

150 X
OWNER'S MANUAL

**NON
T
E**

This Owner's Manual must remain with the motorcycle and must be transferred to the current owner whenever ownership of the motorcycle changes.

The motorcycle information contained in this manual reflects the latest production information available prior to printing.

DYNAMIC MOTOR (Thailand) Co., Ltd. reserves the right to revise this manual without prior notice.

The contents of this Owner's Manual are updated on an ongoing basis. The latest information published on the official website shall take precedence. A PDF version of this manual may be downloaded from the official website.

The motorcycle shown in this manual is for reference only and does not represent the actual riding circumstances of an individual rider.

DYNAMIC MOTOR (Thailand) Co., Ltd. reserves the right of final interpretation of this Owner's Manual.

No part of this manual may be reproduced or modified without authorization.

Thank you for choosing a Zontes motorcycle. This model has been designed, tested and manufactured using advanced technology to help provide safe, enjoyable and rewarding riding after you have become fully familiar with the basic information in this manual.

For safe riding, please observe the following:

- Read this Owner's Manual carefully.
- Follow the instructions and operating procedures described in this manual.
- Read this manual carefully together with all safety instructions and warning labels affixed to the motorcycle.
- Illustrations in this manual are based on the specifications of the 150X. Refer to the actual motorcycle for final details.

Motorcycle and Engine Model

- Motorcycle model : 150X
- **Engine model : ZT1P58MJ-S**

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Safe Riding

The rider and passenger must wear suitable protective equipment while riding, including an approved helmet, gloves, a long-sleeved shirt or jacket, long trousers or motorcycle riding trousers, and closed footwear that fully covers the feet or approved motorcycle riding boots.

WARNING

- Do not wear loose clothing because it may become caught on the motorcycle

HELMET AND EYE PROTECTION

An approved helmet can reduce head and brain injuries in an accident. The helmet must fit correctly. A helmet with full-face protection is preferable because it protects against insects, dust, flying stones and other objects from the front and helps preserve the rider's ability to observe road conditions. A partial-coverage helmet does not protect the face and chin; when such a helmet is used, wear an appropriate removable face shield and protective eyewear.

GLOVES

Gloves provide effective protection from riding conditions. Correctly fitting gloves support consistent vehicle control; poorly fitting gloves can make control more difficult. Reinforced motorcycle gloves provide additional protection to the hands in an accident.

LONG-SLEEVED SHIRT / JACKET

Wear a long-sleeved jacket or shirt together with long trousers or a full motorcycle riding suit. Approved protective equipment improves comfort, reduces distraction from adverse environmental conditions and can reduce or prevent injury in an accident.

CLOSED FOOTWEAR

Always protect your feet while riding. The engine and exhaust become very hot and may cause burns. Suitable footwear can also reduce or prevent injury in an accident.

DANGER

- For personal safety, avoid high-speed riding in heavy rain, strong winds, standing water or snow

CARBON MONOXIDE POISONING

A running engine produces carbon monoxide, a colorless and odorless gas. Inhalation may cause headache, dizziness, drowsiness, nausea or death. Dangerous concentrations may remain for hours or days in enclosed areas and can impair balance and coordination. If symptoms occur, immediately move to fresh air and seek medical attention.

WARNING

- Running the engine in an enclosed or poorly ventilated area can rapidly cause carbon monoxide to accumulate.
- Operate the engine only in a well-ventilated area.

Safe Riding - Loading and Riding Skills

LOADING

Accessories that add weight or wind resistance, such as wind deflectors, backrests, seats or luggage cases, should be mounted as close as practical to the motorcycle and its center of gravity. Improper installation may change the center of gravity and create a riding hazard. When installing accessories, consider the balance and stability of the motorcycle. Unsuitable or poorly designed equipment can make the motorcycle difficult to control and may cause an accident. Cargo affects aerodynamic drag and handling. Secure cargo close to the motorcycle and as low as possible. Improperly secured cargo raises the center of gravity, makes the motorcycle more difficult to control and may lead to an accident.

- Maximum load: 180 kg

WARNING

- Installation of a rear top case is not recommended on the high-seat version.
- If cargo is carried in a rear top case, the load should not exceed 10 kg and riding speed should not exceed 110 km/h.

GENUINE ZONTES ACCESSORIES

Selecting suitable accessories is important. Genuine Zontes parts and accessories are available only through the official website and authorized dealers and have been designed, tested and approved for use with Zontes motorcycles. Zontes accepts no responsibility for unexpected incidents resulting from unauthorized accessories.

RIDING SKILLS

- Keep your arms, shoulders and feet relaxed so that you can respond quickly when necessary.
- Riding posture has a major effect on safety. Sit near the center of the seat to maintain effective control.
- Cornering is easier when the rider leans with the motorcycle. Failure to lean appropriately can make the motorcycle more difficult to control.
- Rough or uneven roads reduce riding effectiveness. Reduce speed and use your upper body/shoulders to assist control.
- Do not place unnecessary objects on the front footboard, as they may impair safe riding and vehicle control.

WARNING

Additional weight changes handling. Overloading makes the motorcycle difficult to control and may cause weaving; avoid excessive loads.

WARNING

- Do not place flammable objects beside the engine; engine heat may cause a fire.
- Do not carry unsuitable loads, in order to preserve motorcycle service life.

Safe Riding - Riding Skills and Starting

RIDING SKILLS

If this is your first time riding this type of motorcycle, practice on a non-public road until you are familiar with its controls and handling. Riding with one hand is dangerous. Hold the handlebars with both hands and keep both feet on the footrests. Do not release the handlebars while riding. Reduce speed to a safe level before turning. On wet and slippery roads, tire grip decreases and braking and cornering capability are reduced; slow down in advance. Crosswinds are common at tunnel exits, in valleys and when large vehicles pass from behind. Remain calm, reduce speed and comply with traffic regulations and speed limits.

WARNING

Some versions have limited ground clearance. Cornering at excessive speed may cause the underside of the motorcycle to contact the road surface.

STARTING THE ENGINE

After the motorcycle has been unlocked using the Inter-Lock system, confirm that the OFF-RUN switch is in the RUN position. 

STARTING A COLD ENGINE

1. Raise the side stand.
2. Do not open the throttle.
3. Apply the brake.
4. Press the electric starter button. 

IF A COLD ENGINE IS DIFFICULT TO START

1. Raise the side stand.
2. Apply the brake.
3. Open the throttle approximately 1/8 and press the starter button. 
4. After the engine starts, allow it to warm up.
5. If the engine remains difficult to start after repeated attempts, excessive fuel may have entered the combustion chamber.

CLEARING EXCESS FUEL FROM THE COMBUSTION CHAMBER (SIDE STAND UP)

1. Apply the brake.
2. Fully open the throttle for 3 seconds and hold the starter button for 3 seconds so that incoming air purges residual fuel.

WARNING

- In colder-than-normal weather, allow additional engine warm-up time.
- Riding after the engine is fully warmed can help reduce engine wear.

Safe Riding - Hot Starting, Braking and Parking

STARTING A HOT ENGINE

1. Raise the side stand.
2. Do not open the throttle.
3. Apply the brake.
4. Press the electric starter button 

IF A HOT ENGINE IS DIFFICULT TO START

1. Raise the side stand.
2. Apply the brake.
3. Open the throttle approximately 1/8 and press the starter button. 
4. After the engine starts, allow it to warm up.

5. If the engine remains difficult to start after repeated attempts, excessive fuel may be present in the combustion chamber.

CLEARING EXCESS FUEL (SIDE STAND UP)

1. Apply the brake.
2. Fully open the throttle for 3 seconds and hold the starter button for 3 seconds to purge residual fuel.

WARNING

- Always raise the side stand before starting. Leave the throttle at idle and firmly apply a brake before starting to prevent unintended forward movement.
- The motorcycle can be started only when the side stand is raised and a brake is applied.
- Never start the motorcycle when there is no fuel or no engine oil.

BRAKING AND PARKING

1. Close the throttle.
2. Gradually apply the front and rear brakes.
3. When parking on a slope, point the front of the motorcycle uphill to prevent rolling or folding of the side stand.
4. Stop the engine.
5. Turn the handlebar fully left and switch off the Inter-Lock system to lock the steering.
6. Move the handlebar to confirm that the steering is securely locked.

DANGER

- Higher speed increases stopping distance. Always maintain sufficient distance from vehicles and obstacles ahead before braking.
- Using only the front brake or only the rear brake increases the risk of wheel slip and loss of control. Brake smoothly and carefully, especially on wet, slippery roads and while cornering.
- Emergency braking on uneven or slippery surfaces may cause loss of control.
- Emergency braking while cornering may cause loss of control. Reduce speed and brake before entering a corner.
- The exhaust is extremely hot while the engine is running and remains hot after shutdown. Do not touch it.
- Using the rear brake alone reduces braking efficiency and increases stopping distance.
- The exhaust and its cover remain very hot after riding. Do not touch or lean against them; burns or fire may result.

Safe Riding - ABS and TCS

ANTI-LOCK BRAKING SYSTEM (ABS)

ABS is designed to help prevent wheel lock during severe straight-line braking. It automatically modulates braking force to help prevent wheel lock and preserve steering stability.

NOTICE

- ABS does not reduce stopping distance. In some conditions it may increase stopping distance.
- ABS does not operate below 10 km/h. Pulsation or a soft sensation at the brake lever during ABS operation is normal.
- Use the recommended front and rear wheels and tires so that ABS can function correctly.
- If the rear wheel is raised and spun, the ABS indicator may illuminate and ABS may become inactive. Cycle the Inter-Lock system OFF and ON to restore ABS.

NOTICE

If any of the following occurs, the ABS may have a fault. Reduce speed and have the motorcycle inspected as soon as possible by a ZONTES service center or authorized dealer:

1. The ABS indicator illuminates or flashes while riding.
2. The indicator does not go out when speed exceeds 5 km/h.
3. The ABS indicator remains on and normal braking is available, but the anti-lock function does not operate

TRACTION CONTROL SYSTEM (TCS)

1. TCS is set to ON by default and is reactivated whenever the engine is restarted.

2. TCS status is shown "  " by the instrument indicator:

- Indicator "  " continuously ON: TCS OFF.
- Indicator "  " OFF: TCS ON.
- Indicator "  " flashing rapidly: TCS is actively intervening.
- Indicator "  " abnormally illuminated continuously: TCS malfunction.

If a malfunction occurs, **reduce speed** and have the motorcycle inspected promptly by an **authorized Zontes service center/dealer**.

TURNING TCS OFF

1. Start the engine.
2. Use the **-SET-** and **-MOD-** buttons on the left handlebar switch to open **Ride Control** in the instrument main menu and select **OFF**.
3. When the indicator "  " appears, the source text states that TCS is **-ON-**; however, this step is within the TCS-OFF procedure.

TURNING TCS ON

1. Start the engine.
2. Use **-SET-** and **-MOD-** to open **Ride Control** and select **ON**.
3. When the indicator "  " goes out, TCS is ON.

NOTICE

For rapid riding or rough/off-road conditions, the source manual advises switching TCS off in advance so that the function does not interfere with riding.

Safe Riding - TCS Conditions and Run-In

TCS OPERATING CONDITIONS

1. If the motorcycle is on the center stand and the throttle is opened, or if it is stuck in mud/sand, and TCS remains active for more than 5 seconds while the front wheel is stationary and the rear wheel is spinning, TCS will cancel automatically. Release the throttle and TCS will reactivate automatically.
2. If ABS operation becomes abnormal, TCS will switch off automatically and its indicator " " will illuminate. After ABS returns to normal, stop and restart the engine; TCS will reactivate and the indicator " " will go out.
3. If ABS malfunctions, TCS will switch off automatically and the indicator " " will illuminate. After ABS returns to normal, switch the Inter-Lock OFF and ON; TCS will be restored and the indicator " " will go out.
4. When the Inter-Lock system is switched ON, TCS performs a self-check. The indicator " " illuminates for approximately 1 second and then goes out.

MOTORCYCLE RUN-IN

Correct run-in of a new motorcycle can extend its service life.

ENGINE RUN-IN - THROTTLE GUIDANCE

- First 1,000 km: approximately 1/3 throttle.
- 1,000-1,600 km: approximately 1/3 throttle.
- More than 1,600 km: no restriction stated in the source manual.

ENGINE SPEED

Engine speed is limited to 9,600 rpm to protect engine components. When the limit is reached, the control system holds engine speed near the limit and some fluctuation is normal.

TIRE RUN-IN

New tires require correct run-in. During the first 150 km, gradually increase lean angle and avoid hard acceleration, abrupt steering, cornering and hard braking.

DANGER

Incorrect tire run-in may cause tire slip and loss of control. After tire replacement, ride with particular care and follow the 150 km run-in procedure above.

AVOID PROLONGED FULL-THROTTLE OPERATION

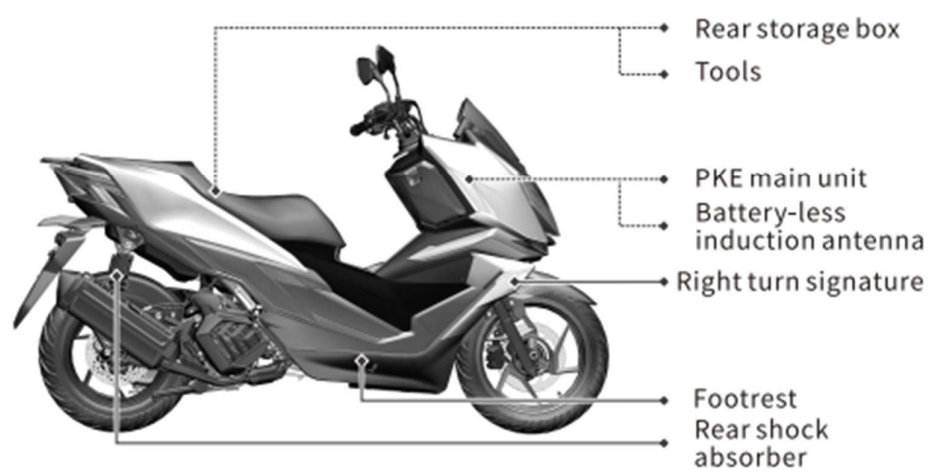
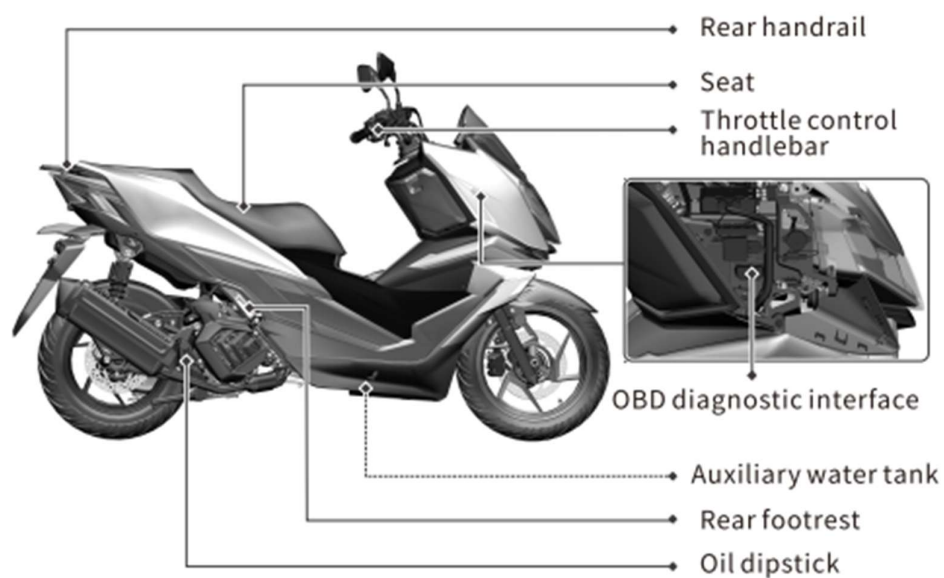
- Avoid continuous full-throttle operation.
- During the first 1,600 km, do not subject the new engine to heavy use or excessive loads.
- During run-in, internal components gradually bed in to achieve their proper operating clearances.
- Avoid prolonged full throttle or any condition that may overheat the engine during this period.

