

500F



To our distinguished owner

500F Two-Wheel Motorcycle Instruction Manual

First Edition (August 2025)

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-speed 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.

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Motorcycle Safety

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

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Safety Instructions	
To enhance your 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 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 rear grab handle, 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.

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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 "X" (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 a special 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.

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- 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 rear grab handle 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

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

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

Follow the following guidelines:

- Avoid excessive emergency braking and downshifting:
 - ▶ Sudden braking will reduce the stability of the motorcycle.
 - ▶ Slow down before turning, or you may slip.
- Be careful when driving on slippery roads:
 - ▶ 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 tires to ensure that the anti-lock braking system works correctly.

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

Following guidelines shall be followed to protect your engine and catalytic converter:

- Only unleaded gasoline shall be used.
- 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.

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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.

Installation of additional or modified components is strictly prohibited.

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.



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

User Manual

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

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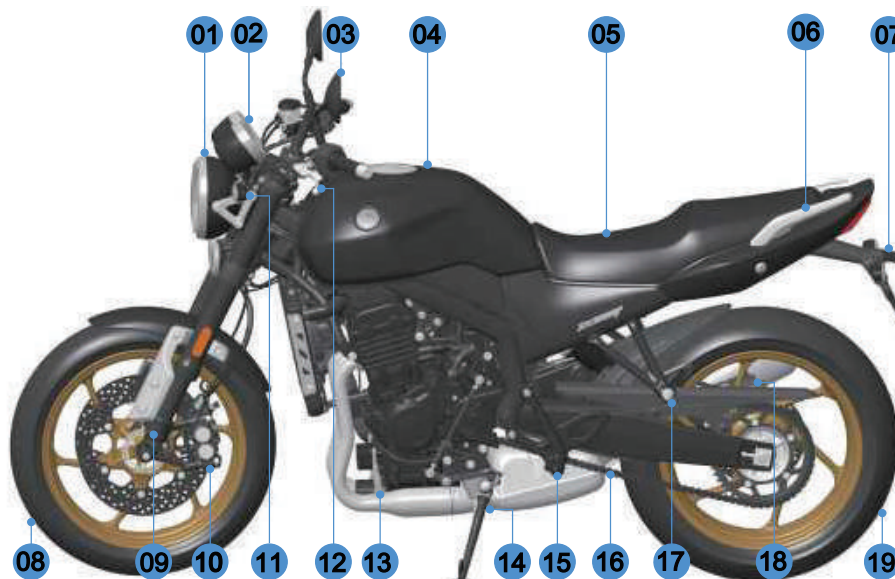
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Component Location Diagram - Left (Dual Gauge Cluster)



- | | | | | |
|---------------------|----------------------------|--------------------------------|-------------------------|------------------------|
| 01 Headlight | 05 Seat cushion | 09 Front shock absorber (left) | 13 Oxygen sensor (left) | 17 Rear footpeg (left) |
| 02 Instruments | 06 Rear grab handle (left) | 10 Front brake caliper (left) | 14 Side stand | 18 Rear brake caliper |
| 03 Rear view mirror | 07 License plate lamp | 11 Front turn signal | 15 Front footpeg (left) | 19 Rear wheel |
| 04 Fuel tank | 08 Front wheel | 12 Clutch lever assembly | 16 Chain | |

Component Location Diagram - Right (Dual Gauge Instrument)



- | | | | |
|--------------------------|--------------------------|---------------------------|---------------------------------|
| 01 Fuel tank cap | 05 Rear muffler section | 09 Brake rocker arm | 13 Radiator |
| 02 Accelerator handlebar | 06 Rear footpeg (right) | 10 Muffler front assembly | 14 Front brake caliper (right) |
| 03 Front brake lever | 07 Rear shock absorber | 11 Oxygen sensor (right) | 15 Front shock absorber (right) |
| 04 Rear turn signal | 08 Front footpeg (right) | 12 Engine | 16 Horn |

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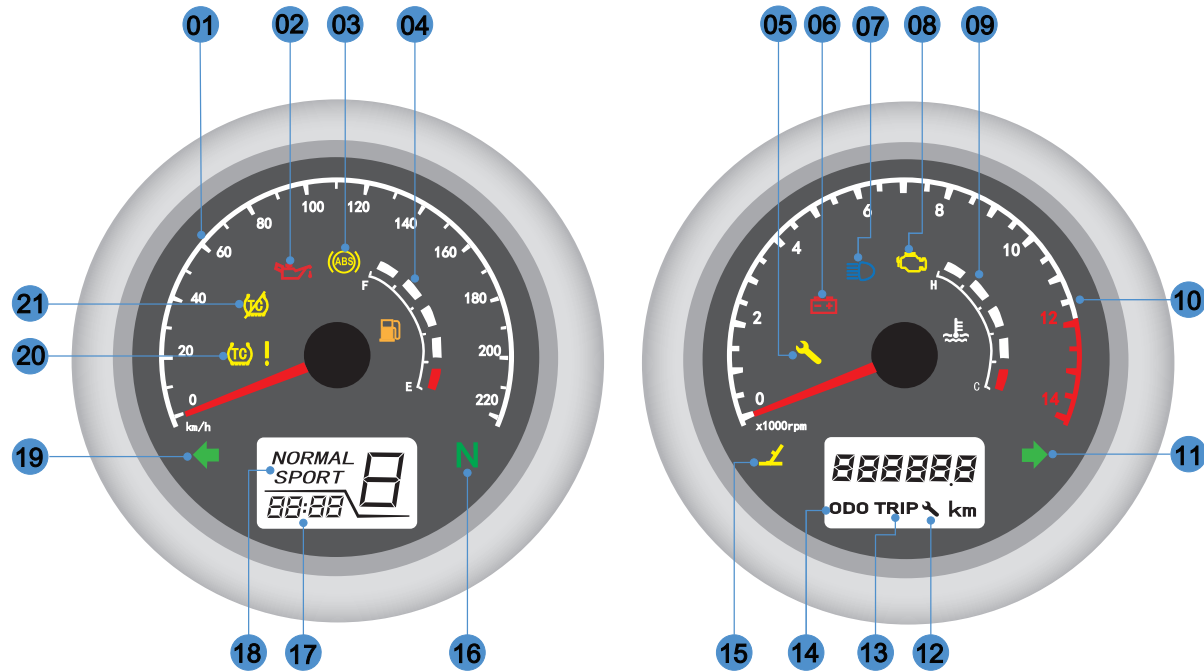
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Instrument Cluster Interface (Dual Gauge Instrument)



- 01 Speedometer
- 02 Oil pressure indicator
- 03 ABS malfunction indicator light
- 04 Fuel gauge
- 05 Service indicator light
- 06 Battery indicator
- 07 High beam indicator
- 08 Engine fault indicator
- 09 Water temperature gauge
- 10 Tachometer
- 11 Right turn indicator
- 12 MAINT REM display
- 13 TRIP display
- 14 ODO display
- 15 Side support warning indicator
- 16 Neutral indicator light
- 17 Time indicator
- 18 Driving mode indicator
- 19 Left turn indicator
- 20 TCS malfunction indicator light
- 21 TCS off indicator

Indicator (Dual Gauge Cluster)

Indicator	Name	Functional description
	Turn indicator light	①The left turn indicator flashes when the left turn signal is ON. ②The right turn indicator flashes when the right turn signal is ON. ③When the warning lamp is ON, the left and right turn indicators flash simultaneously.
	High beam indicator	This light illuminates when the high beam is ON.
	Engine fault indicator	①This light illuminates when the EFI system fails; ②When 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.
	Water temperature warning indicator	When the water temperature is too high, the warning light turns on.
	Water temperature display	①When the water temperature gauge shows only the first bar and flashes, it indicates that the water temperature is too low. ②When the water temperature gauge reaches the 5th bar and flashes, and the red water temperature remains lit on the panel illuminates or flashes, this indicates the water temperature is too high. Safely inspect the vehicle after parking and wait for the temperature to decrease before resuming driving. ③When the water temperature data is abnormal, the water temperature indicator on the panel flashes.

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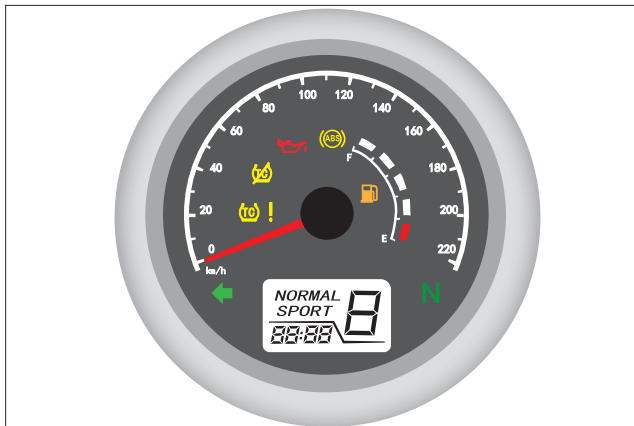
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Parameters

Indicator	Name	Functional description
	Neutral indicator	When in neutral, this light illuminates.
	Fault indicator	①When the ABS function is turned off, the fault lamp flashes; when the ABS fails, this lamp remains illuminated. ②When the motorcycle ignition switch is turned on, this light illuminates; when the vehicle speed exceeds 5 km/h, this light automatically extinguishes. ③If 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	①When the engine oil pressure is insufficient, this light illuminates. ②When 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.
	Service indicator light	When the motorcycle meets the maintenance conditions, the indicator illuminates for 30 seconds each power-on and then extinguishes.
	Battery fault indicator	①When the battery voltage is too low, this light illuminates. ②When the motorcycle ignition switch is turned on and the engine is not started, this light illuminates; it is normal for the light to be on during engine startup. ③If 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.

00 : 00	Time display	Displays the instrument time.
	TCS off indicator	When TCS function is deactivated, the indicator remains illuminated.
	TCS malfunction indicator light	When TCS function fails, the indicator remains illuminated.
	TCS operation indicator	The indicator will flash when the TCS is in operation.
	Side support warning indicator	When the side stand is down, this light illuminates.
	Fuel warning indicator	When the fuel becomes insufficient, the fuel warning light illuminates.
	Fuel display	①Displays the current fuel level. ②When the fuel level shows one bar, the yellow fuel indicator light remains lit, indicating that the oil level is too low and needs to be refilled. ③When the oil level is below one bar, the fuel indicator will flash yellow. Please replenish the fuel as soon as possible. ④The fuel indicator flashes simultaneously with all fuel gauges, indicating a malfunction oil level signal.
NORMAL	Driving mode	Normal mode, displaying NORMAL.
SPORT		Sport mode, displaying SPORT.

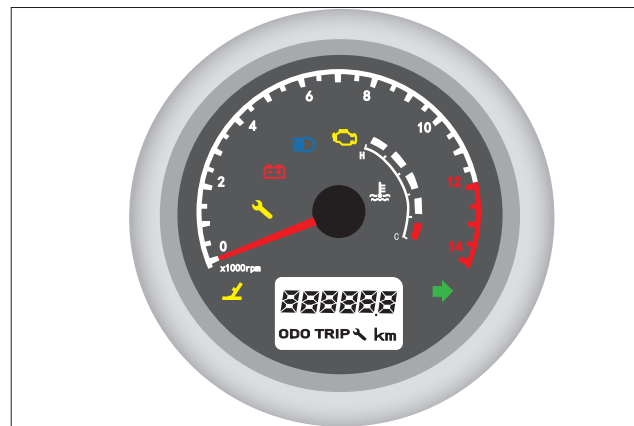
Speedometer (Dual Gauge Cluster)



Speedometer:

- 1.Current vehicle speed display.
- 2.Speed display: Metric 1 km/h.
- 3.Display range: 0–220 km/h

Tachometer (Dual Gauge Cluster)



Tachometer:

- 1.Engine speed display.
- 2.Display range: 0–14,000 r/min. When engine speed exceeds 12,000 r/min, the indicator enters the red zone.
- 3.The resolution of the tachometer needle scale is 1000 r/min.
- 4.When the engine speed exceeds the maximum range, the display shows the maximum value.

