

500RR



To Our Distinguished Owner

July 2026 Edition

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 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 configuration introduction 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 for upgrades 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 stickers described in the Instruction Manual and attached to the motorcycle.

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 sticker 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.

This motorcycle is equipped with a high-revving engine. For your safety and the safety of others, reckless driving is prohibited.

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

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

Other important information is listed under the following markings:

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

Contents

Motorcycle Safety	4
User Manual	13
Maintenance	50
Fault Handling	96
Relevant Information.....	98
Technical Parameters.....	109

Motorcycle Safety

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

Safety Instructions.....	5
Safety Precautions.....	8
Riding Precautions	9
Accessories and Modifications	12

Safety Instructions

To enhance your riding safety, please follow these guidelines:

- Strictly 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.

Before Riding

Ensure the USB dustproof cover is securely fastened. To extend the service life of the USB interface, it is recommended not to connect or use the USB in rainy or snowy weather.

Avoid fatigue driving by ensuring you are in good physical condition, alert, and not under the influence of alcohol or medication.

Ensure that you and your passengers wear certified motorcycle helmets and protective clothing. Instruct your passengers to hold onto the passenger handhold, keep their feet on the footpegs, and tilt with you when turning, even when the motorcycle is stationary.

Wearing A Helmet Correctly

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.

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.

Be Safety-Conscious Before 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.

No Drunk Driving

Alcohol and driving are absolutely incompatible, and riding a motorcycle after drinking is strictly prohibited.

Make Yourself Easier To See

Especially when riding at night, wear bright reflective clothing to make yourself more visible. Park where other drivers can see you, turn on your signal lights before turning or changing lanes, and horn to alert pedestrians when necessary.

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. Please inspect your motorcycle before each ride and complete all recommended maintenance. **Do not modify your motorcycle or further install accessories that may influence safety performance. Overloading is strictly prohibited.**

Keep Your Motorcycle In A Safe State

You and your personal safety are your top priorities. 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. When a collision involves other people or vehicles, it should also comply with applicable local laws and regulations.

If you decide to continue driving, first turn the ignition switch to the "❌" (OFF) position, and then self-evaluate the condition of the motorcycle. Check whether there is oil or water leakage, check whether the key nuts or 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 an authorized service center or a qualified special repair shop 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.

Do not start the engine for long periods of time in a garage or other enclosed space.

Warning

- It is strictly forbidden to enable a motorcycle engine for an extended period in an enclosed or semi-enclosed space.
- Motorcycle engines should only be started in well ventilated outdoor areas.

Safety Precautions

- Be careful when riding, always keep your hands on the throttle grips and your feet on the pedals.
- Ensure that accompanying passengers firmly hold onto the passenger handhold and place their feet on the footpegs while the vehicle is in motion.
- Always pay attention to the safety of riders, passengers and other participants involved 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 full-finger leather gloves.

Boots or riding boots

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 casualties in an accident.
- Make sure that you and your passengers always wear certified helmets and protective clothing.

Riding Precautions

Run-In Period

The run-in period for this vehicle is the first 1,000 km of driving; perform the first maintenance service at 500 km in accordance with the run-in period guidelines.

● The following rules must be observed during the run-in period:

- ▶ Do not press the ON switch while the motorcycle is in motion, and do not run the engine at high speed immediately after starting it. Even after the engine has warmed up, let it run at Idle for (2–3) minutes to allow the lubricating oil to reach every lubricated component.
- ▶ When in neutral, do not let the engine speed get too high.
- ▶ During the run-in period, we recommend the following maximum engine speeds

Total Mileage	Maximum Engine Speed
0km ~ 500km	6,000 r/min
500km ~ 1000km	10,000r/min

Warning

- New tires have a relatively smooth tread, which can lead to loss of control and injury. During the 1,000-km run-in period, you must maintain the specified tire pressure. During the run-in period, avoid sudden braking, applying excessive force when braking, sudden acceleration, or sharp turns.

Brake

Operating instructions:

- 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:
 - ▶ Tires 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 perfect 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 brake handle 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.

Warning

- Please note that during very sudden and urgent braking, the ABS may not always prevent the rear wheels from lifting.

Engine brake

When you release the accelerator, the engine braking will help the motorcycle slow down. If you want to slow down further, you can downshift to a lower gear. When going downhill on a long and steep slope, you should use engine braking and apply the brakes intermittently to slow down.

A humid and rainy environment

In wet and rainy ambient, the road surface will be wet and slippery.

The damp brake will also reduce braking efficiency, requiring extra caution when braking.

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 does 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. Place the ignition switch in the "🔒" position.

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 95 octane or higher gasoline.
- Using low octane gasoline will reduce engine performance.
- 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 the painting and nonmetallic materials of the vehicle when adding.

Accessories and Modifications

We strongly recommend that you use original accessories, and it is strictly prohibited to modify the original design of the motorcycle. Unauthorized modifications to your motorcycle can lead to the invalidation of your warranty service. This can also make your motorcycle illegal to ride on public roads and highways.

Warning

- Installation of additional or modified components is strictly prohibited.

Warning

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

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. Fix all luggage and place it evenly and smoothly near the center of the motorcycle.
Do not place objects in the headlights or Mufflers.

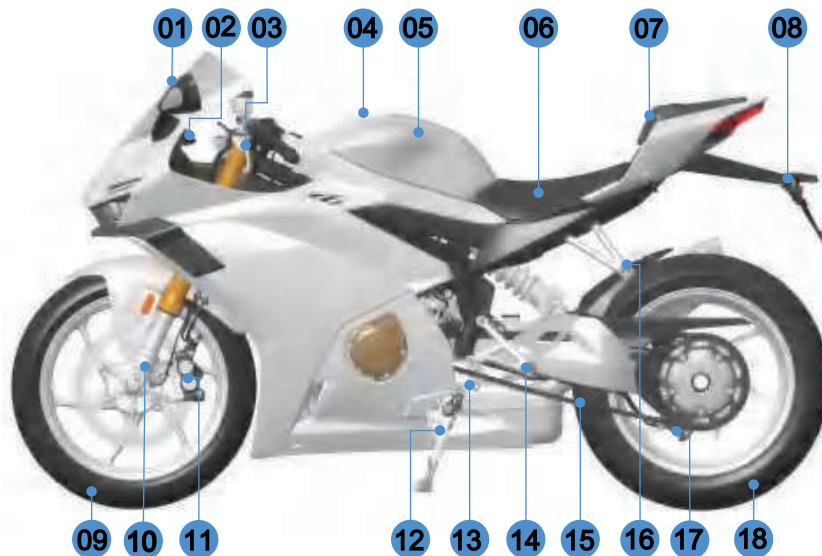
User Manual

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

Component Location Diagram.....	14
Instrument Interface	16
Switch.....	22
Instrument Functions and Information	
Settings	30
Menu Description.....	43
Gear Shifting	46
Quick Shift System	47
Traction Control System (TCS)	48
Refueling.....	49

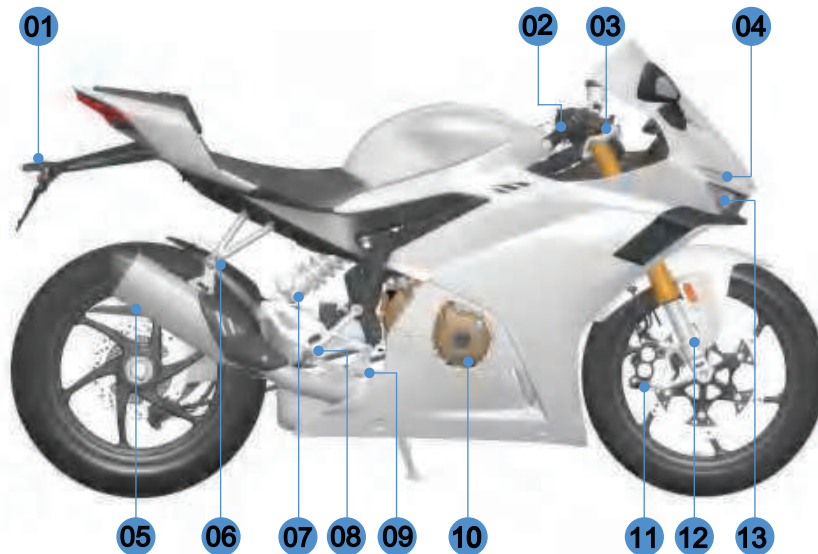
Component Location Diagram

Single-Sided Swingarm - Left



- | | | | | |
|---------------------------------|---------------------------------------|--------------------------------------|--------------------------------|-------------------------------|
| 01 Rear view mirror | 05 Fuel tank | 09 Front wheel assembly | 13 Gear shift pedal | 17 Rear brake caliper |
| 02 Instruments | 06 Front seat cushion assembly | 10 Front fork (left) | 14 Front footpeg (left) | 18 Rear wheel assembly |
| 03 Clutch lever assembly | 07 Rear seat cushion assembly | 11 Front brake caliper (left) | 15 Chain | |
| 04 Fuel tank cap | 08 Rear turn signal | 12 Side stand | 16 Rear footpeg (left) | |

Single-Sided Swingarm - Right



01 License plate lamp

02 Handlebar grip assembly - left

03 Front brake lever

04 Front position lamp

05 Muffler

06 Rear footpeg (right)

07 Rear shock absorber

08 Front footpeg (right)

09 Brake pedal

10 Engine

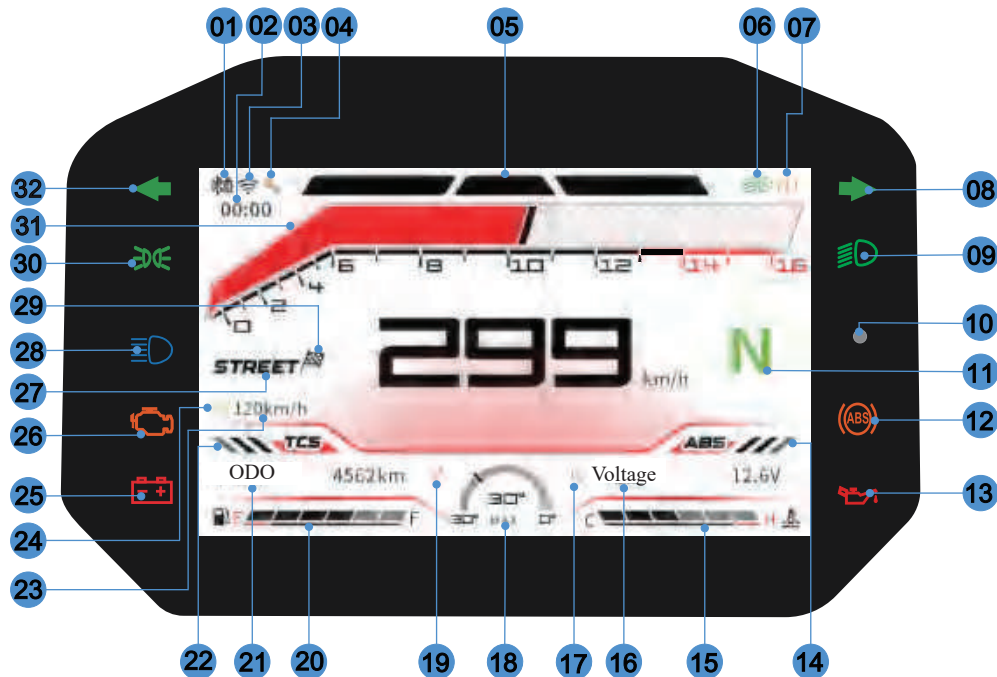
11 Front brake caliper (right)

12 Front fork (right)

13 Headlight

Instrument Interface

Single-Sided Swingarm



- | | |
|--|---|
| 01 Bluetooth indicator | 17 TCS Indicator |
| 02 Time display | 18 Tilt display |
| 03 WIFI connection indicator | 19 Side stand status indicator |
| 04 Service indicator light | 20 Fuel gauge |
| 05 Screen top display | 21 Information - left |
| 06 Low beam mode status indicator | 22 TCS gear indicator |
| 07 TP fault indicator | 23 Cruise control target speed display |
| 08 Right turn indicator | 24 Cruise control indicator |
| 09 Low beam status indicator | 25 Electronic injection malfunction indicator light |
| 10 Light-sensitive hole | 26 Engine fault indicator |
| 11 Gear indicator | 27 Ride mode indicator |
| 12 ABS malfunction indicator light | 28 High beam status indicator |
| 13 Engine oil pressure warning indicator | 29 Launch sign |
| 14 ABS gear indicator | 30 Position indicator light |
| 15 Water temperature gauge | 31 Speedometer |
| 16 Information - right | 32 Left turn indicator |

Notes

- The background color of the instrument in "EXTREME" mode is blue.
- The background color of the instrument in "PASSION" mode is red.
- In Ride Mode, when the PTO is in 3rd gear, it will auto-switch to PASSION Mode.

External Display Indicator

Indicator	Name	Functional Description
	Turn Indicator Light	① The left turn indicator flashes when the left turn signal is ON. ② The right turn indicator flashes when the right turn signal is ON. ③ When the warning lamp is ON, the left and right turn indicators flash simultaneously.
	Position Lamp Indicator	① The indicator illuminates during self-test. ② After the self-test, if the headlights are on, this light illuminates; if the headlights are off, this light extinguishes.
	Low Beam Status Indicator	① The indicator illuminates during self-test. ② After the self-test is complete, this light illuminates when the low beams are on, and extinguishes when the low beams are off.
	High Beam Status Indicator	This light illuminates when the high beam is ON.
	Engine Fault Indicator	① This light illuminates when the EFI system fails. ② When the motorcycle ignition switch is turned on and the engine is not started, this light illuminates; after the engine is started, the light passes the self-test and extinguishes.
	Battery Indicator	① When the battery voltage is too low, this light illuminates ② Illuminates during engine starting; this is normal. ③ If the indicator light flashes after engine startup, this indicates a potential charging system malfunction. Please contact an authorized service center for maintenance as soon as possible

Indicator	Name	Functional Description
	ABS Malfunction Indicator Light	① When the ABS function is turned off, the fault lamp flashes; when the ABS fails, this lamp remains illuminated. ② When the motorcycle ignition switch is turned on, this light illuminates; when the vehicle speed exceeds 5 km/h, this light automatically extinguishes. ③ If the indicator does not extinguish when the ABS function is not disabled during riding, this indicates a potential ABS system malfunction. Please contact an authorized service center as soon as possible.
	Engine Oil Pressure Warning Indicator	① If engine oil pressure is insufficient after the engine starts, this light illuminates ② It is normal for this light to illuminate when the engine is not running

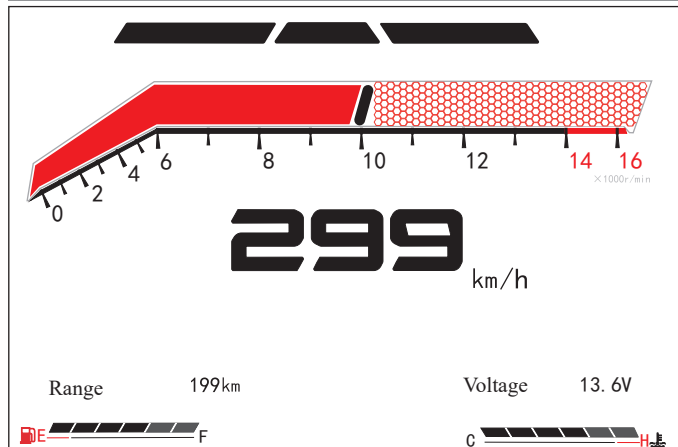
In-Screen Indicator

Indicator	Name	Functional Description
	WIFI Connection Indicator	① The indicator illuminates when the phone and instrument are successfully connected via Bluetooth; it extinguishes and does not display when not connected. ② The instrument icon is black in Day Mode, and white in Night Mode.
	Bluetooth Indicator	① The indicator illuminates when the phone and instrument are successfully connected via Bluetooth; it extinguishes and does not display when not connected. ② The instrument icon is black in Day Mode, and white in Night Mode.

Indicator	Name	Functional Description
	Service Indicator	① The indicator illuminates during self-test. ② When the motorcycle meets the maintenance conditions, the indicator illuminates for 30 seconds each power-on and then extinguishes.
	Cruise Control Indicator	① When cruise control is on, the yellow indicator illuminates. ② When cruise control is activated, the green indicator light illuminates.
***km/h	Cruise Control Target Speed Display	Displays the set target speed.
	Fuel Indicator	When the fuel becomes insufficient, the fuel warning light illuminates.
	TCS Gear Display	① Display the TCS gear position ② TCS has four gear settings: "OFF", "1st gear", "2nd gear" and "3rd gear" ③ When the signal is abnormal, the TCS gear indicator flashes
	ABS Gear Display	① Display ABS gear position ② ABS has four gear settings: "Off", "1st gear", "2nd gear", and "3rd gear" ③ When the signal is abnormal, the ABS gear indicator flashes
	TP Fault Indicator	TP malfunction: The indicator lamp illuminates.
	TCS Trigger Indicator	When TCS Intervenes: indicator flashes
	TCS Off Indicator	When TCS Function is Deactivated: indicator On

Indicator	Name	Functional Description
	TCS Malfunction Indicator Light	When TCS function fails, the indicator remains illuminated
	Side Stand Status Indicator	When the side stand is down, this light illuminates
N	Gear Indicator	Displays the current gear: 1, N, 2, 3, 4, 5, 6
	Water Temperature Warning Indicator	When the water temperature is too high, the warning light turns on.
	Launch Sign	① When launch mode is activated, the checkered flag flashes ② When all launch control conditions are met, the checkered flag remains illuminated
10:00	Time Display	Displays the instrument time
RAIN	Ride Mode	Ride Mode: Suitable for wet and slippery roads, with minimal power output and maximum electronic control intervention.
ROAD		Road Mode: Suitable for everyday riding, with moderate power output and electronic control intervention
SPORT		Sport Mode: Suitable for aggressive driving, with maximum power output and minimal electronic intervention
CUSTOM-1		Custom Mode 1: The system can be customized

Tachometer, Speedometer, Information Display



Tachometer:

1. Engine speed display.
2. Display range: 0 – 16,000 r/min. When engine speed exceeds 14,000 r/min, the indicator enters the red zone.