ENGINE OIL CIRCULATION

Whether the engine is hot or cold, allow it to idle briefly before riding so that engine oil can circulate to all lubrication points.

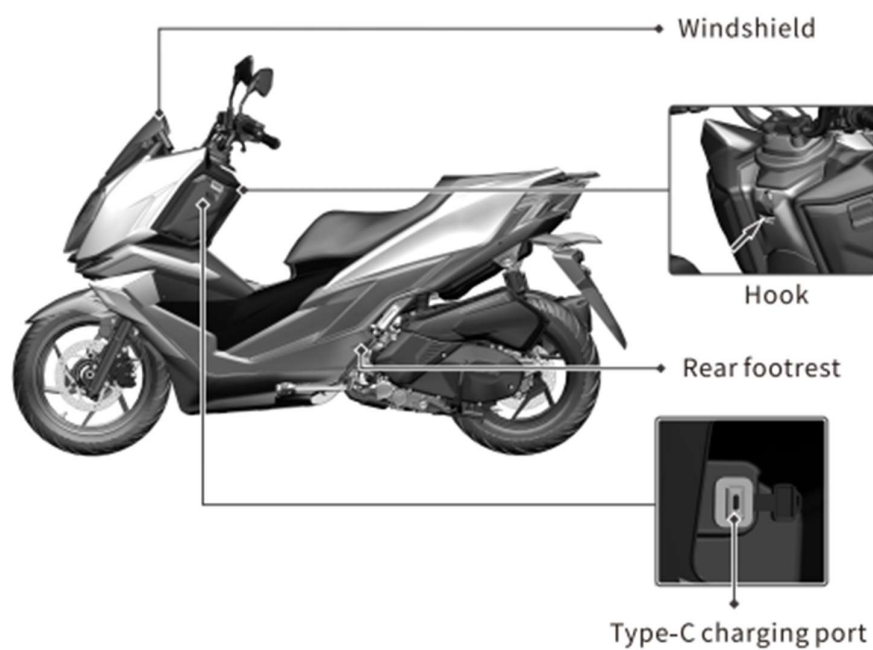
Component Locations - Left/Right Views

The illustrations identify the following components:



Component Locations - Additional Views

The illustrations identify the following components:



Left/Right Handlebar Switch Controls

LEFT HANDLEBAR SWITCH

Turn signal operation: *

Push left ← to flash the left turn signal; push right → to flash the right turn signal. The corresponding turn signal indicator on the instrument panel will light up simultaneously.

Horn button

Press the button to sound the horn.

High/Low Beam & Passing Light Switch:

Default is low beam. Push up to turn on high beam; push down to turn on passing light.

- ☰: High beam
- ☷: Low beam
- ☷: Passing light

Instrument operation key:

Set key: Short press SET to enter main menu/confirm selection. Press the key for a long time on the main interface to quickly enter the screen projection interface. Screen projection interface Press this button for a long time to return to the main interface (only when you enter the screen projection interface quickly, you can exit quickly). Do not operate this key while driving the vehicle.

MOD key: Select the next item. It is prohibited to operate this key while driving the vehicle.

⚠ Danger warning button:

Press the button to make all four turn signals flash to remind and warn surrounding vehicles.



SEAT switch

Short-press to unlock the seat cushion.

Left/Right Handlebar Switch Controls

**Idle stop switch button:**

Press the key to turn on the automatic start-stop function, and press the key again to turn off the automatic start-stop function

Power button

Short-press to turn on the vehicle; long-press to turn off the vehicle.

Stop ignition switch:

This is a rocker switch. When toggled to the "Q" position, the circuit is connected, and the engine can be started. When toggled to the "X" position, the starting circuit is completely cut off, and the engine cannot be started (this method can be used for emergency shutdown).

Electric start switch:

Press this button to connect the starting circuit. To start, the side stand must be retracted, the engine stop switch must be in the "Q" position, and the brake handlebar must be squeezed.

CAUTION

• Do not start the engine continuously for more than 5 seconds each time, as heavy discharge will cause abnormal heating of the circuit and starter motor. If the engine fails to start after several attempts, stop and check the fuel supply system and starting circuit system.

**Lighting Switch:**

Short-press to turn on the vehicle lights, used in conjunction with the left handlebar high/low beam & passing light switch.

Idle Stop Function

IDLE STOP SYSTEM

Idle Stop can be switched ON or OFF using the Start/Stop switch.

1) ACTIVATING IDLE STOP

- When the Start/Stop switch is pressed, the Start/Stop indicator  illuminates for approximately 2 seconds and then goes out.
- While riding, when Idle Stop is ready for operation, the Start/Stop indicator remains illuminated.
- When the motorcycle is stopped and Idle Stop is operating, the Start/Stop indicator flashes.



2) DEACTIVATING IDLE STOP

- Press the Start/Stop switch again; the Idle Stop OFF indicator  illuminates.

CONDITIONS FOR IDLE STOP READINESS

When all of the following conditions are met and the Start/Stop switch is ON, the system is ready to stop the engine and the Start/Stop indicator  illuminates:

- Side stand raised.
- Engine started using the starter switch.
- Engine warmed to operating temperature; coolant temperature above 65 °C.
- Motorcycle ridden above 15 km/h continuously for more than 3 seconds.

SAFETY PRECAUTIONS

- While the Start/Stop indicator is flashing, do not leave the motorcycle unattended. If you must leave the motorcycle, move the Engine Stop Switch to OFF .
- Opening the throttle may cause the engine to restart unexpectedly.

MOVING OFF AGAIN AFTER THE MOTORCYCLE STOPS

Confirm that the **Start/Stop** indicator is flashing, then **open the throttle**.

- If the indicator is **not flashing**, the engine cannot be restarted by **Idle Stop**.
- **If the side stand is lowered after Idle Stop** has stopped the engine, **the flashing Start/Stop indicator goes out**. Opening the throttle will not restart the engine and the **electric starter is disabled**.
- If the Start/Stop switch is turned OFF after Idle Stop has stopped the engine, Idle Stop is cancelled. Opening the throttle will not restart the engine; **use the electric starter button**.

WARNING

- Do not operate the starter continuously for more than 5 seconds; excessive electrical load may overheat the electrical circuit and starter motor.
- If the engine fails to start after several attempts, stop and inspect the fuel-supply and starter circuits.

Idle Stop Function - Fault Indication

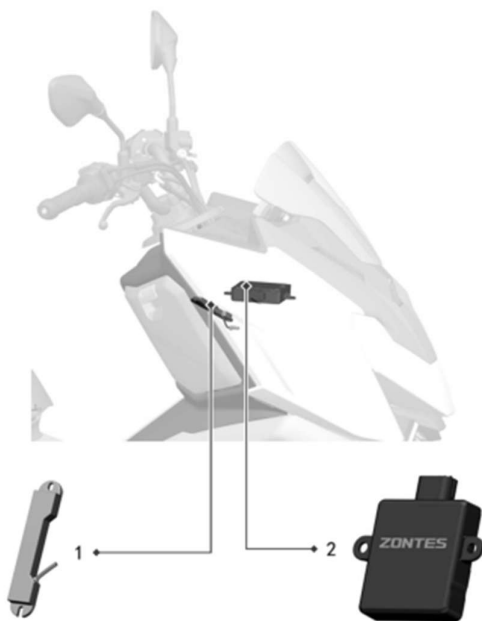
Category	Description	Indicator status	
ISTOP	ISTOP function ON	On for 2 s, then off	On for 2 s, then off
	ISTOP engine stop activated	Always on	Always on
	ISTOP engine restart activated	Flashing	On 0.5 s, off 0.5 s
	Temperature / throttle signal not received	Flashing two time	Flashing: On 1 s / Off 1 s Interval: Off 3 s
	Engine stop command sent but engine not stopped	Flashing three time	
	ISTOP low battery	Flashing four time	
Error	Hall sensor open circuit	Flashing one time	Flashing: On 1 s / Off 1 s Interval: Off 3 s
	Hall sensor short circuit	Flashing two time	
	Over current protect	Flashing three time	
	Motor stall	Flashing four time	
	Over voltage protect	Flashing five time	
	Relay open circuit	Flashing six time	
	Relay short circuit	Flashing seven time	
	Start timeout	Flashing eight time	
	Charging circuit fault	Flashing nine time	
	Communication fault	Flashing ten time	
	Battery low	Flashing eleven time	

If the Start/Stop malfunction indicator on the instrument panel flashes, switch to the Vehicle Information page on the instrument display to check the details and the applicable fault code.

Fault Code	Fault Type
2001	Hall sensor open circuit
2002	Hall sensor short circuit
2003	Over current
2004	Motor stall
2005	Over voltage
2006	Relay open circuit
2007	Relay short circuit
2008	Start timeout
2009	Charging circuit fault
200A	Communication fault
200B	Battery low

PKE System

PKE SYSTEM - COMPONENTS AND OPERATING GUIDANCE



The illustration identifies the principal PKE components:

1. Immobilizer signal receiver.
2. PKE ECU control unit.
3. PKE key / remote control.

Use the illustrations on the source page to identify each component and its installation location.

3D antenna sensing



3

PKE System - Key Operation and Emergency Induction

USING THE PKE KEY

The motorcycle is supplied with two keys. Keep one key in a safe place as a spare. Both smart keys have barcode stickers whose numbers correspond to the barcode label on the PKE ECU. The PKE ECU automatically detects an induction key brought near the motorcycle; it is not necessary to activate the key each time. Only one induction key can be active at a time.

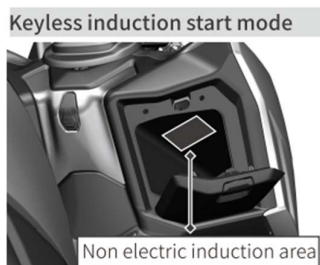
WARNING / KEY STATUS

- The induction key has green and red LEDs. The LED flashes when the motorcycle detects the key.
- Green flashing indicates sufficient key-battery power; red flashing indicates low battery. When a key battery is installed for the first time, the red and green LEDs flash together once.
- The key uses a CR2032 battery. Typical service life is approximately 18 months, depending on individual use.
- If the smart key does not respond or its status LED flashes red, consider replacing the key battery.

OPENING THE FUEL-TANK CAP AND SEAT

1. When a PKE key is nearby, the seat can be opened even if the Inter-Lock system is not ON.
2. When the Inter-Lock system is ON, the fuel-tank cap can be opened even if the engine has not been started.

UNLOCKING WHEN THE REMOTE-CONTROL BATTERY IS DEPLETED - NON-ELECTRIC INDUCTION MODE



If the PKE-key/remote battery is weak, nearly depleted, or no spare key is available, the **system can be activated by non-electric induction mode**:

1. With the motorcycle switched off , press and hold the indicated button on the right handlebar switch until the first "beep" is heard; alternatively, with the motorcycle off, briefly press the Power button on the right switch until the second "beep" is heard.
2. Within 5 seconds, place the key's sensing area (Fig. 3) against the non-electric induction receiving area (Fig. 1).

WARNING

- You may first place the PKE key (Fig. 3) directly against the immobilizer receiver and then carry out the next step.
- After unlocking by immobilizer induction, switch the Inter-Lock system OFF immediately when use of the motorcycle is finished, to reduce theft risk.

PKE System - Turning PKE ON and OFF

TURNING PKE ON

Press the indicated button  once on the right handlebar switch. The turn signals flash twice and **two beeps sound**; the system is unlocked.

WARNING

- If the steering lock cannot be released, the lock pin may be under load. Move the handlebar to relieve the load and allow the pin to move freely. A weak vehicle battery may also prevent unlocking; check battery condition.
- If the steering lock cannot unlock, a 30-second period is provided in which the fuel-tank cap and seat locks can be operated. During this period, a short press of the Power button does not operate. The mode exits automatically when Power is held or after 30 seconds

WARNING

- When unlocking by non-electric induction or Bluetooth, turn the handlebar fully left when locking the motorcycle. After unlocking, confirm that the steering lock pin has fully released before riding

WARNING

- If vehicle-battery level is normal but pressing the indicated button will not start the motorcycle and one beep is heard, check the key-battery voltage and try non-electric induction starting.
- If vehicle-battery level is normal and no beep is heard, inspect the main fuse, charging-system fuse and PKE-system fuse. Replace fuses only with the specified ratings.
- If the vehicle battery is discharged, fully charge it and disconnect the charger before switching the Inter-Lock system ON

TURNING PKE OFF

After parking and stopping the engine, turn the handlebar fully left and press and hold the indicated button for at least 2 seconds, then release it. The turn signals flash twice, the steering lock engages automatically and one beep confirms that the motorcycle steering has been locked.

CAUTION

- After stopping the engine, verify the Inter-Lock lock status.
- If it is not locked, turn the handlebar fully left and the motorcycle will lock automatically.
- Do not push or allow the motorcycle to roll while the steering may be locked. Before pushing the motorcycle or moving it downhill, confirm that PKE is ON and the steering lock is released

PKE System - Malfunction Warnings

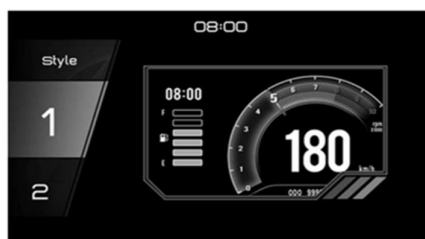
When the PKE system detects a motorcycle abnormality, it gives acoustic warnings of different lengths together with a fault code.

