

ZONTES

703R

OWNER'S MANUAL

This User Manual is considered a permanent part of the Motorcycle and should be given to the new owner of the vehicle when the vehicle is resold.

The vehicle information in this User Manual is the latest production information before printing. Guangdong Tayo Motorcycle Technology Co., Ltd. reserves the right to modify the content and design of this manual at any time, and does not assume any responsibility for it.

The content of this User Manual is updated quickly, and the final website shall prevail, and the PDF file of this manual is available for download on the official website.
The vehicles illustrated in this User Manual are for reference only, and everything is based on your actual vehicle.

The final interpretation right of this User Manual is owned by Guangdong Tayo Motorcycle Technology Co., Ltd.

No part of this manual may be copied or copied without permission.

© Guangdong Tayo Motorcycle Technology Co., Ltd.

Precautions

Thank you for choosing Zontes brand motorcycles. We design, test and manufacture this model of motorcycle for you with advanced technology, providing you with interesting, fun and safe driving. Once you are fully familiar with the essentials in this manual, you will find driving a motorcycle an exhilarating sport and a real joy of driving

For your driving safety, please note the following:

• Please be sure to read this User Manual carefully;

• Please refer to the suggestions and operating procedures in this manual;

• Please carefully read this manual and the safety tips pasted on the motorcycle body.

• The illustrations in this manual are based on the highest configuration 703R and J.JUAN calipers. Please refer to the actual product for everything.

Vehicle model, engine model

Vehicle	Engine model
703R	ZT370MU

Safety Precautions:
The safety of your and others life the is very important. Be sure to obey the traffic rules and drive safely. To help you drive safely, we provide detailed instructions and other relevant information on body stickers and in this manual to protect you or others from potential hazards.
This manual has safety warning symbols ⚠ and the following three warning words: danger, warning, and caution.
The following signal words and logos appear in this note
The meaning of the three warning words on the book and in your motorcycle is shown below:

⚠ DANGER

• Failure to follow the hazard warning，it will result in serious casualties.

⚠ WARNING

• Failure to follow warnings, it may result in serious casualties.

⚠ CAUTION

• Failure to follow the cautionary instructions will result in damage to the motorcycle and property.

Catalog

Riding safely	1-1
Component mounting location	2-1
Left and right handlebar control system	3-1
PKE keyless control system	4-1
Instrument	5-1
Maintenance	6-1
Troubleshooting	7-1
Maintenance and storage	8-1
Circuit diagram	9-1

Catalog

Riding safely ----------1-1
- Driver safety ----------1-1
- Helmet and eye protection ----------1-1
- Gloves----------1-1
- Long-sleeved shirts/jerseys ----------1-1
- Boots----------1-1
- Carbon monoxide poisoning ----------1-2
- Load----------1-3
- Genuine ZONTES accessories ----------1-3
- Safe driving essentials ----------1-3
- Starting engine ----------1-5
- Safe the engine ----------1-5
- Driving ----------1-6
- Braking and stopping----------1-8
- Anti-lock Braking System (ABS) ----------1-9
- Traction Control System (TCS) ----------1-9
- How to turn off TCS ----------1-9
- Motorcycle running-in period ----------1-11
- Engine RPM ----------1-11
- The rotational speed of the engine ----------1-11
- Tire running-in period ----------1-12
- Avoid long-term full-throttle operation ----------1-12
- Circulate oil before driving ----------1-12

Component mounting location ---------- 2 - 1

Left and right handle control systems ---------- 3 - 1

Passive Keyless Entry System ---------- 4 - 1
- Use of inductive keys ---------- 4-2
- Non-electric induction start mode ---------- 4-2
- PKE power-on ---------- 4-3
- PKE power-off ----------4-3
- PKE Fault Prompt ----------4-5

Catalog

Instrument panel ---------- 5-1

Maintenance----------6-1

First maintenance ----------6-1
Maintenance safety ----------6-1
Routine first inspection ----------6-2
Regular maintenance schedule ----------6-3
Pre-driving inspection ----------6-6
Battery ----------6-8
Battery removal ----------6-8
Commissioningof new battery ----------6-9
Battery cleaning ----------6-9
Battery replacement ----------6-9
Battery use and maintenance ----------6-9
Battery safety precautions ----------6-10
Charger Usage Instructions ----------6-11
Main seat/Tool kit ----------6-12
Rear seat ----------6-12
Muffler ----------6-13
Spark plug inspection ----------6-14
Spark plug replacement ----------6-14
Spark plug installation ----------6-14
Engine oil----------6-15
Engine oil level inspection ----------6-15
Engine oil replacement ----------6-16
Engine oil filter replacement ----------6-17
Coolant ----------6-19
Engine coolant (antifreeze) ----------6-20
Air filter ----------6-21
Oil drain tube ----------6-22
Engine idle speed check ----------6-23
Adjust the opening angle of the brake handle ----------6-23
Check the brake lever gap ----------6-23
Check the free play of the clutch lever ----------6-24
Side bracket ----------6-25
Gear lever ----------6-25

Footrest ----------6-26
Fuel tank cover ----------6-26
Front suspension system ----------6-28
Adjust the rear suspension system ----------6-30
Suspension adjustment recommendations ----------6-31
Upper triple clamp rubber damper touble shooting ----------6-32
Drive chain ----------6-33
Check the drive chain ----------6-33
Cleaning and lubrication of the drive chain ----------6-33
Adjustment of the drive chain ----------6-34
Check the tightness of the drive chain ----------6-35
Adjust the tightness of drive chain ----------6-35
Drive chain tension adjustment bolts ----------6-35
Check the chain life ----------6-36
Check the rear fork anti-wear block----------6-37
Tires ----------6-38
Super sports and racing tires----------6-40
Check the rim and valve----------6-41
Wheel ----------6-41
Brake ----------6-41
Light adjustment ----------6-43
Additional electrical components ----------6-44

Troubleshooting ----------7-1

Fuse ----------7-1
Catalyst ----------7-2
Troubleshooting ----------7-2
Fuel system inspection ----------7-2
Engine does not working ----------7-3
Engine power is insufficient ----------7-3
Carbon deposit cleaning ----------7-4
EFI precautions ----------7-5
EFI fault codes ----------7-6
LCM function fault code ----------7-8
LCM button malfunction code ----------7-10

Catalog

Storage ----------8-1
Storage methods ----------8-1
Motorcycle ----------8-1
Fuel ----------8-1
Engine ----------8-1
Battery ----------8-1
Maintenance during storage ----------8-1
Tires ----------8-1
Motorcycle surface ----------8-1
Recommissioning method ----------8-2
Corrosion prevention ----------8-2
Key points for preventing corrosion ----------8-2
How to prevent rust ----------8-2
Motorcycle cleaning ----------8-3
Cleaning precautions ----------8-5
Transportation ----------8-7
Engine number(EIN) ----------8-8
Frame number(VIN) ----------8-8
Nameplate ----------8-8

Specification sheet ----------9-1

Sircuit diagram----------10-1

Driver safety

Drivers and passengers must always wear appropriate protective equipment, including: certified helmets, gloves, long-sleeved shirts/jerseys, long pants/riding pants,and over-ankle boots/riding boots.

⚠WARNING

· Do not wear any loose clothing that may entangle the vehicle or hang on branches and shrubs.

Helmet and eye protection

A certified helmet can reduce injuries to the head and brain. In the event of an accident, wearing a helmet can greatly reduce the risk of brain injury.The helmet you choose should meet the standards of your country or region and fit properly. A helmet with a face shield is a better choice

because it also prevents impacts from the front, including insects, flying stones, dust, scattered parts, etc.,allowing you to make timely judgments on road conditions and drive safely.

Half-face helmets cannot provide the same protection for the face and jaw.If you wear a half-face helmet, you should use a detachable face shield and goggles.

Gloves

Full-finger gloves can effectively protect hands from wind, sun, heat,cold, and flying debris. Well-fitting gloves help you grip the handle bars and reduce hand fatigue. On the contrary, if the gloves are too bulky, it will be difficult to operate the vehicle.In the event of an accident or rollover,a pair of sturdy reinforced motorcycle gloves can better protect your hands.

Long-sleeved shirts/jerseys

Wear a jacket/long-sleeved shirt and long pants or a full cycling outfit. High-quality protective equipment is more comfortable and can prevent adverse environmental factors from distracting you. In the event of an accident, high-quality protective equipment made of sturdy materials can reduce or even prevent injuries.

Boots

Always wear protective equipment that can protect your feet/ankles. The engine or exhaust will become very hot during operation, which may cause burns.

⚠ DANGER

· For your life safety, please avoid driving motorcycles at high speed in heavy rain, wind, ice and snow.

Carbon monoxide poisoning

The engine emits exhaust gas containing carbon monoxide during operation, which is a colorless and odorless gas. Inhalation of carbon monoxide can cause headaches,dizziness, drowsiness, nausea,confusion, and ultimately death.In a confined or poorly ventilated space, lethal levels of carbon monoxide can accumulate over hours or days, making your body quickly unable to cope and unable to save yourself. If you feel symptoms of carbon monoxide poisoning, please immediately leave the area, breathe fresh air, and seek medical attention.

⚠ WARNING

· Running a motorcycle's engine in a confined or semi-confined space may result in a rapid build-up of toxic carbon monoxide gas.

· Only run the motorcycle's engine in a well-ventilated outdoor area.

Load

Additional weight accessories or wind-resistant attachments such as windshields, backrests, saddles, seats,and travel cases should be installed as low as possible, close to the vehicle

body, and near the center of gravity. Improper installation will shift the center of gravity and pose dangers. The key points for installing accessories are: ensuring left-right balance and firm stability. Poorly installed accessories or ill-designed attachments can cause operational difficulties and endanger driving safety.

When carrying goods, keep the goods as low as possible and close to the motorcycle. Incorrectly secured goods will raise the center of gravity, making the motorcycle difficult to control and seriously affecting driving safety. The size of the goods will affect air resistance and the motorcycle's maneuverability. Please balance the items on both sides of the motorcycle and secure the goods properly. The total weight of the driver, passengers, accessories, and goods must not exceed the maximum load limit.

MAX load:

180 kg

⚠CAUTION

• The plastic trunks sold by our company must not carry more than 5kg, and the aluminum trunks must not carry more than 10kg. If there is a loading weight requirement indicated on the trunk, then the above data shall prevail.

Genuine ZONTES accessories

Choosing accessories for your vehicle is an important decision. Genuine ZONTES accessories are only available for purchase on the ZONTES official website and through authorized dealers. They are designed, tested, and approved by ZONTES for use on the vehicle.

Companies unrelated to ZONTES also manufacture parts and accessories for ZONTES vehicles or provide other modifications. ZONTES is not responsible for testing products produced by these non-designated companies, and does not approve or recommend the use of accessories not sold by ZONTES, even if these accessories are sold and installed by ZONTES dealers.

Safe Driving Essentials

If this is your first time driving this type of vehicle, we recommend that you practice on non-public roads until you are familiar with the control and handling methods of this car.

Driving with one hand is very dangerous. You should firmly hold the steering wheel with both hands and place your feet on the footrest while driving. Under no circumstances should you remove your hands from the steering wheel while driving.

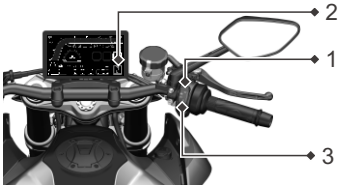
Reduce the speed to a safe level before making a turn.

When the road is wet and slippery, the tire friction will decrease, and the braking and turning capabilities will naturally decrease. Therefore, you must slow down in advance.

Crosswinds are most likely to occur at tunnel exits, valleys, or when large vehicles overtake from behind. You must be careful and calm, slow down, and follow traffic rules and speed limits.

Start the engine

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



1.Make sure the engine ignition switch is in the (running) position.

2.Shift the gear to neutral"N" and the neutral indicator light turns on.

2.Hold the clutch handle, press the switch, and the engine starts when it's in the " " position.

⚠WARNING

· Never start or run the engine in a confined area.

· Waste is toxic and can cause loss of consciousness and death in a short time.

· Always drive your motorcycle in the open air or in a well-ventilated area

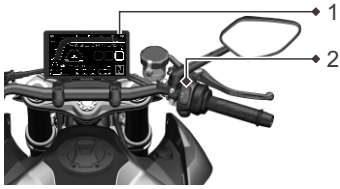
⚠CAUTION

· Don't keep starting the engine for more than five minutes at a time, because the starter motor can overheat and the battery can drain.

· Wait 15 seconds between each start to let the engine cool down and the battery recover.

· Don't let the engine idle for too long, as this can cause overheating and damage the engine.

Stop the engine



Completely turn off the engine:

1.Shift to neutral "N".

2.Turn the ignition switch to the "⊗"(off) position.

⚠WARNING

· Normally, the engine should be stopped by turning the ignition switch to the ⊗ OFF position.

· The engine stop switch is for emergency use only.

· Do not turn on the ignition switch when the engine is stopped. It may cause electrical damage.

⚠CAUTION

· It's strictly forbidden for vehicles to keep the rear wheels running for a long time while the engine is off. Any damage to the vehicle (including the engine) caused by doing this is considered improper operation and won't be covered by the warranty.

Driving

After starting the motorcycle, if you need to get the vehicle moving, you should shift into first gear, slowly release the clutch, so the car can drive smoothly. Once the speed increases and the car can stay balanced, put both feet back on the pedals.

⚠ WARNING

· Do not wear any loose clothing that might get caught on the vehicle or snag on branches and bushes.

·When going up hill, don' t let the engine rev too high, or it could damage the internal parts.

·When going downhill, don' t coast with the engine off, as it can shorten the life of the catalytic converter in the muffler.

·When the engine is in a cold state

1. Make sure the transmission is in neutral and hold the clutch lever.
2. If the transmission isn't in neutral, make sure the side stand is fully up and hold the clutch lever. The tip-over switch will cut off fuel and ignition if the motorcycle tips over, causing it to stall. Once the issue is resolved, you can restart the engine normally.

⚠ DANGER

· This motorcycle is equipped with an interlock switch for the ignition and starter circuits. The engine can only start under the following conditions:
1.The transmission is in neutral, and the clutch lever is held.
2. The tip-over switch will cut off fuel and ignition if the motorcycle falls over, causing the engine to shut off. Once the bike is upright again, you can turn the kill switch back on and restart the engine.

· When the engine is in a cold state

1. The gearbox is in neutral position.
2.The throttle control handle is at idle position.
3.First, squeeze the clutch lever, then press the electric start button ⚡ to start.

· When it is difficult to start the engine when cold

1.The gearbox is in neutral position.
2.First squeeze the brake handlebar ,turn the throttle to 1/8 opening, then press the electric start button to start.
3.After the engine starts, let it run until it is fully warmed up.
4.If the engine is hard to start after several attempts, it might be flooded. Follow the clearing procedure: with the engine in neutral, hold the clutch, open the throttle fully for 3 seconds, then press the start button for 3 seconds. You can repeat this clearing operation if needed.

⚠CAUTION

·Starting the engine: After the vehicle is unlocked, the whole car is powered on. At this point, check whether the kill switch is in the position.
· The colder the weather,the longer the engine needs to warm up. Driving after the engine is fully warmed up can reduce engine wear.

· When the engine is in a warm state

1..The gearbox is in neutral position.
2.The throttle control handle is at idle position.
3.First, squeeze the clutch lever, then press the electric start button to start.

·When it is difficult to start the engine when hot

1.The gearbox is in neutral position.
2.First squeeze the brake handlebar ,turn the throttle to 1/8 opening, then press the electric start button to start.
3. If the engine is hard to start after several attempts, it might be flooded. Follow the clearing procedure: with the engine in neutral, hold the clutch, open the throttle fully for 3 seconds, then press the start button for 3 seconds. You can repeat this clearing operation if needed.

⚠WARNING

·Make it a habit to fold up the side stand when starting, push the throttle all the way down, and hold the clutch lever tight before starting to avoid accidentally lurching forward. The vehicle can only be started with the side stand folded up and the clutch lever pulled in.
·Do not start the motorcycle if fuel or engine oil is low!

Braking and stopping

1.Turn the throttle handle forward to let the throttle fully return.
2.Use both the front brake lever and the rear brake pedal at the same time.
3.If you need to park the motorcycle on a gentle slope using the side stand, try to position the front of the bike facing uphill to prevent tipping over when the side stand rotates.
4.Flip the kill switch on the right handle to off to stop the engine.
5.Turn the handlebars all the way to the left, press the " ⏻ " button for 2-3 seconds, and the handlebars will automatically lock, cutting the power to the whole bike.
6.Wiggle the handlebars to make sure they're locked.

⚠ DANGER

•If you drive too fast, your braking distance will increase accordingly. Make sure there's enough distance between you and the vehicle or object in front so you can stop your motorcycle safely, otherwise you might cause a rear-end collision.

•Braking at high speed using only the front or rear brake is risky, as this method may not give you enough stopping distance. Be careful and use the brakes gently on slippery roads and when turning. Emergency braking on uneven or slick surfaces can cause you to lose control of the motorcycle.

•Emergency braking while turning can make the vehicle lose control, so brake before entering the turn to slow down.

•When the engine is running or just turned off, the exhaust muffler is very hot. Do not touch it to avoid burns.

•Using only the rear brake will accelerate brake system wear and increase your stopping distance.

•After riding, the surface of the muffler and its decorative cover is hot. Do not touch or lean on it to avoid burns or even fire.

Anti-lock Braking System(ABS)

This model is equipped with an anti-lock braking system (ABS) for the front and rear wheels, which helps prevent the wheels from locking up for a long time during emergency braking.

⚠ CAUTION

•ABS does not reduce braking distance. In some cases, ABS might even lead to a longer braking distance.

•ABS does not work at speeds below 10 km/h. When ABS kicks in, you might feel a pulsating sensation in the brake lever or pedal, which is normal.

•Make sure to use the recommended front/rear tires to ensure ABS works properly.

•If you lift the rear wheel off the ground and spin it, the ABS light may come on and the ABS system will turn off. Each time you lift the rear wheel and spin it, make sure to restart the bike's power so the ABS can return to normal.

•If the indicator light shows any of the following conditions, it means there's a serious problem with your ABS system. Slow down and have the system inspected at an authorized ZONTES dealer as soon as possible.

1.The indicator light stays on or flashes while riding.

2.When the speed is above 5 km/h, the indicator light doesn't turn off.

3.The ABS indicator light comes on, the brakes work normally, but the anti-lock function is not active.

Traction Control System (TCS)

The TCS on this vehicle is on by default, meaning every time you turn off the car and start it again, the TCS will be back on.

The TCS function is displayed on the instrument panel as "". When the "" light turns on, it means the TCS function is turned off; When the "" light goes off, it means the TCS function is enabled.

How to turn off TCS

Press and hold the "MENU"button on the left handle to enter the menu, turn off the TCS, or turn it off from the quick menu.

⚠ DANGER

·Please turn off the TCS function in advance when you need aggressive driving, otherwise it will affect the driving experience.

1. After starting the car, TCS enters initialization mode. While it is not yet initialized, the TCS indicator light stays on; once initialization is complete, the light turns off; when TCS is active, the indicator flashes at a frequency of 2Hz. Initialization conditions: engine started, front wheel speed above 1 km/h, and no current faults.

2. The TCS system will be disabled in the following situations:

① Throttle is at 0

② Neutral signal or clutch signal is activated

③ Quickshifter system is triggered

④ Vehicle decelerates sharply

⑤ ABS is triggered

⑥ ABS wheel speed signal is abnormal

New vehicle break-in period

Proper break-in of a new bike can extend its lifespan and also help it perform at its best. Here' s a list of the right ways to do the break-in.

