple navigation	Vehicle data display (when not navigating); Simple navigation display (it is necessary to connect the Bluetooth of the mobile phone, and set the navigation in the dedicated APP of the mobile phone)
24	Water temperature alarm indicator light	When the water temperature is too high, this light is on
25	Electronic injection mal function indicator light	When the electronic injection system fails, this lamp lights up (after the engine is powered on and started normally, the failure lamp goes out as abnormal phenomenon)
26	High beam indicator light	This light is on when the high beam is switched on
27	Position indicator light	When the position light is on, the light is on

## Instrument full-screen navigation interface



S.N.	Name	Functional description
1	Navigation interface	Display the full screen navigation screen.
2	BS status display	Front and rear wheels show a white profile: Front and rear wheel ABS open; The rear wheel shows yellow fill: Rear wheel ABS off; Front and rear wheels show a yellow fill: Front and rear wheel ABS off
3	Gear indication	Display the current gear.
4	Oil level indication	It shows the remaining fuel quantity.

## Menu description

Level 1 menu	Level 2 menu	Description
Riding mode	SPORT	Set the engine power output mode (SPORT: Sports mode; ECO: Economy type), and the riding type with memory function
	ECO	
ABS mode	Open the front and rear wheels	Set the ABS working status, and the current ABS working status is displayed through the instrument icon
	Turn off rear wheel	
	Close front and rear wheels	
TSC setting	Open	The working state of TCS is set by instrument.
	Close	
Heat the handlebars	/	Hand heating is divided into 3 gears, and users can choose the appropriate heating gear according to their own needs. (Note: 1. When the ambient temperature is too high, the handle heating function will limit the output; 2. Do not use the handle heating function in the case of the handle package (such as the windproof handle cover).
Music playing	/	After connecting with the mobile phone, under the music playback interface, press "Direction Up" to switch the previous song, press "Direction Down" to switch the next song, press "Acknowledge" to pause and start playing the music, and press "Return" to exit the interface

Level 1 menu	Level 2 menu	Level 3 menu	Note	
Setting	Connection setting		Set the Bluetooth / WIFI of the mobile phone (In order to ensure normal connection, the mobile phone special APP needs to open relevant permissions according to the prompt; When connecting to the WiFi, you cannot choose to use the instrument WiFi to access the Internet, otherwise it will affect the mobile phone Internet access function)	
	Tire pressure setting	Alarm limits		Set upper and lower limit values of tire pressure alarm, factory default is upper limit: 2.9br; lower limit: 2.0br. The user can adjust according to the actual use situation.
		Single round match		Match with tire pressure sensor. This function is normally only used when replacing the tire pressure sensor.
		Tire pressure unit		Unit conversion
		Tyre ID size		Display the tire pressure sensor ID.
		Version number		Tire Pressure Module Version Number.
	The ride data is set	Subtotal mileage		Set the vehicle data display items in the main interface, and the selected items will be displayed on the first page first (After the number exceeds the number of displayed columns, it will automatically rowback). Unselected items are queued to the next page.
		Average speed		Weather conditions can set the display on or off. Note: 1. When the average vehicle speed = 0, the average vehicle speed displays “”
		Average fuel consumption		2. When the vehicle needs to be refueled, the range display “”
		Riding time		3. The average fuel consumption and mileage calculation results are affected by many factors such as vehicle working conditions and riding habits, and the display data is only for reference.
		Range		4. Long press the BACK key to pop up the subtotal mileage clearing menu, and operate according to the prompt.
		Battery voltage		
	Screen setup			Display mode: Users can choose the day and night UI mode that has been used according to their preferences, and the factory default is automatic Display brightness: Users can choose the screen brightness level that has been used according to their own preferences, and the factory default is automatic
	Headlight mode			When Automatic headlights is selected in the Headlight Mode menu, the headlight switch is automatically controlled according to the ambient brightness after the engine is started.
				When automatic Headlights Always On is selected in the Headlight Mode menu, the engine starts and the headlights turn on.
				When Manual headlight is selected in the Headlight Mode menu, the headlight switch can be switched, and the menu will automatically exit after the switch is completed.
	Time / date			The user can manually set the instrument time / date. If you select automatic, when connected to the mobile phone Bluetooth, automatically synchronized with the mobile phone time.
Language setting			Chinese / English menu switch	
Maintenance setting			Setting and clearing of maintenance mileage or time. 500km 1500km The first guarantee is 500km or one year, the second guarantee is 1500km or one year. This default parameter cannot be modified, and the user can set the maintenance reminder cycle according to the actual situation SET Maintenance prompt clearing method: Long press ENT key under the maintenance service interface to pop up the clearing dialog box, and operate according to the prompt content	
Unit setting			Display unit switch	

**The instrument functions operate as follows:**

**View vehicle data:**

Under the instrument main interface, you can turn the page by short pressing the up / down key to view the relevant vehicle data.

**Information check:**

1. When an information prompt (for example, failure information) appears in the main interface, you can short-press “SET” key to view details, and short-press “BACK” key to clear.
2. When the mobile phone Bluetooth is in the connected state, the message display section will reflect the mobile phone push information, short press the SET key to see the details, and short press the BACK key to clear.

**Instrument navigation operation:**

When it is normally connected to the Bluetooth / WIEI of the mobile phone and the navigation is set by the special APP of the mobile phone, long press the UP key to enter the full-screen navigation of the instrument, long press the key to enter the simple navigation of the instrument, and short press the “BACK” key to exit the instrument navigation interface.

**Function setting:**

According to the man-machine dialogue menu, set the riding mode (SPORT or ECO), ABS mode, instrument brightness, riding data, automatic headlights (on or off), time, language and other parameters.

**Connection between the meter and the mobile phone:**

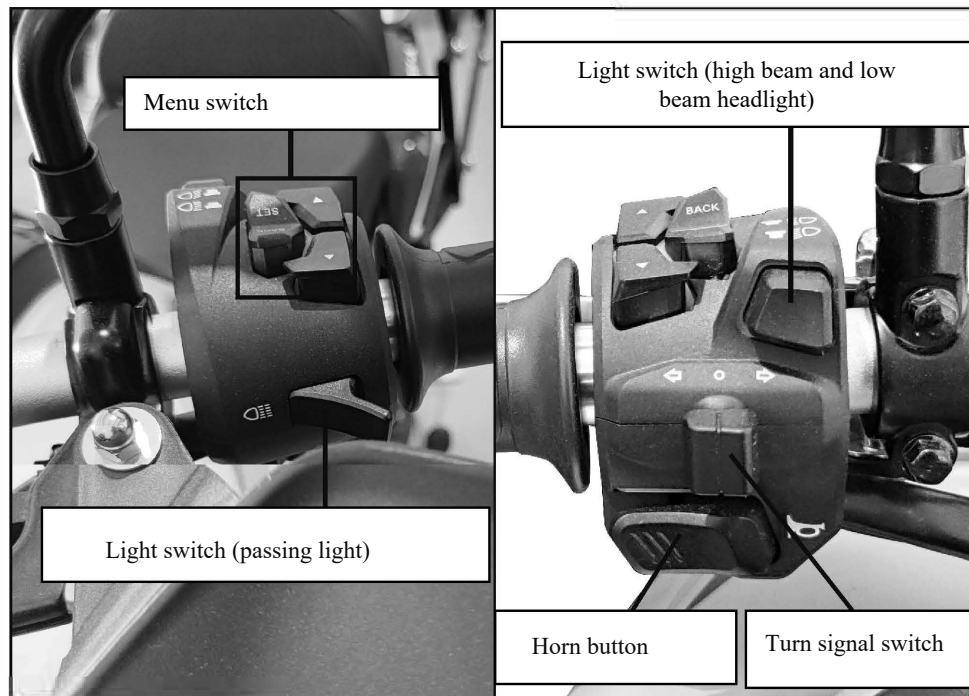
1. The positioning function, navigation function, information push function, weather function, automatic time function, altitude display and other functions in the TFT instrument need to install relevant APP, and can be realized after connecting with the mobile phone.
2. Mobile app installation steps: ① Enter the instrument setting menu; ② Select the connection setting; ③ Select Bluetooth connection, use the two-dimensional code in the mobile phone scanning interface connected to the Internet, and download and install the APP according to the prompt (In order to make you have a better experience, when using the mobile APP, please pay attention to check the related help for APP)
3. When the meter needs to be disconnected from the connected mobile phone, enter the reset connection menu, and choose to disconnect Bluetooth or disconnect WIFI.

Notes




- To modify the ABS mode, it must be done in the parking state.

## Switch

### Left combination switch - Model 2022



#### Light switch:

-  Turn on the passing light (the passing light switch is located on the back of the throttle grip switch)
-  Turn on the high beam
-  Turn on the dipped beam

#### Menu switch:

This combination button is used to set the functions of the instrument:

▲▼ Select the function to switch up and down  
BACK button

SET Set the instrument function button

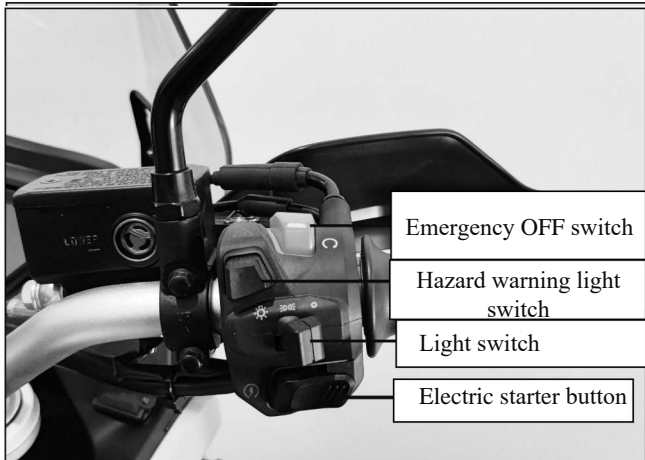
#### Turn signal switch:

↶ Turn on the left turn signal: Turn the switch to the left, and after operation, the turn signal switch returns to the original position.

↷ Turn on the right turn signal: Turn the switch to the right, and after operation, the turn signal switch returns to the original position.

⊖ Turn off the turn signal: When the turn signal switch is in the middle position, press this button to turn off the turn signal.

Emergency OFF switch/electric starter button - Model 2022



Emergency OFF switch:

When the switch is in the “○” (run) position, the engine can be started;

When the switch is in the “⊗” (stop) position, the engine cannot be started.

▶ In case of emergency, switch to the “⊗” (stop) position to extinguish the engine.

▶ **Hazard warning light switch:**

▲ It is used in emergency. After pressing the switch, turn on the left and right turn lights at the same time.

**Light switch:**

○ Turn off the lights.

☞☞ Turn on the front position light, rear position light and license plate light.

☞☞☞ Turn on the headlights, front position lights, rear position lights, license plate lights.

**Start button:**

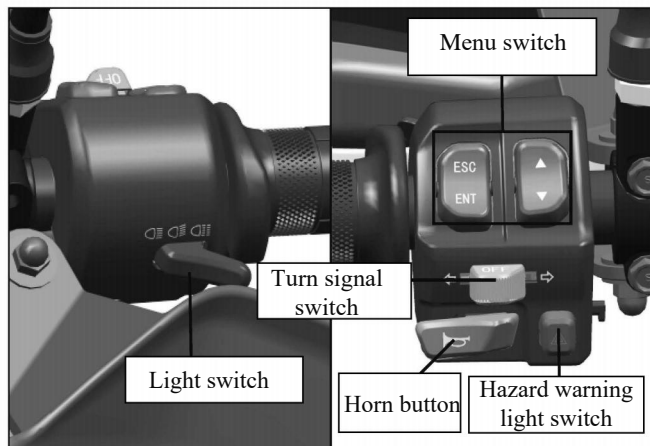
The start button is located below the light switch and when the emergency OFF switch is in the “○” position:

- ① If the engine is in neutral, press the this button to button to start the engine.
- ② If the engine is not in neutral, retract the side bracket and pinch the clutch lever, press this button to start the engine.




Notes

- When the headlights are illuminated by the automatic headlight function, the light switch cannot turn off the headlights at this time.
- In order to extend the service life of the switch, it is recommended that you blow out the accumulated water inside the switch after washing the car or rainstorm.

