DTX 250 TCS

SCOOTER E5

OWNER'S MANUAL

KYMCO

⚠ WARNING

To avoid damage from the electronic fuel injection system, do not remove or install the battery when the ignition switch is in the " ⟳ " position.

The long-term storage of the vehicle could cause fuel and engine oil deterioration and probably get into a non-start situation.

Service more frequently when operating in severe conditions such as dusty area, high speed riding, frequent start and stop or extreme riding habit.

Make sure to keep away from any flammable materials such as dry grasses or leaves, avoid them in contact with the exhaust pipe or muffler when parking the vehicle.

Read this Manual carefully

This Owner's Manual contains important information on safety, operation and maintenance of KYMCO **DTX 250 TCS**. Anyone who is going to ride should carefully read and understand the contents of this manual before riding. For personal safety, understand and follow all of the warnings contained in this Owner's Manual and the labels attached on vehicle. This Owner's Manual should be considered a permanent part of the vehicle, keep it with the scooter. ON-ROAD USE ONLY for this scooter.

Particularly important information is provided in this manual by the following symbols and signal words:

The SAFETY ALERT symbol means ATTENTION! BE ALERT! YOUR SAFETY CAN BE AFFECTED.

⚠ WARNING Failure to follow these instructions can result in severe injury or death.

⚠ CAUTION These instructions point out the special precautions must be followed to avoid damage.

■NOTE: The NOTE indicates the additional important information.

Identification Numbers Record

Vehicle Identification Number (VIN)

Engine Serial Number (ESN)

Record the Vehicle Identification Number ① or ②, Engine Serial Number ③, in the blanks above for a reference to assist you in ordering parts from the authorized KYMCO dealer or in case the vehicle is stolen.

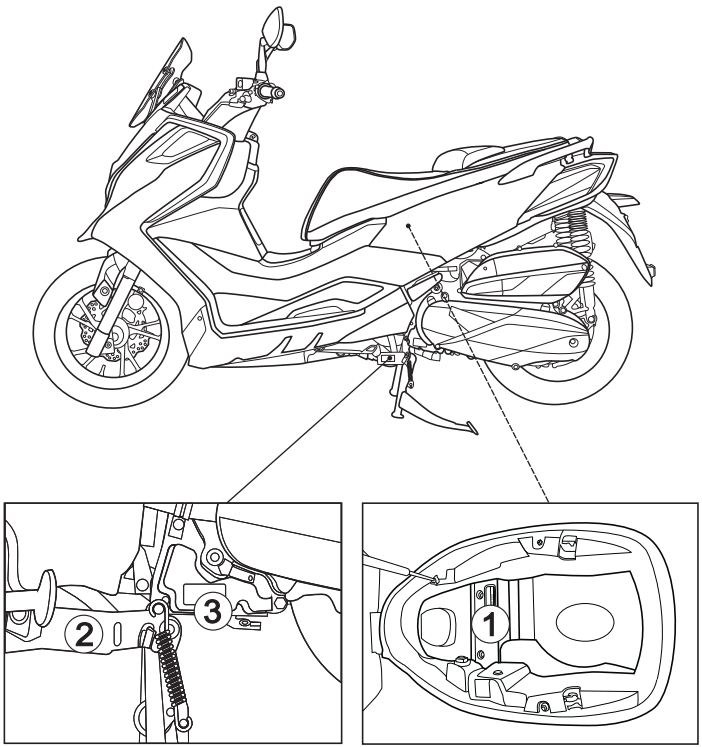


TABLE OF CONTENTS

SECTION 1 -
FORWARD & SAFETY INTRODUCTION

Thanks for purchasing this KYMCO **DTX 250 TCS**, and welcome to the KYMCO family.

Please read this owner's manual carefully before riding so that you will be thoroughly familiar with the proper operation of controls, features, capabilities, and limitations.

To ensure a long, trouble-free life for using the vehicle, provide it with the proper care and maintenance as described in this manual.

For replacement parts and accessories, you should always use genuine KYMCO products, as they have been specially designed for the vehicle and manufactured to meet the standards. Keep this owner's manual with the scooter at all times so that you can refer to it whenever you need information. This manual should be considered a permanent part of the scooter and should remain with the vehicle when it is sold.

All information, illustrations, photographs and specifications contained in this manual are based on the latest product information available at the time of publication. Due to improvements or other changes, there may be slightly different from the vehicle. KYMCO reserves the right to make product and publication changes at any time without notice or obligation.

SCOOTER SAFETY

IMPORTANT SAFETY INFORMATION

It will be used with pleasure for a longer time if you take responsibility for your safety and understand the challenges that you could face on the road. There is much that you can do to protect yourself.Here are many helpful recommendations and some very important tips in this manual.

Wear a helmet

The safety equipment starts with a quality helmet. One of the most serious injuries in a crash is a head injury. Always wear a properly approved helmet and also wear suitable eye protection.

Make you easy to see

To make yourself more visible, wear bright reflective clothing to position yourself clearly so that other drivers can see you, signal before making a turn or changing lanes, and use your horn because it will help others notice you.

Know your Limits

Always ride within the limitation of personal skills. Knowing these limits and staying within them will help you to avoid accidents.

Keep the vehicle in safe condition

For safe riding, it's important to inspect the vehicle before every ride and perform all recommended maintenance. Never exceed load limits, and only use the approved accessories.

Inspect the vehicle before riding

Do not forget to perform an entire safety inspection to ensure safety for all riders before riding.

Be very conscious on a rainy day

Riding on a rainy day requires extra caution especially when it's wet. Braking distance is longer on a rainy day. Keep off the painted surfaces, manhole covers and greasy spots on the paved road as it can be especially slippery. Use extreme caution on the railway crossing or on the metal surface. Whenever in doubt about the road condition, please slow down.

Modification

Modification on the vehicle or removal of original equipment may have the vehicle become unsafe or illegal. Obey all the related equipment regulations from the authority.

SCOOTER SAFETY

PROTECTIVE LOTHINGC

For your safety, always wear an approved scooter or scooter helmet, eyes protection, boots, gloves, long pants, and a long-sleeve shirt or jacket during a ride.

Helmets and protection

The helmet is the most important gear because it offers the best protection against head injury. The helmet should fit your head comfortably and securely. Always wear a face shield or goggles to protect eyes, but not to interfere with the vision.

Additional riding gears

In addition to the head and eyes protection, you should also use:

Sturdy boots with non-slip soles to help protect feet and ankles.

Leather gloves to keep your hands warm and prevent blisters, cuts, burns and bruises.

A scooter suit is designed for comfort as well as protection. Bright color with reflection strips can make you more noticeable. Be sure to avoid loose clothes that could get caught on any part of the vehicle.

The recommended riding gears:

①Wear gloves

②Clothes that fit properly

③A helmet with eye protection

④ Bright or reflective clothing

⑤ Footwear that are of the proper size, have low heels, and offer ankle protection.

⚠ WARNING

Not wearing a helmet increases your chance of serious injury or death in an accident.

Be sure your passenger and you always wear an approved scooter helmet that fits properly. You should also wear eye protection and other protective clothing during a ride.

ACCESSORIES & MODIFICATION

There is a large variety of accessories available to KYMCO vehicle owners. KYMCO cannot have direct control over the quality or suitability of accessories you may wish to purchase. The addition of unsuitable accessories can lead to unsafe operation. It is not possible for KYMCO to test each accessory on the market or combinations of all the available accessories; however, the KYMCO dealer can assist you in selecting quality accessories and then install them correctly.

Use extreme caution when selecting and installing the accessories.

No modifications:

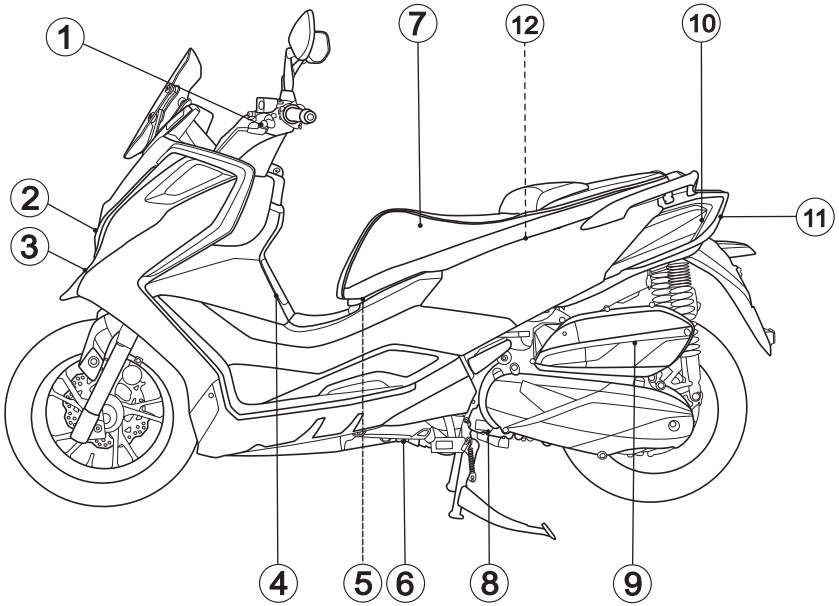
KYMCO strongly advises against removing any original equipment or modifying the vehicle in any way that will change its design or operation.

⚠ WARNING

Improper accessories or modifications can make the vehicle unsafe and can lead to an accident.
Never modify the vehicle through the improper installation or use of accessories. All parts and accessories added to this vehicle should be genuine KYMCO parts or equivalent components designed for use on this vehicle and should be installed and used according to the correct instruction. If you have any questions, consult the authorized KYMCO dealer.

LOCATION OF PARTS & CONTROLS

① Rear Brake Lever
② Headlight
③ Front Left Turn Signal Light
④ Fuel Filler Cap
⑤ Helmet Hook
⑥ Side Stand(with cut off feature)
⑦ Seat
⑧ Engine Number
⑨ Air Cleaner
⑩ Rear Left Turn Signal Light
⑪ Tail/Brake Light
⑫ Luggage Box



■ **NOTE**: Your scooter may differ slightly in appearance from the images in this manual.

LOCATION OF PARTS & CONTROLS

⑬ Coolant inspection window

⑭ Rear Right Turn Signal Light

⑮ Muffler

⑯ Oil Filler Cap/dipstick

⑰ Center Stand

⑱ Rear Passenger Foot Peg

⑲ Battery

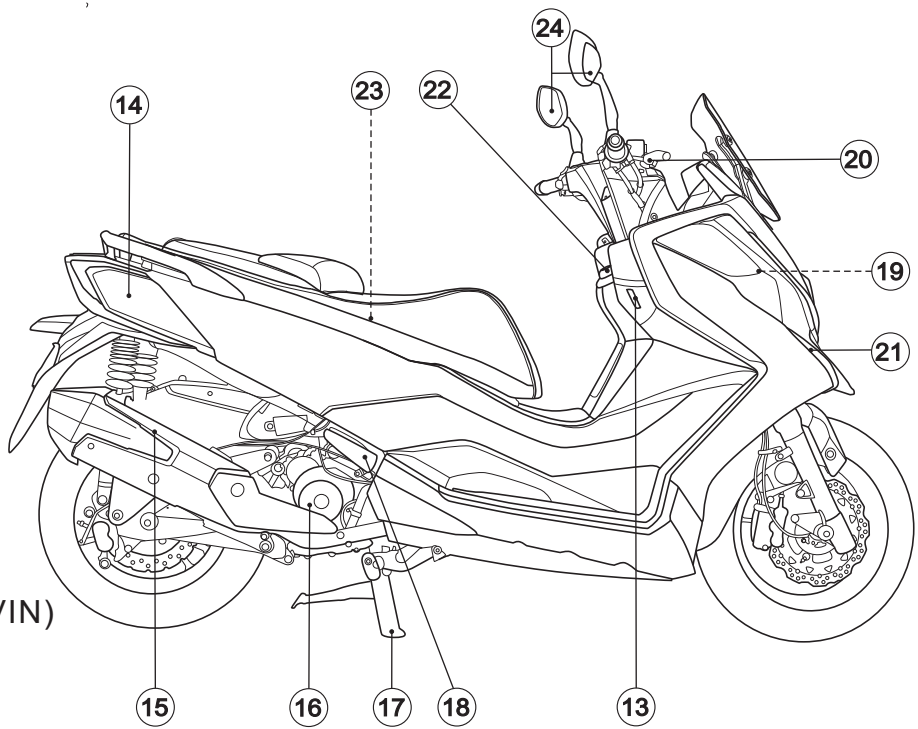
⑳ Front Brake Lever

㉑ Front Right Turn Signal Light

㉒ Ignition Switch/keyless

㉓ Vehicle Identification Number (VIN)

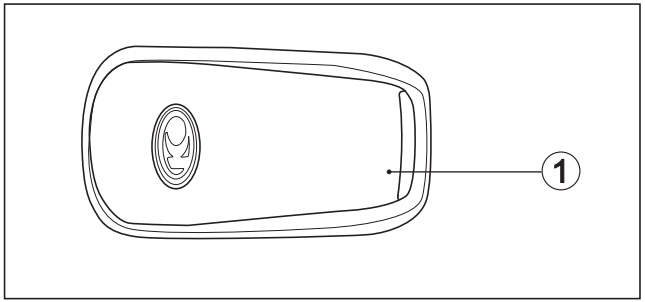
㉔ Rearview mirror



■ **NOTE**: Your scooter may differ slightly in appearance from the images in this manual.