Engine break-in period

Breaking in is the process that happens during the first few hours of running a new vehicle.
Especially when the parts are brand new, there's going to be more internal friction in the engine. Later, once the engine has been running continuously and the parts have 'settled in,' that internal friction drops a lot.
Taking some time to break it in properly will make sure you get lower emissions and will optimize the performance, fuel efficiency, and lifespan of the engine and other motorcycle parts.

Within the first 1000 kilometers:

- Do not use full throttle.
- Always avoid high engine speeds.
- Avoid riding at a constant engine speed (whether fast or slow) for extended periods of time.
- Avoid vigorous starting, stopping, and rapid acceleration except in emergency situations.
- Do not ride at a speed exceeding 3/4 of the throttle opening.

The recommended maximum crankshaft speed is as follows:

Initial 0-1000 kilometers:
Suggest MAX speed 6000rpm

After 1000 kilometers:
Suggest MAX speed 12300rpm

The running-in period and the post-running-in period have both been completed:

- Do not overuse the engine in cold weather.
- Do not let the engine struggle to run, always downshift before the engine begins to "struggle".
- Do not ride when the engine speed is unnecessarily high.

Engine RPM

To protect engine components, the engine has a speed limit of 6000rpm in N gear, 12000 rpm in 6 gear, and 12300rpm in other gears (during the break-in period: 0-1000 kilometers, 6000rpm in 1-6 gears, and the speed limit is released after 1000 kilometers) When the engine speed reaches the limit speed, the speed will automatically adjust around the limit speed, and there will be fluctuations in the speed, which is a normal phenomenon.

⚠ CAUTION

•During the 0-1000 kilometer break in period of the vehicle, if the engine speed exceeds 5500rpm, the cruise control function cannot be used.

Tire break-in period

Just like breaking in an engine, new tires need a proper break-in to ensure better performance. During the first 150 kilometers of using new tires, gradually increase your turning angles to help break in the tire's contact surface for better performance. Avoid rapid acceleration, sharp turns, and sudden braking during the first 150 kilometers with new tires.

⚠ DANGER

•If the tires aren't broken in properly, they can slip and cause loss of control. After changing tires, drive extra carefully. Follow the tips in this section to break in your tires correctly, and during the first 150 kilometers of use, avoid rapid acceleration, sharp turns, and sudden braking.

Avoid running at full throttle for a long time

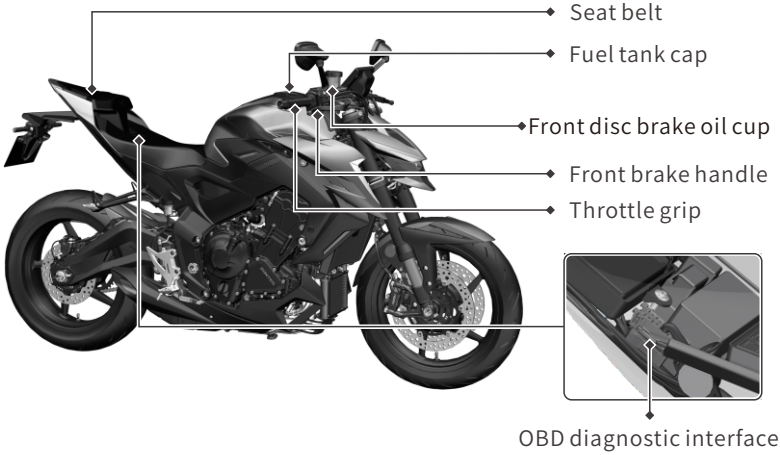
Avoid running at full throttle for long periods. Since the engine is brand new, don't put too much load on it during the first 1,000 kilometers. During the break-in period, the engine parts wear and polish each other to reach the correct operating gaps. During this time, you need to avoid long periods of full throttle or anything that could cause the engine to overheat.

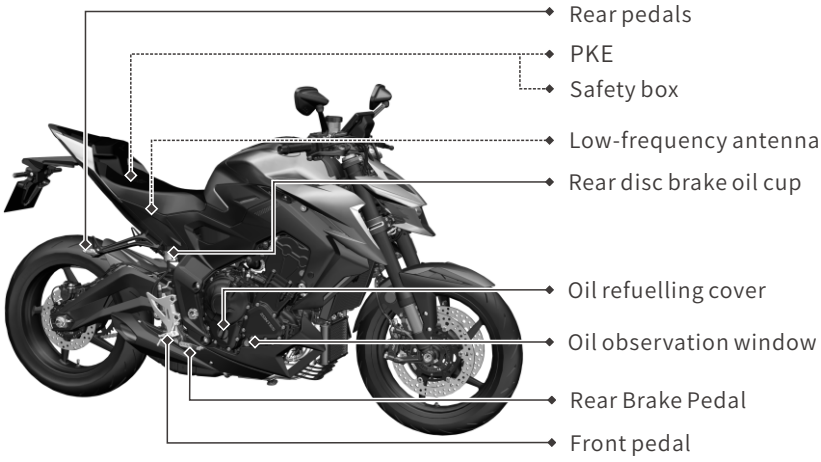
Let the engine oil circulate before driving

Before starting a cold motorcycle, be sure to check the engine oil level through the oil window. If the level is low, add the right type and amount of oil.

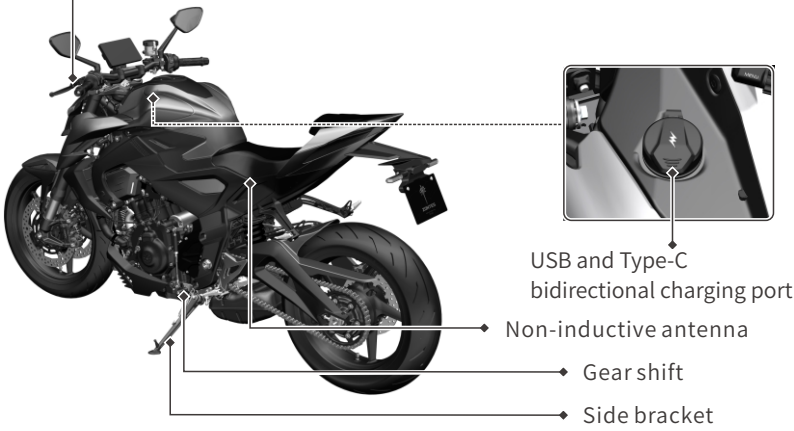
Whether the engine is hot or cold, you should let it idle for a while before starting to make sure the oil reaches all the lubrication points.

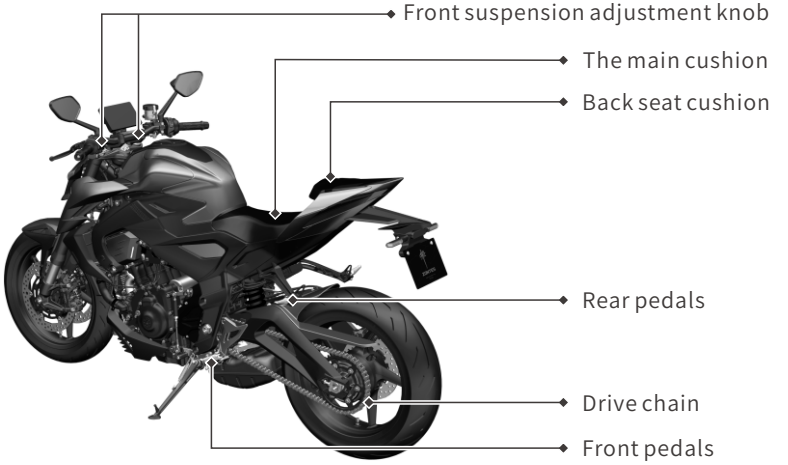
Component Installation Location





Component Installation Location

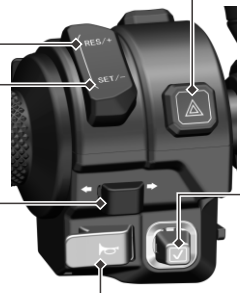




Left and Right Handlebar Control Systems

Left handlebar switches

Cruise control switch RES/+ SET/-:
Used to adjust the cruise speed, short press RES/+or SET/- to increase or decrease the speed by 1km/h.
(For detailed instructions, please refer to the instrument cruise control manual)



Hazard warning switch:
Press the button, and the four turn signals will flash to alert and warn surrounding vehicles to pay attention to safety.

☑ OK button / Directional toggle (5-way switch)

Horn button:
Press the button to sound the horn.

Turn signal switch:
Push the switch to the left ⬅ to activate the left turn signals. Push to the right ➡ to activate the right turn signals. The corresponding indicator on the instrument panel will illuminate simultaneously.



High/Low beam and passing light switch:
Default state: Low beam. Push upward to activate high beam. Push downward to activate passing light

- : Overtaking lights
- : Low beam
- : High beam

SEAT switch:
Press briefly to unlock the seat cushion lock.

Left and Right Handlebar Control Systems

Right handlebar switches



Power button

Short press: Powers on the motorcycle.

Long press: Powers off the motorcycle.

Engine stop/ignition switch

This rocker switch is designed as follows: Set to the" " position: Circuits are connected, allowing engine ignition.Set to the" " position: Ignition circuit is completely cut off, preventing engine start (can be used for emergency shutdown).

Electric start switch

Pressing this button engages the starter circuit. To start the engine, ensure the side stand is retracted, the engine stop switch is in the " "position, and the brake lever is firmly squeezed

M switch

The M button can be used to switch riding modes only when:

The engine stop switch is in the RUN position. The throttle grip is fully closed (at idle position), and Cruise control is not active.

Press the M button briefly to cycle through the following five riding modes:

: SPORT mode

: ROAD mode

: RAIN mode

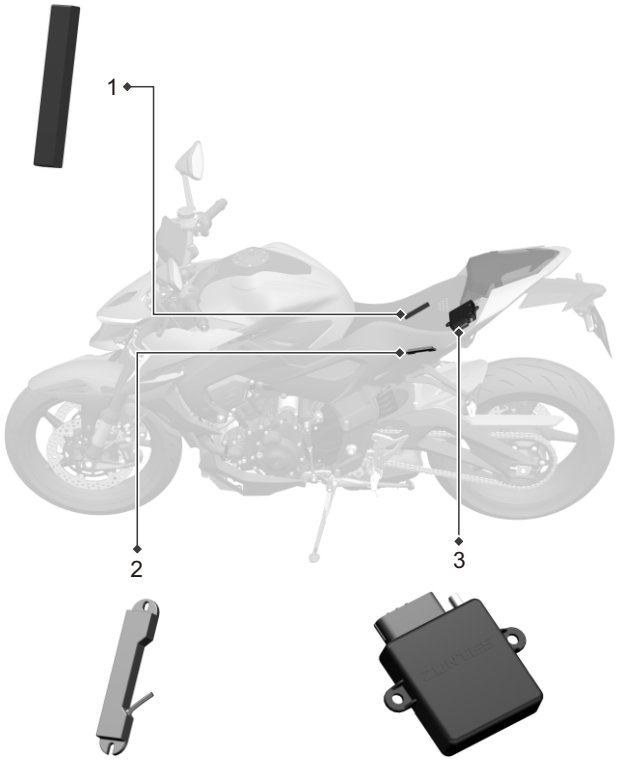
: OFF ROAD mode

: RIDER mode

: TRACK mode

CAUTION

•Do not crank the engine for more than 5 seconds per attempt during continuous starting, as excessive power discharge may cause abnormal heating of the electrical circuit and starter motor. If the engine fails to start after several attempts, stop and inspect the fuel supply system and starting circuit system.



3D antenna induction



4

PKE (Passive Keyless Entry System) Instructions for Use:

- Low Frequency Transmitting Antenna (Figure 1)
- 3rd generation PKE host (Figure 2)
- Low frequency transmitting antenna (Figure 3)
- Induction key (Figure 4)

Passive Keyless Entry System

Using the Passive Keys

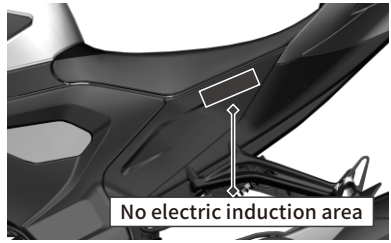
This vehicle comes with two smart keys, and you should keep one safely as a backup.

Both smart keys have barcode stickers that correspond to the barcode on the PKE unit. The PKE unit can automatically recognize the key that's near the vehicle without needing activation. At any given time, only one smart key can be active.

⚠CAUTION

•The smart key has two LEDs, one green and one red. When the vehicle detects the key, the LEDs will flash. When the battery in the smart key is full, the LED flashes green; when the battery is low, it flashes red (when you first install the battery, both the red and green lights flash once). Due to the battery capacity limits, a CR2032 button battery usually lasts about 18 months, depending on how you use it. If your smart key isn't responding well or the indicator flashes red, you might want to think about replacing the battery.

Non-Electric Induction Start Mode



When the smart key battery is low or there is no key battery, you can start the vehicle using the no-power induction mode. The steps are as follows:

•When the vehicle is turned off and the faucet lock is in the locked state, long press the "⏻" button on the right-hand handle and hear the first "beep" sound.

•Within 5 seconds, place the key sensing area (Figure 4) close to the non-powered sensing area.

⚠CAUTION

•You can also first place the key sensing area (Fig. 4) right against a non-inductive area, and then follow the steps above.

•Once the non-inductive start is powered on, it will no longer detect the key. Please remember to turn it off when leaving the vehicle.

PKE Power-On

Short press the" ⏻ "button, the turn signals flash twice, the handlebar lock automatically unlocks, then the buzzer beeps twice to indicate the circuit is connected.

⚠ CAUTION

·If the steering lock fails to unlock, the handlebars may be jammed against the lock shaft. Gently turn the handlebars to allow the lock shaft to move freely. This issue may also be caused by low battery power; please check whether the battery level is normal.
When steering lock unlocking fails, short-pressing the button "⏻ "within 30 seconds will be invalid. Press and hold the button "⏻ " or wait more than 30 seconds, and the system will exit this mode automatically.

⚠ DANGER

·When forcing the power on using the induction-free or Bluetooth mode, be sure to turn the handlebar all the way to the left and confirm that the lock core of the handlebar lock has retracted before using the vehicle.

⚠ CAUTION

·If short pressing the " ⏻ " button does not result in any prompt sound of 'beep', please check the battery level and whether the fuses (main fuse, charging fuse, and PKE fuse) are damaged, and confirm that the power supply is normal.
·If there is a beep sound when short pressing the " ⏻ " button but the device cannot be turned on, please check the battery level of the key and try using the dead power induction start mode (refer to the instructions for dead power induction start mode for specific operation) or control the power on with your phone.
·When the vehicle battery is low, please make sure to charge it and unplug the charger before attempting to turn it on.

PKE Power-Off

After the vehicle comes to a complete stop, turn off the engine, move the handlebar to the far left, press and hold (hold for ⩾2 seconds and then release) the " ⏻ " button, the turn signals will flash twice, the handlebar lock will automatically engage, and then the buzzer will beep once to indicate that the vehicle power is off.

⚠ CAUTION

・After shutting down, please check the handlebar lock status. If the handlebar is not locked, move the handlebar to the far left, and the vehicle will automatically lock. If the handlebar is not moved to the far left, do not push the vehicle or let it roll after shutdown to prevent danger when the handlebar is moved to the far left and the handlebar locks. When pushing the vehicle or rolling downhill, make sure the PKE is turned on (handlebar lock is in the unlocked state).

⚠ CAUTION

・It is recommended to replace the key battery once a year.
・Vehicles should avoid installing electronic devices that affect key signals, such as GPS, driving records, wireless chargers, etc.
・Try to keep the key away from interference sources such as mobile phones, power banks, Bluetooth earphone charging compartments, etc. Try not to put it together with meal cards, access cards, NFC cards, car keys, metal pendants, etc. Do not wear protective shells made of metal, conductive or magnetic materials.
・If there is a strong interference source near the vehicle that affects the key signal, the vehicle can be unlocked through emergency start methods, mobile phone remote control, and Bluetooth car control functions.

PKE Fault Prompt

When an abnormal condition is detected in the vehicle, the vehicle will alert the owner with a buzzer sound of varying lengths and a fault code, as shown in the table below:

Item	Alert Sound	Fault Code	Alarm Description
START button stuck	One long, two short	8002	If a button is detected as stuck after each startup, an alarm will sound once after 10 seconds.
Abnormal high-frequency reception	Two long, one short	8006	If an abnormal high-frequency reception of the PKE main unit is detected during each normal startup, an alarm will sound once (only once, non-electric induction startup and APP startup do not check this item).
No paired remote	Two long, three short	8008	If no paired remote control is detected when pressing the red startup button each time, an alarm will sound once.
Low battery in remote	Three long	8009	If an abnormal signal from the transponder battery is detected during each normal startup, an alarm will sound once (only once, non-electric induction startup and APP startup do not check this item).
Steering lock open abnormal	Five short	8010	If an abnormal unlock signal is detected during each startup, an alarm will sound once (only once).
Steering lock close abnormal	Five short	8011	If an abnormal lock signal is detected during each startup, an alarm will sound once (only once).

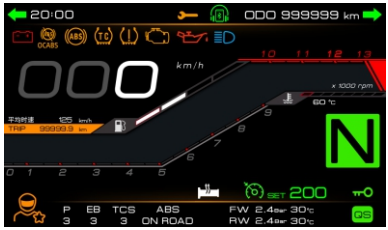
Item	Alert Sound	Fault Code	Alarm Description
Abnormal low-frequency transmitting antenna	Three long and one short	8012	Each time an abnormal low-frequency transmitting antenna is detected during normal startup, an alarm will be triggered once (only once, not detected during power-off induction startup and APP startup).
Remote control out of detection area	Eight short	8014	After a normal startup, if the PKE main unit cannot receive the transponder response signal while operating, it will alarm and shut down (non-electric induction startup and APP startup do not check this item).

Instrument

This dashboard has 4 theme modes, which you can switch between based on the usage scenario and personal preference. Next, we'll give a brief explanation of the Theme 1 interface. As the dashboard functions get updated, the content may change, so please refer to your vehicle.



Theme 1



Theme 2



Theme 3

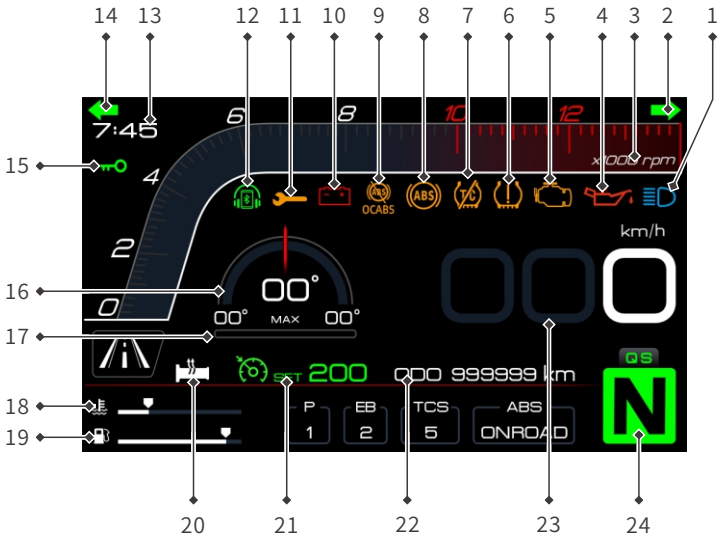


Theme 4

⚠ WARNING

- When the engine is off, don't use the instrument functions for a long time. This can drain or completely deplete the battery.
- Basic operation: You can use the 'OK button/joystick directions' to set various instrument functions.
- Do not operate the instrument with your left or right hand while the vehicle is moving.