## Left hand handle switch - performance edition- Model 2023



**Light switch:**The light switch is located on the back of the handle switch.

-  Turn on the pass lights
-  Turn on the high beam
-  Turn on the dipped beam

### Menu switch :

This combination button is used to set the functions of the instrument:

▲▼ Select the function to switch up and down

BACK button

SET Set the instrument function button

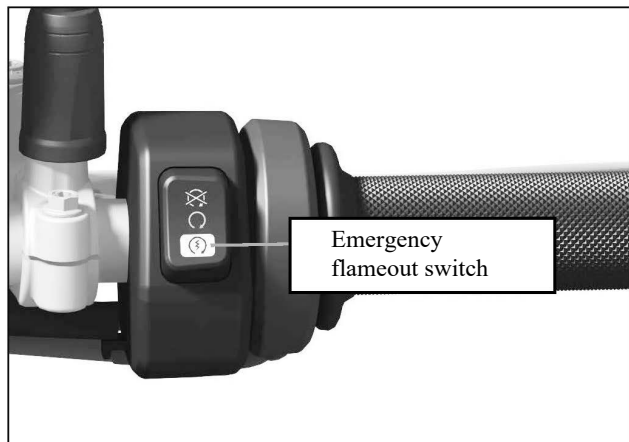
Turn signal switch :

↶ Turn on the left turn signal: Turn the switch to the left, and after operation, the turn signal switch returns to the original position.

↷ Turn on the right turn signal: Turn the switch to the right, and after operation, the turn signal switch returns to the original position.

OFF Turn off the turn signal: When the turn signal switch is in the middle position, press this button to turn off the turn signal.

### Left combination switch-Model 2023



#### Emergency OFF switch:

When the switch is in the “○” (run) position, the engine can be started;  
When the switch is in the “⊗” (stop) position, the engine cannot be started.

In case of emergency, switch to the “⊗” (stop) position to extinguish the engine.

#### Start button:



The start button is located when the emergency OFF switch is set to the “○” position:

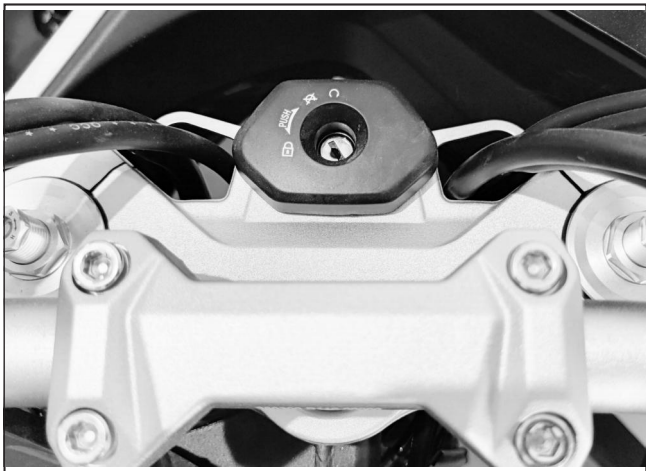
- ① If the engine is in neutral, press the “⊗” button to start the engine.
- ② If the engine is not in neutral, press the “⊗” button to start the engine by pinching the clutch lever and stowing the side bracket.



### Notes

In order to extend the service life of the switch, it is recommended that you blow out the accumulated water inside the switch after washing the car or rainstorm.



## Ignition and steering lock

When the key is in the “” position, turn the steering handle to the leftmost position, push in the key downward at the same time, and turn counterclockwise to the “” position to lock the direction; To unlock, turn the key clockwise.



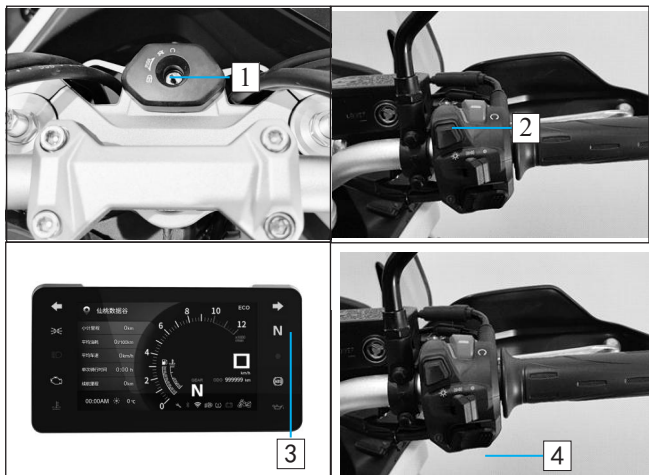
Location	Function	Note
	Use when parking (whole motorcycle power off)	The key can be removed
	Used when starting or driving	The key cannot be removed

### Warning



- When parking (including long-term parking), the ignition switch must be in the “” or “” position to ensure the safety of the motorcycle and prevent the battery from losing power.
- When the steering mechanism is locked, do not push the motorcycle, otherwise it will lose its balance.

## Start the engine

### Model 2022



Whether the engine is hot or cold, please follow the instructions below to start the engine.

1. Turn the ignition switch to the “” (ON) position.
2. Verify that the engine shutoff switch is in the “” (Run) position.
3. Shift the gear to neutral (turn on the neutral indicator light), or pinch the Clutch lever to start the motorcycle with the transmission in gear.
4. Press the electric starter button with the accelerator fully closed. If the engine is not started:

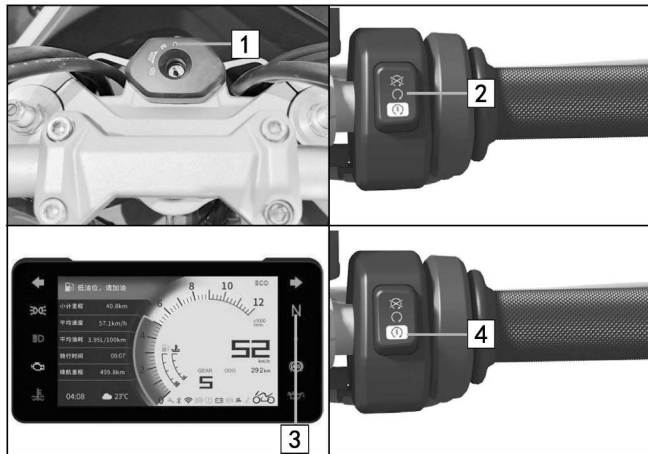
If the engine does not start within 3 seconds, wait 10 seconds before repeating step 4 above.

### Notes



- If the engine starts and the idle speed is unstable, the throttle should be slightly increased.
- Prolonged high-speed idling and rotation can damage the engine and exhaust system.
- Hot fill or high idle speed for more than 5 minutes may cause discoloration of the exhaust pipe.
- If the throttle is fully open, the engine will not start.

## Start the engine

### Model 2023



Whether the engine is hot or cold, please follow the instructions below to start the engine.

1. Turn the ignition switch to the “” (ON) position.
2. Verify that the engine shutoff switch is in the “” (Run) position.
3. When the gear is shifted to neutral or the clutch lever is tightened, the side bracket is retracted, and the motorcycle is started with the transmission in gear.
4. Press the start button with the accelerator fully closed.

#### If the engine is not started:

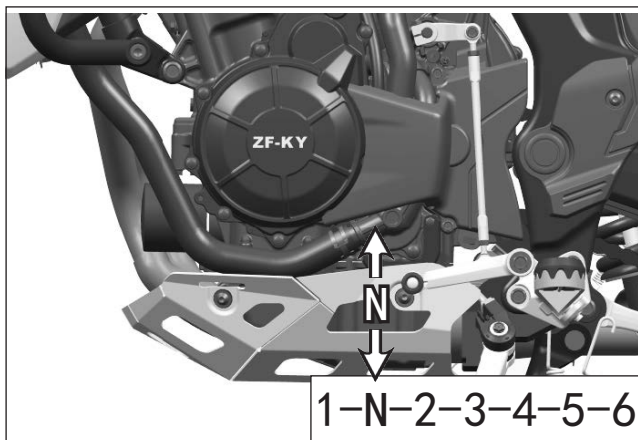
If the engine does not start within 3 seconds, wait 10 seconds before repeating step 4 above.

### Notes

- If the engine starts and the idle speed is unstable, the throttle should be slightly increased.
- Prolonged high-speed idling and rotation can damage the engine and exhaust system.
- Hot fill or high idle speed for more than 5 minutes may cause discoloration of the exhaust pipe.
- If the throttle is fully open, the engine will not start.

## Gear shift

Your motorcycle has 6 forward gears and adopts 1 down 5 up shift mode.



### Method of shift:

Warm up the engine for normal operation.

1. When the engine is idling, disengage the clutch and press down on the Shift lever to move the transmission into the low (1st) gear position.
2. Gradually increase the engine speed and slowly release the Clutch lever. These two actions can be coordinated to ensure a natural start.
3. When the motorcycle reaches the balanced driving state, reduce the engine speed and then disengage the clutch, hook up the Shift lever to enter the second gear, and so on.

### Precautions during driving:

1. Avoid unnecessary engine idling, and do not allow the engine to idle at high speed, otherwise it will seriously damage the parts.
2. When the clutch is running in a semi-separated state, the clutch plate will wear quickly.
3. If you feel that the engine horsepower is insufficient when climbing, you should switch to low gear in time.
4. In driving, especially downhill and high-speed driving, it is not allowed to use the front brake or neutral coasting alone, and it is not allowed to drive off the handle.
5. When parking, you should put away the small throttle, cut off the clutch at the same time, and then brake.

## Traction Control System (TCS)

The 2023 motorcycle is equipped with a traction control system that allows the motorcycle to obtain the best traction in all driving conditions. Effectively prevent the motorcycle in the smooth road braking (such as snow, rain, mud), start, rapid acceleration and other circumstances of the wheel skid, improve the driving stability, acceleration and climbing ability.

Slippery road braking (such as snow and ice, rainy days, muddy), starting, rapid acceleration and other circumstances of the wheel skid, improve the driving stability, acceleration and climbing ability.

You can turn it off or on through the instrument setting function, it is recommended to turn on the traction control system function without special circumstances, when the traction control system is turned off and the rear wheel loses grip, the system will not make restrictions. At this time, the driving method should be adjusted accordingly.

Due to engine braking intervention, the traction control system will not operate during full throttle closure and will not inhibit rear wheel slip, do not suddenly close the throttle, especially when riding on slippery roads. When riding on a slippery road.

Since the traction control system may not be able to cope with rough road conditions or fast throttle operation, and when filling the door, be sure to take into account the road surface and weather conditions, as well as your technical and physical conditions.

If the motorcycle gets stuck in mud, snow or sand, temporarily turning off the traction control system may make it easier to get the motorcycle out of trouble and temporarily turn off the traction control system also helps to maintain control and balance during off-road riding.

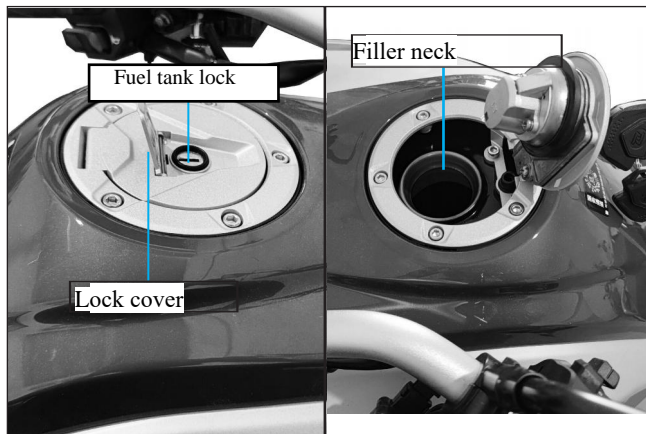
Always use the recommended tires and sprockets to ensure that the traction control system operates correctly.

When the TCS function is active, the vehicle power output is weak, which is a normal phenomenon, and there is no need to worry and take other measures.

### 注意

- During riding, when the TCS indicator light is on, the indicator light is still not extinguished after the reignition is started for a certain distance, indicating that the TCS function is abnormal, please contact the special repair shop of KOVEMOTO for troubleshooting as soon as possible.

## Refueling



### Open the fuel tank cover:

Turn over the lock cover, insert the ignition key, and turn clockwise to open the fuel tank cover.

### Close the tank cap:

1. After refueling, press the fuel tank cover down until it locks.
2. Remove the key and close the fuel tank filler cap. If the tank cap is not locked in place, the key cannot be pulled out.

### When filling with fuel:

After using the side bracket to stop stably, open the fuel tank cover for filling, and the filling should not be higher than the filler neck, and the fuel tank capacity is 20L. After filling in the fuel, close the fuel tank cap and lock it.

It is recommended to use 95# or more unleaded gasoline.

### Warning

- When refueling, please do it outdoors. Be sure to extinguish the engine, away from heat sources, sparks or open flames. If there is a splash, please immediately wipe clean.

## Maintenance

Please read “Maintenance” and “Maintenance Specifications” carefully before preparing for maintenance. For maintenance data, please refer to “Technical Parameters”.