SECTION 2 -CONTROLS & FEATURES

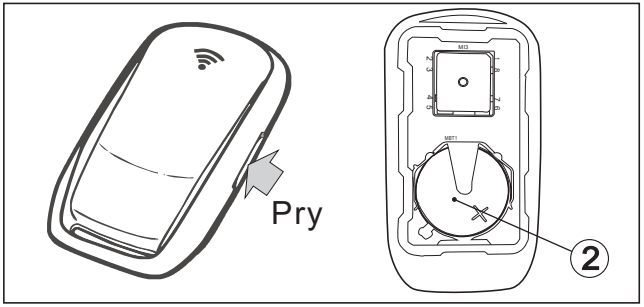
KEYLESS Remote Control



1.KEYLESS Remote Control
KEYLESS is a high-tech electronic master switch that does not requires a physical key. (see Figure above).
Each vehicle is provided with two Remote Controls, and they should be properly preserved.
In case the Remote Control is lost, the KEYLESS Main Switch will be unable to be activated.

NOTE: Customers must take special care of the safe storage of their remote controls.

2.Replacing battery of Remote Control



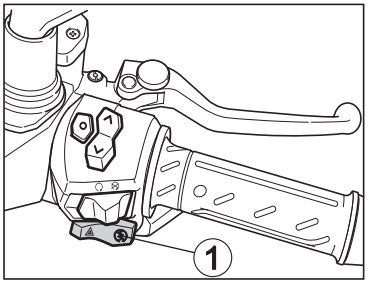
Battery Model for Remote Control: CR2032

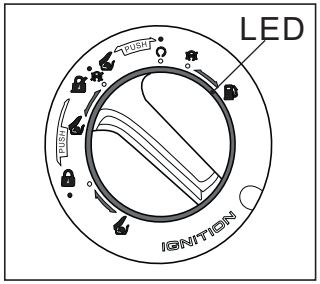
⚠ CAUTION

- Do not place or store the remote control in the storage cabinet, may be damaged due to the vibration of the road surface or the overheating of the cabinet.
- Do not soak the remote control in water or other type of liquid.
- Do not attempt to grind or modify the remote control.
- Be sure to keep away from strong magnetic fields and magnetic objects.

SECTION 2 - CONTROLS&FEATURES

Control Functions of Mechanism





Unlock Mode: LED of the Main Switch lights up in blue constantly. you can turn the Main Switch to power on /open the fuel tank outer cover /steering stem lock.

Lock Mode: LED of the Main Switch lights up in red, and the red light will go off, the buzzer will make a long beep, now the KEYLESS switch is unable to spin.

Lock/Unlock is operated by pushing the starter button (1) for 1 second. If the LED is not on/off normally, immediately go to a KYMCO dealer for check up.

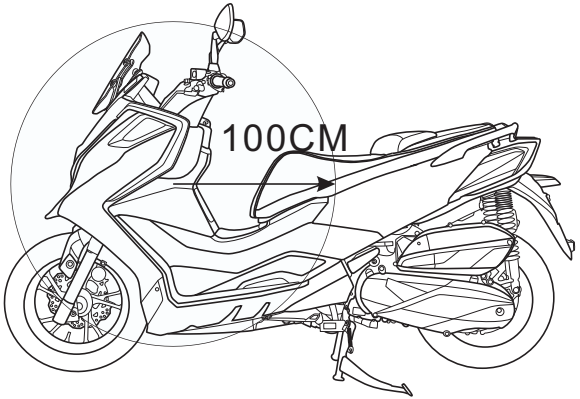
- Steering Stem is locked at this position.
- All the power of the vehicle is cut off at this position. (Engine stops)
- All the power of the vehicle is ON at this position. (Starting the engine is allowed.)
- PUSH Indicates a Push-down is required for the action.
- Indicates to open the seat pad.
- Indicates to open the fuel tank outer cover.
- Indicates the position of a segment.

⚠ CAUTION

- If the LED is not illuminated normally or is extinguished, please send the key to a KYMCO dealer for inspection.
- Do not turn the switch to during the driving process, otherwise the electrical system will disappear as to cause abnormal hazard in motorcycle control.

SECTION 2 - CONTROLS&FEATURES

KEYLESS Sensing Distance

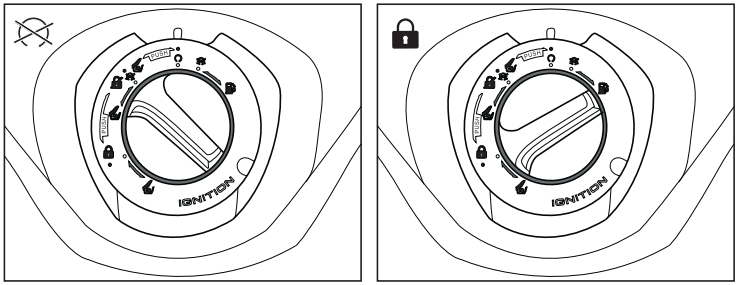


Remote Sensing: 0 ~ 100cm
Short-range Sensing: 0cm

⚠ WARNING

- The optimum sensor range is 100cm which may vary with ambient conditions.
- Please lock the steering stem, close the KEYLESS system, and carry the remote controller with you before leaving your scooter.

KEYLESS Main Switch



KEYLESS Controller Theft Prevention Setting–Remote Sensing(Locking)

1. When parking the vehicle and ready to leave, the user turn KEYLESS Main Switch ON from to OFF or LOCK , the LED is still blue, push the starter button for 1 second, the LED will turn red and the red light will go off, the buzzer will make a long beep, lock completed and the main switch is unable to spin.
2. When the power of Remote Control is weak or the surrounding is obstructive, Locking can not be triggered. You can lock the main switch by Short-range Sensing.

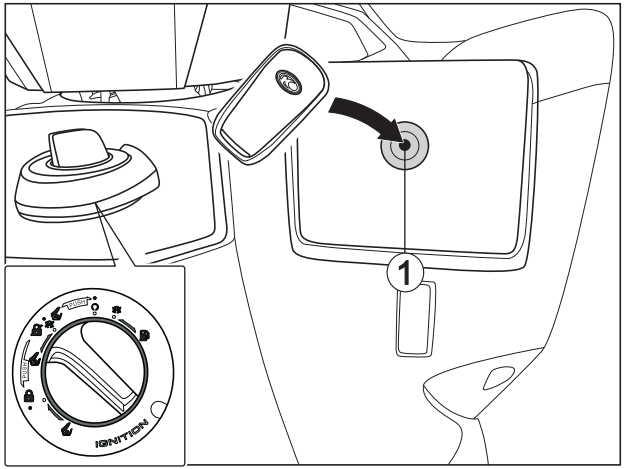
CONTROLS & FEATURES

KEYLESS CONTROLLER Theft Prevention Setting – Remote Sensing (Unlock)

1. Press the starter button for 1 second, and the LED of the Main Switch will light up in blue, accompanied with 2 short beeps. Turn the knob to ON, now the engine is allowed to start. Blue light on constantly.
2. When the power of Remote Control is weak or the surrounding is obstructive, unlocking cannot be triggered, you may use short-range sensing by putting the Remote Control against the circular mark on the Front Inner Box ,and operate just like the remote mode.

⚠ CAUTION

- Lock/unlock can only be triggered on or
- It is strongly recommended that the user use Remote Sensing (Locking) mode to activate the Theft Prevention function.
- In case the KEYLESS main switch failed to operate in remote mode, try replacing battery of the remote controller with a new one or use short range sensing to unlock you scooter.



KEYLESS CONTROLLER Theft Prevention Setting – Short range Sensing

When the power of the Remote Control is weak or the surroundings are obstructive, Locking cannot be triggered. Put the Remote Control against the circular mark (1) on the Front Inner Box .

Locking/Unlock:Operate just like Remote Sensing

CONTROLS & FEATURES

⚠ CAUTION

• In LOCK 🔒 /OFF position, if user does not lock the vehicle, LED will be blue and the keyless system is in unlock mode. When user is 2 meters away, the system will lock automatically. The LED will turn red and go off, the buzzer will make a long beep. It is strongly recommended the user lock the system manually.

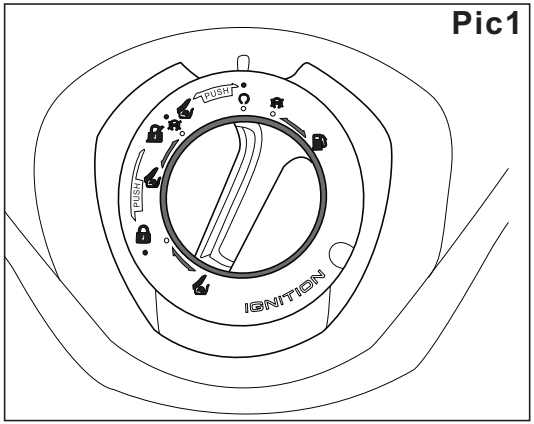
• ON → OFF (Pic 1) Power off, but the keyless system is still in unlock mode, the LED is still blue. Turn the knob to you can still start the vehicle.

• ON → OFF , turn the knob to ,the fuel tank outer cover will open (Pic 2).

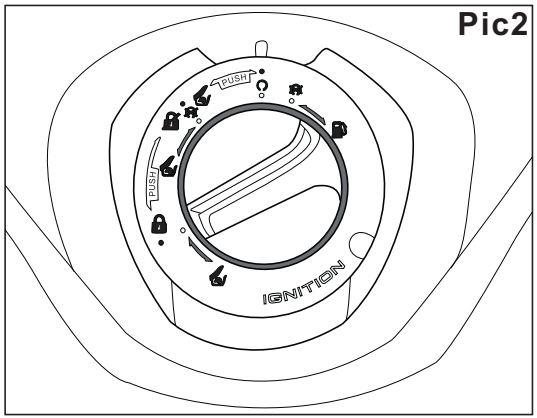
⚠ WARNING

Durning riding, never turn the knob to or 🔒 to prevent accident.

Pic1

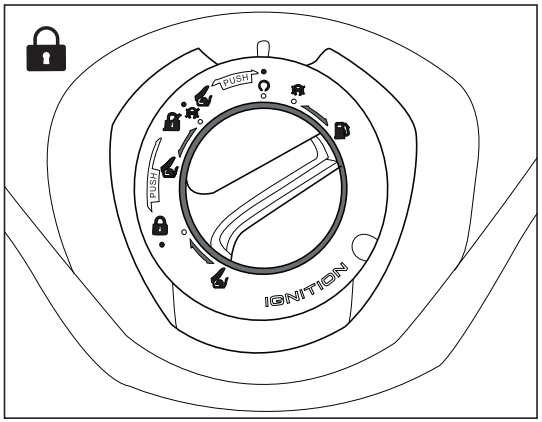


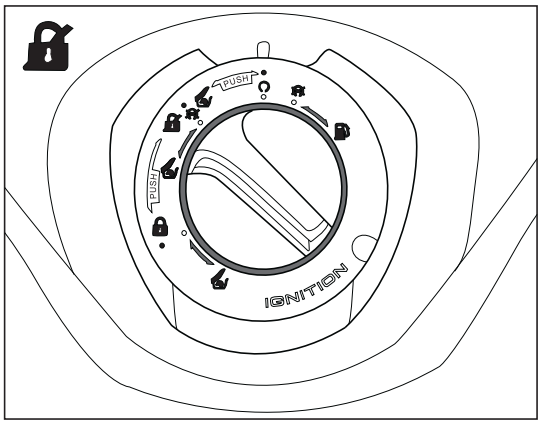
Pic2



CONTROLS & FEATURES

Steering Stem Lock
For theft prevention, lock the steering stem when parking your scooter.
Locking Method:
Turn the Steering Stem to the left, then press the Main Switch inward and turn it to the left to position ,lock KEYLESS.
Unlocking Method:
Press the Main Switch inward and turn it from position to the right to , the lock is unlocked.





⚠ CAUTION

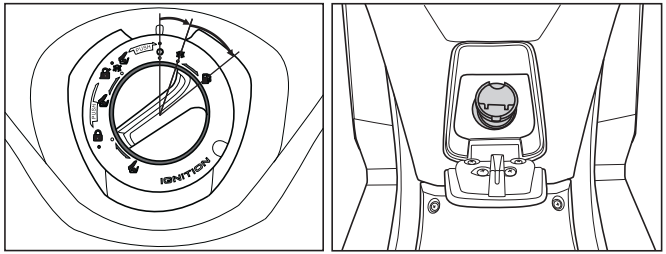
• After locking the steering stem, turn the steering stem to make sure it is locked.

CONTROLS & FEATURES

Open the fuel tank outer cover

1.Unlock keyless.

2.Turn the knob clockwise to " " from " " and then turn to " " open the fuel tank outer cover.



⚠ CAUTION

• Turn the knob clockwise to " " from " ", Power off but the keyless system is still in unlock mode, the LED is still blue. Turn the knob to you can still start the vehicle.

⚠ CAUTION

• Do not park your scooter at locations where traffic safety may be obstructed.

• The location (such as back pocket, back-bag,etc.) where you put your Remote Control may affect the KEYLESS system.

• Removing the Remote Control will disable the vehicle for start-up.

• When KEYLESS system is locked, the knob is unable to spin, turn the knob to make sure it is locked.

• Avoid placing the Remote Control at a moist or high temperature location.

• When the battery of the Remote Control is weak, the sensing distance will be affected.