Indicator and alarm lights



1. High and low beam indicator light "≣D ≣D"
2. Right turn signal "➡"
3. Tachometer "*x1000 rpm*"
4. Engine Oil Pressure Warning Light "🛢"
5. Engine Electronic Fuel Injection Fault Warning Light "🔧"
6. Tire Pressure Warning Light "(!)"
7. Tire Pressure Warning Light "🚗"
8. ABS warning light "(ABS)"
9. Turn off cornering ABS "(ABS) OCABS"
10. Battery Low Voltage Warning Light "🔋"
11. Maintenance indicator light "🔧"
12. Mobile phone Bluetooth, headphone Bluetooth "🎧"
13. Clock "7:45"
14. Left turn signal "⬅"
15. Key Number Indicator Light "🔑"
16. Tilt angle indication and maximum tilt angle record
17. Brake force indicator bar
18. Water Temperature Warning Light "🌡"
19. Fuel gauge "⛽"
20. Heated handle "♨"
21. Cruise Contro "SET 200"
22. Odometer "ODO:999999"
23. Speedometer
24. Gear indicator light

High and low beam indicator "≣D ≣D"

When using the high beams of the headlights, the high beam indicator will light up. When switching to low beams, the low beam indicator will light up. (The high and low beam indicator icons switch in the same position)

Right Turn Signal Ligh "➡"

This indicator starts flashing when you switch the turn signal on.

Tachomete "*x1000 rpm*"

Engine Oil Pressure Warning Light "🛢"

When the engine is running, if the engine oil pressure drops to a dangerous level, the oil pressure waning light will turn on. If you turn the ignition switch to "ON" without starting the engine, the low oil pressure warning light will also come on.

⚠WARNING

•The low oil pressure warning light should go off shortly after the engine starts.
•If the low oil pressure warning light comes on while the engine is running, stop the engine immediately. Do not restart the engine until the issue is resolved.
•Running the engine with the low oil pressure warning light on can cause serious engine damage.

Engine EFI fault alarm light "⚙"

After the engine starts successfully and is running normally, the electronic fuel injection (EFI) malfunction light remains off. If the EFI malfunction indicator lights up at this time, it indicates a fault in the EFI system.

⚠WARNING

•When the fuel injection system reports a fault, continuing to ride the motorcycle may damage it. Please take it to the ZONTES flagship store or dealer to have the fuel injection system checked.

Tire Pressure Warning Light "(!)"

When there are abnormal tire pressure and temperature, the warning light will flash, and it needs to be checked and repaired.

The tire pressure alarm range of this model is as follows:

Front wheel high-voltage alarm:≥ 340kPa

Front wheel low-voltage alarm:≤ 220kPa

Rear wheel high-voltage alarm:≥ 340kPa

Rear wheel low-voltage alarm:≤ 220kPa

When the tire pressure alarm is alarmed, the tire pressure warning light is on, and the tire pressure value turns red.

The range of lifting the tire pressure alarm of this model is as follows:

Front wheel high-pressure alarm:＜ 330kPa

Front wheel low-voltage alarm:＞ 230kPa

Rear wheel high-voltage alarm:＜ 330kPa

Rear wheel low-voltage alarm:＞ 230kPa

⚠CAUTION

• When triggering the tire pressure low pressure alarm, the tire pressure must be 11kPa higher than the alarm point to release the alarm;
• When triggering the tire pressure high-pressure alarm, the tire pressure must be 11kPa lower than the alarm point to release the alarm.

TCS system Warning Ligh "⚠"
(See the TCS section for details).

⚠WARNING

•If the TCS light doesn't turn off after powering on the vehicle, or if the warning light comes on while riding, pay extra attention to avoid the rear wheel slipping.

⚠CAUTION

•If the TCS light does not turn off after the vehicle is powered on, or if the warning light comes on while riding, please pay special attention to avoid the rear wheel from slipping.

ABS warning light " (ABS) "

When the vehicle is powered on again, the ABS warning light stays on, and it goes off when the speed reaches about 5 km/h. If it stays on while driving (see page 1-6 for details).

⚠WARNING

•If the ABS warning light doesn't go off after the vehicle reaches 5 km/h, or if it lights up while riding, pay special attention to avoid the wheels locking during an emergency stop.

⚠CAUTION

·If the warning light doesn't work as described above, or lights up while riding, the ABS may be malfunctioning. Please take it to the ZONTES flagship store or a dealer for repair as soon as possible.

Turn off cornering ABS " (ABS OCABS) "

Battery Low Voltage Warning Light " [- +] "

When the engine is not running and the detected voltage is < 12.5V, the indicator symbol will flash to warn (flashing frequency 1Hz, alarm will automatically clear when voltage ⩾ 12.5V).

When the engine is running and the detected voltage is < 13V, the indicator symbol will flash to warn (flashing frequency 1Hz, alarm will automatically clear when voltage ⩾ 13.0V).

At idle, if the battery voltage ⩽ 12.5V, the idle speed will increase by 200 RPM to charge the battery, and the idle speed will return to normal once the battery voltage is ⩾ 13V.

If the voltage display shows more than 15.5V, immediately stop using the vehicle and take the motorcycle to a ZONTES flagship store or dealer for inspection.

Maintenance Reminder Light " 🔧 "

Refer to the periodic maintenance schedule - engine oil.

Mobile phone Bluetooth, headphone Bluetooth " "

Light up when connected to the phone's Bluetooth.

Clock " 7:45 "

24-hour clock

Left turn signal "⬅"

When the turn signal switch is activated, this indicator light starts

Key Number Indicator Light "🔑"

Tilt angle indication and maximum tilt angle record

The lean angle monitoring system can detect the left and right tilt of the vehicle body in real time, display the current lean angle, and automatically record the maximum lean angle reached during riding. Please do not deliberately pursue large-angle leaning on public roads to avoid danger.

(Only displayed in Instrument Theme 1).

1.Bend angle display conditions:engine speed> 1000 rpm, vehicle speed> 1 km/h.

2.When the bending tilt angle is less than 6°, it is not displayed.

Brake force indicator bar

The brake force indicator bar is used to display the current level of braking force in real time, showing the brake force in the form of a bar indicator. It helps to reasonably control braking operations, improving driving safety and smoothness.

The indicator bar lights up more segments from left to right to indicate greater braking force.

Water Temperature Warning "🌡"

After turning on the machine, the water temperature is displayed in real time. If the temperature exceeds 117°, the water temperature warning will start, and the cooling system needs to be checked.

Coolant temperature

Approximate display range:
40 °C to 122 °C;
Below 40 °C, "---" is displayed.

Between 117 °C and 122 °C: The coolant temperature indicator is on and the coolant temperature value is flashing.

Above 122°C: The coolant high temperature indicator lights up and "122°C"flashes.

Fuel gauge "⛽"

Remaining fuel when only the first gear starts flashing: about 3.4L, and the low fuel warning light comes on at the same time.

Heated handle " "

The heated handlebar function update is described as follows:

On the main instrument screen, short-press the OK button to switch to the heated handlebar icon. Press the ↑ / ↓ buttons to turn on the heated handlebar function— ↑ increases the level, ↓ decreases the level (levels 1-3, 0 is off).

You can turn this function on in advance. When the RPM > 1300 and the voltage > 13.5V, the heating icon will stay solid white, which means the function is working normally.

If the voltage is below 12.8V or the RPM condition isn't met, the heating icon will flash white, meaning the function is on but hasn't reached working conditions yet.

When the heated handlebar function is on, the corresponding icon on the main screen will turn red, which indicates a malfunction and that the function can't be used. You need to turn on the instrument main menu → Vehicle Info → Fault Info page to check the relevant fault codes for troubleshooting.

Cruise Control " SET 200 "

The cruise control function can help riders maintain a constant speed during long rides, reducing operational fatigue. Control switch: This system consists of control buttons "RES/ SET-".

Terms of use:

1.Vehicle speed is in the range of 45-160 km/h.

2.Operate in gears 3-6.

Safety Status: Ensure the side stand is folded, the vehicle body tilt angle is normal, and no fault codes are indicated.

Activating the System: After turning on the car, quickly press the 'SET-' button. The cruise control symbol " " on the dashboard will light up, indicating that the system is ready for cruise control. Once your speed is within the range and the gear is set correctly, press the 'SET/-' button again to activate cruise control. The cruise control indicator and the target cruise speed " SET 200 "will light up, entering cruise mode. The cruise speed will be set to your current driving speed.

Adjusting Speed:

Accelerate: Press the "RES+" button briefly to increase by 1 km/h each time, or press and hold to keep accelerating.

Decelerate: Press the "SET-" button briefly to decrease by 1 km/h each time, or press and hold to keep slowing down.

You can manually use the throttle to increase your speed. Once you reach the desired speed, press the "SET-" button briefly, and the cruise speed will be set to your current speed. If a new speed isn't set, releasing the throttle will slow the vehicle down to the last set cruise speed.

Temporary Exit:

1. Apply the front or rear brakes before operating
2. Operate the clutch
3. Operate the gear shift lever
4. Unable to maintain the current set cruise speed for a long time
5.When the ABS or TCS function is triggered, the cruise control set indicator (symbol 'SET') and the target cruise speed will turn off, and the cruise control symbol will light up (yellow).

Restoring Cruise Control:

1. If your speed is still above 45 km/h, briefly press the "SET/-" button. The cruise speed will be set to your current driving speed.
2. Use the throttle to accelerate to your desired speed, then briefly press "SET/-". The cruise speed will be set to your current driving speed.
3. If your speed is still above 45 km/h, briefly press "RES/+". Your driving speed will return to the previously set cruise speed.
4. If your speed is below 45 km/h, use the throttle to increase it to 45 km/h. Briefly press "RES/+" and your driving speed will return to the previously set cruise speed.

Exit cruise:

1. Turn off the engine completely to exit; the cruise control icon and the 'SET' icon go out.

The cruise control system will automatically turn off in the following situations:

1. When it can't maintain the set speed (for example, on a steep hill).
2. When wheel slip or spin is detected. (If the traction control system is on, it will kick in.)
3. When the ignition switch is in the off position.
4. When the engine is off.
5. When the side stand is pressed down. If the cruise control system turns off automatically, the system indicator light will go out.

Disabled Scenarios:

1. Curves, slippery roads, congested sections, or complex traffic environments.
2. Low-adhesion surfaces (such as sand, gravel, or water accumulation).
3. Congested sections or when frequently changing lanes.

⚠WARNING

•When using cruise control, keep both hands on the handlebars and be ready to take over at any time.

•Braking will immediately cancel cruise control, prioritizing braking safety.

•When the TCS kicks in, it will cancel cruise control.

Cruise Control Usage Tips:
When the driver's target speed and the current cruise speed differ by no more than 10 km/h, you can make small adjustments by short-pressing the "RES/+" or "SET/- "buttons. For example, if the current cruise speed is 100 km/h and the driver wants to reset it to 105 km/h, you can press the "RES+"button 5 times to make the adjustment. (Note: Don't click too fast; if you click too quickly, the ECU might not recognize it.)

If the difference between the driver's target speed and the current cruise speed is more than 10 km/h, it's recommended to manually accelerate to the target speed first, then press the "SET/- "button to set the cruise speed. For example, if the current cruise speed is 100 km/h and the driver wants to reset it to 120 km/h, just manually accelerate to around 120 km/h, press "SET/- "to set the cruise, and then use short presses of "RES/ +"or "SET/- "to fine-tune it. (Note: During cruise control, when both the cruise indicator light "" and "SET"are on, manually accelerating the car speed to above 160 km/h will make pressing the "SET/- "button ineffective).

Overtaking conditions. For example, when the driver is cruising at a steady 100 km/h and encounters a slower vehicle ahead, they can manually accelerate to speed up. Once the overtaking is done, releasing the throttle will make the car gradually return to the 100 km/h cruise speed. When the driver wants to quickly set the cruise control speed to the maximum limit of 160 km/h, they can first make the cruise indicator light turn orange"", then manually accelerate the car to ⩾160 km/h, and then press the" SET/- "button to set the cruise control. The speed will then slowly return to 160 km/h and enter cruise mode.

⚠WARNING

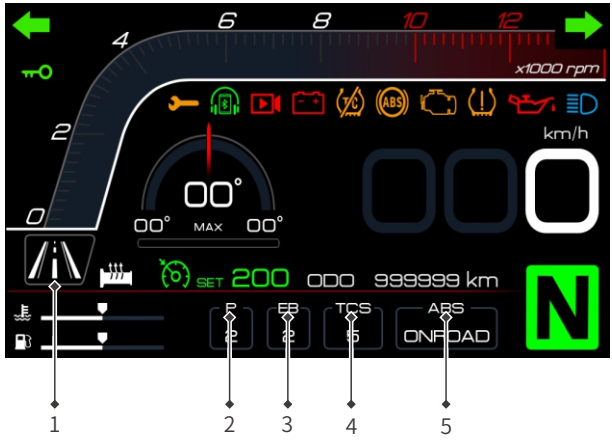
·During the first 0-1000 km break-in period, you can't use cruise control if the engine speed goes over 5500 rpm.

Odometer " ODO:999999 "
Total mileage.

Speedometer

Gear indicator light

Information shows



1.Driving Mode
2.P (Power)
3.EB (Engine Brake)
4.TCS Level
5.ABS Mode

Driving Mode

Press the M key on the right handle briefly to switch modes; mode cycling has no boundaries. SPORT, ROAD (factory setting), RAIN, RIDER. When the ABS or TCS reports a fault, the driving mode cannot be switched.
Please try turning the vehicle off and on again, ensure the vehicle speed is greater than 5 km/h, and that the ABS system self-check is completed and the "(TC)" and "(ABS)" lights are off; at this time, the driving mode can be switched.

P (Power)

P is short for Power, representing power value. The smaller the number, the stronger the power and the faster the throttle response (levels 1-4), (1-4)(The default value is 3.).

EB(Engine Brake)

EB stands for Engine Brake, and the smaller the number, the weaker the engine brake. It's the abbreviation for engine braking (gears 1-3). The EB value can't be selected and follows the P value (The default value is 2).

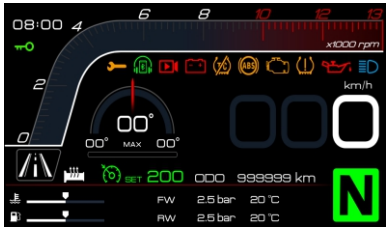
TCS Level

TCS has different levels for each driving mode: SPORT - level 3, ROAD(default) - level 5, RAIN - level 7, RIDER - level 1, and OFF is 0, which is also off.

⚠WARNING

•If the ABS warning light doesn't go off after the vehicle reaches 5 km/h, or if it lights up while riding, pay special attention to avoid wheel lock-up during sudden braking.

Use your left hand to press the confirm/joystick direction buttons on the switch, and gently push the joystick left or right to switch and view the vehicle's basic information.



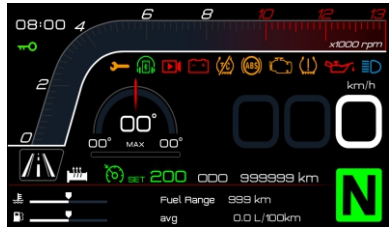
Tire Pressure and Temperature



Subtotal Mileage

Average speed

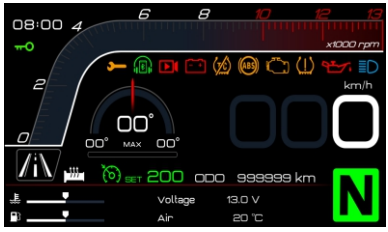
Average speed: The TRIP shows the current average speed once the trip mileage is ⩾0.1 km. If it's less than 0.1 km, it shows "--". When displaying the trip mileage, you can long-press the left button to reset the trip mileage, and the average fuel consumption and average speed will also be reset and recalculated.



Range

Average fuel consumption

Shows the average fuel consumption after resetting the trip meter. The average fuel consumption is calculated based on the values on the trip meter. Display range: 0.0–99.9 L/100km. When the average fuel consumption is reset: it shows"--.-".



Voltage

If the battery voltage is ⩽12.5v at idle, the idle speed will increase by 200 RPM to charge the battery. Once the battery voltage reaches ⩾13v, the idle speed goes back to normal.

Environment temperature

1. Ambient temperature display range: -15 to 50°C
2. Below -15°C, it shows '---'
3. Above 50°C, it turns red and alarms, flashing at 1Hz
4. When the ambient temperature is 3°C or below, the ice symbol lights up; it turns off at 5°C or above
5. When the vehicle speed is below 30 km/h, heat from the road and exhaust from other vehicles may affect the temperature display.



Selecting "Theme 3" will display altitude information on the dashboard

Altitude

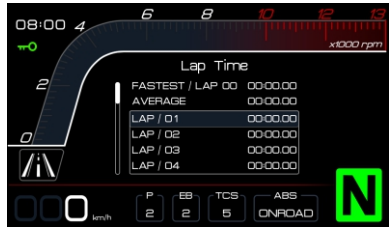
(Only Theme 3 is displayed): Display range is -999 meters to 9999 meters; values beyond this range will show as the boundary value. After replacing the instrument or restarting the vehicle power, the altitude needs to be gradually corrected while driving. The correction time may vary depending on the strength of the GPS signal. Sudden jumps in altitude during the correction process are normal.

Quick Menu

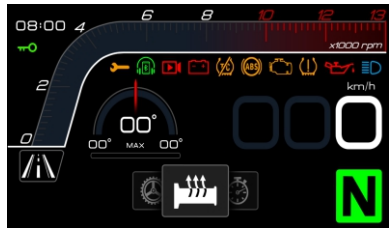
Use the 'OK' button on the switch of the left handlebar. Press briefly to enter the shortcut function menu, use the left/right buttons to switch function options, use the up/down buttons to change levels, and press the OK button briefly again to exit.



Lap Timer



Lap Record



Heated handle



Quick Settings

(Can long press to directly enter the first-level menu)

Menu structure

Main interface	Context menu					
	Handle heating	3				
		2				
		1				
		OFF				
	Settings (The entry option is Function Settings)		Level 1 Menu	Level 2 Menu	Level 3 Menu	
			Display (The entry option is the theme)	Style (Factory setting is Style 3)	2(Purple)	
					1 (Yellow)	
					3 (Orange)	
				Backlight (Factory setting is level 5)	5	
					4	
					3	
					2	
					1	
					Automatic	
				Date (Factory setting is manual standard)	Manual standard	
					Automatic standard	
				Language (Factory setting is Chinese)	Chinese	
					English	
				Theme (Factory setting is Theme 2)	Theme 1	
					Theme2	
					Theme3	
					Theme 4 (Screen casting)	
				Unit (Factory setting is Metric system)	Metric system	
					Imperial system	
			Function Setting (The entry option is tire pressure settings)	Tire Pressure Settings (The entry option is tire pressure monitoring)	Front wheel	Not learned, Learning, Learned
					Rear wheel	Not learned, Learning, Learned
					Tire pressure monitoring (Factory setting is ON)	ON
						OFF
					Unit (Factory setting is bar)	kpa
						bar
						psi
				Bluetooth The entry option is bluetooth on/off)	Bluetooth connection	
					Bluetooth on/off	
					Clear connection	
			Vehicle Information (The entry option is tire fault	Maintenance Reminder	reset (The entry option is NO)	NO
						YES
				Fault Information		
				Version Information		

On the main screen, short press the OK button to enter the quick menu, long press OK to enter the main menu. If there's no operation for 10 seconds, it will automatically exit. Use left and right to switch options, up and down to adjust, and short press OK to exit.

The last item in the quick menu is the main menu; short press OK to enter, use up and down to switch, OK to confirm, left to go back one level, right to go to the next level, and all options have boundaries.

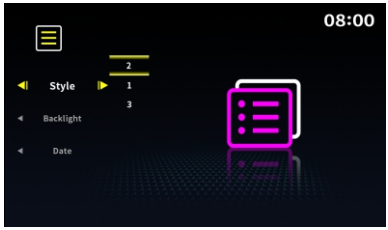
In any interface, push the joystick left and hold for 1.5 seconds to directly exit to the main screen, or it will automatically return to the main screen or vehicle information screen after 30 seconds of no operation.