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Normal Mode Display (Dual Gauge Cluster)



1.Normal mode (NORMAL): Displays the current drive mode.

Sport Mode Display (Dual Gauge Cluster)



1.Sport mode (SPORT): Displays the current drive mode.

Gear Display (Dual Gauge Cluster)



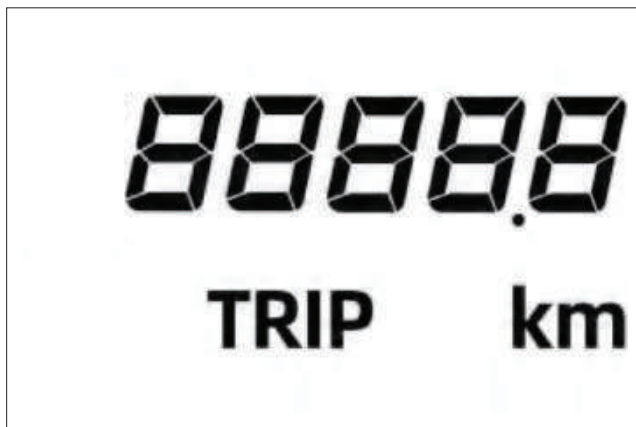
1.The gears are displayed as: 1,  , 2, 3, 4, 5, 6.

ODO Display (Dual Gauge Cluster)



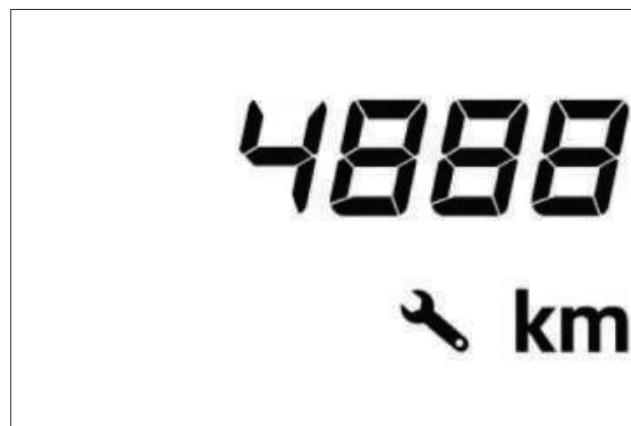
- 1.Odometer (ODO): Displays the total mileage of the motorcycle.
- 2.Maximum ODO display is 999,999 km.
- 3.ODO cannot be cleared.

TRIP Display (Dual Gauge Cluster)



1. TRIP: Displays the motorcycle's sub-total mileage.
2. Maximum TRIP display is 9999.9 km.
3. TRIP will auto reset when it exceeds the maximum display limit.
4. TRIP can be manually reset.

MAINT REM Display (Dual Gauge Cluster)



1. MAINT REM  : Displays the remaining mileage until the next maintenance.
2. The first guarantee is at 500km. For subsequent maintenance, please refer to the Maintenance Interval Table)
3. MAINT REM must be manually reset after maintenance.

Component Location Diagram - Left (Center Instrument Panel)



- | | | | | |
|---------------------|----------------------------|--------------------------------|-------------------------|------------------------|
| 01 Headlight | 05 Seat cushion | 09 Front shock absorber (left) | 13 Oxygen sensor (left) | 17 Rear footpeg (left) |
| 02 Instruments | 06 Rear grab handle (left) | 10 Front brake caliper (left) | 14 Side stand | 18 Rear brake caliper |
| 03 Rear view mirror | 07 License plate lamp | 11 Front turn signal | 15 Front footpeg (left) | 19 Rear wheel |
| 04 Fuel tank | 08 Front wheel | 12 Clutch lever assembly | 16 Chain | |

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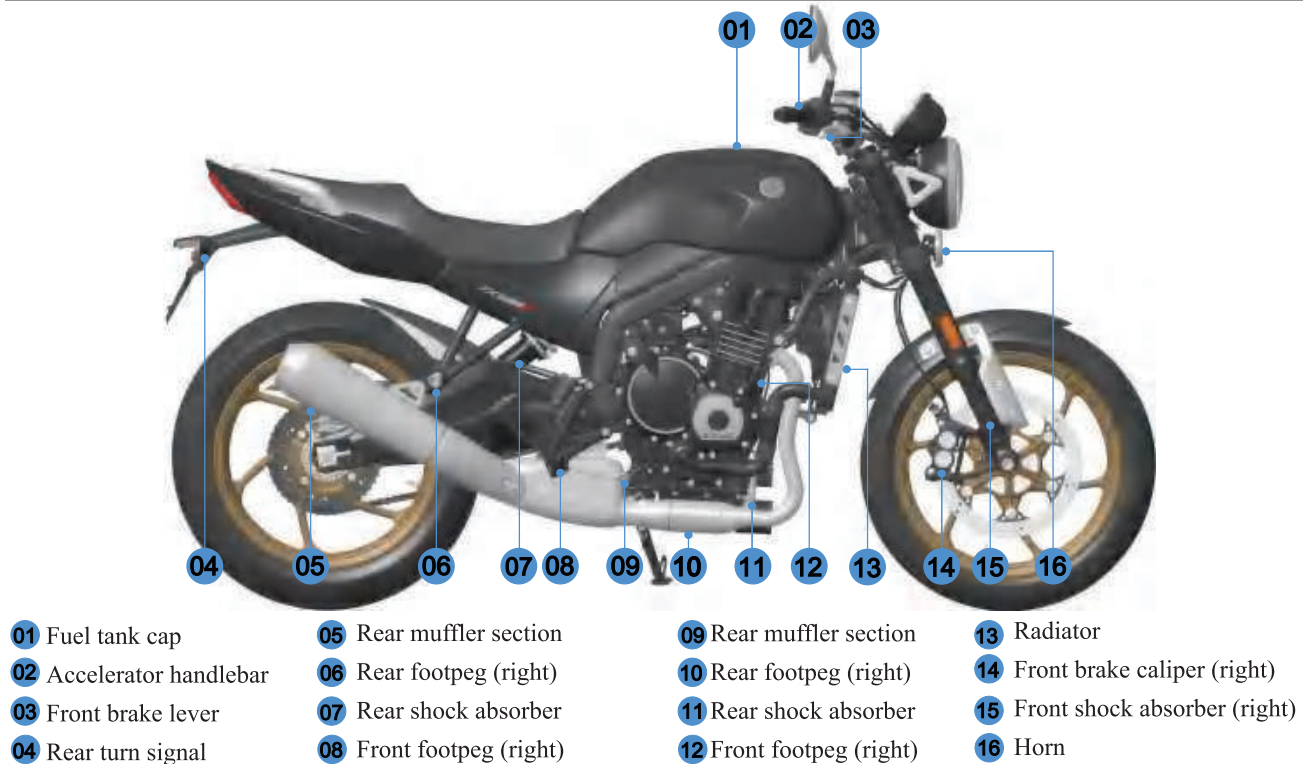
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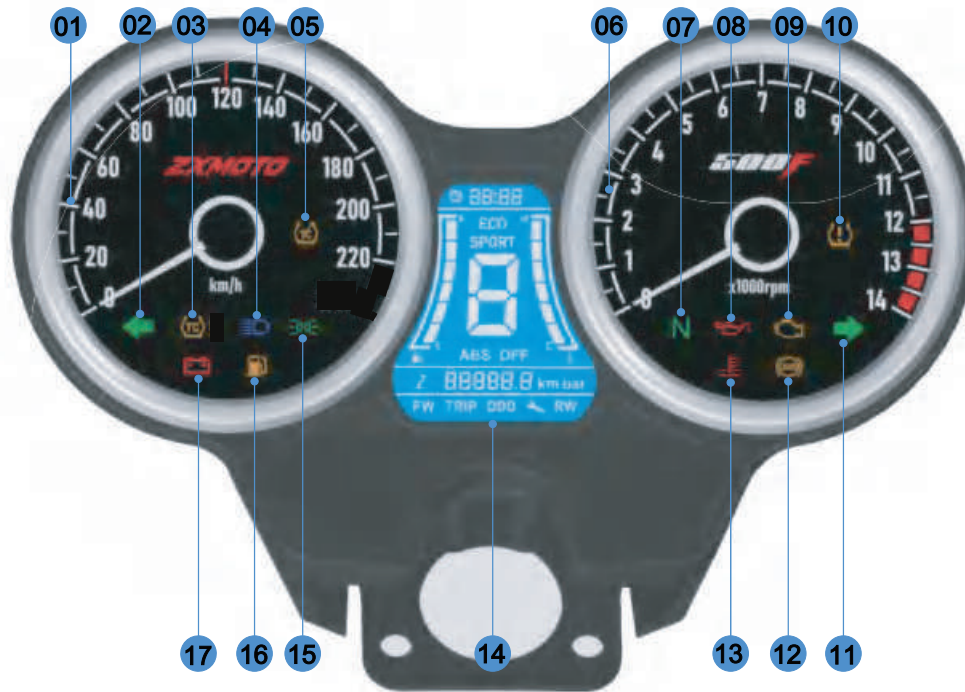
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Component Location Diagram - Right (Center Instrument Panel)



Instrument Cluster Interface (Center Instrument Panel)



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- 01 Speedometer
- 02 Left turn indicator
- 03 TCS malfunction indicator light
- 04 High beam indicator
- 05 TCS off indicator
- 06 Tachometer
- 07 Neutral indicator
- 08 Oil pressure indicator
- 09 Engine fault indicator
- 10 Tire pressure fault indicator
- 11 Right turn indicator
- 12 ABS malfunction indicator light
- 13 Water temperature warning indicator
- 14 Information column
- 15 Position light
- 16 Low fuel warning indicator
- 17 Battery indicator

Indicator (Center Instrument Panel)

Indicator	Name	Functional description
	Turn indicator light	①The left turn indicator flashes when the left turn signal is ON. ②The right turn indicator flashes when the right turn signal is ON. ③When the warning lamp is ON, the left and right turn indicators flash simultaneously.
	High beam indicator	This light illuminates when the high beam is ON.
	Engine fault indicator	①This light illuminates when the EFI system fails; ②When 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.
	Water temperature warning indicator	When the water temperature is too high, the warning light turns on.
	Water temperature display	①When the water temperature gauge shows only the first bar and flashes, it indicates that the water temperature is too low. ②When the water temperature gauge reaches the 5th bar and flashes, and the red water temperature remains lit on the panel illuminates or flashes, this indicates the water temperature is too high. Safely inspect the vehicle after parking and wait for the temperature to decrease before resuming driving. ③When the water temperature data is abnormal, the water temperature warning indicator on the panel flashes.

Indicator	Name	Functional description
	Neutral indicator	When in neutral, this light illuminates.
	Fault indicator	①When the ABS function is turned off, the fault lamp flashes; when the ABS fails, this lamp remains illuminated. ②When the motorcycle ignition switch is turned on, this light illuminates; when the vehicle speed exceeds 5 km/h, this light automatically extinguishes. ③If 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	①When the engine oil pressure is insufficient, this light illuminates. ②When 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.
	Service indicator light	When the motorcycle meets the maintenance conditions, the indicator illuminates for 30 seconds each power-on and then extinguishes.
	Battery fault indicator	①When the battery voltage is too low, this light illuminates. ②When the motorcycle ignition switch is turned on and the engine is not started, this light illuminates; it is normal for the light to be on during engine startup. ③If 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.