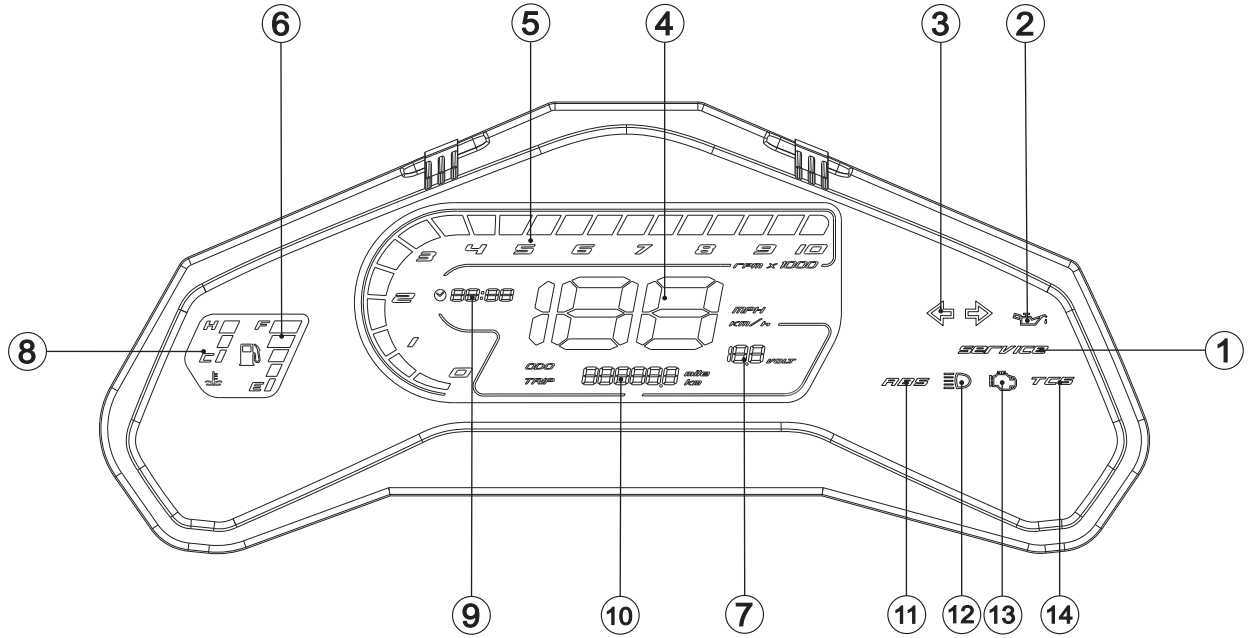
• If you need to change the battery of the Remote Control, go to a KYMCO dealer.

• Don't put valuables in the luggage box.

• The seat pad will not bounce automatically, the hydraumatic rod is for support only.

CONTROLS & FEATURES

INSTRUMENTS



CONTROLS & FEATURES

① Service indicator: It lights up every 5000km to remind you to do oil service. Whenever the ignition switch is turned on, it goes on then off after self-diagnose.

② Oil pressure warning indicator: This indicator lights when the oil pressure is below the normal operating pressure. If the indicator remains on after starting the engine consult with an authorized KYMCO dealer.

③ Turn Signal Indicator Light: Flashes when either turn signal is being used.

④ Speedometer: Indicates the vehicle speed in km/h or mph.Press and hold the O button for 2 sec to switch between km/h and mph.

⑤ Tachometer: Indicates the engine revolution speed in RPM.

⑥ Fuel Gauge: The fuel level gauge shows approximate fuel supply available via a segmented display. The normal operating range of the gauge is between the “E” and “F” segment. When the last segment flash, the fuel level is low and you should refill the fuel tank as soon as possible.

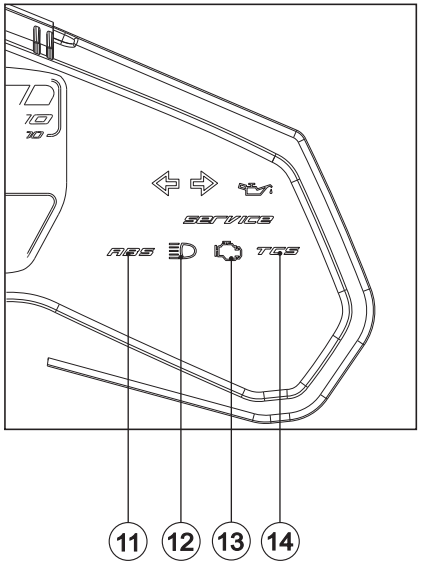
⑦ Battery voltage: Display the current battery voltage.

⑧ Coolant temperature gauge: If the “H” segment and coolant temperature warning indicator flashes, stop the vehicle and let the engine cool.

⑨ Clock: In ODO mode, press and hold the ﹀button to adjust the digits.
-Press the O button to change the digits.
-Press the ﹀ button to select hour or minute. The digits will flash as it is selected.

⑩ ODO /Oil / Trip meter:
-Pressing ﹀ or ﹀ button on the Right Handlebar Switch to switch mode
-ODO → TRIP → OIL SERVICE
-ODO → Total running mileage displayed in Km or Mile.
-TRIP → Single trip mileage; Single trip mileage can be zeroed by pressing and holding O button.
-OIL SERVICE → Oil service trip. After running 5,000km, the "service" indicator lights up constantly.

CONTROLS & FEATURES



(11) ABS indicator: It lights up when the ignition switch is turned on and will turn off after the vehicle starts moving. It will stay off as long as the ABS system works normally.

(12) High Beam Indicator Light: This light is illuminated when the high beam is on.

(13) Engine Detection Indicator: After knob ON, this indicator lights up and then goes off automatically after engine runs 10 sec, indicating the vehicle is normal. If the engine does not be started, the indicator will keep lights on.

(14) TCS indicator: The indicator continuously lights up after turning on the main switch and the TCS function is opened. It will go off automatically until vehicle speed exceeds 6km/h.

■ **NOTE:** If the TCS and ABS indicators light up still after vehicle speed exceeds 6 km/h, have the vehicle been checked by an authorized dealer.

CONTROLS & FEATURES

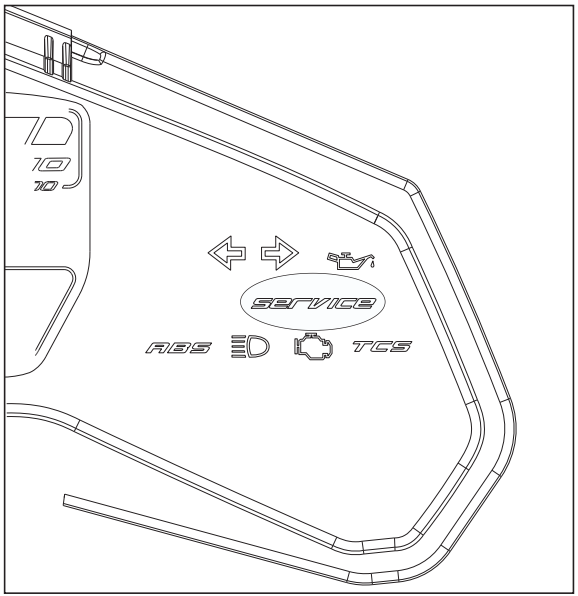
Service Indicator Reset

After you change the engine oil , you need to reset the Service Indicator.

1.Push ﹀ or ﹀ button, the multifunction display will change (ODO→ Trip→ Oil servise) repeatedly in sequence.

2. Choose Oil service mode press O button for 2 seconds and the display will turn to 0.0, the service indicator is reset.

3. The service indicator will be on again when you reach next 5000km (oil service).



⚠ CAUTION

The oil service indicator only lights up when oil service trip reach 5,000 km. Therefore, the indicator would not light up when oil service trip reach 1,000 km in first ride which is the first time oil service. The oil service trip should be reset after the servicing for accurate record the trip.

CONTROLS & FEATURES

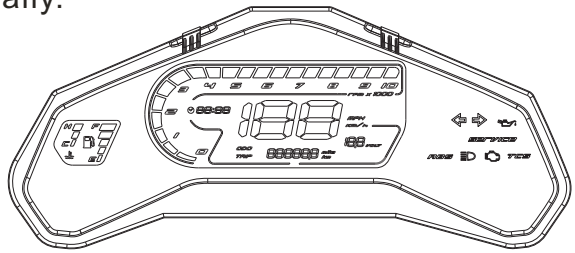
ABS (Anti-Lock Brake System)

1.This indicator light will self-check and the ABS system by illuminating when the main switch is turned on, and it turns off after the vehicle speed exceeds 6 km/hr.

2.If an ABS is detected by the system's microprocessor, the ABS indicator will illuminate and stay on until the fault is repaired.

3.If the indicator light is lit and remains on after the scooter is moving, it also indicates that the ABS system is not functioning.

4.Even if there is an ABS system failure, the conventional braking system still functions normally.



■NOTE: If the ABS indicator lamp indicates a fault, take your scooter to your authorized KYMCO dealer for repairs. Do not attempt to affect repairs yourself.

Precautions

1.The ABS system is the equipment that prevents wheel lockup in case of an emergency braking, thus is capable to keep stability when applying brakes.

2.Use steady, even braking application on the front and rear brake levers simultaneously.

3.Apply the brake levers with the same grip pressure as you would without ABS.

4.The system controls braking pressure automatically and independently at each wheel to prevent wheel lockup.

5.The ABS does not prevent from falling down while cornering into a slippery condition.

6.ABS does not apply the brakes automatically. It needs to apply the brakes at the right time and with the right amount of braking force.

7.The ABS system only starts to work after applying the brake lever.

CONTROLS & FEATURES

Introduction

1.ABS is designed to help prevent the wheels from locking up when the brakes are applied hard while running straight.

2.ABS automatically regulates brake force by intermittently applying ads disengaging braking force to help prevent wheel lock-up and allow for stable steering control while stopping.

3.Brake control function is identical to that of conventional vehicle. The brake lever is used for the front brake and rear brake.

4.Although the ABS provides stability while stopping by preventing wheel lock-up, remember the following characteristics:

• ABS can not compensate for adverse road conditions misjudgment or improper application of brakes. You must take the riding precautions as with scooter not equipped with ABS.

• ABS is not designed to shorten the braking distance. On loose, uneven, or downhill surfaces, the stopping distance of a vehicle with ABS may be longer than that of an equivalent vehicle without ABS. Use special caution in such situations.

• ABS will help prevent wheel lock-up when braking in straight line but it cannot control wheel slip which may cause by braking during cornering. When turning a corner, it is better to limit braking to the light application of both brakes or not to brake at all. Reduce your speed before you get into the corner.

⚠ WARNING

Use non-recommended tyres may cause malfunctioning of ABS and lead to extended braking distance. The rider could have an accident as a result. Always use the recommended size tyres for your scooter.

⚠ CAUTION

1.When ABS is functioning, you may feel a pulsation in the brake lever which is normal. Continue to brake normal.

2.ABS does not function at road speed of approximately 6km/h or less.

3.ABS does not function if the battery voltage is very low, or there is power supply interruption.

CONTROLS & FEATURES

TCS (Traction Control System)

1.The indicator light ① will light up in amber color if TCS is on when turn on the main switch.

2.Once the vehicle speed is over 6 km/h, the indicator light will go off automatically. The TCS keeps function at this time.

3.Following indicator condition is :

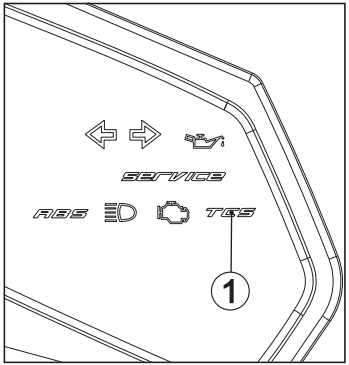
- Does not light up: TCS is on but not function.
- Flashing in amber light: TCS is on and is functioning.
- Solid amber light: TCS is malfunction. Please have a KYMCO dealer check the vehicle as soon as possible.
- Solid green light: TCS is off.

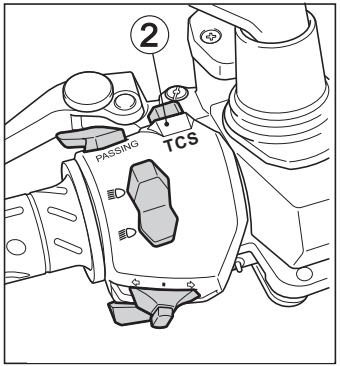
4.TCS Switch ②

Press the TCS switch to turn off the TCS after turn on the main switch and then the TCS indicator light remains green light .

Introduction

1.If rider gives too much throttle or rides on a slippery surface like an ice-covered road or a wet road and etc., it may cause the rear wheel slipping. The TCS helps the vehicle maintain traction when above situation happens.





⚠ CAUTION

1.If the TCS is turned off before start the engine, rider can turn on the TCS during idling or riding.

2.If the TCS is on during riding, the TCS cannot be turned off. To turn off the TCS after engine is on, please follow the steps below.

- Stop the vehicle.
- Turn on the main switch or the engine is under idling.
- Turn off the TCS.

2.If sensors detect that the rear wheel is starting to slip (uncontrolled spinning), the TCS assists by regulating engine RPM until traction is restored. You may notice changes in engine response or exhaust sound.

■ NOTE: Turn off the TCS is recommended before start the engine in a cold weather, if open the throttle to make the engine start or warm up easily is necessary. After that, turn on the TCS.

⚠ WARNING

• The TCS is not a substitute for riding appropriately for the conditions. The TCS cannot prevent loss of traction or front wheel-slip while rider is entering turn in excessive speed or accelerating hard at a sharp lean angle or braking too hard. As with any vehicle approach surfaces that maybe slippery with caution and avoid especially slippery surfaces.

• Use only the specified tyres. Using different size tyres will result the TCS cannot operate accurately that may cause hazardous situation.

⚠ CAUTION

• The TCS will turn on automatically when main switch restarts.

• Turn the TCS off to free the rear wheel if the vehicle gets stuck in mud, sand, or other soft road surfaces.

• When the vehicle is on the center stand and the TCS is on, do not attempt to wide open the throttle for an extended period of time to avoid the spark plug wetting or cause the indicator light remains on due to the malfunction detected.

• The TCS will lose function and the indicator will light up when the battery malfunction or died.