Heating handle malfunction code

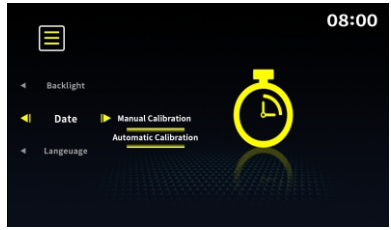
CODE	Fault code description
9092	Fault in handgrip heating
9093	Fault in handgrip heating

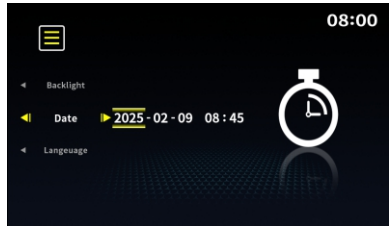
The menu has three color styles, which can be switched freely











Clock setting

Online Calibration: Automatically syncs GPS time every time you turn it on, and you can manually set the year, month, day, hour, and minute according to local time. How to use: Go into manual settings and set in the order of 'year', 'month', 'day', 'hour', 'minute'. When a field is selected, use the up/down keys until you reach the value you want, then press the left/right keys briefly to confirm and move to the next.



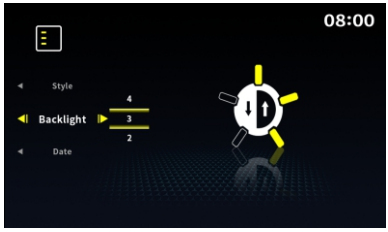
Unit setting

Switch between metric and imperial units to match your reading preference.



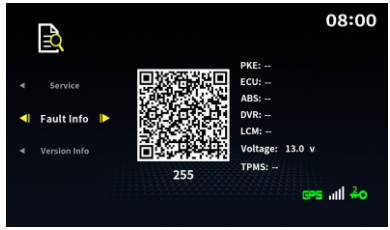
Language setting

Change the system language.



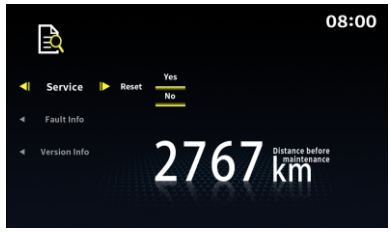
Backlight setting

You can choose one of the 5 backlight brightness levels or pick auto adjust (which changes the brightness automatically based on the light sensor).



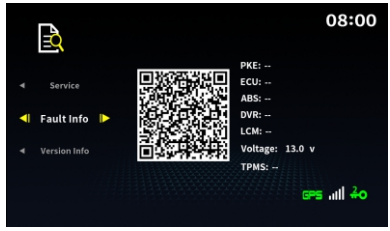
Vehicle information

Shows information such as ECU, PKE, ABS, DVR, MCM, and tire pressure faults.



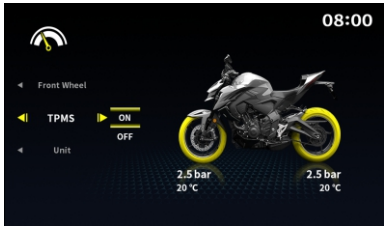
Maintenance Information

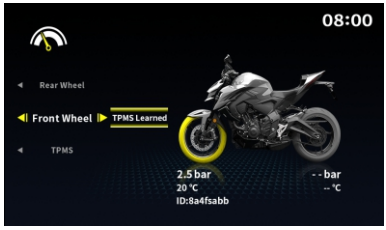
You can check the remaining maintenance mileage in the vehicle information. In the remaining maintenance mileage option, short press the 'OK' button to select reset and enter the next maintenance cycle.

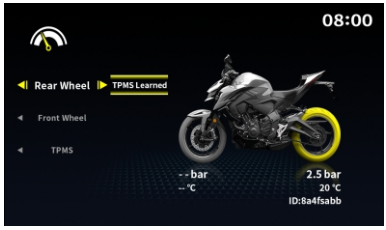


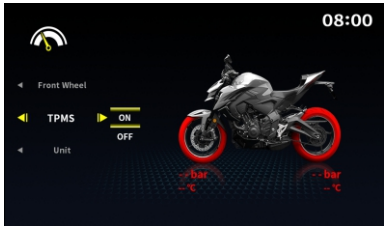
Version information

Display meter, PKE, ECU, ABS, LCM, and handlebar lock, error information.







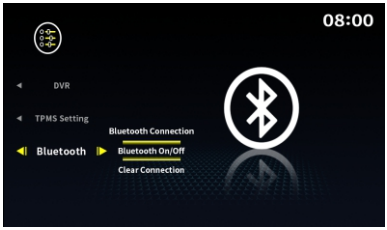


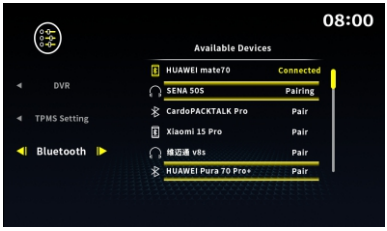


Tire pressure information

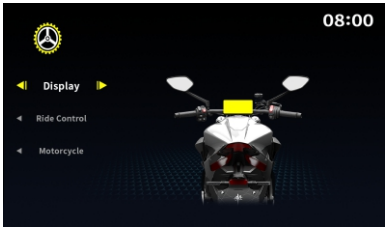
When the tire pressure monitoring function is turned on, the instrument can display the tire pressure and temperature values (after starting the motorcycle, the tire data will only start updating in real time after the speed exceeds 15 km/h and two minutes have passed). Tire pressure unit settings: short press the 'Up' and 'Down' buttons on the five-way switch to toggle, and short press the OK button to confirm.

Specific steps for tire pressure learning and matching: 1. Enter the main menu on the instrument, select 'Vehicle Information,' then 'Tire Pressure Settings,' choose front/rear wheels, and click 'Learning in Progress.' 2. After the instrument shows 'Learning in Progress,' immediately deflate the tires continuously for more than 15 seconds until it shows 'Learning Match Successful' (if the learning is unsuccessful, you can reinflate the tires and try again). 3. Learn the front wheels first, then the rear wheels (there should be at least a 1-minute interval between learning the front and rear wheels). 4. After learning is complete, inflate the tires to the rated pressure, drive 1-2 kilometers, and check if the tire pressure data refreshes normally to finish the process.

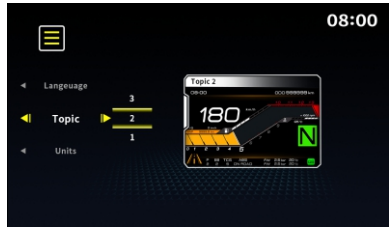


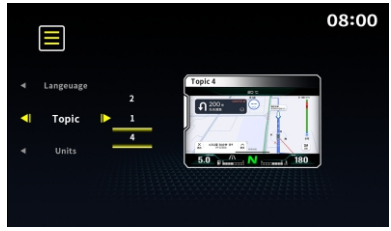


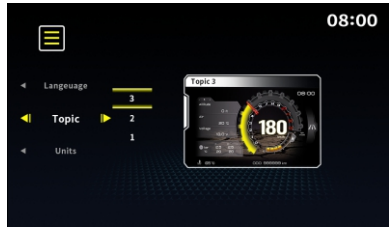
Bluetooth





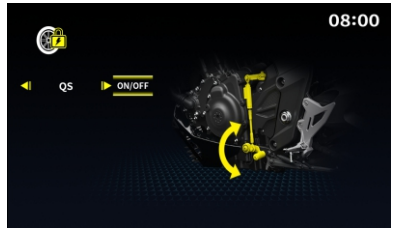


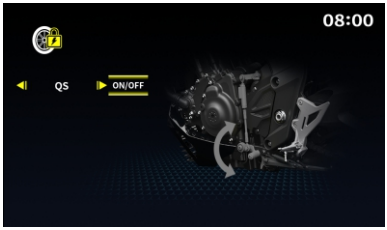




Display

Enter the main interface theme of the switchable dashboard.





Electronic quick sort

Electronic quick-shifting is an electronic gear-shift assist system. Its main function is to allow the car to shift gears without pressing the clutch or letting off the accelerator, achieving seamless gear changes, keeping the power uninterrupted, and improving acceleration and driving smoothness.



Vehicle information

Display the information of the instrument panel, PKE, ECU, ABS, LCM, faucet lock, version number, etc.

First maintenance

The initial 0-1000 km maintenance is a must to keep your vehicle in the safest and most efficient condition. Making sure it's safe is the owner's/driver's responsibility.

⚠ WARNING

•Failing to perform regular maintenance or to properly troubleshoot before riding can cause serious or even fatal accidents.

•Always follow the checks, maintenance advice, and schedule provided in this User Manual.

•If you're not familiar with vehicle maintenance, have a ZONTES dealer handle it.

Maintenance safety

Please read the maintenance instructions before each service to make sure you have the necessary tools, parts, and skills. We can't warn you about every possible danger that might come up during maintenance. Only you can decide whether you should carry out the maintenance.

Please follow these guidelines when doing maintenance:

•Turn off the engine and shut down the vehicle system.

•Place the motorcycle on stable, flat ground using the side stand, or support it with a maintenance stand.

•Wait for the engine, muffler, brakes, and other hot parts to cool before starting any work, otherwise you might get burned.

•Start the engine only in designated situations, and make sure you're in a well-ventilated area.

⚠ WARNING

• Brake discs, calipers, and pads can get really hot during use. To avoid burns, let the brake parts cool down before touching them.

Routine first inspection

The first maintenance check during the initial 0-1000 kilometers is really important. During this period, all the engine parts are breaking in. So for this check, you should readjust the parts, tighten all fasteners, and replace the oil that's been contaminated by metal shavings from the parts. Doing a thorough first 1000 km check will help your motorcycle perform well and last longer.

⚠ CAUTION

· Be sure to check each regular maintenance schedule to see if it's fully followed according to this manual, and carry it out carefully. The initial 0-1000 km maintenance should be done according to the methods described in this section. Pay special attention to the "Danger" and "Warning" notes in this section. Using incorrect parts can cause your motorcycle to wear out faster and shorten its lifespan. When replacing parts on your motorcycle, please choose original parts from our company.

· Waste generated during maintenance, such as cleaning agents and used engine oil, should be properly disposed of and not pollute the environment.

· The maintenance schedule specifies the minimum maintenance required. If your motorcycle is often used in harsh conditions, maintenance should be done more frequently than what's listed. If you have any questions about maintenance intervals, please consult a qualified service center.

Regular maintenance table

● Check (clean, lubricate, adjust or replace if necessary) Ⓡ:Replace Ⓣ:Fastening ★:Annotation

Item		Pre-ride check	Frequency*1						Annual Check	Regular replacement
			X1000km	1	5	10	15	20		
			X1000mi	0.6	3	6	9	12		
Expansion tank Antifreeze(Coolant)		●		●	●	●	●	●		Replace every 3 years or 30000 kilometers
Brake pad wear		●			●	●	●	●	●	Check for wear and tear
Rear fork wear-resistance block		●			●	●	●	●		30000 kilometers replacemen ★ Note 1
Fuel level		●								
Engine oil	☆	●		Ⓡ	Ⓡ	Ⓡ	Ⓡ	Ⓡ	●	★ Note 2
Oil filter	☆			Ⓡ		Ⓡ		Ⓡ	●	★ Note 2
Air filter (filter element)	☆☆				●	Ⓡ	●	Ⓡ		
Tire	☆	●			●	●	●	●	●	Check tire pressure and tread wear
Brake fluid level	☆	●			●	●	●	●	●	Replace every 2 years
Drive chain	☆	●			●				●	★ Note 1
Front shock absorber	☆☆	●				●		Ⓡ	●	★ Note 3
Rear shock absorber	☆☆	●				●		●	●	Check for leaks
Brake system	☆☆	●				●		●	●	Check the oil level in the cup
Brake hose				●	●	●	●			
Air filter oil pipe				●	●	●	●	●		
Electronic seat cushion lock, Electronic fuel tank lock										Clean and lubricate every 4000 kilometers

Regular maintenance table

● Check (clean, lubricate, adjust or replace if necessary) Ⓡ:Replace Ⓣ:Fastening ★:Annotation

Item		Pre-ride check	Frequency*1						Annual Check	Regular replacement
			X1000km	1	5	10	15	20		
			X1000mi	0.6	3	6	9	12		
Idle speed						●		●		Start check
Fuel line					●					Check for leaks
Clutch lever free play	☆				●	●	●	●	●	Follow the operation video
Internal mechanism of faucet lock	☆					●		●		★ Note 4
Bolts and nuts in steering mechanisms	☆☆			Ⓣ	Ⓣ	Ⓣ	Ⓣ	Ⓣ	●	Figure 1
Steering bearings	☆☆						●			15000 kilometers to replenish butter
Vehicle fasteners、bolts、nuts	☆☆			Ⓣ	Ⓣ	Ⓣ	Ⓣ	Ⓣ		Figure 1
The axle sleeve and oil seal of the wheel and sprocket seat	☆☆				●	●	●	●	●	★ Note 5
Brake hose	☆☆					●		●	●	Check for leaks
Spark plug	☆☆					●		Ⓡ		
Rear fork needle roller bearing	☆☆						●			15000 kilometers to replenish butter
Multi-link suspension needle roller bearing	☆☆ ☆☆						●			15000 kilometers to replenish butter
Valve clearance				Check and adjust every 40000 kilometers						★ Note 6

☆ : This service should be provided by dealers or qualified maintenance units. If the vehicle owner has the appropriate tools, service information and a certain understanding of mechanics, they can carry it out themselves.

☆☆ : For safety reasons, such projects should be provided by dealers or qualified maintenance units.

★ Note 1: Clean and lubricate the chain every 500 to 1,000 kilometers, and check the wear of the upper and lower anti-wear blocks of the rear fork.

★ Note 2: The first maintenance should be carried out within the first 1,000 kilometers, involving the replacement of engine oil and oil filter. The second maintenance should be conducted when the actual mileage on the instrument reaches 5,000 kilometers or 15 months (whichever comes first). Thereafter, regular maintenance should be performed every 5,000 kilometers or 15 months (whichever comes first).

★ Note 3: Every 20,000 kilometers (12,000 miles), perform maintenance on the shock absorbers, replacing the oil seal, dust cover and shock absorber oil.

★ Note 4:Check, clean and lubricate every 10,000 kilometers (6,000 miles). For detailed maintenance operations, please refer to the "Handlebar Lock Maintenance Video" on the official website.

★ Note 5: Check the wear condition of the lip of the oil seal. If necessary, add grease.

★Note 6: Valve clearance (engine cold) Intake: 0.1–0.22mm, Exhaust: 0.2–0.33mm.

Check if the bolts of the front disc brake caliper, the bottom cylinder of the front shock absorber, the upper and lower connecting plates, the upper connecting plate decorative nut, the disc brake rotor and chain wheel (nuts), the rear axle nuts and cotter pins, the rear swingarm nuts, and the side stand kill switch bolts are loose. Check if the cotter pins of the rear axle are abnormal.

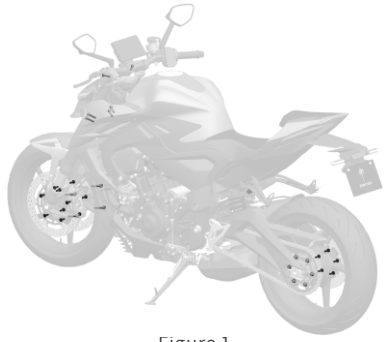


Figure 1

Check before driving

If you do not check your motorcycle thoroughly before driving and do not maintain it properly, the chances of accidents and motorcycle damage will increase. Always check your motorcycle before each use to ensure it can run safely. Refer to the maintenance section of this User Manual.

Before riding a motorcycle, please conduct the following checks:

Steering system

- The steering is flexible.
- The movement is not hindered.
- There is no jolting or loosening.

Accelerator

- The throttle cable clearance is correct.
- The operation is smooth and the throttle returns smoothly.

Brake

- The brake handle operates normally.
- The brake fluid is above the lower limit mark on the brake fluid reservoir.
- There is no spongy feeling indicating poor braking.
- There is no dragging (brake drag) phenomenon.
- There is no leakage of brake fluid.
- The wear of the brake discs/brake pads must not exceed the specified limit.

Shock Absorber

- The surface is free of foreign matter and there is no oil leakage. It operates smoothly.

Fuel

- Enough fuel to cover the planned distance.

Engine lubricant

- Check if the engine oil level is sufficient. According to steps 6-15, the oil level should be between the upper and lower marks on the oil dipstick.

Light

- The headlights, tail/brake lights, instrument panel lights, turn signals, front position lights, and license plate lights can all light up normally.

Indicator

The high beam indicator and turn signal indicator light up normally.

Horn

- Functioning normally.

Brake switch

- Functioning normally.

Ignition switch
·Functioning normally.

Side parking rack/ignition interlock switch
·Operation normally.

⚠ CAUTION

· Failure to become familiar with the control components may result in loss of vehicle control, causing accidents or personal injury.
· Please read the user manual carefully to familiarize yourself with all control components. If there are any control components or functions that you cannot understand, please consult a ZONTES dealer.

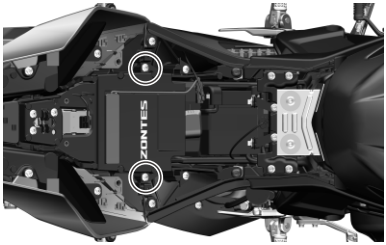
⚠ WARNING

·Installing non-ZONTES genuine parts on your motorcycle may make it unsafe and could lead to accidents causing injury or even death.
·Always use ZONTES original genuine parts or substitutes that are designed for your motorcycle and certified.

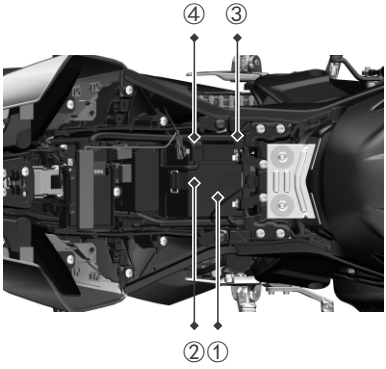
Battery

The battery is located under the driver's seat cushion. Please disassemble the battery in the following order:

1. Turn on the rear seat cushion and main seat cushion, and turn off the motorcycle power switch.



2.Use a T25 Torx hex key to remove the two M6×14 shoulder bolts, and take off the cover of the electrical components box.



①Battery
②Battery strap
③Battery negative cable (black)
④Battery positive cable (red)

3.Untie the battery strap, remove the black protective cap, remove the negative terminal (-), remove the red protective cap and remove the positive terminal (+).

⚠ CAUTION

• When reinstalling the battery after removal, pay attention to arranging the surrounding wiring properly, especially be careful about the battery's positive terminal and other red wires to avoid contact with the battery or the frame and other metal parts. Make sure the battery is fully inserted into the battery box.
•If there are situations such as power interruptions when reinstalling the battery, starting, or riding; battery hibernation restart; abnormal idle; or disconnecting and reconnecting the fuse, pay attention to resetting certain EFI hardware. The steps are: turn on the ignition switch and turn off the engine switch, start the engine in neutral while squeezing the clutch, after 10 seconds, turn off the engine switch, after 10 seconds, turn on the engine switch again, and repeat 2 more times.

Activation of new batteries

Battery Installation:

1.Before installing the battery, check the appearance of the battery, the shell should be free of scars or cracks, the upper cover of the battery should be well sealed, free of leakage, and the terminals should be free of skew, deformation, and other defects.

2. Connect the positive (+) pole wire (red wire) first, then the negative (-) pole wire. Note: Do not connect the negative pole or the negative pole, otherwise it will damage the voltage regulator rectifier and other electrical devices.

