

WARNING

To avoid damage from the electronic fuel injection system, do not remove or install the battery when the main switch is in the "ON" 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 your vehicle. 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 motorcycle. ON-ROAD USE ONLY for this motorcycle.

Particularly important information is called out in this manual by the following icons and notations:



The SAFETY ALERT symbol with the exclamation point in the triangle means ATTENTION! BE ALERT! YOUR SAFETY CAN BE AFFECTED.



Failure to follow instructions associated with a WARNING symbol could result in severe injury or death to the rider, a passenger, a bystander, or a person inspecting or repairing the scooter.

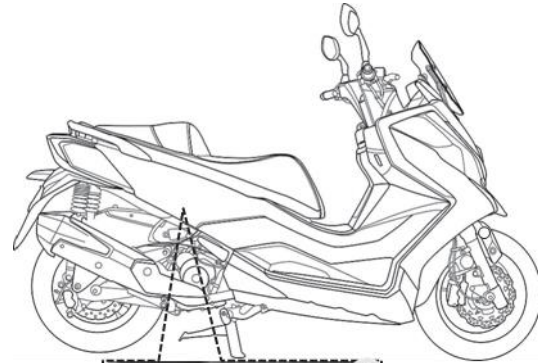
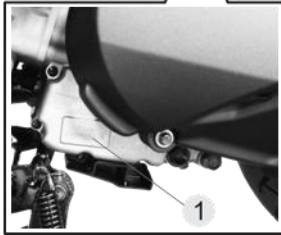
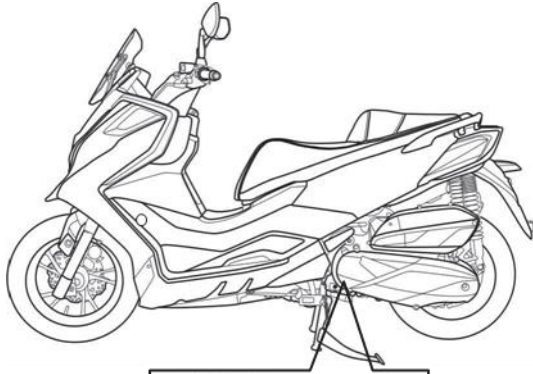


A CAUTION symbol indicates that special precautions must be taken to avoid damaging the scooter.



The NOTE symbol indicates knob information about a procedure or to clarify an operation.

Identification Numbers Record



(1) Engine Serial Number (ESN)	(2) Vehicle Identity Number

Record the Vehicle Identification Number, Engine Serial Number and Frame Serial Number in the boxes above for future reference (to assist you in ordering parts from your authorized KYMCO dealer or for reference in case the vehicle is stolen).

Table of Contents

1. FORWARD & SAFETY INTRODUCTION.....	1	3.4.4. Locking.....	14
1.1. Forward	1	3.4.5. Unlocking	15
1.2. Scooter Safety.....	2	3.5. Meter Instruments.....	16
1.2.1. Important Safety Information.....	2	3.6. ABS (Anti-Lock Brake System) Indicator	19
1.2.2. Protective Apparel.....	4	3.6.1. Precautions	19
1.3. Accessories & Modification.....	5	3.6.2. Introduction.....	20
1.4. Loading	6	3.7. TCS (Traction Control System) Indicator	21
2. Location of Parts & Controls	7	3.7.1. TCS Off.....	21
2.1. Front view.....	7	3.8. Right Handlebar Switch.....	23
2.2. Left view.....	8	3.9. Left Handlebar Switch.....	24
2.3. Right view.....	9	3.10. USB power supplies	25
3. CONTROLS&FEATURES.....	10	3.11. Fuel Level Inspection / Refilling.....	27
3.1. Keyless System.....	10	3.11.1. Fuel Tank Filler.....	27
3.1.1. Wireless Key	10	3.11.2. Fuel Recommendation	27
3.1.2. Replacing the wireless key battery	10	3.12. Seat.....	28
3.2. KEYLESS sensing distance	11	3.13. Center Compartment Light	29
3.2.1. Short-range sensing	12	3.14. Helmet Holder	29
3.3. Main Switch Symbols	13	3.15. Suspension.....	29
3.4. KEYLESS operation	13	3.16. Side Stand.....	30
3.4.1. Starting.....	13	4. Pre-Ride Inspection	31
3.4.2. Closing.....	13	4.1. Engine oil level	32
3.4.3. Refueling.....	14	4.1.1. Check/Replenish Engine Oil.....	32

4.2.	Check/Replenish the Fuel	33	5.4.1.	Do not brake or turn abruptly.	38
4.3.	Check Steering Stem	33	5.5.	Parking	39
4.4.	Brakes.....	33	5.5.1.	Proper Parking Method.....	39
4.5.	Check Tyres / Wheels.....	33	5.5.2.	Parking the Vehicle.....	39
4.6.	Check Side Stand	33	5.6.	A tumbled vehicle.....	39
4.7.	Check Lights	34	6.	MAINTENANCE	40
4.7.1.	Brake Light.....	34	6.1.	Maintenance Schedule	41
4.7.2.	Tail Light	34	6.2.	Battery	44
4.7.3.	Headlight.....	34	6.2.1.	Check battery voltage.....	44
4.7.4.	Turn Signal.....	34	6.2.2.	Cleaning Battery Poles.....	45
4.8.	Check Front/Rear Cushion.....	34	6.2.3.	Precautions on using batteries	45
4.9.	Check Others.....	34	6.3.	Fuse	46
5.	OPERATION.....	35	6.3.1.	Fuses list	46
5.1.	Run-In	35	6.4.	Air Cleaner Filter Element	47
5.1.1.	Vary the engine speed.....	35	6.5.	Crankcase Blow-by Drain.....	47
5.1.2.	Avoid constant low speed	35	6.6.	CVT Transmission System Filter Wool.....	48
5.1.3.	Avoid full throttle operation.....	35	6.6.1.	Replace Filter Wool.....	48
5.2.	Starting the Engine.....	36	6.6.2.	Insert.....	48
5.2.1.	Reducing Fuel Consumption	37	6.6.3.	Cleaning.....	48
5.3.	Proper Riding Method	37	6.7.	Engine Oil	49
5.3.1.	Proper Riding.....	38	6.7.1.	Engine Oil Recommendation	49
5.4.	Brake	38	6.7.2.	Engine Oil Level Inspection.....	49

6.7.3. Engine Oil Replacement.....	50	6.15.4. Check Brake pads.....	61
6.7.4. Precautions on Oil Change.....	52	6.16. Tyres.....	62
6.8. Engine oil filter replacement.....	52	6.16.1. Tyre pressure.....	62
6.9. Transmission Gear Oil	53	6.16.2. Tyre Size	63
6.9.1. Changing interval	53	6.16.3. Tyre Inspection.....	63
6.9.2. Oil Change	53	6.17. Clean the Windshield	64
6.10. Engine Rubber Cushions	54	6.18. Washing your scooter	65
6.10.1. Removal.....	54	6.19. STORAGE	66
6.11. Throttle Operation.....	55	6.19.1. Removal from Storage.....	66
6.12. Spark Plug	55	7. EMISSION CONTROL	67
6.12.1. Cleaning.....	56	8. SPECIFICATIONS.....	68
6.12.2. Adjustment	56		
6.13. Coolant.....	56		
6.13.1. Coolant Level Inspection.....	56		
6.13.2. Coolant Replacement.....	57		
6.13.3. Coolant Recommendation	58		
6.14. Side Stand	59		
6.15. Brake	59		
6.15.1. Check and Adjust Brake Levers.....	59		
6.15.2. Checking Brake Fluid.....	60		
6.15.3. Replenishing Brake Fluid.....	60		

1. FORWARD & SAFETY INTRODUCTION

1.1. Forward

Thank you for purchasing this KYMCO scooter, and welcome to the KYMCO riding family.

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

To ensure a long, trouble-free life for your scooter, 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 your vehicle and manufactured to meet KYMCO's demanding standards.

Keep this owner's manual aboard your 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 scooter 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 information in this manual that differs slightly from your vehicle. KYMCO reserves the right to make product and publication changes at any time without notice and without incurring any obligation.

1.2. Scooter Safety

1.2.1. Important Safety Information

Your scooter can provide you many years of service and pleasure if you take responsibility for your own safety and understand the challenges that you can meet on the road. There is much that you can do to protect yourself when you ride. You will find many helpful recommendations throughout this manual. Here are some very important safety tips:

Wear a helmet

Scooter safety equipment starts with a quality helmet. One of the most serious injuries you can suffer in a crash is a head injury. Always buckle up the chin-belt when wearing a Helmet.

Make yourself easy to see

To make yourself more visible, wear bright reflective clothing, position yourself so other drivers can see you, signal before turning or changing lanes, and use your horn when it will help others notice you.

Know your limits

Ride within the boundaries of your own skill at all times. Knowing these limits and staying within them will help you to avoid accidents.

Keep your scooter in safe condition

For safe riding, it's important to inspect your scooter before every ride and perform all recommended maintenance. Never exceed load limits, and only use accessories that have been approved by KYMCO for this scooter.

Inspect your scooter before riding

Do not forget to perform an entire safety inspection to ensure you, and your passenger's safety, before each ride. Daily and regular checks are necessities. Visually check tyre appearance for any foreign object or unusual abrasion.

Be extra safety conscious on bad weather days

Riding on bad weather days, especially wet ones, requires extra caution. Braking distance can double on a rainy day. Stay off of the painted surfaces, manhole covers and greasy appearing areas on the pavement, as they can be especially slippery. Use extreme caution at railway crossings and on metal gratings and bridges. Whenever you are in doubt about the road conditions, slow down the scooter first.

Modification

Modification of your scooter, or removal of original equipment may render the vehicle unsafe or illegal. Obey all applicable equipment regulations in your area.

- Do not wear clothes that may impede safe driving.
- Excessively wide and loose sleeves may be caught by the brake lever and is extremely dangerous.
- Operation of brake lever shall in no case be obstructed.
- Exhaust gas from the muffler contains carbon monoxide which is harmful to human body.
- Start the engine only in a well ventilated location.
- Hold the Handlebar with both hands when riding. Do not ride with one hand as this is extremely dangerous.
- Wearing flat shoes is safer.
- The muffler is at a very high temperature after stopping the running engine, do not touch it.
- Avoid dry grasses or flammables when parking the scooter, for the prevention of fire risks.
- The muffler is at a very high temperature after stopping the engine; park the vehicle with the Muffler facing a wall or a location free of pedestrian, for preventing any hazard of burn.
- Metal or plastic parts of the scooter may reach a very high temperature after exposing to sunshine; care shall be taken not to touch such surfaces or a burn may occur.
- Avoid making sharp turns or one-handed driving.
- Abide by all traffic rules.
- Smoking is prohibited when replenishing fuel.
- Shutdown the engine when replenishing fuel.

- When mounting/dismounting the scooter, special care must be taken by the rear rider to prevent being burnt by the high-temp Exhaust Muffler.
- Operability of the handle varies in conditions with or without an extra load.
- When riding the motorcycle, the rider must place both feet on the pedals; the rear rider shall put their arms around the rider's waist and both feet on the rear pedals.
- Avoid overloading when carrying objects. Make sure that objects are fixed properly. Extra care must be taken for safe driving.

⚠ WARNING

- **Natural mental relaxation and comfortable clothes are essentials to a safe driving.**
- **Abide by traffic rules, avoid anxiety, relax your mood, and pay attention to drive.**
- **Avoid wearing clothes that may impede driving safety when riding the scooter. (E.g., long skirt, flared trousers, etc.)**
- **The temperature of the Muffler is extremely high when the vehicle is running as well as within 30 minutes after stopping of driving; avoid contacting the vehicle with the body or skin to avoid burn injuries.**
- **Avoid dry grasses or flammables when parking the vehicle, for the prevention of fire risks.**

1.2.2. Protective Apparel

For your safety, always wear an approved motorcycle or scooter helmet, eye protection, boots, gloves, long pants, and a long- sleeved shirt or jacket whenever you ride your scooter.