	Tire pressure fault indicator	①When the tire pressure is too low, the indicator remains lit. ②When the tire is losing air quickly, the indicator flashes rapidly.
	TCS off indicator	When TCS function is deactivated, the indicator remains illuminated.
	TCS malfunction indicator light	When TCS function fails, the indicator remains illuminated.
00:00	Time display	Displays the instrument time.
	Side support warning indicator	When the side stand is down, this light illuminates. It will not be displayed when the OFF switch turns down.
	Fuel indicator	When the fuel becomes insufficient, the fuel warning light illuminates.
	Fuel display	①Displays the current fuel level. ②When the fuel level shows one bar, the yellow fuel indicator light remains lit, indicating that the oil level is too low and needs to be refilled. ③When the oil level is below one bar, the fuel indicator will flash yellow. Please replenish the fuel as soon as possible. ④The fuel indicator flashes simultaneously with all fuel gauges, indicating a malfunction oil level signal.
ECO	Driving mode	Economy mode, displaying ECO.
SPORT		Sport mode, displaying SPORT.

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Speedometer (Center Instrument Panel)



■ **Speedometer:**

- 1.Current vehicle speed display.
- 2.Speed display: Metric 1 km/h.
- 3.Display range: 0–220 km/h

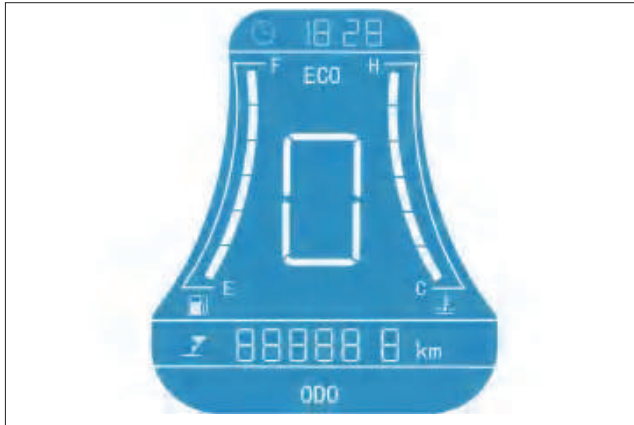
Tachometer (Center Instrument Panel)



■ **Tachometer:**

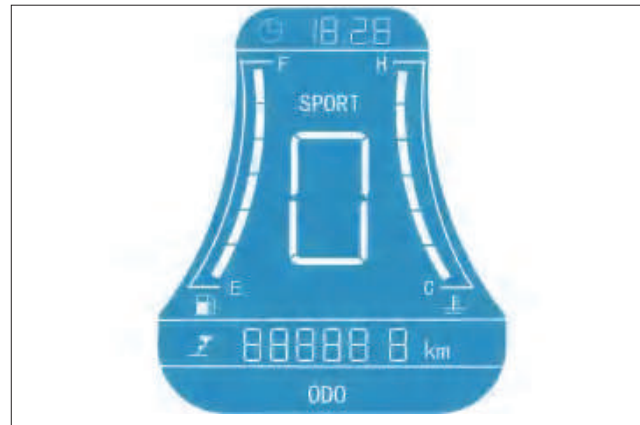
- 1.Engine speed display.
- 2.Display range: 0–14,000 r/min. When engine speed exceeds 12,000 r/min, the indicator enters the red zone.
- 3.The resolution of the tachometer needle scale is 1000 r/min.
- 4.When the engine speed exceeds the maximum range, the display shows the maximum value.

Economy Mode Display (Center Instrument Panel)



1. Economy Mode (ECO): Displays the current drive mode.

Sport Mode Display (Center Instrument Panel)



1. Sport Mode (SPORT): Displays the current drive mode.

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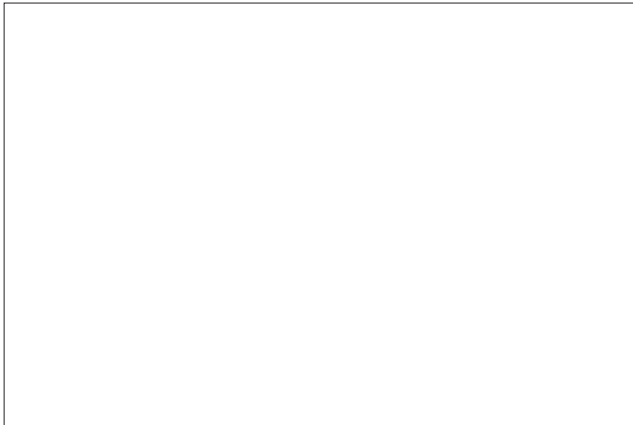
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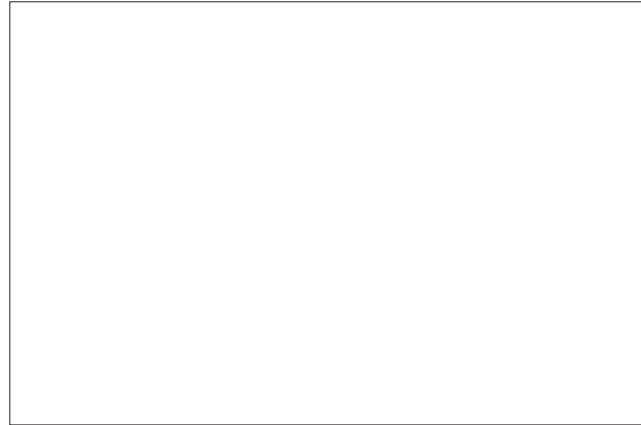
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Gear Display (Center Instrument Panel)



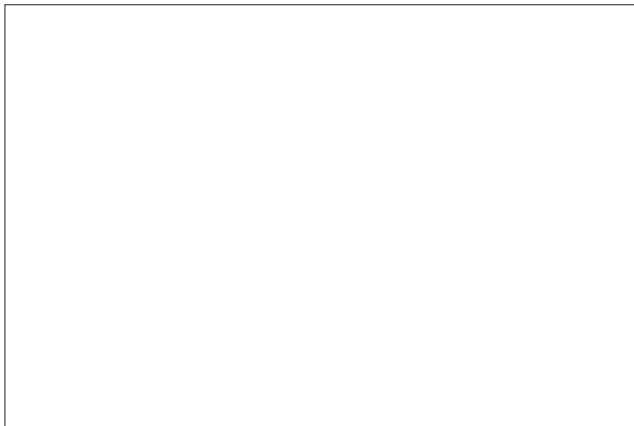
1.The gear are displayed as: 1, 0, 2, 3, 4, 5, 6.

ODO Display (Center Instrument Panel)



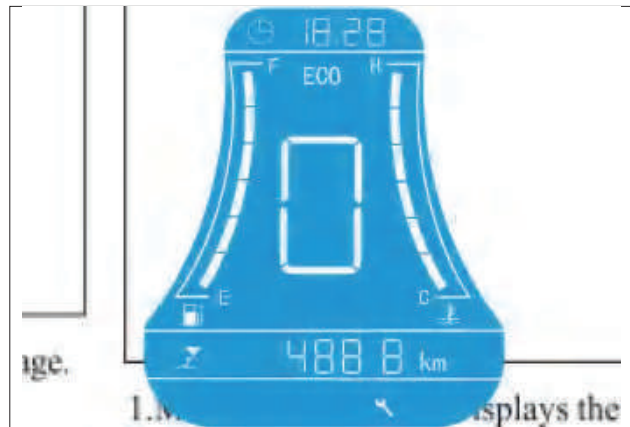
1.Odometer (ODO): Displays the total mileage of the motorcycle.
2.Maximum ODO display is 999,999 km.
3.ODO cannot be cleared.

TRIP Display (Center Instrument Panel)



1. TRIP: Displays the motorcycle's sub-total mileage.
2. Maximum TRIP display is 9999.9 km.
3. TRIP will auto reset when it exceeds the maximum display limit.
4. TRIP can be manually reset.

MAINT REM Display (Center Instrument Panel)



1. MAINT REM  : Displays the remaining mileage until the next maintenance.
2. The first guarantee is at 500km. For subsequent maintenance, please refer to the Maintenance Interval Table)
3. MAINT REM must be manually reset after maintenance.

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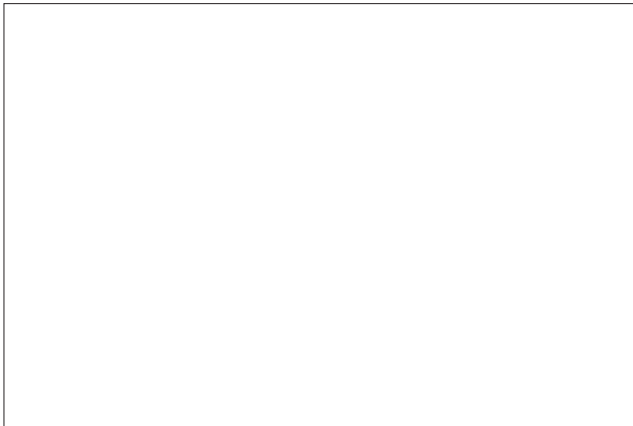
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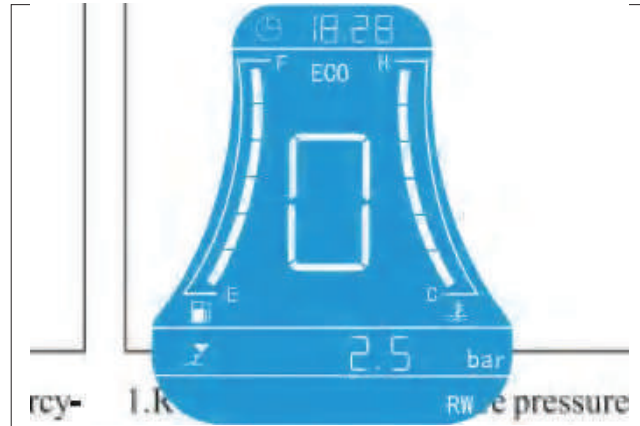
Technical
Parameters

FW Display (Center Instrument Panel)



1.FW: Displays the front tire pressure of the motorcycle.

RW Display (Center Instrument Panel)



1.RW: Displays the rear tire pressure of the motorcycle.

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 handle-bar switch.

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

Horn button

Horn switch: "

Press the button to use.

TC button

Long press the TC button while the vehicle is powered on and stationary to disable the TCS. Long press the button again to re-enable the system. (The TCS is enabled by default at the factory)

When the system enters the Time Settings mode, the TC button functions as the "Up" button.

SET button

With the vehicle powered on and stationary, press the SET button briefly to scroll through the displays (FW, TRIP, ODO, MAINT REM, RW).

Long press SET to enter time mode when the instrument displays the total mileage.

Long press SET to clear the sub-total mileage when the instrument displays the sub-total mileage.

Long press SET to reset the maintenance remaining mileage when the instrument displays the maintenance remaining mileage.

■ **MODE button**

With the vehicle powered on and stationary, press the MODE button to switch the riding modes.

When the system enters the Time Settings mode, the MODE button functions as the "Down" button.

■ **ABS switch (center instrument panel)**

With the vehicle powered on and stationary, long press both the SET and TC buttons simultaneously to disable the ABS. The information display will show "ABS OFF." (The ABS is enabled by default at the factory)

■ **Turn signal switch:**

⇐ **Turn on the left turn signal:**

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

⇒ **Turn on the right turn signal:**

Push the switch to the right. After operation, press the bulge position of the switch to turn off the turn signal.

■ **Hazard warning lamp**

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

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Right combination switch



Electric starter button

When the emergency OFF switch is set to "C" 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.

OFF switch

Only when the switch is in "C"(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.