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## Maintenance

### The importance of maintenance

It is important to keep your motorcycle in good condition of maintenance, which is essential for your safety, as well as protecting your property, getting the best performance, preventing breakdowns and reducing air pollution.

Maintenance is an important responsibility of the motorcycle owner to ensure that the inspection is carried out before each ride and that the periodic inspection is carried out as described in the maintenance cycle table.

#### **Please follow the following guidelines for maintenance:**

- Turn off the engine and remove the key.
- Park the motorcycle on a firm and flat ground with side brackets, or support it with maintenance brackets.
- Please wait for the engine, muffler, brake and other high temperature components to cool before starting the operation, otherwise it may cause burns.
- Please start the engine under the specified conditions and in a well-ventilated environment.

#### Warning

- Failure to carry out normal maintenance before riding or failure to correct the fault can lead to serious injury or fatal accidents.
- Please follow the inspection, maintenance recommendations and maintenance schedule provided in the instruction manual.

## Maintenance schedule

The motorcycle should be maintained within the specified time. In order to ensure safety, it can only be repaired by a special repair shop of KOVEMOTO. The symbols in the table have the following meanings:

I: Carry out inspection, cleaning and adjustment R: Change A: Adjust L: Lubrication

Maintenance items		Maintenance cycle					
		1000~ 1500Km	Per 5000Km	Per 10000Km	Per 20000Km	Every 1 year	Every 2 years
※	Throttle operating system	I	I	I	I	I	I
	Air filter element	I/R	I/R	I/R	R	R	R
※※	Valve clearance				I		
※	Engine oil	R	R	R	R	R	R
※	Oil filter element	R	R	R	R	R	R
※	Timing chain tension	A	A	A	A	A	A
	Transmission chain		I & L	I & L	I & L	I & L	I & L
	Brake shoe worn	I	I	I	I	I	I
※	Brake system	I	I	I	I	I	I
※	Clutch	I	I	I	I	I	I
※	Fasteners	I	I	I	I	I	I
※	Directional bearing	I	I	I	I	I	I
※※	Deep groove ball bearing with buffer	I	I	I	I	I	I
※	Front and rear wheel bearings	I	I	I	I	I	I
	Accumulator			I	I	I	I
※	Fuel system oil circuit / filter			R	R	R	R
※	Spark plugs			I	I	I	I
※	Plain fork bearing				I & L	I & L	I & L
※	Brake fluid					R	R
	Coolant	I	I	I	I	I	R

※This item is maintained by the personnel of the special repair shop of KOVEMOTO. If the user has special tools, maintenance accessories and maintenance capabilities, they can also repair themselves, and the maintenance knowledge can refer to this Instruction Manual.

※※In order to ensure safety, the project can only be repaired by the personnel of the special repair shop of KOVEMOTO.

**Pay special attention (when riding in dusty or polluted areas):**

1. Clean the air filter element every day.
2. Clean the shock absorber every day

## Check list of torque cycles at off-weight position

Serial Number	Name of fastening location	Recommended test cycle
1	Front and rear axle, flat fork shaft fastening	A torque check is required for each maintenance cycle.
2	Shock absorption and fastening before upper and lower connecting plates are hugged tightly	
3	The upper connecting plate is fastened to the steering column	
4	Fastening of steering column four-slot nut	
5	Fastening of the lower card holder with the steering hand	
6	Fastening of installation of small engine sprocket	
7	Fastening of engine suspension	
8	Fastening of rear shock absorber	
9	Fastening of cradle bolts	
10	The front section of the muffler is connected with the engine	
11	Fastening of front and rear brake calipers	
12	Fastening of rear brake pump	
13	Fastening of shift lever and adjusting lever end bearing	
14	Fastening of brake pedal and adjusting rod end bearing	
15	Fastening of all-vehicle brake oil pipe	
16	Fuel rail fastening	
17	Fuel pump fastening	
18	Fastening of front and rear brake discs	When checking or replacing each maintenance cycle, carry out maintenance according to the required torque and gluing method.
19	ABS ring gear	

Note: The torque cycle inspection items and torque standards not stated in this instruction manual shall be implemented in accordance with our Maintenance Manual.

## Bearing location checklist

Serial Number	Name of bearing location	Recommended test cycle	Recommended maintenance cycle
1	Upper and lower taper bearings for steering column	Each maintenance cycle	10000KM/ a year
2	Eccentric needle roller bearing	Each maintenance cycle	20000KM/ a year
3	Plain fork bearing	Each maintenance cycle	
4	Eccentric wheel deep groove ball bearing	Check that there is no jam in each maintenance cycle. Remove and check in case of failure, and replace the bearing if necessary.	
5	Brake pedal bearing		
6	Shift lever bearing		
7	Front wheel bearing		
8	Back wheel bearing		
<p>Note: When the bearing part is checked, the matching oil seal and bushing need to be checked, maintained or replaced at the same time.</p>			

## Maintenance specifications

In order to ensure safety, it is your responsibility to conduct a pre-ride inspection and ensure that any problems you find have been resolved. A pre-ride inspection is required.

Inspection items	Inspection contents
Steering hand	Flexible rotation, no play and loose
Brake system	Check its operating condition, check the front and rear brake fluid level and brake pad wear
Fuel level	Enough oil for the planned driving distance (please refuel if necessary)
Throttle	Check that it opens smoothly and closes completely in each steering position
Clutch	Check its operation and adjust the free travel if necessary
Wheels and tyres	Check the use condition and tire pressure, and supplement the air pressure if necessary
Drive chain	Check its use and sag, adjust and lubricate if necessary
Lighting and horn	Check the lighting system and horn for good performance
Oil level	Add engine oil if necessary and check for leaks
Instrument indication	Check whether the indicators on the instrument display normally

## Replace part

### Battery

#### Check and replace the battery

1. Before installing the battery, if the electrode is dirty, please wipe it clean and then install it, otherwise the function may fail due to poor contact.
2. In the process of use, if the battery is deformed, abnormal heat, smoke and other abnormal phenomena, please immediately stop using, and timely handed over to the special repair shop of KOVEMOTO for inspection.
3. If the battery is placed in a high temperature and humid environment for a long time, functional failure and short life may occur. Before using it again, please ensure that the battery appearance and function are normal before installation and use.
4. If the entire motorcycle can not start, please check whether the battery is normal, such as battery damage, please replace it in time.
5. When installing the battery, be sure to lock the battery pole bolt

#### If the battery is not used for a long time, please pay attention to the following conditions:

- To prevent the occurrence of excessive discharge, the battery should be charged every two months.
- When the battery is not used, it should be placed in a cool and dry environment to prevent short circuit of the positive and negative electrodes of the battery.


#### Notes

- Improper handling of batteries may cause harm to the environment and human health, please dispose of waste batteries in accordance with local environmental regulations.
- The installation of complete vehicle electrical appliances may lead to a loss of battery power and even cause electrical system failure.

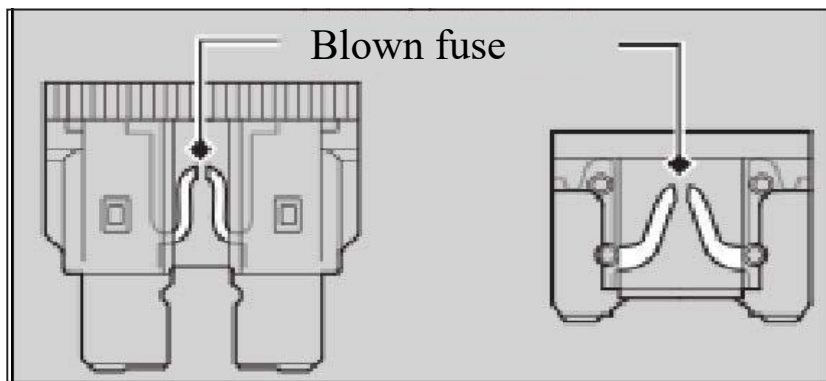
## Fuse

Fuses protect the electrical circuit of your motorcycle. If some electrical parts of your motorcycle stop working, check and replace the blown fuses.

### Check and replace fuses

Turn the ignition switch to the “” (OFF) position to take out and check the fuse. If the fuse is blown, please replace it with a fuse of the same specification, and refer to “Technical Parameters” for fuse specification.

If the fuse is often blown, there may be hidden problems in the electrical equipment, please go to the special repair shop of KOVEMOTO.



### Notes

- The fuse needs to be replaced in an equal amount, and replacing a fuse with a higher rating will increase the chance of damage to the electrical system and the risk of burning the motorcycle.
- Installing non-KOVEMOTO locomotive electrical accessories will overload the electrical system, causing the battery to discharge, and even destroy the system

## Engine oil

The consumption of engine oil and the decline in oil quality will vary depending on the driving conditions and the use time. The higher the operating speed, the faster the oil consumption rate. When running at high speed or high speed for a long time, the oil change cycle should be shortened, and the engine oil level should be checked frequently. If necessary, add the recommended engine oil.

When used at extreme temperatures, the oil quality drops faster, and the dirty or long-used oil should be replaced as soon as possible.

### Select engine oil

The oil should be selected with SN grade and above of API classification, and its grade is SN10W-40.

### Notes

- Brake fluid can damage plastic and paint surfaces. If it spills, wipe off immediately and clean thoroughly.
- Recommended brake fluid: DOT4 brake fluid or equivalent.
- Since ordinary tap water or mineral water can cause corrosion, use a special coolant for non-aluminum engines.

## Brake fluid

Do not add or replace brake fluid unless in an emergency.

Only use the brake fluid newly removed from the sealed container. If you add the brake fluid, please go to the special repair shop of KOVEMOTO to check the brake system as soon as possible.

## Coolant

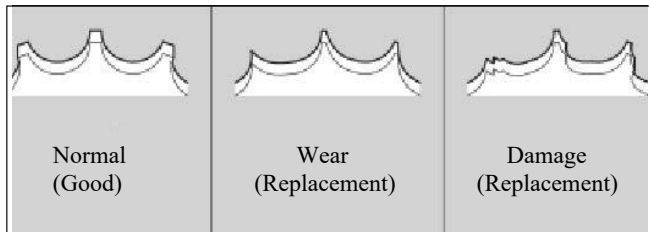
Use only the original KOVEMOTO premixed coolant that is not diluted with water. The original KOVEMOTO premixed coolant can prevent corrosion and overheating, please pay attention to the coolant capacity. If the liquid level is lower than the lower limit, please add it in time. The freezing point of coolant is  $-38^{\circ}\text{C}$  and the boiling point is  $125^{\circ}\text{C}$ .

## Drive chain

The drive chain must be checked regularly and lubricated. If you often drive in poor road conditions, high speed or repeated speed increases, you need to check the chain more frequently.

If the drive chain is not running smoothly, it makes abnormal noise, there is a damaged roller or a loose bolt, and the oil seal is lost or bent, please check the chain with the special repair shop of KOVEMOTO.

Simultaneously check the driving sprocket and the driven sprocket. If any one has worn or bad teeth, please go to the special repair shop of KOVEMOTO for replacement.



### Notes

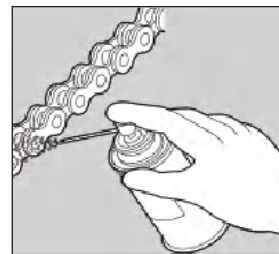
- The use of a new drive chain on a worn sprocket will speed up chain wear, and the drive chain and sprocket should be replaced at the same time.
- Recommended lubricating oil: Special lubricating oil for chain oil seal.

## Cleaning and lubricating

After checking the sag, turn the rear wheel and clean the chain and sprocket at the same time. Use dry cloth, oil seal chain special cleaning agent or neutral detergent. If the chain is dirty, use a soft brush, clean and dry and lubricate with the recommended lubricant.

Do not use non-oil seal chain-specific steam cleaners, high-pressure cleaners, wire brushes, volatile solvents such as gasoline and benzene, scrubbers, chain cleaners and lubricants, otherwise they may damage the chain oil seal.

Avoid getting lubricating oil on the brakes or tires, and avoid using excessive lubricating oil to avoid splashing on clothes or motorcycles.



## Tyres (check / replace)

### Tyre size

Single Rocker Arm: Front Tyre: 110/80R19    Rear Tyre: 150/70R17

Classic version: Front tyres: 110/80-19        Rear tyres: 150/70-17

### Abnormal wear check

Check the contact surface of the tyre for signs of abnormal wear.

### Check tread depth

Check the tread wear indication mark. If the wear reaches the indication mark, replace the tyre immediately.

