Dear users:

Thank you very much for purchasing our CV3 Series product.

This Manual gives detailed instructions on how to operate, maintain and adjust the CV3 Series for prolonged durability and comfort. This model of vehicles complies with EPA regulations on scooter emission control standards, therefore complying environmental requirements in terms of low pollution, low noise and low energy consumption. Although having exceptional quality, regular maintenance is still essential for keeping the product in giving optimal performances.

In order to enjoy a safe and comfortable journey with your motorcycle, please read this manual thoroughly.

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Check Coolant
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The actual product shall prevail if any
content in this manual differs from the
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## Precautions on Safe Driving

• Please note!

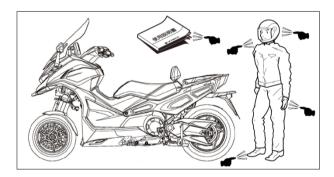
The structure of this vehicle is significantly different from 2-wheel vehicles. Without repeated practice and careful use, it may cause injury to oneself or others and vehicular damage, or even be life-threatening!

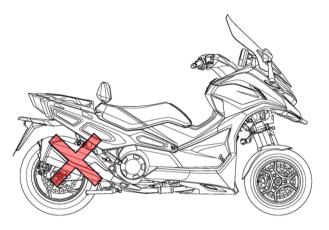
- It is recommended to test-ride the vehicle in non-traffic areas in order to better understand the characteristics of the vehicle.
- Peruse user manual and precautions.
- Driver shall wear a helmet, gloves, goggles, etc.
- Do not wear clothes that may impede safe driving.
- Excessively wide and loose sleeves may be caught by the brake lever and is extremely dangerous.
- Operation of brake lever shall in no case be obstructed.
- Daily and regular checks are necessities.
- Visually check tire appearance for any foreign object or unusual abrasion.
- Exhaust gas from the muffler contains carbon monoxide which is harmful to human body.
- Start the engine only in a well-ventilated location.
- Buckle up chin-belt when wearing a Helmet.

- Hold the Handlebar with both hands when riding. Do not ride by single hand for this is extremely dangerous.
- Wearing flat shoes is safer.

## Warning

When the locking mechanism is released, be sure to place both feet on the ground to avoid risks of the vehicle tipping over.

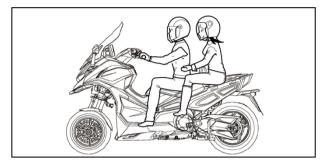




- The muffler is at a very high temperature after stopping the running engine, do not touch it.
- Avoid dry grasses or flammables when parking the motorcycle, for the prevention of fire risks.
- The muffler is at a very high temperature after stopping the engine; park the motorcycle with the Muffler facing a wall or a location free of pedestrian, for preventing any burn hazards.
- Metal or plastic parts of the scooter may reach a very high temperature after exposing to sunshine; care

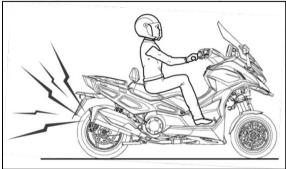
shall be taken not to touch such surfaces or a burn may occur.

- Avoid making sharp turns or one-handed driving.
- Abide by all traffic rules.
- Smoking is prohibited when replenishing fuel.
- Stop engine when filling with fuel.
- When mounting/dismounting the scooter, special care must be taken by the rear rider to prevent being burnt by the high-temp Exhaust Pipe.
- Operability of the handle varies in conditions with or without an extra load.
- Do not lead the vehicle and accelerate the throttle handle at the same time while the power is turned on or when the engine has started. This may easily cause accidental release of the locking mechanism.
- Do not let children or persons unfamiliar with the vehicle operate it.
- Do not hand over the vehicle to persons unfamiliar with the operation of the vehicle.



- When riding the motorcycle, the rider must place both feet on the pedals; the rear rider shall put 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.
- 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 warranty.

• Do not go near or touch the belt or front/rear wheels while they are in motion to avoid danger.