Headlight Switch

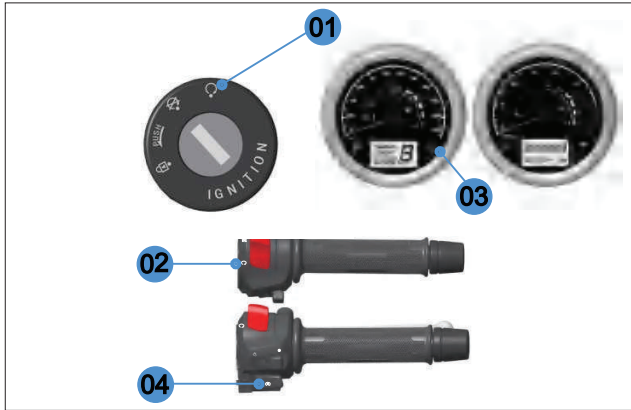
☀ **Turn on the headlight:**

Push the switch to the left to turn on the headlight

● **Turn down the headlight:**

Push the switch to the right to turn off the headlight.

Start Engine (Dual Gauge Cluster)



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. Make sure that the engine switch is in the "○" (ON) position.
3. Shift the gear to neutral, or pull the clutch lever and retract the side stand, then start the motorcycle with the transmission in gear.
4. Press the ON switch "⊗".

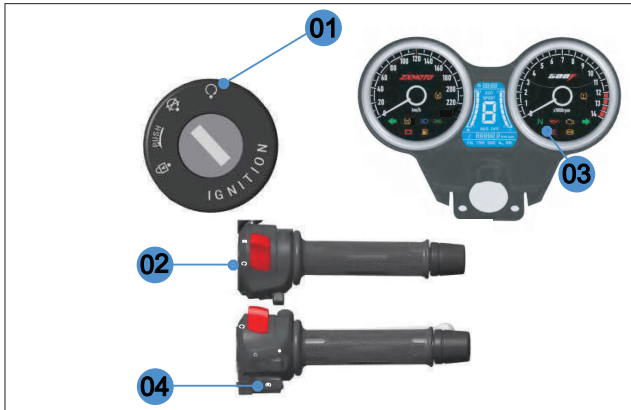
If the engine fails to start:

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

Notes

- Starting a cold car 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 the exhaust pipe to discolor.
- If the throttle is fully open, the engine will not start.

Start Engine (Center Instrument Panel)



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. Make sure that the engine switch is in the "○" (ON) position.
3. Shift the gear to neutral, or pull the clutch lever and retract the side stand, 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

- Starting a cold car 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 the exhaust pipe to discolor.
- If the throttle is fully open, the engine will not start.

Instrument Functions and Information Settings (Dual Gauge Cluster)

Time Settings (Dual Gauge cluster)

Long press "SET" to enter time mode. when the instrument displays the total mileage



Time Settings:

- 1.Click "TC" to increase the time.
- 2.Click "MODE" to decrease the time.
- 3.Click "SET" to adjust the Hours and Minutes.

Drive Mode (Dual Gauge Cluster)

Click "Mode" to switch drive mode when the vehicle is powered on and stationary.



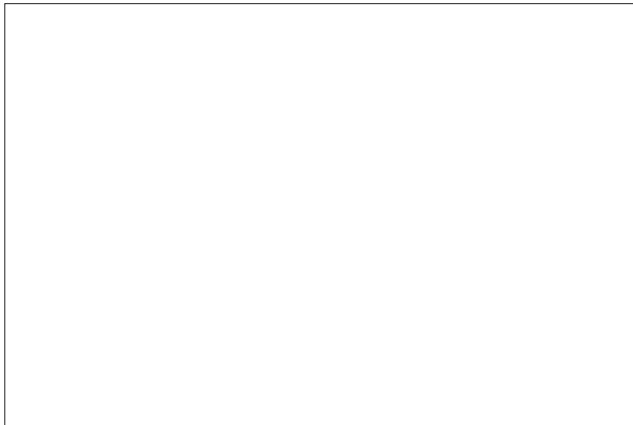
Drive Mode:

- 1.NORMAL: Normal mode.
- 2.SPORT: Sport mode.

Instrument Functions and Instrument Settings (Center Instrument Panel)

Time Settings (Center Instrument Panel)

Long press "SET" to enter time mode. when the instrument displays the total mileage

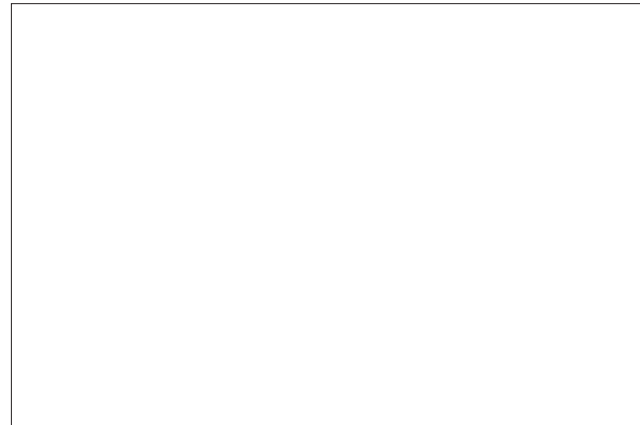


Time Settings:

- 1.Click "TC" to increase the time.
- 2.Click "MODE" to decrease the time.
- 3.Click "SET" to adjust the Hours and Minutes.

Drive Mode (Center Instrument Panel)

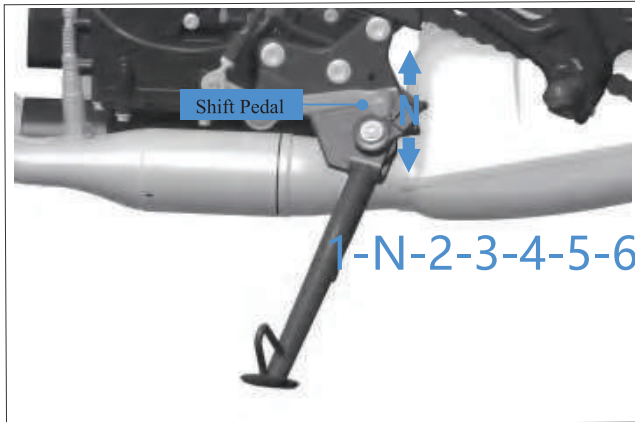
Click "Mode" to switch drive mode when the vehicle is powered on and stationary.



Drive Mode:

- 1.ECO : Economic mode.
- 2.SPORT: Sport mode.

Gear Shifting



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.

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 handlebar switch 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.

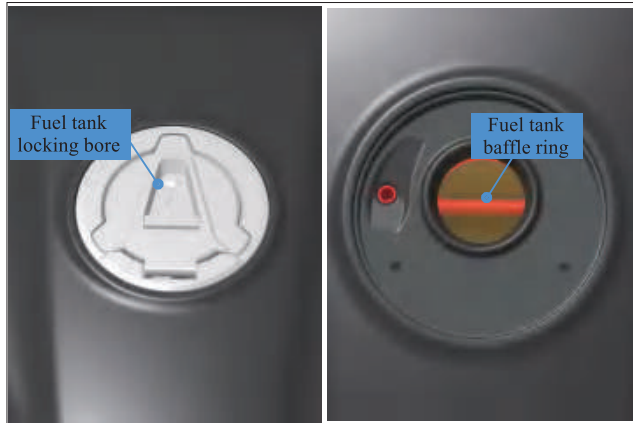
Always use the tire specifications, wheel speed sensors, and ring gears recommended by our company to ensure the TCS run properly.

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



Open the fuel tank cap

Lift the lock cover, insert the mechanical key, and turn it clockwise to open the fuel tank cap.

Close the fuel tank cap

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

When refueling

Extinguish the engine, stabilize the motorcycle using the side stand, then open the fuel tank cap to refuel. The fuel level should not exceed the fuel tank oil ring. The fuel tank capacity is 15L. It is recommended to use unleaded gasoline with an octane rating of 95 octane or higher. After refueling, securely close and lock the fuel tank cap.

Notes

- This motorcycle is equipped with a fuel evaporation control system. When refueling, the fuel level must not exceed the fuel tank baffle ring, otherwise poor acceleration may occur.

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.

Maintenance

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

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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.

Warning

- 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.

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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 Cycle		×1000km	0.5	5	10	15	20	25	30	※ To ensure safety, this project can only be serviced by authorized maintenance personnel from the authorized service centers.
Maintenance Items		Month	3	9	15	21	27	33	39	
※	Engine oil		The first maintenance mileage is at 500km, 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 6 months or 5,000 km.							
※	Valve clearance		Every 40,000km I							
※	Spark plug				I		I		R	
	Crankcase vent pipe		C	C	C	C	C	C	C	Notes: 1.Cleaning should be conducted frequently when driving in dusty areas. 2.After 30,000 km or 39 months, repeat the maintenance intervals and items starting from 5,000 km or 9 months. 3.The maintenance interval is determined by the odometer display data, mileage and service life, whichever comes first.
	Secondary air supply system				I		I		I	
	Clutch system		I	I	I	I	I	I	I	
	Throttle control system		I	I	I	I	I	I	I	
	Transmission chain		I、L	I、L	I、L	R	I、L	I、L	R	
	Driving sprocket		I	I	I	R	I	I	R	
	Driven sprocket		I	I	I	R	I	I	R	
※	Electronic Fuel Injection (EFI) System		I	I	I	I	I	I	I	
	Cooling System		I	I	I	I	I	I	I	
	Brake system		I	I	I	I	I	I	I	
	Headlight adjustment		I	I	I	I	I	I	I	
※	Fasteners		I	I	I	I	I	I	I	

※ 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 39 months, repeat the maintenance intervals and items starting from 5,000 km or 9 months.

3.The maintenance interval is determined by the odometer display data, mileage and service life, whichever comes first.

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

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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	Plain fork bearing	Every maintenance	10,000 km/year
3	Buffer body 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 bearing		
6	Front wheel bearing		
7	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.			

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 Items	Inspection Details
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.

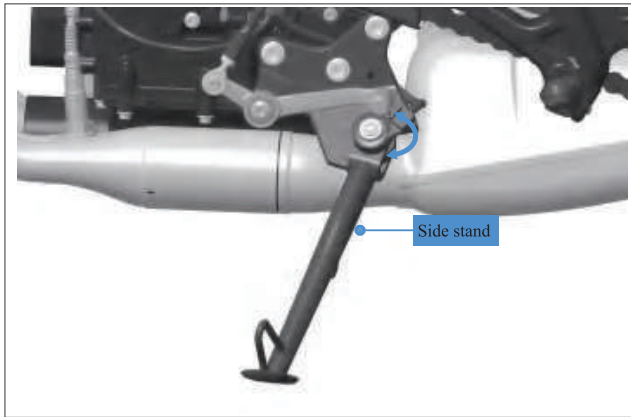
You can use the onboard tools to conduct some simple repairs, fine-tune, and replacement of parts.

Double-ended internal torx wrench T25×T30



Side Stand

Check Side Stand



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 damage or inelasticity.

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Seat Cushion

Seat Cushion Disassembly and Installation



1. Insert the mechanical key into the seat cushion lock and rotate it clockwise to remove the rear seat cushion assembly.

Installation

1. Insert the front and middle pins of the seat assembly into the corresponding slots on the frame, then push the seat forward gently.
2. Align the seat lock pin with the lock hole, press 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.
3. When the seat cushion is closed, the seat cushion will automatically lock.

Notes

- Ensure that both the front and middle pins of the seat cushion are securely inserted into the frame slots, then gently push forward. Otherwise, the seat cushion will not be able to support your weight, and both the seat cushion and sensor may be damaged.

Battery

Inspect And Replace The Battery.

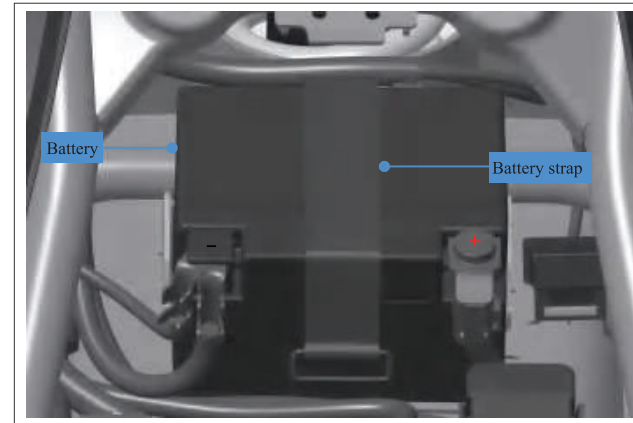
1. Before installing the battery, if the electrodes are found to be dirty, clean them thoroughly before installation; otherwise, poor contact may lead to malfunction.
2. If during use, the battery exhibits abnormal phenomena such as deformation, overheating, or smoking, stop using it immediately and 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 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.