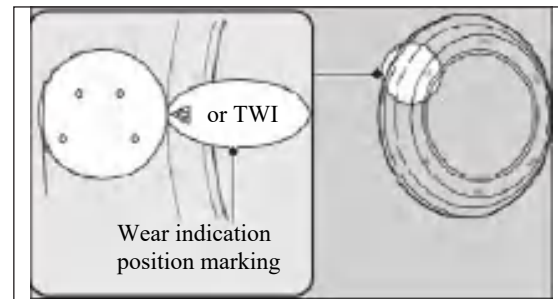
### Check tyre pressure

When you feel that the tyre pressure is insufficient, use a barometer to measure the tyre pressure, and check the tyre pressure when the tyre is cold at least once a month. Ensure that the valve core cover is tight and replace it with a new one if necessary.

The tyre pressure standard value is: Front tyre: 230KPa; rear tyre: 250KPa

### Damage check

Inspect the tyre for cuts, cracks, exposed fabric, tyre threads, nails, or other foreign matter embedded in the side tread of the tyre, and check the tyre sidewall for any abnormal bulging or expansion.



## Whenever changing tyres, follow the following guidelines:

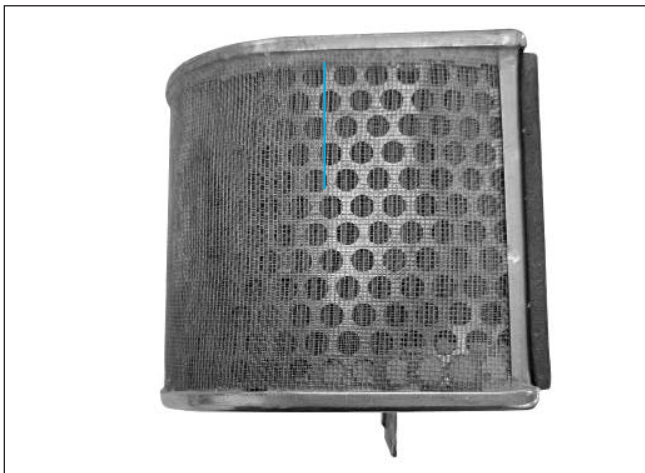
- Use recommended tyres or equivalent products of the same size, construction, speed class and load capacity.
- After the tire is installed, use the original balance positioner of KOVEMOTO or equivalent equipment to carry out balance positioning on the wheel.
- This motorcycle rim is designed as a tubeless tire. Do not install the inner tube in the tire. If the inner tube is installed, the inner tube will rub against the rim during rapid acceleration or braking, and excessive heat will cause the inner tube to burst.

### Warning

- The use of excessively worn or improperly inflated tyres can lead to accidents and serious casualties. Please follow the relevant tyre inflation and maintenance guidelines in the instruction manual.
- Installing an unsuitable tire can affect handling and stability, and lead to accidents and even endanger life.
- Always use tyres of the size and type recommended in this Instruction Manual.

## Air cleaner

This motorcycle is equipped with an air filter element made of paper, please do not maintain it by yourself. It should be cleaned or replaced by a special repair shop of KOVEMOTO.



Air filter element

## Tools

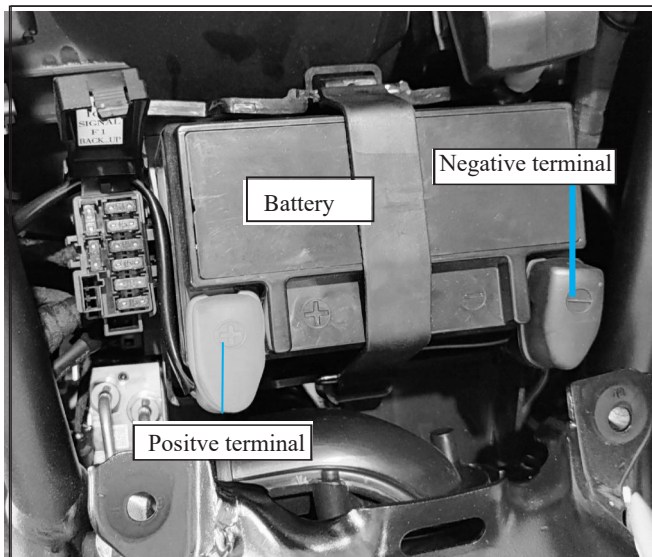
The on-board tool is embedded in the rear position under the rear seat .

You can use the on-board tools for some simple repairs, minor adjustments and component replacements.


- The Double-head screwdriver
- Double-head wrench 8\*10
- Double-head wrench 12 \* 14
- 5 internal hexagon wrench
- 6 internal hexagon wrench
- fish tail pliers

## Remove and install body component

### Battery



#### Remove

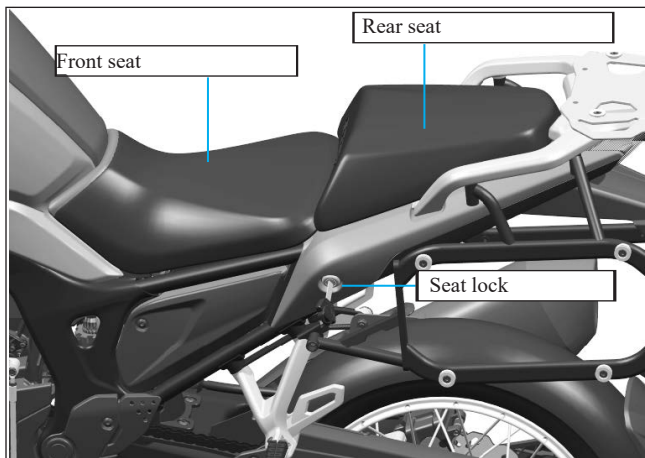
Confirm that the ignition switch is turned to the “ ” (OFF) position.

1. Remove seat .
2. Unclip rubber strip from the rear side.
3. Disconnect the negative (-) terminal of the battery.
4. Disconnect the positive (+) terminal of the battery.
5. Remove the battery and be careful not to leave the bolts and nuts.

#### Install

Install the components in the reverse order of removal, be sure to connect the positive terminal (+) first and the negative terminal (-) last; Make sure the bolts and nuts are tightened.

## Seat



### Remove

1. Insert the ignition key into the seat lock, turn the key clockwise, pull up the rear end of the rear seat cushion assembly to disengage from the lock, and then remove the rear seat with a slight force to the rear.

2. Remove the bolts at the rear left and right of the front seat with the on-board tool and pull up.

### Install

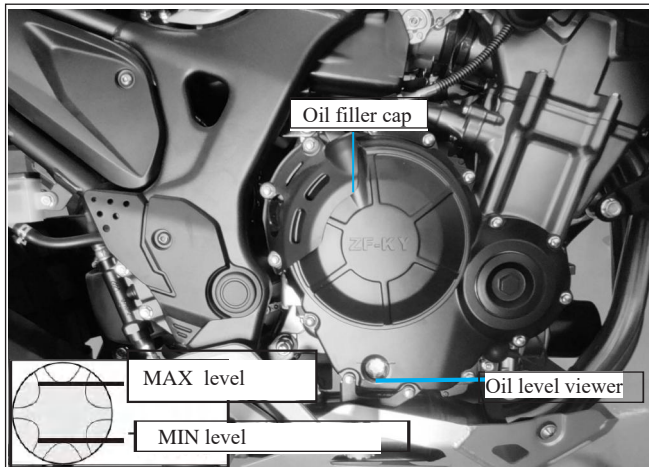
1. Align the rear end of the front seat to the rear hole position and install the screws.
2. Clip the front and rear pins of the rear seat into the frame clip slots respectively.
3. Align the seat lock pin with the lock hole, press down the rear of the seat, insert the lock pin into the lock hole of the seat lock seat. The lock tongue automatically locks, and pull up slightly to ensure that the seat is firmly locked in place.
4. When the seat is closed, the seat lock automatically locks.

### Notes

• Make sure that the seat pin is correctly inserted into the frame card slot, otherwise the seat product will not withstand your weight and the seat product may be crushed.

## Engine oil


### Check and add engine oil



### Notes

- Long-term skin contact with oil should be avoided, and the oil should be thoroughly washed after contact.
- Excessive oil or insufficient oil will damage the engine, please do not mix different brands and grades of oil, which will affect the lubrication and clutch operation.
- Used oil and containers are harmful to health and the environment and cannot be disposed of as daily waste. The treatment method should be consistent with local environmental regulations.

### Check engine oil

1. Idle for 3-5 minutes, turn the ignition switch to the “” (OFF) position, and wait for 2-3 minutes.

2. Place the motorcycle vertically up on a firm flat surface and check from the oil inspection window whether the oil level is between the upper and lower limit marks.

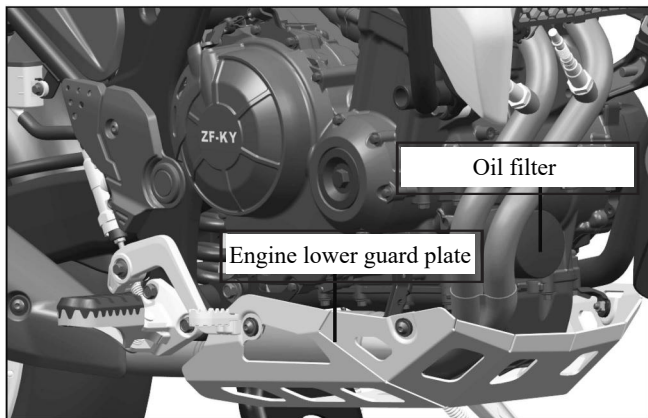
### Add engine oil

When the engine oil is below or near the lower oil level mark, add the recommended engine oil.

1. Remove the engine oil filler cap, add the recommended oil to the oil level mark, do not exceed the MAX level mark, and ensure that no foreign substances enter the engine oil filler. If there is any spillage, wipe it off immediately.

2. Refit the engine oil filler cap and tighten.

## Replace engine oil and oil strainer



### Replace engine oil and oil strainer

Since the replacement of engine oil and oil filter requires special tools, we recommend that it be repaired by special repair shop of KOVEMOTO. Please refer to the Maintenance Cycle Table for the engine oil and oil fine filter maintenance cycle.

1.If the engine is cold, idle for 3-5 minutes, turn the ignition switch to the “ ” (OFF) position, and wait for 2-3 minutes.

2.Park the motorcycle on a stable level and place an oil drain pan under the oil drain plugs.

3.Remove the engine oil filler cap, drain bolt and sealing gasket. Drain the oil and make sure that the old rubber ring does not to the engine.

4. Remove the engine oil filter with the oil filter wrench, drain the remaining oil, and ensure that the old rubber ring does not stick to the engine.

5.Apply a thin coat of engine oil to the new oil filter rubber seal.

6.Fit a new engine oil filter and tighten (torque:12 m)

7.Install a new sealing washer to the drain bolt and tighten the drain bolt. (Torque: 25-30N m)

8.Add the recommended original engine oil to the crankcase and , after filling, tighten the oil filler cap.

**When changing the oil, the required oil quantity is 2.7L**

**When replacing the filter screen or reassembling after removing the engine, the required oil quantity is 2.5L**

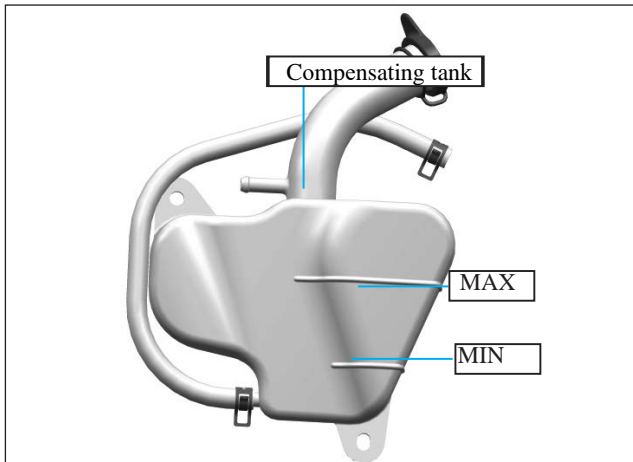
**When reassembling after removing the engine, the amount of oil required is 3.2L**

### Notes

- Using the wrong engine oil and oil filter can damage the engine.
- Please discard the oil and oil filter at the relevant recycling center.
- Use the original engine oil and oil strainer of the designated KOVEMOTO.