Helmets and protection

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. Your helmet should fit your head comfortably and securely. Always wear a face shield or goggles to protect your eyes and to aid your vision.

Additional riding gear

In addition to a helmet and eye protection, you should also use:

- Sturdy boots with nonslip soles to help protect your feet and ankles.
- Leather gloves to keep your hands warm and help prevent blisters, cuts, burns and bruises.
- A motorcycle or scooter riding suit or jacket that has been designed for comfort as well as protection.
Bright colored and reflective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your scooter.

⚠ WARNING

Without wearing a helmet increases your chance of serious injury or death in a crash.



- ①. Wear gloves
- ②. Clothes should be fit properly (not too tight or loose)
- ③. Always wear a helmet. You should also wear eye protection
- ④. Wear bright or reflective clothing
- ⑤. Footwear should be the proper size, have low heels, and offer ankle protection

⚠ WARNING

Be sure you and your passenger always wear an approved motorcycle helmet that fits properly. You should also wear eye protection and other protective apparel when you ride.

1.3. Accessories & Modification

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

Use extreme caution when selecting and installing the accessories for your scooter.

No modifications

KYMCO strongly advises you against removing any original equipment or modifying your scooter in any way that would change its design or operation.

- Vehicle functionalities are related to its structure; arbitrary modification may deteriorate operability of vehicle, causing shortened service life and obstructed driver safety.
- Arbitrary modification of a vehicle is an illegal action forbidden by law. Never try to make any modification.
- Modification of vehicle may result in a nullified warrant.

WARNING

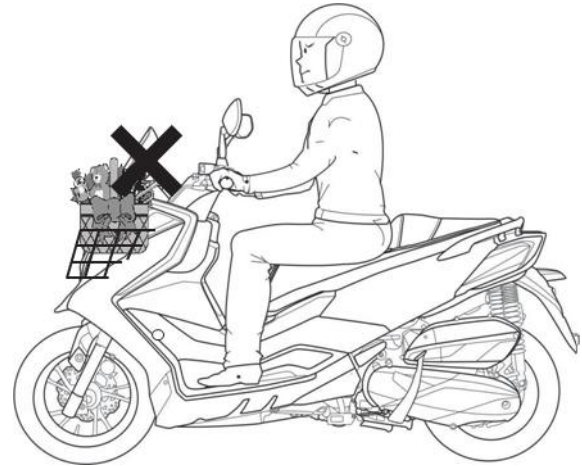
- **Improper accessories or modifications can make your scooter unsafe and can lead to an accident.**
- **Never modify your scooter through the improper installation or use of accessories. All parts and accessories added to this vehicle should be genuine KYMCO or equivalent components designed for use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

1.4. Loading

The maximum loading weight should not more than 165 kg.
(The load includes the rider or passenger in addition to the cargo.)



It is forbidden to install a carrying basket or bracket on the front header. Carrying anything in front of the vehicle will surely block the headlight and significantly affect driving safety.

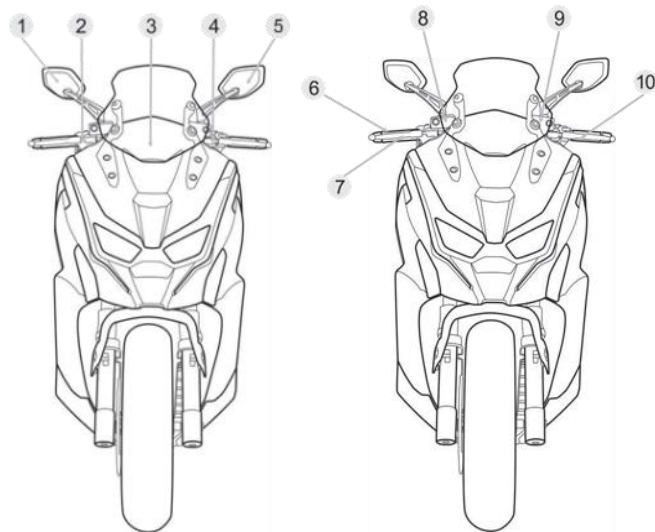


⚠ WARNING

Improper loading method or overloading will increase the chance of crash which may lead seriously injured or killed.

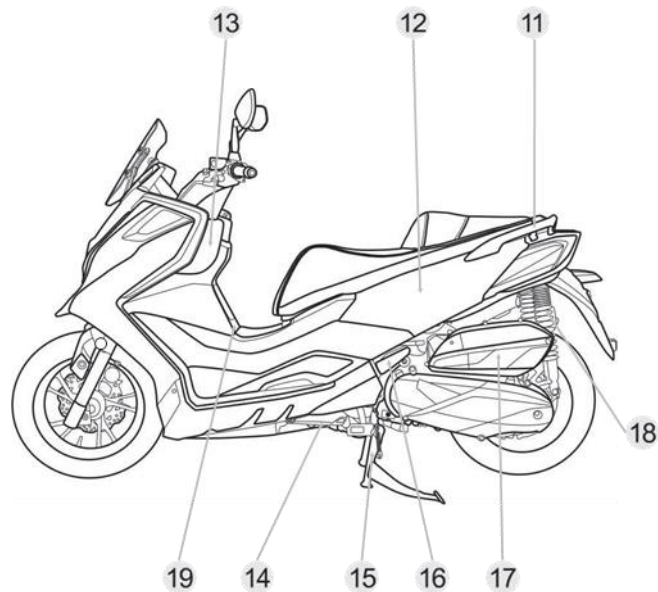
2. Location of Parts & Controls

2.1. Front view



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

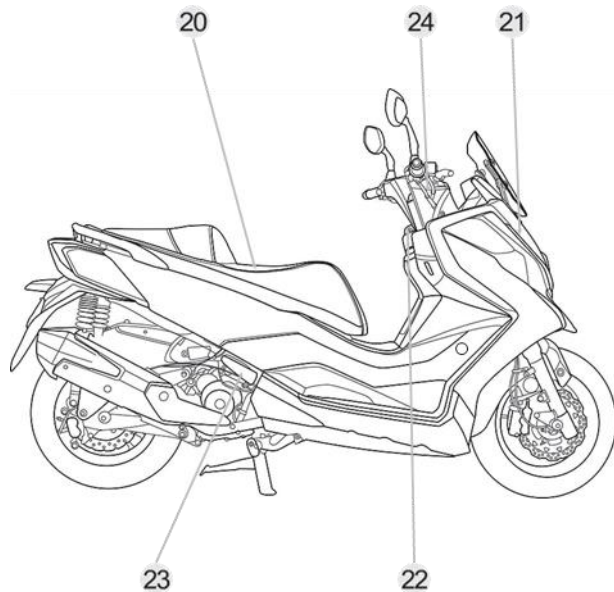
2.2. Left view



- 11. Rear carrier
- 12. Luggage box
- 13. Front luggage box
- 14. Side stand
- 15. Center stand
- 16. Rear passenger foot peg – Left
- 17. Air cleaner
- 18. Rear shock absorber - Left
- 19. Fuel filler cap

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

2.3. Right view



- 20. Seat
- 21. Battery and fuses
- 22. Main switch
- 23. Rear passenger foot peg – Right
- 24. USB charger

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

3. CONTROLS&FEATURES

3.1. Keyless System

In design, KEYLESS system is a high-tech electronic main switch that does not requires a physical key.

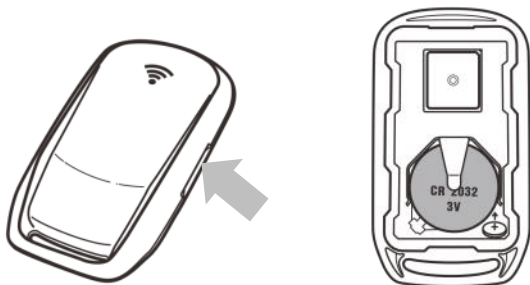
3.1.1. Wireless Key

Each vehicle will be equipped with 2 sets of wireless keys, and they should be properly preserved.

If you lose the wireless key, it will be impossible to open the KEYLESS main switch. For this reason, the wireless key should be properly preserved in a cautious manner.

3.1.2. Replacing the wireless key battery

Pry it open with an appropriate tool.



Wireless key battery model: CR2032

⚠ CAUTION

- Ensure that the positive pole of the battery is installed in the correct position.
- Do not touch the internal circuit and terminal to avoid causing failure.
- When replacing the battery, do not apply excessive force on the wireless key.
- If both wireless keys are lost or damaged, please contact your dealer to execute the required inspection or replacement.
- If the power of the wireless key is low, it will affect the sensing distance. In this case, please replace the battery immediately.
- If the user is implanted with an electronic medical device, please consult the doctor or the device manufacturer to check if the radio waves will affect these devices before each use.
- Do not expose the wireless key to strong radio waves to avoid impairing its function and performance.
- Do not touch or cover the metallic parts of the wireless key to avoid impairing its function and performance.
- Do not store the wireless keys in a damp or high-temperature environment.

⚠ CAUTION

- **Precision electronic components are used in the wireless key. Please follow the instructions provided below to prevent potential failure or damage.**
 - **Do not place or store the wireless key in the storage cabinet, because the wireless key may be damaged due to the vibration of the road surface or the overheating of the cabinet.**
 - **Do not drop or bend the wireless key or expose it to strong impacts.**
 - **Do not soak the wireless key in water or other type of liquid.**
 - **Do not place a heavy object or apply excessive pressure on the wireless key.**
 - **Do not store the wireless key in an environment subject to direct sunshine, high temperature or high humidity.**
 - **Do not attempt to grind or modify the wireless key.**
 - **Be sure to keep the wireless key away from strong magnetic fields and magnetic objects such as key rings, TV sets and computers.**

3.2. KEYLESS sensing distance

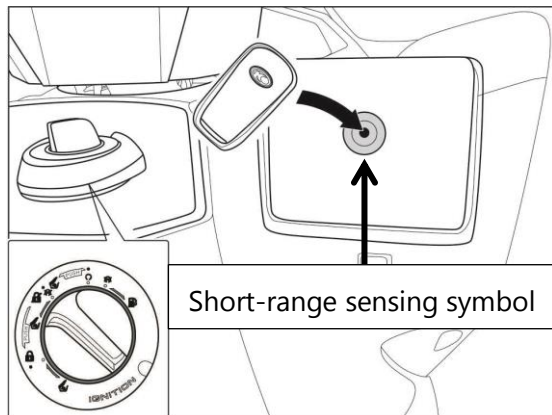
1. Long-range antenna sensing (independent open area): The optimal sensing distance will be 1.5m, and the sensing function will be inactive if the distance is more than 3.5m.
2. Short-range antenna sensing (independent open area): The sensing function will be active when attaching to the short-range sensing symbol.

⚠ CAUTION

- **The optimal sensing distance should be set at 150cm. But actual sensing distance may vary depending on the conditions of the environment where the device is located and the power level of the battery.**
- **When leaving the motorcycle, ensure that the steering rod is securely locked and then turn off the KEYLESS System. In the meantime, be sure to remove and bring away the wireless key.**

3.2.1. Short-range sensing

When the wireless key is running out of power such that it cannot be unlocked, you may use the short-range sensing function to unlock. At this time, attach the wireless key to the short-range sensing symbol on the sub-coolant reservoir cover, which is located beside the main switch.