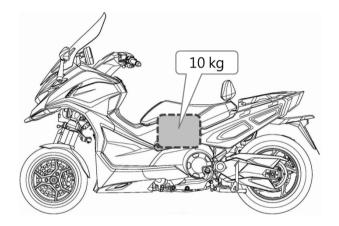


- Natural mental relaxation and comfortable clothes are essentials to a safe driving.
- Abide by traffic rules, avoid anxiety, relax your mood, and pay attention to drive.
- Avoid wearing clothes that may impede driving safety when riding the scooter. (E.g., long skirt, flared trousers, etc.)
- The exhaustion pipe is under extremely high temperature when riding the motorcycle or after the journey. Keep any portion of the body from touching the exhaustion pipe to avoid scalding injury.

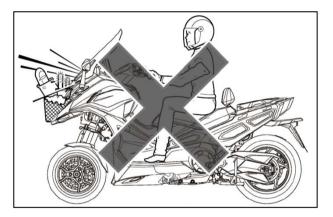
• Avoid dry grasses or flammables when parking the vehicle, for the prevention of fire risks.

## 🚹 Warning

Do not turn on the ignition and begin its related operations when the vehicle's main stand has not been erected, especially for children, the elderly, and persons unfamiliar with the characteristics of the vehicle. The owner of the vehicle is responsible for checking these relevant safety control measures. The maximum load of the storage box shall be limited to 10kg at most.



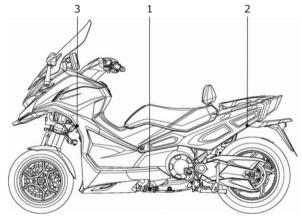
Do Not exceed the following load limits: The maximum load of the storage box shall be limited to 10kg at most. It is forbidden to install a carrying basket or bracket on the front header. Carrying anything in front of the vehicle will surly block the headlight and significantly affect driving safety.



#### Owner Information ID Number Record Field

Please note down the Engine Number and Vehicle Frame Number in the relevant fields below to facilitate ordering spare parts from a KYMCO dealer, or for reference in the event of a lost of vehicle.

ID Number Record Field:



The Engine Number is engraved on the crank box as shown in the figure.

1: Engine number engraving. 2: Frame number engraving.

3: Aluminum nameplate.

Engine Number:



The Engine Number is engraved on the crank box as shown in the figure.

### Frame Number:



Frame Number Imprint

Engrave the number onto the frame indicated in the drawing. The Frame Number can be seen from lower-right upwards.

## Aluminum Nameplate

Located on the right side of the front frame. The aluminum nameplate can be seen from the bottom looking up.

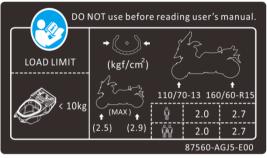


Location of the aluminum nameplate

Owner Information

2

#### Mark Drive Caution 1



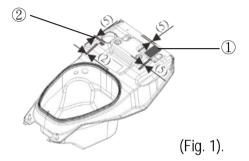
Label Fuel Tank (2)

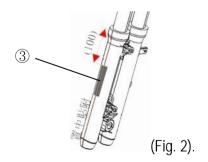


Stripe Logo KALS 3



The mark drive caution and label fuel tank of the motorcycle is tagged on the backside of the box, luggage of the scooter (per Fig. 1).





Collection of motorcycle data record

The ECU of this model collects and records the information on motorcycle to assist in fault diagnosis and troubleshooting.

To acquire the information, it is required to connect the Kymco diagnosis tool to the diagnosis connector of the motorcycle (e.g. maintenance check or repair).

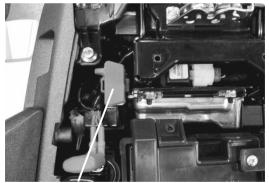
Refer to the figure on the right.