Speedometer:

1. Current vehicle speed display.
2. Vehicle speed display: metric unit 1 km/h, imperial 1 mph.
3. Display range: 0–299 km/h.

Information column:

Odometer (ODO): Displays the total mileage of the motorcycle.

Driving Range: Displays the maximum distance that can be traveled with the current fuel level.

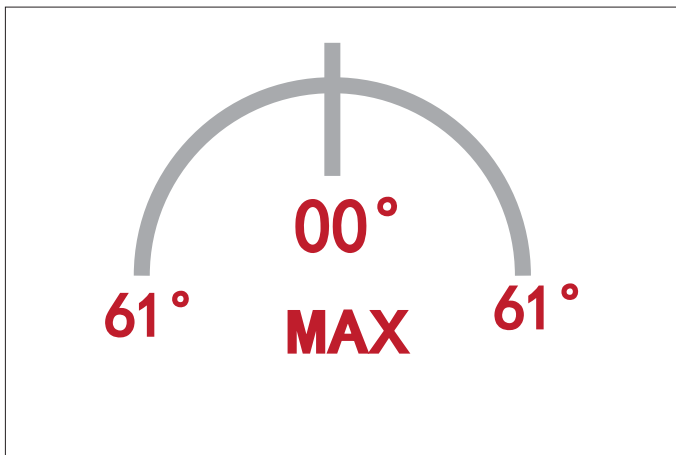
Voltage: Displays the current battery voltage.

Trip A: Displays trip mileage A, including total distance, average speed, fuel consumption, and time used.

Trip B: Displays trip mileage B, including total distance, average speed, fuel consumption, and time used.

Tire Pressure: Displays the current tire pressure and tire temp

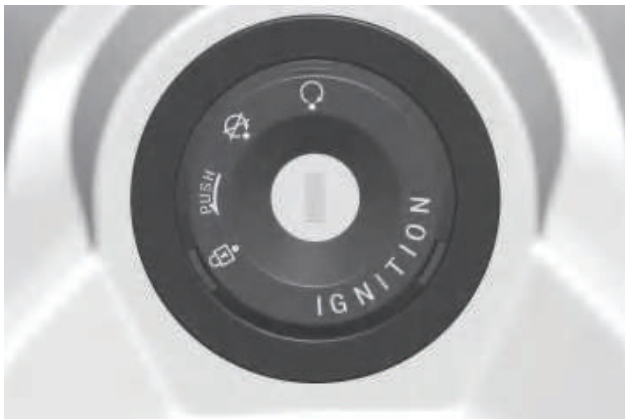
Tilt Indicator



1. The real-time tilt angle of the motorcycle is displayed in the middle, while the maximum tilt angle during driving is shown on both sides.
2. When the vehicle body is perpendicular to the ground, the angle is displayed as 0°.
3. The maximum tilt angle is automatically reset to zero each time the Ignition is turned off.
4. When the vehicle tips over, "MAX " turns red and flashes at the same frequency as the corresponding

Switch

Ignition Switch



When the key is in the "⊗" position, turn the direction handle to the leftmost, press the key simultaneously, and rotate it counterclockwise to the "🔒" position, and the direction can be locked; if users need to unlock, rotate the key clockwise.

Position	Function	Notes
○	Used in starting or driving	Key cannot be removed
⊗	Used in parking (vehicle is powered off)	Key can be removed
🔒	Used when locking the direction	Key can be removed

Warning

- During the parking (including parking for a long time), the ignition switch must be in the "⊗" or "🔒" position to ensure the safety of the vehicle and prevent the battery from "losing power".
- Do not push the motorcycle while the steering mechanism is locked, otherwise it will be out of balance.

Left Combination Switch



Light switch

The light switch is located on the back of the handlebar switch.

-  Turn on the headlight flasher.
-  Turn on the low beam
-  Turn on the high beam.

Horn button

Horn switch: 

Simply press the button to use it.

Cruise control switch button

Cruise control switch: 

Slide the cruise control switch to the left to engage cruise control (provided the conditions for cruise control are met). At this point, you can set the cruise vehicle speed via other operations on the cruise control switch to enter cruise mode.

Notes

- When cruise control is on, the yellow instrument indicator illuminates.
- When cruise control is activated, the green instrument indicator illuminates.

RES/+" Cruise control resume/Accelerate button

Cruise Control RES/Acceleration: Similar to SET/Deceleration, this switch has three functions.

To resume cruise control, when the cruise control switch is on and the vehicle speed is above 40 km/h, if there are no conditions that would cause cruise control to back off (such as pressing the brake pedal), briefly pressing the

cruise control button upward will resume cruise control, and the vehicle's cruise target speed will automatically be set to the previous cruise speed.

Tap upward to accelerate. Each time you tap the cruise control button upward, the target cruise vehicle speed increases by 2 km/h.

Long press upward to accelerate. When the vehicle is already in cruise control mode, a long press upward on the cruise control button will increase the requested cruise vehicle speed at a certain acceleration.

■ "SET/-" Cruise control settings/Deceleration button

Cruise Control SET/Deceleration: Similar to RES/Acceleration, this switch has three functions.

Settings: Set the current vehicle speed as the cruise control speed. When the cruise control main switch is on and the vehicle speed is above 40 km/h, if there are no conditions that would cause cruise control to back off (such as pressing the brake pedal), pressing the cruise control button once will activate cruise control, and the vehicle will maintain its current speed.

Tap down to decelerate. When the vehicle is already in cruise control mode, each time you tap this button, the target vehicle speed will decrease by 2 km/h.



- Use the cruise control function as appropriate based on road conditions and local regulations.

■ Cruise control activation and conditions

Cruising vehicle speed: 40–120 km/h; gears: 3-6.

Cruising Conditions and Operating Instructions:

Gear in 4–6, vehicle speed between 40 and 120 km/h.

Turn on the cruise control switch and press the "⏏" button downward once; the vehicle will cruise at the current vehicle speed.

While cruising, briefly press the "⏏" button upward - the target cruise speed increases by 2 km/h per press. Press and hold the "⏏" switch upward - the target speed continuously increases at a constant acceleration rate. Once the target speed reaches the upper limit of 120 km/h, further upward presses "⏏" will not increase the set speed.

While cruising, briefly press the "⏏" button downward - the target cruise speed decreases by 2 km/h per press. Press and hold the "⏏" downward - the target speed continuously decreases at a constant deceleration rate. Once the target speed reaches the lower limit of 40 km/h, further downward presses "⏏" will not decrease the set

speed.

While in cruise control mode, accelerating, braking, pulling the clutch, or shifting gears will all cause cruise control to disengage. Once these actions are complete, briefly press the "⏏" button upward again to restore the vehicle to its previous cruise control target speed.

When the system's speed signal, gear signal, brakes, clutch, accelerator pedal, throttle valve, or other signals malfunction, the vehicle's cruise control function will not operate.

If the gear is outside the set range (4-6), cruise control backs off.

Notes

- Do not press the button up or down when cruise control is not on, as this may damage the cruise control button.

Warning

- When using cruise control on a downhill slope, the vehicle may exceed the set cruise speed. In this case, please use the brakes to control the vehicle speed to avoid danger.
- Using the cruise control feature can be dangerous in situations where it is not safe to drive at a constant

speed. Therefore, do not use the cruise control feature on winding roads or in traffic congestion.

- Driving on slippery roads can also be hazardous; on such surfaces, sudden changes in tire traction can cause the wheels to spin unnecessarily, and the vehicle may go out of control. Do not use cruise control on slippery roads.
- Be sure to close the cruise control system after use to prevent accidental activation, which could lead to an accident.

■ Turn signal switch:

⇐ Turn on the left turn signal:

Toggle the switch to the left. After operation, press the bulge center position of the switch to turn off the turn signal.

⇒ Turn on the right turn signal:

Toggle the switch to the right. After operation, press the bulge center position of the switch to turn off the turn signal light.

"ESC" Button

Interface	Mode	Short Press	Long Press
Main Interface	Main Interface	/	Launch control
	Pop-Up	/	/
	Ride Mode Pop-Up	Pop-Up Disappears	
	Launch On	/	Back-off Launch
	Phone (Incoming Call)	/	/
	Phone (In Call)		
Menu Interface	Music (Sub-Interface)	Return To The Main Interface	Return to the Main Interface
	Phone (Incoming Call)	/	/
	Phone (In Call)		
	Mode Settings	Back To Previous Level	Return to the Main Interface
	Driving Settings	Back To Previous Level	Return to the Main Interface
	Ride Mode Presets	Save And Return To Previous Level	Save and Return to Main Interface
	Other (Sub-Interface)	Save And Return To Previous Level	Save and Return to Main Interface

"ENT" Button

Interface	Mode	Short Press	Long Press
Main Interface	Main Interface	Go To The Main Menu	When "Trip A/B" is selected in the scrolling display window, long press to Auto reset the short-trip Mileage.
	Pop-Up	Pop-Up Disappears	/
	Ride Mode Pop-Up	Confirm	
	Launch On	/	

Interface	Mode	Short Press	Long Press
Main Interface	Phone (Incoming Call)	Answer	When "Trip A/B" is selected in the scrolling display window, long press to Auto reset the short-trip Mileage.(Including Auto-linked items)
Menu Interface	Phone (In Call)	/	
	Music (Sub-Interface)		
	Phone (Incoming Call)	Answer	/
	Phone (In Call)	/	
	Mode Settings	Switch Instrument Modes / Access Ride Mode Settings And Presets	/
	Driving Settings	Select Mode	
	Ride Mode Presets	Go To Settings / Save And Return To Previous Level	
	Other (Sub-Interface)	Enter / Switch	

"↑" Button

Interface	Mode	Short Press	Long press
Main Interface	Main Interface	Switch Info Display (Scroll Up)	Previous Track
	Pop-Up	/	/
	Ride Mode Pop-Up	Left Switch	
	Launch On	/	
	Phone (Incoming Call)	Switch Info Display (Scroll Up)	
	Phone (In Call)		

Interface	Mode	Short Press	Long press
Menu Interface	Music (Sub-Interface)	Switch Menu	Previous Track
	Phone (Incoming Call)	/	/
	Phone (In Call)		
	Mode Settings	Up	
	Driving Settings	Left Switch	
	Ride Mode Presets	Scroll Up / Switch Left	
	Other (Sub-Interface)	Up	Quick Threshold Settings

"↓" Button

Interface	Mode	Short Press	Long Press
Main Interface	Main Interface	Switch Info Display (Scroll Down)	Next Track
	Pop-Up	/	/
	Ride Mode Pop-Up	Right Switch	
	Launch On	/	
	Phone (Incoming Call)	Switch Info Display (Scroll Down)	
	Phone (In Call)		
Menu Interface	Music (Sub-Interface)	Switch Menu	Next Track
	Phone (Incoming Call)	/	/
	Phone (In Call)		
	Mode Settings	Down	
	Driving Settings	Right Switch	
	Ride Mode Presets	Scroll Down / Switch Right	
	Other (Sub-Interface)	Down	Quick Threshold Settings

"MODE" Button

Interface	Mode	Short Press	Long Press
Main Interface	Main Interface	Mode Switching Pop-Up	Turn the headlights on/off in manual headlight mode
	Pop-Up	/	
	Ride Mode Pop-Up	Pop-Up Disappears	
	Launch On	/	
	Phone (Incoming Call)	Reject	
	Phone (In Call)	Hang Up	
Menu Interface	Music (Sub-Interface)	/	Turn the headlights on/off in manual headlight mode
	Phone (Incoming Call)	Reject	
	Phone (In Call)	Hang Up	
Menu Interface	Mode Settings	/	Turn the headlights on/off in manual headlight mode
	Driving Settings	/	
	Ride Mode Presets		
	Other (Sub-Interface)		

Notes

- Long press: duration > 3 s; short press: duration ≤ 3 s.
- The system does not respond when multiple keys are pressed simultaneously.

Right Combination Switch



■ Electric starter button

When the emergency OFF switch is set to "○" position:

1. The engine is in neutral. Press "⊗" to start the engine.
2. If the engine is not in neutral, pull handle, retract side stand, and press the "⊗" button to start the engine

■ Emergency OFF switch

Only when the switch is in "○" (ON) position, the engine can be started.

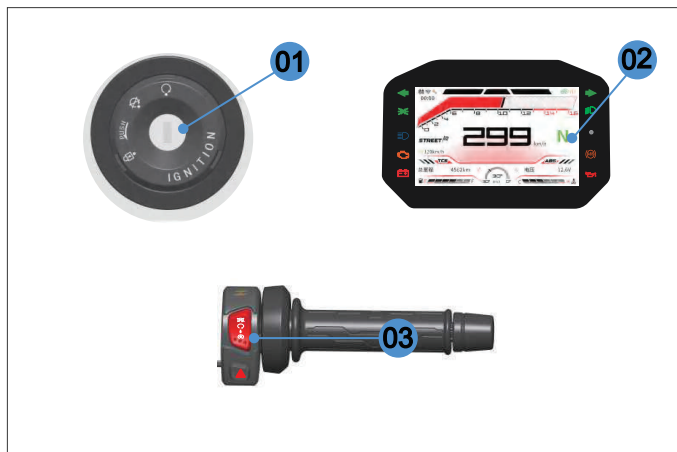
When the switch is in "⊗" (OFF) position, the engine cannot be started.

In case of emergency, switch to the "⊗" (OFF) position to extinguish the engine.

■ ▲ Hazard warning lamp

Use in emergency situations. When pressed, it simultaneously activates the left and right turn signal.

Start The Engine



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

1. Turn the ignition switch to the "○" (ON) position.
2. Confirm that the engine switch is in the "○" (ON) position.
3. Shift the gear to neutral, or pull the clutch lever, then start the motorcycle with the transmission in gear.
4. Press the ON switch "ⓧ".

If the engine fails to start:

If the engine does not start within 3 seconds, wait for 10

seconds before repeating step 4.

Notes

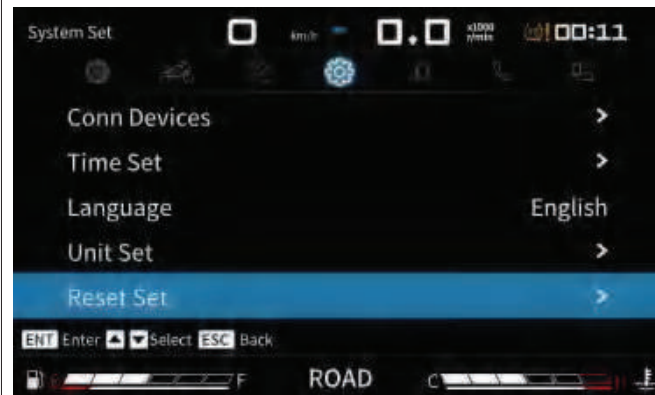
- Cold start in winter may take longer than usual, but in any case, each attempt to start the engine should not exceed 3 seconds. If the engine fails to start, wait for 10 seconds before attempting again. After 6 cumulative failed attempts, stop and wait for 10 minutes before trying to start the engine again.
- If the engine starts but idles unevenly, slightly increase the throttle.
- Prolonged high-speed idling can harm the engine and exhaust system.
- Sudden acceleration or prolonged idling at high speed for more than 5 minutes may cause severe discoloration of the muffler.
- If the throttle is fully open, the engine will not start.

Instrument Functions and Information Settings

Warning

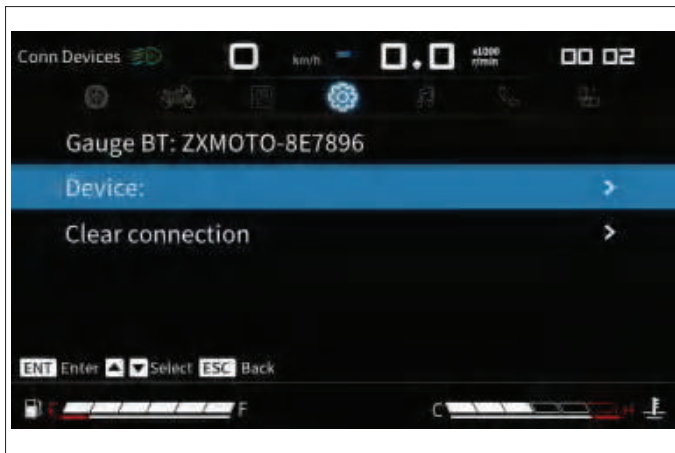
- Do not adjust the instrument menu while the vehicle is in motion to avoid accidental and serious injuries.
- The instrument settings need to be adjusted according to your preferences before riding.