Item	Prompt Sound	Fault Code	Alarm Content
START Button Stuck	One long and two short beeps	8002	If a button is detected as stuck after each startup, an alarm will sound once after 10 seconds.
Seat Cushion Lock Button Stuck	Two long beeps	8005	Alarms once and acts once 10 seconds after power-on if the button is stuck; alarms once and acts once within 10 seconds of being stuck after power-on.
High-Frequency Reception Abnormality	Two long, and one short beeps	8006	Detects an abnormality in the high-frequency reception of the PKE host during each normal power-on, alarms once (only alarms once; not detected during keyless induction power-on or APP power-on).
No Paired Remote Control	Two long, three short beeps	8008	Detects no paired remote control in the PKE host when pressing the red power-on button each time, alarms once (only alarms once).
Low Remote Control Battery	Three long beeps	8009	Detects an abnormal battery signal of the transponder during each normal power-on, alarms once (only alarms once; not detected during keyless induction power-on or APP power-on).
Steering Lock Unlock Abnormality	Five short beeps	8010	Detects an abnormal unlock signal during each power-on, alarms once (only alarms once).
Steering Lock Lock Abnormality	Five short beeps	8011	Detects an abnormal lock signal during each power-on, alarms once (only alarms once).
Remote Control Out of Detection Area	Eight short beeps	8014	After normal power-on, the PKE host alarms and shuts down if it cannot receive the response signal from the transponder during operation (not detected during keyless induction power-on or APP power-on).

Instrument Panel - Display Theme

SELECTING THE INSTRUMENT DISPLAY MODE

The instrument panel provides two display Themes. You may switch between them according to operating requirements and personal preference. The following explanations use Theme 1 as the example. Please note that display content may change when instrument functions are updated. For the most accurate information, refer to the display installed on your motorcycle.



Theme 1



Theme 2
(Screen mirroring mode)

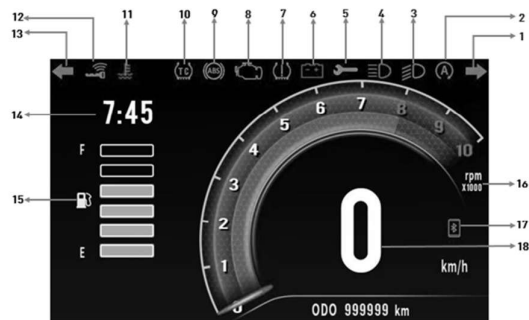
WARNING

- After the engine is stopped, do not continuously operate or select instrument functions for a long period, as this may discharge the battery.
- Basic operation: use the left handlebar switch to operate and configure the instrument functions

Instrument Panel - Indicators and Warnings

INDICATORS AND WARNING LAMPS

The source illustration identifies:



1. Right turn-signal indicator "➡"
2. Start/Stop indicator light (A)
3. Low-beam indicator light (≡D)
4. High-beam indicator light (≡D)
5. Maintenance and service indicator light "🔑"
6. Low-battery warning light (🔋)
7. Tire-pressure warning light "(!)"
8. EFI malfunction warning light (🔧)
9. ABS warning light "(ABS)"
10. TCS warning light "(TC)"
11. High-temperature warning light : "🌡️"
12. Key warning indicator light "🔑"
13. Left turn signal indicator "⬅️"
14. Clock "07:45"
15. Fuel level "🛢️"
16. Engine tachometer "rpm x1000"
17. Mobile-phone Bluetooth status indicator light "📶"
18. Speedometer "km/h"

TURN-SIGNAL INDICATOR "⬅️" "➡️"

When the turn-signal switch is operated, the applicable indicator flashes.

CLOCK "07:45"

24-hour time display.

FUEL GAUGE "🛢️"

When the final fuel segment begins to flash, approximately 1.1 L of fuel remains and the low-fuel warning changes to yellow.

HIGH-BEAM INDICATOR ≡D

Illuminates when high beam is in use.

COOLANT HIGH-TEMPERATURE WARNING : "🌡️"

After the engine is started, if coolant temperature reaches 115 °C, the high-temperature warning illuminates. The cooling system should then be inspected.

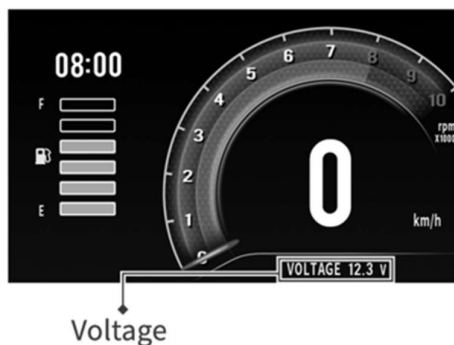
SPEEDOMETER "km/h"

Display range: 0-199 km/h.

TACHOMETER "rpm x1000"

Display range: 0-10,000 rpm.

Instrument Panel - Voltage, Odometer and Range



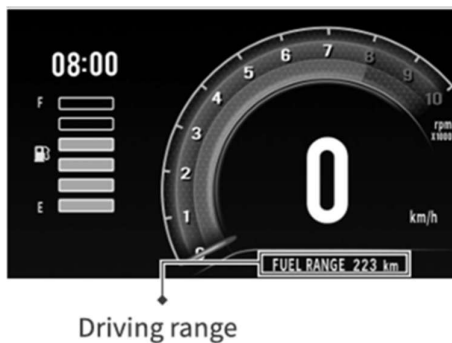
VOLTAGE

With the engine stopped, if measured voltage is below 11.7 V, the meter symbol flashes at 1 Hz. The warning cancels automatically when voltage rises to 11.9 V or higher. With the engine running, if voltage is below 12.6 V, the warning symbol flashes at 1 Hz. It cancels automatically when voltage reaches 12.6 V or higher. If the displayed voltage exceeds 15 V, stop the motorcycle immediately and have it inspected at a ZONTES service center.



ODO / TRIP

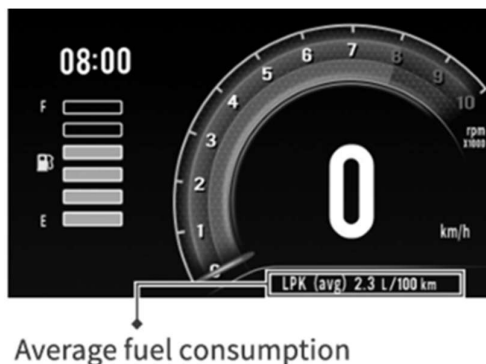
- ODO: total accumulated distance.
- Trip: trip distance.
- Trip display range: 0.0-999.9 km.
- Press and hold the Mode button to reset Trip.



DRIVING RANGE

Displays the estimated remaining riding distance calculated from average fuel consumption.

Instrument Panel - Average Fuel Consumption, Speed and TPMS



LPK (AVG)- AVERAGE FUEL CONSUMPTION

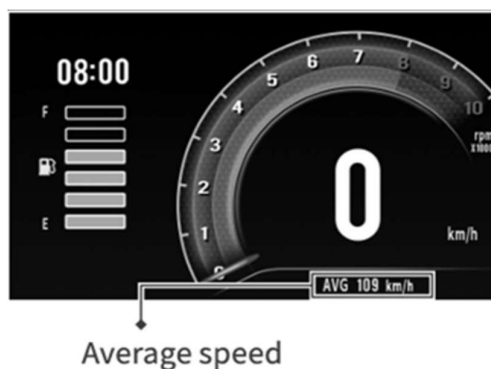
Displays average fuel consumption calculated after the Trip value is reset.

- Display range: 0.0-9.9 L/100 km.
- Resetting Trip also resets average fuel consumption.
- Press and hold Mode to reset average fuel consumption.
- After reset, the display shows "----" until a value is available.



TIRE PRESSURE AND TIRE TEMPERATURE

The display shows tire pressure and tire temperature.

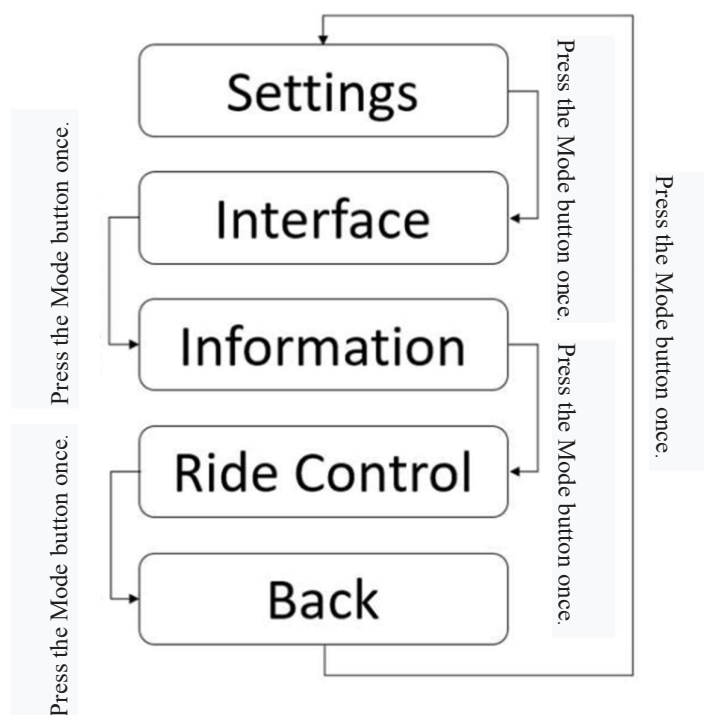


AVG - AVERAGE SPEED

Displays average riding speed.

- Display range: 0-199 km/h.
- At the beginning of a ride or after reset, if the calculated average speed is below 0.2 km/h, the display shows "----".
- Press and hold Mode to reset average speed.

Instrument Panel - Entering the Menu



ENTERING THE MENU

- Short press SET to enter the main menu or confirm a selection.
- MOD button: select an item and move to the next item. Refer to the instrument illustrations on the source page for the menu layout.

Instrument Panel - Setting Submenu

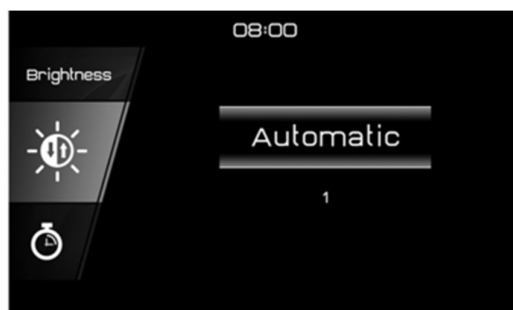
SETTING SUBMENU



LANGUAGE SETTING

Available languages:

- English
- French
- Spanish
- Portuguese
- Italian
- German
- Turkish
- Thai
- Chinese



BRIGHTNESS SETTING

The display brightness can be set from Level 1 to Level 5, with Level 5 being the brightest, or to Auto. In Auto mode, brightness is adjusted according to the sensor.



TIME SETTING

The display separates the hour into tens and units. When the cursor is on the hour field, use MOD to adjust the value. Short press SET to confirm and move to the next setting.

KEY NUMBER

Displays the number of the key currently being used. This number corresponds one-to-one with the key code in the ZONTES Smart APP.

Examples:

- Key 1 corresponds to code [0] in the application.
- Key 2 corresponds to code [1].
- Subsequent keys follow the same sequence. A motorcycle can support up to four keys.

Instrument Panel - Bluetooth and Interface



BLUETOOTH SETTING - PAIRING

Before two Bluetooth devices can connect, they must first recognize one another. This process is called pairing. Once paired, the information is stored, so pairing is normally required only the first time the devices connect.

PAIRING PRECONDITIONS

- Bluetooth must be enabled on the device.
- The device must be configured so that it can be discovered by other devices.



SPEED-UNIT SETTING

Two speed-unit settings are listed in the source manual:

- KM/H
- MPD (as printed in the source manual)

INTERFACE SUBMENU - THEME

The instrument has two selectable Themes. Choose according to operating requirements and personal preference. Refer to the illustrations on the source page



Theme 1



Theme 2
(Screen mirroring mode)

ENTERING SCREEN MIRRORING / SCREEN PROJECTION

- From the main screen, press and hold SET to quickly enter Screen Projection.
- Press and hold SET again to exit Screen Projection

Instrument Panel - TPMS Information and Learning



INFORMATION SUBMENU - TIRE PRESSURE

When tire-pressure monitoring is enabled, tire pressure and tire temperature are displayed in real time. The TPMS sensor transmits to the motorcycle when vehicle speed exceeds its minimum activation threshold.

TIRE-PRESSURE UNIT

Short press SET to select kPa, psi or bar.

TPMS SENSOR LEARNING

1. Prepare the sensor:

- Rotate the front or rear tire valve to a clearly visible position.
- Leave it stationary for more than 5 minutes.
- Enter TPMS learning mode: open the instrument display, enter Tire Pressure Settings, enable tire-pressure monitoring, and set the applicable front or rear wheel to "Learning".

2. Start learning:

- Slowly release air from the tire being learned.
- Observe the instrument for the Sensor ID, tire pressure, tire temperature and the status "Learned".

3. Reinflate the tire:

- Inflate to the specified standard pressure.
- The instrument will update the new pressure value, confirming that learning has succeeded.

4. Additional step:

After learning one wheel successfully, wait at least 1 minute before learning the other wheel to prevent overlapping learning signals.

If learning is unsuccessful, repeat the procedure.

Instrument Panel - Maintenance, Versions and Ride Control



MAINTENANCE INFORMATION

The remaining distance before the next scheduled maintenance can be checked in the Vehicle Information menu.

In the maintenance-distance menu, press and hold SET for 8 seconds to select reset and configure the next maintenance interval.



VEHICLE VERSION INFORMATION

The Vehicle Information screen can display software/system version information for:

- Instrument panel
- PKE
- ECU
- ABS
- Start/Stop system
- Locking system

RIDE CONTROL SUBMENU



TCS can be switched ON or OFF from this menu. The source page refers to this as the TSC/TCS setting; use the TCS function described elsewhere in this manual

Maintenance - First Service and Safety

FIRST MAINTENANCE SERVICE

The maintenance service at the first 1,000 km is essential to keep the motorcycle safe and operating at optimum efficiency. The owner is responsible for the care of the motorcycle.

WARNING

- Failure to perform routine maintenance or to correct a problem before riding may lead to a serious injury or fatal accident.
- Strictly follow the inspection, maintenance and periodic service schedule stated in this Owner's Manual.
- If you are not familiar with motorcycle maintenance, have an authorized ZONTES dealer or service center perform the work.

MAINTENANCE SAFETY

Read all service instructions before beginning any work. Make sure you have the necessary tools, parts and skills. It is not possible for this manual to identify every hazard that may occur during maintenance; you must decide whether you are competent to perform a particular task.

General maintenance precautions:

- Stop the engine and switch the motorcycle's Inter-Lock system OFF.
- Park on a level, stable surface using the center stand.
- Allow the engine, exhaust, brakes and other hot parts to cool before servicing.
- Start the engine only when a procedure specifically requires it, and only in a well-ventilated area.

WARNING

- Brake discs, calipers and pads can become extremely hot. Allow the brake components to cool before touching them.
- Do not pour water onto a very hot brake disc to cool it; thermal shock may damage the disc.