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.

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.

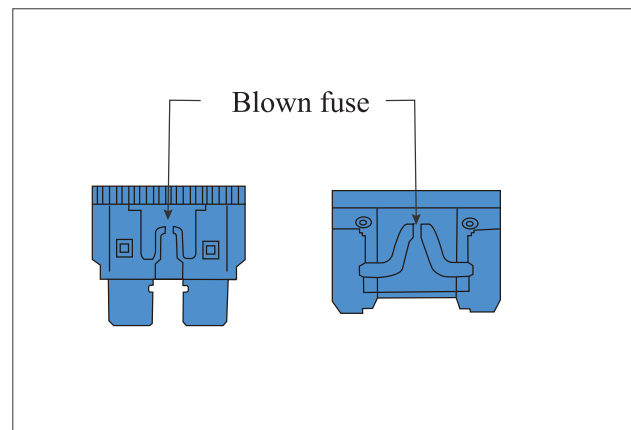
Fuse Inspection

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

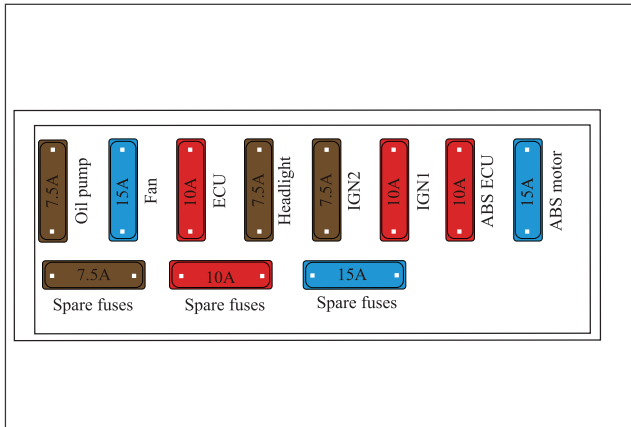
- Fuses must be replaced with ones of the same rating. Using a fuse with a higher rating increases the risk of damaging the electrical system and may pose a fire hazard.
- Installing electrical accessories not provided by our company can overload the electrical system, lead to battery discharge, even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



The fuse specifications are as follows:

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

Replace The Fuse Wire.



- 1.Remove the 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 seat cushion.

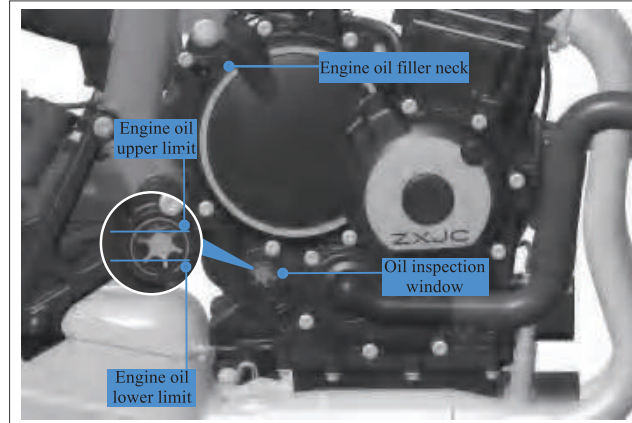
Engine Oil

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

The initial engine oil used is Shell SL-10W/40. For maintenance, use the specially co-developed dedicated oil by ZXJC & Shell, with the following specifications: API: SN / SAE: 10W40 / JASO: MA2.

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.

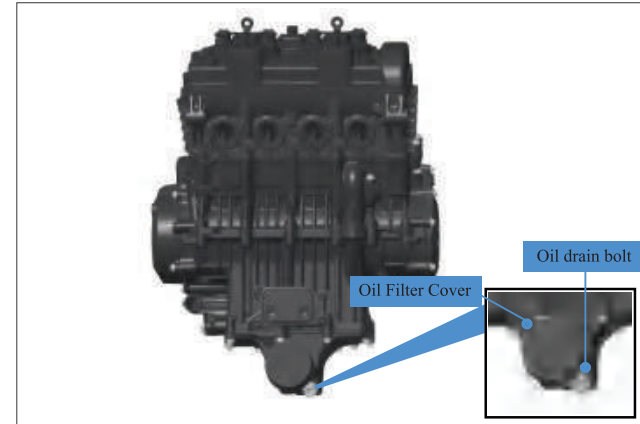
1.Remove the engine oil filler cap, add the recommended oil to the upper mark of the oil level. Do not exceed the upper limit mark, and ensure that no foreign matters enter the engine oil filler. If there is any spillage, wipe it off immediately.

2.Reinstall and tighten the engine oil filler cap.

Notes

- Long-term skin contact with oil should 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.

Replace The Engine Oil And The Oil Filter



Replace engine oil and the oil filter

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 "⌂" (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 filter neck, drain bolt and washer, then drain the oil until it drips.

4.Remove the engine oil filter and drain the remaining engine oil.

5.Check if the O-ring of the engine oil filter is properly installed on the engine. Remove the O-ring if necessary. Wipe the surface of the engine oil filter cavity dry.

6.Replace with a new engine oil filter. Apply grease to the O-ring on the filter cover, then install the filter cover (Torque: 12 ± 1 N·m).

7.Install a new washer on the oil drain bolt and tighten the oil drain bolt (Torque: 30 ± 2 N·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 the engine oil for leakage.

Notes

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

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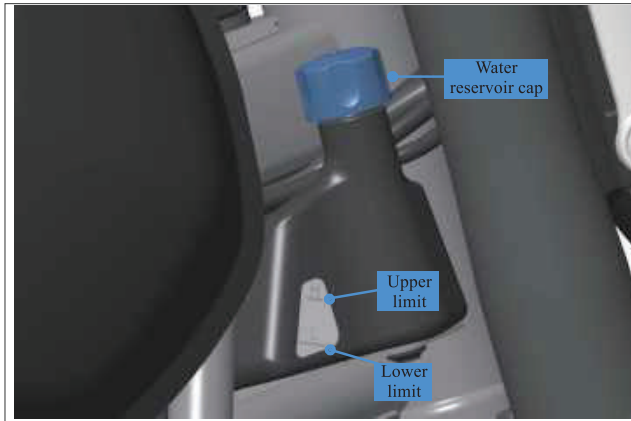
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Coolant

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 -35°C and a boiling point of 125°C .

Check And Add Coolant



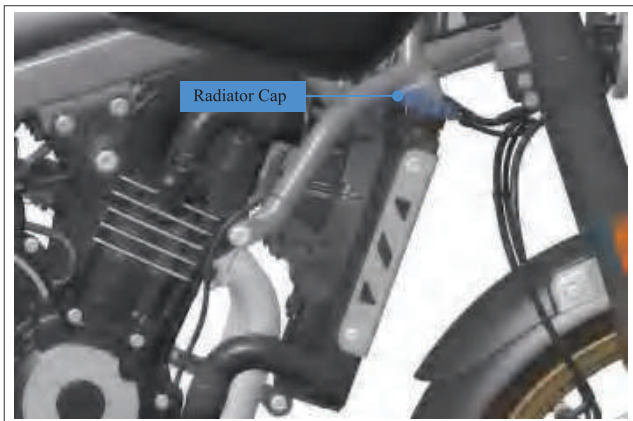
Inspect the coolant level

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

Replace The Coolant

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

Notes

- Use coolant specifically designed for the engine, as ordinary tap water or mineral water can cause corrosion.

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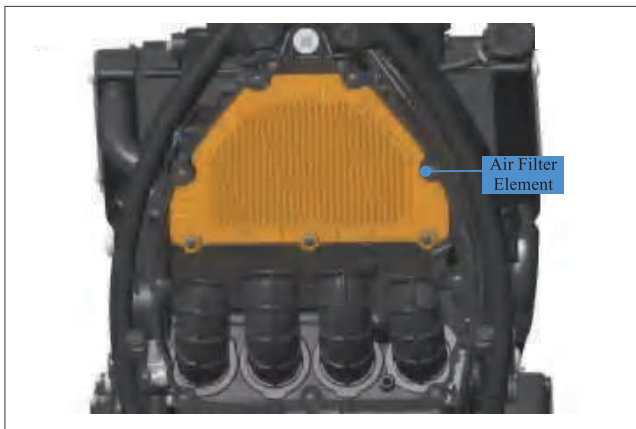
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Air Filter



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.

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.
- Recommended brake fluid: DOT4 or equivalent.
- When bleeding the front brake master pump, avoid contact between brake fluid and components such as the handlebar switch and instrument cluster.

Inspect The Brake Fluid.

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 the concave mark line for the rear brake pump window) 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.

Check The Brake Pads.

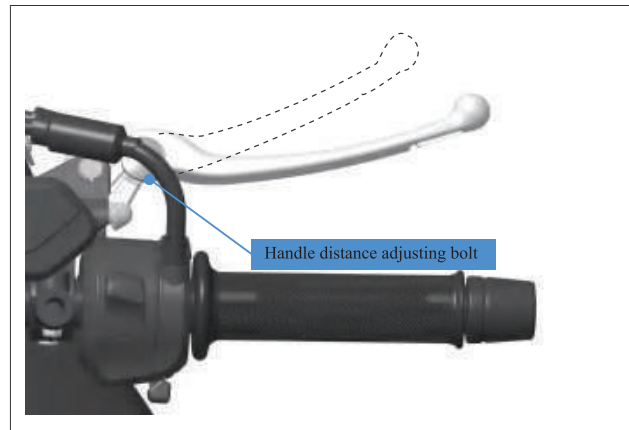
Inspect the condition of the brake pad wear indicator. If the brake pads wear down to their minimum thickness, they need to be replaced.



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	Front wheel		Rear wheel	
	Brake pad standard thickness (mm)	Brake pad minimum thickness (mm)	Brake pad standard thickness (mm)	Brake pad minimum thickness (mm)
Configuration				
Standard Edition	3.5	1	6.5	1

Brake Handle



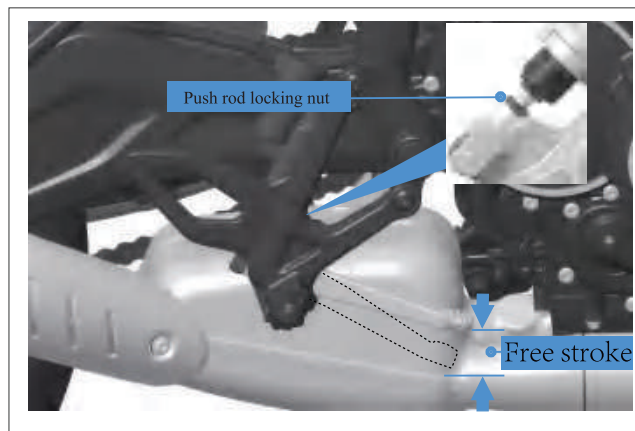
■ Adjust the brake handle

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

■ Adjustment method

The distance between the top of the hand brake lever and handlebar can be adjusted by rotating the hand brake lever adjusting bolt. The hand brake lever has 1-5 adjustment gears, with gear "1" being the closest and gear "5" being the farthest. After adjustment, check whether the brake handle works as general before riding.

Brake Pedal



■ Rear brake pedal free play inspection

Rear brake pedal free play (5-10mm).