## Coolant

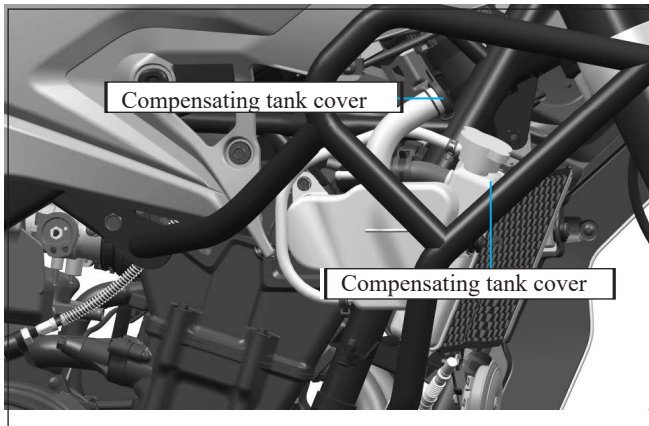
### Check coolant



Check the coolant level in the compensating tank cover while the engine is cooling.

1. Park the motorcycle on a stable, flat, and level surface.
2. Keep the motorcycle straight.
3. Check that the coolant level in the compensating tank cover is between the upper and lower limit marks.
4. If the coolant level drops significantly or the compensating tank is empty, there may be a serious leak, which should be repaired by the special repair shop of KOVEMOTO.

## Add coolant



If the coolant level is below the lower limit level mark, add the recommended coolant until the level reaches the upper limit level mark.

When adding coolant, the radiator cap should be opened to relieve pressure when the engine is cool.

Open the cover of the water storage kettle at the other end to add. During the addition process, make sure that no foreign objects enter the closure opening and take care not to exceed the upper limit liquid level mark. After the addition is completed, reinstall the relevant cover.

## Change coolant

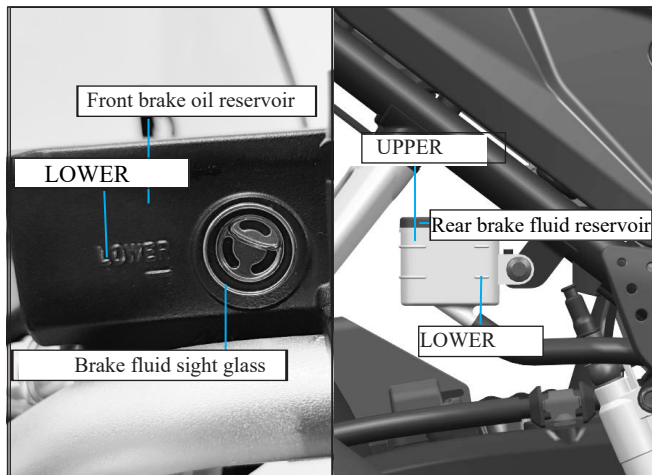
Unless you have the appropriate tools and have qualified mechanical technology, please go to special repair shop of KOVEMOTO to replace the coolant.

### Warning

- Do not remove the radiator cap when the engine is not cooling, this will cause the coolant to spray out, which may cause burns

## Brakes

### Check brake fluid



1. Place the motorcycle vertically up on a stable flat ground.
2. Check brake fluid reservoir for level.
3. Check that the brake fluid is visible through the brake fluid sight glass. If the brake fluid is lower than the lower limit of the oil window, add it immediately.

If the brake fluid level in the reservoir is below the LOWER level mark or the free travel of the brake lever and pedal exceeds the limit, the brake pads must be checked for wear. If the brake pads are not worn, there may be leakage, please go to the special repair shop of KOVEMOTO.

## Check brake pads

Check the condition of the brake pad wear indication mark. If the brake pads wear to the indicator mark, they need to be replaced.

### Front

Check brake pads from under the brake caliper

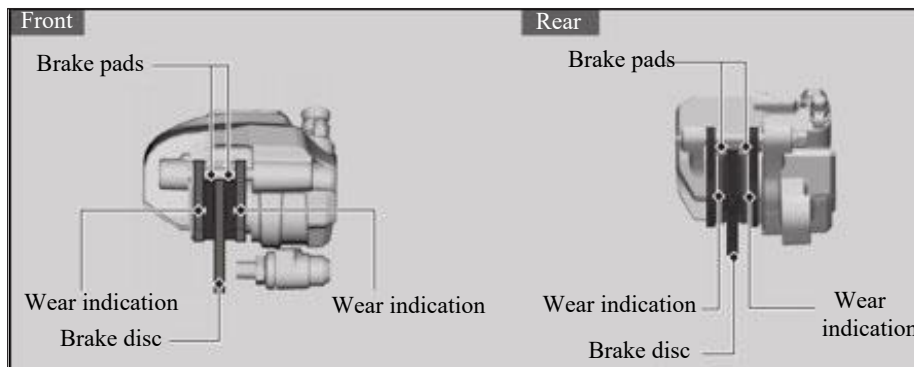
Brake pad lining thickness: 4mm (indicated as wear limit)

### Rear

Check brake pads from the rear right of the brake caliper

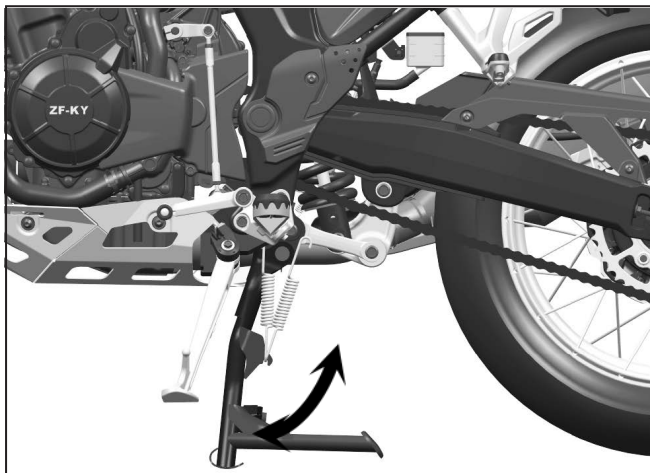
Brake pad lining thickness: 4mm (indicated as wear limit)

If necessary, please hand over the brake pads to the special repair shop of KOVEMOTO for replacement (when the wear limit is reached, the left and right brake pads must be replaced at the same time).



## Side support

### Check side support



1. Check that the side supports are free to operate. If the side bracket operation is jammed or “squeaky”, clean the pivot area and grease the pivot bolt with clean grease.
2. Check the spring for damage or loss of elasticity.

## Drive chain

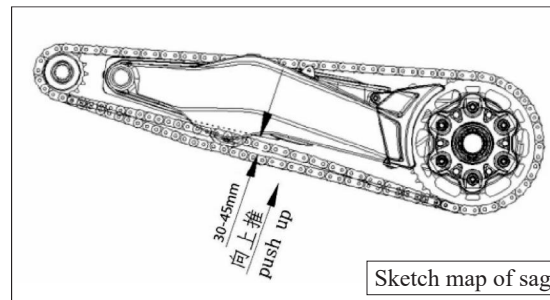
### Check the sag of the drive chain

Check the sag at different points along the chain. If the sag at all points is not uniform, some links may have been bent and kinked. Please check the chain at the special repair shop of KOVEMOTO.

1. Put the transmission into neutral and extinguish the engine.
2. Place the motorcycle vertically on a firm, flat ground.
3. Push the chain closer to the fork to determine if the chain sag is in the area behind the chain guard.
4. Turn the rear wheel forward to check that the chain runs smoothly.
5. Check sprockets.
6. Clean and lubricate drive chain.

Drive chain sag: 30-45mm

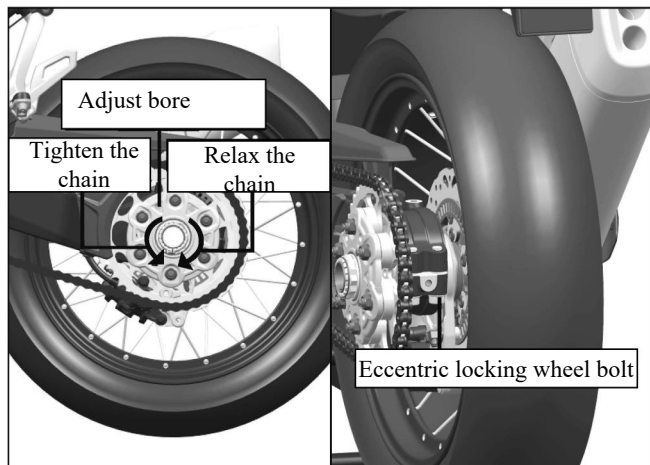
If the sag exceeds 45mm, you cannot continue to drive the motorcycle.



### Notes

- When checking the drive chain sag, make sure that the upper part of the chain must be tensioned.

## Adjust the sag of the drive chain-single rocker version



When adjusting the sag of the drive chain:

1. Put the transmission into neutral and extinguish the engine.
2. Place the motorcycle vertically on a firm, flat ground.
3. Remove chain guard and rear fender support.
4. Unscrew the 2 eccentric gear locking bolts.
5. Insert two cross screwdrivers into the adjusting holes respectively, turn the tire to adjust the rear sprocket angle, and check the chain sag. Chain sag range: 30-45mm.
6. Push the chain in the direction of the flat fork to determine the reasonable sag of the chain.

## Drive chain

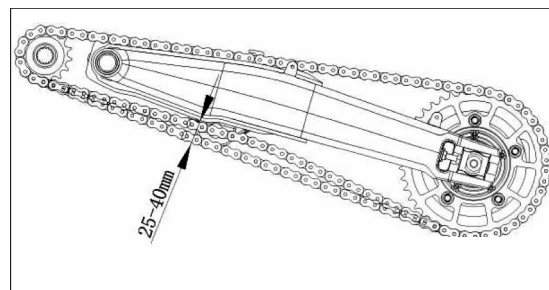
### Check the sag of the drive chain-Classic version

Check the sag at different points along the chain. If the sag at all points is not uniform, some links may have been bent and kinked. Please check the chain at the special repair shop of KOVEMOTO.

1. Put the transmission into neutral and extinguish the engine.
2. Place the motorcycle vertically on a firm, flat ground.
3. Push the chain closer to the fork to determine if the chain sag is in the area behind the chain guard.
4. Turn the rear wheel forward to check that the chain runs smoothly.
5. Check sprockets.
6. Clean and lubricate drive chain.

Drive chain sag: 25-40mm

If the sag exceeds 40mm, you cannot continue to drive the motorcycle.

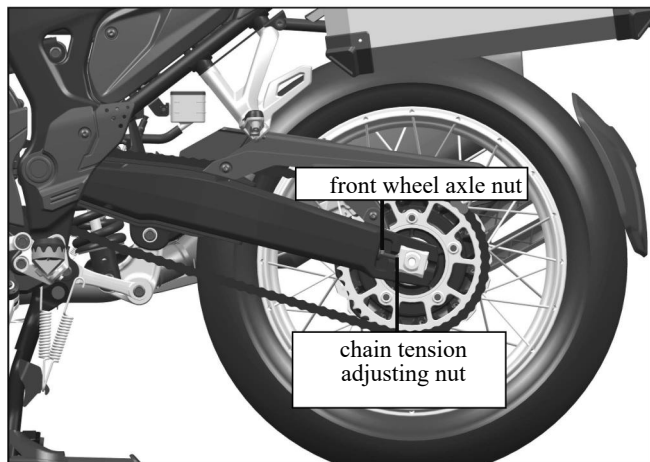


#### Notes

- When checking the drive chain sag, make sure that the upper part of the chain must be tensioned.

## Drive chain

### Adjust the sag of the drive chain- classic edition

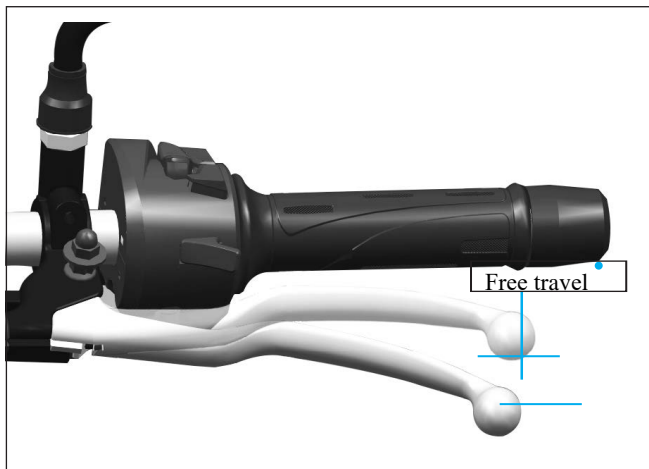


When adjusting the sag of the drive chain:

1. Put the transmission into neutral and extinguish the engine.
2. Place the motorcycle vertically on a firm, flat ground.
3. Loosen the adjusting bolt, front wheel axle nut and chain tension adjusting nut. 4. Rotate the chain tension adjustment nut to adjust the chain sag, the chain sag adjustment range is: 25-40mm.
4. Rotate the chain tension adjustment nut to adjust the chain sag, the chain sag adjustment range is: 25-40mm.
5. In the middle position of the upper part of the rear flat fork, push the chain toward the flat fork to determine the reasonable sag of the chain.
6. There is a marking on the adjusting screw to ensure that the sag on both sides is adjusted on the same marking line.