IMPORTANCE OF THE 1,000 km FIRST SERVICE

At 1,000 km, engine parts have completed their initial bedding-in period. Components should be readjusted where necessary, fasteners checked for tightness, and oil contaminated by normal run-in wear particles replaced.

Correct first maintenance helps the motorcycle deliver full performance and extends service life.

WARNING

- Ensure that all maintenance is performed carefully and completely in accordance with this manual. Give special attention to all DANGER and WARNING statements. Incorrect replacement parts may accelerate wear or damage and shorten motorcycle service life. Use genuine replacement parts when parts must be renewed.
- Dispose of service waste such as cleaning agents and used engine oil correctly and without polluting the environment.
- The maintenance schedule specifies essential basic work. If the motorcycle is used in severe conditions, perform maintenance more frequently than the schedule indicates. Consult a qualified service center if you are uncertain about intervals.

Maintenance Schedule

MAINTENANCE-SCHEDULE KEY

I = Inspect; clean, lubricate, adjust or replace if necessary.

R = Replace.

T = Tighten.

(1) = Inspect before riding.

Note = Additional explanation.

[illegible]

Maintenance Schedule - Notes and Fasteners

* **NOTE:** These services should normally be performed by a dealer or service center. An owner with suitable tools, service information and sufficient knowledge may perform the work.

** **NOTE:** For safety, these items should be serviced by a competent dealer or service center.

NOTE 1 - SERVICE TIMING

- First maintenance: at 1,000 km or 3 months, whichever occurs first.
- Second maintenance: when the actual odometer reaches 4,000 km.
- Thereafter: every 4,000 km or 15 months, whichever occurs first.

NOTE 2

If the motorcycle is operated in unusually humid or dusty conditions, service more frequently.

NOTE 3

Inspect, clean, lubricate and maintain every 8,000 km (5,000 miles). For the detailed maintenance procedure, the source manual refers to the official website under the heading "generation faucet lock".

NOTE 4 - EXHAUST AFTER IMPACT OR SCRAPING

Inspect the exhaust and heat shield first:

- External condition.
- Security/tightness of mounting points.
- Deformation of muffler buffer rubber/gel.
- Exhaust leakage while the engine is idling.

If abnormal internal noise or serious external damage is found, replacement is generally required. Related hangers, brackets, buffer rubber/gel and bolts must also be renewed as necessary before returning the motorcycle to service.

NOTE 5

1. High-temperature No. 2 grease is recommended for wheel-bushing maintenance and lubrication every 8,000 km to maintain smooth, comfortable operation.
2. Transmission: if vehicle speed/performance falls noticeably, inspect and service the CVT promptly and replace parts in advance if necessary.

NOTE 6 - CVT WARRANTY NOTE

CVT failures caused by part-quality defects are warranted for 1 year or 6,000 km, whichever occurs first. Warranty beyond this period is void. Manufacturing-quality defects may be covered, but normal service wear is not. Perceptual characteristics that do not affect mechanical function, such as noise or vibration, are also excluded from the stated guarantee coverage.

NOTE 7 - VALVE CLEARANCE, ENGINE COLD

- Intake: 0.08-0.12 mm.
- Exhaust: 0.18-0.22 mm.

FASTENER-TIGHTNESS CHECK

Confirm that the following are not loose:

- Front brake-caliper mounting bolts.
- Front shock/fork mounting bolts.
- Upper and lower connecting triple-clamp plate bolts.
- Upper plate decorative fastener.
- Brake-disc bolts/screws.
- Rear axle nut and retaining cotter pin.
- Rear swingarm nut.
- Side-stand mounting bolt.

Maintenance - Pre-Ride Inspection

Failure to inspect the motorcycle before riding and failure to maintain it correctly increase the risk of accident and vehicle damage. Inspect the motorcycle before every ride to ensure that it is safe to operate. Refer to the Maintenance section of this manual.

STEERING

- Handlebar/steering operates correctly.
- No obstruction to steering.
- No abnormal looseness or free play.

THROTTLE

- Throttle free play is correct.
- Operation is smooth and the throttle returns completely.

BRAKES

- Brake levers operate normally.
- Brake-fluid level is above the LOWER mark in the master-cylinder reservoir.
- No spongy/sinking lever feel that may indicate a brake problem.
- No brake drag while riding.
- No brake-fluid leakage.
- Brake-disc and brake-pad wear remain within specified limits.

SUSPENSION

- No foreign material on exposed surfaces.
- No shock/fork oil leakage.
- Smooth operation without sticking.

FUEL

- Sufficient fuel for the planned journey.

ENGINE OIL

- Level is within the specified range.
- Follow Steps 1-5 in the engine-oil level inspection procedure.

LIGHTING

Headlight, tail/brake light, instrument illumination, turn signals, position lights and license-plate light operate normally.

INDICATORS

High-beam and turn-signal indicators operate normally.

HORN / BRAKE SWITCH / IDLE STOP / SIDE STAND

Confirm normal operation of each.

NOTICE

- Lack of familiarity with the controls may cause loss of control, an accident or injury.
- Read this Owner's Manual carefully to understand all controls. Contact a ZONTES dealer if any control or function is not understood.

Maintenance - Battery Removal and Installation

WARNING

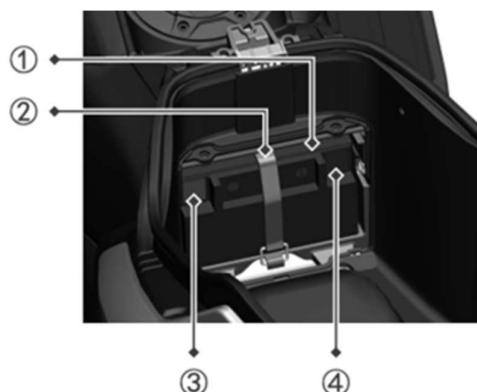
- Installing non-genuine ZONTES parts may make the motorcycle unsafe and can result in an accident, injury or death.
- Use genuine ZONTES parts or replacement parts specifically designed and approved for your motorcycle.

BATTERY LOCATION AND REMOVAL

The battery is installed at the front of the under-seat storage compartment.



1. Using a T25 tool, remove the two screws and remove the battery cover. The fuse box is attached inside the cover; do not pull sharply, as this could damage the retaining clips or wiring harness.



2. Identify the battery and battery retaining strap.
3. Always disconnect the negative terminal (black wire) first.
4. Disconnect the positive terminal (red wire).

BATTERY INSTALLATION

1. Connect the positive terminal (red wire).
2. Connect the negative terminal (black wire).

CAUTION

After battery removal, arrange all surrounding wiring carefully, particularly the positive terminal and other red wires, to prevent contact with the frame, battery casing or other metal parts. Secure the battery firmly in its compartment.

INSTALLATION CHECK

1. Inspect the battery for damage before installation.
2. Connect red positive first, then black negative. Do not connect both simultaneously, as circuit damage may result.
3. After connecting the terminals, apply a thin coat of grease to the battery terminals, bolts and nuts to prevent corrosion.
4. Install the battery and retaining strap; check that the assembly is secure.

CLEANING THE BATTERY

1. Remove the battery.
2. If the terminals are corroded, clean with warm water and a brass brush.
3. Wear eye protection when cleaning corroded terminals.

BATTERY REPLACEMENT

Use a replacement battery matching the original battery type specification. A different battery type may affect motorcycle performance and service life and may cause electrical-system failures.

Maintenance - Battery Use, Charging and Safety

BATTERY USE AND MAINTENANCE

1. Do not operate the starter for more than 5 seconds per attempt. If the engine does not start, inspect the fuel and starting systems.
2. The following conditions may over-discharge or undercharge the battery and shorten

battery life:

- Frequent electric-start attempts.
 - Repeated short-duration short-distance riding.
 - Leaving the motorcycle unused for a long period.
 - Adding electrical accessories such as high-power spotlights, audio equipment, GPS or other loads.
3. A weak battery may cause dim lights, a weak horn and instrument-display restarting. Charge the battery immediately.
4. If the motorcycle will not be used for a long period, remove the battery and store it appropriately, or disconnect the terminals. Fully charge before storage and recharge every 3 months.
5. Charging precautions:
- Use the special charger specified by the company. The battery may be charged on the motorcycle or removed and charged separately.
 - Do not overcharge. Overcharging can cause leakage, swelling or cracking and may create a hazard.

NOTICE / SAFETY PRECAUTIONS

- Do not open or modify the battery.
- Do not use or store the battery near high temperatures or sparks.
- Do not make simultaneous positive/negative terminal contact or a short circuit may occur.
- Tighten terminal screws and nuts securely.
- If abnormal odor or any unusual battery condition is observed during use or charging, stop use and remove the battery immediately.
- The battery is intended for vehicle use; do not use it for purposes other than motorcycle starting and normal vehicle functions.
- When installing external devices such as anti-theft equipment, GPS or fog lamps, use quality products and the reserved accessory electrical interfaces. Do not alter the wiring without authorization. Improper wiring may damage the motorcycle electrical system and discharge the battery.
- Do not damage the battery. Battery electrolyte is harmful to skin and eyes. Avoid contact with skin, eyes and clothing. If contact occurs, rinse immediately with plenty of water and seek medical treatment.

Maintenance - Tool Kit and Front Luggage Hook

ON-BOARD TOOL KIT

Press the "SEAT" button on the left handlebar switch to open the seat. The toolkit is located beneath the seat as shown in the source illustration.



FRONT LUGGAGE HOOK

The hook is located at the front. Press its upper or lower edge to rotate the hook outward approximately 48 degrees.

CAUTION

• Maximum load on the luggage hook: 1 kg

FRONT LUGGAGE HOOK

The hook is located at the front. Press its upper or lower edge to rotate the hook outward approximately 48 degrees.



CAUTION

• Maximum load on the luggage hook: 1 kg

Maintenance - Exhaust System and Spark Plug

EXHAUST-SYSTEM CARE

This motorcycle is equipped with a catalytic converter that reduces harmful exhaust emissions. For effective operation, follow the maintenance schedule. To prolong exhaust-system life and prevent corrosion or reduced catalyst conversion efficiency,

observe the following:

- Do not hold high engine speed continuously for a long period.
- Do not ride for a long period at low speed under heavy load.
- Do not pour rust-preventive oil or engine oil into the exhaust.
- Do not wash a hot exhaust directly with cold water.
- Do not coast with the engine switched off.
- Do not use low-quality engine oil.
- Use unleaded gasoline.
- Regularly clean dirt from the exhaust surface and outlet.
- Keep the engine in good condition and perform regular maintenance to prevent incomplete combustion and after-burning that may damage the exhaust and catalytic converter.
- Install the exhaust gasket correctly whenever the exhaust is refitted.
- When fitting the decorative exhaust cover, install the heat-protection washers/plates at each screw mounting point to prevent heat damage or fire.

WARNING

Failure to comply with the following may damage the motorcycle or result in injury/death:

- Keep the side stand fully retracted while riding.
- Confirm normal brake operation; repair any abnormality immediately.
- Unqualified persons should not disconnect fuel lines to drain fuel because of fire risk.
- Keep foreign objects and flammable materials away from the exhaust; the operating/storage area must be free of ignition sources.
- Use genuine company replacement parts, particularly electrical parts.
- Do not install accessories arbitrarily, especially electrical accessories. Incorrect wiring or excessive electrical load can cause fire.

SPARK PLUG - INSPECTION

The spark plug is an important component and should be removed and inspected at the scheduled intervals. Its condition provides information about engine operation.

- The ceramic insulator around the center electrode should normally be light brown.
- A clearly different color may indicate abnormal engine operation. If electrodes are corroded or heavily fouled with carbon or deposits, replace the plug promptly.

Maintenance - Spark Plug Installation and Engine Oil

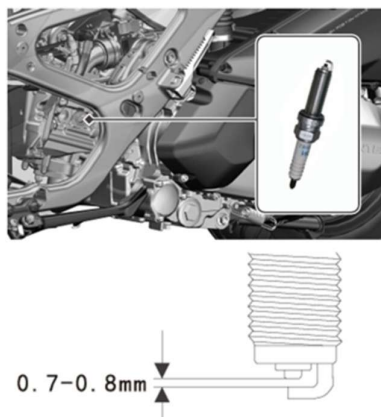
SPARK-PLUG INSPECTION AND CLEANING

1. Remove carbon deposits using a stiff wire or steel needle, then adjust the spark-plug gap to specification.
2. Observe the color of the ceramic insulator tip while cleaning.
 - Light brown at the firing area indicates normal operation.
 - If the insulator becomes pale white or the electrode has melted, the source manual advises using a colder-type spark plug suitable for the operating condition.

Specified spark plug: NGK CR8E

SPARK-PLUG REPLACEMENT

1. Disconnect the spark-plug cap.
2. Remove the spark plug using a plug wrench.
3. Inspect the plug.



Spark-plug gap: 0.7-0.8 mm.

INSTALLING THE SPARK PLUG

Clean the plug-seat surface, washer contact surface and plug threads. Remove excessive carbon if necessary.

Tightening torque: 13 N.m.

WARNING

- Incorrect installation, excessive torque or cross-threading may damage the cylinder head. If a torque wrench is unavailable, for a new plug hand-tighten until seated and then tighten a further 3/8 turn (135 degrees). For a used plug, hand-tighten until seated and then tighten a further 1/12 turn (30 degrees). Whenever possible, use the specified torque.
- Dirt can enter the engine through the spark-plug hole. After removing the plug, cover the hole with a clean, soft, lint-free material that will not leave residue.

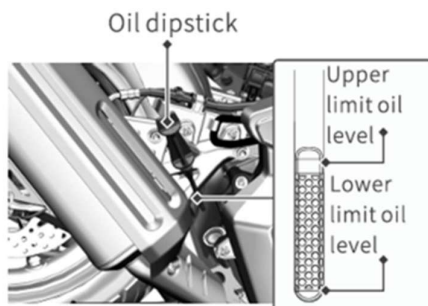
ENGINE OIL

Long engine life depends on selecting high-quality oil and replacing it at the specified intervals. Regular oil-level inspection and periodic oil replacement are essential maintenance tasks.

Maintenance - Engine Oil Level and Oil Change

CHECKING ENGINE OIL LEVEL

1. Park on level ground and place the motorcycle upright on the center stand.
2. Start the engine and idle for 3-5 minutes. When ambient temperature is below 10 C, allow additional warm-up time as appropriate.
3. Stop the engine and wait 3-5 minutes.
4. Unscrew the dipstick counterclockwise. Wipe it clean with a dry lint-free cloth, insert it without screwing it in, then remove it and read the level. The oil should be between the MIN and MAX marks.
5. If below MIN, add oil to the correct level.



WARNING

- Operating with too much or too little engine oil may damage the engine.
- Always park on level ground and use the dipstick to check the level.
- Maintain the level between MIN and MAX.
- Keep the motorcycle fully upright during the check; leaning it may give an incorrect reading.