CONTROLS & FEATURES

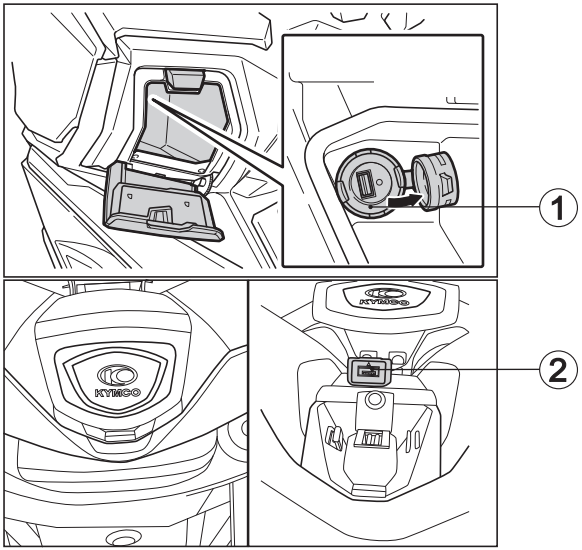
USB Power Socket

This vehicle is equipped with the accessory USB power sockets which provide a function to charge the mobile phone with capacity compliance as below.

There are two USB sockets. One is in the left storage compartment the other is in the center cap of the handle bar.

Output: DC 5V 2A

Maximum output current: 2A



⚠ CAUTION

• To prevent fuse from being blown, do not charge a product with a load exceeding 10W; if overheat occurs during charging, the system will cut off power supply automatically

• After riding and before leaving the scooter, make sure the product is unplugged and the Protection Cap is properly covered back.

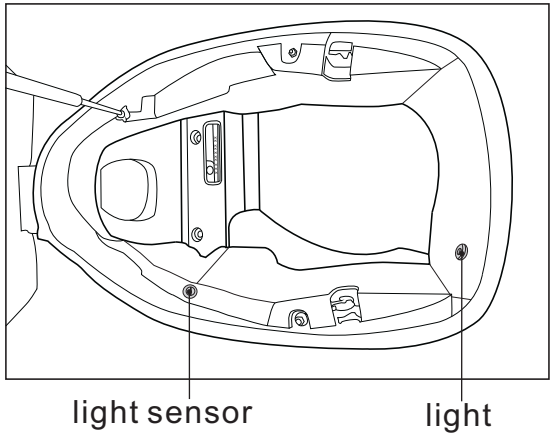
⚠ WARNING

• To avoid electrocution or short-circuit, make sure to cover-up the protection cap after using the USB Power Socket.

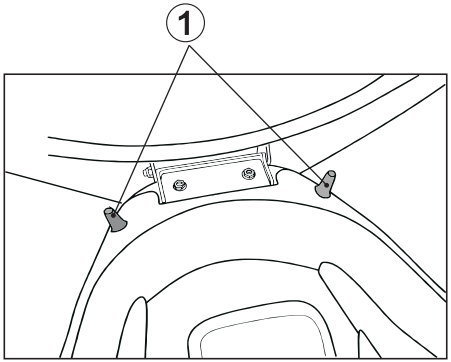
• To prevent any accident from occurring, park your Scooter at a safe location before using the USB Power Socket.

CONTROLS & FEATURES

Components inside the Luggage Box:
The center compartment light will be turned ON automatically when the seat is opened.



Helmet Holder
To use the helmet holders, open the seat and hang the helmet on the holder hook (1) , then lock the seat securely.



⚠ CAUTION

The Luggage Box Light is provided with light-sensing switch, in case the user forgets to close the Seat Pad or the Seat fails to fully close up, system will cut the power automatically after a set time, preventing any power loss of battery.

⚠ WARNING

Use the helmet holder only on parking.

Do not ride with a helmet hanged on the holder.

CONTROLS & FEATURES

Fuel level inspection / Refilling

If When the fuel level gauge needle approaches "E" (indicating the tank is nearly empty), refill the tank with unleaded gasoline.

To add fuel to your scooter, follow this procedure:

1.Unlock KEYLESS, Turn the knob clockwise to " " to open the fuel tank outer cover.

2.Flip up the fuel cap cover as a handle and turn counterclockwise to unlock the cap.

3.Once the cap is unlocked, lift the cap from the fuel filler neck.

4.refill the tank with unleaded gasoline.

5.To install the fuel filler cap, press it back into place on the fuel filler neck, Rotate the cap clockwise to lock it into place.

6.Flip down the cap cover and close the outer cover.

Fuel recommendation

Use unleaded gasoline with a research octane number (RON) 92 or higher to prevent damage on spark plug and catalytic converter.

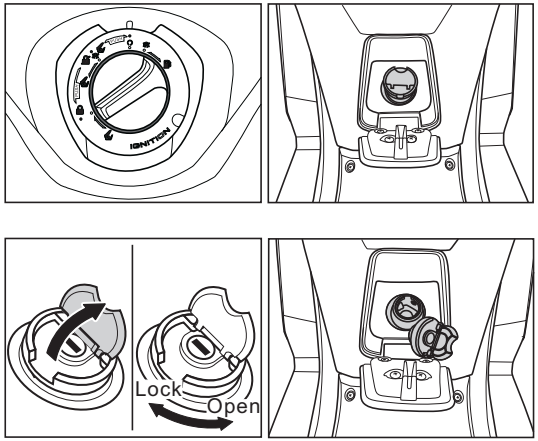
After refueling, be sure to close the filler cap securely.

Fuel Type and Octane Rating

Use clean, fresh unleaded gasoline with an ethanol volume content not more than 5% and an octane rating equal to or higher than that shown in the table.

Fuel Type	Unleaded Gasoline
Ethanol Content	E5 or less
Minimum Octane Rating	Research Octane Number（RON）92

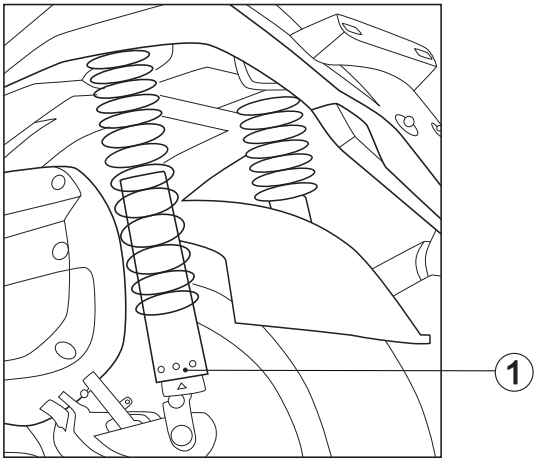
NOTE: Gasoline containing up to 5% ethanol by volume.



CONTROLS & FEATURES

Suspension

Each shock absorber on your scooter has 5 spring preload adjustment positions for different load or riding conditions.
Use a fitting wrench to turn the adjuster's boss (1) .
Position 1 is for light loads and smooth road conditions.
Position 3 to 5 increase spring preload for a more stiff rear suspension and can be used under heavy loading.



■ NOTE: Always adjust the shock absorber pre-load position in sequence (1-2-3-4-5 or 5-4-3-2-1).
Attempting to adjust directly from 1 to 5 or 5 to 1 may damage the shock absorber.

Standard spring preload position: 3

⚠ WARNING

Be certain to adjust both shock absorbers to the same spring preload positions.

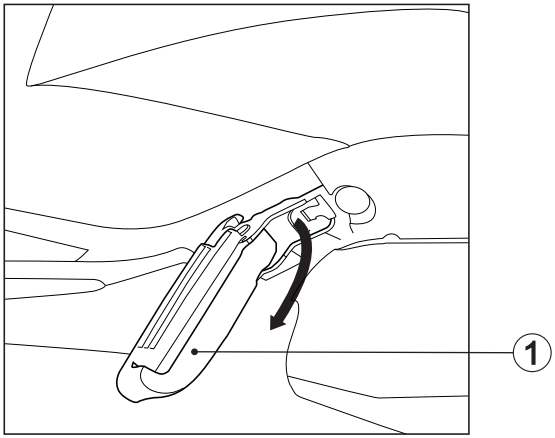
Improper setting of shock absorber will cause unstable handling and might lead to an accident.

CONTROLS & FEATURES

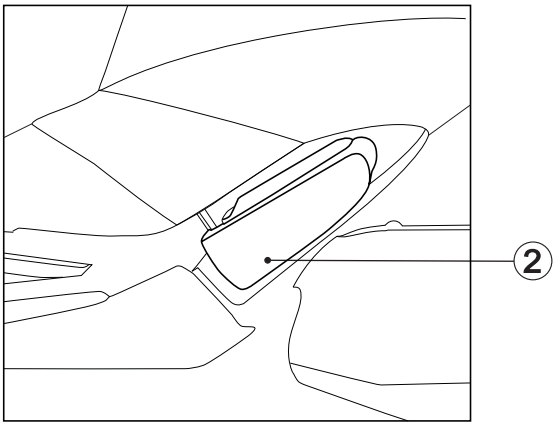
Passenger foot pegs

Your scooter is equipped with additional pegs for use when you are carrying a passenger.

1.To move the passenger pegs from the scooter's body, press the pegs downward (1).



2.When you are not carrying a passenger, press the pegs back into place (2).



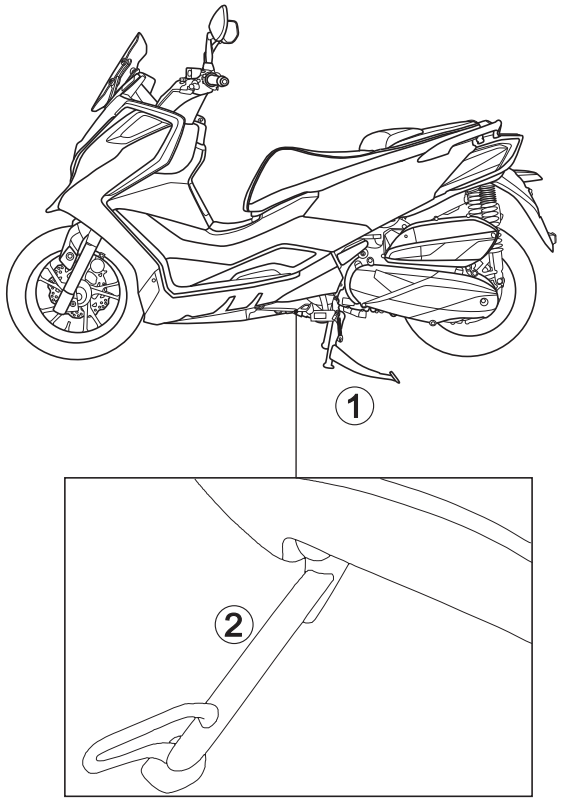
Side Stand

The side stand is not only necessary for parking, but also contains an important safety feature. This feature can cut off the ignition when the side stand is put down.

Perform the following side stand inspection for interlock function check.

Check the ignition cut-off on the side stand:

- Position the vehicle on the level ground by using the center stand (1).
- Put the side stand up and start the engine.
- Lower the side stand (2). The engine should stop as doing.



NOTE: If the side stand system does not operate as described, see your KYMCO dealer for service.

CONTROLS & FEATURES

Right handlebar switch

Engine stop switch ① :

position:

The ignition circuit is off. The engine will not start or run.

position:

The ignition circuit is on, and the engine can start and run.

Starter button ② :

Press starter button and pull brake lever in the meantime to actuate the starter motor.

Hazard switch ③ :

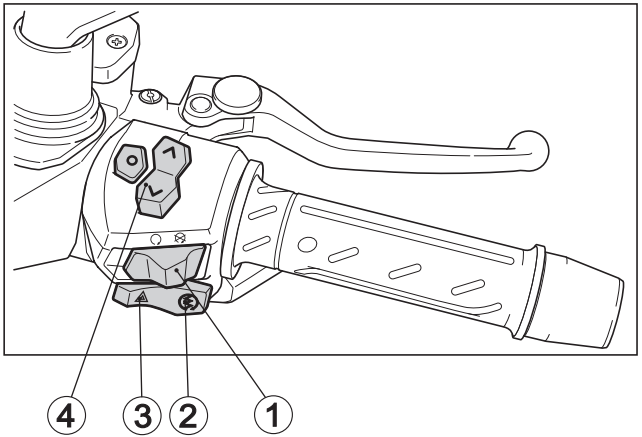
Switch button to , all the turn signals and turn signal indicator will blink to warn other drivers.

Instrument Function Buttons ④:

O button: Enter

^ button: Up

v button: Down



⚠ CAUTION

- Turn on the hazard flasher switch when parking in a hazardous position or there is a special need to alert. Once the hazard switch is turned on, it will not reset automatically, so be sure to turn off after use to avoid confusing other traffic.
- Do not leave the hazard flasher on, for a long period of time as it can deplete the battery's energy.

CONTROLS & FEATURES

Left handlebar switch

Turn signal switch ① :

Push signal to other drivers for an intention to make a turn or change a lane. The turn signal light is blinking while the switch is pushed left or right.

⇦ Use this position for left turn.

⇨ Use this position for right turn.

●To release Turn signal, just press-in the button.

Horn button ② :

Press the horn button to sound the horn.

Dimmer switch ③ :

Switch to select the light with high or low beam.

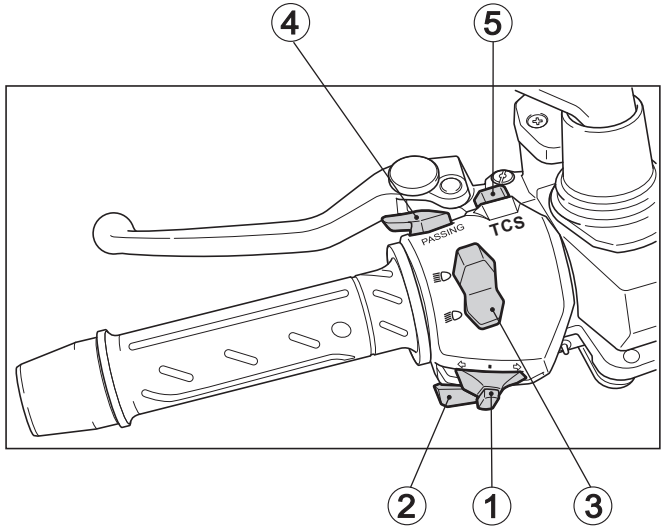
≡D for low beam.
≡D for high beam.