⚠ CAUTION

- If the power of the wireless key is low, it will affect the long-range sensing distance.
- When replacing the battery, it should be executed properly to avoid damaging the remote control function. In this case, please bring the key to a professional service center for repairs.
- Because the sensing distance is provided for reference only, the power should be started together with the KEYLESS key.
- As radio wave technologies are used for the wireless key, the operating range might be affected by the nearby operating environment. If you store the wireless key in the rear-end trunk or a front-mounting storage cabinet, it will affect the communication efficiency between the wireless key and the motorcycle as to cause ineffective sensing.
- When the wireless key is running out of power, it will affect the sensing range and even lose the long-range detecting or sensing function. At this time, you may use the short-range sensing function by placing the wireless key on the short-range antenna sensing symbol which is on the coolant reserve tank cover. Next, press the start button. After there are two rounds of brisk beeping sound, the main switch LED will show a blue light and the unlocking step is completed.

⚠ CAUTION

- Be sure to bring along the wireless key with you. Do not place it in the storage cabinet or leave it on the motorcycle.
- When the wireless key enters the operable range, other persons not provided with the wireless key may start the engine within the sensing range and then bring away the motorcycle.
- If the wireless key is not located within the sensing range, the vehicle cannot be active.
- The wireless key will consume the power continuously when moving it away from the sensing range.
- If the KEYLESS main switch is no longer operable, please replace the battery of the wireless key immediately.

3.3. Main Switch Symbols

⊗ : Electrical system is off. (Engine will be stopped.)

⊙ : Electrical system is on. (Engine can be started.)

🔒 : The steering stem is locked.

🔓 : The steering stem is unlocked.

👉 : Open the seat

🛢 : Open the fuel filler cap.

PUSH: Push in the knob.

3.4. KEYLESS operation

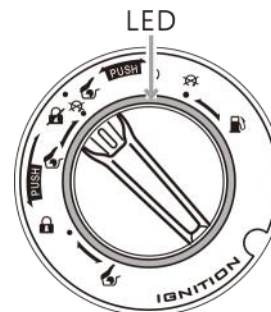
Bring the wireless key and then place it within the sensing range (identity identification)

3.4.1. Starting

Press and hold the starter button, the main switch will show a blue LED and then emit two rounds of brisk beeping sound. At this time, you will be allowed to turn the main switch knob.

3.4.2. Closing

Turn the knob to 🔒 or turn it to the left ⊗ and long press the starter button. At this time, the blue LED will turn to red and extinguish and then emit one round of long beeping round.



⚠ CAUTION

- If the backlight is not illuminated normally or is extinguished, please have it checked by a KYMCO dealer.
- Do not turn the switch to  during the driving process, otherwise the electrical system will disappear as to cause abnormal hazard in motorcycle control.

3.4.3. Refueling

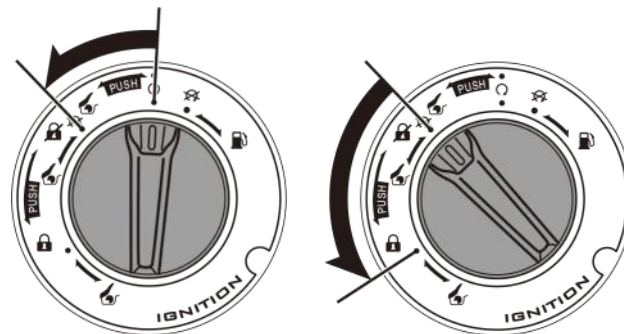
Turn to the right  from  and then turn to rightward and you may open the lid of the refueling tank. 



3.4.4. Locking

To stop the vehicle and leave it unattended, please turn the KEYLESS main switch knob to the left  or  from  and then long press the starter button.

At this time, the main switch LED will turn to red from blue and then extinguish. When hearing one round of long beeping sound, it means the locking step is completed.

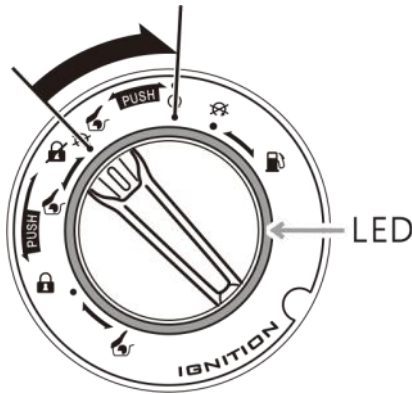


⚠ CAUTION

- The main switch knob can only be turn to the  when the steering stem is turned to left.
- When the main switch knob is located at the  or the left  and the steering stem at the right position, the main switch will be locked automatically without long press the starter button after moving the wireless key out of the sensing range.

3.4.5. Unlocking

Press and hold the starter button, the LED will show a blue light and then emit two rounds of brisk beeping sound. At this time, turn the knob to  and you will be allowed to power up the engine.

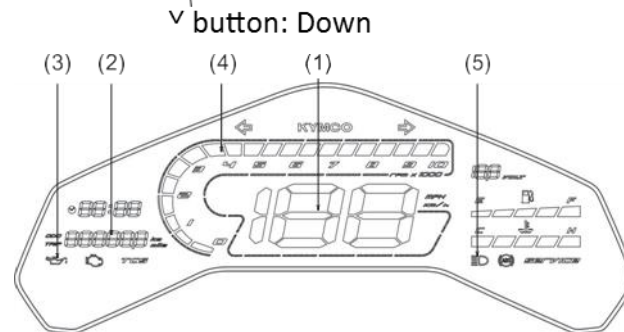
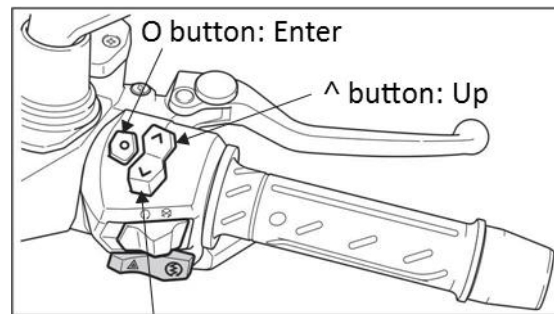


⚠ CAUTION

- When locking the steering rod, turn the main switch to  position and then close the KEYLESS System. You will be allowed to leave the vehicle after confirming that the steering rod has been securely locked.
- When parking, do not park the vehicle in a location that will interfere with traffic safety.
- To stop and lock the vehicle, be sure to execute such step when the  or the left  is secured in position. If the knob or the steering stem in an incorrect position, you will be unable to lock the vehicle which may even lead to theft.
- Before leaving the vehicle, confirm that the main switch LED is extinguished and that the vehicle has been securely locked to avoid theft.

3.5. Meter Instruments

1. **Speedometer:** Vehicle speed is indicated in km/h or mph.
-Press and hold the O button for 2 sec to switch between km/h and mph.
2. **Mileage Information:**
-Pressing DOWN or UP 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 "services" indicator lights up constantly.
To reset oil service trip, press the "O" button when meter is in OIL SERVICE mode. Once the trip is reset, the indicator will go off automatically.
3. **Oil Service Indicator:** Lights when the scooter has reached the oil service interval mileage. The indicator also lights when the ignition is turned ON but should go out once the engine is running.
To reset oil service trip, press the "O" button when meter is in OIL SERVICE mode. Once the trip is reset, the indicator will go off automatically.
4. **Tachometer:** Indicates the engine speed in the revolutions per minute (RPM)
5. **High Beam Indicator Light:** This light is illuminated when the headlight high beam is on.



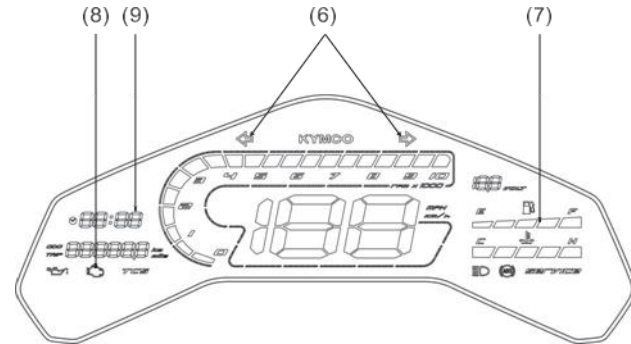
⚠ ATTENTION

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.

6. **Turn Signal Indicator:** Flashes when either turn signal is being used.
7. **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.
8. **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.
9. **Clock:** In ODO mode, press and hold the DOWN button to adjust the digits.
 - Press the O button to change the digits.
 - Press the DOWN button to select hour or minute. The digits will flash as it is selected.

⚠ ATTENTION

- Replenish with 92 unleaded gasoline when Fuel Meter approaches the last scale near "E" to prevent fuel pump from running dry and damage.
- The clock adjustment will be cancelled if any button is not pressed within approximately ten seconds.



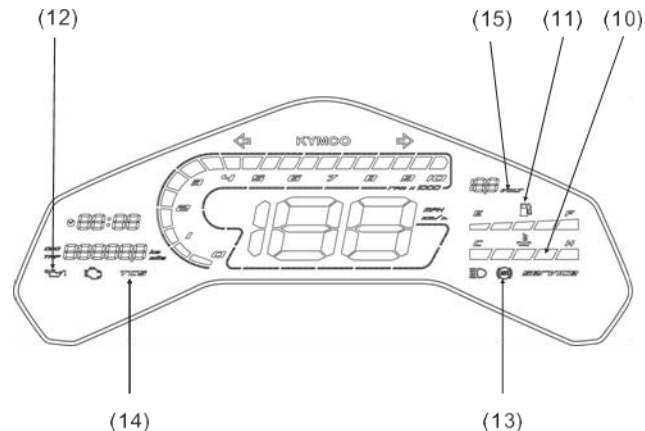
⚠ WARNING

If the Engine Detection Indicator keeps on after engine is running for 10 sec already, the vehicle is faulty and shall be checked up by an authorized dealer.

10. **Coolant temperature gauge:** If the "H" segment and coolant temperature warning indicator flashes, stop the vehicle and let the engine cool.
11. **Fuel level warning indicator:** If the indicator lights up, refill fuel as soon as possible.
12. **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.
13. **ABS indicator:** The indicator continuously lights up after turning on the main switch. It will go off automatically until vehicle speed exceeds 6km/h.
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.
15. **Battery voltage:** Display the current battery voltage.

▲ CAUTION

- When Battery Indication is lower than 10V after main switch is turned on, it means the battery power is low.
- If the battery voltage is higher than 16V after engine is running, the battery voltage is too high.
- When any of the above situations occurs, the vehicle must be inspected.

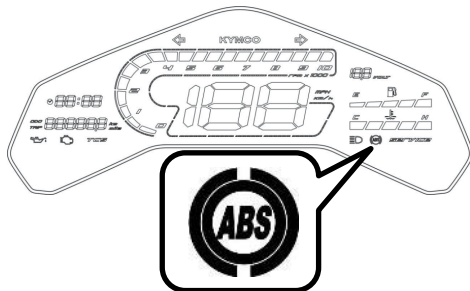


▲ ATTENTION

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.

3.6. ABS (Anti-Lock Brake System)

Indicator



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.

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

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

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.

3.6.1. Precautions

- 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.
- Use steady, even braking application on the front and rear brake levers simultaneously.
- Apply the brake levers with the same grip pressure as you would without ABS.
- The system controls braking pressure automatically and independently at each wheel to prevent wheel lockup.
- The ABS does not prevent from falling down while cornering into a slippery condition.
- 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.
- The ABS system only starts to work after applying the brake lever.
- ABS is not a substitute for safe driving. Even with ABS, you must remain alert, react appropriately and in a timely and defensive manner during the travel. Don't take unnecessary risks.
- Cautious driving practices, such as maintaining an adequate distance away from the vehicle ahead, not speeding, anticipating obstacles and adjusting your vehicle's speed for traffic, weather and road conditions, are essential for safe operation.

3.6.2. Introduction

ABS is designed to help prevent the wheels from locking up when the brakes are applied hard while running straight. ABS automatically regulates brake force by intermittently applying and disengaging braking force to help prevent wheel lock-up and allow for stable steering control while stopping.

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

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

- ABS cannot 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.

- The ABS microprocessor (computer) compares the vehicle's speed with wheel speed. Since tyres of a different size than those recommended by KYMCO can affect wheel speed, they may confuse the microprocessor, which can then extend the braking distance.