3. After tightening the bolts, apply butter or Vaseline to the bolts, nuts, and terminals to avoid rust and poor contact.

4. Put the battery into the battery box, fix it with a strap, and check that the battery is not shaking.

Battery cleaning

1.Remove the battery.

2.If the terminal has just started to corrode and is covered with a white substance, wash it with warm water and wipe it clean.

3.If the terminals are severely corroded, clean and polish them with a wire brush or sandpaper. Please wear safety glasses.

Replace the battery

When replacing the battery, confirm the battery model and verify whether it is consistent with the original battery model. The specifications of the battery are relatively matched in the design of the motorcycle. If different types of batteries are used, it may affect the performance and life of the motorcycle, and may cause circuit failure.

Usage and maintenance

1.Each electric start time should not exceed 5 seconds. If it cannot be started several times in a row, check the fuel supply system and the starting and ignition systems.

2.The following conditions can cause the battery to overdischarge or undercharge, thus shortening the battery life:

- Frequent electrical starting;
- The riding time is short and the driving distance is short;
- No ignition when turned on for a long time;

・Install additional electrical components, such as high-power spotlights, audio, GPS, and other electrical equipment.

3.When the starter motor rotates weakly, the light is dim, the speaker is hoarse, and the instrument black screen restarts when ignition occurs, the battery should be replenished immediately.

4.When the motorcycle is not used for a long time, the battery should be removed and stored separately, or the battery cable should be disconnected. Please recharge the battery before the motorcycle is stopped, and recharge it every three months.

5.Charging precautions:

・Do not overcharge the battery, as overcharging can cause the battery to leak, bulge, or even burst, causing varying degrees of danger.

⚠CAUTION

・Do not attempt to open or modify the battery in any way.

・Avoid using or storing batteries near high temperatures or open flames, as this may cause damage to the battery and the vehicle.

・Do not install the battery with the positive and negative terminals reversed, otherwise it may damage the battery and the vehicle.

・Please use the matching screws and nuts to securely connect and install the battery terminals, otherwise it may cause damage to the battery and the vehicle.

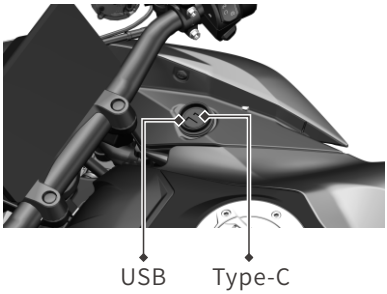
・During use or charging, if the battery emits an unusual smell, becomes hot, deforms, the casing fades, or any other abnormal situation occurs, stop using it immediately and remove the battery from the vehicle.

・This battery is standard for the vehicle. Do not use it for purposes other than starting this motorcycle.

・Adding external devices such as anti-theft devices, GPS, and fog lights can have certain effects on the battery and the vehicle's electrical system. When adding, qualified brand products should be selected and connected to the reserved interface of our company. Do not modify or reconnect the wiring privately, otherwise it may cause abnormal operation of our vehicle's electrical system and result in over-discharge of the battery and other problems.

・Do not damage the battery. The electrolyte inside the battery is harmful to human skin and eyes, and contact with skin, eyes, or clothing should be avoided. If it comes into contact with skin or eyes, rinse immediately with plenty of water and seek medical treatment.

Charging port



Battery charging instructions

When the vehicle has not been ridden for a long time or cannot start due to battery discharge caused by other reasons, please follow the steps below to recharge the battery:

1.Open the vehicle's charging port dust cover.

2.Use a charger or power bank, and connect to the Type-C charging port for charging.

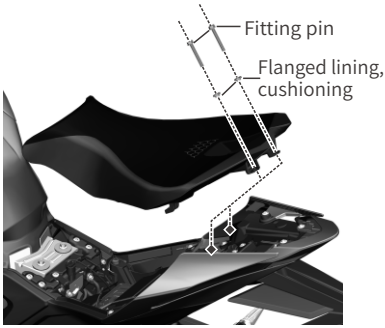
⚠WARNING

•Connecting a battery, jump starter, or other DC power source to the Type-C port may not be able to charge the battery in reverse properly.

•The USB port cannot reverse charge the battery; only the Type-C port can charge the battery.

•Use a charger or power bank to charge the vehicle's battery via the Type-C port. Note that the maximum charging power is 30W, supporting AFC/FCP/PD2.0/PD3.0 charging protocols.

Main seat/Tool kit



Disassemble

1.Remove the rear seat cushion.

2.Remove the 2 assembly bolts, flanged bushings, and cushioning rubber, then pull the main seat cushion out diagonally toward the back.



3.After removing the rear seat cushion and the main seat cushion, flip the main seat cushion 180°, and you’ ll see where the tool kit is.

Rear seat



Disassemble

1.Short press the "SEAT" switch on the left handle, then lift the rear seat cushion forward and upward.

Muffler

Muffler maintenance

This vehicle's muffler is equipped with a catalyst, which can effectively reduce the emission of harmful substances into the atmosphere during motorcycle operation. To ensure this device works effectively, please refer to the periodic inspection schedule in the 'Maintenance' section.

To extend the service life of the silencer and to prevent malfunctions such as silencer corrosion and reduced catalyst conversion efficiency caused by improper use and maintenance.

Please be sure to follow the following points:

・Do not rev the engine at high speed while stationary for long periods.

・Do not drive at low speed under heavy load for long periods.

・Do not add anti-rust oil or engine oil intothe silencer.

・Do not wash the silencer with cold water when the engine is hot.

・Do not coast with the engine off.

・Do not use inferior engine oil.

・Use unleaded petrol.

・Clean dirt from the surface and tail of the silencer promptly.

・ Keep the engine in good running condition, with regular maintenance and inspection. Avoid poor engine combustion causing secondary combustion in the exhaust pipe, which can lead to catalyst sintering and failure.

・When installing the silencer, be sure to correctly install the silencer sealing gasket.

・When installing the muffler decorative cover, be sure to fit heat insulation pads at each screw point to prevent the high temperature of the silencer from damaging the cover or causing a fire hazard.

Spark plug

Check the spark plugs

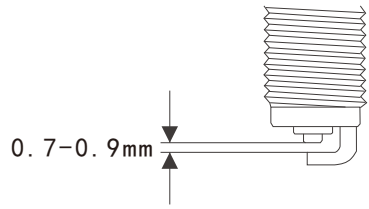
Spark plugs are important parts, and according to the maintenance schedule, they should be removed and checked regularly. The condition of the spark plugs can reflect the state of the engine. The ceramic insulator around the center electrode of a spark plug should be light brown (the ideal color when the vehicle is running normally). If the spark plug shows a noticeably different color, it might be due to poor engine performance. If the spark plug electrodes are corroded, heavily carbonized, or have other deposits, they should be replaced as soon as possible.

ZONTES specified spark plug:
TORCH/BN8RTIP-8

Spark plug replacement

1.Use a stiff wire or steel needle to remove the carbon deposits on the spark plug, then use a feeler gauge to adjust the spark plug gap to between 0.7 and 0.9 mm.

2. When cleaning off attached carbon deposits, you should also check the two colors on the spark plug's ceramic tip. These colors tell you whether a standard spark plug is suitable. A used normal spark plug will have a light brown ignition area. If the insulator looks scorched white and the electrode is eroded, it's better to switch to a cooler type spark plug.



Spark plug gap:
0.7-0.9mm

Spark plug installation

Clean the contact surface of the spark plug gasket and wipe off the dirt on the spark plug threads.

Locking torque:
Spark plug:
13N.m

⚠ WARNING

•Incorrect installation of spark plugs can damage the engine cylinder head. Using too much torque or cross-threading when installing spark plugs can also damage the engine cylinder head, so be careful when installing them. If you don't have a torque wrench when installing or replacing a new spark plug, tighten it until you feel resistance, then turn it an additional 3/8 turn (135°). For old spark plugs, tighten until you feel resistance, then turn an extra 1/12 turn (30°), but the spark plug should be tightened to the specified torque whenever possible.

⚠WARNING

•Dirt can enter the engine through the spark plug hole and cause damage. After removing a spark plug, cover the spark plug hole with a lint-free cloth or other clean, soft material that won't leave fibers or residue.

• Do not use spark plugs with a heat rating lower than BN8RTIP-8.

Engine oil

Whether an engine can last a long time really depends on using high-quality oil and changing it regularly. Checking the oil level and regularly changing the oil are two essential tasks in maintenance.

⚠CAUTION

• The first service is done at 1,000 km, including changing the engine oil and oil filter. The second service is carried out at 5,000 km or after 15 months (whichever comes first). After that, regular maintenance is done every 5,000 km or 15 months (whichever comes first).

Check the engine oil level

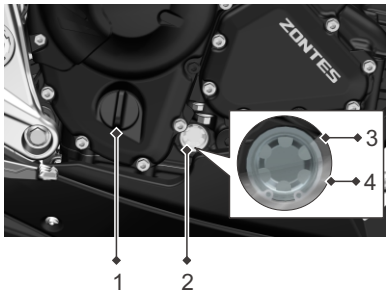
Check the engine oil level by following these steps:

1.Park the motorcycle on a level surface and keep it upright.

2.Start the engine and let it idle for 3-5 minutes.

3.Turn off the engine and wait for 3-5 minutes.

4.Keep the bike upright and look at the oil inspection window; the oil level should be between the minimum and maximum marks.

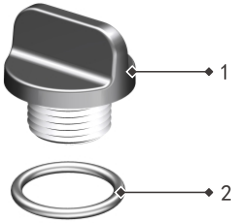


1. Engine oil filler cap
2. Engine oil sight window
3. Maximum oil level line
4. Minimum oil level line

⚠CAUTION

•The engine oil level should be between the upper and lower limits.

5. The engine oil level should be between the upper and lower limits.
6.Check if the engine oil filler cap O-ring is damaged, and replace it promptly if it is.



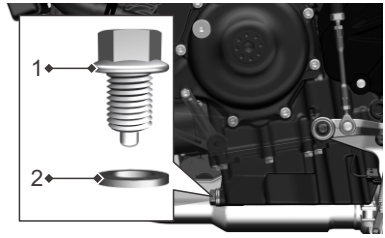
1. Engine oil filler cap
2. O-ring

Change engine oil and oil filter

When it's time for regular maintenance, change the engine oil. The oil should be changed when the engine is warm (idling for 3-5 minutes) so that the old oil can drain out more completely. The steps are as follows:

1.Park the motorcycle on a flat surface. Start the engine and let it idle for 3-5 minutes, then turn off the engine and wait for 3-5 minutes.
2.Place an oil pan under the engine drain bolt to collect the used engine oil.
3. Remove the engine oil filler cap and O-ring, and use a socket wrench to remove the engine drain bolt and gasket to drain the old engine oil.

Never start or run the engine while adding oil. Make sure there's enough oil in the engine before starting it.



1.Engine drain bolt
2.Gasket

4.Reinstall the drain bolt and a new gasket (clean the threads before installing), and use a torque wrench to tighten the drain bolt to the torque specification (40±3 N·m).

⚠CAUTION

·It is recommended to use a funnel when refueling.

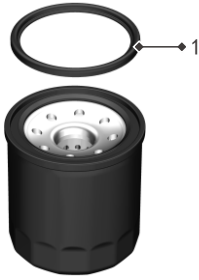
⚠WARNING

·If the specified engine oil is not used, the engine may be damaged.

⚠DANGER

·Do not open the fuel cap while the engine is running to prevent hot oil from splashing out and hurting someone.

5.Place an oil pan under the oil filter.
6.Use an oil filter wrench to remove the oil filter.
7.Wipe off the leftover engine oil and impurities with a clean non-woven cloth.
8.Installing a new oil filter: Before installing, put a little engine oil on the new filter, and also apply a thin layer of engine oil to the gasket, then tighten the oil filter.



1.Oil filter gasket

①Add engine oil through the engine oil filler hole

Tightening torque:

Engine oil drain bolt:
40±3N.m

Oil filter
20±2N.m

Engine oil recommendation

Engine oil (SN10W—50/1L)

Engine oil change capacity

Replace the oil:
3.0 L
Replace the oil filter:
3.4 L

②Check the engine fuel cap O-ring, then install the fuel cap.

③Run the engine at different speeds for 3 minutes. While running, check if there are any leaks at the parts that were removed and reinstalled.

⚠ CAUTION

• Before starting the engine, be sure to wipe off any leaked oil.

9.Let the engine idle for 5 minutes, then turn it off and let it sit for 3 minutes. Check the engine oil level through the oil sight window (make sure the oil is within the sight window markings). Check again for any leaks.

⚠ CAUTION

• Before installing the oil filter, make sure to carefully check if the seal ring is correctly placed in the groove and confirm that it's not damaged. If there's any damage or a cut edge, it should be replaced in time, otherwise it could cause oil leakage.

Coolant (Antifreeze)

Recommended coolant:
TOTAL antifreeze liquid

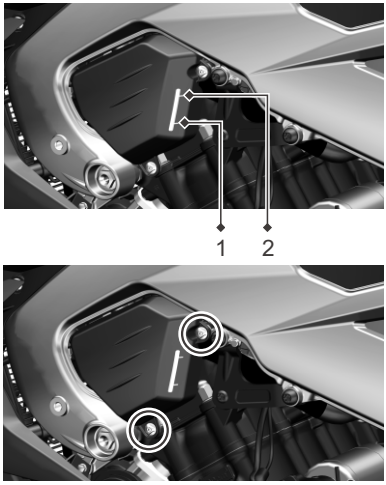
Total amount of coolant (Antifreeze):
1900ml（200ml with auxiliary water tank）

Coolant

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

1.Place the motorcycle on solid, flat ground so it stands upright.

2.Check if the coolant level in the reservoir is between the upper and lower level marks, and use a light if needed to help see it.



1.Lowest liquid level mark (L)
2.Highest liquid level mark (H)

3.If the total coolant is below the minimum level mark (L), remove the two M6 bolts and take off the coolant auxiliary tank cover.

⚠WARNING

•Only remove the coolant expansion tank cap. Do not remove the radiator cap when the engine is hot.



Coolant overflow tank cap

4. Open the auxiliary water tank cap and add antifreeze up to the level line.
5. Reinstall the coolant reservoir cap and the coolant reservoir decorative cover.



Coolant main tank cap

⚠ CAUTION

• If you need to add water, you can only use distilled water as a temporary substitute. Other types of water might cause corrosion and other issues in the engine's cooling system.

⚠ CAUTION

•Check to ensure all pipelines and hose clamps are properly assembled. Remove the bolts of the right-side water inlet, unscrew the water inlet cap, and slowly add antifreeze to the water inlet continuously. Start the vehicle and let it idle, appropriately revving up to around 3000 r/min. If the liquid level drops, continue to add antifreeze. When the water temperature reaches around 90°C and venting is basically complete, refill the water inlet with antifreeze, then reinstall the cap and return the water inlet assembly to its original fixed position.

Engine coolant (Antifreeze)

For aluminum radiators, use coolant (antifreeze) made by mixing coolant (antifreeze) concentrate with distilled water in a certain ratio. As long as the outdoor temperature hasn't dropped below the freezing point of this coolant (antifreeze), it can be used.

When adding or replacing coolant (antifreeze), make sure to use an ethylene glycol-based coolant (antifreeze) that's suitable for aluminum radiators.

⚠ DANGER

•Swallowing or inhaling coolant (antifreeze) can be harmful to your health. When using it, don't eat, drink, or smoke. After each use, make sure to thoroughly wash your hands, face, and any exposed skin. If swallowed, contact a poison control center or hospital immediately; if inhaled, go to a well-ventilated area with fresh air; if it accidentally gets in your eyes, rinse them immediately with plenty of running water and seek medical attention promptly. Keep children and pets away from coolant (antifreeze).

Coolant Replacement

The coolant should be replaced regularly according to the maintenance schedule in the user manual. Please have a ZONTES dealer handle the coolant replacement.

Air filter

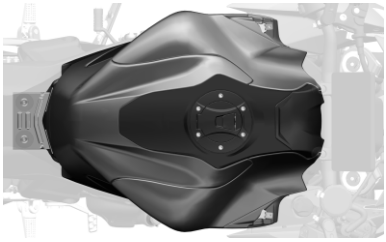
The air filter should be replaced regularly according to the maintenance schedule in the user manual. Please have the air filter replaced at a ZONTES flagship store or dealer.

Check the air filter

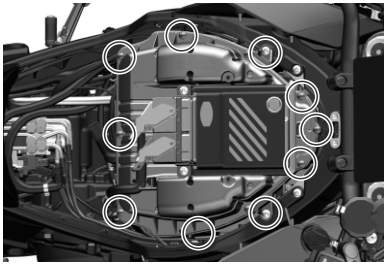
The air filter is located at the bottom of the fuel tank. If the air filter gets clogged with dust, it will increase intake resistance, reduce output power, and raise fuel consumption. Follow these steps to check and clean the air filter.

⚠ WARNING

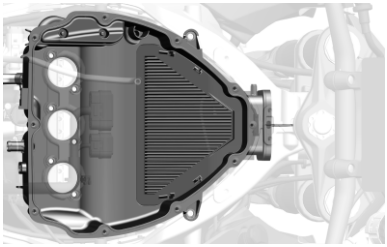
·Under normal circumstances, the air filter element should be replaced or maintained every 10,000 km.
·If driving in dusty conditions, the frequency of cleaning or replacing the filter element should be increased.
·Operating the engine without an air filter is very dangerous. Without the obstruction of the internal filter element of the air filter, the engine's flames can blast back from the engine into the air filter intake chamber. Dirt can enter the engine, causing damage to it. The engine should not be operated without an air filter element.



1.Check the website for detailed info on the seat, fuel tank, and disassemble videos.



2. Unscrew 10 screws and take off the top cover of the air filter.



3. Take out the filter cartridge (Note: check the official website video for detailed instructions).

⚠CAUTION

·Observe the filter element after removal. Use a high-pressure air gun to blow off the contaminants from the clean side. If the contamination is severe or the filter is damaged, replace it immediately.

· Install the vehicle back in the original order.

⚠CAUTION

·If the filter element of the air filter is not installed in the correct position, dust will circulate around the filter element and enter the engine, causing damage to the engine. Make sure the filter is installed in the correct position. Additionally, when washing the motorcycle, do not allow water to enter the inner part of the air filter. If water does enter the air filter, you can release it by removing the fuel drain pipe. Make sure there is no water accumulation inside the air filter before using the motorcycle.

Oil drain tube

The air filter oil drain tube should be checked regularly according to the maintenance schedule in the user manual, and any waste oil should be drained. It's best to have this done at a ZONTES flagship store or by a dealer to check the air filter oil drain tube.



1.As shown in the figure, the location is the air filter oil accumulation pipe. Use needle-nose pliers to remove the circlip, pull out the plastic plug, drain the used oil, and after completion, reinstall it in the reverse order to its original state.

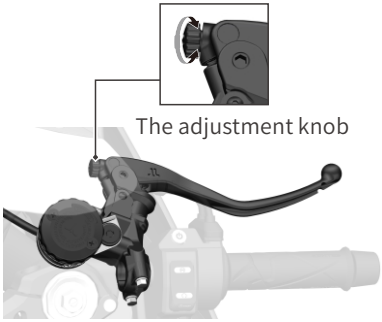
Engine idle speed check

Check the engine idle speed, and if necessary, go to a ZONTES dealer for inspection and adjustment.

Engine idle speed:
1500±100 r/min

Adjust the opening angle of the brake handle

J.JUAN



J.JUAN:Move the front brake lever forward towards the vehicle body, while turning the adjustment knob. Release the front brake lever and test if the gap is convenient for you to operate the front brake lever. Turn the adjustment knob clockwise, and the gap between the front brake lever and the handle will increase.

After adjustments, check if the brake lever works properly before riding.