Passing button ④ :

Press this button to flash the headlight with high beam to signal other drivers ahead for an intention to overtake.

TCS switch ⑤ :

Use this switch to turn on or off the TCS.



NOTE: Turn signal switch will not release automatically, it requires resuming after use. Forgetting to resume it may result in traffic safety issues.

CONTROLS & FEATURES

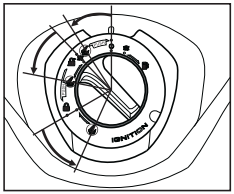
Seat

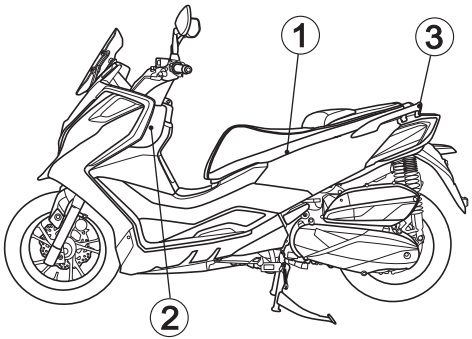
To unlock the seat

1.With the main switch at the position (the engine is running), push the knob in and turn it counterclockwise to the position.

2.With the main switch in the position (the engine is not running), turn the knob counter-clockwise to the position.

3.With the main switch in the position, turn the knob counterclockwise to the position.





Maximum cargo weight:

① REAR LUGGAGE BOX.....10KG

② FRONT INNER BOX 1.5KG

③ REAR CARRIER 5KG

To lock the seat

Lower and push down the seat securely on the right and left side where a lift rod supported and above the lock hook.

⚠ CAUTION

- Do not put any objects may interfere the lock catch that might get caught while closing; it will lead to lock insecurely or fail to open.
- Make sure the seat is well closed before leaving the vehicle.
- The heat from engine will transfer a part to the luggage box therefore do not put flammable, low heat-resistant, or foodstuff in the luggage box.
- Do not put valuable or fragile stuff in the luggage box.
- When washing the vehicle, water may seep into the luggage box.
- To lock the luggage box, it is easier to press the rear end of seat pad.

SECTION 3- OPERATION

Pre-ride inspection

For your safety, it is very important to spend a few moments before each ride to walk around the motorcycle and check its condition. If you detect any problem, be sure to deal with it, or have the KYMCO dealer to fix it.

⚠ WARNING

Improper maintenance of the motorcycle or failure to solve a problem before riding can cause a crash in which you can be seriously hurt or killed. Always perform a pre-ride inspection before every ride and solve any problems.

1. Engine oil level:
Add engine oil if required. Check if there's a kind of leakage.
2. Fuel level:
Fill fuel tank when necessary. Check if there's a kind of leakage.
3. Front and rear brakes:
Check operation and make sure there is no brake fluid leakage.
4. Tires:
Check condition and inflation pressure.
5. Throttle:
Check for smooth operation and that it can be closed completely in all steering positions.
6. Lights and horn:
Check that headlight, tail/brake light, turn signals, indicators and horn function properly.
7. Steering:
Check for condition and smoothness.

OPERATION

Break-in
The first 1600km (1000 miles) of riding is very important to the life of usage. Proper break-in operation during this period will help ensure maximum life and performance.
The reliability and performance depend on a special care and limited operation during the break-in period.

The following limitations should be complied during the break-in period:
Initial 800km (500 miles):
Less than 1/2 throttle or not over
Up to 1600km (1000 miles):
Less than 3/4 throttle

Vary the engine speed
The engine speed should be varied and not held constantly for a long time and also prohibited to have heavy load during the break-in period.

Avoid constant low speed
Operate the engine at constant low speed even of light load may cause the running part a fit-in problem. Be sure to start up the engine gently during the break-in period.

Avoid full throttle operation
Operate the engine at high speed may cause running part a lubrication problem. Be sure to keep in the limited speed range during the break-in period.

⚠ WARNING

The 1000km (600 miles) initial service is very important to ensure an optimum vehicle condition in the future.

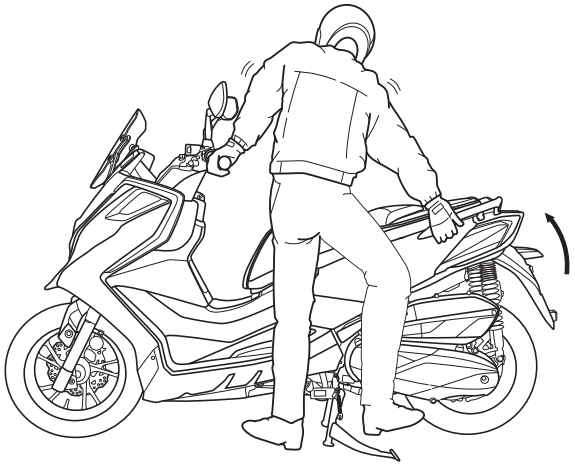
OPERATION

Starting the Engine

Always follow the proper starting procedure described here and on the following pages.

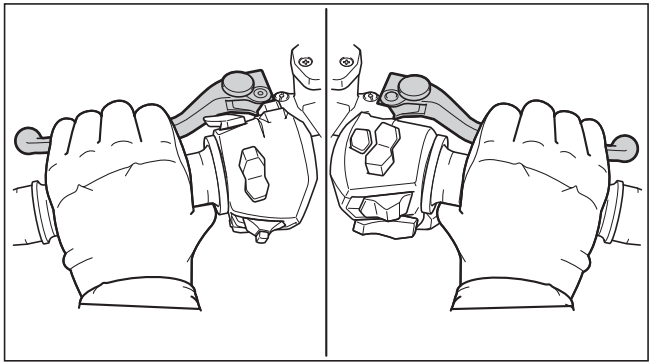
- Lift up Main Stand before starting the engine.
- Check oil and gasoline content before starting the engine.

1. Unlock KEYLESS
2. Turn Main Switch to ◯ position.
3. Make sure the throttle grip is fully closed.
4. Make sure the Side Stand is retrieved.



⚠ CAUTION

To prevent damage to the starter motor, do not operate the starter motor for more than 5 seconds at a time. If fail to start successfully, check the fuel level and the battery condition, and waiting for 15 seconds between each fail to start.

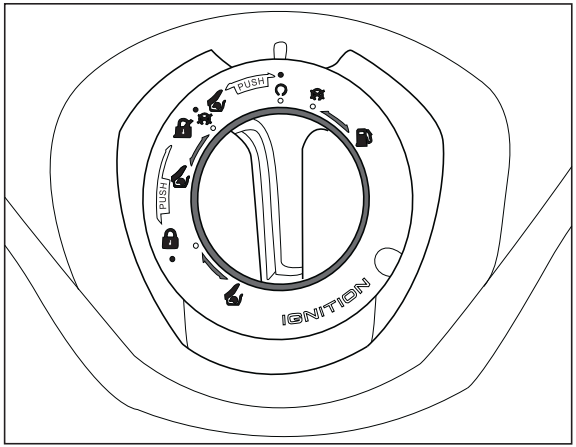


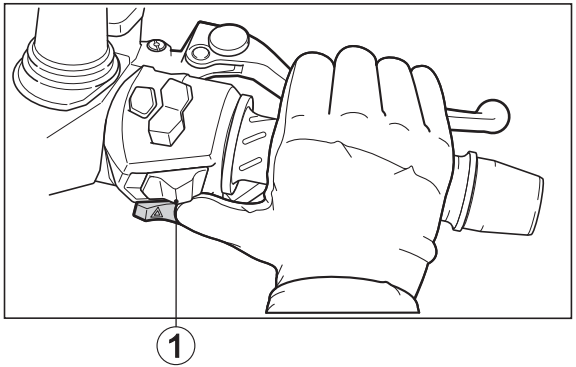
⚠ CAUTION

To protect the catalytic converter in the engine's exhaust muffler, avoid idling too long and do not use leaded gasoline.

OPERATION

5.Squeeze the left (rear) brake lever to connect.
6.Press the starter button ① with the throttle closed, releases it at once as the engine starts.
7.Keep the throttle closed while warming up the engine.
8.Keep the engine to warm up fully before riding. Allow a brief warm-up after starting a cold engine (about 1-2 minutes), in mountains and cold areas, prolong the warm-up (about 3-5 minutes), for facilitating engine operation and a trouble-less riding.





NOTE: If starting is difficult, release the Start Button and wait for a few seconds before trying again. Each re-try shall not exceed 5 seconds, for preserving battery power.

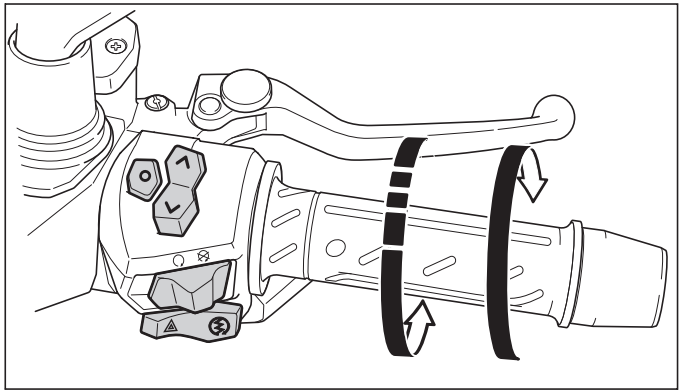
⚠ CAUTION

After starting, allow the engine oil to circulate before riding your scooter. Allow sufficient idling time after warm or cold engine start-up before applying load or reviving the engine. This allows time for the lubricating oil to reach all the critical engine components.

OPERATION

Proper Riding Method

1.Keep the Rear Brake Lever in braking state and push the vehicle forward, the Main Stand will spring up automatically.
2.Boarding from the left side, sit upright; keep left foot standing on the ground to prevent toppling; adjust the Back Mirror to a proper angle.
3.Release Front and Rear Brake Levers.
4.Turn the Throttle Grip to adjust scooter speed.
Speed is controlled by adjusting the Throttle Grip.
Turn Speed increases.
Increase fuel (throttle) slowly
When taking off or riding on an up-slope, slowly turn the Throttle Grip to increase horsepower.
Return to original position
Speed decreases.
Be agile while returning the Throttle Grip



⚠ WARNING

After starting the engine, do not raise engine rpm while not advancing the vehicle, or danger may occur.

⚠ WARNING

- Before advancing, keep the Rear Brake Lever in braking state. DO NOT raise engine rpm arbitrarily.
- Do not turn the Throttle Grip rapidly, or the vehicle may dash out.

OPERATION

Proper Riding

Before taking off, switch on the winker, check traffic conditions both directions, slowly turn the Throttle Grip to start.

Do not brake or turn abruptly.

Abrupt braking and turning are the causes for the extremely dangerous side skidding or tumbling.

Take extra cautions when riding in rainy days

Road surfaces in rainy days are different from in fine days; braking distance will be longer, you should reduce your speed and take advanced actions for braking.

When running down-slope, return Throttle Grip to closed position and apply brake intermittently to slow down the speed.

⚠ CAUTION

To restart a tumbled vehicle with engine stopped, you need to turn the KEYLESS Main Switch off and on again before restarting.

Proper Parking Method

When approaching to a parking location:

- Switch on winker in advance and take heed of vehicles behind you while slowly pulling-over.
- Return throttle Grip to original position and apply both front and rear brakes in advance; this will activate your Brake Light to alert vehicles behind you.

At full stop of vehicle

Turn off Winker Switch, set KEYLESS Main Switch to ⛒ position .

Parking the Vehicle

- Standing on the left side on a flat ground, the rider shall brace the Main Stand up.
- Brace the Main Stand up on a flat ground not impeding the traffic.
- Bracing up the Main Stand on an uneven ground may result in tumbling of vehicle.
- Hold the Handlebar with left hand and keep it straight, while treading down the Main Stand with right foot, grasp the Left Rear Grip beside the Seat Pad with right hand and pull upwards forcefully. For the purpose of theft prevention, lock up the Steering Stem and switch off KEYLESS when parking the vehicle.

SECTION 4 - MAINTENANCE

The importance of maintenance

Maintaining the scooter properly is essential for safe, economical and trouble-free riding. It will also help reduce air pollution and maximize fuel economy.

To properly take care of the scooter, the following pages in this Owner's Manual include a maintenance schedule to help you make sure the scooter is serviced at the appropriate intervals.

These instructions are based on the assumption that the scooter will be used normally on the design purpose. Usually under high speed driving or riding in unusually wet or dusty area will require more frequent service than specified in the maintenance schedule. Consult with the KYMCO dealer for recommendations about your personal needs.

NOTE: Always follow the inspections, service recommendations and schedules on later pages.

⚠ WARNING

If the scooter turn overs or becomes involved in a crash, be sure to have the KYMCO dealer inspect all major parts, even if you are able to make some repairs. Improper maintenance of the scooter or failure to solve a problem before next riding could result in a crash in which you could be seriously hurt or dead.

⚠ WARNING

When performing maintenance service on the scooter you may need to start the engine. Running the engine indoors can be hazardous. Exhaust gas contains carbon monoxide which is colorless and odorless, and can cause death or severe injury. Start the engine only where is ventilated well, preferably operate outdoors.

MAINTENANCE

Maintenance schedule

Perform the pre-ride inspection at each scheduled maintenance period. This interval should be judged by odometer reading or by months, whichever comes first.