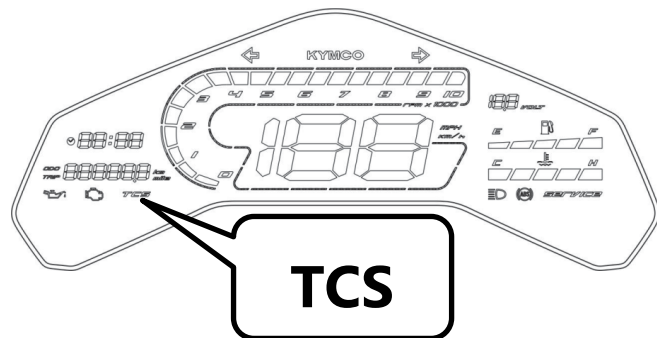
⚠ WARNING

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.

⚠ ATTENTION

- **When ABS is functioning, you may feel a pulsation in the brake lever which is normal. Continue to brake normally.**
- **ABS does not function at road speed of approximately 6 MPH (10 km/h) or less.**
- **ABS does not function if the battery voltage is very low, or there is power supply interruption. The ABS indication light will come in such instances.**

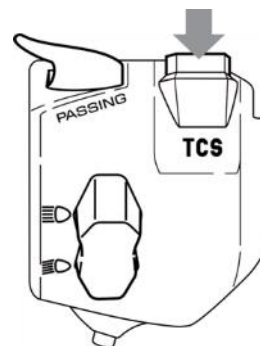
3.7. TCS (Traction Control System) Indicator



The indicator light will light up in amber color if TCS is on when turn on the main switch. Once the vehicle speed is over 6 km/h, the indicator light will go off automatically. The TCS keeps function at this time.

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.



3.7.1. TCS Off

Turn off the TCS after turn on the main switch and then the TCS indicator light remains green light that means the TCS is off.

⚠ CAUTION

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

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

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 traction control system helps the vehicle maintain traction when above situation happens. If sensors detect that the rear wheel is starting to slip (uncontrolled spinning), the TCS assists by regulating engine speed until traction is restored. You may notice changes in engine response or exhaust sound.

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.

- **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.

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.

3.8. Right Handlebar Switch

(1) Instrument function buttons:

- button: Enter
- ∧ button: Up
- ∨ button: Down

(2) Engine stop switch:

"" 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.

■ **NOTE:** If the ignition system is on, this might cause the battery to discharge gradually.

(3) Hazard switch ""

At this position, all of the turn signals will flash together, indicating a hazard to other traffic.

"OFF" position will cancel the hazard flashing.

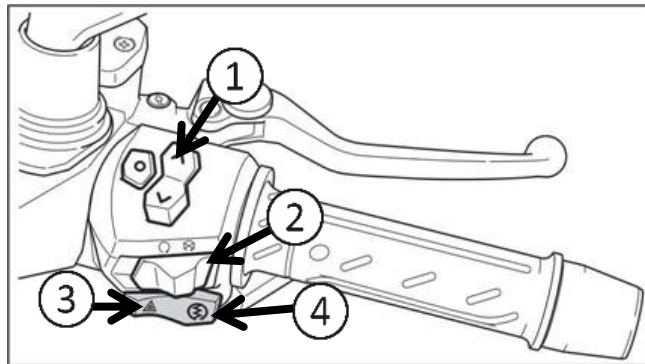
Switch will still operate when the ignition is "OFF"

(4) Electric starter button

Press the electric starter button to activate the starter motor.

■ **NOTE:** The starter motor will not engage unless a brake lever is squeezed at the same time the starter button is pressed.

■ **NOTE:** The starter motor will not operate unless the side-stand is fully stored up.



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 it "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.

3.9. Left Handlebar Switch

(1) TCS switch:

Use this switch to turn on or off the TCS.

(2) Over-pass light switch:

Pressing this button will activate High Beam.

(3) High/Low beam switch:

Pushing the switch to "☞" for High BEAM, to "☜" for Low Beam.

(4) Turn signal switch:

Use the turn signal when making a turn or changing a lane. Pressing-in the button will deactivate the Turn signal.



:Use this position for Left Turn.



:Use this position for Right Turn.

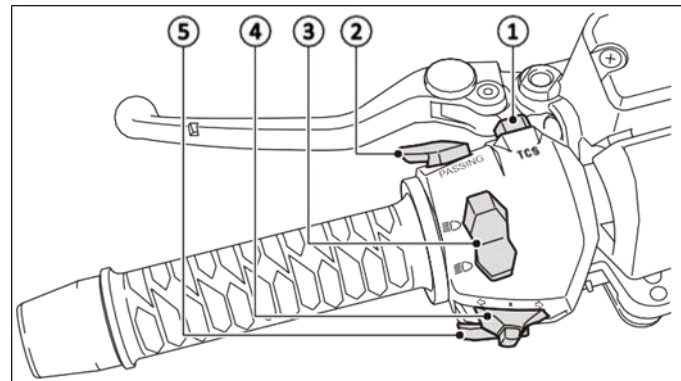


:To release Turn signal, just press-in the button.

(5) Horn button:

Press the horn button to sound the horn when the main switch is turned on.

■ **NOTE:** Turn signal lights will not light up when the main switch is turned off.



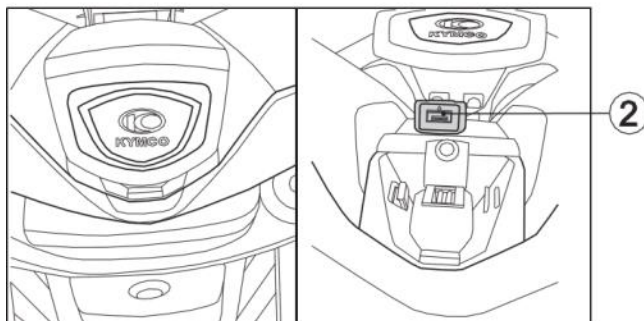
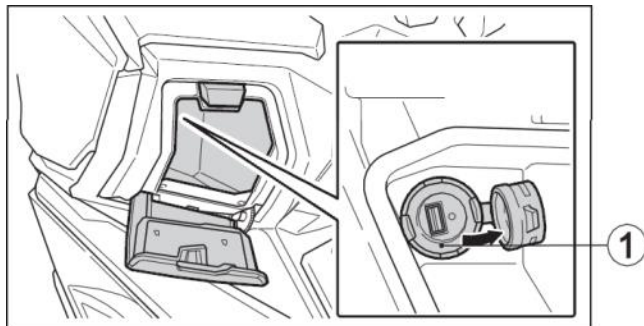
▲ ATTENTION

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

3.10.USB power supplies

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.



The rated capacity: DC 5V/ 2A

■ **NOTE:** The electricity will be cut-off if the current is over the limit, please waiting to cool down for further charge.

⚠ 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.

⚠ CAUTION

- For battery charge of mobile phone only.
- Use other electronic appliances may cause damage on electrical system.
- USB Power Socket can only be used with a running engine.
- To prevent power depletion of battery, do not charge a product using the USB Power Socket without running the engine.

⚠ 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.
 - This product will present mild heating signs during the operating process, which is a normal phenomenon.
 - Despite that the USB charging will be allowed for this product after turning on the main switch and when the engine is not activated, the scenario of "Judgment Standard 2" may occur if the vehicle battery voltage is too low. The duration for the main switch to change the charging indicator to red lamp may vary according to the cell phone used.
 - It is recommended that the USB charging slot should be used after starting the engine to prevent excessively low battery voltage.
 - Do not use a multi charger cable. Overload and hazard may occur if executing the charging by means of 1-to-2 adapters or 1-to-multiple adapters.
 - Do not attempt to disassemble or modify the USB charging slot to prevent power leakage and hazard.
- If the battery voltage is low when executing the charging with the USB charging slot, the indicator will illuminate as a reminder and then disconnect the power after being illuminated for 10 seconds.
 - Please use the charging wire from the original factory to carry out the charging. If using the product from other brand, it may result in a situation where the power cannot be charged normally.
 - Please use the battery from the original factory in order to achieve the optimal charging efficiency. If using the battery from other brand, it may result in a situation where the charging efficiency is low or where the lamp is abnormally operated.
 - When short circuit occurs (red lamp is flickering), it might be caused by the moisture condensed inside the charging holder. In this case, remove and insert the USB charging wire several times until the moisture is entirely removed.
 - If background program (such as APP navigation) is still running in the cell phone during the charging process, then the red lamp and the green lamp may flicker alternately after the cell phone is fully charged.
 - Do not use such charging slot to charge other types of electronic devices, except for the cell phone and the mobile power source.

3.11. Fuel Level Inspection / Refilling

If the low fuel indicator on the dash begins to flash, refill the fuel tank with nonleaded gasoline as soon as possible.

3.11.1. Fuel Tank Filler

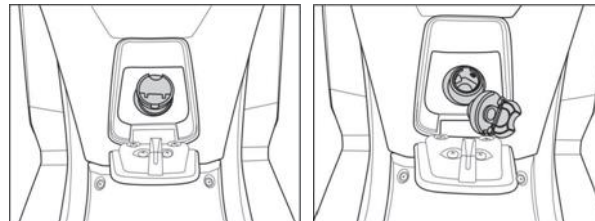
To add fuel to your scooter, follow this procedure:

1. Pull the fuel cap protective 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. To install the fuel filler cap, press it back into place on the fuel filler neck.
5. Rotate the cover clockwise to lock the cap into place.
6. Flip down the cover and close the protective cover.

3.11.2. 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.



⚠ WARNING

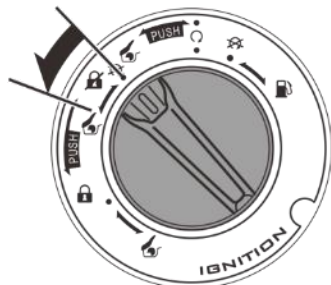
- Smoking is prohibited when replenishing fuel.
- Shutdown the engine when replenishing fuel.
- Keep spark or flammable material away from fuel.
- In order to prevent fire risks caused by fuel overflow from the Fuel Inlet, make sure the Fuel Tank Cap is fully locked after refueling.
- Fuel pump may damage if it works in insufficient fuel for a long time.

3.12.Seat

To unlock the seat



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



With the main switch in the "❌" position (the engine is not running), turn the counterclockwise to the "👉" position.

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.

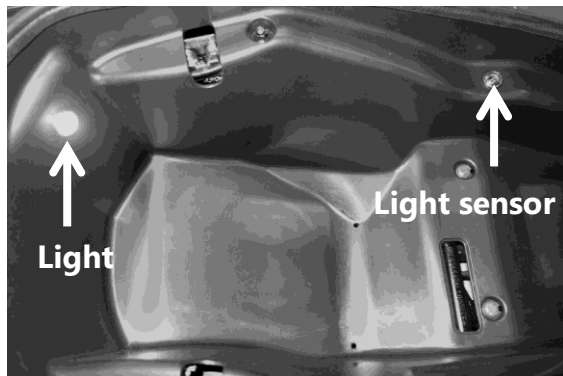
■ **NOTE:** It's no good to push down on the rear end of the seat due to there are no the lock hooks beneath, therefore, the seat is possibly not locked securely that will make stolen more easily.

Before riding, pull the seat edge to make sure the seat is locked securely.

⚠ 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.
- The luggage box maximum loading limitation is 10kg.
- 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.

3.13.Center Compartment Light



The center compartment light will be turned ON automatically when the seat is opened.

■ **NOTE:** The light will go off automatically to prevent battery voltage drops when the seat is opened or not well closed for a long time.

3.14.Helmet Holder

To use the helmet holders, open the seat and hook your helmet's fastener ring to the holder and close the seat securely.