Check the brake lever gap



1.Free play of the brake lever

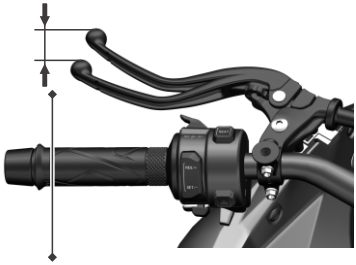
The brake lever has no free play. If there is any free play, please take it to the ZONTES flagship store or a dealer to have the braking system checked.

⚠DANGER

•When operating the brake lever, if there is a soft or spongy feeling, it indicates that there is air inside the hydraulic brake system. Please have a ZONTES dealer or flagship store service it to remove the air from the brake system before riding. Air inside the brake system will reduce braking effectiveness and may cause the motorcycle to lose control, leading to an accident.

Check the clutch lever free play

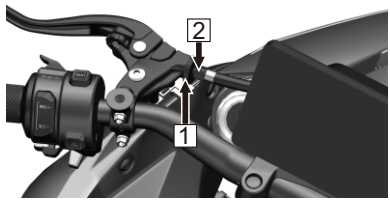
As shown in the picture, measure the free play of the clutch lever.



Free stroke

Clutch lever free travel:

10-15mm



Regularly check the clearance of the clutch lever and adjust it according to the following procedure when necessary:

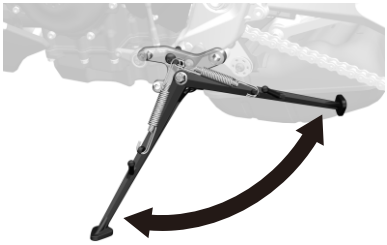
1.Take off the nut cap.
2.Loosen the locking nut [1].
3.Turn the adjusting nut [2] to adjust
4. Tighten the lock nut [1].

(Note: Check the clutch cable for any bends or damage. If necessary, have it replaced at an authorized ZONTES service shop; please use commercially available cable lubricant to lubricate the clutch cable to prevent premature wear and corrosion.)

⚠ CAUTION

• If the specified free play above cannot be achieved, or if the clutch cannot be operated, please go to the ZONTES flagship store or dealer to check the clutch.
• Incorrect free play adjustments can cause the clutch to wear out early.

Side bracket



Side parking bracket

When you put down the side stand, if you haven't held the clutch lever and the gearbox isn't in neutral, the side stand kill switch will cut the power and the engine will stall.

⚠CAUTION

•Check if the side stand moves smoothly. If it's stiff or makes a "squeak" sound, clean the pivot area and lubricate the bushing with clean oil.

•Check if the spring is damaged or has lost its elasticity.

Gear shift

This vehicle comes with a six-speed gearbox. You shift by pushing down or lifting up the gear lever. Before shifting to a lower gear, slow down or raise the engine RPM; before shifting to a higher gear, speed up or lower the engine RPM. Doing this helps prevent unnecessary wear on the drivetrain and rear tires.





⚠WARNING

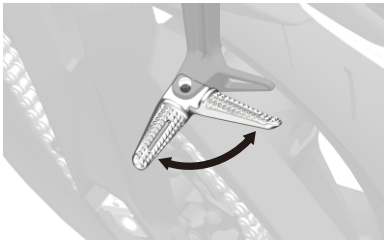
•When the gear is in neutral and the neutral indicator light is on, slowly release the clutch to make sure it' s really in neutral.

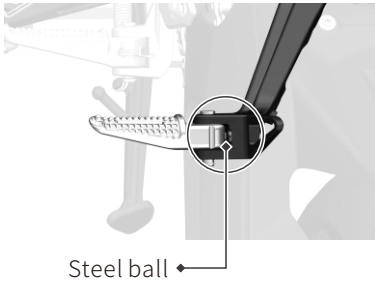
Footrest

Check if the pedals move smoothly. If they're not flexible or make unusual noises when turning, please maintain them as shown in the picture below.

1.Use a spray with rust-removing and lubricating functions to clean the dirt in the circled areas in the picture below.

2.While trying to turn the pedals, spray directly on the ball bearing positions until the pedals can move normally.

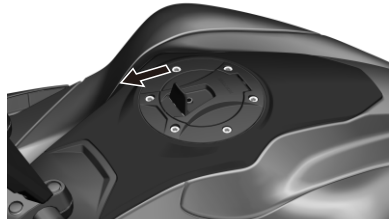




Fuel tank cap

The fuel tank is located in front of the seat. When opening the fuel tank cap, make sure the engine kill switch is turned off. You can only open the fuel tank cap after the vehicle is powered on and the instrument panel is active. Lift the small cover to open the fuel tank cap.

Make sure the fuel tank is closed every time you lock the vehicle and leave.





Fuel type:

Unleaded gasoline only

Fuel octane rating:

Your motorcycle is designed to use 95 or more Designed for a high research octane number (RON).

Fuel tank capacity

16L (Oil consumption：5.0 L/100km)

⚠ DANGER

•Do not overfill the fuel tank to avoid fuel spilling onto the hot engine. The fuel level should not exceed the bottom of the fuel filler neck, otherwise the fuel will expand when heated and overflow, which can damage motorcycle parts.

•Turn off the engine when refueling and make sure the ignition switch is off. Keep away from open flames.

•Take precautions when refueling, otherwise it can cause fire or inhalation of fuel vapors. Refuel in a well-ventilated area. Make sure the engine is off, avoid fuel splashes, keep away from open flames, and ensure there are no heat sources or flames nearby. Avoid inhaling fuel vapors. Keep children and pets away when refueling.

⚠ CAUTION

• When washing the car, don't use high-pressure water to rinse the fuel tank cap to avoid water getting into the tank.

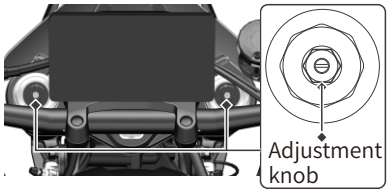
• If the fuel cap is stuck and won't open, press it down hard, then try opening it again after restarting the vehicle.

•Do not let the fuel nozzle touch the bottom of the fuel tank when refueling to avoid damaging the tank and causing leaks.

Front suspension system

Spring preload

The spring preload adjustment knob can be turned using a No. 14 socket wrench. The standard position is to turn the knob all the way counterclockwise, then rotate it clockwise 2 turns.
The spring preload can be adjusted within a range of 10 turns: turning clockwise increases the spring preload (making it stiffer), while turning counterclockwise decreases the spring preload (making it softer).

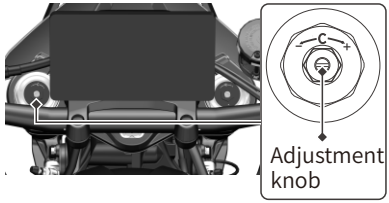


⚠CAUTION

•Don't turn the adjustment knob beyond its limit, and set the preload of the left and right shock absorbers to the same position.

Compression damping adjustment

The front shock absorber compression damping adjustment knob can be turned using a flathead screwdriver, with an adjustment range of 4 turns. The standard position is to turn the knob all the way clockwise, then turn it 2.25 turns counterclockwise.
Turning it clockwise increases compression damping (makes it stiffer), and turning it counterclockwise decreases compression damping (makes it softer).

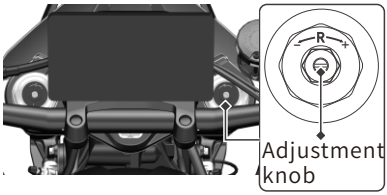


⚠CAUTION

•Don't turn the adjustment knob beyond its limits.

Rebound damping adjustment

The front shock absorber rebound damping adjustment knob can be turned using a flathead screwdriver. It has a range of 4 turns. The standard position is to turn the knob all the way clockwise first, then turn it 2 turns counterclockwise.
Turning it clockwise increases the rebound damping (makes it stiffer), and turning it counterclockwise decreases the rebound damping (makes it softer).



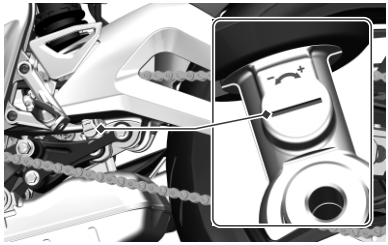
⚠CAUTION

• Do not turn the adjustment knob beyond its limit.

Adjust the rear suspension system

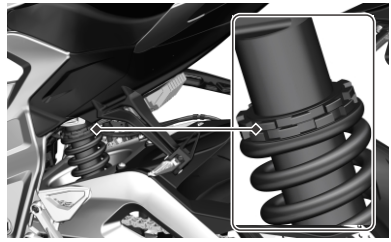
Rear shock absorber rebound damping adjustment knob

The rear shock rebound damping adjustment knob can be turned using a flathead screwdriver, with 62 levels of adjustment. Since the damping force is set within a specific range at the factory to ensure shock performance, each shock is tested and adjusted, so the factory position of the damping adjustment knob isn't fixed. It's recommended to first mark a line near the knob with a marker, and before each adjustment, return the knob to the factory position (aligning the mark) before making any changes.
Turning clockwise increases the rebound damping (makes it stiffer), while turning counterclockwise decreases the rebound damping (makes it softer).



Spring preload adjustment

The spring preload can be adjusted using a special spanner on the adjuster. Turning the adjuster down increases the spring preload (makes it stiffer), while turning it up decreases the spring preload (makes it softer).



⚠ CAUTION

•Don't turn the adjuster beyond its limit.
•Do not adjust the preload of the rear shock spring at will, or it may cause the vehicle to lose control.
•The rear shock damping unit contains high-pressure nitrogen. Do not attempt to disassemble, repair, or handle the damper improperly. Please have it serviced at a ZONTES flagship store or dealer.

Suspension Adjustment Recommendations

	Function set	Riding alone	Carry passengers
Front suspension	Preload Force	2 laps (10 laps in total)	2 laps
	Rebound Damping(R)	2 laps (4 laps in total)	2 laps
	Compression Damping (C)	2.25 laps (4 laps in total)	2.25 laps
Rear suspension	Compression Damping	12 levels (total of 62 levels)	8 levels
Remark	The spring preload force of the front suspension is determined by the number of turns from the fully counterclockwise position to the clockwise position. Clockwise rotation increases the preload force, while counterclockwise rotation reduces it. The damping force of both the front and rear suspensions is determined by the number of turns from the fully clockwise position to the counterclockwise position. Clockwise rotation increases the damping force, while counterclockwise rotation reduces it. The factory damping setting of the rear shock absorber is not consistent. Before adjustment, it is recommended to note down the factory setting of the vehicle. The first 1000 km of the vehicle's mileage is the running-in period for the suspension system. During this period, adjustments are not recommended. This is for reference only. Please make adjustments according to specific circumstances.		

Upper Triple Clamp Rubber Damper Troubleshooting

<table>
<tr><th>Inspection operation</th><th>The investigation results indicate</th><th></th><th>Inspection operation</th><th>Normal circumstances</th><th>Inspection operation</th></tr>
<tr><td rowspan="4">Hold the front brake and shake the handlebars back and forth.</td><td>If there is no obvious shaking, it is normal.</td><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="3">If there is any obvious looseness, investigate two possible scenarios</td><td>Situation 1</td><td>Install the bolts for the upper crossbar pad blocks with the appropriate torque.</td><td>60N.m</td><td>Apply the torque. If the fault is resolved, the system will return to normal operation. If the fault remains unaddressed, then proceed with checking situation 2.</td></tr>
<tr><td rowspan="3">Situation 2</td><td rowspan="3">Remove the upper triple clamp buffer rubber, inspect the appearance of the buffer rubber.</td><td>No deformation</td><td rowspan="3">If there is any deformation, cracking or loss of elasticity (when pressed with your hand, it hardly bounces back), then the shock absorber has aged and failed and needs to be replaced.</td></tr>
<tr><td>No crack</td></tr>
<tr><td>Normal rebound</td></tr>
</table>

Drive Chain

This model is equipped with a continuously drive chain made of special materials. When it is necessary to replace the chain, please entrust this task to the ZONTES flagship store or the dealer. Before each ride, check and adjust the chain of the motorcycle. Follow the instructions below for inspection and maintenance.

⚠DANGER

•To ensure safety, the inspection and adjustment of the transmission chain should be completed in advance before driving.

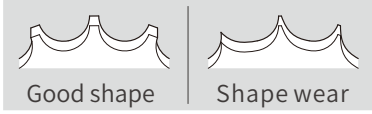
Check the drive chain

When inspecting the drive chain, please check for the following issues:

- Loose pins.
- Whether the teeth are broken or damaged.
- Inflexible chain links.
- Excessive wear.
- Improper chain adjustment, with inconsistent left and right scale markings on the rear fork.
- Dryness, severe rust or heavy dirt.
- Whether the chain has reached its service life.

⚠WARNING

•If any of the above problems are found, please contact the ZONTES flagship store or the dealer for repair.



⚠CAUTION

• When checking or replacing the drive chain, you should also check the wear on both the master and slave sprockets and the rear swingarm chain slider, and replace them if necessary.

Cleaning and lubrication of the drive chain

Follow the following steps to regularly clean and lubricate the drive chain:

1. Remove dirt and dust from the chain.
2. Clean the chain with a sealant cleaner or water and a neutral cleaner, and use a fine soft brush to clean the dirt and dust on the surface of the oil seal.
3. Remove the water and neutral cleaner, and dry the chain.
4. Use the chain oil specifically for motorcycle sealed chains to lubricate the oil seal, rollers, and inner and outer chain plates.

5. After fully lubricating the chain, wipe off the excess chain oil and let it stand for more than half an hour to allow the chain oil to fully penetrate and lubricate.
6. Keep the chain lubricated.

Adjustment of the drive chain

Adjust the slackness of the drive chain to an appropriate range. Increase the frequency of adjusting the transmission chain according to the driving conditions.

⚠WARNING

•The tension of the drive chain is too loose. If the chain comes off, it may damage the engine. Or the rear fork may be damaged by the loose chain moving at high speed, causing deformation or fracture. When using the motorcycle, please check and adjust the tension of the chain.

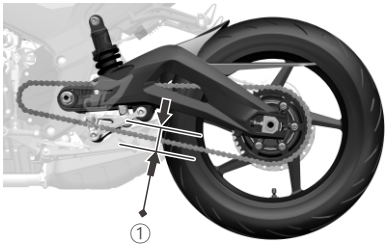
Check the tightness of the drive chain

Adjust the slackness of the drive chain to an appropriate range. Before each ride, check the chain tension and adjust it if necessary.

1.Raise the entire vehicle to lift the rear tire off the ground.

2.Switch the gearshift to neutral.

3.Measure the tension of the drive chain as shown in the picture.



①Drive chain tightness

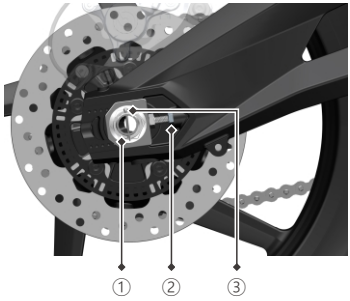
Drive chain tightness:
20-30mm

4.The tension of the drive chain is incorrect. Please follow the following procedure to adjust it.

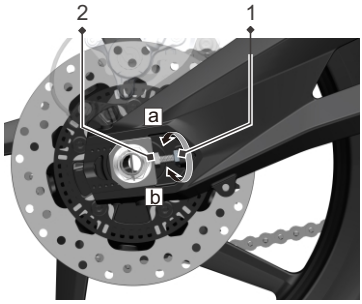
Adjust the tightness of the drive chain

1.Use the pliers to remove the plug, and then use a 30# wrench or socket to loosen the rear axle bolts.

2.Use a 13# open-end wrench to loosen the fixing nut.



①Rear axle nut
②Fixed nut
③pin



Drive chain tension adjustment bolts

1. Use a wrench to loosen the fixing nut.

2. To lock the drive chain, rotate the drive chain tension adjustment screw on the rocker arm in the (a) direction. To loosen the tight drive chain, rotate the drive chain tension adjustment screw on the rocker arm in the (b) direction, and then push the rear wheel forward.

Note: The left and right bolts of the double rocker arm on the rear fork need to be adjusted in the same way as described above.

⚠WARNING

•Adjust the drive chain to the proper slack (20-30mm). At the same time, to make sure the wheels are aligned, set the markings on the left and right sides to the same position as the marks on the rear fork.

3. After finishing the adjustments, tighten the nut and the rear axle nut, insert the pin into the corresponding hole, and bend the pin at least 120 degrees with pliers.

Rear wheel axle nut tightening torque:

120-130N.m

⚠WARNING

•The drive chain of this vehicle is made from special raw materials. When replacing the drive chain, it's strongly recommended to use our company's sealed chain. Using other drive chains, if they are too weak or of poor quality, could result in a broken chain and potentially damage the vehicle or cause injury. Once a sealed chain wears out and reaches the end of its service life, you shouldn't just remove a link or two and re-rivet it; if it's well past the chain's fatigue life, it could break and damage the vehicle or cause injury.

Check the chain life

The normal maintenance lifespan of an O-ring chain is 10,000 to 15,000 kilometers. Once it wears and stretches to the end of its service life, please replace the chain in time:

1. It is recommended to replace it with an original genuine 525 O-ring chain.
2. When using an open-type O-ring chain with connecting links, a special tool is needed for riveting. Before riveting, evenly apply the special lubricant to the pins and O-rings. Make sure the O-rings and chain links are clean and free of debris. When expanding the rivet holes, it's recommended to do it gradually in multiple steps. The pin holes should not crack or fragment. The hole size must ensure that the riveted link moves flexibly and that the outer plates do not shift or fall off during normal riding

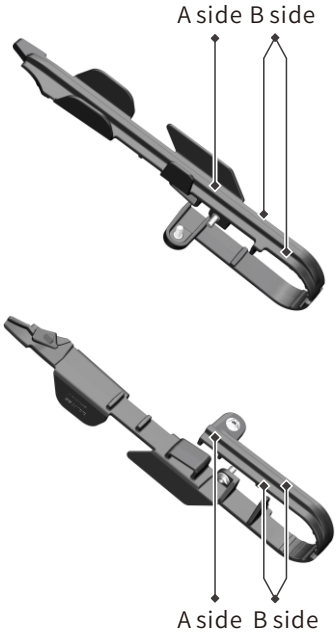
⚠WARNING

•If the rear swingarm's anti-wear block fails, the high-speed moving chain can not only cut and damage the swingarm, but the chain itself will also get damaged. A broken swingarm or chain could damage the vehicle or cause injury to people.

Check the rear fork anti-wear block

1.When cleaning the oil-sealed chain every 500-1000 km, be sure to check the raised surface A and flat surface B of the rear swingarm slider (replace during maintenance every 15,000 km). If surface B develops a groove of up to 1mm deep where the inner and outer chain plates make contact, you need to replace the rear swingarm slider to prevent it from being worn through by the chain.

2.When replacing the new oil seal chain, you need to check the wear of the rear swingarm protector. If the rear swingarm protector is worn thin by the chain and there's a 1mm groove where the inner and outer chain plates contact, you must replace it with a new rear swingarm protector to prevent the swingarm from being worn through by the chain.



Tires (Check/Replace)

Check your tire pressure

Before each ride, please check the tire pressure. The pressure should be checked when the tires have cooled down to room temperature.

Recommended tire pressure:

Front wheel:

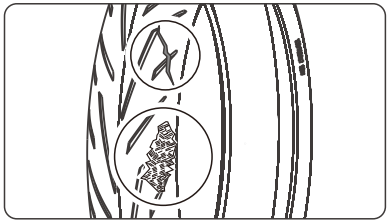
250kPa

Rear wheel:

250kPa

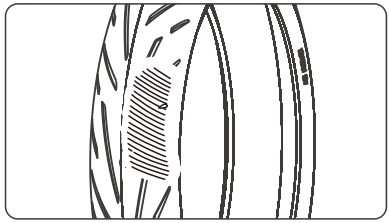
Damage inspection

Check if the tires have any cuts, cracks, exposed fabric or tire cords, or if any nails or other foreign objects are embedded in the tire sides or tread. Also, check if there are any abnormal bulges or expansions on the tire sidewalls.