The sensor and recorded information depend on the Kymco model. However, the main information available is as follows:

- 1. Information on motorcycle status and engine performance
- 2. Information on motorcycle injection and emission

Kymco will not disclose this information to a third party except for the following conditions:

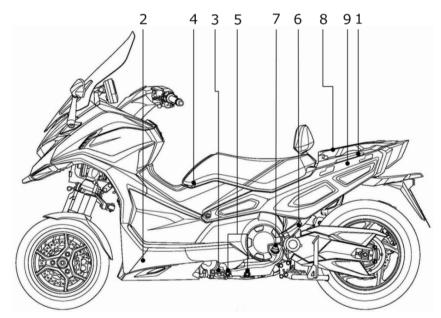
- 1. Kymco has acquired the approval of the user and owner of the vehicle.
- 2. The law requires Kymco to provide such information.
- 3. Kymco must submit the information to the court for litigation.
- 4. Kymco must provide such information for research purposes and this information is not related to a specific motorcycle or owner.



Diagnosis connector

3

### Parts Names Left View of Scooter

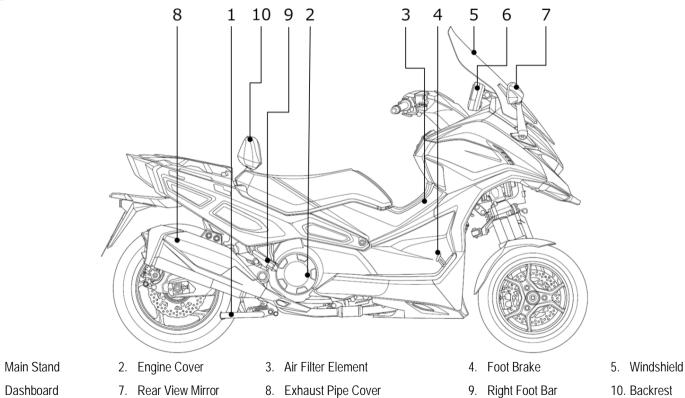


- 1. Battery
- Left Foot Bar 6.
- 2. Coolant Checking Window 7. Oil level guide
- 3. Engine Oil Filter 8. Storage Box
- 4. Helmet Hook 9. Left-rear Handlebar
- 5. Engine Oil Drain Cock

1.

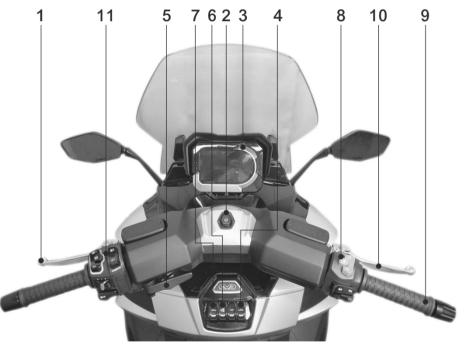
6.

#### **Right View of Scooter**



3

#### **Dashboard and Control Mechanism**



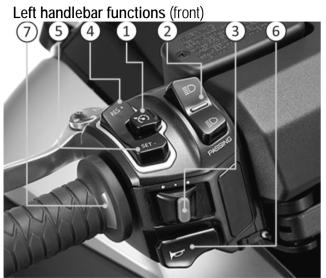
1. Rear Brake Lever

6. Seat Compartment Switch

KEYLESS Main switch
 Dashboard Selection Switch

noodoe Dashboard
 LOCK switch
 Right Handlebar Switch
 Throttle Handle

5. Parking Brake Arm
 10. Front brake lever



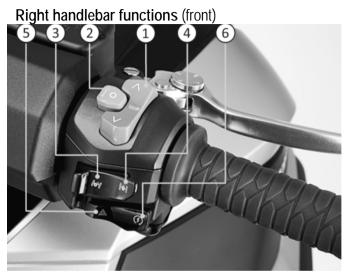
- 1. Cruise setting key
- 2. High/Low Beam Switch
- 3. Winker Switch
- 4. Reset/accelerate button (+)
- 5. Set/decelerate button (-)
- 6. Horn Switch
- 7. Handlebar Heater Indicator

(rear)