System



In this interface, you can configure "Devices", "Time", "Language", "Unit", "System Upgrade", and "Reset".

Devices



In this interface, you can select the Bluetooth device you wish to connect according to your needs.

Notes

- The connection can only be established when Bluetooth is enabled on the phone. You must confirm the connection on your phone the first time you connect.

Time



"Hour" and "Minute" allow manual adjustment of the current time, which will automatically update when the vehicle connects to the internet.

Language



"Chinese," "English," "Italian," or "Spanish"-four language options. You can choose the language according to your preference.

Unit



Speed & Mileage → "km" or "mils"; Time Format → "24-Hour" or "12-Hour"; Temperature Unit → "°C" or "°F"; Pressure Unit → "bar" or "kpa". You can select the preferred units according to your preference.

System upgrade



When performing a "System Upgrade," the instrument must be connected to Wi-Fi, and the vehicle must not be powered off. Follow the on-screen prompts on the instrument for specific operating procedures.

Notes

- When performing a "System Upgrade," the battery voltage must not drop below 13V.

Reset



"Confirm" or "Cancel"-you can choose whether to restore the settings according to your preference.

Notes

- "Reset" settings will erase all data recorded and personal settings except mileage.

Vehicle Info



In this interface, you can view or set "Vehicle Data", "Launch Record", "Info Display", "Maintenance ", "DTC".

Vehicle data



On this interface, you can view "Battery Voltage," "ODO," "Remaining Fuel," "Water Temp," "TP," "Tire Temp," "Trip A ODO," and "Trip B ODO."

Launch record



The 0-100km/h acceleration time after launch can be viewed in this interface.

Info display



Trip A Information: "On" or "Off"; Trip B Information: "On" or "Off"; Trip Extended Information: "On" or "Off"; Tire Information: "On" or "Off". You can choose whether to display this information in the information column of the main instrument interface according to your preference.

Maintenance



In this interface, you can view the pending range. Long press "ENT" key for 20 seconds to reset the maintenance mileage.

DTC



In this interface, you can view the vehicle fault information.

Device



In this interface, you can view the "SW Version" and "HW Version".

Settings



On this interface, you can configure “Low Beam Set,” “QS Settings,” “Prompt Threshold,” and “Display.”

QS Settings



The QS settings are divided into "Comfort," "Race," and "Off." You can adjust the QS Mode to suit your preferences.

Prompt threshold



In this interface, you can set:

1. Shift Light: "ON" or "OFF". When enabled, you can adjust the engine speed for the shift prompt according to your preference.

Adjustment range: 3,000-12,000 rpm.

Display



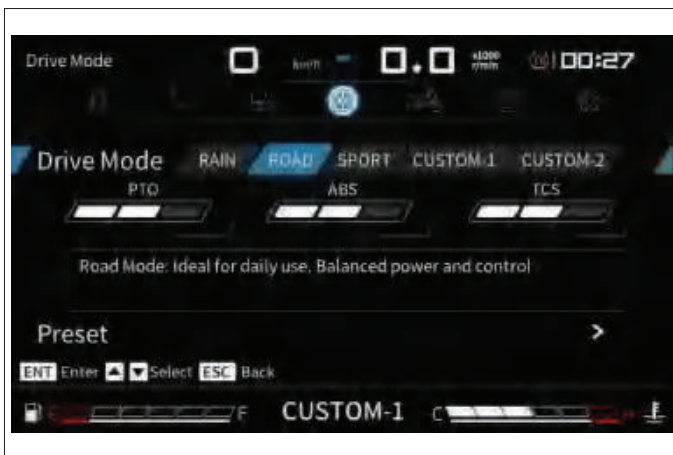
In this interface, you can set:

1. Instrument Theme: "EXTREME" or "PASSION". The two themes are optional or can be set as "AUTO". "EXTREME" features a blue background, while "PASSION" features a red background. You can choose theme according to your preference.
2. Day/Night Mode: Three mode options: "Auto", "Day", or "Night".
3. Brightness: Six brightness options including "Auto",

"L1", "L2", "L3", "L4" and "L5".

4. Indicator light frequency: Three frequency options - "L1," "L2," and "L3."

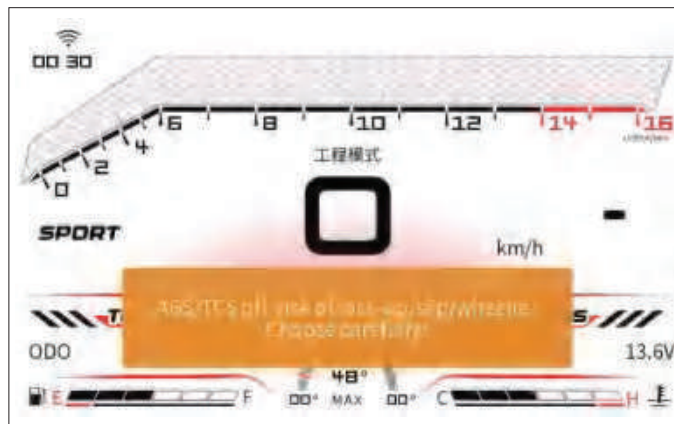
Ride Mode



The Drive Modes include five modes: RAIN, ROAD, SPORT, CUSTOM 1 and CUSTOM 2. RAIN, ROAD, and SPORT cannot be modified. You can set CUSTOM 1/2 mode for "Engine," "ABS," and "TCS" gears.

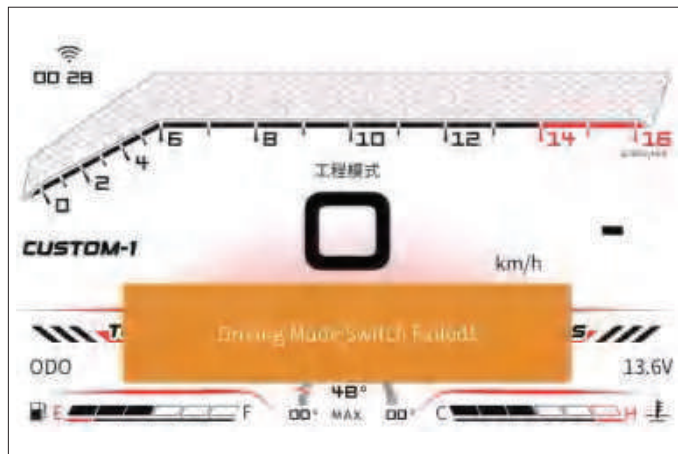
Gear adjustment:

"ABS and TCS" feature 3 adjustable levels and a fully close function, while the Engine offers 3 adjustable modes.



The "Gear 1" and "OFF" options trigger a safety pop-up reminder. When power is turned off, the settings are saved, and when power is turned on again, if the "Gear 1" and "OFF" options are selected, the safety pop-up reminder will appear.

Launch Control



Long press the ESC button, then follow the Launch Control operational procedures to activate Launch Control.

Navigation



In this interface, you can download the app by scanning the QR code. After downloading, follow the prompts to register an account.

Enable screen mirroring in the app, select "Navigation", set the destination, and click the "ENT" (confirm) key to project your phone's navigation on the screen.

Music



Once the instrument is connected to your phone, you can view the song title and playback progress on this interface.

Phone



In this interface, you can view your phone's "Contacts" and "Call Log" as well as make and receive calls.

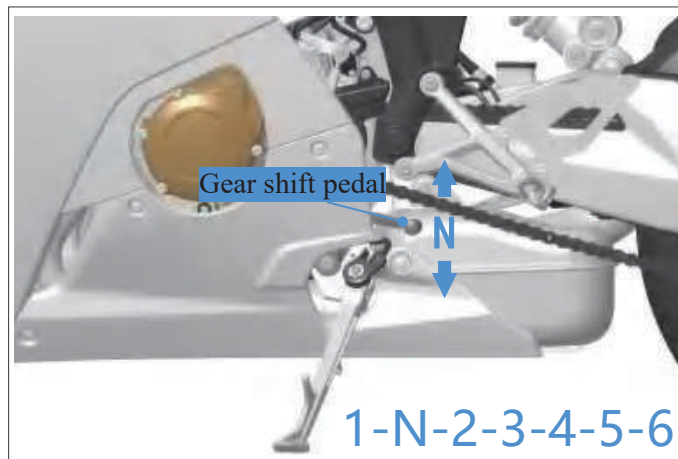
Menu Description

Level 1 Menu	Level 2 Menu	Level 3 Menu	Function Description
Navigation	/	/	/
System	Devices	/	/
	Time	Hour	When there is no network, users can adjust the *Hour* and *Minute* settings based on local time
		Minute	
	Language	Chinese/English	Users can select the language according to their preferences
		Chinese/English	
	Unit	Distance	Users can choose between km/mils according to their preference
		Time Format	Users can choose between the 12-hour and 24-hour formats according to their preferences
		Temperature	Users can choose between °C/°F based on their preference
		Pressure Units	Users can choose between bar and kPa based on their preferences.
	Reset	/	"Reset" settings will erase all data recorded and personal settings except mileage, and then restart
Vehicle Info	Vehicle Data	ODO (Total Mileage)	Set the vehicle data display items on the main interface ① 85%When the average vehicle speed=0, the average vehicle speed displays "--" ②Long press the SNT key to clear the current mileage information
		Water Temp	
		Battery Voltage	
		Oil Level	
		Trip A Information	
		Trip B Information	
		Front/Rear Tire Pressure	
		Front/Rear Tire Temp	

Vehicle Info	Launch control	/	The 0-100km/h acceleration time after launch can be viewed in this interface.
	Information Bar Settings	Trip A Information	Users can choose the window display information according to their preferences
		Trip B Information	
		Trip B Extended Information	
		Tire pressure information	
	Maintenance	/	① Setting and clearing maintenance mileage or time: The first maintenance mileage is at 500km. This default parameter cannot be modified. After that, users can set the maintenance reminder cycle according to their actual needs ② Maintenance prompt clearing method: mobile app settings
	DTC	/	"No Faults" is displayed when there are no faults, and existing fault is displayed when a fault is present
	Device	/	Display the instrument SW Version and HW Version
Ride Mode	Contact Us	/	400 customer service hotline, QR code
	RAIN	/	The Drive Modes include five modes: RAIN, ROAD, SPORT, CUSTOM 1 and CUSTOM 2.
	ROAD		
	SPORT		
	CUSTOM1		
	CUSTOM2		
Settings	Low Beam Settings	Low Beam Always ON	Users can select the headlight activation mode according to their preferences
		Manual	
		Auto low beam	

Settings	Prompt Threshold Settings	Shift Light	The range is set to 3000-12000
	Display	Theme	① "EXTREME" theme: Blue-themed interface. When the TCS/ABS gear position drops below 2nd gear, the system automatically switches to the "PASSION" red-themed dashboard with a safety warning prompt displayed ② "PASSION" theme: The red-themed interface remains unchanged ③ "Auto" theme: Defined automatically by the system
		Day/Night Mode	It varies linearly with light sensitivity
		Brightness	The screen brightness options include "Auto", "L1", "L2", "L3", "L4" and "L5". Users can select their preferred brightness level, with the factory default set to Auto
		Indicator Light Frequency Settings	The indicator light frequency settings include "L1," "L2," and "L3." Users can select the brightness level they prefer for regular use; the factory default is L1.
Navigation	/	/	① In the navigation interface, if WiFi is not connected, a prompt will appear to connect, displaying a QR code along with the connection method and WiFi name ② The navigation interface displays information such as oil level, speed, gear, side stand, time, and mobile phone battery ③ After the navigation starts, it automatically enters the main navigation interface
Music	/	/	① When entering the music interface without a Bluetooth connection, the system prompts the user to connect via Bluetooth ② The music playback interface includes a progress bar, song name, and play button, with the song name displayed in a pop-up window
Phone	/	/	① An incoming call triggers a pop-up notification on the main interface ② Dial this number using the confirmation key in the instrument, and the call Log will be accessible

Shift Gears



Your motorcycle features 6 forward gears with a 1-down, 5-up shifting pattern (International Gear Pattern).

■ Gear shifting method:

Warm up the engine to ensure smooth operation.

1. When the engine is idling, disengage the clutch and press the gear shift pedal downward to engage the low gear (1st gear).
2. Gradually increase the engine speed while slowly releasing the clutch lever, coordinating these two actions

to ensure a smooth start.

3. When the motorcycle reaches a steady riding state, reduce the engine speed, disengage the clutch, and lift the gear shift pedal to engage the 2nd gear, and so on.

■ Things to pay attention to while driving:

1. Avoid unnecessary engine idling, and do not allow the engine to idle at high speeds, as this can severely damage the components.
2. Driving with the clutch partially engaged will quickly wear out the clutch plates.
3. If you feel the engine lacks power while climbing a slope, promptly shift to a lower gear.
4. On steep slopes, curves, and situations that may cause loss of vehicle control, do not use the front brake alone or coast in neutral. Do not ride without holding the handlebars.
5. When stopping, reduce the throttle, disengage the clutch at the same time, and then apply the brakes.

Quick Shift System

The motorcycle is equipped with quick-shift sensors, allowing you to up and down shift quickly without operating the clutch under specific operating conditions. Since the accelerator handle remains on, it enables seamless shifting without interruption. This feature must be activated in the instrument's Ride Mode.

- This function will not operate when upshifting with the throttle off.
- When operating the clutch lever, this function will not operate.
- When starting the vehicle or powering it on, ensure the shift lever is in a free state and avoid operations such as pedal use, which may cause errors in the initial position self-learning of the quick shifting sensor. If quick shifting cannot be performed in any gear due to the malfunction of sensor self-learning, you can try restoring this function by powering the vehicle off and then power on again.
- To ensure the proper operation of the quick shift function, when using this feature to shift gears, make sure the shifting action is fast, firmly and continuous. Avoid incomplete shifting operations, as the ECU may exit the torque control function, resulting in a failed

shift.

- If the quick shifting sensor is not running properly, you can also use the clutch to complete the shifting operation.

During daily maintenance, ensure the quick shift sensor remains clean (free of stains, sand, metal shavings, etc.) to maintain proper functionality. Develop good riding habits during regular rides. After shifting, promptly move your foot to the pedal and avoid placing it above or below the shift lever to prevent accidental shifting. Practice this function regularly to become familiar with its features and fully leverage its capabilities.

Traction Control System (TCS)

The motorcycle is equipped with TCS (Traction Control System), which allows the motorcycle to achieve optimal traction during driving. It effectively suppresses the rear wheel slippage during starts, sudden acceleration, etc., on slippery surfaces (such as ice, snow, rain, muddy), thereby improving driving stability and safety.

You can turn the TCS function on or off through instrument settings. It is recommended to keep the TCS function on unless there are special circumstances. When TCS is turned off and the rear wheel loses grip, the system will not request torque reduction, which may cause the vehicle to yaw or crash. The rider should adjust their riding style accordingly.

On slippery surfaces, TCS will not operate due to the engine's inherent braking intervention. If you suddenly decelerate by releasing accelerator, it may cause uncontrollable rear wheel slippage. Do not suddenly close the accelerator, especially when riding on slippery surfaces.

TCS may not be able to handle rapid refueling operations on rough roads. When accelerating, please consider the road and weather conditions, as well as

your skills and physical condition. If motorcycle is stuck in mud, snow, or sand, temporarily turning off the TCS can make it easier to get motorcycle out. Turning off the TCS helps maintain control and balance during off-road riding.

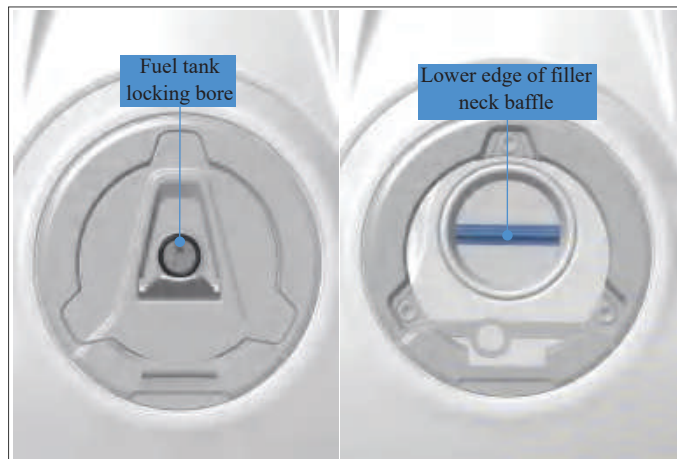
Always use the tire specifications, wheel speed sensors, and ring gears recommended by our company to ensure the TCS run properly.

When the TCS function is active, you may feel a weaker power output from the vehicle. This is normal and there is no need to worry or take any additional measures.