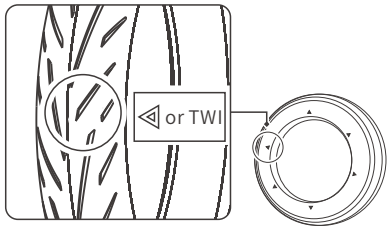
Abnormal wear inspection

Check for any signs of abnormal wear on the contact surfaces of the tires.



Check the tread depth

Check the wear indicators on the tire treads. If the wear indicators are visible, replace the tires immediately. For safe riding, replace the tires when they reach the minimum wear depth



Tire replacement

Please have the tires replaced by the ZONTES authorized repair shop. Regarding the recommended tires, tire pressure and minimum tire groove depth, please refer to "Technical Parameters". Whenever changing tires, follow the following guidelines:

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

・After installing the tires, use the original ZONTES balance block or equivalent equipment to balance the wheel.

・Do not install inner tubes in the tubular tires of this motorcycle. Excessive heat can cause the inner tube to burst.

・This motorcycle can only use tubular tires. The rim is designed to use tubular tires. During sudden acceleration or braking, tires with inner tubes will slide on the rim, resulting in rapid air leakage.

⚠DANGER

・Installing the wrong tires will affect the operation and stability, thereby causing accidents and putting you at risk of injury or even death.

・Make sure to use the size and type of tires recommended in this "User Manual".

Super sports and racing tires

For professional racing tires, specific tire formulations are required to cope with high temperatures (related to the need for high grip during races). Therefore, the break point of these soft-formulation tires is usually 15°C. Handling these tires at or below this temperature may cause the tread or other rubber areas on the tires to crack. Therefore, these tires must be stored under appropriate temperature conditions. If the storage conditions are not suitable, these tires will fail.

MICHELIN POWER GP 2	MICHELIN POWER GP	MICHELIN POWER 6	MICHELIN POWER 5	MICHELIN POWER SUPERMOTO	MICHELIN POWER SUPERMOTO RAIN	MICHELIN POWER RAIN/RAIN+
Transshipment, handling and transportation, storage						
It is recommended not to handle the tires at temperatures below -10°C, as this may cause damage to the tires.						

Check the rim and valve

Before each ride, check the rim for any damage and ensure the air valve is in the correct position.

⚠ WARNING

•Using tires that are excessively worn or improperly inflated can lead to accidents, resulting in serious injuries or fatalities.

•Please follow the relevant tire inflation data and maintenance guidelines in the User Manual.

Wheel

Wheel Rim

To ensure safe operation of the motorcycle, the wheels must be perfectly round. Wheel out-of-roundness may cause instability at high speeds and could lead to vehicle loss of control (wheel removal is not required when performing maintenance work recommended in the maintenance schedule). The specific inspection is as follows:

Slowly rotate the wheel to see if it 'wobbles.' If any wobbling is found, it indicates that the rim is not round or not 'perfectly' round. If the wobbling is obvious, please have it checked at a ZONTES authorized service shop.

Brake

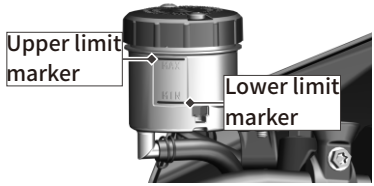
Check brake liquid

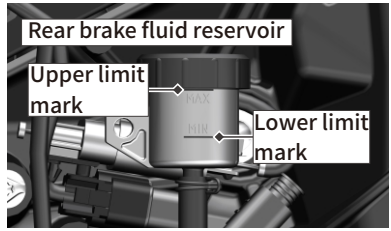
1.Place the motorcycle vertically on a stable and flat surface.

2.Check if the brake fluid reservoir of the front wheels is placed level and whether the fluid level is between the lower and upper level marks. Check if the brake fluid reservoir of the rear wheels is placed level and whether the fluid level is between the lower and upper level marks.

3.If the brake fluid level in any reservoir is below the minimum level mark, or if the free travel of the brake lever and pedal exceeds the limit, the brake pad wear must be checked. If the brake pads are almost unworn, there may be a leak, and it should be inspected by a ZONTES authorized service shop.

Front brake fluid reservoir

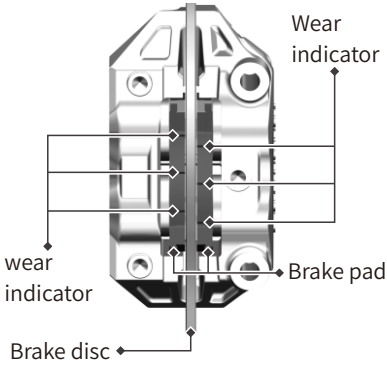




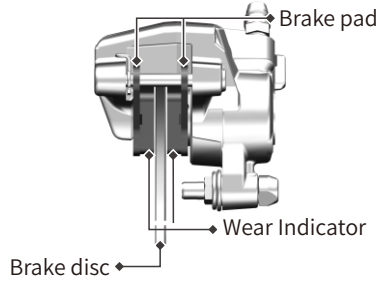
Brake pad inspection

Check the condition of the brake pad wear indicator marks. If the front wheel brake pads are worn down to the bottom of the indicator mark, they need to be replaced. If the rear wheel brake pads are worn down to the indicator mark, they need to be replaced.

Front disc brake caliper



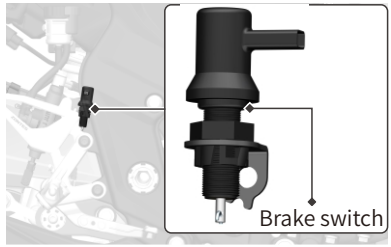
Rear disc brake caliper



Front wheel: Check the brake pads from the front of the brake caliper (be sure to check the left and right brake calipers).
Rear wheel: Check the brake pads from the right rear side of the motorcycle.
If necessary, please have the brake pads replaced at ZONTES authorized repair shop, and the brake pads must be replaced in pairs.

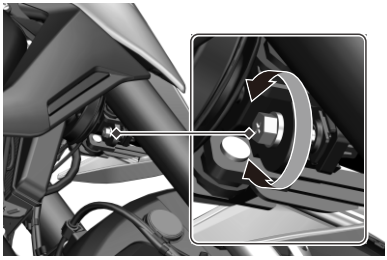
Adjust the brake light switch

Check whether the brake light switch is working properly. If the switch responds too slowly, hold the brake light switch and turn the adjustment nut counterclockwise. If the switch responds too quickly, turn the adjustment nut clockwise.



Light adjustment

Find the dimming bolt at the bottom of the headlight. Use an #8 open-end wrench to turn the bolt clockwise in the direction of the arrow to raise the light, and turn it the other way to lower it

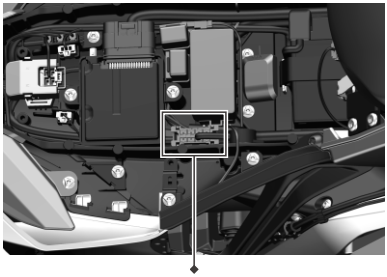


⚠CAUTION

• Having the headlights too high or too low can affect safe driving. You should adjust the height based on whether there are passengers and any changes in the driver's weight.

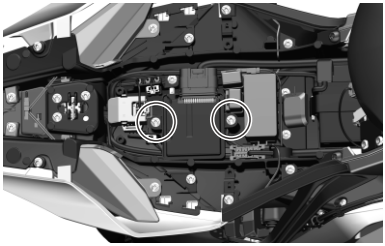
• Never adjust the headlights while riding. At night, it's recommended to find a flat stretch of road about 150 meters long where you won't affect traffic to make adjustments.

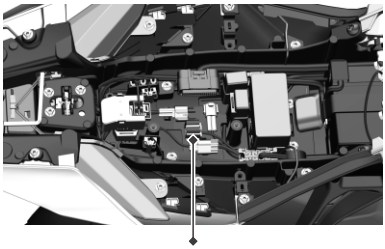
Installation of electrical devices



OBD diagnostic interface

The OBD diagnostic interface is located below the cover of the electrical component box. It can be seen after removing the rear cushion, main cushion, and the cover of the electrical component box, referring to (6-8, 6-12).





The anti-theft device plug

The anti-theft device plug is located below the PKE. Use a T25 Torx hex key to remove the two M6 bolts, and the PKE can be seen after removal.

⚠ WARNING

•It is prohibited to draw power for GPS, fog lights, and other electrical devices directly from the positive and negative terminals of the battery.

•Do not place wiring for electrical equipment closely around the battery.

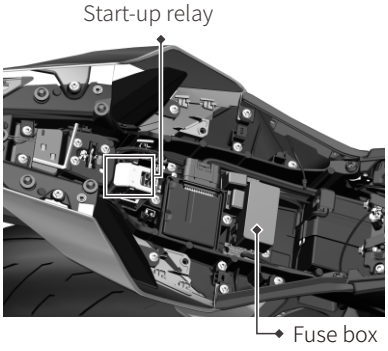
•Additional electrical equipment must be installed at least 300mm away from the electronic fuel injection ECU, relay assembly, and PKE controller.

•Unauthorized cutting, modification, and installation in positions that do not meet requirements will result in consequences borne by the consumer.

•The total power of external electrical equipment must not exceed 60W, and do not use the spotlight when idling.

Fuse position

The fuse is located under the seat cushion. Press the "SEAT" button on the left handle switch, and you can see when the seat cushion is opened.



Fuse

The main fuse and a spare fuse are located on the starter relay. The LCM fuse, constant power fuse, ABS motor fuse, fuel injection fuse, ECU fuse, starter fuse, ABS fuse, auxiliary fuse, other fuses, and four spare fuses are located in the fuse box.

- The main fuse protects all circuits.
- The LCM fuse protects the LCM circuit.
- The EFI ECU fuse protects the ECU power supply
- The always-powered fuse protects the fan, instruments, and anti-theft device connectors.
- The ABS motor fuse protects the ABS motor.
- Start the fuse to protect the starting circuit.
- The ABS fuse protects the ABS controller.
- PKE fuse, protects PKE.
- Auxiliary fuse protects auxiliary components (position light, taillight, license plate light, ambient light).
- Other fuse protections (LCM, instrument panel, anti-theft device connector).

⚠ DANGER

• Do not use fuses other than the specified type or make direct connections. Otherwise, it may have serious effects on the electrical system, and could even cause fires, damage the vehicle, or result in a loss of engine power, which is very dangerous.

⚠ CAUTION

• Pay attention to using fuses with the specified rated current. Do not use substitutes such as aluminum or iron wire. If the fuse frequently blows in a short period, it indicates a fault in the electrical system. Maintenance personnel should be called for inspection immediately.

Catalyst

Catalyst can effectively reduce the pollutants emitted by your vehicle, protecting the environment on which we depend. Since the lifespan of the catalyst is designed under the premise that the vehicle uses unleaded gasoline normally, it is forbidden to use leaded gasoline in your car, as lead will disable the reduction components of the catalyst conversion system. Proper engine operation is also very important for the catalyst. If the engine fails to ignite effectively for a long time or lacks sufficient heat dissipation, exhaust oil and gas can accumulate and burn at the catalyst, causing the catalyst to overheat and permanently damage its conversion capability. It is forbidden to maintain high engine speeds in place for long periods.

Troubleshooting

The content of troubleshooting can help you find the causes of common problems.

⚠ WARNING

· Incorrect maintenance and adjustments can damage the motorcycle and make it impossible to determine the cause of the fault. Such damage is not covered by the warranty. If you are unsure how to operate correctly, please consult our company's maintenance unit.
· Before troubleshooting, consult our company's maintenance unit. The maintenance unit will try to solve the problem for you. If the engine cannot start, follow the inspection below to determine the cause.

Fuel system check

If the engine malfunction indicator on the dashboard lights up, it indicates a problem with the fuel injection system. Take the motorcycle to an authorized service center.
Refer to the explanation of the engine malfunction indicator in the dashboard section to understand its meaning.

The engine does not work

・Confirm that there is enough fuel in the fuel tank.

・The engine has started successfully. During operation, if the orange fuel injection malfunction indicator light turns on and indicates a fuel injection fault, it means there is an abnormality in the fuel injection system. Please contact our company's after-sales service shop to check the fuel injection system.

・Check if the ignition system is functioning properly.

・Check the idle speed; the correct idle speed is 1500±100 rpm.

⚠DANGER

• Do not let fuel spill all over the ground; it should be collected in a container. Keep fuel away from hot engines and mufflers. When performing this inspection, stay away from sparks, and do not approach any fire or heat sources.

Engine power is insufficient

When the engine power noticeably decreases or the maximum speed drops significantly compared to before, it may be due to a fuel system blockage causing abnormal engine operation. Please immediately go to a company dealer service center for inspection.

⚠WARNING

・Fuel system blockage may be caused by reasons such as impure gasoline.

・For new motorcycles or vehicles that have run out of fuel, do not turn on the ignition switch. Be sure to refill fuel before turning on the ignition switch, otherwise running the fuel pump dry will seriously affect its lifespan.

Carbon deposit cleanup

To minimize the formation of carbon deposits as much as possible, the following suggestions are recommended:

1.If the vehicle is ridden for short distances for a long time or ridden for long periods below 5,000 RPM, it is recommended to clean the carbon deposits every 5,000 kilometers or every 6 months. If the vehicle is often driven above 5,000 RPM and the engine is fully warmed up, the mileage for cleaning carbon deposits can be extended to every 10,000 kilometers or every 12 months.

2.And execute the cylinder cleaning procedure: with the engine in neutral, squeeze the clutch lever, fully open the throttle, and then press the start button. At this time, the ECU will determine entry into the cylinder cleaning mode and will no longer inject fuel. When you need to exit the cylinder cleaning mode, turn off the power for about 10 seconds, and then turn it on again to exit the cylinder cleaning mode.

There are the following methods for carbon cleaning:

1.To clear carbon deposits through scavenging, during riding, when conditions allow, appropriately increase the throttle to raise the engine speed above 7000, and ride cumulatively for no less than 2 minutes. This can effectively clear carbon deposits through high-speed scavenging.

2.Use a regular major brand fuel additive to clean carbon deposits, add according to the instructions, but frequent use is not recommended, as frequent use may cause damage to the fuel supply lines.

Precautions for Electronic Fuel Injection

1.Before installing the battery on a new motorcycle, it is necessary to check that the fuel injection component wiring harness connectors are securely and reliably connected, including ensuring that the oxygen sensor is installed and that fuel has been added.
2.When installing the battery, use tools to securely attach the positive and negative cables to the corresponding positive and negative terminals of the battery. Do not tighten them by hand casually.
3.Please keep at least 3 liters of fuel in the tank, otherwise it will affect the normal operation of the electronic fuel injection system. Please refill fuel as soon as possible when the fuel gauge is at 1 bar or below 1 bar.
4.If there are situations such as power loss in the vehicle during battery reinstallation, starting, or riding, battery hibernation restart, abnormal idling, or reinserting fuses, please pay attention to resetting certain EFI hardware. The steps are: turn on the ignition switch and turn off the engine kill switch, start the engine in neutral with the clutch pulled in for 60 seconds, then turn off the engine kill switch, and repeat the above operation after 10 seconds.
5.If the vehicle has been stationary for a long time (parked for more than 3 hours), before starting it for the first time, please ensure that the fuel pump has completed pressurization (that is, turn on the vehicle's power, switch on the ignition, and wait until the humming sound in the fuel tank stops) before starting the engine.

6.And execute the cylinder cleaning procedure: with the engine in neutral, squeeze the clutch lever, fully open the throttle, and then press the start button. At this time, the ECU will determine entry into the cylinder cleaning mode and will no longer inject fuel. When you need to exit the cylinder cleaning mode, turn off the power for about 10 seconds, and then turn it on again to exit the cylinder cleaning mode.

7.If the instrument battery voltage flashes, it indicates that the battery voltage is too low. Please charge the battery in time. A voltage that is too low may cause the fuel injection components to not function properly, resulting in failure to start, difficulty starting, insufficient power, and other issues.

8 .During the vehicle idling process, if the battery voltage is low, the idle speed will increase to improve the power generation; once the voltage returns to normal, the idle speed will return to normal.

⚠DANGER

• For new vehicles or vehicles that have run out of fuel, do not turn on the ignition switch. Be sure to refill fuel before turning on the ignition switch, otherwise running the fuel pump dry will seriously affect the lifespan of the fuel pump.

⚠WARNING

•Do not randomly plug or unplug the cable connectors of various components, and do not clean the cable connectors of electronic fuel injection components with water.

⚠CAUTION

• During the engine's operation, the fault light did not illuminate. After the engine is turned off, the fault light flashes, indicating a historical fault. It has no impact on the vehicle and will disappear on its own in the future.

1.While the engine is running, if the dashboard fuel injection fault indicator light is on, it indicates that there is a fault in the fuel injection components that needs to be resolved.

1.You can directly read the fault code on the instrument menu → fault information page, or read the fault code in the ZONTES Smart APP.

ZONTES intelligent APP QR code

2.Conditions for the instrument warning light to go off:

1.Use the diagnostic tool to clear fault codes: After powering on the whole vehicle, open the seat, connect the diagnostic tool to the diagnostic interface in the electrical box, and follow the operating steps of the diagnostic tool to clear the fault codes.

⚠WARNING

•During engine operation, the fault light does not illuminate. After shutting off the engine, the fault light flashes. This is a historical fault and has no impact on the entire vehicle. It will disappear on its own in the future.