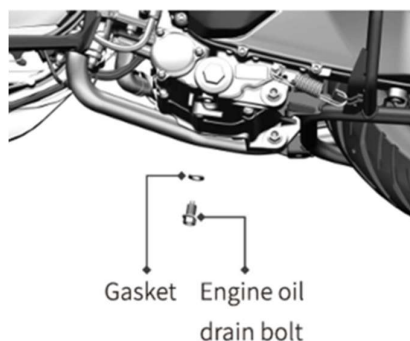
CHANGING ENGINE OIL

At each scheduled interval, change the oil while the engine is still warm so that used oil drains more completely.

1. Park on level ground using the center stand.
2. Turn the oil-filler/dipstick cap counterclockwise and remove it.
3. Place a suitable drain container beneath the drain plug.
4. Use a 14 mm wrench to remove the drain plug and drain the used oil.

PROHIBITION

Never start or run the engine while the engine oil is being drained. Before starting, always confirm that sufficient engine oil is present.



Maintenance - Engine Oil and Oil Filter Replacement

ENGINE-OIL REFILL

5. Install the engine-oil drain plug and washer and tighten to 25 N.m.

6. Add engine oil through the filler opening:

- Normal refill: 800 mL.

- With oil-filter replacement: 870 mL.

- Oil specification: SN 5W.40 JASO MB, or a higher-quality 4-stroke motorcycle oil

meeting API SN or higher. Clean the dipstick threads and O-ring groove, confirm that no dirt remains and that the O-ring is undamaged, then reinstall and tighten the dipstick

CAUTION

Using oil that does not meet the specified standard may damage the engine.

7. Start the engine and let it idle for several minutes. Check all serviced areas for leakage. If leakage is found, stop the engine immediately and determine the cause.

8. Idle for 5 minutes, stop the engine and wait 3 minutes. Recheck oil level and adjust if necessary.

DANGER

Do not remove the oil filler cap while the engine is running; hot oil may spray out and cause injury.

WARNING

Maintain the oil level between MIN and MAX with the motorcycle fully upright on level ground.

Engine-oil drain-plug torque: 25 N.m.

REPLACING THE ENGINE-OIL FILTER

Dispose of used oil and the used filter correctly.

1. Place a drain container under the left side of the engine.

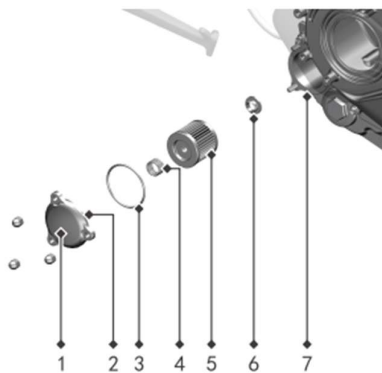
2. Using a 10 mm wrench, remove the three hex bolts from the oil-filter cover counterclockwise. Gently work the cover side-to-side and remove it. Do not pry the cover with a hard tool; this may damage the sealing surface and cause leakage.

3. Clean the O-ring groove in the cover and install a new cover seal/O-ring.

4. Wipe away residual oil and debris. Confirm correct installation of the filter spring, install a new filter element and filter seal.

Maintenance - Oil Filter Assembly

OIL-FILTER COMPONENTS



1. Fine filter cover
2. A side
3. Sealing ring
4. Fine filter spring
5. Engine oil fine filter
6. Engine oil fine filter sealing ring
7. B side

Filter-cover nut/bolt torque: 10 $\pm$ 1 N.m.

DANGER

- Correct oil-filter installation is essential. Use a genuine factory filter and never install it backwards.
- Do not omit the spring or filter sealing washer/seal. Check all parts carefully.
- A non-genuine filter or incorrect installation may cause severe engine damage due to contaminated or insufficient engine oil

REFITTING THE OIL-FILTER COVER

- Refit the cover. Replace the filter seal and cover O-ring if necessary.
- Align the cover with the mounting holes and press it gently into position.
- Support the cover by hand and lightly tighten the three cover bolts first so that Surface A of the cover seats fully against Surface B of the mounting face.
- Tighten all three bolts to 10 $\pm$ 1 N.m.

DANGER

Before installing the oil filter, verify that the seal is correctly seated in its groove. Replace any damaged seal immediately to prevent oil leakage

RECOMMENDED ENGINE OIL ZONTES OIL SN 5W-40 JASO MB

REFILL QUANTITY

- Normal oil change: 800 mL.
- Oil and filter change: 870 mL.

Maintenance - Final-Drive Oil

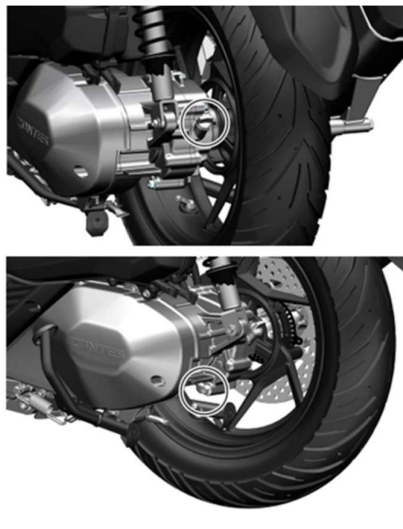
FINAL-DRIVE OIL

PRE-RIDE CHECK

- Check for final-drive oil leakage.
- If leakage is found, have the motorcycle inspected by a service center or authorized dealer.

PERIODIC REPLACEMENT

- Replace final-drive oil at the intervals specified in the maintenance schedule.
- Use final-drive oil meeting the manufacturer's specified standard.



REPLACEMENT PROCEDURE

1. Start the engine and allow it to run for 2-3 minutes to warm the final drive, then stop the engine.
2. Put the motorcycle upright on the center stand on level ground.
3. Place a suitable container beneath the final-drive drain point.
4. Remove the final-drive oil filler/dipstick plug.
5. Remove the final-drive drain plug and washer and allow the oil to drain.
6. Reinstall the drain plug and washer. Tightening torque: 20 N.m.
7. Add the specified oil quantity: 120 mL.

Recommended oil: GL-5 SAE 80W-90.

WARNING

Prevent foreign material from entering the final drive. Ensure that oil does not contaminate the tire or wheel.

8. Reinstall the filler/dipstick plug and O-ring.
9. Check for leakage. If leakage is found, determine and correct the cause.

Final-drive drain-plug torque: 20 N.m.

Maintenance – Coolant

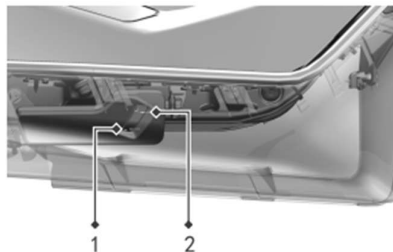
COOLANT

Recommended coolant: TOTAL antifreeze.

Total coolant capacity: 650 mL (reserve tank 70 mL).

Check coolant level in the reserve tank when the engine is cold.

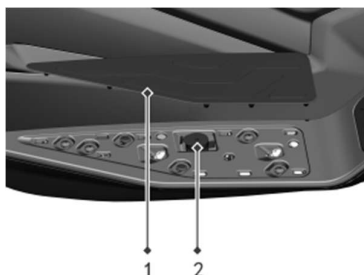
1. Park the motorcycle and place it on the center stand.
2. Confirm that coolant in the reserve tank is between the lower and upper level marks.



1. Lower Level Mark (L)

2. Higher Level Mark (H)

3. Verify that the coolant level remains between these marks.



1. Right pedal lower floor pad

2. Coolant auxiliary tank cover

WARNING

- Remove only the coolant reserve-tank cap for this check.
- Do not remove the cap while the engine is very hot.

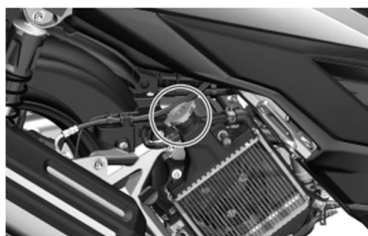
4. If the coolant level is below L, remove the right lower footboard rubber mat to access the reserve-tank cap.
5. Open the reserve-tank cap and add coolant to the correct level.

WARNING

Using coolant that does not meet the specified standard may damage the engine

6. Reinstall the coolant reserve-tank cap and right lower footboard mat.
7. Confirm that coolant in the reserve tank is at the upper H mark.

Maintenance - Cooling-System Bleeding and Filling



1.Coolant main tank cover



2.Pump exhaust bolt

COOLING-SYSTEM AIR BLEEDING AND REFILLING

With the engine cold, lower the side stand and inspect all coolant hoses and hose clamps for correct assembly.

1. Loosen the air-bleed bolt at the top of the water pump.
2. Remove the radiator cap.
3. Slowly add coolant until coolant flows continuously from the bleed bolt. Hand-tighten the bolt, then tighten to the specified torque: 10 N.m. Continue filling until the filler neck is full.
4. Securely install the radiator cap.
5. Place the motorcycle on the center stand.
6. Start the engine.
7. After approximately 30 seconds, when the temperature gauge rises from 3 bars to 4 bars, raise engine speed to approximately 4,000-5,000 rpm for about 10 seconds. Repeat several times. Touch/check the lower part of the radiator; when it begins to warm and the display stabilizes at 4 bars, air bleeding is complete.
8. Stop the engine and allow temperature to fall below 2 bars. Remove the radiator cap; if the level has dropped, add coolant until the filler neck is full.
9. At the same time, fill the reserve tank to the upper H mark.

COOLANT TYPE

Use coolant suitable for an aluminum radiator.

- Coolant consists of concentrate mixed with distilled water at an appropriate ratio.
- It may be used provided ambient temperature is not below the coolant's freezing point.
- When adding or replacing coolant, use glycol-based coolant designed for aluminum radiators.

CAUTION

- Do not substitute plain water, which may cause rust or corrosion in the cooling system.
- Check coolant level regularly and replace coolant at the specified interval.

Maintenance - Coolant Safety, Air Filter and CVT Filter

DANGER - COOLANT

Inhaling or ingesting coolant can be harmful. Wash exposed skin, including hands and face, after contact. If coolant is swallowed, immediately contact a poison-control center or hospital. If vapors are inhaled, move immediately to fresh air. If coolant enters the eyes, flush with plenty of water and seek medical attention immediately.

COOLANT REPLACEMENT

Replace coolant periodically according to the maintenance schedule. Have a ZONTES dealer or service center perform coolant replacement.

AIR FILTER AND CVT FILTER

The engine intake air filter is installed on the left side of the rear wheel area.

- A dust-clogged air filter increases intake resistance and reduces engine power.
- A clogged CVT filter increases intake resistance, reduces drive-belt cooling efficiency and shortens belt life.

AIR-FILTER SERVICE

- Inspect/clean the air filter every 4,000 km.
- Replace the air filter every 8,000 km.
- Clean according to the maintenance schedule.
- In humid or dusty conditions, clean or replace more frequently.
- Inspect the air-filter drain/breather hose regularly.

CAUTION - NEVER RUN THE ENGINE WITHOUT THE AIR FILTER

Doing so may cause backfire into the air-cleaner housing and may allow dust to enter the engine, accelerating wear.



AIR-FILTER DRAIN HOSE

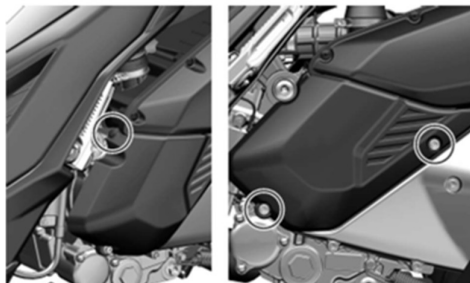
Inspect the air-filter drain hose for accumulated water or contamination. If present, use pliers to remove the hose clamp and black rubber drain plug, drain the liquid/debris, then reinstall the plug and clamp correctly.

WARNING

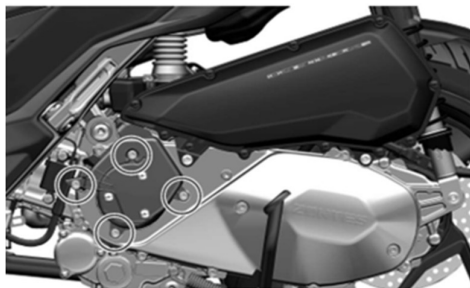
If a large amount of contamination is found in the drain hose, inspect the air filter for abnormal contamination or damage and replace it if necessary.

Maintenance - Air Filter and CVT Filter Removal

AIR FILTER / CVT FILTER - REMOVAL AND SERVICE

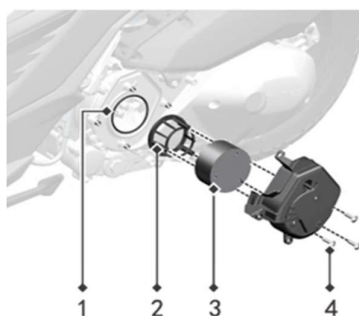


2. Remove one plastic fastener and two bolts as shown in the source illustration.



3. Remove four bolts and remove the CVT filter assembly.

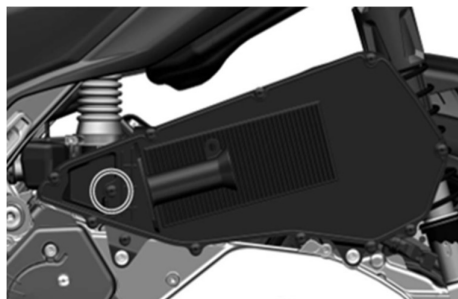
The illustrated CVT filter assembly consists of:



4. Remove three bolts, then remove the filter and screen. Replace the filter element and seal with new parts.



5. Remove the eleven screws securing the air-filter cover.



6. Remove one screw and remove the air-filter element. Use compressed air to blow dust from the clean side of the filter element.

7. Inspect the air filter for damage and replace it if necessary.

8. Reassemble all parts in the reverse order of removal. Follow the illustrations on the source page for fastener and component locations.

Maintenance - Air Filter, Idle Speed and Side Stand

AIR-FILTER CAUTION

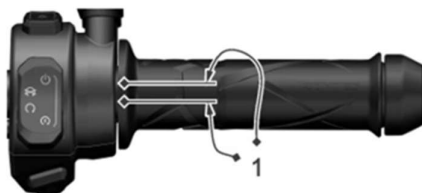
- If the air filter is installed incorrectly, dust can bypass the filter and enter the engine, causing engine damage. Ensure that the filter is seated correctly.
- When washing the motorcycle, do not allow water to enter the air-filter housing. If water enters, it may be drained through the drain hose. Before riding, confirm that no water remains in the air-cleaner housing.

IDLE-SPEED INSPECTION

Inspect engine idle speed. If adjustment or diagnosis is required, visit a ZONTES dealer or service center.

Specified idle speed: 1,700 $\pm$ 100 rpm.

THROTTLE FREE-PLAY INSPECTION



Specified throttle free play: 2.0-4.0 mm.

SIDE-STAND INSPECTION



- When the side stand is lowered, its sensor sends a signal to the controller.
- The controller automatically stops the engine.
- If the starter button is pressed while the side stand is not raised, the engine will not run/start.