Notes

- While riding, when the TCS indicator comes on, it may indicate that you have turned off the TCS function or that the TCS function has malfunctioned. Please park the motorcycle in a safe location, turn off the ignition switch, then turn it back ON and start the engine. If the indicator still remains on, it indicates an abnormality in the TCS function. Please take the vehicle to an authorized repair shop as soon as possible for troubleshooting.

Refueling



Close the fuel tank cap

1. After refueling, press down the fuel tank cap until it locks.
2. Remove the key and close the fuel tank.

When refueling

After stabilizing the motorcycle with side stand, open fuel tank cap for refueling. Do not refuel above the lower edge of filler neck baffle. The fuel tank capacity is 15 liters. It is recommended to use 95# or above unleaded gasoline. After the fuel is filled, close and lock the fuel tank cap.

Warning

- When refueling, always do so outdoors, ensure the engine is turned off, stay away from heat sources, sparks, or open flames, and immediately wipe up any spills.

Notes

- This motorcycle is equipped with a fuel evaporation control system. When refueling, the fuel level must not exceed the lower edge of the filler neck baffle, otherwise poor acceleration may occur.

Maintenance

Please carefully read the "Maintenance" and "Maintenance Guidelines" sections before maintenance. Refer to "Technical Parameters" for maintenance data.

Maintenance.....	51	Coolant.....	66
Maintenance Interval Table.....	52	Air Filter.....	68
Critical Component Torque Periodic		Brake.....	69
Inspection Checklist.....	53	Accelerator.....	73
Bearing Part Inspection Checklist.....	54	Clutch.....	74
Maintenance Guidelines.....	55	Tire.....	75
Tools.....	56	Drive Chain.....	78
Side Stand	57	Front fork	81
Seat Cushion	58	Rear Shock Absorber	83
Battery.....	59	Steering Damper	86
Fuse	61	Headlight.....	87
Engine Oil	63		

Maintenance

The Importance of Maintenance

Always maintain your motorcycle in good condition, as it is essential for your safety, protecting your property, achieving optimal performance, preventing breakdowns, and reducing air pollution.

Maintenance is a crucial responsibility for motorcycle owners. Make sure to perform checks before each ride and conduct regular maintenance according to the maintenance interval table.

Please follow these guidelines during maintenance:

- Extinguish the engine and turn off the ignition switch.
- Park the motorcycle on a firm and level surface using the side stand, or support it with a maintenance stand.
- Wait for the engine, muffler, brakes, and other high-temperature components to cool down before starting operations; otherwise, it may cause burns.
- Start the engine under specified conditions and ensure it is in a well-ventilated environment.



- Failure to perform regular maintenance before riding or to properly address faults may result in serious or fatal accidents.
- Please follow the inspection, maintenance recommendations, and maintenance interval table provided in the user manual.

Maintenance Safety

Please read the maintenance instructions before each maintenance to ensure you have the necessary tools, parts, and skills. We cannot alert you to every potential hazard that may occur during maintenance. Only you can determine whether maintenance or repair is necessary.

Maintenance Interval Table

Vehicles should be maintained within the specified time. To ensure safety, they can only be serviced by authorized service centers.

The meanings of the symbols in the table are as follows:

I: Inspect – Clean, adjust, lubricate, or replace if necessary R: Replace C: Clean L: Lubricate

Maintenance Interval		×1000km	5	10	15	20	25	30	※To ensure safety, this project can only be serviced by authorized maintenance personnel from the authorized service centers. Notes: 1. Cleaning should be conducted frequently when driving in dusty areas. 2. After 30,000 km or 72 months, repeat the maintenance intervals and items starting from 5,000 km or 12 months. 3. The maintenance interval is determined by the odometer display data, mileage and service life, whichever comes first. 4. When replacing the air filter element, the air intake duct must be thoroughly cleaned.
Items		Month	12	24	36	48	60	72	
※	Engine Oil		The first maintenance mileage is at 500km or 6 months, after which replacements should follow the regular service schedule.						
※	Oil Fine Filter		Replace at the same time when engine oil is replaced						
※	Fuel Filter		Replace every 24 months or 20,000 km.						
※	Coolant		Replace every 24 months or 20,000 km.						
※	Brake Fluid		Replace every 24 months or 20,000 km.						
※	Air Filter Element	Note 1	Replace every 12 months or 10,000 km.						
※	Spark Plug			I		I		R	
※	Valve Clearance		Every 40000 km I						
	Crankcase Vent Pipe		C	C	C	C	C	C	
	Secondary Air Supply System			I		I		I	
	Throttle Valve			I		I		I	
	Throttle Control System		I	I	I	I	I	I	
	Clutch System		I	I	I	I	I	I	
	Transmission Chain		I, L	I, L	R	I, L	I, L	R	
	Driving Sprocket		I	I	R	I	I	R	
	Driven Sprocket		I	I	R	I	I	R	
※	Electronic Fuel Injection (EFI) System		I	I	I	I	I	I	
	Cooling System		I	I	I	I	I	I	
	Brake System		I	I	I	I	I	I	
	Headlight Adjustment		I	I	I	I	I	I	
※	Fasteners		I	I	I	I	I	I	

Service Shop:

(Official Seal)

Service Personnel: _____

User Signature: _____

Date: _____

Critical Component Torque Periodic Inspection Checklist

S/N	Name of Fastening Component	Recommended Inspection Interval
1	Front and rear wheel axle tightening	Torque inspection is required during each maintenance cycle.
2	Upper/lower connecting plates fastened with front fork connecting bolts	
3	Upper triple clamp and steering stem tightening	
4	Handlebar lower clamp tightening	
5	Engine sprocket installation tightening	
6	Rear sprocket installation and tightening	
7	Engine mounting fastening	
8	Rear shock absorber fastening	
9	Swing arm axle fastening	
10	Front section of muffler fastened with engine connecting bolts	
11	Front and rear brake caliper tightening	
12	Rear brake pump tightening	
13	Shift lever and adjustment rod end bearing tightening	
14	Brake pedal and adjusting lever end bearing tightening	
15	Entire brake line tightening	When cleaning the fuel lines, perform maintenance according to the specified torque requirements.
16	Fuel rail tightening	
17	Fuel pump tightening	
18	Front and rear brake discs tightening	During each maintenance cycle inspection or replacement, perform maintenance according to the specified torque and sealing method.
19	ABS ring gear	
Note: For torque cycle inspection items not specified in this Instruction Manual, the torque standards shall be followed as per our company's "Maintenance Manual".		

Bearing Part Inspection Checklist

S/N	Name of Bearing Position	Recommended Inspection Interval	Recommended Maintenance Interval
1	Steering stem upper and lower tapered bearings	Every maintenance	10,000 km/year
2	Swing arm bearing	Every maintenance	10,000 km/year
3	Self-lubricating buffer bearing	Check for no shaking or stuck during each maintenance interval, disassemble and inspect in case of fault, and replace the bearing if necessary.	
4	Brake pedal bearing		
5	Gear shift lever end bearing		
6	Shift pedal bearing		
7	Front wheel bearing		
8	Rear wheel bearing		
Note: When inspecting the bearing area, the supporting oil seal, dustproof cover or bushing should also be inspected, maintained, or replaced as needed.			
When performing maintenance on the rear wheel bearings, apply bearing-specific anti-rust oil on the smooth portion of the rear wheel axle, and coat the contact surface between the rear wheel axle and the rear aluminum wheel, and the contact surface between the rear wheel axle and the right rear wheel axle bushing.			

Maintenance Guidelines

To ensure safety, you are responsible for performing a pre-ride inspection and making sure that any issues identified have been resolved. Pre-ride inspection is essential.

Inspection Item	Inspection Detail
Handlebar	Smooth and flexible rotation, free from play or looseness.
Brake system	Check its operating condition, and inspect the front and rear brake fluid levels and brake pad wear.
Fuel level	Sufficient fuel for the planned journey (refuel if necessary).
Accelerator	Check if it can open smoothly and close completely in all steering positions.
Clutch	Check its operating condition and adjust the free stroke if necessary.
Wheels/tires	Check its usage status and tire pressure, and inflate if necessary.
Drive chain	Inspect its usage condition and sag, and adjust and lubricate if necessary.
Lighting, horn	Check the lighting system and horn to ensure they are functioning correctly.
Engine oil level	Add engine oil as needed and check for leaks.
Instruction indicators	Check if all indicators on the instrument panel are functioning properly.

Tools

The onboard tools are embedded under seat cushion towards the back.

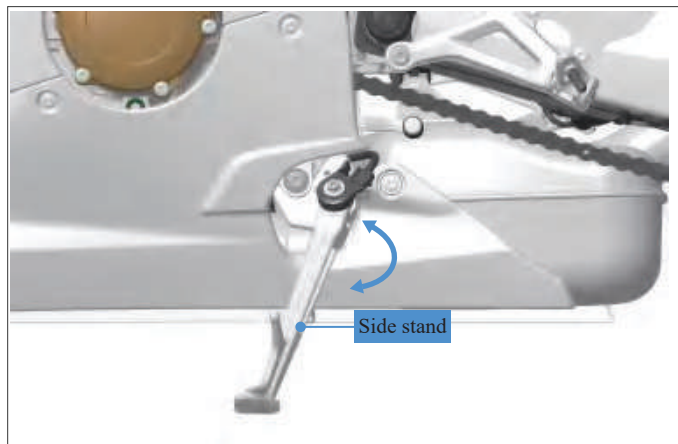
You can use the onboard tools to conduct some simple repairs, fine-tune, and replacement of parts.

Double-ended internal HX wrench T25×T30



Side Stand

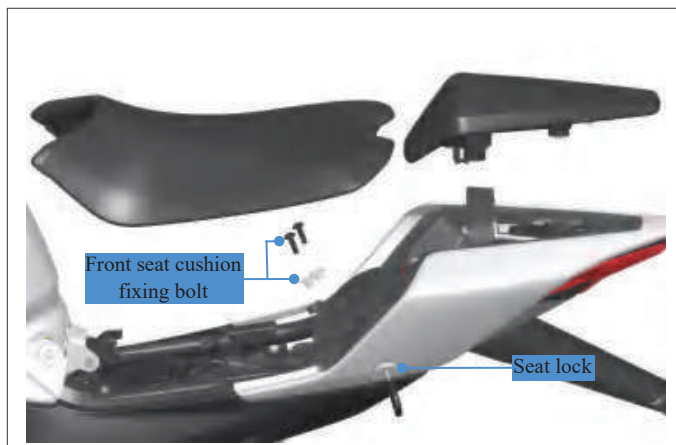
Check The Side Stand (Single-Sided Swingarm)



1. Check if the side stand operates smoothly. If the side stand is stuck or makes a squeaking noise, clean the pivot area and lubricate with clean grease.
2. Check the spring damages or inelasticity.

Seat Cushion

Seat Cushion Disassembly and Installation



Disassembly

1. Insert the mechanical key into the seat lock, turn the key clockwise. Slightly lift the front end of the rear seat upward to disengage it from the lock. Then pull it forward slightly to remove the entire rear seat assembly at the same time.

2. Use the on-board tools to remove bolt at the rear left and right of main seat cushion, then lift it up.

Installation

1. Insert the front pin of the front seat cushion assembly into the frame slot.
2. Align the rear end of the front seat cushion assembly with the rear hole positions and install the bolts.
3. Insert the rear pins of the rear seat cushion assembly into the frame slot respectively.
4. Align the seat lock pin with the lock hole, press the front part of the seat downward, insert the lock pin into the lock hole of the seat lock and lock it automatically by the lock tongue, and pull it up slightly to ensure that the seat is firmly locked in place.
5. When the seat cushion is closed, the seat cushion will automatically lock.

Notes

- Ensure the seat pin is securely inserted into the frame slot; otherwise, the seat may not support your weight and could be damaged.

Battery

Battery Inspection and Replacement

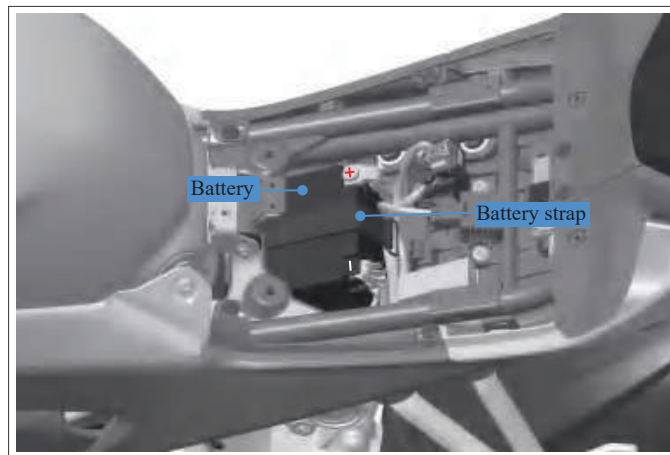
1. Before installing the battery, if the electrodes are found to be dirty, clean them thoroughly before installation; otherwise, poor contact may lead to malfunction.
2. If during use, the battery exhibits abnormal phenomena such as deformation, overheating, or smoking, stop using it immediately and have it inspected by an authorized service center.
3. If the battery is stored in a high-temperature or humid environment for a long time, it may malfunction or experience a shortened lifespan. Before reuse, ensure the battery's appearance and functionality are normal.
4. If the vehicle fails to power on, check whether the battery is functioning properly. If the battery is damaged, replace it immediately.
5. When installing the battery, ensure the battery terminal bolts are securely tightened.

If not used for an extended period, please note the following:

- To prevent over-discharge, the battery should be charged every two months.
- When the battery is not in use, it should be stored in a

cool, dry environment, and the positive and negative terminals should be protected from short-circuiting.

Battery Disassembly and Installation



■ Disassembly

Make sure the ignition switch is turned to the "⊗" (OFF) position.

1. Remove the main seat cushion.
2. Disconnect the negative (-) terminal of the battery.

3. Disconnect the positive (+) terminal of the battery.
4. Loosen the battery strap from the back.
5. Remove the battery, be careful not to leave the bolts and nuts.

Installation

Install the components in the reverse order of disassembly. Be sure to connect the positive (+) terminal first and the negative (-) terminal last. Ensure that the bolts and nuts are tightened (Torque: 3 N·m).

Notes

- Improper handling of batteries may harm the environment and human health. Please dispose of used batteries in accordance with local environmental regulations.
- The addition of electrical appliances may cause battery drain and even electrical system malfunction.
- To protect the vehicle's automotive electrical appliances, the negative battery cable must be disconnected 60 seconds after the ignition switch is closed.
- To protect the vehicle's automotive electrical appliances, when powering on for the first time

after a power-off, please let the vehicle sit for 30 seconds after power-on before starting the engine.

Battery Charging

Please charge the battery using a dedicated motorcycle battery charger. Remove the battery from the motorcycle before charging. If the battery still does not recover after charging, please contact the authorized service center.

Notes

- It is forbidden to use a car battery charger for charging, as this may cause damage to the battery.

Fuse

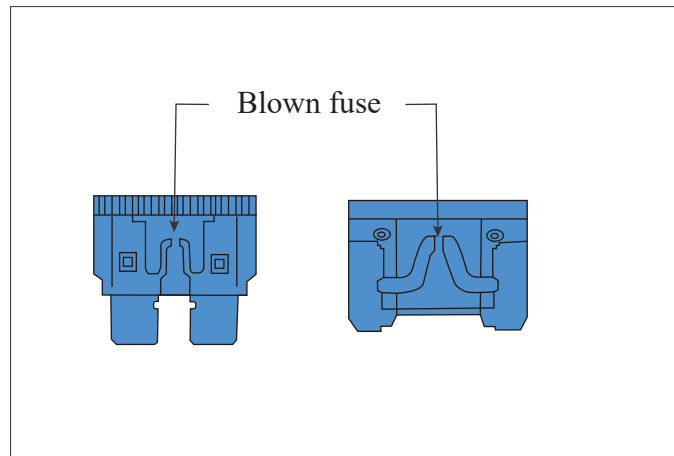
Fuses protect your motorcycle's electrical circuits. If any electrical components of your motorcycle stop functioning, inspect or replace the blown fuse.

Fuse Inspection

Turn the ignition switch to the "⊗" (OFF) position, then remove and inspect the fuse. If the fuse is blown, replace it with one of the same specifications. If the fuse is blown frequently, there may be hidden problems. Please have it inspected and repaired at an authorized service center.

Notes

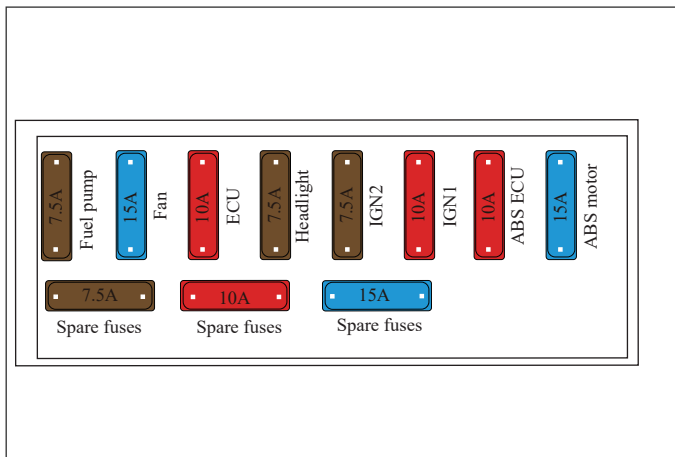
- Fuses must be replaced with ones of the same rating. Using a fuse with a higher rating increases the risk of damaging the electrical system and may pose a fire hazard.
- Installing electrical accessories not provided by our company can overload the electrical system, lead to battery discharge, even damage the system.