Electronic Fuel Injection Fault Code

Numbe	Fault code	Fault code description
1	P0105	Intake air pressure sensor electrical fault
2	P0110	Intake air temperature sensor electrical fault
3	P0115	Cylinder temperature sensor electrical fault
4	P0336	Crankshaft position sensor signal is unreasonable
5	P0120	Electrical fault in throttle position sensor circuit 1
6	P0220	Electrical fault in throttle position sensor circuit 2
7	P2135	Throttle position sensor signal consistency fault
8	P2100	Throttle body motor electrical fault
9	P0638	Throttle position error
10	P0121	Circuit 1 throttle position sensor rationality fault
11	P0221	Circuit 2 throttle position sensor rationality fault
12	P0130	Front oxygen sensor electrical fault
13	P0030	Front oxygen sensor heater electrical malfunction
14	P0225	Circuit 1 Accelerator Pedal Position Sensor Electrical Fault
15	P2140	Circuit 2 Accelerator Pedal Position Sensor Electrical Fault
16	P2130	Throttle position sensor signal consistency fault
17	P0351	Cylinder 1 ignition coil electrical fault
18	P0352	Cylinder 2 ignition coil electrical fault
19	P0353	Cylinder 3 ignition coil electrical fault
20	P0201	Cylinder 1 Injector Electrical Fault
21	P0202	Cylinder 2 Injector Electrical Fault
22	P0203	Cylinder 3 Injector Electrical Fault
23	P0443	Carbon canister solenoid valve electrical malfunction
24	P0410	Secondary air supply valve electrical malfunction
25	P0230	Oil pump relay electrical fault
26	P0480	Fan relay electrical fault
27	P1762	Tilt switch electrical failure
28	P0914	Gear position sensor electrical fault
29	P060B	ECU internal A/D conversion module error
30	P0604	RAM fault

Numbe	Fault code	Fault code description
31	P0601	EEPROM fault
32	C001	CAN bus communication interruption
33	C121	CAN bus ABS signal fault
34	P0500	CAN bus front wheel speed signal malfunction
35	P1615	ROM check failed
36	P1900	Quick shift sensor electrical fault

LCM Function Fault Code

Numbe	Fault code	Fault code description
1	9032	Horn overload
2	9042	Seat lock overload
3	9052	Brake light overload
4	9062	Low beam overload
5	9082	Heated grips overload
6	9092	High beam overload
7	90A2	Left daytime running light overload
8	90B2	Right daytime running light overload
9	90C2	Left turn signal overload
10	90D2	Right turn signal overload
11	9033	Horn short circuit
12	9043	Seat lock short circuit
13	9053	Brake light short circuit
14	9063	Low beam short circuit
15	9083	Heated grips short circuit
16	9093	High beam short circuit
17	90A3	Left daytime running light short circuit
18	90B3	Right daytime running light short circuit
19	90C3	Left turn signal short circuit
20	90D3	Right turn signal short circuit

LCM Button Fault Code

Numbe	Fault code	Fault code description
1	A001	KEY1 Channel - Channel Short Circuit
2	A002	KEY1 Channel - Channel Open Circuit
3	A011	KEY1 Channel - Overtaking Button Short Circuit
4	A012	KEY1 Channel - Overtaking Button Open Circuit
5	A021	KEY1 Channel - High Beam Button Short Circuit
6	A022	KEY1 Channel - High Beam Button Open Circuit
7	A101	KEY2 Channel - Channel Short Circuit
8	A102	KEY2 Channel - Channel Open Circuit
9	A111	KEY2 Channel - Mode Down Button Short Circuit
10	A112	KEY2 Channel - Mode Down Button Open Circuit
11	A121	KEY2 Channel - Mode Confirm Button Short Circuit
12	A122	KEY2 Channel - Mode Confirm Button Open Circuit
13	A131	KEY2 Channel - Mode Up Button Short Circuit
14	A132	KEY2 Channel - Mode Up Button Open Circuit
15	A201	KEY3 Channel - Channel Short Circuit
16	A202	KEY3 Channel - Channel Open Circuit
17	A211	KEY3 Channel - Right Turn Button Short Circuit
18	A212	KEY3 Channel - Right Turn Button Open Circuit
19	A221	KEY3 Channel - Steering Reset Button Short Circuit
20	A222	KEY3 Channel - Steering Reset Button Open Circuit
21	A231	KEY3 Channel - Left Turn Button Short Circuit
22	A232	KEY3 Channel - Left Turn Button Open Circuit
23	A241	KEY3 Channel - Horn Button Short Circuit
24	A242	KEY3 Channel - Left Turn Button Short Circuit
25	A251	KEY3 Channel - Light Button Short Circuit
26	A252	KEY3 Channel - Light Button Open Circuit
27	A301	KEY4 Channel - Channel Short Circuit
28	A302	KEY4 Channel - Channel Open Circuit
29	A311	KEY4 Channel - Menu Down Button Short Circuit
30	A312	KEY4 Channel - Menu Down Button Open Circuit

Numbe	Fault code	Fault code description
31	A321	KEY4 Channel - Menu Confirm Button Short Circuit
32	A322	KEY4 Channel - Menu Confirm Button Open Circuit
33	A331	KEY4 Channel - Menu Up Button Short Circuit
34	A332	KEY4 Channel - Menu Up Button Open Circuit
35	A501	KEY6 Channel - SEAT Button Short Circuit
36	A502	KEY6 Channel - SEAT Button Open Circuit
37	A521	KEY6 Channel - Hazard Warning Light Button Short Circuit
38	A522	KEY6 Channel - Hazard Warning Light Button Open Circuit

Maintenance and storage

Storage

Storage method

If your motorcycle will not be used for a period of time, special maintenance is required, which needs dedicated materials, equipment and professional skills.For the above reasons, it is recommended to have all maintenance work completed by our official service center.

Motorcycle

Clean the motorcycle thoroughly. Park the vehicle on level ground with the side stand.Turn the handlebars to the left, long press the red power button on the handlebar to cut off the vehicle power, and the front lock will lock automatically.

Fuel

Drain the fuel from the fuel tank into a container by siphoning or other appropriate methods.

Engine

1.Remove the spark plugs, pour one tablespoon of new engine oil into each spark plug hole, reinstall the spark plugs, and rotate the engine crankshaft several times.
2.Completely drain the old engine oil and refill with new engine oil.
3.Cover the air inlet of the air filter and the exhaust port of the muffler with an oiled cloth to prevent moisture from entering.

Battery

1.Remove the battery according to the battery operation instructions.
2.Clean the battery surface with neutral soapy water, and remove corrosion from terminals and wiring connectors.
3.Store the battery indoors at a temperature above 0°C.

Maintenance during storage

Please charge the battery once every three months.

Tire

Adjust the tire pressure to the specified standard value.

Motorcycle surface

1.Pray rubber protectant on resin and rubber parts.
2.Spray anti-rust paint on parts without surface treatment.
3.Apply automotive wax to painted surfaces.

Recommissioning method

Recommissioning method

・Thoroughly clean the motorcycle.
・Remove the rags covering the air filter inlet and muffler exhaust port.
・Drain all engine oil. Replace the oil filter and refill with new engine oil in accordance with relevant contents of this owner' s manual.
・Remove the spark plugs, crank the engine several times, then reinstall the spark plugs.
・Reinstall the battery as instructed in the battery section.
・Confirm normal lubrication of the motorcycle.
・Perform pre-ride inspection in accordance with the relevant chapter in this owner' s manual.
・Start the motorcycle following the specified procedures in this manual.

Corrosion prevention

Proper maintenance is essential to prevent corrosion and keep your motorcycle in new condition for years.

Key points for preventing corrosion

Corrosion is caused by road salt, dirt, moisture, chemical accumulation, stone chipping, impact scratches on painted surfaces, sea breeze, industrial pollution and high-humidity environments.

How to prevent rust

1.Clean your motorcycle at least once a month. Try to keep your vehicle clean and dry.

2.Remove dirt from the surface of the motorcycle. Substances such as salt, chemicals, asphalt, tree sap, bird droppings, and industrial emissions from salty roads can damage your motorcycle. Remove these contaminants as soon as possible. If it is difficult to clean with water, clean it with a detergent. The detergent must be used in accordance with the detergent product requirements.

3.Clean up the damage to the car as soon as possible. Carefully inspect the surface of the motorcycle's painted parts for damage. If you find any burrs or scratches, repair them immediately to avoid further damage. If burrs and scratches run through the entire surface of the part, please have it repaired by a repair unit designated by the company.

4.Keep the motorcycle in a dry, ventilated place. If you often wash your motorbike in the garage and you park inside, the garage can get wet. High humidity increases rust. If the air is not circulated, wet motorcycles can rust even in hot environments.

5.Cover the motorcycle. Avoid the noon sun on the motorcycle, if it is exposed to the paint, plastic parts will be discolored, and the instrument will fade. The use of a high-quality, breathable cover protects the motorcycle from ultraviolet rays in the sun and reduces the deposition of dirt and air pollution on the motorcycle. Our dealers can help you choose the right cover for your motorcycle.

Cleaning the motorcycle

Clean the motorcycle in accordance with the following guidelines:

Regular and thorough cleaning of the vehicle not only keeps it looking bright but also improves its regular performance and extends the service life of many components. Cleaning, washing, and polishing also give you more opportunities to check the condition of your vehicle frequently. Be sure to clean the vehicle after riding by the sea or in the rain, as salt and moisture can corrode metal parts.

⚠ CAUTION

•In cold weather, when roads may be de-iced with salt, it is important to thoroughly clean the vehicle to remove road salt and avoid corrosion. Wheel spokes, bolts/nuts, and other unpainted metal parts are particularly susceptible to corrosion from road salt. After cleaning and drying the vehicle, apply anti-corrosion products to all vulnerable parts.

Cleaning steps

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

1.Rinse the motorcycle thoroughly with a low-pressure hose to remove loose dirt.

2.If necessary, use a sponge or soft towel dipped in mild detergent to remove dirt.

・Be particularly careful when cleaning the windshield, headlight lens, panels, and other plastic components to avoid scratches.Do not allow water to directly enter the air filter, muffler, and other electrical components.

3.Rinse the motorcycle thoroughly with plenty of clean water and dry it with a clean soft cloth.

4.After drying the motorcycle, lubricate all moving parts.

・Ensure no lubricating oil splashes onto the brakes or tires. Contaminated brake discs, brake pads, brake drums, and brake shoes will have significantly reduced braking performance, which may cause accidents.

5.Immediately lubricate the drive chain after cleaning and drying the motorcycle.

6.Waxing can prevent corrosion.

・Avoid using products containing strong detergents or chemical solvents. These substances can damage the motorcycle's metal parts, paint, and plastic components.

・Do not wax tires and brakes.

・If your motorcycle has parts with a matte paint finish, do not wax or polish the matte paint.

⚠ CAUTION

・Do not use alkaline or acidic cleaning agents to clean the motorcycle, and do not use gasoline, brake fluid, or other solvents that may damage the motorcycle. Clean only with a soft cloth and warm water with a neutral cleaning agent.

・Avoid cleaning the motorcycle's cover paint with the following cleaning agents:

・Engine exterior cleaner (engine degreaser), range hood cleaner, bathroom cleaner, carburetor cleaner, chain cleaner, and cleaning products containing bleach. Try to avoid contact with brake fluid, strong acids, and alkalis to prevent corrosion.

⚠ DANGER

・Driving a motorcycle with wet brakes is very dangerous. Wet brakes cannot provide the same braking force as dry brakes. This can cause accidents. After cleaning the motorcycle, test the braking system at low speed. If necessary, operate the brakes several times to dry the brake pads.

Cleaning precautions

Follow these guidelines when cleaning:

1.Do not use a high-pressure water gun:
·High-pressure water can damage moving parts and electrical components, making them irreparable.
·Moisture at the air intake may be sucked into the throttle body or air filter.

2.Do not rinse the muffler directly with water:
·Water entering the muffler may cause failure to start and rusting of the muffler.

3.Dry the brakes:
·Water will reduce braking performance.After cleaning, operate the brakes intermittently at low speed to help dry them.

4.Do not directly under the seat cushion with water:
·Water entering the storage box under the seat cushion can damage your documents and other items.

5.Do not rinse the air filter directly with water:
·If the air filter gets wet, the engine may not start.

6.Do not rinse directly near the headlight with water:
・After cleaning or driving in the rain, the inner lens of the headlight may fog temporarily.This will not affect the function of the headlight.
・However, if you find a large amount of water or ice accumulated inside the lens, have it inspected by an authorized ZONTES flagship store or dealer.

7.Do not wax or polish matte paint surfaces:
・Clean matte paint surfaces with a soft cloth or sponge, plenty of water, and mild detergent. Dry with a clean soft cloth.

Follow these guidelines after cleaning:

1.Wipe the motorcycle fully dry with a towel.
2.For chain-drive models: dry and lubricate the drive chain to prevent rust.
3.pray anti-corrosion agent on all metal parts.Warning! Do not apply anti-rust spray on seats, handlebars, pedals or tires. Slippery surfaces may cause loss of vehicle control. Thoroughly clean these parts before riding.

4.Maintain rubber, plastic and unpainted plastic components with dedicated care products.
5.Apply non-abrasive wax or special vehicle spray to all painted surfaces.
6.Start the engine and keep idling for several minutes to evaporate residual moisture.
7.Turn on the headlight with the engine running to eliminate lens fogging.
8.Store or cover the motorcycle only after it is completely dry

⚠WARNING

·Contaminants remaining on the brakes or tires may cause vehicle loss of control.
Ensure there is no lubricating oil or wax on the brakes or tires.
·If necessary, clean the tires with warm water and a neutral cleaning agent.
·If necessary, clean the brake discs and brake pads with brake disc cleaner or acetone.
·Before riding at higher speeds, test the braking performance and turning characteristics.

Exhaust pipe and muffler

The exhaust pipe and muffler are made of stainless steel but may become dirty due to mud or dust.

Remove mud or dust with a damp sponge dipped in kitchen liquid abrasive, then rinse thoroughly with clean water.Dry with a soft towel.

If necessary, remove burn marks with a fine-grained commercial compound, then rinse in the same way as removing mud and dust.

If the exhaust pipe and muffler are painted, do not use commercial abrasive kitchen cleaners. Clean the painted surface of the exhaust pipe and muffler with a neutral detergent. If you are unsure whether the exhaust pipe and muffler are painted, have them inspected by an authorized ZONTES flagship store or dealer

⚠CAUTION

• Although the exhaust pipe is made of stainless steel, it may still rust. Once rust is found, remove all traces and dirt immediately.

Aluminum components

Aluminum can be corroded when in contact with dirt, mud, or salt. Clean aluminum parts regularly and follow these guidelines to prevent scratches:

- Do not use hard brushes, steel wool, or other abrasive cleaning tools.
- Do not drive or scrape on the curb.

Panels

Follow these guidelines to prevent scratches and damage:

- Clean gently with a sponge and plenty of water.
- Clean stubborn dirt with diluted detergent and rinse thoroughly with plenty of water.
- Avoid getting gasoline, brake fluid, or detergent on the instrument panel, windshield, panels, or headlight.

Transportation

The fuel must be drained before transporting the motorcycle. Fuel is extremely flammable and can cause explosions under certain conditions. When draining, storing or refilling fuel, open flames are strictly prohibited and the operation must be performed in a well-ventilated place after the engine is stopped. The order of draining fuel is as follows.

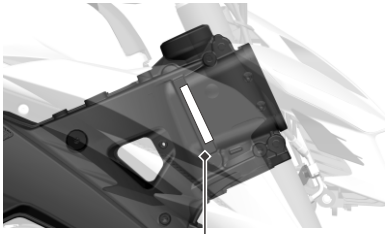
1. Stop the engine and turn off the electric door lock switch.
2. Use siphoning or other appropriate methods to drain the fuel in the fuel tank into a suitable container.

⚠WARNING

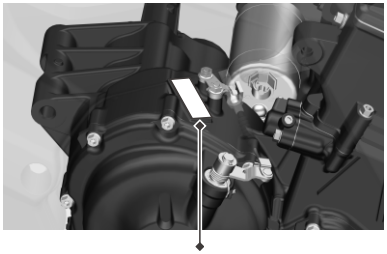
• When transporting a motorcycle, be sure to drain all the fuel from the fuel tank. Transport the motorcycle in normal driving condition to prevent fuel leakage.

Number

The frame and engine numbers are unique and are used to identify your motorcycle. They are required when registering your motorcycle. When ordering accessories or entrusting special services, the numbers enable the dealership to provide you with better service. Please record these numbers and keep them in a safe place.



Frame number

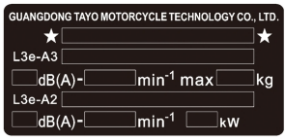


Engine code

Namepate

- The nameplate is made of special materials and has tamper-proof properties. It is a one-time product. Please do not destroy or tear it.
- The nameplate has authoritative certification. Please do not make or print it privately.
- Do not wash the nameplate with corrosive liquids.
- Do not wash the nameplate with a high-pressure water gun.





Specification sheet

Dimensions and curb weight

Length	2065mm
Width	800mm
Height	1130mm
Wheelbase	1450mm
Ground clearance	145mm
Seat cushion height	820mm
Whole cmotorcycle dry mass	181kg
Curb weight of the whole car	198kg

Crane system

Steering degree	35°
Tire Specification	
Front tire	120/70ZR17
Rear tire	180/55ZR17
Ignition method of electrical system	Inductive discharge type
Spark plug model	BN8RTIP-8
Battery specifications	12V, 6Ah
Fuse specifications	10A/15A/25A

Volume

Fuel tank effective volume	16L
Engine oil capacity	4000mL
When the engine changes the oil regularly and the oil filter is changed at the same time	3400mL
When the engine is regularly, changed with oil and the oil filter is not changed	3000mL

Lamp power

Low beam	17W/12V
High beams	29W/12V
Front position lights	6.4W/12V
Front turn signal	3.8W/12V
Rear position lights	3.9W/12V
Brake lights	4.0W/6.1W/12V
Rear license plate lights	0.4W/12V
Rear turn signal	3.5W/12V

Engine-Version 1

Three-cylinder, vertical,
four-stroke, water-cooled, 699cc

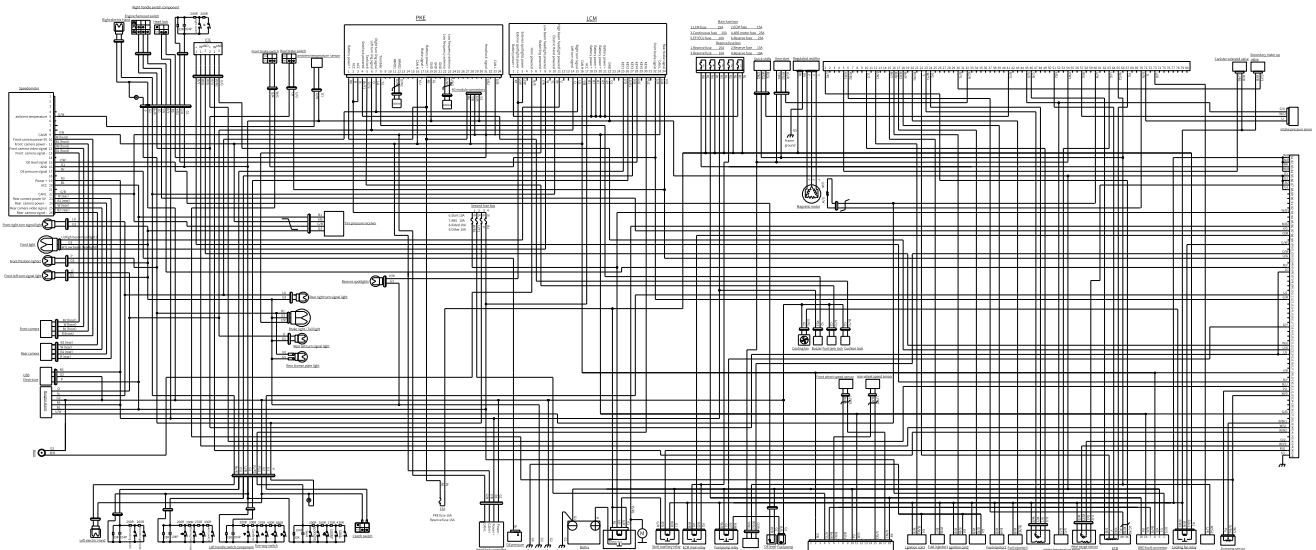
Number of cylinders	3	
Cylinder diameter	70.0mm	
Stroke	60.6mm	
Displacement	699mL	
Compression ratio	13.0:1	
Start mode	Electric start	
Lubrication method	Pressure splash type	
Power	70kW	
Clutch	Wet multi-piece	
Transmission	Six-speed wheel shifting	
The primary wheel ratio	1.775	
Gear ratio	First gear	2.917
	Second gear	2.200
	Third gear	1.789
	Fourth gear	1.500
	Fifth gear	1.304
	Sixth gear	1.160
Drive form	Chain	
Economical fuel consumption	5.0L/100km	
Top speed	230km/h	

Engine-Version 2

Three-cylinder, vertical,
four-stroke, water-cooled, 699cc

Number of cylinders	3	
Cylinder diameter	70.0mm	
Stroke	60.6mm	
Displacement	699mL	
Compression ratio	13.0:1	
Start mode	Electric start	
Lubrication method	Pressure splash type	
Power	35kW	
Clutch	Wet multi-piece	
Transmission	Six-speed wheel shifting	
The primary wheel ratio	1.775	
Gear ratio	First gear	2.917
	Second gear	2.200
	Third gear	1.789
	Fourth gear	1.500
	Fifth gear	1.304
	Sixth gear	1.160
Drive form	Chain	
Economical fuel consumption	5.0L/100km	
Top speed	165km/h	

ZT703-R CIRCUIT schematic English version



ETC



WWW.ZONTES.COM