Maintenance schedule chart:

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY
C: CLEAN **R**: REPLACE **A**: ADJUST **L**: LUBRICATE D: DIAGNOSE T: TIGHTENING

The maintenance schedule on the following two pages specifies the maintenance required to keep the scooter in good running condition. Maintenance should be performed according to the design standards and specifications by the authorized KYMCO dealer.

* Be serviced by the KYMCO dealer, unless you have the proper tools, service data and are technically qualified.

** For safety reason, we recommend these items be serviced only by the KYMCO dealer. KYMCO recommends that the KYMCO dealer should take a road test after each maintenance service.

NOTES:

1. For higher odometer readings, repeat by the service interval illustrated here.
2. Service more frequently for long-term riding in unusually wet or dusty areas.
3. Service more frequently for long-term riding in rain or with full throttle.
4. Inspect every 5000 km (3000 mi) after replacement and replace every 10000 km (6000 mi).
5. Replace every 5000km (3000mi) or every 6 months. Replacement requires mechanical skill.
6. Replace every 2 years. Replacement requires mechanical skill.
7. Replace every 2000km(1200mi), Inspect every 1000km(600mi) ,Add engine oil if required.
8. Radiator and radiator protecting grid: Inspect and clean every 1000km,if riding in dusty /moisture area, inspect and clean more frequently.

MAINTENANCE

ITEM / FREQUENCY		WHICHEVER COMES FIRST →	ODOMETER READING [NOTE1]							
		↓ X 1000 km	1	5	10	15	20	25	30	REFER TO PAGE
		↓ X 1000 mi	0.6	3	6	9	12	15	18	
		↓ MONTH	1	6	12	18	24	30	36	
*	AIR CLEANER			R	R	R	R	R	R	46
	SPARK PLUGS			I	R	I	R	I	R	49
*	THROTTLE OPERATION			I	I	I	I	I	I	46
*	VALVE CLEARANCE			I	I	I	I	I	I	-
*	FUEL LINE				I		I		I	-
	CRANKCASE BREATHER		C	C	C	C	C	C	C	
	ENGINE OIL		R	R	R	R	R	R	R	41
*	ENGINE OIL SCREEN			C	C	C	C	C	C	-
*	ENGINE OIL FILTER		R	R	R	R	R	R	R	
*	ENGINE IDLE SPEED				I		I		I	-
*	TRANSMISSION OIL		R	R	R	R	R	R	R	45
*	DRIVE BELT			I	I	I	R	I	I	

MAINTENANCE

	ITEM / FREQUENCY	WHICHEVER COMES FIRST →	ODOMETER READING [NOTE1]							
		↓ X 1000 km	1	5	10	15	20	25	30	REFER TO PAGE
		↓ X 1000 mi	0.6	3	6	9	12	15	18	
		↓ MONTH	1	6	12	18	24	30	36	
* *	CLUTCH SHOE WEAR				I		I		I	-
	BRAKE FLUID			I	R	I	R	I	R	
	BRAKE PAD WEAR			I	I	I	I	I	I	
	BRAKE SYSTEM			I	I	I	I	I	I	-
*	BRAKE LIGHT SWITCH			I	I	I	I	I	I	-
* *	STEERING BEARINGS			I	I	I	I	I	I	-
*	HEADLIGHT AIM			I	I	I	I	I	I	-
*	NUTS, BOLTS, FASTENERS			I	I	I	I	I	I	-
* *	WHEEL/TIRES			I	I	I	I	I	I	
*	COOLANT			I	R	I	R	I	R	54
* *	INJECTOR			D	C	D	C	D	C	
	ENGING RUBBER CUSHIONS				I		I		R	

MAINTENANCE

Engine oil

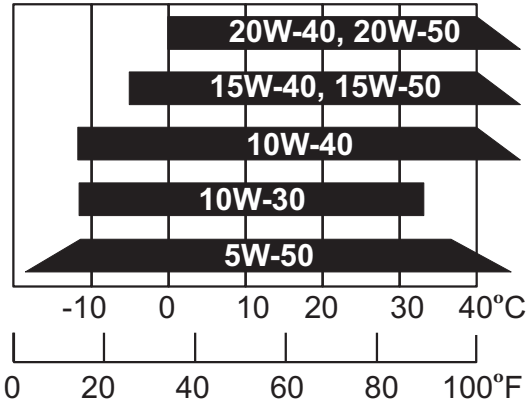
Engine oil recommendation

Use a high quality 4-stroke engine oil to ensure longer life. Choose oil with the classification API SL or higher.

Engine oil viscosity: SAE 5W-50

If these viscosities are not available, select alternative engine oil according to the chart shown below.

ENGINE OIL VISCOSITIES



Full capacity: 1.5 L

Exchange capacity: 1.3L

Engine Oil Level Inspection

Check the engine oil level before riding your scooter. The level must be maintained between the upper and lower level marks on the oil filler dipstick

1.Start the engine and let it idle for a few minutes.

⚠ CAUTION

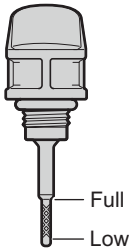
Running the engine with insufficient oil pressure can cause serious engine damage.

2.Stop the engine and put the scooter on its center stand on level ground.

⚠ CAUTION

- A slanted vehicle may lead to a faulty verification of oil level.
- If oil is checked or replaced immediately after stopping the engine, be especially careful not to get burnt.

3.After a few minutes, remove the oil filler dipstick, wipe it clean, and reinsert the oil filler dipstick without screwing it in.
4.Remove the oil filler dipstick. The oil level should be between the upper and lower marks on the oil filler dipstick.



If required, add the specified oil so the oil level touches the upper level mark on the dipstick. Do not overfill.
Reinstall the oil filler dipstick. Check for oil leaks.

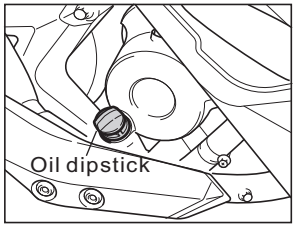
⚠ WARNING

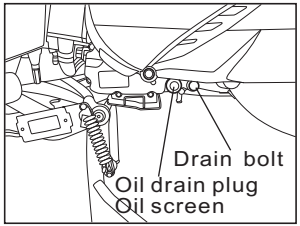
The engine and related components can become very hot. Use care when inspecting the oil level so you do not burn yourself. If needed, let the engine and exhaust system cool before working in those areas.

Engine Oil Replacement

Engine oil quality is the primary factor that affects engine longevity. Change your scooter's engine oil as specified in the maintenance schedule.

NOTE: Change the engine oil with the engine at normal operating temperature and the scooter on its center stand to assure complete and rapid draining.



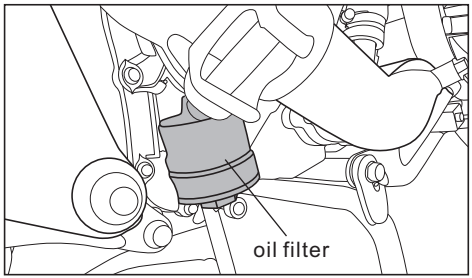


1.Remove the oil filler dipstick from the right crankcase cover.
2.Place a suitable container (drain pan) under the left crankcase.

⚠ WARNING

To ensure oil replacement of your beloved vehicle with recommended specifications, please go to the dealer where you purchased your vehicle from.

3.Remove the oil drain plug and drain bolt from the crankcase to drain the oil.
NOTE: Clean the oil screen after oil drains out.
4.Reinstall the drain plug and drain bolt, tighten it to the specified torque.
Torque: 2.0 - 3.0kgf-m



5.Replace the oil filter with a new one and notice the grommet seal is towards the inside.
6.Add oil to the engine per the amounts listed below, and reinstall the oil filler dipstick.
Full capacity: 1.5L
Exchange capacity: 1.3L
NOTE: Amounts are after draining the oil only.
7.Start the engine and let it idle for 2-3 minutes. Stop the engine and check the oil level on the dipstick when the scooter is parked on the center stand, on level ground.
8.Adjust the oil level as required (so the level reaches the upper mark on the dipstick).
Replace the dipstick and inspect for any leaks.

⚠ CAUTION

- Use the genuine engine oil or another with the same quality and grade to avoid burnout on the engine parts.
- If vehicle is used rarely and 5,000 km is not reached after using for 6 months, it is suggested that oil shall still be changed since it may deteriorate along with time and cause damage to the engine.
- To avoid using poor quality oil, please go to a KYMCO dealer for oil change.
- It is recommended to use KYMCO origina 4-stroke engine oil.
- The following conditions may expedite oil deterioration, an early oil change is advised.

-Riding on pebbled roads often.
-Riding short distances often.
-Idling often.
-Riding in the cold area.

MAINTENANCE

Precautions on Oil Change

● Excessive and insufficient oil amount can both affect engine performance.

-Excessive Oil— Increased friction resistance of moving parts in the engine, which lowers output power and increases engine temperature, leading to early deterioration of engine oil.

-Insufficient Oil— Reduced oil supply to moving parts in the engine, therefore results in worn parts, parts ablation, etc.

● Do not mix-use oils of different brand, class or low quality ones; they may cause engine faults.

● Kymco Emissary Engine Oil contains additives (e.g., spirits, etc.) during the manufacturing process.

● Arbitrarily mixing additives bought from the market may deteriorate the oil, affect lubricating properties and shorten the service life of engine.

Engine oil filter replacement

1. Screw the oil filler dipstick off the crankcase.
2. Place an oil container beneath the oil filter cap.
3. Unscrew the bolts to remove the oil filter cap.
4. Take out the O-ring, spring and filter.
5. Replace the oil filter with a new one and notice the grommet seal is towards the inside.
6. Replace the O-ring with a new one.
7. Apply thin layer of engine oil over the O-ring.
8. Install the spring and put on the oil filter cap.
9. Tighten the bolts to the specified torque.

⚠ CAUTION

● Use the genuine oil filter or another with the same quality and grade to avoid burnout on the engine parts.

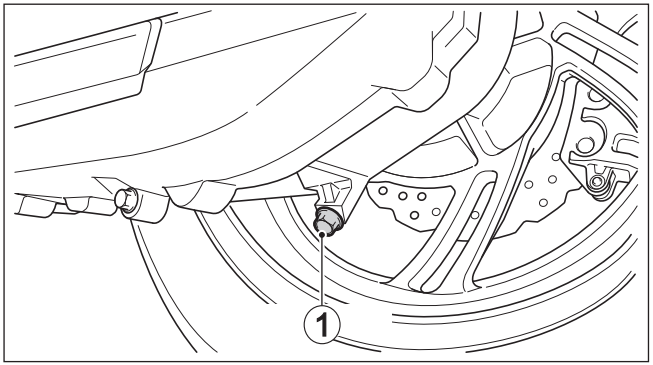
● An adverse installation of oil filter causes a failure on oil circulation which will damage the engine.

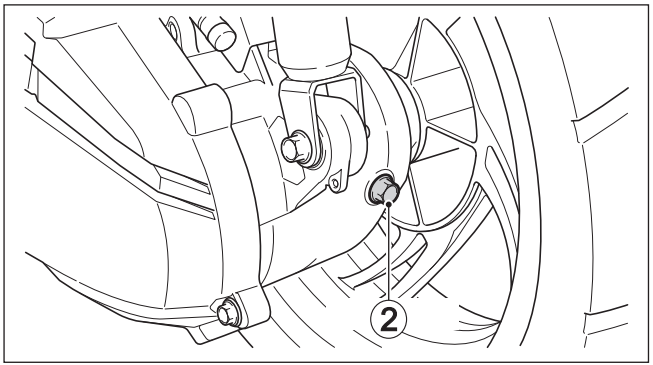
● Must follow the local regulation and obey the related prohibition about the disposal of oil.

MAINTENANCE

Transmission Gear Oil change

1. Stand the scooter by the center stand.
2. Remove the gear oil drain bolt (1).
3. Remove the gear oil filler bolt (2), and then slowly rotate the rear wheel to drain the gear oil off.
4. Fill with the recommended oil to reach the capacity listed below.
5. Install the transmission filler bolt and tighten it to the specified torque.





Gear oil type: SAE 90

Full capacity: 0.23 L

Exchange capacity: 0.20L

Torque: 0.8 - 1.2kgf-m

⚠ CAUTION

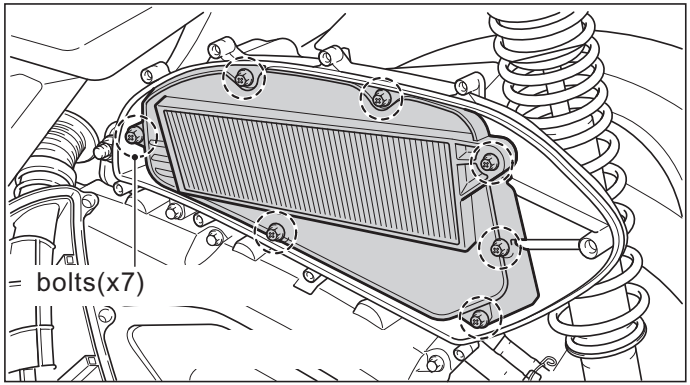
Use the genuine engine oil or another with the same quality and grade to avoid burnout on the bearing or damage on the gear set.

MAINTENANCE

Air cleaner filter element

The air cleaner filter element should be serviced at regular intervals by the KYMCO dealer.

NOTE: Have the element serviced more often when riding in unusually wet or dusty areas.