The fuse specifications are as follows:

-  Brown: 7.5A
-  Red: 10A
-  Blue: 15A
-  Green: 30A

Fuse Wire Replacement



1. Remove the main seat cushion.
2. Open the fuse box, remove the fuse, and check if the fuse is blown.
3. Close the fuse box and install the main seat cushion.

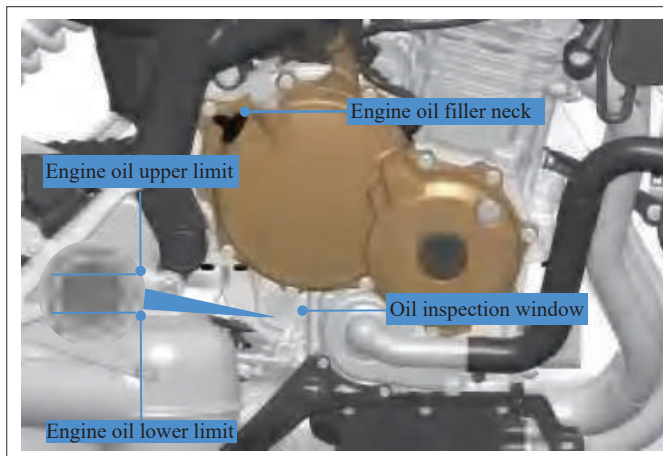
Engine Oil

Engine oil consumption and degradation vary depending on riding conditions and usage duration. The higher the engine speed, the faster the oil consumption rate. When operating at high speeds or high RPM for extended periods, shorten the oil change interval. Regularly check the engine oil level and add the recommended engine oil if necessary. When used in extreme temperatures, oil degrades more rapidly. Dirty or aged oil should be replaced promptly.

■ Choosing engine oil

For maintenance, please use API SN, SAE 10W-40.

Inspect and Top Up Engine Oil



■ Check the engine oil

1. Let the engine idle for 3 - 5 minutes, turn the ignition switch to the "❌" (OFF) position, and then wait for 2 - 3 minutes.
2. Place the motorcycle vertically upward on a stable and flat ground, remove the right windshield and check whether the oil level is between the upper and lower

limit mark from the engine oil inspection window.

Add the engine oil

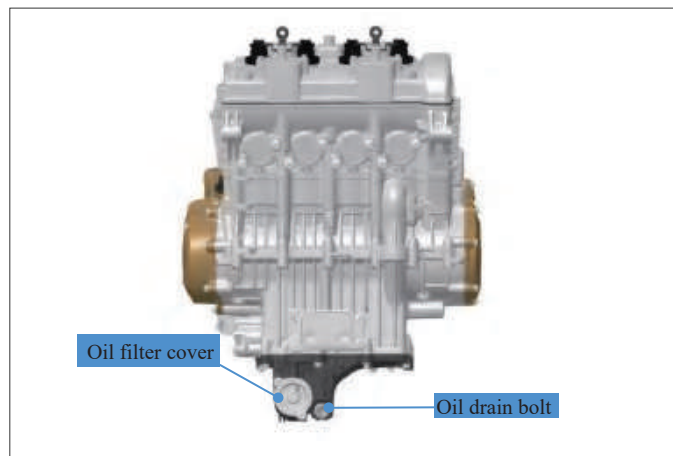
When the engine oil level is below or close to the lower limit mark, add the recommended engine oil.

1. Remove the engine oil filler cap, add the recommended oil to the upper mark of the oil level. Do not exceed the upper limit mark, and ensure that no foreign matters enter the engine oil filler. If there is any spillage, wipe it off immediately.
2. Reinstall and tighten the engine oil filler cap.

Notes

- Long-term skin contact with oil shall be avoided. Wash thoroughly after contact with oil.
- Overfilling or underfilling the oil will damage the engine. Do not mix oils of different brands and grades, as this will affect lubrication and clutch operation.
- The used engine oil and container are harmful to health and the environment. They cannot be disposed of as household waste and should be handled in accordance with local environmental regulations.

Engine Oil and Oil Filter Replacement



Engine oil and oil filter replacement

Special tools are required to replace the engine oil and oil filter, and we recommend having them replaced by an authorized service center. Please refer to the "Maintenance Interval Table" for the maintenance interval of engine oil and oil filter.

1. If the engine is cold, please idle for 3-5 minutes, turn the ignition switch to the "X" (OFF) position, and then wait for another 2-3 minutes.
2. Park the motorcycle on a stable ground and place an

oil drain pan beneath the drain bolt.

3. Remove the right windshield cover, engine oil filler neck, oil drain bolt, and seal ring, then drain the engine oil until it drips.

4. Remove the oil fine filter cap, take out the filter, and drain the remaining oil.

5. Check the O-ring seal on the engine oil fine filter cover for any damage or aging. Replace the seal ring with a new one if necessary.

6. Replace with a new oil fine filter. Apply grease to the sealing ring on the oil filter cover, then install the oil filter cover (Torque: $10 \pm 2 \text{ N}\cdot\text{m}$).

7. Install a new sealing washer on the oil drain bolt and tighten the oil drain bolt (Torque: $30 \pm 2 \text{ N}\cdot\text{m}$).

8. Add the recommended original engine oil into the crankshaft tank, and tighten the filter cap after filling.

When replacing the filter element, the required oil level: 2.8 L

When the filter element is not replaced, the required oil level: 2.6 L

When reassembling after disassembling the engine, the required oil level: 3 L

9. Check for engine oil leaks and install the right windshield cover.

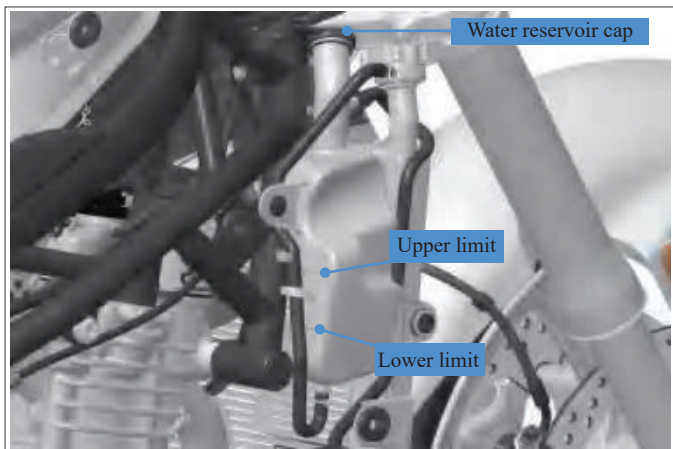
Notes

- Using the wrong engine oil and oil fine filter can damage the engine.
- Dispose of the engine oil and oil fine filter at the appropriate recycling center.
- Use the specified original engine oil and oil filter.

Coolant

Only use the original undiluted pre-mixed coolant, which offers superior protection against corrosion and overheating. Regularly check the coolant level and promptly add more if it falls below the lower limit mark. The coolant has a freezing point of -37°C and a boiling point of 120°C .

Check and Add Coolant



■ Inspect the coolant level

Check the coolant level in the reservoir when the engine is cool.

1. Park the motorcycle on a firm and flat ground.
2. Keep the motorcycle upright.
3. Check if the coolant level in the water reservoir is between the upper limit and lower limit marks.
4. If the coolant level drops significantly or the reservoir is empty, there may be a serious leak. Please have it inspected by an authorized service center.

Warning

- Do not open the radiator cap while the engine is still hot, as this may cause the coolant to spray out and potentially cause burns.



■ Add coolant

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

When adding coolant, make sure to open the radiator cap while the engine is cool to release pressure. Then open the reservoir cap on the other end to add coolant. During the process, ensure no foreign matters enter the openings of the radiator cap or the reservoir cap, and make sure not to exceed the upper limit level mark.

After the addition is complete, reinstall the radiator cap and the water reservoir cap.

Coolant model: RLFD-101

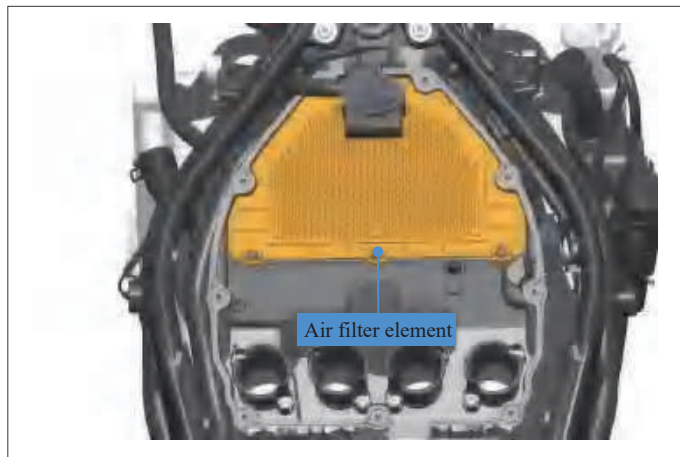
Coolant Replacement

Do not replace the coolant by yourself; it should be replaced by an authorized service center.

Notes

- Do not replace the coolant by yourself; it should be replaced by an authorized service center.

Air Filter



This motorcycle is equipped with a paper air filter element. Do not perform maintenance yourself. It should be cleaned or replaced by an authorized service center.

■ Disassembly

Remove the air filter after the vehicle is powered off. Park the motorcycle on a stable surface before removing the fuel tank.

Remove the air filter upper cover and take it out.

Remove the air filter element fixing bolts, then take out the air filter element.

Installation

Install the air filter after the vehicle has been powered off.

Check the air filter housing assembly for any foreign matter. (If any, it must be removed before installing the air filter element.)

The installation sequence is reversed from the removal sequence.

Brake

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

Only use brake fluid freshly removed from a sealed container if you have added brake fluid. Please have the brake system inspected by the authorized service center as soon as possible.

Notes

- Brake fluid can damage plastic and painted surfaces. If spilled, wipe it off immediately and rinse thoroughly with clean water.
- Brake fluid: DOT4.
- When bleeding the front brake master pump, avoid contact between brake fluid and components such as the handlebar switch and instrument cluster.
- If the brake fluid splashes into your eyes, mouth, or nose, or adheres to your skin, rinse immediately with clear water and seek medical advice if necessary

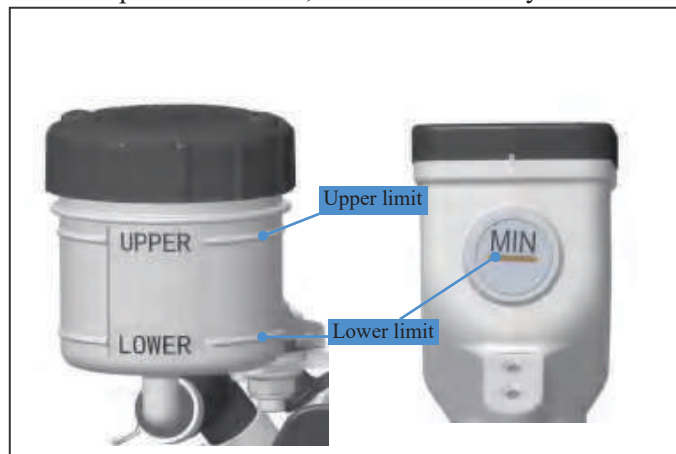
Brake Fluid Inspection

1. Place the motorcycle vertically on a firm and flat

ground

2. Check if the brake fluid reservoirs are horizontal.

3. Check if the brake fluid is visible in the inspection window. If the brake fluid level is below the lower limit of the inspection window, add it immediately.



If the brake fluid level in the reservoir is below the lower limit (marked as "LOWER" for the front brake fluid reservoir and "MIN" for the rear brake fluid reservoir) or if the free play of the brake rod and pedal exceeds the standard, the brake pads must be checked for wear. If the brake pads are not worn, there may be a leakage. Please

have it inspected and repaired by an authorized service center.

Notes

- When adding brake fluid, the fluid level must not exceed the top of the inspection window.

Brake Pad Inspection

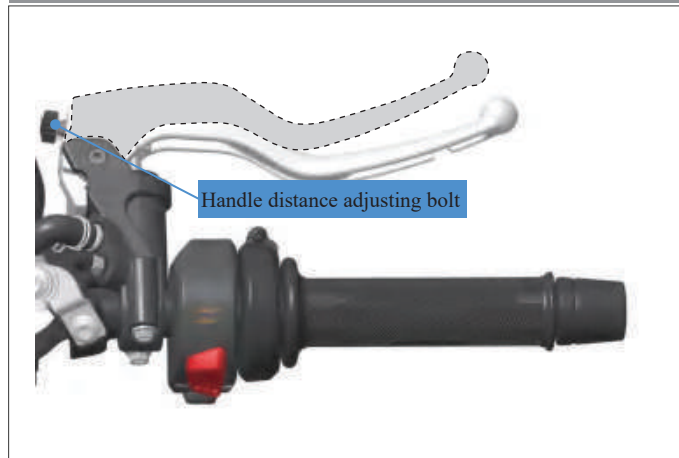
Inspect the condition of the brake pad wear indicator. If the brake pads wear down to their minimum thickness, they need to be replaced.



If necessary, have the brake pads replaced by an authorized service center (when the wear limit is reached, both the left and right brake pads must be replaced simultaneously).

Item Configuration	Front Tire		Rear Wheel	
	Brake pad standard thickness (mm)	Brake pad minimum thickness (mm)	Brake pad standard thickness (mm)	Brake pad minimum thickness (mm)
Single-Sided Swingarm	3.5	1	4	1

Brake Handle



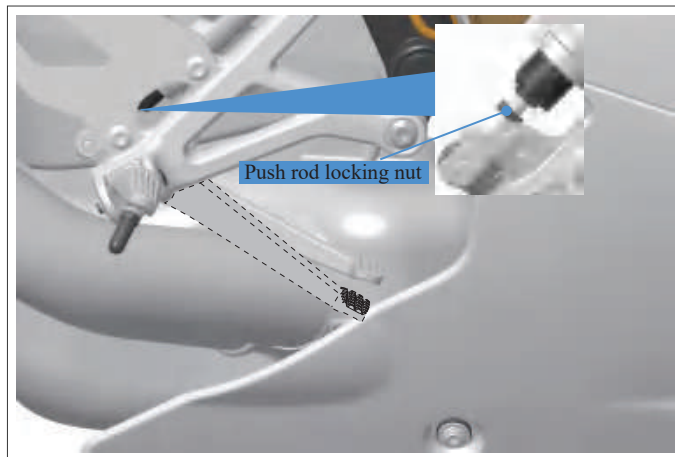
■ Adjust the brake handle

You can adjust the distance between the top of the hand brake lever and it.

■ Adjustment method

Pull the hand brake lever outward, then rotate the adjuster clockwise to move the handlebar away from the hand brake lever. After turning counterclockwise, the hand brake lever is close to the handlebar. After adjustment, check whether the brake handle works as general before riding.

Brake Pedal



■ Brake pedal adjustment

You can adjust the height of the brake pedal to suit your preference.

■ Adjustment method

Adjusting the rear brake pedal height requires special tools and relevant mechanical expertise. We recommend having it adjusted by an authorized service center.

1. Put the transmission into neutral and turn off the

engine.

2. Place the motorcycle vertically on a stable and flat surface, ensuring that the rear wheel is off the ground.

3. Loosen the locking nut on the rear brake master pump push rod, gently press the brake pedal by hand, and rotate the rear brake pump push rod (rotate the push rod clockwise to lower the brake pedal; turn it counterclockwise to raise the brake pedal). After adjustment, tighten the locking nut on the brake master pump push rod (torque: 5 N·m), and check that the brake pedal operates properly before riding.

Accelerator

Throttle Inspection

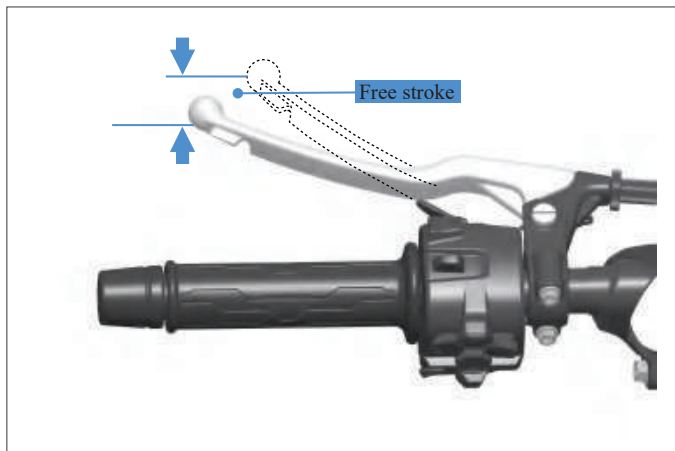


With the engine off, check if the throttle can smoothly transition from fully closed to fully open in all handlebar positions and if the free play is correct. If the accelerator operation is not smooth, automatically closes or cable is damaged, please have it inspected and repaired at an authorized service center.