WARNING

- Check that the side stand moves freely.
- If operation is abnormal or the stand squeaks, clean the pivot and lubricate the pivot bolt with clean lubricant.
- Inspect the spring for damage or loss of elasticity.

Maintenance - Fuel-Tank Cap and Refueling

FUEL-TANK CAP

1. Fuel tank location: in front of the seat.
2. CONDITIONS BEFORE OPENING THE OUTER CAP
 - Turn Auto Start-Stop (Idle Stop) OFF.
 - Lower the side stand to stop the engine.
 - Press and hold the Inter-Lock switch to turn the electrical system OFF.
3. OPENING THE CAP
 - Lift the fuel-cap latch.
 - Open the fuel-tank cap.
4. AFTER USE / BEFORE LEAVING THE MOTORCYCLE Always confirm that the fuel-tank cap is fully closed before locking and leaving the motorcycle.
5. IMPORTANT NOTE BEFORE REFUELING

The fuel-cap lock can be released normally only after Auto Start-Stop has been switched OFF.



FUEL TYPE

Unleaded gasoline only.
 Minimum octane rating: RON 91 or higher.
 Fuel-tank capacity: 11 L.
 Reference fuel consumption: 2.1 L/100 km.

DANGER

- Do not overfill. Fuel overflow onto hot engine parts can cause damage and create a fire hazard.
- Refuel only in a well-ventilated area with the engine stopped. Avoid spills and keep flames, heat and sparks away.
- Avoid inhaling fuel vapors.

CAUTION

1. When washing: do not use high-pressure water around the fuel-tank cap, to prevent water from entering the tank.
2. If the cap sticks and will not open: press the cover downward firmly (do not pry), switch the system off and try again.
3. During refueling: do not allow the fuel nozzle to contact the bottom edge of the filler opening, to reduce the risk of tank damage and fuel leakage.

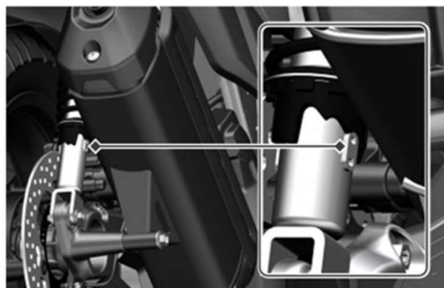
Maintenance - Suspension, Drive Belt and Tire Pressure

REAR SHOCK-ABSORBER PRELOAD ADJUSTMENT

Rear-suspension preload can be adjusted to suit rider preference, load, riding style and road conditions. Five preload positions are provided.

Place the motorcycle on the center stand and use a suitable tool to turn the preload adjuster:

- Clockwise: increase preload / firmer suspension.
- Counterclockwise: decrease preload / softer suspension.



DRIVE BELT

Contact a dealer or service center for inspection and replacement according to the maintenance schedule.

WARNING

Before installing the belt-case cover, apply a thin coat of heat-resistant grease to both O-rings to ease installation. If excessive grease or oil is applied, wipe off the excess with a dry cloth so that it cannot reach the drive belt and cause belt slip.

TIRES - CHECKING PRESSURE

- Check tire pressure before every ride.
- Check at least once per month or whenever pressure appears low.
- Measure when the tires are cold.

Recommended pressure:

- Front: 30 psi (200 kPa).
- Rear: 32 psi (225 kPa).

TIRE DAMAGE

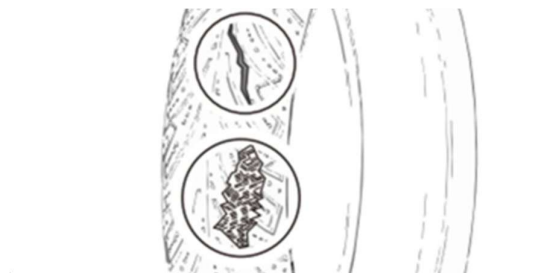
- Inspect sidewalls and tread for cuts or cracks.
- Inspect sidewalls for abnormal bulges or swelling.

ABNORMAL WEAR

Inspect the tire contact surface for signs of abnormal wear.

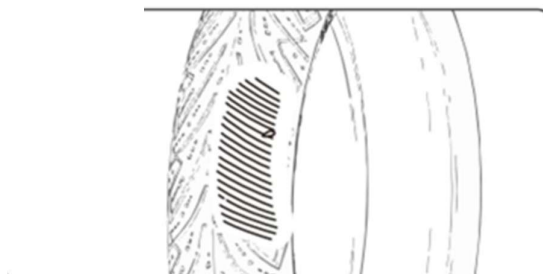
TIRE DAMAGE

- Inspect sidewalls and tread for cuts or cracks.
- Inspect sidewalls for abnormal bulges or swelling.



ABNORMAL WEAR

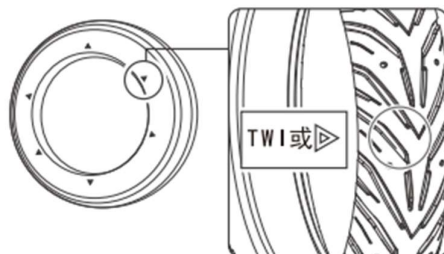
Inspect the tire contact surface for signs of abnormal wear.



Maintenance - Tire Wear, Replacement and Brakes

TIRE-WEAR INSPECTION

Check the tread-wear indicators. If an indicator is reached/visible, replace the tire immediately. For safe riding, tires must be replaced before tread depth falls below the minimum service limit.



TIRE REPLACEMENT

Have tires replaced by an authorized ZONTES dealer/service outlet.

- Refer to the technical specifications for recommended tires, pressure and minimum tread requirements.
- Use the recommended tire or an equivalent having the same size, construction, speed rating and load capacity.
- After installation, balance the wheel using original ZONTES balance weights or equivalent equipment.
- This motorcycle uses tubeless tires only. The rims are designed for tubeless tires. A tube-type tire may move on the rim during hard acceleration or braking and can create abnormal conditions/noise.

WARNING

- Incorrect tires can adversely affect handling and stability and may result in an accident, serious injury or death.
- Use only the tire sizes and types recommended in this Owner's Manual.

WHEELS AND VALVES - PRE-RIDE CHECK

- Rims: inspect for cracks, dents or other damage.
- Wheel spokes/cast-wheel sections: inspect for cracks, breakage or deformation as applicable.
- Valve: check for correct position and leakage.

WARNING

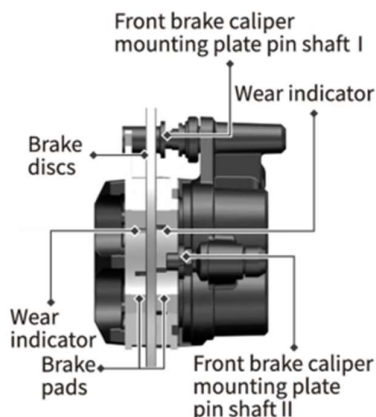
Excessively worn tires or incorrect inflation can cause an accident resulting in serious injury or death. Follow the inflation and maintenance information in this manual.

BRAKES - FLUID LEVEL

1. Park on level ground and place the motorcycle upright on the center stand.
2. Check brake-fluid level in the front and rear reservoirs; level must be between the upper and lower marks.
3. If below the lower mark:
 - Inspect brake-pad wear.
 - If the pads are not excessively worn, fluid leakage may exist. Have the motorcycle serviced. The source illustration identifies the front brake caliper.

BRAKES - FLUID LEVEL

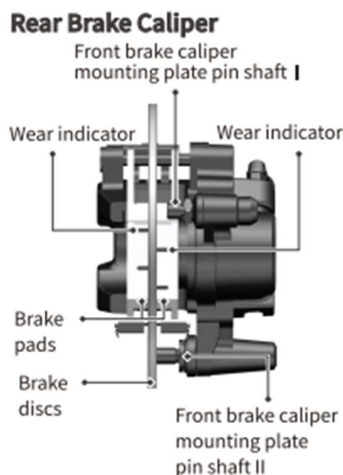
1. Park on level ground and place the motorcycle upright on the center stand.
 2. Check brake-fluid level in the front and rear reservoirs; level must be between the upper and lower marks.
 3. If below the lower mark:
 - Inspect brake-pad wear.
 - If the pads are not excessively worn, fluid leakage may exist. Have the motorcycle serviced.
- The source illustration identifies the front brake caliper.



Maintenance - Brake Pads and Headlight Preparation

REAR BRAKE CALIPER

Refer to the source illustration for its location.



CALIPER AND BRAKE-PAD INSPECTION

1. Check front and rear caliper movement.
 - Confirm that each caliper slides/moves normally.
 - If movement is restricted, remove the caliper bracket as required.
 - Apply suitable grease to the slide pins and reassemble.
2. Inspect brake pads:
 - Front: inspect from the front of the brake caliper.
 - Rear: inspect from the right-rear side of the motorcycle.
3. Brake-pad replacement:
 - Have replacement performed by an authorized ZONTES service center.
 - Brake pads must be replaced as a matched pair/set.

HEADLIGHT ADJUSTMENT - ACCESS

1. The headlight has four independent adjustment points corresponding to high-beam and low-beam positions.
2. These adjustment points become accessible after removing the left/right front fairing panels and front panel.
3. Adjust the beam height on both sides as appropriate.



REMOVING THE LEFT/RIGHT FRONT FAIRING PANELS

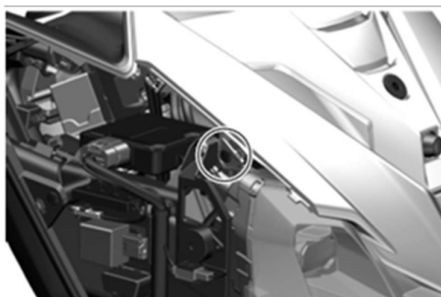
- The left front panel is a quick-release component.
- Release the lower retaining clip working from bottom to top, then push the panel toward the front of the motorcycle to remove it.
- Remove the right front panel using the same procedure.



Maintenance - Headlight Adjustment and Accessory Ports

FRONT-PANEL REMOVAL

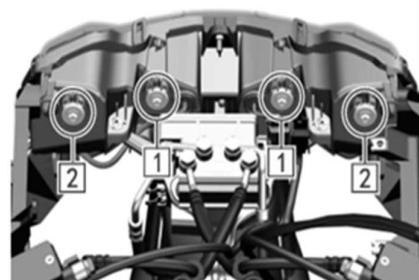
1. Remove the upper left and right plastic fasteners.
2. Remove the front panel.



HEADLIGHT ADJUSTMENT

- (1) Low-beam adjustment.
- (2) High-beam adjustment.

1. Insert a 6 x 150-200 mm Phillips screwdriver into the adjustment opening.
2. Beam adjustment direction:
 - Counterclockwise: beam higher.
 - Clockwise: beam lower.
3. Ensure that the screwdriver securely engages the adjuster teeth/slot to avoid slipping or damage.
4. For additional details, refer to the related video on the official website.



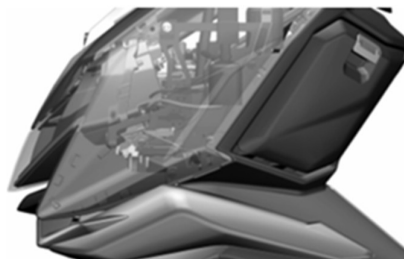
INSTALLING ADDITIONAL ELECTRICAL EQUIPMENT

The motorcycle is equipped from the factory with reserved accessory connectors, including:

- Spotlight/auxiliary light connector.
- Camera connector.
- OBD diagnostic connector

ACCESSING SPOTLIGHT AND CAMERA CONNECTORS

1. Remove the right front body panel.
2. Open the black rubber sleeve.
3. The spotlight and camera connectors are located inside.



OBD PORT

1. The OBD port is located beneath the right-front storage compartment cover.
2. Remove the plastic fastener from the outer cover.
3. Remove the compartment cover to expose the OBD port.

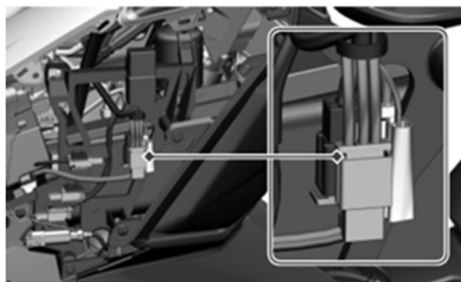


→ The OBD
diagnostic

Maintenance - Camera/Spotlight Wiring and Electrical Warnings

FRONT CAMERA CONNECTOR

- Red wire: positive (+).
- Green wire: negative (-).
- Black wire: ACC switched positive supply.



SPOTLIGHT / AUXILIARY LIGHT CONNECTOR

- Blue-white wire: positive (+).
- Green wire: negative (-).
- Total added electrical power must not exceed 60 W.



WARNING

1. Do not connect electrical equipment such as GPS or fog lamps directly to the battery terminals.
2. Avoid routing added wiring excessively close to the battery.
3. Added electrical devices must be installed at least 300 mm away from:
 - EFI ECU.
 - Relay unit(s).
 - PKE controller.
4. Unauthorized wiring modifications or unsuitable installation locations may void warranty coverage; consequences are the user's responsibility.
5. Total externally added electrical load must not exceed 60 W. Do not use auxiliary lighting while the engine is idling.

Troubleshooting - Fuse Locations and Functions

FUSE LOCATIONS

1. The main fuse box is behind the battery cover in the under-seat compartment.
2. Refer to the source-page illustrations for the exact location.



The main fuse box

Additional access shown in the source:

- Remove the right front body panel.
- Remove the headlight cover as indicated to access the relevant area.



Auxiliary fuse box

MAIN FUSE BOX CONTAINS

- Main fuse.
- ABS ECU fuse.
- ECM fuse.
- ABS motor fuse.
- Two spare fuses.

AUXILIARY FUSE BOX CONTAINS

- PKE fuse.
- Lighting fuse.
- Starter fuse.
- Other fuses.
- Two spare fuses.

FUSE PROTECTION FUNCTIONS

1. Main fuse: protects the complete main circuit.
2. ABS ECU fuse: protects the ABS ECU.
3. ECM fuse: protects ECM, ECM main relay, fuel-pump relay, ignition coil/high-voltage circuit, fuel injector and O2 sensor circuits listed in the source.
4. ABS motor fuse: protects the ABS motor.
5. PKE fuse: protects the PKE and its power-supply circuit.
6. Lighting fuse: protects the headlight and the reserved auxiliary-light circuit.
7. Starter fuse: protects the starter circuit and ABS controller circuit.
8. Other fuse(s): protect auxiliary handlebar switches, instrument assembly, anti-theft connector and accessories such as position lights, turn signals, tail/brake lights, license-plate light, horn and passing flasher circuit.

Troubleshooting - Fuses, Fuel System and Low Power

DANGER - FUSES

·Never substitute an unspecified fuse or bypass a fuse by connecting the circuit directly. Doing so may cause malfunction, electrical short circuit or fire.