⚠ CAUTION

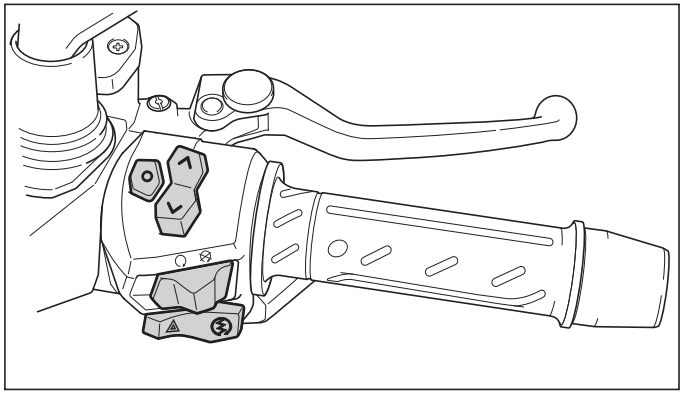
Using the wrong KYMCO air cleaner element or a non-KYMCO air cleaner element which is not of equivalent quality may cause engine wear quickly or performance problems.

Throttle operation

1.Before riding, check for smooth rotation from fully open to fully closed at both full end of steering.

2.Measure the throttle free play as shown at right.

Throttle free play: 2.0 - 6.0 mm (0.08-0.24 in)



MAINTENANCE

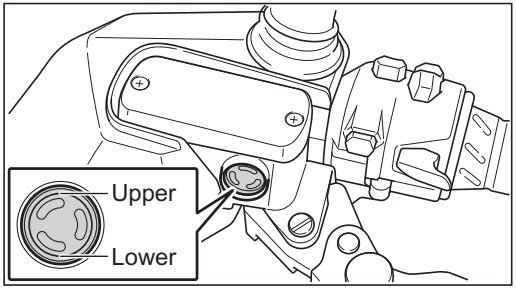
Brake fluid

Brake fluid level inspection

With the scooter in an upright position, check the front and rear fluid level.

Change the brake fluid at the time specified in the maintenance schedule.

The fluid level should be above the lower level line. If the fluid level is below the lower level mark "L", check over the worn brake pad or leakage.



Brake fluid type: DOT- 4

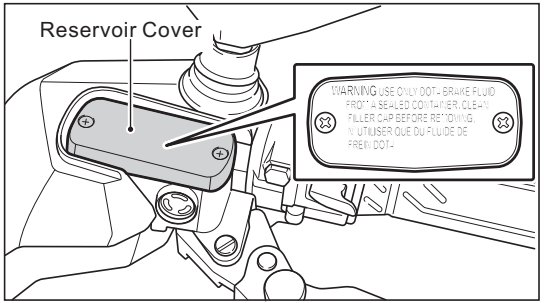
■ **NOTE:** Make sure there is no fluid leaking. Check for fluid deterioration or crack on the brake hoses and fittings.

Replenishing Brake Fluid

1.Straighten the Handlebar, remove 2 fixing screws and remove Reservoir Cover.

2.Replenish Reservoir with recommended DOT-4 Brake Fluid to the Upper Scale. Install Reservoir Cover and tighten 2 fixing screws.

3.Replace Brake Fluid every 10,000km or 1 year.



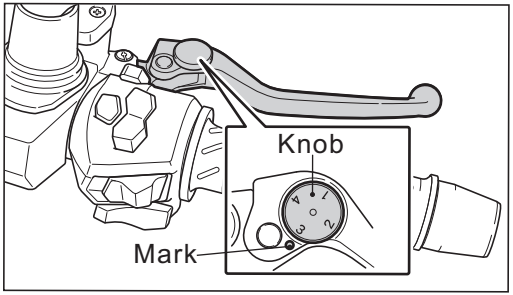
⚠ WARNING

- When replenishing braking fluid, cover painting parts with a cloth to prevent damaging them.
- Mixed use of Brake Fluids of different brand and different specifications may result in braking fault and danger.

MAINTENANCE

Brake lever adjusters

There is an adjuster on each brake lever. Each adjuster has 4 positions so that the released lever position can be adjusted to suit the personal grabbing requirement.



[Brake Lever Adjustment]

Adjuster Position	1	2	3	4
Lever Position	Near ——— Far			

⚠ CAUTION

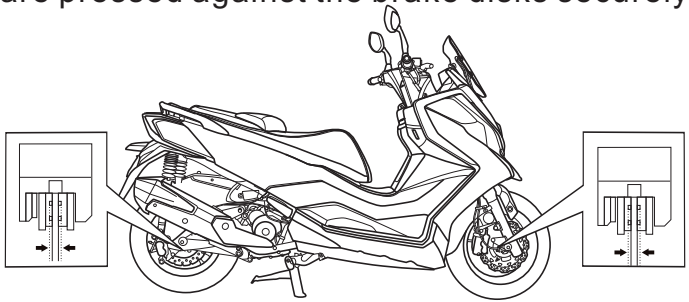
The nearest distance from the grip to the released lever is set at number 1 and the farthest is set at number 4.

Brake Pad Inspection

1.Inspect the thickness of brake pad to verify if there is enough lining to brake properly.

2.If the wear indicated groove at the brake pad is no longer visible, this means that the brake pad is worn and requires replacement.

3.Before riding, apply braking several times to reach the proper lever stroke and firm feel on braking action that will ensure the brake pads are pressed against the brake disks securely.



⚠ WARNING

1.The brakes will wear quickly if the lever is continually applied during riding.

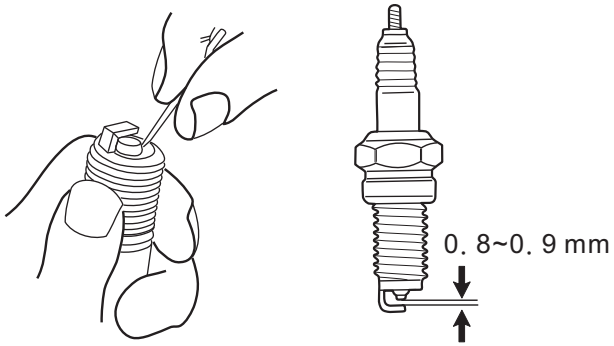
2.The worn brake pad will increase the stop distance and may cause an accident easily.

Spark plug

Remove the carbon deposits from the spark plug with a nonmetal brush and the suitable solvent. After cleaning, check to adjust the spark plug gap to specified limit by using a spark plug gap thickness gauge. The spark plug should be replaced periodically.

Recommend to consult with the KYMCO dealer when choosing an alternative spark plug instead.

Recommended spark plug : NGK CR7E



Spark plug gap: 0. 8~0. 9 mm

⚠ CAUTION

An improper spark plug may have an incorrect fit or heat range for your engine. This may cause severe engine damage which will not be covered under warranty. Never use a spark plug with an improper heat range, as it can result in severe engine damage.

MAINTENANCE

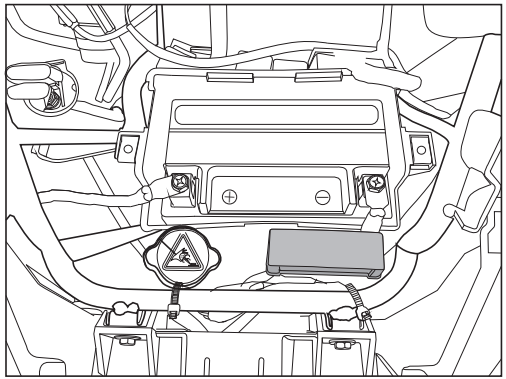
Battery Remove

The battery is a sealed type, so it is unnecessary to check the battery's electrolyte level or add distilled water any more.

NOTE: If your battery seems weak or the electrolyte is leaking to cause hard start or other electrical troubles , contact the KYMCO dealer immediately.

- Disconnect the negative (-) terminal .
- Disconnect the positive (+) terminal .
- Remove the disabled battery.
- To reinstall is the reverse sequence of removal.

NOTE: If the cap strip is removed, the battery will become permanently damaged.



⚠ WARNING

Electrolyte is toxic and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.

External: Flush with plenty of water.

Internal: Drink large quantities of water or milk and immediately call a physician.

Eyes: Flush with water for 15 minutes and seek prompt medical attention.

Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.

KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.

MAINTENANCE

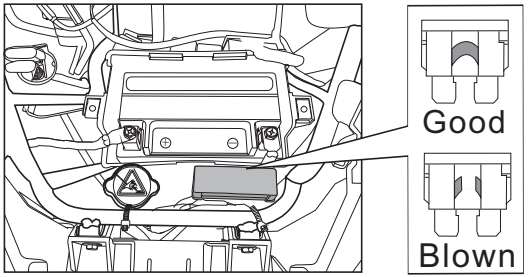
Fuse

When frequent fuse failures occur, it usually indicates a short circuit or an overload in the electrical system.

1.Turn Main switch off, check for blown Fuse.

2.Only replace with a fuse of specified capacity.

3.Identify the cause of a blown fuse before replacing it.



⚠ WARNING

Never use a fuse with a different rating from that specified. Serious damage to the electrical system or a fire may result, causing a dangerous loss of lights or engine power.

Fuses list

All functional fuses are located in the fuse box, there's a sticker on the back of the fuse box cover. Fuse should be inserted according to this sticker.

MAIN(10A): FR/RR turn signal, Stop light, Horn, Meter, position light, DC power socket, Oil controller lamp.

ING/FAN(10A): ABS (IGN), Fan, Fan relay, Starter relay, Head light, Light controller.

ABS(25A): ABS (M+12V)

CHARGE(30A): Charging, Keyless, Hazard control unit.

FI(5A): ECU Relay, Clock, Luggage Box Light

ECU(10A): ABS ECU(ECU +12V)

⚠ CAUTION

- Only replace electrical devices (lights, meters) with ones of specified ratings.
- If using an inadequate fuse, it may be blown easily or battery loading may become imbalance.
- Avoid frontal strong water jet when cleaning the scooter.

MAINTENANCE

Tires
Tire pressure

Insufficient tire pressure not only advances wear but also affects the riding stability. Under-inflated tires make turning not smooth and over-inflated tires decrease the contact area with the ground, which can lead to skid and loss of control. Make sure that the inflation pressure is within the specified limits all the time.

NOTE: Check the tire inflation pressure and tire tread condition at the interval listed in the periodic maintenance schedule. For maximum safety and better tire life, the tire pressure should be inspected more often.

NOTE: Tire pressure should only be adjusted when the tires are cold.

Front tire (rider only): 2.0 kg/cm^2
Rear tire (rider only): 2.25kg/cm^2
Front tire (rider & passenger): 2.0 kg/cm^2
Rear tire (rider & passenger): 2.25 kg/cm^2

Tire size:
Front tire: 120/80-14 **TUBELESS**
Rear tire : 150/70-13 **TUBELESS**

⚠ WARNING

Fail to follow the instruction below may result in an accident due to tire failure. The rider's personal safety is dependent on the condition of the scooter's tires.

Check tire condition and pressure, and adjust the inflation pressure before each ride.
Avoid overload on the vehicle.
Replace tires which have been worn to the specified limit, or have any damages such as cuts or cracks.
Always use the designated size and type of tires as specified in this Manual.
Balance the wheel after tire installation.
Failure to perform the break-in of the tires can cause tire slip and loss of control.
Be very careful when riding on new tires as the grip is limited between the ground.
Perform proper break-in of the tires to avoid excessive acceleration, sharp cornering, or hard braking for the first 160 km (100 miles).

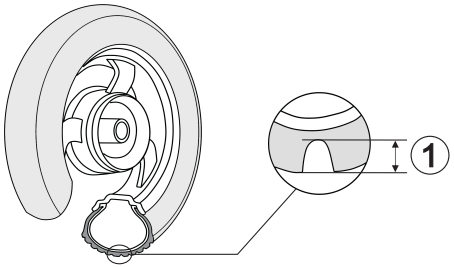
Tires Inspection

Tire wear changes the tire profile and may affect the vehicle's handling characteristics. Check the tire condition before each riding. Replace the tires if tread depth is less than the following limit:

Tire tread wear limit: FRONT 1.6 mm

REAR 2.0 mm

■ **NOTE:** Measure the tread depth (1) , do not judge by a visual inspection.



■ **NOTE:** Be sure to balance the wheel after repairing a puncture or the tire. Proper wheel balance is important to avoid variable contact between tire and ground, and to avoid uneven tire wear.

■ **NOTE:** Replace the tires if there's visual evidence of damage as cracks or cuts.

⚠ WARNING

An improperly repaired, installed, or balanced tire can cause you to lose control of your scooter or shorten tire life.

Ask the authorized KYMCO dealer, or a qualified tire shop to perform tire repair, replacement, and balancing due to the proper tools and experience are required.

Always install tires according to the rotation direction shown by arrow on the sidewall of each tire.

MAINTENANCE

Cheak Coolant

For the sake of safety, check level of coolant before riding the scooter Replace the coolant as specified in Regular Maintenance Schedule.

Check Level of Coolant.

1.Park the vehicle on flat ground and brace it up with Main Stand.

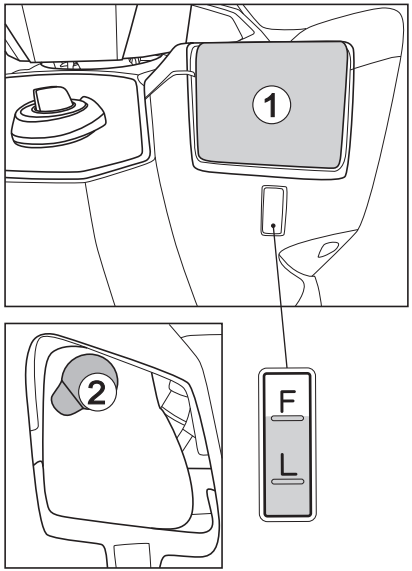
2.Check level of Coolant via viewing window on the preserving radiator. Make sure the level is between "F" and "L" marks.

Replenish Coolant (Fill the Reserve Radiator)

1.Stand the vehicle upright on flat ground.