Clutch

Clutch Free Play

Clutch handlebar free play: 10-12 mm.



Check the clutch cable for any bending or damage. If necessary, have it replaced by an authorized service center.

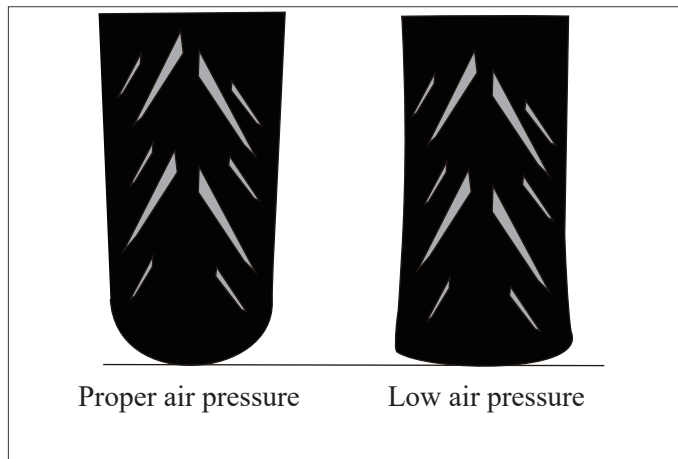
Lubricate the clutch cable with a dedicated cable lubricant to prevent premature wear and corrosion.

Notes

- Incorrect adjustment of the free stroke can lead to premature wear of the clutch.

Tire

Tire (Inspection/Replacement)



Tire specifications

Front tire: 120/70 ZR17

Rear tire: 180/55 ZR17

Abnormal wear check

Inspect the tire's contact surface for any signs of abnormal wear.

■ Inspect the tread depth

Check the tread wear indicator marks; if the wear reaches the indicators, replace the tire immediately.

■ Check the tire pressure

When you feel the tire pressure is low, measure it with a pressure gauge. Check the tire pressure when the tires are cool, and do this at least once a month. Ensure the valve core cap is securely tightened; replace it with a new one if necessary.

The standard tire pressure is:

Front tire: 230 kPa; Rear tire: 250 kPa

Notes

- The specified tire pressure values refer to the cold tire state—that is, after the motorcycle has been parked for at least three hours or ridden for no more than 2 kilometers. After driving, tire pressure will naturally increase as the tire temp rises. This is a normal phenomenon.
- When inflating or deflating a tire, sensor data is not refreshed in real time and may be subject to delay. Be

sure to use an independent mechanical equipment or digital tire pressure gauge for measurement and calibration to avoid overinflation or underinflation.

- If parked for more than 10 minutes, the tire pressure monitoring system enters power-saving mode. To receive tire pressure data, you must ride again at a vehicle speed greater than 7 km/h for about 3 minutes. Therefore, the tire pressure monitoring system is only an auxiliary tool and does not relieve you of your responsibility to inspect your vehicle before every ride. Before every trip, be sure to visually inspect the condition of your tires and check their pressure regularly with a tire pressure gauge.

Check the damage

Inspect the tires for cuts, cracks, exposed fabric, tire cords, nails, or other foreign matters embedded in the sidewall tread, and also check for any abnormal bulges or swelling on the tire sidewall.

Tire care

When the ambient outdoor temperature is below 0°C, it is recommended to park the vehicle indoors if it will be left for an extended period.

When parking for extended periods in winter, avoid using the side stand; instead, use the kickstand to park,

so the tires are not bearing the weight of the wheel.

When parking in winter, avoid leaving your tires in ice or snow for extended periods.

When parking outdoors for extended periods during winter, it is recommended to place something under the tires.

Use insulating materials such as twigs, scrap paper, or sand to provide warmth.

It is recommended that tires be stored at a temperature above 0°C.



- Before changing tires, it is recommended to place hypersport tires in an ambient temperature no lower than 0°C, and slick tires in an ambient temperature no lower than 10°C, for at least 24 hours.
- Rubber materials exhibit good elasticity and toughness at room temperature. As the ambient temperature decreases, at a specific temperature, rubber transitions from a highly elastic state to a glassy state; the rubber molecules freeze and lose their elasticity. This temperature is known as the glass transition temperature.

- Although tire rubber can enter a glassy state, this phenomenon is reversible. In other words, a tire in a glassy state-provided it has not sustained any physical damage or cuts-can regain its elasticity and be used normally by raising its temperature to the recommended tire change temperature.
- Hypersport and slick tires are primarily designed for superior grip and handling. Their tread compound formulations incorporate special synthetic rubbers, which have a glass transition temperature 20°C to 40°C higher than that of ordinary rubber, making them more prone to entering a glassy state.
- Rubber becomes brittle in its glassy state; if a tire is subjected to even a slight impact or blow at this stage, its molecular chains will break. Visually, the tire surface exhibits dendritic cracks.
- This situation is the result of improper tire maintenance or storage and is not a quality issue; therefore, it is not covered by the warranty.

Whenever replacing tires, follow these guidelines:

- Use the recommended tires or equivalent products with the same size, structure, speed rating, and load

capacity.

- After installing the tires, use our original motorcycle wheel balancer or equivalent equipment to balance and align the wheels.
- This motorcycle rim is designed for use with inner tubeless tires. Do not install inner tube in tire yourself. After the tire is installed, it will rub against rim during rapid acceleration or braking, and the excessive heat will cause Inner tube to burst.

 Warning

- Using excessively worn or improperly inflated tires can lead to accidents, resulting in serious injuries or fatalities. Please follow the relevant tire inflation and maintenance guidelines provided in the Instruction Manual.
- Installing unsuitable tires can impair handling and stability, potentially causing accidents and even endangering lives.
- Always use the tire size and type recommended in this Instruction Manual.

Drive Chain

The drive chain must be regularly inspected and lubricated. If frequently ridden on poor road surfaces, at high speeds, or with repeated rapid acceleration, the chain should be checked frequently.

If the drive chain does not operate smoothly, produces unusual noises, has damaged rollers or loose pins, or missing or bent seals, have the chain inspected by an authorized service center.

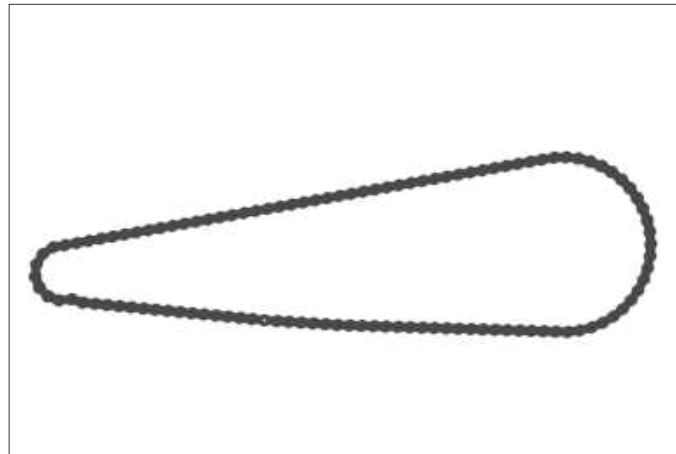
Check the driving sprocket and driven sprocket at the same time. If either one shows signs of wear or has damaged teeth, please have it replaced at an authorized service center.

Clean Drive Chain

After checking the sag, clean the chain and sprockets while rotating the rear wheel using a dry cloth, a chain cleaner for sealed chains, or a neutral detergent. If the chain is dirty, use a tooth brush. After cleaning, dry it and lubricate with the recommended chain oil.

Avoid using steam cleaners, high-pressure cleaners, wire brushes, volatile solvents like gasoline and benzene, scrubbing agents, chain cleaners, and lubricants that are not specifically designed for oil-sealed chains, as they may damage the chain oil seals.

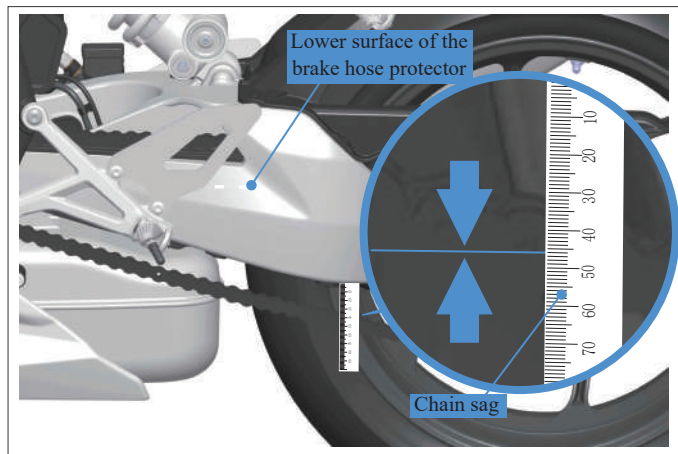
Avoid getting lubricant on the brakes or tires, and refrain from using excessive lubricant to prevent it from splashing onto clothing or the motorcycle.



Notes

- Using a new drive chain on worn sprockets will accelerate chain wear; both the drive chain and sprockets should be replaced simultaneously.
- Recommended lubricant: Special lubricating oil for oil seal chains.

Drive Chain Slack Inspection



Check the sag at various points along the chain. If all the sags are inconsistent, some links may be bent or kinked. Please have the chain inspected by the authorized service center.

1. Put the transmission into neutral and turn off the engine.
2. Place the motorcycle vertically on a firm and flat ground.
3. On the lower surface of the brake hose guard plate (as shown in the figure above), press the chain downward

and measure the center of the chain pivot pin to ensure the chain's vertical clearance.

4. Rotate the rear wheel forward and check if the chain operates smoothly.

5. Check the chain.

6. Clean and lubricate the drive chain.

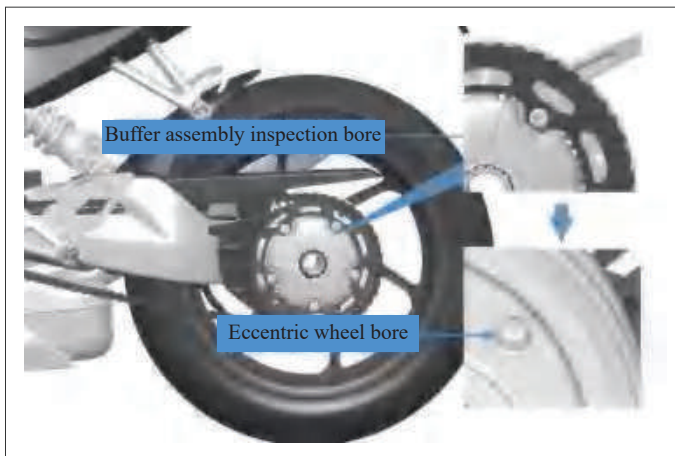
Drive chain sag: 46-51 mm

If the sag exceeds 51mm, you cannot continue to ride the motorcycle.

Notes

- When checking the drive chain sag, the steel ruler must be placed flush against the lower surface of the brake hose protector.
- When checking the drive chain sag, press the chain to measure the center of the pivot pin.

Drive Chain Sag Adjustment



When adjusting the sag of the drive chain:

1. Put the transmission into neutral and turn off the engine.
2. Place the motorcycle vertically on a firm and flat ground.
3. Loosen the lock bolt of the eccentric wheel on the rear swing arm (at the swing arm slot).
4. Loosen the bracket bolt of the rear brake caliper (at the bracket slot).

5. Use a special tool to insert into the adjustment bore of the eccentric wheel through the inspection bore of the rear wheel buffer assembly. Then, slightly rotate the eccentric wheel forward and backward (rotating it forward reduces the chain sag, while rotating it backward increases the chain sag) to adjust the chain sag. The chain sag adjustment range is 46-51 mm.

6. Push the chain in the direction of the plate fork at the middle of the upper part of the rear plate fork, to determine the reasonable sag of the chain.

7. Tighten the rear wheel eccentric wheel locking bolt (at the swingarm slot) (Torque: 48 ± 2 N·m).

8. Tighten the rear brake caliper bracket bolts (at the bracket slot) (Torque: 13 ± 1 N·m, with sealant applied).

Notes

- When adjusting the drive chain sag, ensure that the upper section of the chain is tightened.

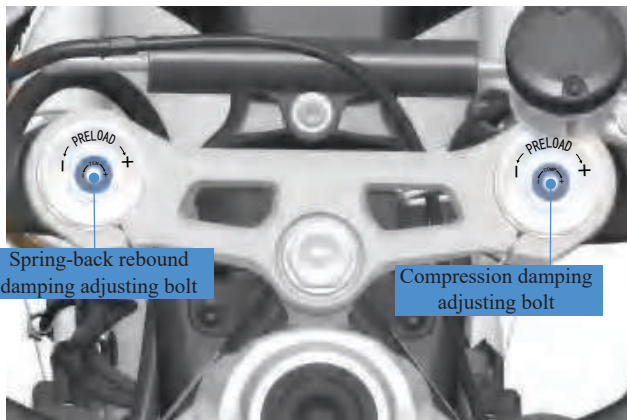
Front Fork

Compression Damping Adjustment

The adjustment of the compression damping affects the speed at which the front fork compresses. The front fork's compression damping is located on the right side of the fork and is marked with (COMP). Adjust the slotted part of the stud center.

Compression damping. Single swingarm: 16 ± 2 clicks, Double swingarm:

22 ± 2 clicks. Rotating the bolt clockwise increases compression damping, while rotating it counterclockwise decreases compression damping.



Spring-back rebound damping adjusting bolt

Compression damping adjusting bolt

Set standard compression damping

1. Clockwise rotate the compression damping adjuster until it cannot be rotated.
2. Rotate the compression damping adjuster counterclockwise. The standard rebound damping adjustment setting is counterclockwise from the maximum position. Single-sided swingarm: 10 clicks. Double swingarm: 8 clicks (at the click sound position). You can adjust it according to your weight and riding conditions, ensuring the adjusting bolt stops at the clicking position each time.

Notes

- Do not rotate the adjustment bolt beyond the specified position, as it may damage the adjustment mechanism.

Rebound Damping Adjustment

The adjustment of rebound damping will affect the rebound speed of the front fork. The rebound damping of the front fork is marked (TEN) on the left side of the front fork. Adjust the slotted part of the stud center. Rebound damping. Single-sided Swingarm: 16 ± 2 clicks;

Double-sided Swingarm: 22 ± 2 clicks. Rotating the bolt clockwise (H) increases rebound damping, while rotating it counterclockwise (S) reduces rebound damping.

■ Set the standard rebound damping

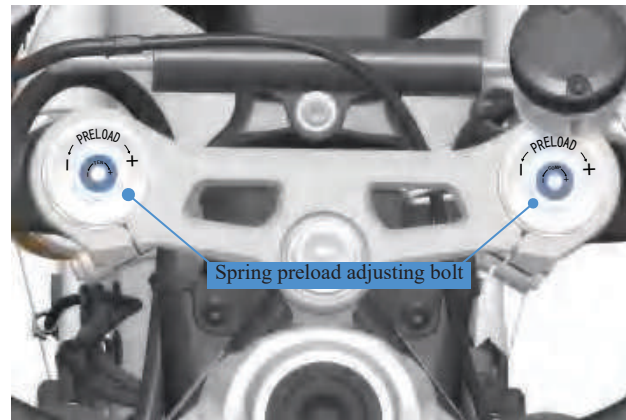
1. Clockwise rotate the spring-back rebound damping adjuster until it cannot be rotated.
2. Rotating the spring-back rebound damping adjuster counterclockwise. The standard rebound damping is adjusted counterclockwise from the maximum position. Single-sided swingarm: 10 clicks. Double swingarm: 8 clicks (at the click sound position).

You can adjust it according to your weight and riding conditions, ensuring the adjusting bolt stops at the clicking position each time.

Notes

- Do not rotate the adjustment bolt beyond the specified position, as it may damage the adjustment mechanism.
- By turning the adjuster clockwise, both compression damping and rebound damping can be increased.

Spring Pre-Compression Adjustment



Spring preload adjustment affects the force required to compress the spring. The higher the preload, the greater the force needed to compress the spring the same distance. The lower the preload, the less force is required to compress the spring the same distance. Adjust the hexagonal part of the front fork.

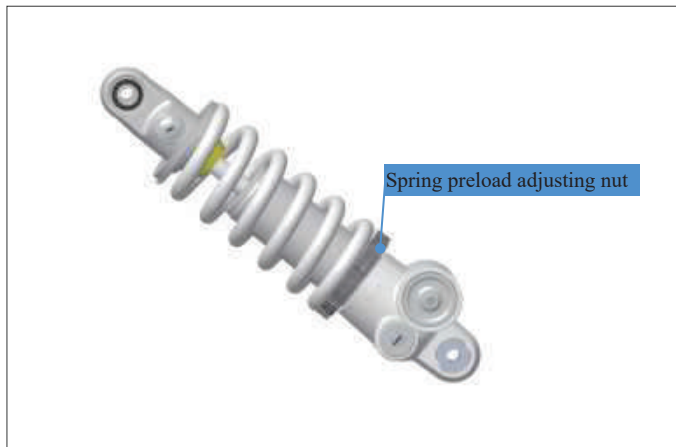
Rotate the preload adjusting bolt clockwise to increase spring preload, and rotate it counterclockwise to decrease spring preload.