## Clutch

Free travel of clutch lever: 10-15mm



Check the clutch cable for bending and damage. If necessary, please go to the special repair shop of KOVEMOTO for replacement.

Lubricate the clutch cables with special cable oil to prevent premature wear and corrosion.

### Notes

- Incorrect adjustment of the free travel can cause premature clutch wear.

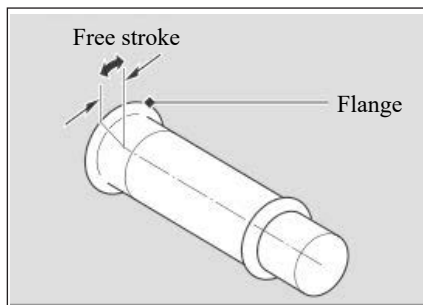
## Throttle

### Check throttle

When the engine is off, check whether the throttle can be smoothly turned from the fully closed to the fully open position in all directions and the free stroke is correct.

If the throttle operation is not smooth, automatically closed or the cable is damaged, please go to the special repair shop of KOVEMOTO for repair.

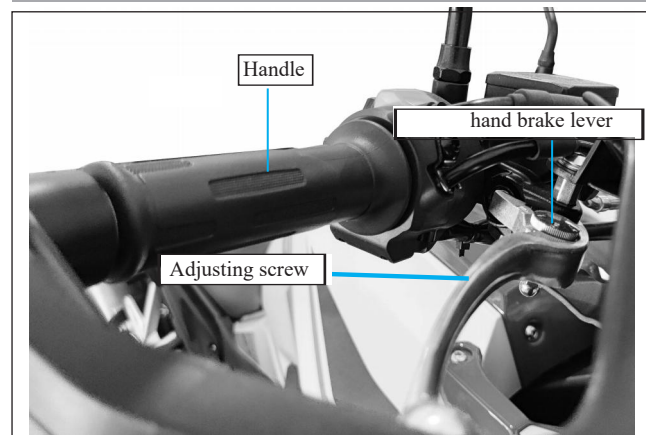
Free travel of throttle handle flange: 2-6mm



### Notes

· Do not turn the adjusting screw beyond its natural limits.

### Adjusting the hand brake lever



You can adjust the distance between the top of the brake handle and the throttle grip.

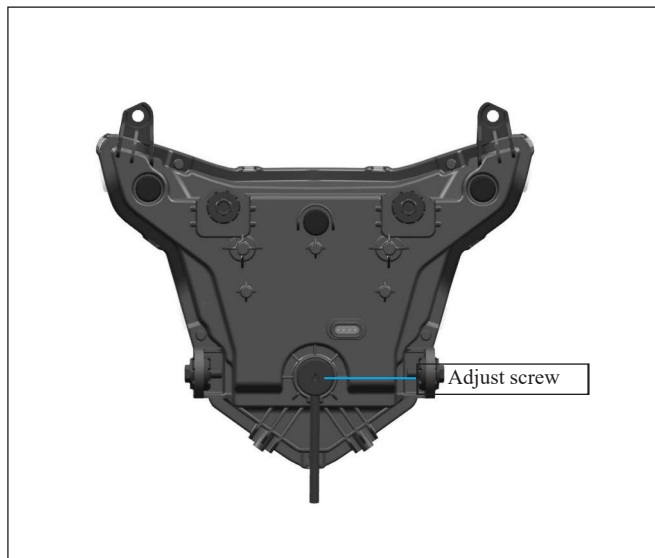
#### ■ Adjustment method

Push the hand brake lever outward while turning the adjuster to the desired position until the numbers align with the reticle. After adjustment, check whether the hand brake lever works correctly before riding.

## Headlight

### Adjust the headlight beam

You can adjust the angle of the headlight beam by rotating the adjusting screw, and the clockwise rotation is the overall decline of the headlight beam; The counterclockwise rotation is the overall rise of the headlight beam. Please comply with local laws and regulations.



## Troubleshooting

Please read “Maintenance” and “Maintenance Specification” carefully before maintenance, and refer to “Technical Parameters” for maintenance data.

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## The engine could not start

### The starter motor ran but the engine failed to start

#### Check the following items:

- Check that the correct engine start sequence is used.
- Check if there is gasoline in the tank.
- Check if the battery voltage is too low.
- Check side support for retraction.

### The starter motor does not work

#### Check the following items:



- Verify that the engine start sequence is correct.
- Verify that the engine shutoff switch is in the run position.
- Check whether the battery voltage is too low, whether the fuse is blown, and whether the battery connection is loose. If the problem still exists, please go to the special repair shop of KOVEMOTO.

#### Notes


- Continuing to drive while the engine is overheated can seriously damage the engine.
- The engine runs at high speed in neutral for a long time, which may cause the water temperature to be too high.

### Overheating (water temperature alarm indicator light up)

If the engine overheats when the water temperature alarm indicator is on and the speed increase is slow, please push the motorcycle to a safe roadside and take the following measures:

1. Turn off the engine with the ignition switch and turn to the “  ” (on) position.
2. Check that the radiator fan is operating properly, and then turn the ignition switch to the “  ” (OFF) position.

**If the fan is not running:** Do not start the engine, send your motorcycle to the special repair shop of KOVEMOTO.

**If the fan is running:** Place the ignition switch in the “  ” (OFF) position and wait for the engine to cool.

3. After the engine has cooled, check the radiator hose for leaks.

**If there is a leak: Do not start the engine, send your motorcycle to the special repair shop of KOVEMOTO.**

4. Check the coolant level in the water reservoir and add if necessary.
5. If items 1-4 are normal, you can continue to drive, but please pay close attention to the indicator light.

## The warning indicator lights up or blinks

### Oil pressure indicator

If the oil pressure indicator is on, push the motorcycle to a safe side of the road and turn off the engine, and take the following measures:

1. Check engine oil level and add oil if necessary.
2. You can continue to ride only after the indicator goes out.
3. When the oil is at or near the lower limit, a rapid increase in speed may cause the indicator light to illuminate.
4. If the oil level is at a normal level and the indicator is still on, please turn off the engine and contact the special repair shop of KOVEMOTO.
5. If the engine oil drops quickly, your motorcycle may leak oil or have other serious problems, please send it to the special repair shop of KOVEMOTO.

### Electronic injection malfunction indicator light



If the electronic injection malfunction indicator light up during driving and riding, your electronic fuel injection system may have serious problems. Please slow down and send it to the special repair shop of KOVEMOTO

#### Caution

- Continued driving at low oil pressure can seriously damage the engine.



## ABS Malfunction indicator (anti-lock braking system)

If any of the following conditions occurs in the ABS fault indicator, indicating that your ABS is faulty. The emergency brake will not be able to provide the anti-lock function, please send it to the special repair shop of KOVEMOTO as soon as possible.

- The ABS malfunction indicator is always on or flashing when riding.
- When the ignition switch is turned from “” (OFF) to “” (ON), the indicator light does not illuminate.
- When the speed is higher than 5 km / h, the indicator light will not go out.

The ABS malfunction indicator light may flash or stay on when:

- Turn the front wheel separately.
- Turn the rear wheel separately.
- Rear wheel slip.
- When riding on a special road.

The system can be reset by turning the ignition switch to the “” (OFF) position and then to the “” (ON) position.

## Puncture

Since repairing the tire or disassembling the wheel requires special tools and professional technology, we recommend that such repairs be completed by a special repair shop of KOVEMOTO. If you have done emergency repair tires, please be sure to check or replace the tires by special repair shop of KOVEMOTO.

### Use the tire repair kit for emergency repairs

If your tire is slightly punctured, you can use the tubeless tire repair kit for emergency repair.

Follow the instructions provided in the tire emergency service kit. Riding a motorcycle with temporarily repaired tires is very dangerous, and the speed should not exceed 50 km / h. Please send it to the special repair shop of KOVEMOTO for tire replacement as soon as possible.

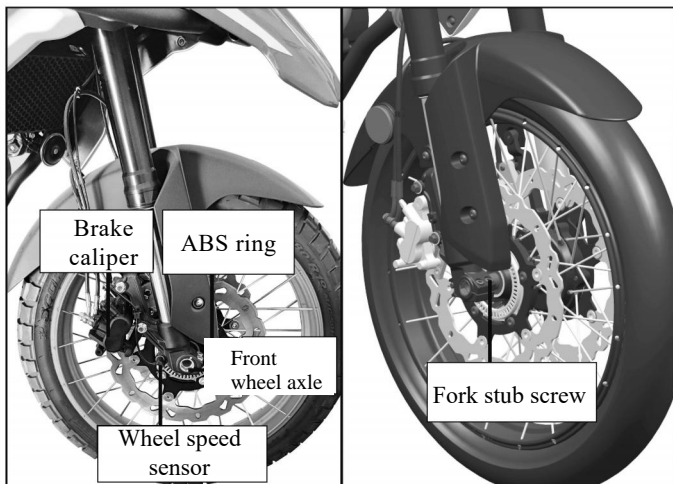
### Warning

- It is dangerous to ride a motorcycle with temporarily repaired tires. If the temporary repair fails, an accident will occur, causing serious casualties.
- If you have to ride a motorcycle with temporarily repaired tires, please drive slowly and carefully, and do not exceed 50 km/h until you replace the new tires.

## Remove wheel

### Front wheel

If you need to remove the wheel to repair the tire tie, follow these steps. When you remove and install the wheel, be careful not to damage the wheel speed sensor and the ABS ring gear.



#### Remove:

1. Firmly support your motorcycle with a service bracket or crane and lift the front wheels off the ground.
2. Remove the left brake caliper.
  - Support the brake caliper assembly, do not hang on the brake hose, and do not twist the brake hose.
  - Avoid getting lubricating oil, oil or dirt onto the brake discs or pads.
  - Do not pull the hand brake lever when the brake caliper is removed.
  - Be careful not to scratch the wheel when removing the brake calliper.
3. Loosen the axle fork stub screw and the front wheel axle.
4. Remove front wheel axle and front wheel.

## Install

1. Place the front wheel in the middle of the front shock absorber, insert the front wheel bushing (left) into the left mounting hole of the front wheel, and clip the brake disc into the brake caliper.

2. Pass the front wheel axle from right to left through the front wheel, tighten the front wheel axle, and then install the right two locking bolts (front wheel axle M16, torque: 70N·m; front wheel axle locking bolt M8, torque: 22N·m).

3. Install the brake caliper and tighten the bolts (torque: 45 N · m). Prevent the brake caliper from scratching the wheel during installation, use a new mounting bolt when installing the brake caliper.

4. Install front mudguard (long end assembly rearward) torque: 8 N m.

5. Place the front wheels on the ground.

6. Shake the front fork up and down several times after operating the hand brake lever several times.

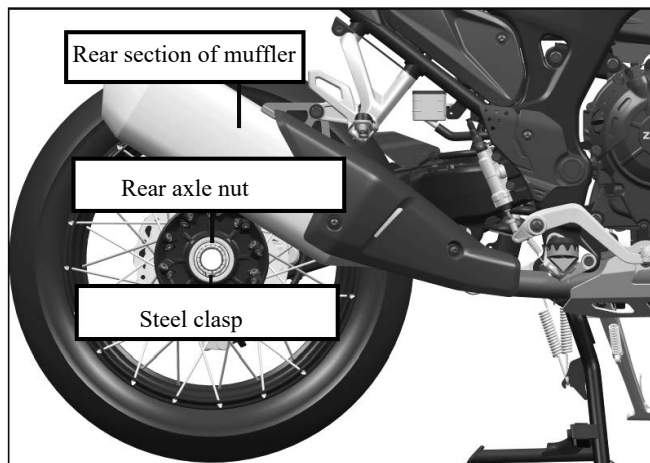
7. Lift the front wheels off the ground again, and after you release the hand brake lever, check whether the wheels turn smoothly.

If the torque wrench is not used in the installation process, please send it to the special repair shop of KOVEMOTO as soon as possible, and improper installation will cause the brake performance to decrease.

## Notes

- When installing the wheel or caliper in place, carefully install the brake disc between the brake pads to prevent it from being scratched.
- When installing the front wheel, you must first tighten the front wheel axle, and then tighten the lock bolt on the right side of the front wheel axle, and the order of the two cannot be exchanged.