⚠ WARNING

Use the helmet holder only when your scooter is parked.
Do not ride with a helmet hanging from the holder.

3.15.Suspension

Each shock absorber on your scooter has 5 spring preload adjustment positions for different load or riding conditions.

Use a pin spanner to adjust the rear shock spring preload. Position 1 is for light loads and smooth road conditions. Position 3 to 5 increase spring preload for a stiffer rear suspension and can be used when the scooter is heavily loaded.



■ **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.

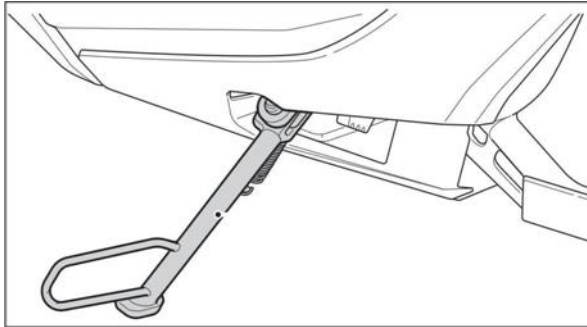
■ **NOTE:** Standard spring preload position: 3

⚠ 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.

3.16.Side Stand

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



4. Pre-Ride Inspection

Keep a good habit to perform checks before riding.

For keeping your vehicle in a safe and effective operating condition, perform regular checks, adjustments and lubricating maintenance according to the Maintenance Program.

Exhaust Control System can reduce generation of pollutants in the exhaust gas of your scooter. Please perform maintenance according to specified mileage or schedule, for ensuring compliance with exhaust emission standards

WARNING

- **Improperly maintaining your scooter or failing to correct 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 correct any problems.**
- **Please consult a KYMCO dealer if you are not familiar with scooter check-up and maintenance.**
- **Injury or electrocution may occur if any body part or clothing touches a running engine. Please stop the engine while performing scooter maintenance.**
- **For preventing burning hazard after riding a vehicle, touch its engine, muffler, brake disc, brake caliber or brake pad only after it has cooled down.**
- **When performing maintenance, never run the engine in an enclosed space; there is a risk of carbon monoxide intoxication due to exhaust emission.**
- **To avoid damaging the scooter, never carry out any maintenance without receiving a professional training or lacking of a special tool.**

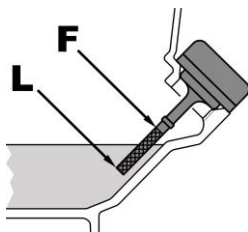
4.1. Engine oil level

Before riding the scooter, check engine oil for compliance with level requirement or any leakage. Engine Oil and Oil Filter shall be replaced regularly according to maintenance and lubrication schedule.

■ **NOTE:** Check the CH 6.7 for more details.

4.1.1. Check/Replenish Engine Oil

1. Park the scooter on flat ground and brace up the Main Stand. Activate Main switch and start the engine, idle it for about 3 minutes without using Throttle Grip, then stop the engine. Allow resting for another minute.
2. Pull out Oil Level Guide and wipe it clean, insert the Oil Level Guide without screwing it in.
3. Check oil level. When the level approaches lower limit, replenish oil to a middle level between the upper and lower limits.



⚠ CAUTION

Engine and Muffler are extremely hot. Take special care to prevent burn while checking oil level.

Engine oil specification

Recommendation oil: SAE: 5W/50#

API: SL/CD class or better

First oil replacement: 1,000 km. Second time replacement: 5,000 km. Subsequent oil replacement Every 5,000 km.

⚠ WARNING

There are many inferior oils in the market which may cause engine failure if miss-used.

⚠ 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.

4.2. Check/Replenish the Fuel

Replenish gasoline as soon as possible when the Fuel Indicator on the Dashboard approaches the last segment near E.

Replenish with #95 Unleaded Gasoline as soon as possible.

⚠ WARNING

- **DO NOT** smoke when replenishing gasoline.
- Stop engine when replenishing gasoline.
- When replenishing the fuel, keep the fuel level below the baseline plate, otherwise the fuel will overflow.
- It is recommended to add Kymco Nozzle Cleaner in the fuel every 10,000km when replenishing the fuel, for cleaning Fuel Injection Nozzle.
- Avoid operating Fuel Pump for prolonged time when the Fuel Tank is empty, which may affect normal service life of Fuel Pump.

4.3. Check Steering Stem

- Check for any slackening by swaying it up and down, forward and back, and left and right.
- Check if Handlebar is too tight.
- Check the Handlebar for any colliding.
- When finding any anomaly, go to a KYMCO dealer or service station for repair.

4.4. Brakes

- Check brake system operation; brake lever, piston...etc.
- Check the front and rear brake reservoir for brake fluid level.
- Check brake pads for wears.

■ **NOTE:** Check the CH 6.15 for more details.

4.5. Check Tyres / Wheels

- Check tyre pressure and adjust if necessary.
- Check tread pattern for wears.
- Check wheel for deform and balance.

■ **NOTE:** Check the CH 6.16 for more details.

4.6. Check Side Stand

Perform the following side stand inspection for interlock function check.

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

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

4.7. Check Lights

4.7.1. Brake Light

1. Turn the Main switch to on position.
2. Respectively pull the Front and Rear Brake Levers, verify if Brake Light goes on.
3. Check Brake Light for stain or fracture.

4.7.2. Tail Light

1. Turn the Main switch to on position.
2. Check if the Tail Light goes on.
3. Check the Tail Light Lens for stains or fractures.

4.7.3. Headlight

1. Turn the Main switch to on position.
2. Check if the Headlight goes on.
3. Check the Headlight Lens for stains or fractures.
4. Check the headlight aim for proper alignment and adjust if necessary..

4.7.4. Turn Signal

1. Turn the Main switch to on position.
2. Operate the Turn signal Switch to verify if each Turn signal works.
3. Check the Turn signal lens for stain or fracture.

CAUTION

When riding or parking vehicle in humid environments (e.g. in a rainy day or washing vehicle), fog formation may occur temporarily inside the cover of Dashboard and

lights due to inside/outside temperature differences; which is not a quality issue of them. However if large amount of drops or accumulation of water appears inside Dashboard and light cover, please consult a KYMCO dealer for receiving service.

4.8. Check Front/Rear Cushion

Exert load onto Handlebar and Seat Pad and shake the vehicle up and down, check if cushions act normally.

4.9. Check Others

● Check Dashboard for normal display.

● Check the Horn for working normally.

Turn Main switch to on position and press Horn Button.

● Check Back Mirror for proper angle.

Sit yourself on Seat Pad and check the rearview of the mirror; also check for any damage or stain.

Considering actual riding safety, a torque is specified by the statutory regulation as of 0.85-1.12 Kgf-m. Therefore when fixing the Back Mirror onto the vehicle, it shall not be totally rigid (either exceptionally loose).

● Check License Plate for any stain or damage.

Check License Plate for any stain or damage; secure it tightly.

● Check for normal exhaust gas.

Check Muffler for slackening or noise.

● Others, check if previous anomalies still existed.

5. OPERATION

5.1. Run-In

Run-in Period of a new engine is 1500km; keep speed under 80 km/h in this period.

Avoid speeding-up rapidly.

5.1.1. 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 run-in period.

5.1.2. 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 run-in period.

5.1.3. 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 run-in period.

WARNING

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

WARNING

High-speed riding in the run-in period may result in worn engine parts.

5.2. Starting the Engine

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

⚠ WARNING

The exhaust contains carbon monoxide which is harmful to health; avoid starting the vehicle in a narrow space or a poorly ventilated location.

⚠ ATTENTION

- **The Main Power is cut off when the Engine Stop Switch is set to the position, therefore pulling the Brake Lever and pushing the Starter button will not activate the motor.**
- **The Engine Stop Switch is meant for a temporary engine stop only.**

1. Place your scooter on its center stand and put the side stand up.
2. Unlock KEYLESS
3. Turn Main switch to ON position.
4. Make sure the throttle grip is fully closed.
5. Make sure the Side Stand is retrieved.
6. Make sure the Engine Stop Switch is set to the Run position.

7. Squeeze the rear or front brake lever. to connect electric power for ready to start engine .

■ **NOTE: The electric starter will only work when the left(rear) or right(front) brake lever is squeezed.**

8. With the throttle closed, press the starter button. Release the starter button as soon as the engine starts.
9. 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.

⚠ CAUTION

- **Operating your scooter's engine with insufficient oil pressure can cause serious engine damage.**
- **Keep finger off from Starter button immediately when engine starts.**
- **To prevent damage to the starter motor, do not press the starter button for more than five seconds at a time. If the scooter fails to start immediately, check the fuel level and the battery condition, and allow the starter motor to cool before attempting to start the engine again.**
- **Do not press the starter button after the engine is running that may cause some compartments are damaged.**

⚠ WARNING

The exhaust contains carbon monoxide which is harmful to health; avoid starting the vehicle in a narrow space or a poorly ventilated location.

5.2.1. Reducing Fuel Consumption

Proper riding habits may reduce fuel consumption of your scooter. Refer to the following methods for reducing fuel consumption:

- **Avoid speeding up your scooter with a high rpm.**
- **Avoid running the engine in high rpm when not loaded.**
- **In case of prolonged idling due to a traffic light, traffic jam, or rail crossover block, stop the engine while waiting.**

5.3. Proper Riding Method

Keep the Rear Brake Lever in braking state and push the vehicle forward, the Main Stand will spring up automatically.

⚠ WARNING

- **Keep engine rpm away from the red zone.**
- **After starting the engine, do not raise engine rpm while not advancing the vehicle, or danger may occur.**

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.

⚠ WARNING

Before advancing, keep the Rear Brake Lever in braking state. **DO NOT** raise engine rpm arbitrarily.

Release Front or Rear Brake Lever

⚠ WARNING

After releasing the brake, do not turn the Throttle Grip arbitrarily, or the vehicle may dash out dangerously.

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.

⚠ ATTENTION

- **For prolonging engine service life, do not speed up suddenly when the vehicle is still cold.**
- **Do not turn the Throttle Grip rapidly, or the vehicle may dash out.**

5.3.1. Proper Riding

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

5.4. Brake

1. Before using the brake, release Throttle Grip first to a full close.
2. Grip both the front and rear brake levers at the same time and exert force gradually to activate the brake.

⚠ WARNING

- Braking on a wet or sandy road requires a longer effective braking distance and is more difficult.
- Slow down while running on mountain roads; it will be more difficult to brake while running down-slope, more dangerous as well.

5.4.1. Do not brake or turn abruptly.

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

⚠ WARNING

- Avoid forceful or emergency braking especially when the vehicle is tilting to one side, or a side skidding or tumbling may occur.
- 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.

⚠ WARNING

Wet road surfaces as well as railroad crossover, light rail track, manhole cover, and steel plates covering the construction sections are very slippery; slow down and take extra caution when passing them.

5.5. Parking

5.5.1. Proper Parking Method

When approaching to a parking location:

- Switch on turn signal 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 Turn signal Switch, set KEYLESS Main switch to off position.

WARNING

Never turn off the KEYLESS Main switch while riding the vehicle; fully shutting off the electrical system may lead to an accident; operate it only after stopping the vehicle.

CAUTION

When the vehicle is parked, make sure that KEYLESS is switched OFF; otherwise battery depletion may occur.

5.5.2. 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.

5.6. A tumbled vehicle

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

WARNING

To prevent potential fire hazard caused by overflowed gasoline of tumbled vehicle, the engine will be stopped automatically when the vehicle tilts more than 65°.

6. MAINTENANCE

The importance of maintenance

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

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

These instructions are based on the assumption that your scooter will be used exclusively for its designed purpose. Sustained high speed operation or operation in unusually wet or dusty conditions will require more frequent service than specified in the maintenance schedule. Consult your KYMCO dealer for recommendations applicable to your individual needs and use.

■ **NOTE:** Always follow the inspection and maintenance recommendations and schedules in this Owner's Manual.