Each turn of the spring preload adjustment increases or decreases by 0.6 mm, with a maximum adjustment range of 18.5 mm. Do not force the adjustment.

Rear Shock Absorber

The rear shock absorber assembly includes a shock airbag containing high-pressure nitrogen. Do not attempt to disassemble, repair, or dispose of the device. Piercing or exposing it to flames may cause an explosion, resulting in serious injury. Repairs or servicing should be handled by an authorized service center.

Spring Preload Adjustment



Adjustment method:

1. Securely support your motorcycle with a maintenance bracket or a crane and lift the rear wheels off the ground.
2. Check whether the rear wheel spring preload is in the standard length.
3. Loosen the shock absorber spring locking nut; each turn of the adjusting nut will change the spring length.
4. Make corresponding adjustments as needed.
5. After the adjustment is completed, hold the adjusting nut and tighten the shock absorber spring lock nut (Torque: 40N·m).

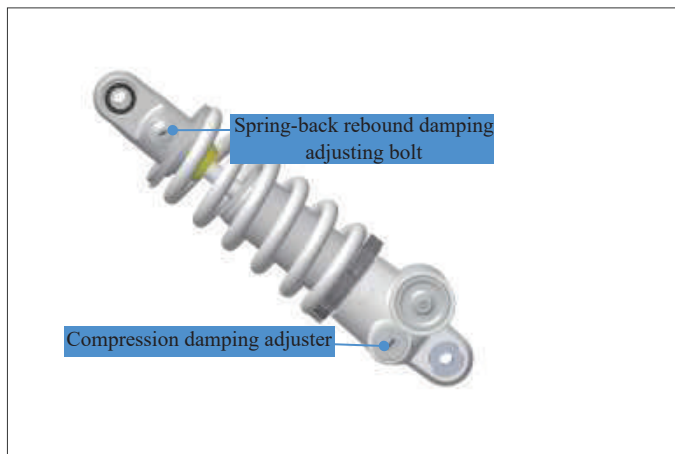
Increase spring preload:

Use a special tool to loosen the shock absorber spring locking nut, rotating the adjusting nut to shorten the spring length, which should not be less than 5 mm at minimum.

Reduce spring preload:

Use a special tool to loosen the shock absorber spring locking nut, rotating the adjusting nut to increase the spring length, which should not exceed 5mm at maximum.

Each turn of the adjusting nut will change the spring length and spring preload.

Compression Damping Adjustment

The compression damping adjuster is located at the lower end of the rear shock absorber. There are 16 clicks of compression damping. Adjusting clockwise (H) increases the compression damping, while adjusting counterclockwise (S) reduces it.

Set standard compression damping:

1. Rotate the adjuster clockwise (H) until it cannot be rotated.
2. Rotate the adjusting bolt counterclockwise (S) in 8 clicks from the hardest position to adjust the standard compression damping.

Rebound Damping Adjustment

The spring-back rebound damping adjuster is located at the upper left end of the rear shock absorber, with 20 ± 2 clicks of rebound damping. Rotating the adjusting bolt clockwise (H) increases rebound damping (hard); rotating it counterclockwise (S) reduces rebound damping (soft).

Set the standard rebound damping:

1. Rotate the adjuster clockwise (H) until it cannot be rotated.
2. Rotate the adjusting bolt counterclockwise (S) to adjust the standard rebound damping from the hardest position. Single-sided swingarm: 7-click adjusting bolt. Double swingarm: 7-click adjusting bolt.

Notes

- Gently rotate the adjusting bolt to prevent damage to the shock absorber.
- When adjusting compression damping or rebound damping, always use a properly sized tool to avoid damaging the device.
- Make sure that the adjusting bolt is firmly in the fixed

position during each adjustment.

Shock Absorber Inspection

Check and clean all parts of the shock absorber regularly to ensure optimum performance:

1. Check that the fork trim and dust seal are clean and that there is no soil or dirt on the front fork.
2. Check for oil stains under the spring strut dust seal. If there are signs of oil leakage, replace the damaged dust seal and oil seal.
3. Pinch the hand brake lever and press the handlebar back and forth several times to check whether the front fork rebounds smoothly.
4. Press the seat cushion several times to check whether the rear shock absorber works smoothly.

Steering Damper

Steering Damper Adjustment

The motorcycle is equipped with a steering damper, which effectively stabilizes the handlebars. You are not needed to feel the damping; it's already working, starting conservatively and gradually adjusting to your individual requirements. Directional damping has 24 ± 2 clicks.



The damping of the directional damper increases when the "+" direction adjustment knob is rotated. Adjusting in the "-" direction reduces damping, resulting in a softer feel.

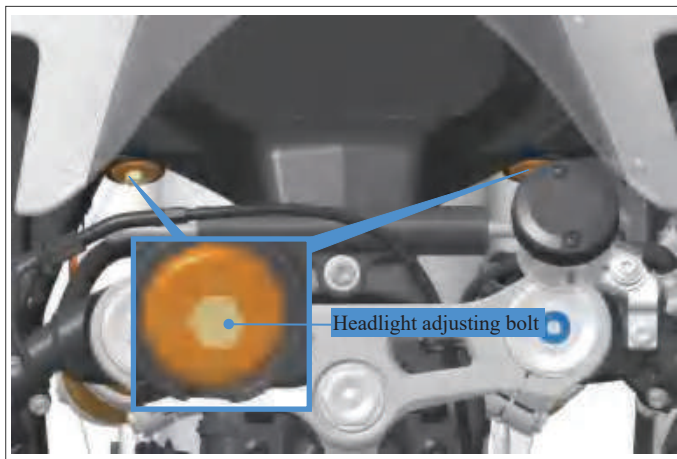
You will feel a "click" as you turn the knob. The adjustment knob clicks 6 times per full turn. Rotate the knob's starting position 14 clicks back off from the full "+" direction. We recommend starting here and riding for a while before conducting adjustments. When rotated to the end point in the "+" direction, this position indicates the maximum damping value. Please avoid adjusting the damping to this setting during your initial ride. Once you're accustomed to your directional damper, try adjusting it one bar at a time until you find your preferred setting.

Warning

- Please check the settings before each ride.

Headlight

Adjust The Headlight Beam



You can adjust the angle of the headlight beam by rotating the adjusting bolt, 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.

Fault Handling

Please carefully read the "Maintenance" and "Maintenance Guidelines" sections before maintenance. Refer to "Technical Parameters" for maintenance data.

The Engine Fails To Start.....	89
The Warning Indicator Is On Or Flashing ..	
.....	91
Puncture	93
Removing The Wheel	94

The Engine Fails To Start

The Starter Motor Runs, But The Engine Fails To Start

Inspect the following items:

- Verify that the correct engine start sequence is being conducted.
- Check if there is fuel in the tank.
- Check if the battery voltage is too low.
- Check if side stand retracted.

The Starter Motor Is Not Functioning

Inspect the following items:

- Verify that the engine start sequence is correct.
- Make sure that the engine switch is in the ON position.
- Check whether the battery voltage is too low, the fuse is blown, or the battery connection is loose. If the problem persists, please have it inspected by an authorized service center.

Notes

- Continuing to ride with an overheated engine can

cause serious engine damage.

- Running the engine at high speed for an extended period may trigger a high coolant temperature alarm.

Overheating (Water Temperature Warning Indicator On)

If the engine gets overheating caused by the water temperature warning indicator on and slow acceleration, push motorcycle to a safe roadside and take the following measures:

1. Extinguish the engine with the ignition switch, then rotate it to the "○" (ON) position.
2. Check if radiator fan runs normally, then rotate the ignition switch to the "⊗" (OFF) position.

If the fan is not running: Do not start the engine and take your motorcycle to an authorized service center for inspection and repair.

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

If there is a leak: Do not start the engine and take your motorcycle to an authorized service center for inspection and repair.

4. Check the coolant in the water reservoir and add if necessary.
5. If all checks from items 1 to 4 are normal, you may continue riding, but please keep a close attention on the indicators.

The Warning Indicator is On or Flashing

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 the 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 an authorized service center.
5. If the engine oil drops quickly, your motorcycle may leak oil or have other serious problems, please send it to an authorized service center for inspection and repair.

Notes

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

Engine Fault Indicator

If the EFI fault indicator comes on while riding, there may be a serious problem with your electronic fuel injection system. Please slow down and have it inspected by an authorized service center as soon as possible.

ABS Fault Indicator (Anti-lock Braking System)

If the ABS fault indicator shows any of the following conditions, it indicates a fault in your ABS, and emergency braking will not provide anti-lock function. Please have it inspected by a authorized service center as soon as possible.

- The ABS fault indicator flashes or remains illuminated when riding.
- When Ignition is rotated from "⊗" (OFF) to "○" (ON), the indicator does not illuminate.
- When the speed is above 5 km/h, the indicator does not extinguish.

The ABS fault indicator may flash or stay on under the following conditions:

- Rotating the front wheel alone.
- Rotating the rear wheel alone.
- The rear wheel gets slippery.
- Riding on special road surfaces.

You can turn the ignition switch to the "❌"(OFF) position, then press it to the "○"(ON) position to reset the system by powering it on again.

Puncture

Repairing a flat tire or removing a wheel requires special tools and professional skills. We recommend leaving such maintenance tasks to an authorized service center. If you have performed an emergency tire repair, please have it inspected or replaced at an authorized service center.

Perform emergency repairs using a tire repair kit

If your tire has a minor puncture, you can use an inner tubeless tire repair kit to perform emergency repairs. Follow the instructions provided by the tire emergency repair kit. Riding a motorcycle with a temporarily repaired tire is very dangerous, and the speed should not exceed 50 kilometers per hour. Please hand it over to the authorized service center for tire replacement as soon as possible.

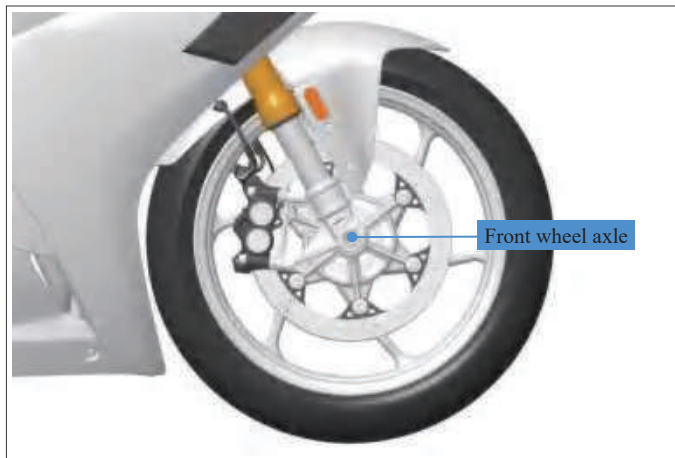
Warning

- Riding a motorcycle with a temporarily patched tire is hazardous. If the patch fails, it could lead to an accident, causing severe injuries or fatalities.
- If you must ride a motorcycle with a temporarily repaired tire, ride cautiously and slowly, not exceeding 50 km/h, until the tire is replaced.

Removing the Wheel

Front Wheel

If you need to remove the wheel to repair a punctured tire, follow the steps below. Be careful not to damage the wheel speed sensor and ABS ring gear when removing and installing the wheel.



Disassembly

1. Power off the motorcycle, support your motorcycle with a maintenance bracket or a crane and lift the front wheels off the ground.
2. Remove the left and right brake calipers.
 - Support the brake caliper assembly well and do not hang it on the brake hose. Do not twist the brake hose.
 - Avoid getting lubricating oil, engine oil or dirt on the brake disc or brake pad.
 - When the brake caliper is removed, do not pull the brake handle.
 - Be careful to prevent the brake caliper from scratching the wheel during removal.
3. Loosen the wheel axle locking bolt and front wheel axle.
4. Remove the front wheel axle and front wheel.

Installation

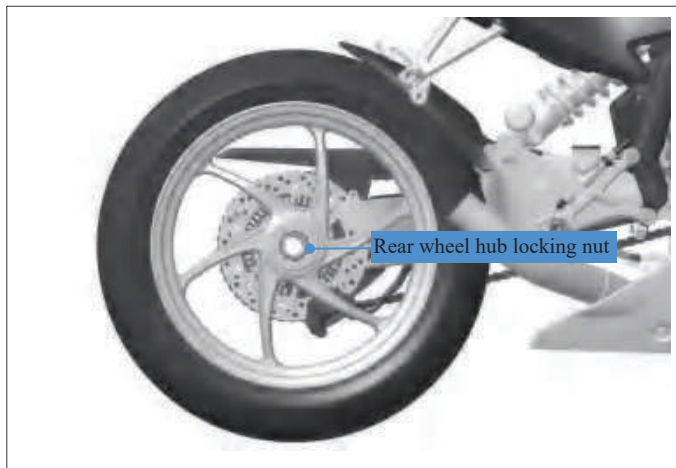
1. Place the front wheel between the front fork, insert bushing into the mounting bore of the front wheel, and brake discs into caliper.
2. Insert the front wheel axle through the front wheel from right to left, then tighten the front wheel axle M16 (Torque: $72 \pm 3 \text{ N}\cdot\text{m}$). Shake the front fork up and down several times and operate the hand brake lever several times. Finally, install the two right-side front wheel axle locking bolt M8 (Torque: $25 \pm 2 \text{ N}\cdot\text{m}$).
3. Install the brake caliper and tighten the bolt (Torque: $45 \pm 2 \text{ N}\cdot\text{m}$, with sealant applied). Prevent the brake caliper from scratching the wheel during installation. Please use a new assembly bolt when installing the brake caliper.
4. Place the front wheel on the ground.
5. Lift the front wheel off the ground again, and after releasing the brake lever, check if the wheel turns smoothly.

If a torque wrench was not used during the installation process, please take it to an authorized service center as soon as possible. Improper installation may result in reduced braking performance.

Notes

- When reinstalling the wheel and caliper, carefully position the brake disc between the brake pads to prevent scratching them.
- When installing the front wheel, first tighten the front axle, then secure the lock bolt on the right side of the front axle. The order of these steps cannot be reversed.

Rear Wheel



■ Disassembly

1. Power off the motorcycle, support your motorcycle with a maintenance bracket or a crane and lift the rear wheels off the ground.
2. Remove the rear muffler assembly.
3. Remove the wire clip on the right side of the rear wheel.
4. Shift into low gear, apply the rear brake, and loosen the rear wheel locking nut.

5. Remove the rear wheel.

■ Installation

1. Coat grease on the contact surface between the rear wheel axle and the rear aluminum wheel, and on the contact surface between the rear wheel axle and the right rear wheel axle bushing.
2. Install the rear wheel in reverse order.
3. Tighten the rear wheel hub locking nut (Torque: 185 ± 5 N·m).
4. Install the rear muffler assembly (Bolt torque for rear muffler assembly bracket : 25 ± 2 N·m).
5. Check if the wheel rotates smooth.

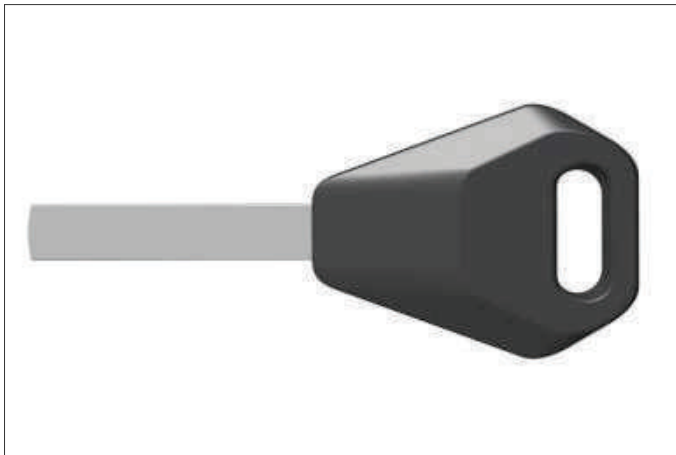
If a torque wrench was not used during the installation process, please take it to an authorized service center as soon as possible. Improper installation may result in reduced braking performance.

Relevant Information

Key.....	98	Number and Nameplate	106
Instrument, Controls and Other Functions..	99		
Motorcycle Care.....	100		
Motorcycle Parking.....	103		
Motorcycle Transport.....	104		
You and Your Environment.....	104		
Select Appropriate Detergent	104		
Waste Recycling.....	104		
Catalytic Converter	105		
Vehicle Identification Number, Engine			

Key

Ignition Key



The motorcycle has two ignition keys. The ignition keys are used to start the engine, open the seat cushion, and open the fuel tank.

- Do not bend the key or subject it to excessive pressure.
- Avoid prolonged exposure to direct sunlight or high-temperature environments.
- Do not grind, bore, or alter its shape in any way.

Notes

- To prevent loss, please keep your key safe. If you are concerned about losing it, make a duplicate immediately.

Instrument, Controls and Other Functions

Ignition Switch, Engine OFF Switch

■ Ignition switch

1. When parked, please set the ignition switch to the "❌" or "🔒" position to avoid unnecessary battery drain. Excessive battery drain may prevent starting.
2. During riding, it is forbidden to operate the ignition switch.

■ Engine OFF switch

Do not use the engine OFF switch unless in an emergency. Doing so while riding will cause the engine to stop suddenly, making the ride unsafe.