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. Gently press the brake pedal by hand to check its free play. If the brake pedal free play exceeds the standard value, it is necessary to adjust the brake pedal free play.

■ Rear brake pedal free play adjustment

Adjusting the rear brake pedal free play 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. Gently press the brake pedal by hand, then loosen the locking nut of the master pump push rod (Torque: 5 N•m). Rotate the push rod clockwise to increase the brake pedal free play; turn the push rod counterclockwise to reduce the brake pedal free play. After adjustment, check whether the brake pedal works correctly before riding.

Notes

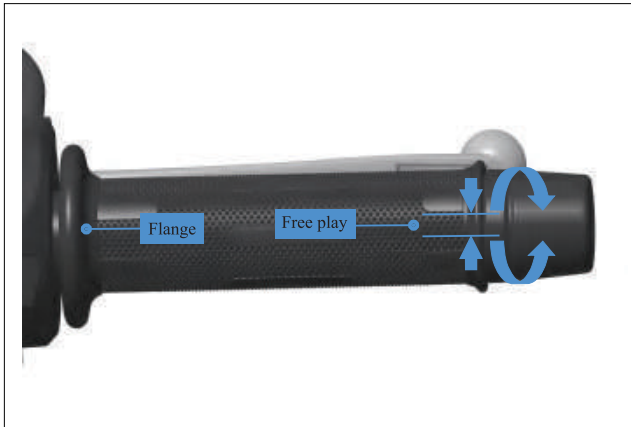
- Before checking the rear brake pedal free play, inspect the rear brake fluid level and the condition of the rear brake pads.

⚠ Warning

- Excessive or insufficient free play in the rear brake pedal can both impair braking performance, potentially causing accidents and even endangering lives.

Accelerator

Inspect The Throttle



With the engine off, check if the throttle can smoothly transition from fully closed to fully open in all handle-bar 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. Free play of the throttle handle flange: 2-6mm

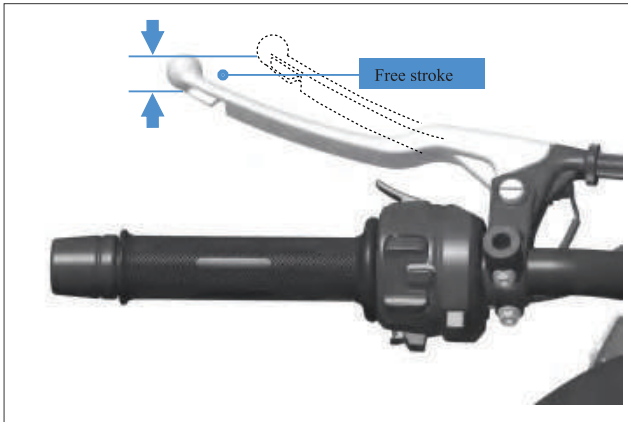
Notes

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

Clutch Lever Assembly

Clutch Lever Assembly Free Play

Clutch lever free play: 10-15 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.

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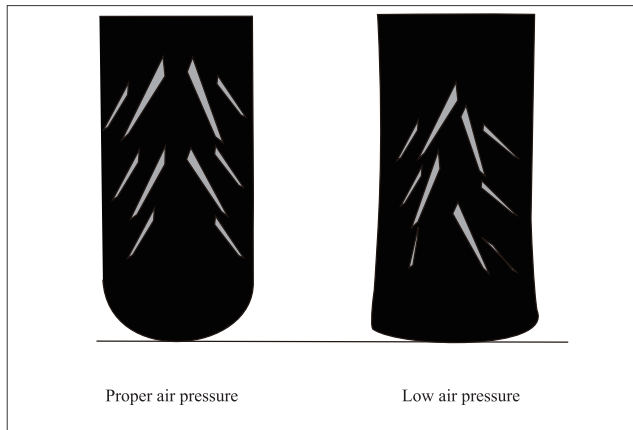
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Tire

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

■ 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.

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.

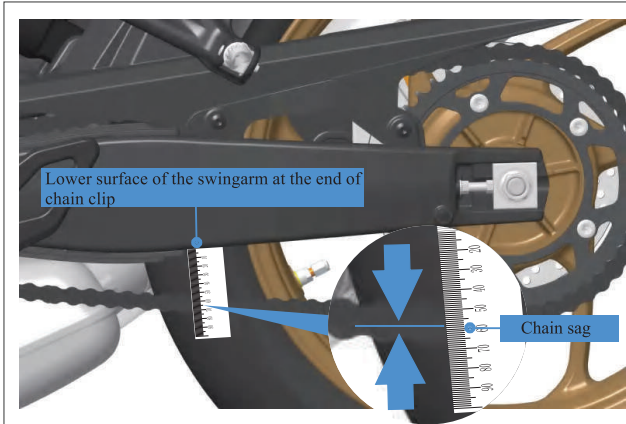
Avoid getting lubricant on the brakes or tires, and refrain from using excessive lubricant to prevent it from splashing onto clothing or the motorcycle.



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.

Check Drive Chain Sag



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. Press the chain downward at Lower surface of the swingarm at the end of chain clip (as shown in the image above) and measure the center of the chain pin

to ensure proper chain sag.

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

5. Check the chain.

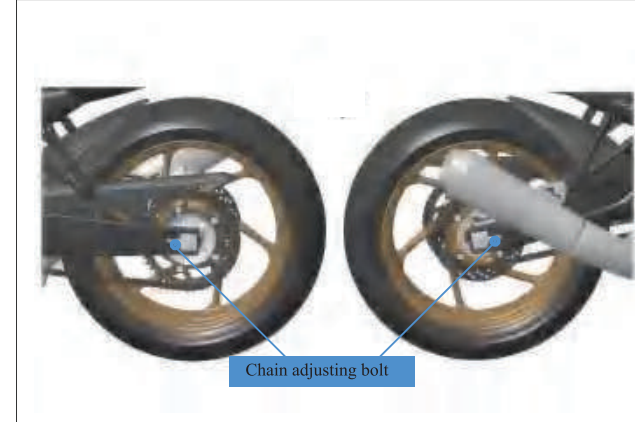
6. Clean and lubricate the drive chain.

Drive chain sag: 57-61 mm

If the sag exceeds 61mm, you cannot continue to ride the motorcycle.

Notes

- When inspecting the drive chain sag, ensure that the upper section of the chain is properly tensioned.



Adjust The Drive Chain Sag

■ 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 rear wheel axle locking bolt.
4. Turn the adjusting nuts on both sides to adjust the chain sag.
5. The chain sag adjustment range is 57-61 mm
6. Determine the chain sag by pushing the chain toward the swingarm in the area behind the chain guard.
7. Tighten the rear wheel axle locking bolt (Torque: $108 \pm 5 \text{ N}\cdot\text{m}$).
8. Tighten the jam nut on the chain sag adjusting bolt (Torque: $18 \pm 2 \text{ N}\cdot\text{m}$).

Notes

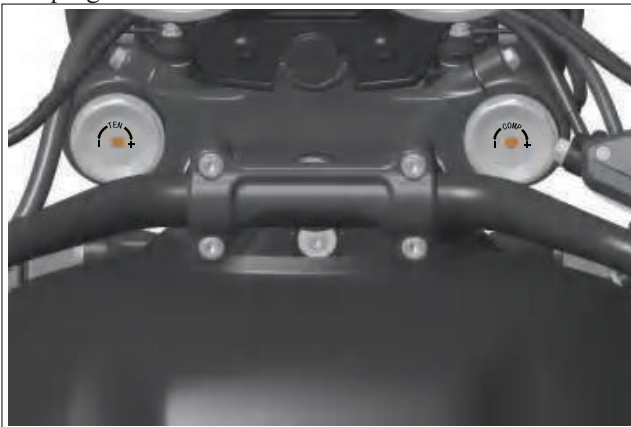
- When adjusting the drive chain sag, ensure that the upper section of the chain is tightened.

Front Shock Absorber

Compression Damping Adjustment

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

The compression damping has 16 ± 2 clicks. Rotating the bolt clockwise (+) increases compression damping, while rotating it counterclockwise (-) decreases compression damping.



Set standard compression damping

1. Clockwise rotate the compression damping adjusting bolt until it cannot be rotated.
2. Rotate the compression damping adjusting bolt in a counterclockwise direction. The standard compression damping is set by rotating it 12 clicks counterclockwise from the fully tightened position (where a click sound is heard). 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 shock absorber. The rebound damping of the front shock absorber is marked (TEN) on the left side of the front shock absorber. Adjust the slotted part of the stud center.

The rebound damping has 16 ± 2 clicks. Rotating the bolt clockwise (+) increases rebound damping, while rotating it counterclockwise (-) reduces rebound damping.

■ Set the standard rebound damping

1. Clockwise rotate the compression damping adjusting bolt until it cannot be rotated.
2. Rotate the rebound damping adjusting bolt in a counterclockwise direction. The standard rebound damping is set by rotating it 10 ± 2 clicks counterclockwise from the fully tightened position (where a click sound is heard).

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 adjusting bolt clockwise, both compression damping and rebound damping can be increased.

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.

Rebound Damping Adjustment



The rebound damping adjusting bolt is located at the upper left end of the rear shock absorber, with 18 ± 2 clicks of rebound damping. Rotating the adjusting bolt clockwise (+) increases rebound damping (hard); rotating it counterclockwise (-) reduces rebound damping (soft).

■ Set the standard rebound damping

1. Rotate the adjusting bolt clockwise (+) until it cannot be rotated.
2. Rotate the adjusting bolt counterclockwise (-), rotate from the hardest position counterclockwise to adjust the standard compression damping in 8 ± 2 clicks.

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 shock absorber trim and dust seal are clean and that there is no soil or dirt on the front shock absorber.
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 shock absorber rebounds smoothly.
4. Press the seat cushion several times to check whether the rear shock absorber works smoothly.

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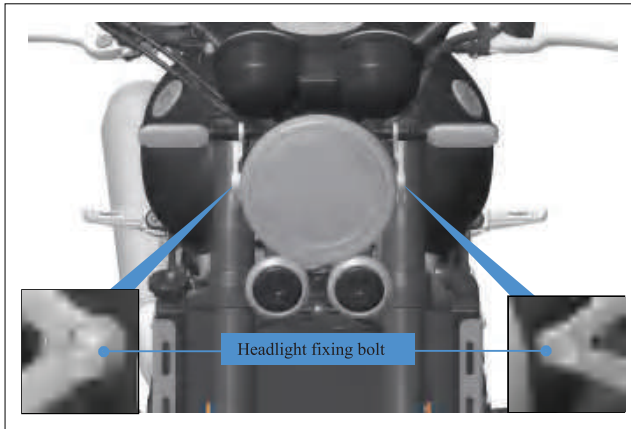
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Headlight

Adjust The Headlight Beam



with local regulations and laws when adjusting the headlight beam height.

You can loosen the $M8 \times 22$ hexalobular internal pan head bolt securing the headlights on both sides to adjust the overall height of the headlight beam. After adjusting the height, tighten the headlight bracket on both sides and the headlight connecting bolts. The bolt torque should be 20 N•m. Please comply

Fault Handling

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

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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.

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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" (OFF) to "ON" (ON), the indicator does not illuminate.

● The indicator light does not turn off when the vehicle speed exceeds 5km/h.

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.

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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

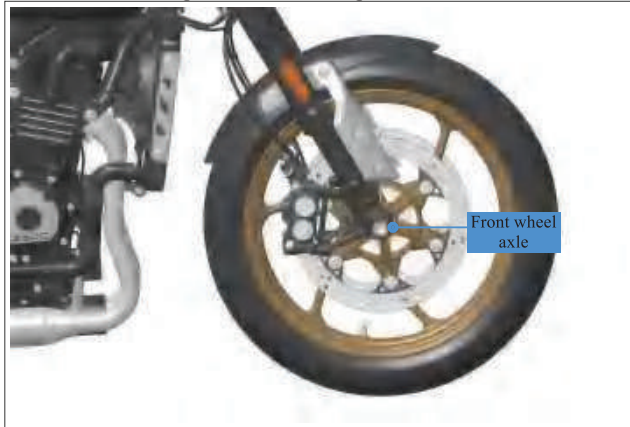
- Riding a motorcycle with a temporarily patched tire is hazardous. If the patch fails, it could lead to an accident, causing severe injuries or fatalities.
- If you must ride a motorcycle with a temporarily

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 puncture, please follow the steps below. Be careful not to damage the wheel speed sensor or ABS gear ring ring when removing and installing the wheel.