WARNING

If your scooter tips over or becomes involved in a crash, be sure your KYMCO dealer inspects all major parts, even if you are able to make some repairs.

Improperly maintaining this scooter or failing to correct a problem before you ride could result in a crash in which you could be seriously hurt or killed.

WARNING

When performing maintenance on your scooter you may need to start the engine.

Running your scooter's engine indoors or in a garage can be hazardous. Exhaust gas contains carbon monoxide, a gas that is colorless and odorless, and can cause death or severe injury. Operate the engine only where there is adequate ventilation, preferably outdoors.

6.1. Maintenance Schedule

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

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN

R: REPLACE

A: ADJUST

L: LUBRICATE

D: DIAGNOSE

The maintenance schedule on the following two pages specifies the maintenance required to keep your scooter in peak operating condition. Maintenance work should be performed in accordance with KYMCO standards and specifications by properly trained and equipped technicians. Your KYMCO dealer meets all of these requirements.

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

* * In the interest of safety, we recommend these items be serviced only by your KYMCO dealer.

KYMCO recommends that your KYMCO dealer road test your scooter after each periodic maintenance service is completed.

■ 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.**

Frequency Item		Whichever Comes First	ODO meter Reading						
		*1000km	1	5	10	15	20	25	30
		*1000mi	0.6	3	6	9	12	15	18
		Month	1	6	12	18	24	30	36
*	Air Cleaner			R	R	R	R	R	R
	Spark Plugs			I	R	I	R	I	R
*	Throttle Operation			I	I	I	I	I	I
*	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
*	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
*	Drive Belt			I	I	I	R	I	I

Frequency Item		Whichever Comes First	ODO meter Reading						
		*1000km	1	5	10	15	20	25	30
		*1000mi	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
**	Wheels, Tyres			I	I	I	I	I	I
**	Coolant			I	R	I	R	I	R
**	Injector			D	C	D	C	D	C
	Engine Rubber Cushions				I		I		R

6.2. Battery

Your KYMCO scooter is equipped with a maintenance-free (sealed) type battery so it is not necessary to check the battery's electrolyte level or add distilled water.

■ **NOTE:** If your battery seems weak and/or is leaking electrolyte (causing hard starting or other electrical troubles), contact your KYMCO dealer immediately.

⚠ CAUTION

Your battery is a maintenance-free type and can be permanently damaged if the cap strip is removed.

⚠ 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.

⚠ ATTENTION

KEEP BATTERY OUT OF THE REACH OF CHILDREN.

6.2.1. Check battery voltage

Battery voltage shall exceed 12V when checked using a voltmeter.

Remove battery and fully recharge it if voltage is too low.

⚠ CAUTION

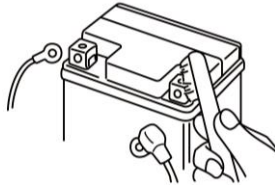
- Do not remove the cap after filling the electrolyte.
- The Battery tends to self-discharge and become weak when the vehicle is stored for a long time. Remove the Battery from the vehicle and fully re-charge it; then store it in a cool and well ventilated place.
- A weakened battery voltage is displayed on the Dashboard; you will need to remove the battery and fully recharge it, or go to a KYMCO service station for service.
- If battery is stored for more than 2 months, it shall be checked monthly and re-charged if necessary.
- When re-using a stored battery, fully recharge it before installing it.

6.2.2. Cleaning Battery Poles

For cleaning battery poles, remove a battery fixing screw first.

If battery pole is corroded, remove the battery for cleaning.

After cleaning, apply a thin layer of grease or Vaseline on battery poles before installing battery



⚠ CAUTION

- Keep away from naked fire when removing/installing a battery.
- For removal, turn Main switch to OFF position first. Followed by removing the negative (-) wire, then the positive (+) wire. Connect the positive wire first when installing, then the negative.
- Fully tight a slackened nut of battery poles.

6.2.3. Precautions on using batteries

- Do not remove the battery cable when the main switch is still ON.
- Store batteries in a location where children cannot access.

- Electrolyte in the battery contains sulfuric acid, therefore is toxic and dangerous; severe burn may occur on negligence; avoid getting in contact with skin, eye or clothing. Wear goggles when working in the vicinity of battery. In the event of following conditions, take first aid measures as required:

- Skin contact: Rinse with plenty amount of clean water.
- Ingestion: Drink large amount of water or milk and seek medical care immediately.
- Eye contact: Rinse with clean water for 15 minutes and seek medical care immediately.

- Battery will generate explosive hydrogen, therefore shall be kept away from any fire source (e.g. spark, flame or lit cigarette). Provide with sufficient ventilation if charged in an enclosed room.

- Battery situates below the Front Windshield. Remove Windshield and Dashboard Front cover will reveal the battery. For re-charging the battery: When battery power is about to deplete, immediately go to a KYMCO dealer for re-charge.

Keep in mind that the more option devices installed on the scooter, the faster the battery power depletes.

- Tighten torque: 0.1~0.2kgf-m (do not exceed 0.6kgf-m).
- Tighten the bolts using a maintenance tool; do not tighten it excessively or the bolt may break and the cable may get loose, resulting in an accident.
- After installation, make sure that bolts will not slacken and wires will not interfere with the chassis, so as to prevent any potential danger.

6.3. Fuse

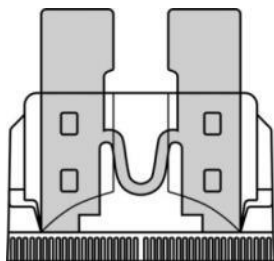
When frequent fuse failures occur, it usually indicates a short circuit or an overload in the electrical system.

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.

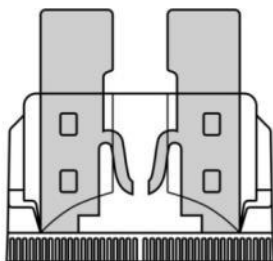
⚠ WARNING

- **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.**
- **If the new fuse blows in a short time, consult the KYMCO dealer immediately.**

Normal



Blown



6.3.1. 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.

Fuse A-10A: FR/RR turn signal, Stop light, Horn, Meter, position light, DC power socket, Oil controller lamp

Fuse B-10A: ABS (IGN), Fan, Fan relay, Starter relay, Head light, Light controller

Fuse C-25A: ABS (M+12V)

Fuse D-30A: Charging, Keyless, Hazard control unit

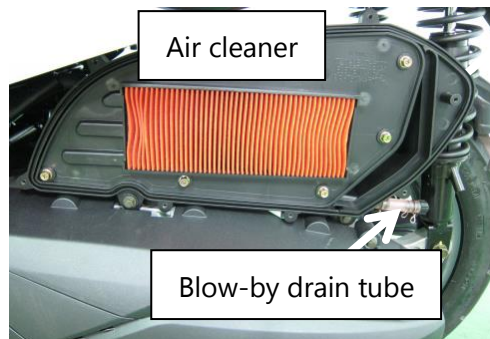
Fuse E-5A: Luggage Box Light, Clock, ECU Relay

Fuse F-10A: ABS (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.**

6.4. Air Cleaner Filter Element



Replace Air Cleaner Element as specified in Regular Maintenance Schedule. Check and replace Air Cleaner Element more frequently if vehicle is often used in dusty environments or damp areas.

■ **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 premature engine wear or performance problems.

Precautions on replacing Cleaner Element:

- Make sure the Air Cleaner Element is positioned correctly in the case.
- Do not start engine when Air Cleaner Element is not installed, or dirty air may enter the engine and cause abnormal wear.
- Do not wet the Air Cleaner Element when cleaning the vehicle or engine start may become difficult.

⚠ CAUTION

- **Air Cleaner Element made of paper is used. Inspect the Element every 2,000 km and replace it if necessary.**
- **Replace with a new Air Cleaner Element every 5,000km.**
- **Replace the air filter earlier if the vehicle often be used in following situation:**
 - Raining day
 - Dusty road

6.5. Crankcase Blow-by Drain

The air cleaner has a drain tube 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 and plug, drain the fluid into a container, and then reinstall in place.

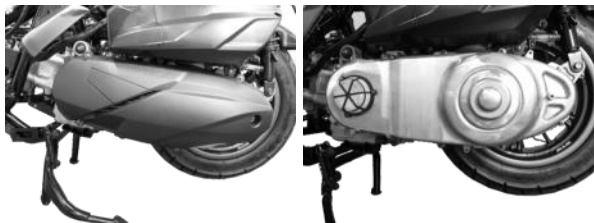
■ **NOTE:** Drain frequently if often riding in the rain, often at full throttle, or the vehicle has been overturned. Follow the oil disposal regulation.

6.6. CVT Transmission System Filter Wool

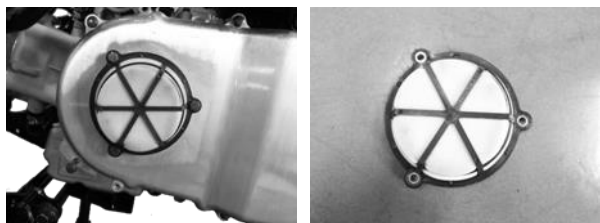
Excessive dust accumulation in CVT Transmission System may result in unsmooth vehicle operation; clean and replace Filter Wool regularly.

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

6.6.1. Replace Filter Wool



1. Remove the Fixing Bolts of the Crankcase Left Cover.



2. Remove the 3 Fixing Bolts of the Filter Wool.
3. Replace the Filter Wool.

6.6.2. Insert

Operate in reversed procedures as removal.

6.6.3. Cleaning

1. Remove the Fixing Bolts of the Crankcase Left Cover.
2. Remove the 3 Fixing Bolts of the Filter Wool.
3. Clean the Filter Wool body with air jet and clean out dirt in the Crankcase Left Cover.

⚠ CAUTION

Inspect the filter every 5,000 km and replace or clean it if necessary.

6.7. Engine Oil

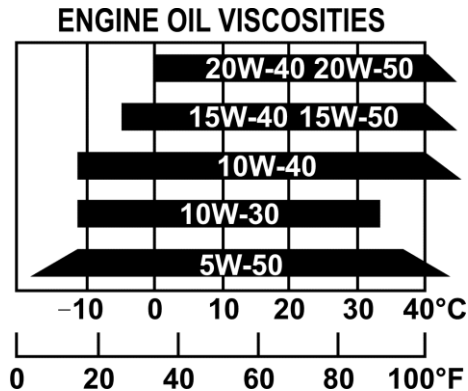
6.7.1. Engine Oil Recommendation

Use a premium quality 4-stroke engine oil to ensure longer service life of your scooter. Only use oils that have a SJ rating above per the API service classification.

Engine oil viscosity: SAE 5W-50#

API SL/CD class or higher

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



6.7.2. 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 cap/dipstick

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

⚠ CAUTION

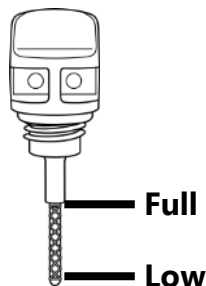
Running the engine with insufficient oil pressure can cause serious engine damage.

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.

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

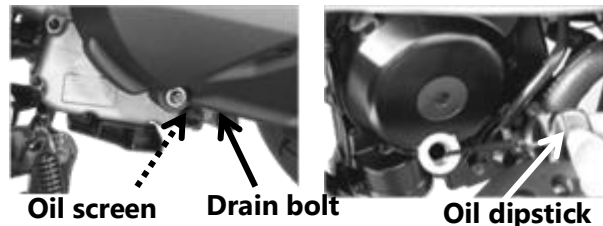
⚠ WARNING

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.

6.7.3. 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.