NOTICE

·Use only the specified fuse rating. If a fuse repeatedly blows, have the motorcycle inspected immediately by a service center.

TROUBLESHOOTING

This section helps identify common causes of operating problems.

WARNING

- Incorrect maintenance or adjustment may damage the motorcycle and may make the cause of a fault difficult to identify. Such damage may not be covered by warranty.
- If you are unsure of the correct procedure, contact a qualified service center before attempting repairs

FUEL-SYSTEM INSPECTION

If the engine-malfunction indicator appears on the instrument panel, a fuel-injection/fuel-supply system fault may be present. Have the motorcycle inspected at a service center.

ENGINE HAS INSUFFICIENT POWER

- Confirm that there is sufficient fuel in the tank.
- If the engine warning lamp illuminates after the engine has started and while the motorcycle is operating, the fuel-injection system may be malfunctioning. Contact an authorized service center.
- Check that the ignition system operates normally.
- Check idle speed; specified value is 1,700 $\pm$ 100 rpm.

DANGER

- Do not allow fuel to spill onto the ground.
- Keep fuel away from heat sources and the exhaust.
- Work away from open flames, ignition sources and heat

SYMPTOM: INSUFFICIENT ENGINE POWER

A noticeable reduction in power or maximum speed may indicate a restricted fuel system. Have the motorcycle inspected promptly by an authorized service center.

WARNING

- Fuel-system restriction may be caused by contaminated fuel or other causes.
- For a new motorcycle or one with an empty fuel tank, do not switch the system ON until fuel has been added. Running the fuel pump without fuel can seriously shorten pump life

Troubleshooting - Catalytic Converter

CATALYTIC CONVERTER

The catalyst reduces motorcycle exhaust emissions. It is designed for normal operation with unleaded gasoline. Do not use leaded gasoline; lead contaminates the catalyst and reduces emission-control effectiveness. Incomplete combustion can also reduce catalyst efficiency. Modified exhaust systems or prolonged high-speed operation may produce excessive exhaust heat and can shorten catalyst life. Keep the ignition combustion system in proper condition and avoid prolonged continuous high-speed operation.

CARBON-DEPOSIT CLEANING - RECOMMENDED INTERVALS

To minimize carbon deposits:

1. If the motorcycle is normally used for short trips at moderate engine speed, or operated for long periods around 5,000 rpm, the source manual recommends carbon-deposit cleaning every 5,000 km or 6 months. If operation around 5,000 rpm is frequent and the engine is fully warmed before use, the interval may be extended to 10,000 km or 12 months.
2. If the motorcycle is difficult to start, remove and clean the spark plug. With the rear brake applied, fully open the throttle for 3 seconds and then operate the starter for 3 seconds. Repeat 3-4 times to clear the cylinder as described in the source manual.

METHODS FOR REDUCING/CLEANING CARBON DEPOSITS

1. When riding conditions permit, increase engine speed appropriately so that the motorcycle operates above 7,000 rpm for a cumulative period of at least 2 minutes.
2. A reputable catalyst/exhaust-system cleaner may be used according to the product instructions. Frequent use is not recommended because it may damage the exhaust system.
3. Throttle-body cleaner may be used to clean carbon deposits from the throttle body. Remove the stepper motor as required, but do not remove other throttle-body sensors, as this may cause abnormal idle operation. If disassembly or diagnosis is required, contact a service center. Apply cleaner lightly inside the throttle body and around the throttle plate and wipe carbon deposits from the stepper-motor cover area.

Troubleshooting - EFI System Precautions

EFI SYSTEM PRECAUTIONS

1. Before installing the battery on a new motorcycle, confirm that all electronic fuel-injection component connectors are secure, the oxygen sensor is installed and fuel has been added.
2. Connect the positive battery terminal first and the negative terminal second. Tighten both terminals securely with tools to prevent looseness and reduce short-circuit risk.
3. Maintain adequate fuel level. The source manual advises keeping at least 3 L in the tank because excessively low fuel level can shorten fuel-pump life. Refuel promptly when the fuel gauge reaches one bar.
4. Pay attention to ECU reset/learning after battery installation or electrical interruption. After a battery reset, electrical fault or fuse replacement, engine idle operation may

become abnormal. The source procedure is:

- Park on level ground using the center stand.
 - Switch Inter-Lock and OFF-RUN to the operating positions.
 - Hold a brake lever firmly.
 - Start the engine and raise engine speed to approximately 3,000 rpm.
 - Release the throttle and switch OFF-RUN to OFF.
 - Restart the engine after 5 seconds.
5. If the motorcycle has been parked for more than 3 hours, allow the fuel pump to build pressure before starting. When Inter-Lock is switched ON, listen for the in-tank fuel pump and wait until pump operation stops before starting.
 6. If the engine fails to start after repeated attempts, excessive fuel may be present in the combustion chamber. Remove and dry the spark plug, fully open the throttle for 3 seconds, then operate the starter for 3 seconds. Repeat 3-4 times to purge excess fuel.
 7. If the battery-voltage indication flashes on the instrument panel, battery voltage is low. Charge the battery immediately. Excessively low voltage may cause EFI components to operate incorrectly, resulting in difficult or impossible starting.

DANGER

For a new motorcycle or a motorcycle that has run out of fuel, do not switch the system ON until fuel has been added. Running the fuel pump dry can damage it.

WARNING

Do not connect, disconnect or modify EFI wiring connectors and do not wash EFI components directly with water

NOTICE

If the malfunction indicator appears while the engine is operating and flashes after the engine is switched off, the source manual states that this may be a temporary/history fault that does not affect the motorcycle and may clear automatically later

Troubleshooting - Reading EFI Fault Information

1. If the engine-shaped malfunction indicator illuminates while the engine is running, an EFI component fault requiring attention is present. Fault codes can be read directly from the fault-information page in the instrument/tool menu or in the application.



ZONTES intelligent APP QR code

The source page includes the ZONTES intelligent APP QR code.

2. A diagnostic scan tool may also be used. After switching the motorcycle's Inter-Lock system ON, connect the diagnostic tool to the OBD connector in the left storage compartment and follow the diagnostic-tool operating procedure to read/handle the fault code.

WARNING

The source manual notes that if the malfunction lamp does not remain on while the engine is running but flashes after shutdown, this can indicate a stored/history fault that does not currently affect motorcycle operation and may clear automatically in the future.

Troubleshooting - Fault Codes

No.	Error code	Error code description
1	P0030	Upstream bank 1 oxygen sensor heater control circuit open
2	P0031	Voltage too low in the upstream 1 cylinder oxygen sensor heater control circuit
3	P0032	Heater control circuit voltage of upstream oxygen sensor 1 is too high
4	P0106	Intake air pressure sensor/atmospheric pressure sensor is abnormal
5	P0107	Intake pressure sensor shorted to ground
6	P0108	Intake air pressure sensor short-circuited to power
7	P0112	Intake air temperature sensor signal voltage is too low
8	P0113	Intake air temperature sensor signal voltage too high
9	P0134	Upstream bank 1 oxygen sensor signal circuit open circuit fault
10	P0201	Cylinder 1 injector control circuit open
11	P0261	Cylinder 1 fuel injector control circuit shorted to ground
12	P0262	Cylinder 1 injector control circuit shorted to power
13	P0322	No speed sensor pulse signal (open circuit or short circuit)
14	P0480	Fan control circuit open
15	P0691	Fan control circuit shorted to ground
16	P0692	Fan control circuit power short circuit
17	P0511	Idle air control circuit open
18	P0563	System battery voltage is too high
19	P0116	Engine coolant temperature sensor signal is unreasonable
20	P0117	Engine coolant temperature sensor circuit voltage too low
21	P0118	Engine coolant temperature sensor circuit voltage too high
22	P0122	Throttle position sensor circuit voltage below lower limit
23	P0123	Throttle position sensor circuit voltage exceeds the high limit
24	P0130	Upstream bank 1 oxygen sensor signal is unreasonable
25	P0131	Upstream bank 1 oxygen sensor signal voltage too low fault
26	P0132	Upstream bank 1 oxygen sensor signal circuit voltage too high
27	P0627	Oil pump relay control circuit open
28	P0629	Fuel pump relay control circuit shorted to power
29	P0650	MIL lamp driver circuit fault
30	P2300	Cylinder 1 ignition coil short to ground
31	P0628	The voltage of the oil pump relay control circuit is too low

Care and Storage - Long-Term Storage

LONG-TERM MOTORCYCLE STORAGE

If the motorcycle will remain unused for a long period, maintenance should be performed before storage. It is recommended to have the motorcycle serviced and to obtain advice from a service center before extended storage.

STORAGE PROCEDURE

Wash the motorcycle thoroughly. Park it upright on the center stand on level ground. Turn the handlebar to the left and switch the electrical Inter-Lock system OFF; the electrical system and steering lock will then switch/lock as described in the source manual.

FUEL

Drain the fuel tank completely. Fuel left in a motorcycle that is stored for a long period may deteriorate and may damage in-tank components.

ENGINE

1. Remove the spark plug and pour approximately one tablespoon of new engine oil into the spark-plug hole. Reinstall the spark plug without connecting the plug cap and crank the engine so that oil coats the piston and cylinder wall.
2. Drain the old engine oil completely and refill with new oil without starting the engine.
3. Seal the air-filter intake and exhaust outlet with cloth lightly moistened with fresh engine oil to prevent moisture ingress and corrosion.

BATTERY

1. Disconnect both battery terminals, removing the negative terminal first for safety.
2. Clean the terminals and cable connectors, then apply a thin coating of grease.
3. Store the battery in a shaded, well-ventilated place.

BATTERY CARE

Recharge every three months.

WHEEL AND TIRE CARE

Inflate front and rear tires to the specified pressures.

BODYWORK CARE

1. Apply suitable protectant to rubber and resin parts.
2. Apply corrosion protection to uncoated metal surfaces.
3. Apply automotive wax to painted surfaces.

RETURNING THE MOTORCYCLE TO SERVICE

1. Wash the motorcycle.
2. Remove protective material/debris from the air intake, air filter and exhaust.
3. Drain the storage engine oil, replace the oil filter and refill with the specified quantity of fresh engine oil.
4. Reinstall the battery, connecting positive first and negative second.
5. Remove and clean the spark plug; crank the engine as described to clear the combustion chamber, then reinstall the spark plug.
6. Check all applicable levels/pressures are within specification.
7. Inspect systems for leakage or damage, including cooling and fuel systems.
8. Start and warm the engine until normal systems operate, then stop the engine.

CORROSION

Long-term storage can allow corrosion to form. Humidity, sea air and nearby chemical storage are among the conditions that accelerate corrosion and can also damage painted parts.

Care and Storage - Corrosion Prevention and Cleaning

CORROSION PREVENTION

1. Clean the motorcycle at least once a month and keep it clean and dry.
2. Promptly remove contaminants such as salt, road chemicals, asphalt, tree sap, bird droppings and industrial fallout. If water alone is insufficient, use an appropriate cleaner according to its product instructions.
3. Repair damaged areas promptly. Inspect painted surfaces for scratches or damage and repair them to prevent further deterioration.
4. Store the motorcycle in a dry, well-ventilated place. Repeatedly washing and parking in a closed garage may increase humidity and accelerate corrosion, even in a warm climate.
5. Cover the motorcycle and avoid prolonged strong sunlight. Sunlight can fade plastic parts and instrument surfaces. A high-quality breathable cover helps protect against UV exposure, dirt and airborne contamination.

CLEANING THE MOTORCYCLE

1. Rinse dirt and mud with clean water. Use a soft sponge or soft-bristle brush to avoid scratching exterior parts.
2. Wash using mild detergent or motorcycle wash soap and a soft cloth. If the motorcycle is used on salted roads or near the sea, rinse immediately after use with cool fresh water; cooler water helps slow corrosion.

WARNING

- Avoid directing water into the ignition switch, spark plug, fuel-tank cap, fuel-injection system and brake master cylinder.
- Do not use high-pressure water to clean the motorcycle

3. Rinse away all remaining detergent with clean water.
4. Wipe with a soft damp cloth and leave the motorcycle in a ventilated area to dry.
5. Inspect painted surfaces for damage and repair damaged areas using suitable repair materials: clean the damaged area, allow it to dry, and allow the repaired area to cure fully.
6. Regularly inspect body surfaces. If heavy dirt accumulates, clean with cool water and a soft brush. Take care not to damage radiator/cooling-fin surfaces.

Care and Storage - Cleaning Precautions

NOTICE

After washing or riding in rain, moisture may appear inside the headlight. With the engine running and headlight switched on, this moisture should gradually disperse. Avoid leaving the headlight on with the engine stopped because this can excessively discharge the battery.

WARNING

• Do not use strongly alkaline or acidic cleaning agents, gasoline, brake fluid or other solvents that can damage the motorcycle. Wash with clean water and a mild cleaning agent and wipe only with a soft cloth.
• Avoid using the following products on painted bodywork: engine cleaner, air-filter cleaner, bathroom cleaner, throttle-body cleaner, chain cleaner, bleach-containing cleaners and similar aggressive products. Do not allow painted surfaces to contact brake fluid, concentrated acid or concentrated alkali.

CLEANING PRECAUTIONS

1. Do not use a high-pressure washer.
 - High pressure can damage moving parts and electrical equipment.
 - Water can be forced into the throttle body or air filter through the intake.
2. Do not spray water directly into the exhaust.
 - Water inside the exhaust may cause difficult starting and corrosion.
3. Dry the brakes after washing.
 - Water reduces braking efficiency. At low speed, apply the brakes intermittently after washing to help dry pads and discs.
4. Do not spray water directly under the seat.
 - Water in the under-seat compartment can damage documents and stored items.
5. Do not spray the air filter directly.
 - Water entering the air filter may prevent the engine from starting.
6. Do not spray directly around the headlight.
 - Temporary internal fogging after washing/rain normally does not affect operation.
 - If a large amount of water or ice is present inside the lens, have the motorcycle inspected at a Zontes Flagship Store or authorized dealer.
7. Do not wax or polish matte-painted surfaces.
 - Clean matte paint with a soft cloth or sponge, plenty of water and mild detergent, then dry with a clean soft cloth.

Care and Storage - After Washing, Exhaust and Aluminum Parts

AFTER-WASH PROCEDURE

1. Dry the motorcycle with a towel or absorbent cloth.
2. Apply anti-corrosion spray to metal parts.

WARNING: Do not apply anti-corrosion spray or oil to the seat, handlebars, footrests or tires. These surfaces may become slippery and cause loss of control. Clean them thoroughly before riding.

3. Use appropriate protectant on rubber parts, plastic parts and unpainted plastic surfaces.
4. Apply non-abrasive wax or a motorcycle-specific protective spray to painted surfaces.
5. Start the engine and allow it to idle for several minutes to help evaporate remaining moisture.
6. If the headlight lens fogs, run the engine and switch on the headlight to help remove moisture.
7. Store or cover the motorcycle only after it is completely dry.