## Rear wheel-single rocker version



### Remove

1. Park the motorcycle on a stable surface.
2. Firmly support your motorcycle with side brackets or service brackets and lift the rear wheels off the ground.
3. Remove the rear section of the muffler, the rear fender bracket, and the chain guard.
4. Remove the rear axle nut, rear axle and rear wheel bushing.
5. Remove rear wheel.

### Install

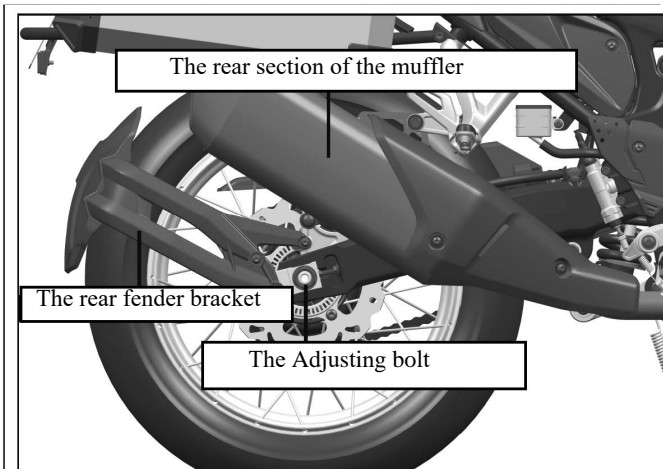
1. Install the rear wheels in the reverse order of removal to prevent the brake callipers from scratching the wheels during installation.
2. Align the rear wheel hole position, first install the rear bushing (the bushing should be coated with grease), and then insert the rear wheel shaft from left to right into the rear wheel assembly hole.
3. Install the tapered bushing and gasket (the side of the tapered bushing that contacts the gasket needs to be evenly greased).
4. Tighten the rear axle nut and install the wire circlip (torque: 168 N·m).
5. Install the rear section of the muffler (torque: 22 N·m).
6. Check that the wheels turn smoothly.

If the torque wrench is not used in the installation process, please send it to the special repair shop of KOVEMOTO as soon as possible, and improper installation will cause the brake performance to decrease.

### Notes

- When installing the wheel or caliper in place, carefully install the brake disc between the brake pads to prevent it from being scratched.

## Rear wheel-classic edition



### Remove

1. Park the motorcycle on a stable surface.
2. Firmly support your motorcycle with side brackets or service brackets and lift the rear wheels off the ground.
3. Remove the rear section of the muffler, the rear fender bracket, and the chain guard.
4. Remove the rear axle nut, rear axle and rear wheel bushing.
5. Remove rear wheel.

### Install

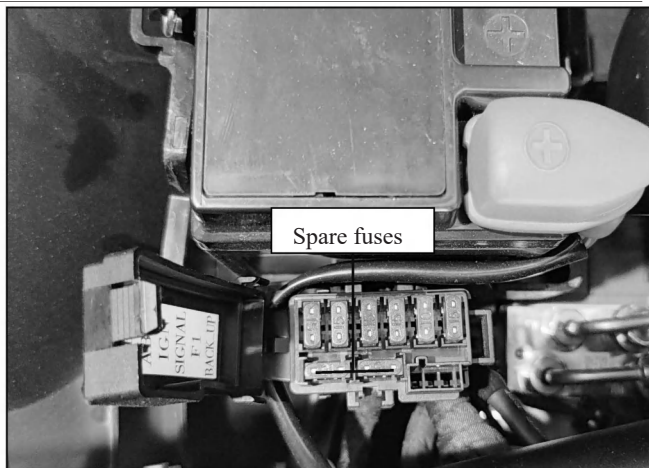
1. Install the rear wheels in the reverse order of removal to prevent the brake callipers from scratching the wheels during installation.
  2. Align the rear wheel hole position, first install the rear wheel bushing (the bushing should be coated with grease), and then insert the rear wheel shaft from left to right into the rear wheel assembly hole.
  3. Tighten the rear axle nut (torque: 128N m).
  4. Install the chain guard, the rear fender bracket and the rear section of the muffler.
  5. Check that the wheels turn smoothly.
- If the torque wrench is not used in the installation process, please send it to the special repair shop of KOVEMOTO as soon as possible, and improper installation will cause the brake performance to decrease.

### Notes

- When installing the wheel or caliper in place, carefully install the brake disc between the brake pads to prevent it from being scratched.

## Electrical fault

### Fuse blown



### Replace fuses

1. Remove seat.
2. Open the cover of the fuse box, take out the fuse, and check whether the fuse is blown.  
If it melts, be sure to replace it with a spare fuses of the same specification.
3. Close the safety box cover and install the seat.

### Run out of battery

Please use the special charger for motorcycle lithium battery to charge the battery. Remove the battery from the motorcycle before charging. If the battery is not recovered after charging, please contact the special repair shop of KOVEMOTO.

### Notes

· It is forbidden to use car battery chargers or motorcycle lead-acid battery chargers for charging, which may cause battery damage or even fire.  
· Please refer to “Check and Replace Fuse” before handling the fuse.

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## Key

## Ignition key



The motorcycle has two ignition keys to start the engine.

- Do not bend the key or subject it to excessive pressure.
- Avoid prolonged insolation or exposure to high temperatures.
- Do not grind, punch or change its shape in any way.



## Notes

• In order to prevent loss, please take good care of your key. If you are worried about loss, please immediately re-engage one.

## Instruments, controls and other functions

### Ignition switch, engine OFF switch

#### Ignition switch

1. In the parking state, please place the ignition switch in the “” or “” position to avoid unnecessary loss of the battery, and excessive battery power loss will lead to failure to start.

2. Do not turn the key while riding.

#### Engine OFF switch

Do not use the engine flameout switch unless in an emergency.

Doing so while driving will cause the engine to stop suddenly, resulting in unsafe driving.

### Mileage meter, milometer (subtotal mileage)

#### Odometer

When the reading exceeds 999,999, the display is locked at 999,999.

#### Milometer

When the milometer reading exceeds 999.9, it is automatically cleared.

## Maintenance of motorcycles

Regular cleaning and polishing can ensure that the motorcycle is used for a long time, and the clean motorcycle is easier to find potential faults. In particular, it should be noted that the sprinkling of anti-icing seawater and salt on the road will accelerate the formation of corrosion, and the motorcycle must be thoroughly cleaned after driving along the coast or on the road after the above treatment.

### Cleaning

Wait for the engine, muffler, brake and other high temperature components to cool before cleaning.

1. Wash the motorcycle thoroughly with low-pressure hose and water to remove loose dirt.
2. If necessary, use a sponge or soft towel dipped in a soft detergent to remove the above dirt.
3. Wash the motorcycle thoroughly with sufficient water and dry it with a clean soft cloth.
4. After drying the motorcycle, lubricate the moving parts to ensure that no lubricant splashes on the brakes or tires. Oil-contaminated brake discs, brake pads, brake drums, and brake shoes will greatly reduce their braking performance and may cause accidents.
5. After cleaning and drying the motorcycle, lubricate the drive chain immediately.
6. Waxing can prevent corrosion.

Avoid using products containing strong detergents or chemical solvents, which can damage the metal parts, paint layers and plastic parts of the motorcycle. Do not wax the tires and brakes.

If your motorcycle is equipped with matte painted parts, do not wax these matte painted parts.

## Cleaning notes

- Do not use high-pressure water guns:
  - ▶ High-pressure water guns can damage moving parts and electrical components, making them impossible to repair.
  - ▶ Moisture from the intake port may be sucked into the throttle body or into the air cleaner.
- Do not flush the muffler directly with water:
  - ▶ Water entering the muffler may cause the muffler to fail to start and the muffler to rust. Once found, remove all traces and dirt immediately.
- Dry brake:
  - ▶ Since the water will reduce the braking performance, the brake should be used at low speed intermittently after cleaning, and the brake pedal should be lightly depressed repeatedly, and the heat generated by the brake friction should be used to dry the water until the braking performance is restored.
- Do not flush directly under the seat with water:
  - ▶ Water entering under the seat may damage the electrical accessories.
- Do not flush the air filter directly with water:
  - ▶ If water enters the air filter, the engine may not start.
- Do not flush directly with water near the headlights:
  - ▶ The internal lens of the headlamp may be temporarily fogged after cleaning or when cycling in the rain, which does not affect the function of the headlamp. However, if you find that a large amount of water or ice has accumulated in the lens, please send it to the special repair shop of KOVEMOTO.
- Do not wax and polish the matt finish:
  - ▶ Clean the matte finish with sufficient water and mild detergent and dry with a clean soft cloth.

## Aluminium components

Aluminum will corrode after contact with dirt, mud or salt, clean aluminum parts regularly, and follow the following guidelines to prevent scratches:

- Do not use hard brushes, wire balls, or other abrasive cleaning products.
- Do not drive or scratch on the curb.

## Panel

Follow the following guidelines to prevent scratches and damage:

- Wash lightly with a sponge and enough water.
- Clean with diluted detergent and wash thoroughly with sufficient water to remove the scale.
- Please avoid contact of instrument panel and lamp cover with corrosive liquids such as gasoline and brake fluid.

## Notes

- Although the muffler is stainless steel, but it will rust, once found, please immediately remove all traces and dirt.

## Muffler

The muffler is stainless steel, but it may also be dirty because of mud or dust, you can use a wet sponge dipped in a cleaning agent to remove the mud or dust, and then carefully rinse with clean water, and then wipe with a chamois or soft towel. If necessary, burn marks can be removed with a commercially available compound of fine texture, and then washed in the same way as mud and dust.

If the muffler has been painted, use neutral detergent to clean the paint surface of the exhaust pipe and muffler, if you are not sure whether the muffler has been painted, please contact the special repair shop of KOVEMOTO.

## Motorcycle storage

If you leave your motorcycle outdoors, you should consider using a motorcycle full-body shield. If you do not ride for a long time, follow the following guidelines:

- Clean the motorcycle and wax all paint surfaces (except for matte paint surfaces) and apply anti-rust oil to all chrome-plated parts.
- Lubricate drive chain.
- Place the motorcycle on the maintenance bracket and pad it up with a wooden block so that both tires are off the ground at the same time.
- After rain, remove the body cover and put it in a ventilated place to dry.
- Remove the battery to prevent discharge.

Fully charge the battery and place it in a cool, ventilated place. If you leave the battery in place, disconnect the negative terminal to prevent discharge. Before the stored motorcycle is reused, all items required in the maintenance cycle table should be checked.

## Transport of motorcycles

If you need to transport your motorcycle, you should use a motorcycle trailer, a flat truck that loads a slope or a lifting platform, and you should use a motorcycle fixing belt. Never try to tow a motorcycle with its wheels on the ground.

### Notes

- Towing a motorcycle can seriously damage the transmission.

## You and the environment

Owning and driving a motorcycle is a pleasure, but you must protect the environment.

### Select the appropriate cleaning agent

Use biodegradable detergents when cleaning motorcycles and avoid sprays containing chlorofluorocarbons (CFCs) as it can damage the protective layer (ozone layer) in the atmosphere.

### Waste recovery

Separate the oil and other toxic waste in approved containers and send it to a recycling center. Call the local national public affairs or environmental services office to find the recycling center in your area and the disposal method of non-recyclable waste. Do not dump used engine oil in trash cans, sewers, or on the floor because used oil, gasoline, coolant, and cleaning solvents contain toxic substances. It harms cleaners and pollutes drinking water, lakes, rivers and the sea.

## Frame number, engine number, nameplate

When registering a motorcycle, you need to provide the frame number and engine number, which are unique and used to identify your motorcycle. When ordering replacement parts, record these numbers and keep them in a safe place.

### Frame number The

The frame number is engraved on the left side of the frame riser



### Engine number

The engine number is engraved on the right side of the engine block



### Nameplate

The nameplate is attached to the right side of the frame riser



## Catalytic converter

The motorcycle is equipped with a three-way catalytic converter. Catalytic converters contain precious metals as high-temperature chemical reaction catalysts to convert hydrocarbons (HC), carbon monoxide (CO) and nitrogen oxides (NOx) in the exhaust gas into a mixture that meets regulations.

Since a faulty catalytic converter can pollute the air and reduce your engine performance, be sure to use the original KOVEMOTO parts when replacing. Protect your motorcycle's catalytic converter with the following guidelines:

- Only use unleaded gasoline, leaded gasoline will damage the catalytic converter.
- Keep the engine in good working order.
- If the engine does not catch fire, backfire, flameout or other bad operation, please immediately stop driving and turn off the engine, and hand over the motorcycle to the special repair shop of KOVEMOTO.