Disassembly

1. Securely 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 shock absorber, 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 (Front wheel axle M16, torque: $71 \pm 3 \text{ N}\cdot\text{m}$). Shake

the front fork up and down several times and operate the hand brake lever several times. Finally, install the two right-side locking bolts. (Front wheel axle locking bolt M8, torque: $24 \pm 2 \text{ N}\cdot\text{m}$).

3. Install the brake caliper and tighten the bolt (Torque: $44 \pm 2 \text{ N}\cdot\text{m}$, 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. Park the motorcycle on a firm and flat level.
2. Firmly support your motorcycle with side stands or service bracket and lift the rear wheel off the ground.
3. Remove the rear wheel axle nut.
4. Remove the rear wheel axle.
5. The rear wheel can be removed by pushing it forward.

Installation

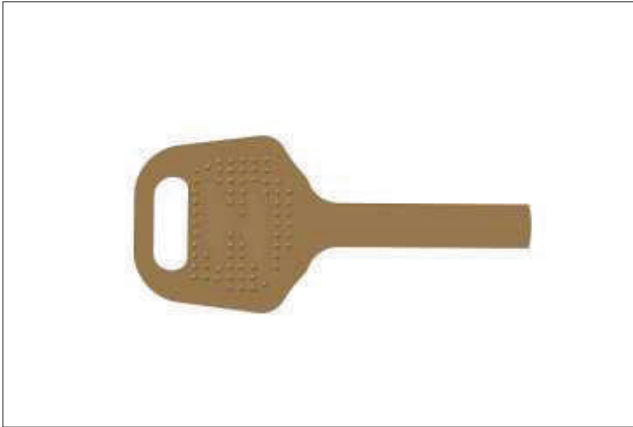
1. Clean the left and right oil seals as well as the left and right bushings of the rear wheel.
 2. Install the rear wheel bushings (left and right). Coat a small amount of grease to the lubrication area between the rear wheel bushings and the oil seals.
 3. Install the rear wheel in the reverse order of removal to prevent the brake caliper from scratching the wheel during installation.
 4. Adjust the chain sag as required (Chain tension adjusting nut torque: $18 \pm 2 \text{ N}\cdot\text{m}$).
 5. Tighten the rear wheel axle locking nut (Torque: $108 \pm 5 \text{ N}\cdot\text{m}$).
 6. 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.

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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.
- 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.

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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 (Sub-total)

■ Odometer

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

■ Trip Meter

When the reading on the sub-odometer exceeds 9999.9, 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.

Cleaning

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

1. Thoroughly rinse the motorcycle with a low-pressure hose to remove loose dirt.
2. If necessary, use a sponge or soft towel dipped in mild detergent to remove dust and dirt.
3. Thoroughly rinse the motorcycle with ample clean water and dry it using a clean, soft towel.
4. 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.

5. After washing and drying the motorcycle, lubricate the drive chain promptly.

6. Waxing helps prevent corrosion.

Avoid using products containing strong detergents or chemical solvents, as these substances can damage the motorcycle's metal parts, paint surface and plastic components. Do not wax the tires and brakes.

If your motorcycle has parts with a matte finish, avoid waxing these matte surfaces.

Cleaning Precautions

- Avoid using a high-pressure water jet:
 - ▶ High-pressure water jets can damage moving parts or electrical components, rendering them irreparable.
 - ▶ Moisture from the intake port may be drawn into the throttle body or enter the air filter.
- 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.

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- Dry the brakes:

- ▶ Water reduces braking performance. After washing, intermittently use the brakes at low speed, repeatedly pressing the brake pedal lightly to generate heat from friction, drying the water until braking efficiency is restored.

- 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 rinse the engine intake port with water directly.

- ▶ Water can cause engine damage if it enters the engine.

- Avoid direct water contact near the headlight:

- ▶ 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.

- Avoid waxing or polishing matte finishes:

- ▶ Use sufficient water and a mild cleanser to clean matte paint surfaces, and dry them with a clean, soft

tower.

Aluminum Components

- Aluminum corrodes when exposed to dirt, mud or salt. Regularly clean aluminum components and follow these guidelines to prevent scratches:

- ▶ Avoid using stiff brushes, steel wool, or any abrasive cleaning materials.

- ▶ Do not drive or scrape against the curb.

Panel

- Follow these guidelines to prevent scratches and damage:

- ▶ Gently clean with a sponge and sufficient water.

- ▶ Clean with diluted detergent and rinse thoroughly with ample water to remove stubborn stains.

- ▶ Avoid exposing the instrument panel and lamp covers to corrosive liquids like gasoline and brake fluid.

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.

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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 two three-way catalytic converters. The catalytic converter contains precious metals as catalysts for high-temperature chemical reactions, transforming hydrocarbons (HC), carbon monoxide (CO), and nitrogen oxides (NO_x) 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 unleaded gasoline should be used, 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.

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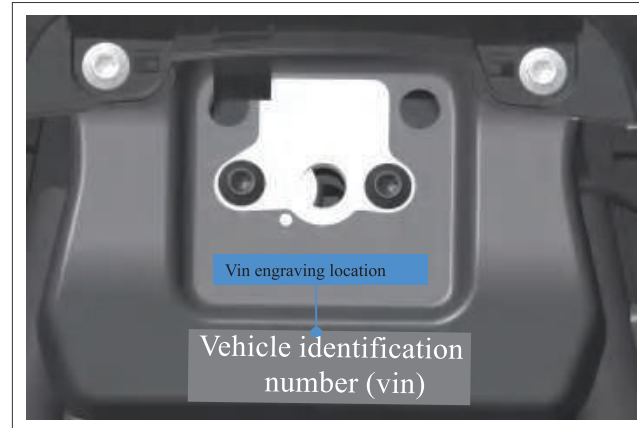
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Vehicle Identification Number, Engine Number and Nameplate

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.

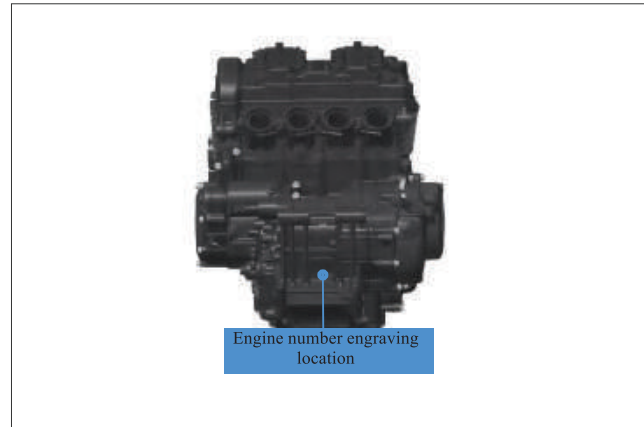
Vehicle Identification Number (VIN)

The VIN is engraved on the rear underside of the seat cushion.



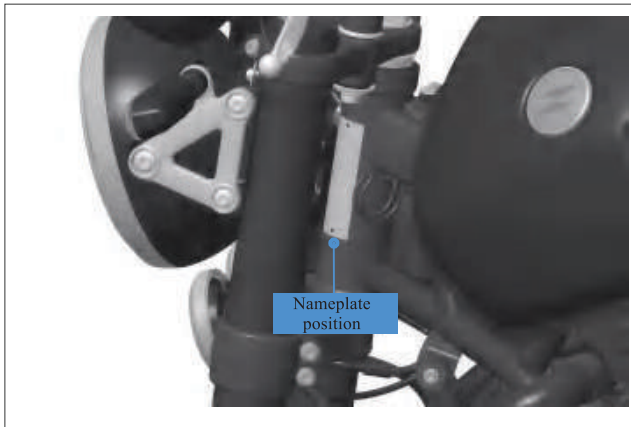
Engine Number

The engine number is engraved on the middle position of the rear side of the engine transmission case.



Nameplate

The nameplate is riveted on the left side of the frame upright tube.



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Vehicle-Related Parameters -1		
Item		500F
External dimensions (mm)	Length	2015
	Width	800
	Height	1060
	Shaft distance	1395
Quality parameters (kg)	Curb weight	175
	Curb axle load: Front/Rear	91/84
Number of passengers (persons)	Number of passengers	2
Performance parameters	Maximum speed (km/h)	205

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Vehicle-Related Parameters - 2

Item		500F
Fuel	Fuel standard	95 octane or higher unleaded gasoline
	Fuel consumption: (100 km/L)	4.8
	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
	Rear brake pedal free play (mm)	5-10
	Standard value of front brake friction plate (excluding base plate thickness) (mm)	3.5
	Standard value of rear brake friction plate (excluding base plate thickness) (mm)	6.5

Vehicle-Related Parameters -3

Item			500F
Brake	Service limit value of front brake friction plate (excluding base plate thickness) (mm)		1
	Service limit value of rear brake friction plate (excluding base plate thickness) (mm)		1
Wheel	Rim model		Aluminum alloy cast type Front: MT3.5 × 17 Rear: 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

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Vehicle-Related Parameters -4

Item		500F
Engine and transmission parameters	Model	ZX459MR-3A
	Type	In-line four-cylinder, four-stroke, 16-valve, naturally aspirated, electronic multi-point fuel injection
	Cylinder diameter x stroke (mm)	59×43
	Total displacement(ml)	470
	Compression ratio	12:01
	Maximum net power/speed (kW/rpm)	54/11000 ±1.5%
	Maximum torque/speed (N·m/rpm)	48/9500 ±1.5%
	Minimum unladen stable speed (r/min)	1500±100

Vehicle-Related Parameters -5

Item		500F
Engine and transmission parameters	Spark plug	BN9RD
	Spark plug clearance	0.8±0.1mm
	Valve clearance (intake)	0.1-0.15 mm
	valve clearance (exhaust)	0.15-0.2 mm
	Ignition mode	Electronic ignition
	Emission standard	China IV
	Gearbox	Manual
	Clutch	Wet multi-piece sliding clutch
	Transmission mode	Chain transmission

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Vehicle-Related Parameters -6

Item			500F
Engine and transmission parameters	Transmission gear ratio	Primary transmission ratio	1.949
		First gear	2.846
		Second gear	2.056
		Third gear	1.632
		Fourth gear	1.381
		Fifth gear	1.24
		Sixth gear	1.111
		Final transmission ratio	2.933
Electrical appliance	Battery		12V/4Ah

Vehicle-Related Parameters -7

Item		500F
Electrical appliance	Main fuse	30A
	Neutral indicator light	LED
	Headlight	LED
	Front position lamp	LED
	Rear taillight/Brake lamp	LED
	Front turn signal	LED
	Rear turn signal	LED
	Rear license plate lamp	LED
	Turn indicator light	LED
	Instrument indicator light	LED

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Vehicle-Related Parameters -8

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)	Original ZXJC & Shell co-developed specialized engine oil API: SN/SAE 10W40 / JASO: MA2	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 (L)		
Brake fluid	DOT4	183 (mL)		