2.Open Reserve Radiator (remove cover 1 and cover 2), replenish water to Upper Limit.

If level of coolant gets excessively low, something must be wrong. Go to a KYMCO Dealer for check and repair.



⚠ WARNING

- Engine coolant is toxic.
- Keep coolant away from children.
- If coolant is swallowed, call for emergency.
- If contact with skin or eyes, wash out with considerable water.

Coolant replacement

The coolant should be replaced by an authorized KYMCO dealer.

NOTE: Always notice coolant level in the reserve tank. Do not attempt to add coolant by removing the radiator cap.

Coolant recommendation

Use the proper type and amount of coolant. The coolant must be in good condition and have the proper ratio of anti-freeze and distilled water to prevent freezing, overheating, and corrosion.

Use only high quality ethylene glycol anti-freeze that contains corrosion protection inhibitors and the formula is for aluminum alloy engines.

(See the label on the container)

A 50:50 solution of anti-freeze and distilled water is required. It's for most operating temperature and also with good corrosion protection.

⚠ CAUTION

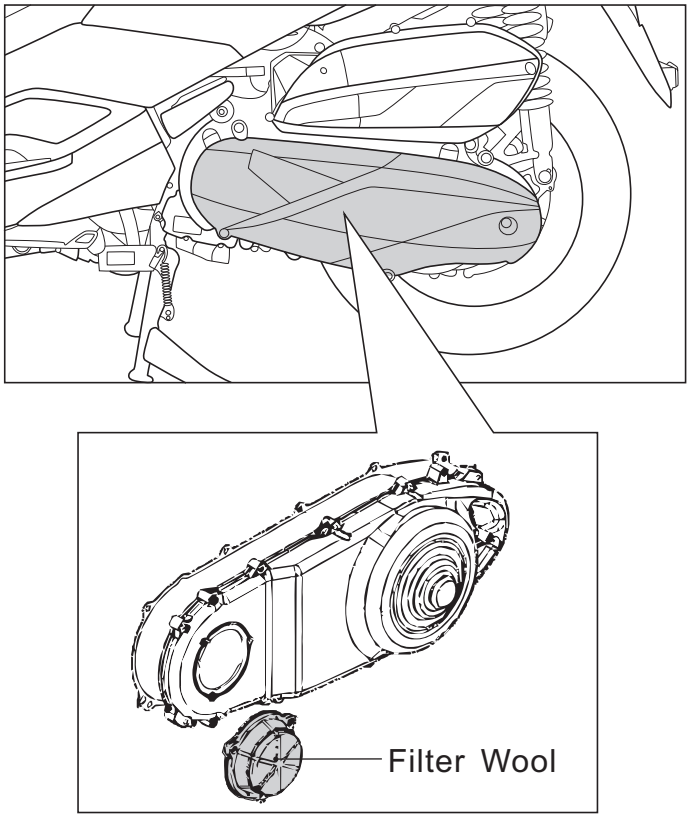
- Use only low-mineral drinking water or distilled water as a part of the anti-freeze solution.
- Use tap-water will cause engine damage.
- Use a higher concentration of anti-freeze in freezing weather and be replaced by the KYMCO dealer. This higher concentration of antifreeze should not exceed 60%. When becoming warm, change the anti-freeze ratio back to the standard ratio.
- A concentration of less than 40:60(40% anti-freeze) will not provide proper corrosion protection.

MAINTENANCE

Transmission System Filter Wool(CVT)

Excessive dust accumulation in CVT Transmission System may result in unsmooth vehicle operation; clean and replace Filter Wool regularly.

Clean Filter Wool regularly as specified in Maintenance Schedule; replace or clean Filter Wool every 5000km.



■ **NOTE:** Have the CVT Transmission System serviced more often when riding in unusually wet or dusty areas.

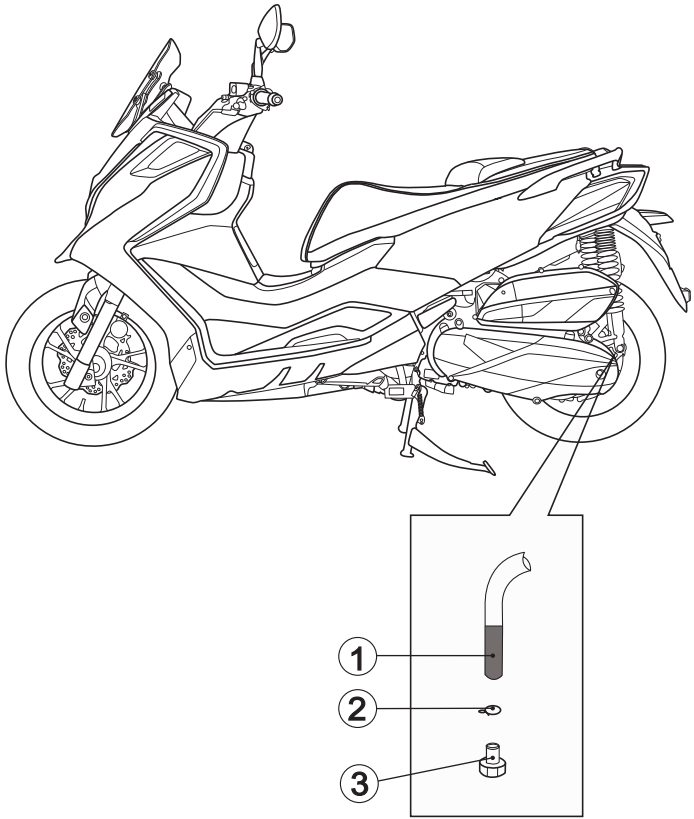
■ **NOTE:** To clean the transmission system and replace the filter wool, please go to the dealer or special service station for service.

MAINTENANCE

Crankcase Blow-by Drain

The air cleaner has a drain tube ① that is for draining the oil condensed fluid from the crankcase.

When the fluid has accumulated to a certain amount in the transparent drain tube, remove the clip ② and plug ③ , drain the fluid into a container, and then reinstall in place.



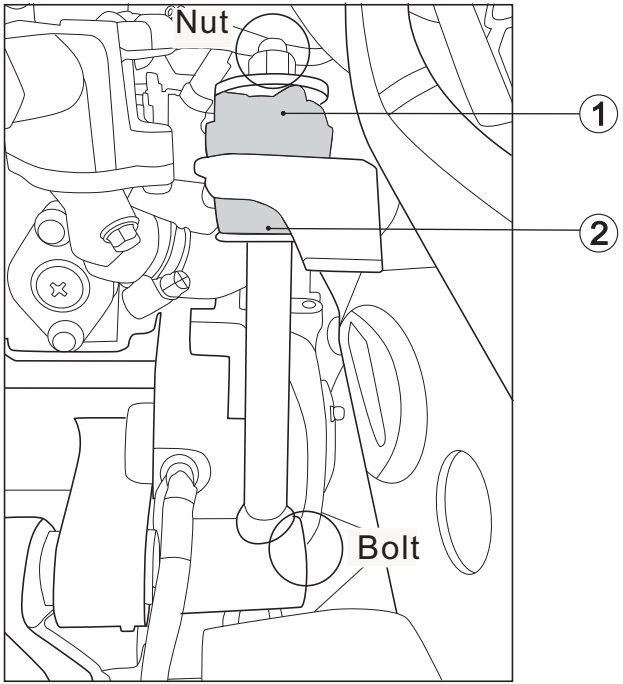
NOTE: Drain frequently if often riding in the rain, often at full throttle, or the vehicle has been overturned. Follow the oil disposal regulation.

Engine Rubber Cushions

The engine cushions are made of rubber, it will wear and ageing. Inspect the cushions every 10,000km and replace it if necessary. Replace the cushions every 30,000km.

Removal

1.Remove the seat and luggage box set.
2.Remove the engine hanger bolt.
3.Remove the nut and washer (1).
4.Remove the stem and cushions (2).
Install in reverse order of work.



⚠ CAUTION

- The (1) cushion should install in right direction. The bumps on the cushion should face the nut as figure.
- Tighten the bolt and the nut to specified torque.
- Make regular maintenance by an authorized dealer.

Torque

Hanger bolt	6.0~7.0kgf-m(58.8~68.6N-m,43.2~50.4lbf-ft)
Stem nut	4.0~5.0kgf-m(39.2~49N-m,28.8~36lbf-ft)

MAINTENANCE

Cleaning

Clean your scooter regularly to protect the surface finishes and inspect for damage, wear, and oil, coolant or brake fluid leakage.

Avoid cleaning products that are not specifically designed for scooter, scooter, or automobile surfaces. Nonspecific cleaners may contain harsh detergents or chemical solvents that can damage the metal, paint, and plastic on your scooter.

NOTE: If your scooter is still warm from recent operation, give the engine and exhaust system time to cool off before washing. Avoid the use of high pressure water spray (typical in coin-operated car washes), as the powerful spray can damage components on your scooter.

Washing your scooter

1.Rinse the scooter thoroughly with cool water to remove any loose dirt.

2.Clean the scooter with a sponge or soft cloth using cool water. Avoid directing water at muffler outlets and electric parts.

3.Clean the plastic parts using a cloth or sponge dampened with a solution of mild detergent and water. Rub the soiled area gently, rinsing it frequently with fresh water. Take care to keep brake fluid or other chemical solvents away from the scooter, as they will damage the plastic and painted surface.

4.After cleaning, rinse the scooter thoroughly with plenty of clean water. This rinsing is required to remove detergent residue which can corrode alloy parts.

MAINTENANCE

Storage

Take necessary steps to be in good condition for next use after long storage.

- Perform any necessary periodic maintenance or repairs before storage
- Exchange new oil after warming up the engine.
- Empty the fuel tank and make sure no fuel remaining by idling until the engine stalls.
- Remove the battery and keep from direct sunlight or freezing temperature, it's better to do a slow charge once a month.
- Wash and dry the vehicle thoroughly
- Apply corrosion inhibitor to all unpainted metal.
- Inflate all tires to the rated pressure and put the wheel stands to raise tires off the ground.
- Cover the vehicle, store indoors and keep dry.

Removal from Storage

- Remove cover from the vehicle
- Check the battery voltage or charge it if necessary, and then install it in the vehicle.
- Fill the fuel tank with fuel.
- Check all the points listed in the Pre-ride Inspection section.

⚠ WARNING

1.Gasoline is easily flammable and explosive. It's possible to get burned, even seriously injured when fueling with carelessness.
2.Stop the engine and keep away from any heat source, spark fire, and flames.
3.Be sure to add fuel outdoors and wipe the spill up at once.

EMISSION CONTROL

Crankcase Emission Control System
The scooter is equipped with a closed crankcase system. Blow-by gas is recycled into the combustion chamber via the intake system. This arrangement is to prevent blow-by gas from spreading to the atmosphere.

Exhaust Emission Control System
The exhaust emission from the scooter is controlled by combustion management, fuel delivery, ignition setting and exhaust system. The exhaust system also includes the catalytic converter in the muffler.

Evaporative Emission Control System
The evaporative emission control system is used to prevent gasoline vapors from escaping into the atmosphere from the fuel tank and fuel system.

Noise Exhaust Emission Control System
The engine, intake and exhaust systems of the scooter are designed to comply with federal or local noise regulations. Do not modify the intake or exhaust system; this behavior will offend against the noise regulations.

⚠ WARNING

Do not adapt any original factory design and setting, which will deteriorate the sound or emission level.

MAINTENANCE RECORD

DATE	MILEAGE	SERVICE PERFORMED&NOTES

MAINTENANCE RECORD

DATE	MILEAGE	SERVICE PERFORMED&NOTES

SPECIFICATIONS

Dimensions

Overall length 2170mm
Overall width.....775 mm
Overall height .....1290 mm
Wheel base.....1550mm
Seat height .....780 mm
Curb weight.....193kg

Capacities

Engine oil (exchange).....1.3L
Transmission oil (exchange)..... 0.20 L
Fuel tank 13L
Maximum weight capacity 343kg

Engine

Type ..... Four-stroke, air-cooled OHC
Displacement.....246cc
Bore and stroke.....66 X 72 mm
Compression ratio 10.8:1
Max Horsepower..... .....17KW/7500rpm
Max Torque..... .....23Nm/6000rpm
Spark plug .....NGK CR7E
Idle speed .....1720±100rpm
Cooling system .....Cooling water
Starting system ..... Electric starter motor

Chassis

Tire size, front..... 120/80–14
Tire size, rear..... 150/70–13
Brake (front) .....DISK(ABS)
Brake (rear) .....DISK(ABS)

Electrical

Ignition type ..... ECU
Battery 12v 10Ah
Headlight(LED) 12v/12.5w/2.8w
Brake/Tail light(LED) 12v 6.4w
Turn signal light (LED).12v 4w(F)/12v2.1w(R)
License plate light.....12V 5w
Position light(LED)...12v 1.87w(F)12v2.8w(R)
Fuses .....30A*1, 25A*1 ,10A*3,5A*1

MODENAS

Motosikal Dan Enjin Nasional

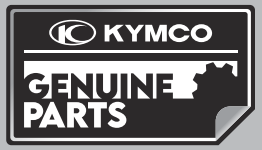
MOTOSIKAL DAN ENJIN NASIONAL SDN. BHD. 199501025408 (354613-V)

Kawasan Perindustrian Gurun,
08300 Gurun, Kedah Darul Aman, Malaysia.
T +604 466 8000 | F +604 466 8300

EMOS Edaran Modenas Sdn. Bhd. The Distribution Arm of **MODENAS**

WHATSAPP
TALIAN KHIDMAT PELANGGAN
+6019 - 570 8135

PUSAT PANGGILAN PELANGGAN
1 800 880 181



Ahli Kumpulan
DRB-HICOM