## Technical parameters

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**Motorcycle related parameters-1**

Model	ZF500GY- A	Engine number	Z268MR
Overall length (mm)	2260	Cylinder diameter (mm) stroke (mm)	68.0×68.0
Overall width (mm)	945	Compression ratio	11.5:1
Overall height (mm)	1390	Maximum net power (kW / r / min)	39.6±2%/8500±1.5%
Wheelbase (mm)	1470	Maximum torque (Nm/r/min)	50.5±2%/7000±1.5%
Track gauge (mm)	/	Idle speed (r / min)	1350±100
Curb weight (kg)	215 (with 3 boxes)	Piston swept volume (ML)	494
Payload (kg)	180	Spark plugs	CPR8E-9
Front tyre size	Single rocker arm: 110/80R19 Classic edition: 110/80-19	Spark plug gap (mm)	0.6-1.0
Rear tyre size	Single rocker arm: 150/70R17 Classic edition: 150/70-17	Valve clearance (mm)	Intake valve switch (at 1 mm intake valve lift): 10 ° before TDC Exhaust valve switch (at 1 mm intake valve lift): 42 after BDC
Maximum speed (km / h)	170		Exhaust valve switch (at 1 mm intake valve lift): 1 before TDC Exhaust valve switch (at 1 mm intake valve lift): 42 after BDC


**Motorcycle related parameters-2**

Lubricating oil capacity (L)	3.2	Main fuse	30A
Gasoline capacity (L)	20	Neutral light	LED light
Primary transmission ratio	2.029	Headlight	LED light
First gear	3.285	Front position light	LED light
Second gear	2.105	Rear position light / brake light	LED light
Third gear	1.600	Front turn signal	LED light
Fourth gear	1.300	Rear turn signal	LED light
Fifth gear	1.150	Rear license plate light	LED light
Sixth gear	1.043	Turn indicator light	LED light
Final transmission ratio	2.933	Instrument indication light	LCD light
Battery	12V 8.6h	Ignition mode	ECU controls the ignition

## Torque parameters

Fasteners type	Torque	Fasteners type	Torque
5mm bolts and nuts	5.2	6mm bolts	4.2
6mm bolts and nuts	10	6mm flange bolt (8mm head: small flange)	9
8mm bolts and nuts	22	6mm flange bolt (8mm head: big flange)	10
10mm bolts and nuts	34	6mm flange bolt (10mm) and nuts	12
8mm flange bolt and nuts	27	8mm flange bolt and nuts	39
12mm bolts and nuts	54	8mm flange bolt and nuts	12

### Notes

- In addition  the specified torque, the motorcycle adopts the standard torque values in the table above.

Project	Frame tightening torque		
	Thread diameter (mm)	Torque (N·m)	Note
Connecting screw for connecting the headlight case and headlight	ST4.2	1	
Connecting screw for connecting fuel tank lower guard and lower guard	ST4.2	1	
Connecting screw for connecting tail lights and left and right car body	ST4.2	1	
Connecting screw for connecting instruments and instrument housings	ST4.2	1	
Connecting screw for connecting under the headlights and headlights	ST4.8	1	
Connecting screw for connecting rear mud guard iron bracket and mud guard rear section	ST4.8	1	
Connecting screw for connecting rear mud guard iron support and mud guard rear section	ST4.8	1	
Connecting screw for connecting rear small mudguard bracket to rear wheel small mudguard	ST4.8	1	
Connecting screw for connecting front section of car body and rear mudguard	ST4.8	1	
Connecting screw for connecting rear wheel mud guard rear section lower guard plate and rear mud guard rear section	ST4.8	1	
Connecting screw for connecting rear fender rear section and front section	ST4.8	1	
Connecting screw for connecting fuel dispenser and steering handle	M4	3	
Brake pedal and brake lever bolt	M5	6	
Connecting screw for connecting throttle wire clip and handlebar seat	M5	1	
Connecting screw for connecting front upper mudguard and left and right decorative block section	M5	5	
Connecting screw for connecting instrument housing Large lamp housing	M5	5	
Connecting screw for connecting fuel tank lower guard and side guard	M5	5	
Connecting screw for connecting fuel tank middle guard and left and right guard	M5	5	
Bird's beak and fuel tank guard screws	M5	5	
Bird's beak and lamp housing screw	M5	5	
Connecting screw for connecting bird's beak oil tank left and right guard	M5	5	
Connecting screw for connecting (optional for three boxes) tail box bottom plate and rear handrail	M5	4	
Connecting screw for connecting rear small mudguard bracket to rear wheel small mudguard	M5	4	
Connecting screw for connecting windscreen and headlight bracket	M5	4	
Connecting screw for connecting lock cover and upper coupling plate	M5	4	
Connecting nut for connecting oil pump and tank	M5	6	
Connecting screw for connecting air filter and throttle valve body	M5	4	

Project	Thread diameter (mm)	Torque (N·m)	Note
Connecting nut for connecting license plate light and rear fender	M5	2	
Connecting bolts for connecting left and right fuel tank guard plates and frame	M6	10	
Connecting bolts for connecting water tank and frame	M6	10	
Connecting bolts for connecting rear mudguard front section rear left and right with frame	M6	4	
Connecting bolts for connecting carbon canister bracket and frame	M6	12	
Connecting bolts for connecting front shock absorber clamp and left front shock absorber	M6	8	
Connecting bolts for connecting horn and frame	M6	12	
Connecting bolts for connecting air filter bracket and frame	M6	12	
Connecting bolts for connecting rear brake main pump and frame	M6	12	
Connecting bolts for connecting BS support and BS	M6	12	
Connecting bolts for connecting battery box and frame	M6	12	
Connecting bolts for connecting rear mudguard support and frame	M6	12	
Connecting bolts for connecting seat lock and frame	M6	12	
Connecting bolts for connecting front brake oil pipe seat and frame	M6	8	
Connecting bolts for connecting upper mudguard and headlight bracket	M6	8	
Connecting bolts for connecting front left and right of rear mudguard front section and frame	M6	6	
Connecting bolts for connecting engine lower guard bracket and engine	M6	12	
Oil sensor wire hook bolt	M6	12	
Connecting bolts for connecting fuel rail and throttle valve body	M6	12	
Rear brake oil reservoir bolt	M6	8	
Connecting bolts for connecting left and right fuel tank lower guard and frame	M6	10	
Shift lever bearing and shift adjusting lever bolt	M6	10	
Air filter and cushion support bolt	M6	10	
Connecting bolts for connecting seat and frame	M6	10	
Connecting bolts for connecting shift lever rocker arm and engine	M6	10	
Connecting bolts for connecting brake lever and rod end adjusting bearing	M6	10	
Connecting bolts for connecting headlight and headlight bracket	M6	10	
Connecting bolts for connecting engine small sprocket cover and engine	M6	8	

Project	Thread diameter (mm)	Torque (N · m)	Note
Connecting bolts for connecting rear small mudguard support with right chain adjuster	M6	10	
Connecting bolts for connecting BS and frame	M6	10	
Connecting bolts for connecting rectifier and frame	M6	12	
Connecting bolts for connecting left front bracket of engine lower guard and engine	M6	12	
Connecting bolts for connecting right rear bracket of engine lower shield and engine	M6	12	
Connecting bolts for connecting anti-scalding hood and engine	M6	12	
Connecting bolts for connecting rear small mudguard support with rear sensor brake caliper	M6	10	
Right pedal bracket (with brake spring) bolt	M6	10	
Front wheel tachometer and right front brake caliper screw	M6	8	
Connecting screw for connecting front brake oil pipe and lower union plate	M6	8	
Connecting screw for connecting rear brake oil pipe and flat fork	M6	8	
Connecting screw for connecting hook and flat fork of chain guard	M6	8	
Connecting screw for connecting right hand and the left hand	M6	8	
Connecting screw for connecting instrument housing and headlight bracket	M6	8	
Connecting screw for connecting head cover and headlight bracket	M6	8	
Connecting screw for connecting left and right car body and frame	M6	8	
Rear shock absorber small fender screw	M6	8	
Connecting screw for connecting left and right frame trim blocks and frame	M6	8	
Connecting screw for connecting chain box and flat fork	M6	8	
Connecting screw for connecting (optional for three boxes) tail box bottom plate and grab handle	M6	8	
Connecting screw for connecting rear tail cover, body and frame	M6	8	
Connecting screw for connecting left and right flat shaft trim block and frame	M6	8	
Connecting screw for connecting engine lower guard plate and lower guard plate bracket	M6	8	
Connecting screw for connecting front mudguard with left and right front damping	M6	8	
Connecting screw for connecting muffler protection plate and muffler	M6	8	
Fastening screw of side bracket switch to side bracket bolt	M6	8	
Front screw of ECU assembly and rear mud retaining	M6	4	
●BD	M6	4	
Connecting screw for connecting fuel tank middle protection plate and left and right protection plate	M6	6	

Project	Thread diameter (mm)	Torque (N · m)	Note
Connecting screw for connecting chain protection clip and flat fork	M6	8	
Hand windshield special bolt right	M6	8	
Shift adjusting lever (orthodontic)	M6	5	
Shift adjusting lever (counter-tooth)	M6	5	
Connecting nut of tail box hook and grab handle (optional for three boxes)	M6	5	
Left and right hand windshield and handle bolt connection nut	M6	5	
Connecting screw (optional for three boxes) for connecting tail box hoist and tail box support	M6	10	
Connecting screw (optional for three boxes) for connecting tail box hoist and left and right side box support	M6	10	
Connecting bolts for connecting kettle and frame	M6	4	
Left and right chain adjusting bolts	M8	10	
Front shock absorber bottom barrel locking front axle bolt	M8	22	
Connecting bolts for connecting side box bracket and frame	M8	22	
Connecting bolts for connecting left and right side box support and side box support rear bumper	M8	22	
Connecting bolts for connecting left and right bumper connection bolts, bumper and headlight bracket	M8	22	
Connecting bolts for connecting rear armrest front mounting hole and frame	M8	30	
Connecting bolts for connecting left and right front feet and frame	M8	22	
Connecting bolts for connecting headlight bracket and frame	M8	22	
Connecting bolts for connecting brake pedal and frame	M8	22	
Connecting bolts for connecting shift lever and frame	M8	22	
Connecting bolts for connecting fuel tank and frame	M8	22	
Connecting bolts for connecting left and right front brake calipers with left and right front damping	M8	22	
Connecting bolts for connecting muffler (front) section and frame	M8	22	
Connecting bolts for connecting muffler (rear) with right foot pedal	M8	22	

Project	Thread diameter (mm)	Torque (N • m)	Note
Direction up coupling plate and front shock absorpti on fastening screw	M8	22	
Connecting screw for connecting left and right side box support front and frame	M8	22	
Connecting screw for connecting left / right rear pedal and frame	M8	18	
Connecting screw for connecting front and rear brake disc and wheel hub	M8	30	
左右链条调节螺栓	M8	10	
Connecting nut of lower damp seat and lower coupling plate of steering handle	M8	22	
Connecting bolts for connecting muffler front section and engine	M8	22	
Connecting bolts for connecting small sprocket and engine	M10	45	
Connecting bolts for connecting rear shock absorber upper and frame	M10	60	
Connecting bolts for connecting rear armrest rear mounting hole and frame	M10	33	
Rear shock absorber lower and cradle connection (standard matching) bolt	M10	60	
Rear shock absorber lower and cradle connection (high matching) bolt	M10	60	
Connecting bolts for connecting suspension on engine and frame	M10	60	
Connecting bolts for connecting triangular cradle and flat fork	M10	60	
Connecting bolts for connecting triangular cradle and U-shaped cradle	M10	60	
Connecting bolts for connecting U-shaped cradle and frame	M10	60	
Connecting bolts for connecting engine rear suspension and frame	M10	60	
Connecting screw for connecting bumper left and engine	M10	60	
Connecting screw for connecting bumper right with engine	M10	60	
方向把下卡座与下联板连接螺母	M10	30	
Special bolt for side bracket	M10	Bolt 2N.m, then tighten the bolt hexagonal fixed tightening nut torque 22N.m	
Connecting bolts for connecting side bracket and frame	M10	22	
Front caliper mounting bolt	M10	45	
Connecting bolts for connecting upper coupling plate and direction column	M14	80	
Plain fork bearing	M16	88	

Project	Thread diameter (mm)	Torque (N · m)	Note
Front wheel shaft	M16	70	
Rear wheel shaft (classic edition)	M20	128	
Rear axle (single rocker version)	M38	168	
Directional bearing adjustment	M25	The first stage is 40N.m, the second stage loosens two turns of the adjusting nut and tightens the nut to 10N.m, and the third stage does not loose 1 / 4 turn in the fixing direction	



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机车

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