Odometer, Trip Meter (Trip A/B)

■ Odometer

When the reading exceeds 999,999, the display will lock at 999,999.

■ Trip meter

When the reading on the sub-odometer exceeds 999.9, it automatically resets to zero.

Motorcycle Care

Regular cleaning and polishing ensure a long motorcycle lifespan. A clean motorcycle makes it easier to spot potential faults. It is particularly noteworthy that anti-icing seawater and saline water scattered on the road can accelerate corrosion. Be sure to clean the motorcycle thoroughly after driving on the coastal or above-mentioned road.

Warning

- After washing the motorcycle, riding through water, or in rainy conditions, the brake discs and pads may become wet, reducing braking performance. Apply the brakes intermittently at low speeds by gently pressing the brake pedal or lightly squeezing the hand brake lever, using the heat generated by brake friction to dry off the water.

Notes

- Hot water can intensify the salting effect; only cold water should be used to clean salt sediment.

Cleaning

Ensure the USB dustproof cover is securely fastened. Wait for the engine, muffler, brakes and other high-temperature components to cool before cleaning. Thoroughly rinse the motorcycle with a low-pressure hose to remove loose dirt. If necessary, use a sponge or soft towel dipped in mild detergent to remove dust and dirt.

Notes

- Continuing to ride with an overheated engine can cause serious engine damage.
- Running the engine at high speed for an extended period may trigger a high coolant temperature alarm. Do not use cleaning agents such as nitro thinners, cold-state cleaners, or fuel.
- Do not use cleaning agents that contain strong acids or strong alkalis.
- Do not use cleaning agents containing alcohol, solvents, or abrasives.
- Do not use abrasive or overly hard sponges.
- Follow the dilution ratio specified on the cleaning agent's packaging.

- Do not use high-pressure cleaning equipment or steam cleaning equipment to clean your motorcycle. High-pressure cleaning equipment or steam cleaning equipment can damage moving parts, seal rings, hydraulic braking systems, and electrical components.
- Do not use high-pressure cleaning equipment to clean the engine intake port; water may be drawn into the air filter and the engine, damaging the air filter element and the engine.
- Avoid direct water rinsing of the muffler. Water in the muffler may cause starting problems and rust. If detected, remove all traces and dirt immediately.
- Avoid direct water contact beneath the fuel tank and seat cushion. Water entering under the fuel tank seat cushion may damage electrical appliance parts.
- Do not spray water directly onto the headlight, instrument panel, handlebar switches, or around the USB charging port. After cleaning or while riding in the rain, the internal lens of the headlight may temporarily fog up, which does not affect its functionality. However, if you notice significant water accumulation or ice forming inside the lens, please have it inspected at an authorized service center.
- To extend the service life of the switch and USB charging port, it is recommended that you blow dry any

accumulated water inside them after washing the motorcycle or on rainy days to prevent electrical corrosion.

Cleaning Precautions

After drying the motorcycle, lubricate the moving parts, ensuring that no lubricant splashes onto the brakes or tires. Oil-contaminated brake discs and brake pads can significantly reduce braking performance and may lead to accidents.

After washing and drying the motorcycle, lubricate the drive chain promptly. Do not wax the tires or brakes. If your motorcycle has parts with a matte finish, avoid waxing these matte surfaces.

Aluminum Components

Aluminum can corrode after contact with dirt, mud, or salt; clean aluminum components regularly.

Notes

- Avoid using stiff brushes, steel wool, or any abrasive cleaning materials.
- Do not drive or scrape against the curb.
- Do not use cleaning agents that contain strong acids or strong alkalis.

Panel

Follow these guidelines to prevent scratches and damage:

Clean the windshield and lamp covers with water and plastic conditioner.

Clean the instrument with warm water and cleaning solution. Then dry it with a clean, soft rag.

Gently clean with a soft sponge and sufficient water.

Use the damp cloth soaking method to remove stubborn stains and insect stains.

Notes

- Do not use cleaning agents such as nitro thinners, cold-state cleaners, or fuel.
- Do not use cleaning agents that contain strong acids or strong alkalis.
- Do not use cleaning agents containing alcohol, solvents, or abrasives.
- Do not use abrasive or overly hard sponges.
- Follow the dilution ratio specified on the cleaning agent's packaging.

Motorcycle Parking

If you leave your motorcycle outdoors, you should consider using a full motorcycle cover. If you do not ride for an extended period of time, please follow these guidelines:

- Wash the motorcycle and wax all painted surfaces (excluding matte finishes), then apply anti-rust oil to all chrome parts.
- Lubricate the drive chain.
- Place the motorcycle on a maintenance stand and elevate it with wooden blocks to ensure both tires are off the ground.
- After rain, remove the body cover and dry it in a ventilated place.
- Remove the battery to avoid discharging. Fully charge the battery and store it in a cool, well-ventilated area. If you leave the battery in place, disconnect the negative terminal to prevent discharge. Before reusing a stored motorcycle, inspect all items as specified in the maintenance interval table.

Motorcycle Transport

If you need to transport your motorcycle, use a motorcycle trailer, loading ramp, or flatbed truck equipped with a lifting platform, and secure it with motorcycle tie-down straps. Never attempt to tow a motorcycle with its wheels on the ground.

Notes

- Towing a motorcycle can severely damage the drivetrain.

You and Your Environment

Owning and riding a motorcycle is an enjoyable experience, but you must take responsibility for protecting the environment.

Select Appropriate Detergent

Use biodegradable detergents when washing your motorcycle, and avoid sprays containing chlorofluorocarbons (CFCs) as they harm the protective ozone layer in the atmosphere.

Waste Recycling

Sort the oil and other toxic wastes into approved containers and send them to the recycling center. Call the local national public affairs or environmental service office for the recycling center in your area and the disposal method of non-recyclable wastes. Do not pour

used engine oil into trash cans, sewers or ground, because the used oil, gasoline, coolant and cleaning solvent contain toxic substances, which will hurt cleaners, pollute drinking water, lakes, rivers and seas.

Catalytic Converter

This motorcycle is equipped with a three-way catalytic converter. The catalytic converter contains precious metals as catalysts for high-temperature chemical reactions, transforming hydrocarbons (HC), carbon monoxide (CO), and nitrogen oxides (NOx) in the exhaust into compliant mixtures.

A faulty catalytic converter can pollute the air and reduce your engine's performance. When replacing it, please always use genuine motorcycle parts.

Follow these guidelines to safeguard your motorcycle's catalytic converter:

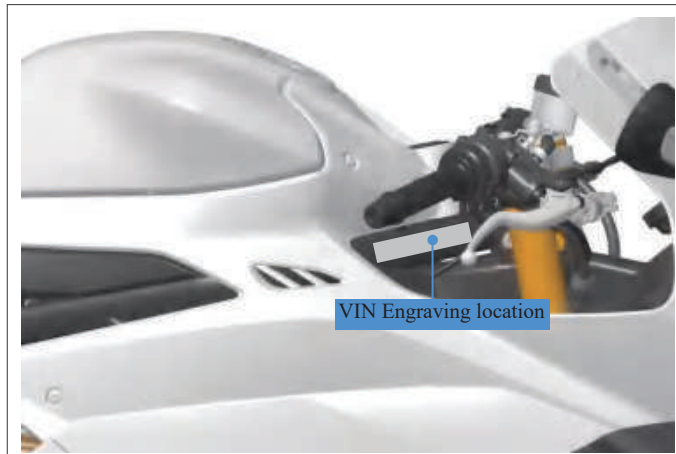
- Only use 95 octane or higher unleaded gasoline, as leaded gasoline can damage the catalytic converter.
- Maintain the engine in optimal operating condition.
- If the engine fails to start, backfires, stalls or exhibits other poor performance, stop riding immediately and turn off the engine. Have the motorcycle inspected by an authorized service center.

Vehicle Identification Number, Engine Number and Nameplate

When registering a motorcycle, you must provide the vehicle identification number and engine number. These unique identifiers are used to distinguish your motorcycle. When ordering replacement parts, ensure you record these numbers and store them in a secure location.

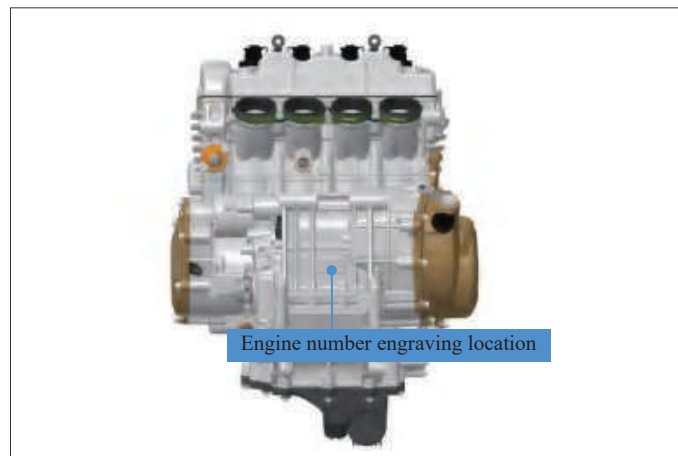
Vehicle Identification Number (VIN)

The vehicle identification number is engraved on the right side of the main frame beam.



Engine Number

The engine number is engraved on the tail section of the engine upper crankcase.



Nameplate

The nameplate is riveted or applied on the left side of the main frame beam.



Technical Parameters

Vehicle-Related Parameters 109

Frame Tightening Torque..... 116

Motorcycle
Safety

User Manual

Maintenance

Fault
Handling

Relevant
Information

Technical
Parameters

Vehicle-Related Parameters - 1

Item		ZX500GS
External Dimensions (mm)	Length	2005
	Width	705
	Height	1125
	Shaft Distance	1395
Quality Parameters	Curb Weight (kg)	170
	Total Weight (kg)	320
	Curb Axle Load: Front/Rear (kg)	88/82
Number of Passengers (Persons)		2
Performance Parameters	Maximum Speed (km/h)	235

Vehicle-Related Parameters - 2

Item		ZX500GS
Fuel	Fuel standard	95 octane or higher unleaded gasoline
	Combined fuel consumption (L/100 km)	4.79
	Fuel hose replacement cycle	15,000 to 20,000 km
Turn	Steering gear type	Steering handlebar type
Brake	Braking type	Front and rear disc type
	Standard values for front brake pads (Excluding base plate thickness) (mm)	3.5
	Standard values for rear brake pads (Excluding base plate thickness) (mm)	4
	Front Brake pad service limit (Excluding base plate thickness) (mm)	1
	Rear brake pad service limit (Excluding base plate thickness) (mm)	1

Vehicle-Related Parameters - 3

Item			ZX500GS
Wheel	Rim model	Front	Aluminum alloy cast MT3.5×17
		Rear	Aluminum alloy cast MT5.5×17
	Tire model	Front	120/70 ZR17
		Rear	180/55 ZR17
	Front tire pressure (kPa)		230
	Rear wheel pressure (kPa)		250
	Tire dynamic balance		Total residual quantity: 10g
Engine and Transmission Parameters	Model		ZX459MR
	Type		In-line four-cylinder, four-stroke, 16-valve, naturally aspirated, electronic multi-point fuel injection
	Cylinder diameter x stroke (mm)		59×43

Vehicle-Related Parameters - 4

Item		ZX500GS
Engine and Transmission Parameters	Total displacement(ml)	470
	Compression ratio	12.9:1
	Maximum net power/speed (kW/rpm)	62/13500
	Maximum torque/speed (N·m/rpm)	46/11500
	Minimum steady no-load speed (r/min)	1500±100
	Spark plug	BR9RD
	Spark plug clearance	0.8 + 0.1 mm
	Valve clearance (intake)	0.1-0.15 mm
	valve clearance (exhaust)	0.15-0.2 mm
	Ignition mode	Electronic ignition

Vehicle-Related Parameters - 5

Item		ZX500GS
Engine and Transmission Parameters	Emission standard	China IV
	Gearbox	Manual
	Clutch	Wet multi-piece sliding clutch
	Transmission mode	Chain transmission
	Transmission gear ratio	Primary transmission ratio
		First gear
		Second gear
		Third gear
		Fourth gear
		Fifth gear

Vehicle-Related Parameters - 6

Item			ZX500GS
Engine and Transmission Parameters	Transmission gear ratio	Sixth gear	1.111
		Final transmission ratio	3.142
Electrical Appliance	Battery		12V/4Ah
	Main fuse		30A
	Headlight		LED
	Front position lamp		LED
	Rear taillight/Brake lamp		LED
	Front turn signal		LED
	Rear turn signal		LED
	Rear license plate lamp		LED

Vehicle-Related Parameters - 7

Specifications and capacities of fuel, lubricating oil, coolant and brake fluid				
Item	Specifications and models	Capacity		Notes
Gasoline	95 octane or higher unleaded gasoline	15 (L)		This capacity value refers to the fuel tank volume, which users can add based on their usage.
Lubricating Oil (Engine Oil)	Recommended maintenance Oil: API SN SAE 10W-40	Dry type (brand new)	3 (L)	
		Replace the engine oil and change the oil element	2.8 (L)	
		Replaced engine oil without replacing the oil element	2.6 (L)	
Coolant	RLFD-101	2.3 (L)		
Brake Fluid	DOT4	Fill to the standard scale line on the liquid reservoir		

Frame Tightening Torque - 1

Installation Position	Thread Diameter (mm)	Torque (N·m)	Notes
Hexalobular internal pan head bolt connecting the main seat cushion to the frame	M6	12±2	
Hexalobular internal flange bolt connecting the air filter assembly, the rear section of air intake duct and the frame	M6	10±2	
Hexalobular internal flange bolt connecting the front end of fuel tank to the frame	M6	10±2	
Hexalobular internal flange bolt connecting the rear end of fuel tank to the frame	M6	10±2	
Hexalobular internal flange bolt connecting the ignition lock to the frame	M8	25±2	
Hexalobular internal flange bolt connecting the front brake pump and steering handlebar assembly - right	M8	12±2	
Hexalobular internal flange bolt connecting the clutch lever and steering handlebar assembly - left	M8	12±2	
Hexalobular internal flange bolt connecting the upper connecting plate to the front shock absorber lock	M8	25±2	
Hexalobular internal flange bolt connecting the lower connecting plate to the front shock absorber lock	M8	17±2	
Hexalobular internal flange bolt connecting the lower connecting plate to the front shock absorber lock	M8	22±2	Apply sealing
4-slot adjusting nut Connecting steering stem	M25	Fasten the 4-slot nut to 30-4 N·m, loosen the direction-adjusting nut by two turns, and then fasten it to 3 N·m.	
Hex flange bolt connecting the upper connecting plate to the steering stem lock	M16	88±5	
Hexalobular internal flange bolt connecting the steering damper to the handlebar assembly - right	M8	9±1	
Hexalobular internal flange bolt connecting the front shock absorber - right to the front wheel axle lock	M8	25±2	Apply sealing
Front wheel axle connected to the front wheel axle lock	M16	72±3	
Hexalobular internal flange bolt connecting the side stand OFF switch to the dedicated bolt of the side stand	M6	10±1	

Frame Tightening Torque - 2

Installation Position	Thread Diameter (mm)	Torque (N·m)	Notes
Hexalobular internal pan head bolt connecting the side stand and the special mounting bolts for the side stand	M5	9±1	Apply sealing
Special mounting bolts for side stand connecting the side stand and mounting plate	M6	4	Apply grease to the smooth portion of the rod and sealing to the threads.
Cone head hexalobular socket bolt connecting the front brake caliper assembly - left/right to the front shock absorber	M10	45±2	Apply sealing
Hexalobular internal flange bolt connecting the front wheel speed sensor to the front shock absorber	M6	9±1	
Hexalobular internal flange bolt connecting the rear wheel speed sensor to the rear caliper bracket	M6	9±1	
Hexalobular internal cylinder head bolt connecting the rear shock absorber to the swingarm	M10	55±3	
Hexalobular internal flange bolt connecting the rear shock absorber to the swingarm	M10	55±3	
Hex nut connecting the rear shock absorber to the frame	M10	55±3	
Hexalobular internal flange bolt connecting the rear shock absorber to the frame	M10	55±3	
Hexalobular internal cylinder head bolt connecting the rear caliper bracket opening	M6	13±1	Apply sealing
Hexalobular internal flange bolt connecting the rear brake caliper assembly to the rear caliper bracket	M8	25±2	Apply sealing
Rear caliper limit pin connecting the rear caliper bracket to the swingarm	M12	36±1	Apply sealing
Hexalobular internal cylinder head bolt for locking the swingarm opening	M12	48±2	
Swingarm axle nut for locking the swingarm axle	M16	88±5	

Frame Tightening Torque - 3

Installation Position	Thread Diameter (mm)	Torque (N·m)
Rear wheel hub locking nut (tire side) for rear wheel hub locking	M38	185±5
Rear wheel hub locking nut (buffer body side) for rear wheel shaft locking	M38	185±5
Locking nut for securing the rear wheel hub	M16	108±5
Note: For bolts and nuts not specified in the table, refer to the torque values in the maintenance manual. For bolts or screws marked with "Apply sealing" in the remarks column of the table, "LOCKTITE 243" thread locking adhesive should be used during assembly.		