Frame Tightening Torque -1

Assembly Position	Component Name	Thread Diameter (mm)	Torque (N·m)	Notes
Secondary air supply valve mounting bracket connected to frame	Hexalobular hexagon flange bolt	M6	8	
Intake pressure sensor bracket and throttle valve assembly	Hexalobular hexagon flange bolt	M6	10	
Main cable grounding point and left rear side of the frame	Hexalobular hexagon flange bolt	M6	8	
Front wheel speed sensor and front shock absorber-left	Hexalobular hexagon flange bolt	M6	8	
Voltage regulator bracket and frame	Hexalobular hexagon flange bolt	M6	10	
Rear wheel speed sensor and rear caliper	Hexalobular hexagon flange bolt	M6	8	
Radiator lower mounting bracket and engine	Hexalobular hexagon flange bolt	M6	8	
Headlight bracket - left and front bracket	Hexalobular socket pan head bolt	M6	8	
Headlight bracket - right and front bracket	Hexalobular socket pan head bolt	M6	8	
Muffler heat shield and front exhaust section	Hexalobular socket pan head bolt	M6	8	
Front footpeg bracket - right and rear brake pump assembly	Hexalobular hexagon flange bolt	M6	10	Apply sealing
Gear shift pedal assembly and shift rod end bearing (external thread) right-hand	Hexalobular hexagon flange bolt	M6	10	Apply sealing
Shift rockerarm and shift rod end bearing (external thread) left-hand	Hexalobular hexagon flange bolt	M6	10	Apply sealing
Shift rockerarm and engine gear shift lever	Hexalobular hexagon flange bolt	M6	10	Apply sealing
Intake pressure sensor and intake pressure sensor bracket	Hexalobular hexagon flange bolt	M6	10	Apply sealing
Taillight and frame	Hexalobular hexagon flange bolt	M6	8	
Air filter assembly and frame	Hexalobular hexagon flange bolt	M6	10	
ABS bracket and frame	Hexalobular hexagon flange bolt	M6	10	
Radiator upper end and frame	Hexalobular hexagon flange bolt	M6	10	
Fuel tank front end and frame	Hexalobular hexagon flange bolt	M6	10	
Radiator and radiator lower mounting bracket	Hexalobular hexagon flange bolt	M6	10	
Regulating rectifier and voltage regulator bracket	Hexalobular hexagon flange bolt	M6	10	
Ignition lock, instrument bracket, and upper connecting plate	Hexalobular hexagon flange bolt	M8	22	Apply sealing
Steering handlebar upper cover and steering handlebar lower socket locking	Hexalobular hexagon flange bolt	M8	22	Apply sealing
Front shock absorber-right and front wheel axle locking	Hexalobular hexagon flange bolt	M8	22	Apply sealing

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Frame Tightening Torque - 2

Assembly Position	Component Name	Thread Diameter (mm)	Torque (N·m)	Notes
Upper bracket and front shock absorber (locking)	Hexalobular hexagon flange bolt	M8	22	
Lower bracket and front shock absorber (locking)	Hexalobular hexagon flange bolt	M8	20	Apply sealing
Rear footpeg bracket - right and muffler tail section bracket	Hexalobular hexagon flange bolt	M8	22	
Fuel pump and fuel tank	Hexalobular hexagon flange bolt	M5	5	
Muffler mounting bracket and front section of the muffler	Hexalobular hexagon flange bolt	M8	22	
Side stand mounting panel and engine	Hexalobular hexagon flange bolt	M10	54	Apply sealing
Side stand mounting panel and engine	Hexalobular hexagon flange bolt	M10	54	Apply sealing
Fuel tank rear mounting point and frame	Hexalobular hexagon flange bolt	M8	22	
Rear shock absorber and frame	Hexalobular hexagon flange bolt	M10	54	
Side stand mounting panel and engine	Hexalobular hexagon flange bolt	M10	54	Apply sealing
Front footpeg bracket - left and frame	Hexalobular socket button head bolt	M8	22	Apply sealing
Front footpeg bracket - right and frame	Hexalobular socket button head bolt	M8	22	Apply sealing
Brake hose 2 and frame	Hexalobular socket cylinder head bolt	M6	10	
Gear shift assembly and side stand mounting plate	Hexalobular socket button head bolt	M8	22	Apply sealing
Brake rockerarm assembly and front footpeg assembly - right	Hexalobular socket button head bolt	M8	22	Apply sealing
ABS ring gear and front aluminum wheel	Hexalobular socket pan head bolt	M5	5	Apply sealing
ABS rear ring gear and rear disc brake	Hexalobular socket pan head bolt	M5	5	Apply sealing
Brake hose 4 and swingarm	Hexalobular socket pan head bolt	M5	5	
Intake air temperature sensor and air filter assembly	Hexalobular socket pan head bolt	M6	5	
Horn and frame	Hexalobular socket pan head bolt	M6	8	
Rear fender front section and frame	Hexalobular socket pan head bolt	M6	8	
Water reservoir assembly and frame	Hexalobular socket pan head bolt	M6	8	
Side cover - left and frame	Hexalobular socket pan head bolt	M6	8	
Side cover - right and frame	Hexalobular socket pan head bolt	M6	8	

Frame Tightening Torque - 3

Assembly Position	Component Name	Thread Diameter (mm)	Torque (N·m)	Notes
Fuel rail assembly and throttle valve assembly	Hexalobular socket step bolt	M5	Tighten the two center screws to 5 N·m, then tighten the two side screws to 5 N·m. Next, tighten the center screws to 7 N·m, followed by the side screws to 7 N·m	
Rear fender inner panel and rear fender rear section	Hexalobular socket step bolt	M5	5	
Vehicle body - left and rear fender front section	Hexalobular socket step bolt	M5	5	
Vehicle body - right and rear fender front section	Hexalobular socket step bolt	M5	5	
Chain guard and swingarm	Hexalobular socket step bolt	M5	5	
Left front brake disc and wheel hub	Hexalobular socket step bolt	M8	22	
Right front brake disc and wheel hub	Hexalobular socket step bolt	M8	22	
Side stand and side stand mounting plate	Special mounting bolts for side stand	M6	10 N·m (apply grease to smooth portion of rod)	
Chain clip pressure plate and swingarm	Hexalobular socket button head bolt	M6	8	Apply sealing
Radiator lower mounting bracket and radiator	Hex nut	M6	10	
Instrument and instrument bracket	Hex nut	M6	8	
Muffler and engine	Hex nut	M6	8	
Shift rod and shift rod end bearing (external thread) left-hand	Hex nut	M6	8	
Gear shift rod end bearing (external thread) right-hand and gear	Hex nut	M6	8	
Front footpeg assembly - right and muffler tail end bracket	Hex nut	M8	22	
Muffler mounting bracket and front section of the muffler	Hex nut	M8	22	
Rear shock absorber and frame	Hex nut	M10	54	
Engine rear suspension and frame	Hex nut	M10	54	
Side stand and side stand mounting plate locking	Hex nut	M10	22	
Swingarm and frame locking	Swingarm axle nut	M16	88	
Rear wheel axle locking	Swingarm axle nut	M16	108	

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Frame Tightening Torque -4

Assembly Position	Component Name	Thread Diameter (mm)	Torque (N·m)	Notes
Steering stem	4-slot adjusting nut	M25	Fasten the 4-slot nut to 30 N·m, then fully secure the direction. After loosening the adjusting nut by two turn, fasten it to 17 N·m, then back off the 4-slot adjusting nut by 90°.	
Rear fender inner panel, rear fender rear bracket and frame	Combination bolt	M6	10	
Rear tailgate, vehicle body - left, and frame	Hexalobular socket step bolt	M6	8	
Rear tailgate, vehicle body - right, and frame	Hexalobular socket step bolt	M6	8	
Front fender bracket-left and front shock absorber-left	Hexalobular socket step bolt	M6	8	
Front fender bracket-right and front shock absorber-right	Hexalobular socket step bolt	M6	8	
Seat cushion lock and frame	Hexalobular socket pan head bolt	M6	8	
License plate lamp assembly and rear section of the rear fender	Hexalobular hexagon flange bolt	M5	5	
Engine sprocket cover and engine	Hexalobular hexagon flange bolt	M6	10	
Front brake pump and steering handlebar assembly	Hexalobular hexagon flange bolt	M6	10	
Clutch lever and steering handlebar assembly	Hexalobular hexagon flange bolt	M6	10	
Rear sprocket and buffer	Hexalobular internal countersunk bolt	M8	36	
Rear disc brake and rear wheel hub	Hexalobular socket step bolt	M8	35	
Rear footpeg bracket - left and frame	Hexalobular hexagon flange bolt	M8	22	Apply sealing
Rear footpeg bracket - right and frame	Hexalobular hexagon flange bolt	M8	22	Apply sealing
Left rear grab handle and frame	Hexalobular hexagon flange bolt	M8	22	Apply sealing
Right rear grab handle and frame	Hexalobular hexagon flange bolt	M8	22	Apply sealing
Rear shock absorber and swingarm	Hexalobular socket cylinder bolt	M10	54	
Chain adjuster- left and swingarm	Hexagon flange nut	M8	18	
Chain adjuster-right and swingarm	Hexagon flange nut	M8	18	
Front brake caliper assembly-right and front shock absorber	Hexalobular socket taper head bolt	M10	45	Apply sealing
Front brake caliper assembly-left and front shock absorber	Hexalobular socket taper head bolt	M10	45	Apply sealing

Frame Tightening Torque -5

Assembly Position	Component Name	Thread Diameter (mm)	Torque (N·m)	Notes
Fuel tank front trim panel - left and frame	Hexalobular socket step bolt	M6	6	
Fuel tank front trim panel - right and frame	Hexalobular socket step bolt	M6	6	
Rear fender front section, side cover - left, and frame	Hexalobular socket step bolt	M6	6	
Rear fender front section, side cover- right, and frame	Hexalobular socket step bolt	M6	6	
Vehicle body - left and frame	Hexalobular socket step bolt	M6	6	
Vehicle body - right and frame	Hexalobular socket step bolt	M6	6	
Engine upper suspension - left and frame	Hexalobular socket button head bolt	M8	22	Apply sealing
Engine upper suspension - right and frame	Hexalobular socket button head bolt	M8	22	Apply sealing
Engine right-front mounting point and frame	Hexalobular socket button head bolt	M10	54	Apply sealing
Engine left mounting point and frame	Hexalobular socket button head bolt	M10	54	Apply sealing
Engine right-rear mounting point and frame	Hexalobular socket button head bolt	M10	54	Apply sealing
OFF switch and side stand	Hexalobular socket pan head bolt	M6	8	Apply sealing
Accelerator cable pressure plate and switch	Hexalobular socket pan head bolt	M5	5	
Frame and rear tailgate support panel	Hexalobular hexagon flange bolt	M8	22	Apply sealing
Front bracket and upper connecting plate	Hexalobular hexagon flange bolt	M6	10	Apply sealing
Oxygen sensor harness bracket and engine	Hexalobular socket cylinder head bolt	M6	8	
Front wheel axle and front shock absorber locking	Front wheel axle	M16	70	
Upper triple clamp and steering handle locking	Hex flange bolt	M16	88	

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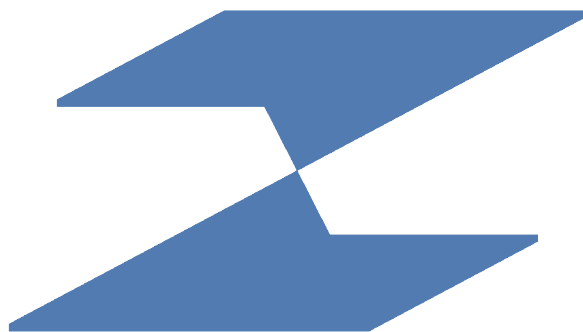
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Engine Tightening Torque

Fastener Specification	Torque N·m	Fastener Specification	Torque N·m
M5 bolt or nut	5±1	M5 screw	4±1
M6 bolt or nut	10±1	M6 screw	9±1
M8 bolt or nut	25±5	M6 flangebolt or nut	12±1
M10 bolt or nut	35±5	M8 flangebolt or nut	25±5
M12 bolt or nut	45±5	M10 flangebolt or nut	35±5



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