WARNING

- Dirt or contamination remaining on brake pads or tires can cause loss of control.
- Ensure that no lubricant or grease remains on brake pads or tires.
- If necessary, clean tires with warm water and a neutral cleaner.
- If necessary, use brake-disc cleaner or acetone to clean brake discs and pads as appropriate.
- Test braking performance and vehicle handling before high-speed riding.

EXHAUST PIPE AND MUFFLER

The exhaust and muffler are stainless steel but may become dirty from mud or dust.

- Remove mud/dust with a water-moistened sponge and a household cleaner containing mild abrasive, then rinse with clean water and dry with a soft cloth.
- Fine polishing cream may be used when necessary to remove heat discoloration, followed by thorough washing and drying.
- If the exhaust/muffler is painted, do not use abrasive cleaner; use neutral cleaner on painted surfaces.
- If uncertain whether a surface is painted, have it checked by a Zontes Flagship Store or authorized dealer.

NOTICE

Stainless-steel exhaust parts can still corrode. Remove any corrosion marks promptly

ALUMINUM PARTS

Aluminum can corrode after exposure to dirt, mud or salt. Clean regularly.

- Do not use hard brushes, steel wool or strongly abrasive materials.
- Avoid scraping body parts against curbs or road edges.

Care and Storage - Plastic Parts, Windshield and Transportation

PLASTIC PARTS

To prevent scratching and damage:

- Wash gently with a sponge and plenty of water.
- Use a water-diluted cleaner for stubborn dirt and rinse thoroughly so that no chemical residue remains.
- Prevent gasoline, brake fluid or cleaners from splashing onto the instrument panel, windshield, fairings or headlight.

WINDSHIELD

Clean with a soft cloth or sponge and plenty of water. Avoid cleaners or chemicals whenever possible, then dry with a clean soft cloth.

NOTICE

• To avoid scratches or other damage, use only clean water, a soft cloth or sponge for routine windshield cleaning

- If heavily soiled, use diluted neutral cleaner with a sponge and plenty of water, then rinse completely. Cleaner residue may cause the windshield to crack.
- If scratches cannot be removed and impair clear vision, replace the windshield.
- Keep battery acid, brake fluid and other chemicals away from the windshield and plastic glazing surfaces.

TRANSPORTATION

Drain fuel before transporting the motorcycle. Fuel is highly flammable and may ignite. Never allow open flame near fuel draining/refilling operations and work only in a well-ventilated area.

FUEL-DRAINING PROCEDURE

1. Stop the engine and switch OFF-RUN to OFF.
2. Use siphoning or another suitable method to drain fuel from the tank into an approved storage container.

NOTICE

Before transporting, confirm that fuel has been drained. Transport the motorcycle upright to reduce the risk of leakage of other fluids contained in the vehicle

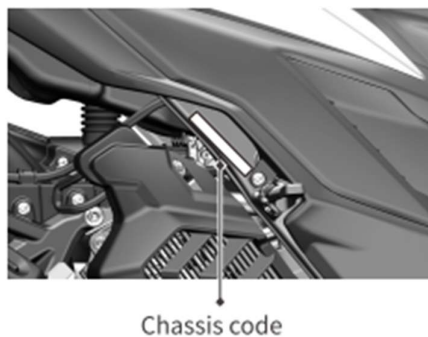
Vehicle Information - Identification Numbers and Nameplate

VEHICLE IDENTIFICATION NUMBERS

The frame number and engine number are unique identifiers for this motorcycle and are required for registration. These numbers also allow an authorized dealer to provide accurate service, including parts ordering and model-specific maintenance information. Record the numbers and keep them in a safe place.

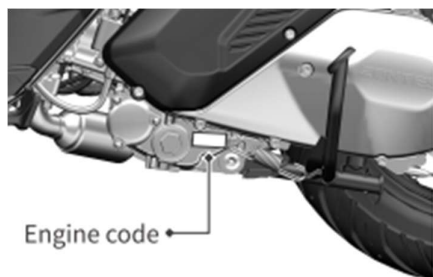
FRAME NUMBER

The frame number is located beneath the rear fender. The rear fender must be removed to view the number, as indicated in the source illustration.



ENGINE NUMBER

The engine number is located near the side stand.



NAMEPLATE / DATA PLATE

The 3C nameplate is attached inside the storage compartment



NOTICE

- To prevent damage to stored property, do not keep valuables, non-waterproof items, heat-sensitive items, electrical appliances or electronic devices in the storage compartment
- Some helmet types cannot be stored in the compartment because of their size or shape.

Specifications

Dimensions and curb weight

Length	1975mm
Width	750mm
Height	1115mm
Wheelbase	1375mm
Ground clearance	130mm
Seat height	770mm
Dry weight	108kg
Curb weight	117kg

Engine

Single-cylinder, horizontal, four-stroke, water-cooled, 149.5cc

Number of cylinders	1
Bore	58mm
Stroke	56.6mm
Displacement	149.5cc
Compression ratio	12:1
Starting Method	Electric start
Lubrication method	Pressure and splash lubrication
Power	13.0kW
Clutch	Dry, automatic centrifugal clutch
Transmission	Automatic continuously variable transmission (CVT)
Primary reduction ratio	0.741-2.664
Final gear ratio	9.590
Drive type	Belt drive

Main Performance Indicators

Economic fuel consumption	2.1L/100km
Maximum speed	114km/h

Chassis System

Steering angle	43°
Tire specifications	
Front tire	110/70-14
Rear tire	130/70-13
Electrical System Ignition Method	Inductive discharge ignition
Spark plug model	CR8E
Battery specification	12V/9.1Ah
Fuse specification	10A/15A/25A

Lamp Power

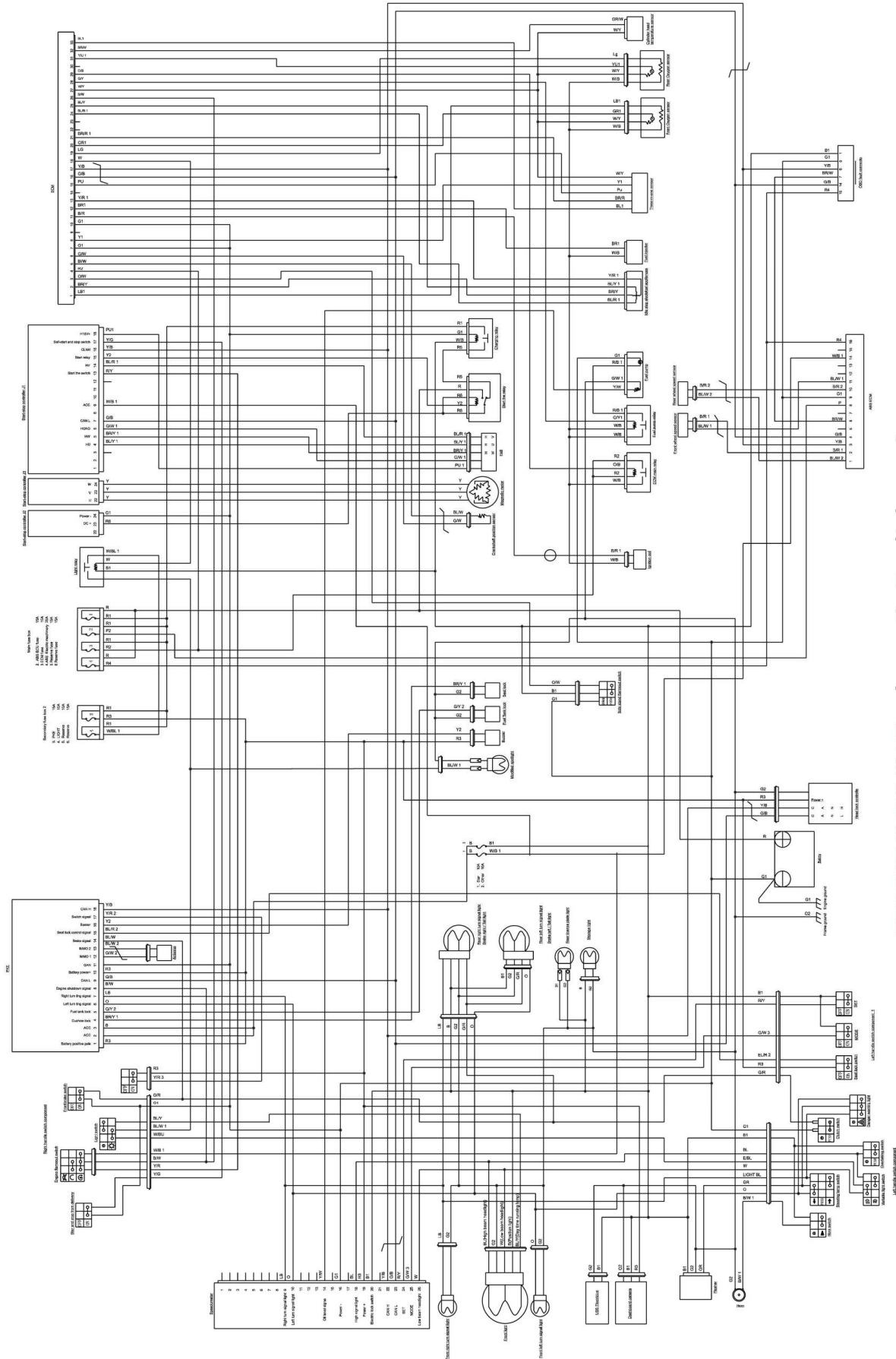
Low beam	6.2W
High beam	9.7W
Front position light	2.2W/2.1W
Front turn signal	5.6W
Rear position light	6.5W
Brake light	3.9W
Rear license plate light	0.44W
Rear turn signal	4.0W

Capacity

Effective fuel tank capacity	11L
Engine oil capacity	950mL
Engine oil replacement capacity (with oil filter replacement)	870mL
Engine oil replacement capacity (without oil filter replacement)	800mL
Gearbox oil capacity	140mL
Gearbox oil regular replacement capacity	120mL

Electrical Wiring Diagram

ELECTRICAL WIRING DIAGRAM



ZT150T-X CIRCUIT schematic English version

Quality Warranty - Warranty Conditions

DYNAMIC MOTOR (Thailand) Co., Ltd. warrants every new 150X motorcycle delivered to a customer by the company or by an officially appointed dealer. If a part fails because of a proven defect in material or manufacture, the company will replace the applicable part in accordance with these warranty conditions. The warranty takes effect from the date of purchase and applies only to motorcycles used in Thailand.

GENERAL NEW-MOTORCYCLE WARRANTY

Maximum warranty period: 5 years or 50,000 km, whichever occurs first, except for parts subject to wear/deterioration through use and parts covered under separate component-manufacturer conditions.

1. ALUMINUM FRAME

The source states a lifetime quality warranty for the aluminum frame for the first owner/first possessor only, with one replacement in the event of accident damage that makes the frame unusable, while repair-related cost responsibility remains with the owner/possessor as stated in the source.

2. INTERNAL ENGINE PARTS LISTED UNDER THE WARRANTY CONDITIONS

Engine crankcase, cylinder head, crankshaft, balancer shaft, magneto/flywheel assembly, camshaft, intake valve, exhaust valve, rocker arm, engine-oil pump, timing gear, timing chain and starter motor.

3. PARTS WARRANTED FOR 3 YEARS OR 30,000 km, WHICHEVER OCCURS FIRST

Muffler, aluminum front and rear wheels, fuel tank, radiator core, and fuel-supply system components including ECU, throttle body, sensors and fuel pump.

4. PARTS WARRANTED FOR 2 YEARS OR 20,000 km, WHICHEVER OCCURS FIRST

Headlight, tail light, turn signals, license-plate light, meter/instrument assembly; ignition-system subcomponents such as rectifier, relays and flasher relay; mirrors and switches; electronic subcomponents such as smart-key/remote controller, steering lock, fuel-cap lock, seat lock and electric windshield controller; cooling-system subcomponents such as coolant hoses, reserve tank and thermostat.

5. PARTS WARRANTED FOR 1 YEAR OR 10,000 km, WHICHEVER OCCURS FIRST

Horn, warning buzzer, USB charging cable, seat, front and rear shock absorbers.

6. CVT COMPONENTS

CVT internal components are warranted for 1 year or 6,000 km, whichever occurs first, where inspection confirms a manufacturing-quality defect. Normal wear is excluded.

7. EXTERIOR BODY PARTS AND PAINT

Warranty: 6 months or 5,000 km, whichever occurs first, for exterior body parts and paint quality, including verified peeling, blistering, heat-related paint damage, cracking/crazing, sheet-like paint separation and manufacturing abnormalities. Coverage applies only when inspection confirms the condition was not caused by impact, scratching, accident, corrosive chemicals/cleaners, repair or modification.

8. SERVICE-WEAR PARTS LISTED AS EXCLUDED / CONSUMABLE

Lubricants, grease, gaskets, seals, throttle cable, brake pads, brake discs, fuses, spark plugs, filters, stickers, nuts, bolts and screws.

9. INTERNAL ENGINE AND TRANSMISSION WEAR PARTS LISTED

Cylinder, piston, piston rings, spark plug, engine oil, engine-oil filter, gaskets, seals, O-rings and bearings.

10. BATTERY

Covered under the battery manufacturer's conditions for 6 months.

11. TIRES

Covered under the tire manufacturer's conditions for 6 months or 5,000 km.

12. Grease, oil, lubricants and chemical products are not covered by this warranty.

Quality Warranty - Warranty Exclusions

The warranty does not cover the following:

1. Damage caused by neglecting scheduled maintenance.
2. Failure to follow the Owner's Manual strictly.
3. Damage caused by counterfeit non-genuine parts.
4. Damage caused by repair or maintenance performed by a shop not officially appointed by the company.
5. Damage caused by repair, adjustment or maintenance that differs from company specifications.
6. Damage caused by using the motorcycle for activities other than normal use, including any form of racing.
7. Damage caused by misuse, such as carrying loads above the stated limit, improper long-term storage or storage in unsuitable locations.
8. Damage from severe commercial use such as public-service or rental use, except where caused by a verified technical or manufacturing defect.
9. Damage caused by modification of the motorcycle, engine, electrical system or other parts.
10. Damage caused by accessories that affect vehicle performance or riding safety.
11. Damage caused by fuel, lubricants or fluids that differ from those specified in the Owner's Manual.
12. Deterioration from use and aging, including fading paint, deterioration of metal surfaces, rubber parts and plastic parts.
13. Noise or vibration resulting from or associated with normal use.
14. Damage caused by unavoidable natural disasters or events beyond control.
15. Damage caused by war.
16. Damage caused by theft.
17. Damage caused by accident.
18. Costs for transporting the motorcycle, communications, accommodation and meals, time compensation, business loss, medical expenses or similar consequential expenses.
19. Damage caused by abnormal environments such as severe air pollution, seawater, sea air, salt, bird droppings or similar conditions.
20. Motorcycles not distributed by DYNAMIC MOTOR (Thailand) Co., Ltd.



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