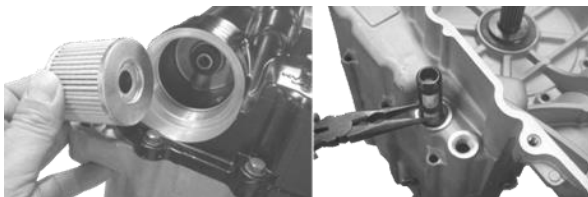
■ **NOTE:** Change the engine oil with the engine at normal operating temperature and the scooter on its center stand to assure complete and rapid draining.



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

⚠ WARNING

- There are many inferior oils in the market which may cause engine failure if miss-used by the consumer.
- 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 from the crankcase to drain the oil.

■ **NOTE: Clean the oil screen after oil drains out.**

4. Reinstall the drain plug and tighten it to the specified torque.

Torque

Drain bolt	2.0~3.0 kgf-m (19.6~29.4 N-m, 14.5~21.7 lbf-ft)
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5. Add oil to the engine per the amounts listed below, and reinstall the oil filler/dipstick.

Engine oil	Full capacity	1.5 L
	Exchange capacity	1.3 L

■ **NOTE: Amounts are after draining the oil only.**

6. 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.
7. 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 original 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.
- When replenishing oil, make sure the oil level is not exceeding the Upper Limit mark.
- Do not mix-use oils of different brand, class or low quality ones; they may cause engine faults.
- Change oil while the engine is still hot; be careful not to burn your skin.

6.7.4. 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.

6.8. Engine oil filter replacement

1. Screw the oil level 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

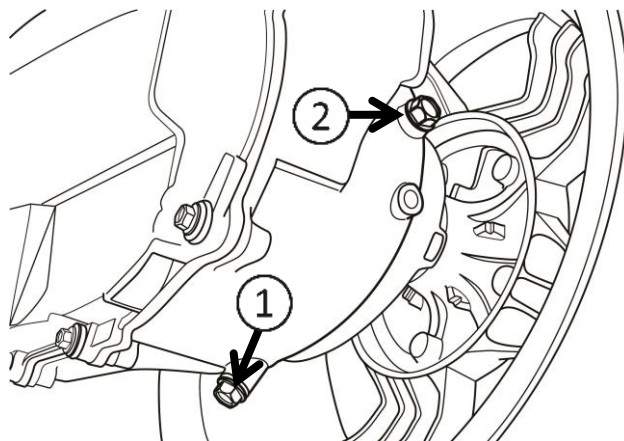
- **Use the genuine oil filter or another with the same quality and grade to avoid burnout on the engine parts.**
- **An adverse installation of oil filter causes a failure on oil circulation which will damage the engine.**
- **Must follow the local regulation and obey the related prohibition about the disposal of oil.**
- **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.**

6.9. Transmission Gear Oil

6.9.1. Changing Interval

First changing timing is vehicle total trip reach 1,000 km. After first time changing, change the gear oil every 6 months or 5,000km which comes first.

6.9.2. Oil Change



1. Stand the scooter on a level ground 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. Tighten the drain bolt. Fill with the recommended oil to reach the capacity listed below.
5. Install the filler bolt and tighten it to the specified torque.

Gear oil type		SAE 90
Gear oil capacity	Full	0.23 L (0.137 US qt)
	Exchange	0.2 L (0.127 US qt)

Torque

Drain/ Filler bolt	0.8~1.2 kgf-m (7.8~11.8 N-m, 5.8~8.7 lbf-ft)
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⚠ CAUTION

In following usage situation, the oil may be required changing earlier:

- Often ride on raining day.
- Often ride long distances.
- Often heavy loading.

6.10.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.

6.10.1. Removal

1. Remove the seat and luggage box set.
2. Remove the engine hanger bolt.
3. Remove the nut and washer.
4. Remove the stem and cushions.

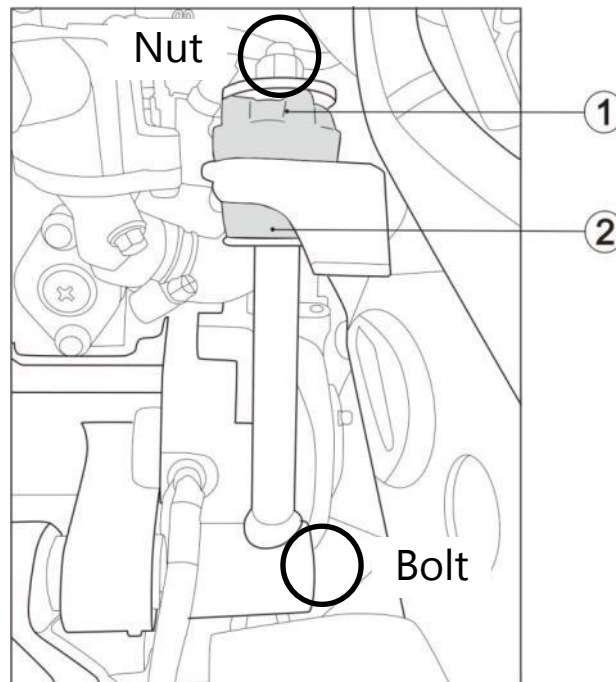
Install in reverse order of work.

Torque

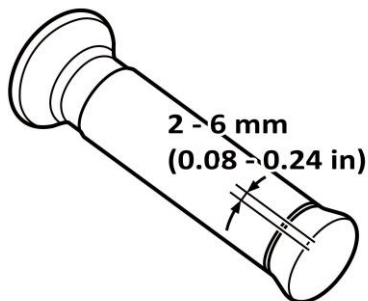
Hanger bolt	6.0~7.0kgf-m (58.8~68.6N-m, 43.4~50.6lbf-ft)
Stem nut	4.0~5.0kgf-m (39.2~49.0N-m, 28.9~36.2lbf-ft)

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.



6.11.Throttle Operation



Before each ride, check for smooth throttle grip rotation from the fully open to the fully closed position at both full steering positions.

Measure the throttle grip free play at the throttle grip flange (per the illustration right).

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

6.12.Spark Plug

Dirty electrode or excessive gap can cause poor sparking.

Remove the carbon deposits from the spark plug with a small wire brush or a spark plug cleaning machine. After cleaning (or when installing a new spark plug) readjust the spark plug gap to specified limit by using a spark plug gap thickness gauge.

The spark plug should be replaced periodically.

Whenever removing the carbon deposits, be sure to observe the color of the removed spark plug's porcelain tip. This color tells you whether or not the standard spark plug is suitable for your type of riding. Under normal usage, a spark plug's porcelain tip should be light brown or tan color.

If the spark plug porcelain tip is very white or glazed appearing, then the spark plug has been operating too hot. In such a situation, you should replace the standard spark plug with a spark plug that has a colder heat range (usually a higher number; consult with your KYMCO dealer when selecting an alternate spark plug).

Recommended spark plug: CR7E (NGK)

Spark plug gap: 0.024 - 0.028 in (0.7 - 0.8 mm)

Torque

Spark plug	1.0~1.4 kgf-m (9.8~13.7 N-m, 7.2~10.1 lbf-ft)
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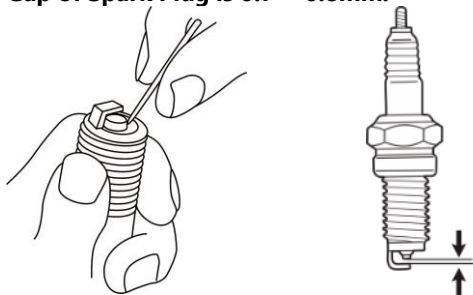
6.12.1. Cleaning

Use a Spark Plug Cleaning Device is the best way

If a Spark Plug Cleaning Device is not available, clean with a needle brush.

6.12.2. Adjustment

Normal Gap of Spark Plug is 0.7 ~ 0.8mm.



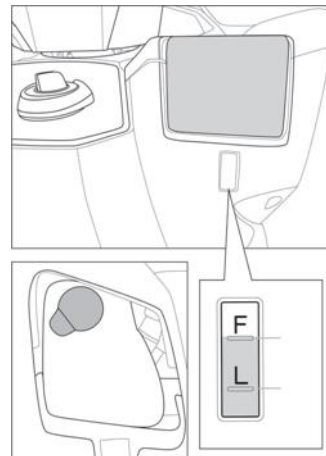
⚠ CAUTION

- Engine is very hot after stopping, be careful not to get burnt.
- Tighten the plug by hand, followed by using a Spark Plug Spanner.
- 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 severe engine damage could result.

6.13. Coolant

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

6.13.1. Coolant Level Inspection



Check the coolant level through the inspection window at the right side of main switch with the scooter in an upright position on a level ground.

If the coolant level is below the LOWER level mark, remove the reserve tank cap to add coolant mixture until it reaches the F level mark.

⚠ CAUTION

- Temperature in the engine may cause false reading of Coolant level. Check coolant level after the engine cools down.
- Inclined vehicle may cause false reading of Coolant level.
- Before riding the vehicle, check the radiator and pipe for any leakage.
- Check the ground where the vehicle is parked for any leakage mark.
- Before riding the vehicle, check the fin and front protection screen of radiator for any foreign object. Foreign objects may reduce the cooling function or even cause vehicle or engine damage in worse conditions.
- Use only low-mineral drinking water or distilled water for mixing cooling liquid.
- Using poor quality coolant may shorten the service life of radiator. Please be careful.
- Replace coolant in the radiator every 10000km.
- Add proper amount of coolant liquid to ensure performance of the cooling system.

⚠ WARNING

Water temperature is very high after riding, do not open the cap of radiator.

6.13.2. Coolant Replacement

The coolant in your scooter should be replaced by a KYMCO dealer, unless you have the proper tools, access to service data, and are technically qualified.

Coolant capacity

Coolant radiator + hoses	0.87 L
Coolant reserve tank	0.49L (Max)

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

⚠ WARNING

Removing the radiator cap while the engine is hot that can cause the coolant to spray out, seriously scalding you. Always let the engine and radiator cool down before removing the radiator cap.

6.13.3. Coolant Recommendation

It is your responsibility to have your scooter serviced so it has the proper type and amount of coolant in the cooling system and engine. The coolant must be in good condition and have the proper ratio of antifreeze and distilled water to prevent freezing, overheating, and corrosion. When servicing the coolant, you should arrange to use only high quality ethylene glycol antifreeze that contains corrosion protection inhibitors specifically formulated for use in aluminum engines (see the antifreeze container label).

A 50:50 solution of antifreeze and distilled water is required for the cooling system of your scooter. This coolant solution is recommended for most operating temperatures and provides good corrosion protection.

CAUTION

Use only low-mineral drinking water or distilled water as a part of the antifreeze solution. Water that is high in mineral content or salt may be harmful to the aluminum engine. Using coolant with silicate inhibitors may cause premature wear of water pump seals or blockage of radiator passage. Using tap water can cause engine damage.

If you are using your scooter in an environment where it will encounter freezing temperatures, you should have a higher concentration of antifreeze installed by your KYMCO dealer to provide additional protection against freezing the engine. This higher concentration should not exceed 60% antifreeze to distilled water.

During warmer times, bring the antifreeze ratio back to the standard ratio. A concentration of less than 40:60 (40% antifreeze) will not provide proper corrosion protection.

6.14.Side Stand

Your scooter's side stand is not only necessary when you park, but it contains an important safety feature.

This feature cuts-off the ignition if you try to ride the scooter when the side stand is down.

Perform the following side stand inspection.

Interlock function check:

Check the side stand ignition cut-off system:

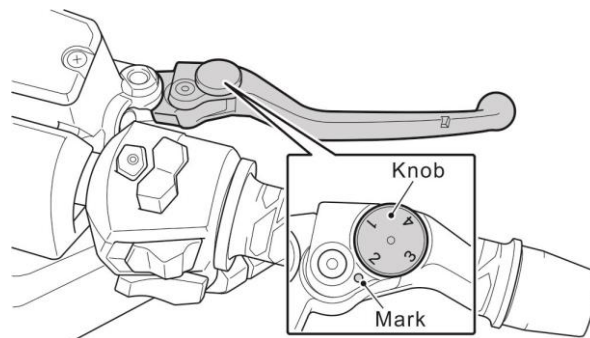
1. Place the scooter on its center stand.
2. Put the side stand up and start the engine.
3. Lower the side stand. The engine should stop as you put the side stand down.

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

6.15.Brake

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

6.15.1. Check and Adjust Brake Levers



1. Adjust brake lever clearance using adjustment knob (totally 4 adjustment positions).
2. Push the brake lever forward and then turn the adjuster knob to align the number with the round punch mark on the lever.
3. After adjustment, release the Brake Lever and check if the lever position is suitable for driver.

■ **NOTE:** The distance from the grip to the released lever is at its closest at number 1 and the furthest away at number 4.

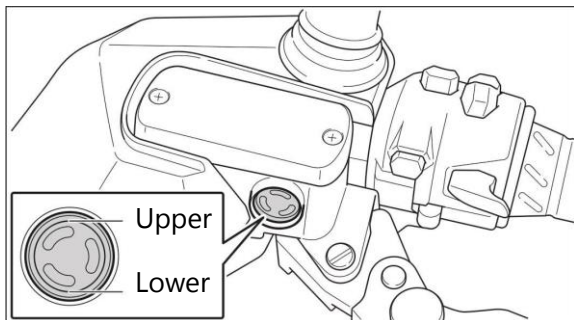
6.15.2. Checking Brake Fluid

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

1. Straighten the Handlebar, check brake fluid in the Reservoirs.
2. The level should be between the Upper Mark and Lower Mark.
If level lowers near the Lower Mark, check the brake pads for a worn condition.
3. If the brake pads is not worn exceeding a specified limit, most likely there is a leakage of brake fluid; go to a dealer for repair.

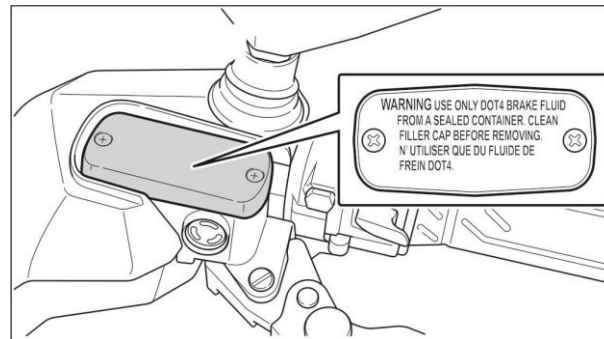
■ **NOTE:** Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.

Viewing Window of Brake Fluid



6.15.3. Replenishing Brake Fluid

1. Straighten the Handlebar, remove 2 fixing screws of Reservoir 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

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

6.15.4. Check Brake pads

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

Worn brake pads should be replaced immediately. If the pads are not worn, have your brake system inspected for leaks. Do not ride your scooter unless the brakes are in perfect working order.

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

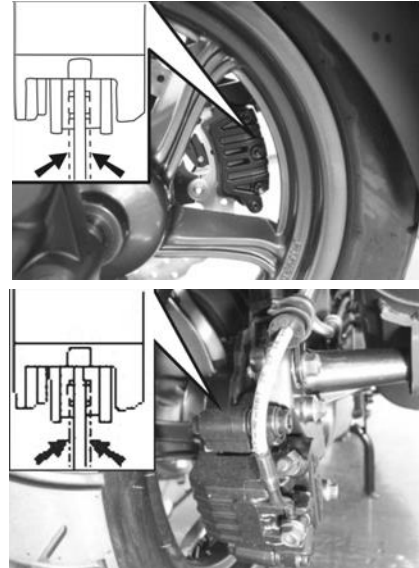
Before riding, apply braking several times to reach the proper lever stroke and firm feel on braking action that will ensure the brake pads are pressed against the brake disks securely

⚠ CAUTION

The brakes will wear quickly if the lever is continually applied during riding (dragging the brake).

⚠ WARNING

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



■ **NOTE:** The pads are eco-friendly material. Therefore, there will be slightly scratch sound during riding which is normal situation. This would not affect braking performance.

6.16.Tyres

⚠ WARNING

Failure to follow these warnings may result in an accident due to tyre failure. The tyres on your scooter are a crucial link between your scooter and the road.

You and your passenger's personal safety are dependent upon the condition of your scooter's tyres.

Follow these instructions:

- Check tyre condition and pressure, and adjust the inflation pressure before each ride.
- Avoid overloading your scooter.
- Replace a tyre when worn to the specified limit, or if you find any damage such as cuts or cracks.
- Always use the proper size and type of tyres as specified in this Owner's Manual.
- Balance the wheel after tyre installation.
- Read this section of Owner's Manual carefully.

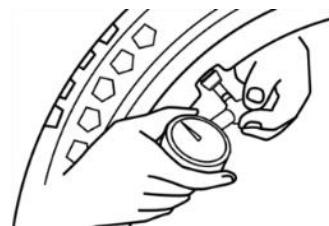
Failure to perform a reasonable run-in of the tyres could cause tyre slip and loss of control.

Use extra care when riding on new tyres as the grip will be limited. Perform proper run-in of the tyres, as stated in the run-in recommendation section of this manual. Avoid hard acceleration, hard cornering, and hard braking for the first 100 miles (160 km).

6.16.1. Tyre pressure

Check grip between tyre and ground and a normal tyre pressure. If the tyre pressure is low, inflate to the normal level.

In case of a gripping anomaly, check tyre pressure for normal reading using a pressure gauge.



	Rider	Rider with one passenger
Front tyre	29.0 psi (200 kPa)	
Rear tyre	32.0 psi (225 kPa)	

Insufficient air pressure in the tyres not only accelerates tyre wear but it also affects the stability of your scooter. Under-inflated tyres make smooth cornering difficult and overinflated tyres decrease the amount of tyre in contact with the ground, which can lead to skids and loss of control. Make sure that the tyre pressures on your scooter are within the specified limits at all times.

■ **NOTE:** Check the tyre inflation pressure and tyre tread condition at the periods listed in the periodic maintenance schedule. For maximum safety and good tyre life, the tyre pressures should be inspected more often.

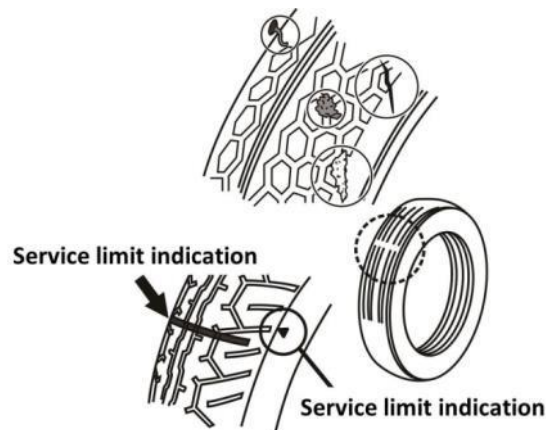
■ **NOTE:** Tyre pressure should only be adjusted when the tyres are cold.

6.16.2. Tyre Size

Front Tyre	120/80-14, 58S
Rear Tyre	150/70-13, 64S

6.16.3. Tyre Inspection

Check tyres before each riding. In case of finding a transverse line (minimum pattern depth), nail or glass chip on the tyre, or crack line on the side wall of tyre, go to Kymco dealer for replacing with new one. Excessive wear of tyre tread pattern will result in reduce friction and the tyre will become more prone to be punctured; it also affects safety of operation.



Tyre wear changes the tyre profile and may affect the vehicle's handling characteristics.

■ **NOTE:** Check the tyre condition before each riding.
Replace the tyres if tread depth is less than service limit.

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

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

⚠ WARNING

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

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

Always install tyres according to the rotation direction shown by arrow on the sidewall of each tyre.

6.17.Clean the Windshield

To avoid possible scratches, use only water and a soft cloth or sponge to clean the windshield and other plastic parts with a soft and clean cloth.

Avoid using detergents or any kind of chemical cleaner.

For a much dirty condition, use a diluted neutral detergent with a sponge and plenty of water.

Make sure to wash off all the detergent, the remaining detergent residue may cause cracks or paint fading.

⚠ CAUTION

- Don't use organic solvents such as gasoline thinner, etc.
- Use neutral soap to clean windshield and other plastic parts.
- Replace the windshield if scratch level is too severe to have a clear vision.

6.18. Washing your scooter

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

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

Clean the plastic parts using a sponge or soft cloth 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 surfaces.

■ **NOTE:** The inside of the headlight lens and the speedometer lens may be clouded immediately after washing the scooter, or in a rain. Moisture condensation inside the headlight lens and the speedometer lens will disappear gradually by heat from the headlight. After washing, run the engine while keeping the headlight on to dissipate the condensation.

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

Dry the scooter and then start the engine, and let it run for several minutes.

Test the brakes before riding the scooter. Several applications of the brakes may be necessary to restore normal braking performance.

■ **NOTE:** Due to water on the brake components, braking efficiency may be temporarily impaired immediately after washing the scooter. Anticipate longer stopping distance to avoid a possible accident.

Finishing touches:

After washing your scooter, consider using a commercially available spray cleaner/ polish or a quality liquid or pater wax to enhance and protect the paint's finish. Use only a non-abrasive polish or wax made specifically for scooters, motorcycles, or automobiles. Apply the polish or wax according to the instructions on the container.

6.19.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 tyres to the rated pressure and put the wheel stands to raise tyres off the ground.
- Cover the vehicle, store indoors and keep dry.

6.19.1. 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

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

7. EMISSION CONTROL

Crankcase Emission Control System

Your engine is equipped with a closed crankcase system. Blow-by gases are routed back in to the combustion chamber via the intake system. This system does not allow the blow-by gases to enter the atmosphere.

Exhaust Emission Control System

The exhaust emissions from your scooter are controlled by engine design, factory-set fuel delivery, ignition settings, and exhaust system design. This system also includes a catalyzer in the exhaust system.

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 your scooter were designed to comply with federal, state and local noise level requirements. Do not modify the engine, intake or exhaust components, as doing so will affect compliance these noise level requirements.

Please do not modify or change any KYMCO-designed components that may alter the sound or emission level from your scooter.

8. SPECIFICATIONS

Dimensions

Overall length	85.2±0.8 in (2165±20 mm)
Overall width	30.7±0.8 in (780±20 mm)
Overall height	50.6±0.8 in (1285±20 mm)
Wheel base	60.8±0.4 in (1545±10 mm)

Capacities

Engine oil (Exchange)	1.5 L (1.3 L)
Transmission oil (Exchange)	0.23 L (0.2 L)
Fuel tank	12.5 L
Coolant radiator + Hoses	0.87 L
Coolant reserve tank	0.49 L (Max)

Electrical

Ignition timing	ECU control
Battery	12V 11.8 Ah (20HR)
Headlight (Low/High)	12V 6.25/ 18.75W
Tail/Brake light	12V 2.8W/ 6.4W
License plate light	12V 5W
Turn signal light(Front/Rear)	12V 3.5W/ 2W
Position light	12V 1.87W
Fuse	30A/ 25A/ 10A/ 5A

Engine

Type	Four-stroke OHC
Valve train	OHC & CENTER PIVOT
Displacement	320.6 cc
Bore and stroke	2.96 in X 2.83 in (75.3 X 72 mm)
Compression ratio	10.7 : 1
Spark plug	NGK CR7E
Idle speed	1700 ±100 RPM
Cooling system	Liquid-Cooled
Starting system	Electric Starter
Transmission	Automatic CVT

Chassis

Tyre size, front	120/80-14, 58S
Tyre size, rear	150/70-13, 64S
Tyre pressure	Front: 29.0 psi (200 kPa) Rear: 32.0 psi (225 kPa)
Brake (front/rear)	Disk type
Curb weight	191 kg
Net weight	183 kg

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Second Edition, Aug. 2021

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T300-SK64DA-A1