- 1. Power/Rain mode switch
- 2. Handlebar heating button

3

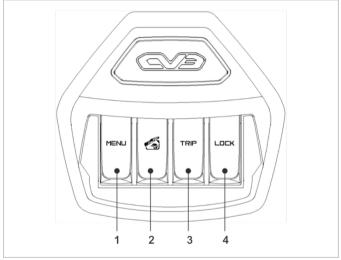


- 1. noodoe Pgup / Pgdn Button
- 2. noodoe Enter / Change Button
- 3. Release Front Wheel Lock
- 4. Lock Front Wheel
- 5. Park Alert Switch
- 6. Engine Ignition Button



- 1. Release Engine Stop Switch
- 2. Engine Stop Switch

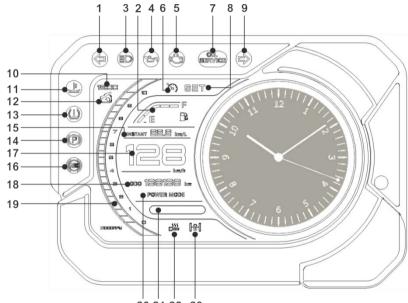
#### Center Multifunction Switches



- 1. Dashboard Menu: Switch between main screen and sub-screen selection menu.
- 2. Storage Box: Storage box switch
- 3. Odometer Switch: Switch between TRIP A and B
- 4. Steering Stem Lock: Used to lock the steering stem

4

#### Control Functions of Mechanism LCD Dashboard Function



20 21 22 23

<ol> <li>Left winker</li> </ol>	2. Fuel gauge	3. High beam		5. Engine failure indicator	6. Cruise control
7. Oil service indicator	8. Settings indicator	9. Right winker	10. Clock	11. Water temperature warning indicator	12. Seat open warning indicator
13. Tire Pressure Indicator	14. Parking brake indicator	15. Instant fuel consumption display	16. ABS warning indicator	17. Speedometer	18. Odometer
19. Tachometer	20. Power/Rain mode	21. Message bar	22. Heating the Handlebar	23. Anti-tilting lock	

- 1. Left blinker: Direction button for left or right turn, indicator light will flash when turned on; press middle button to turn off.
- 2. Fuel gauge: The fuel gauge is divided into five sections.
- 3. High beam: When this indicator lit, the headlight is in the high beam position.
- 4. The Oil Pressure Warning Indicator: The Oil Pressure Warning Indicator lights up when KEYLESS Main Switch is activated.

The Oil Pressure Warning Indicator will go off when the engine is started.

The Oil Pressure Warning Indicator will light up if the oil pressure is lower than normal action when the engine rotates. This denotes a system anomaly; you need to go to a KYMCO dealer for a check-up.

5. Engine inspection indicator: After "KEY ON," the engine inspection indicator will illuminate and then extinguish by itself after starting the engine. In this case, it means the vehicle is under normal conditions.

If the indicator is persistently lit, it means there are problems in the vehicle system. Please visit the service station for inspection and maintenance.

- 6. Cruise control: This function is the settings for cruise control, please refer to "Settings for Cruise Control".
- 7. Oil/belt service indicator: OIL  $\rightarrow$  Oil change indicator. When the vehicle reaches 5,000 km, the services symbol on the right side of the dashboard will stay lit, indicating that oil needs to be checked.

Belt→Belt Replacement Indicator. After running 20000km, the "services" symbol on the right of Dashboard lights up constantly, indicating a CVT belt replacement is required.

## Caution

- Oil Replacement indicator will only light up after running 5000km, therefore it will not light up for the first oil replacement at 1000km. However, a Zero adjustment is still necessary after oil replacement at 1000km so that the indicator can act correctly for a subsequent indication.
- When the accumulated mileage reaches 5000 km, the oil change indicator (service symbol) will light up. Switch to OIL mode and reset the accumulated mileage to 0. The oil change indicator (services symbol) will turn off, and the mileage will begin recounting from 0.
- When the accumulated mileage reaches 20,000 km, the belt change indicator (service symbol) will light up. To reset, switch to Belt mode and reset the accumulated mileage to 0. The belt change indicator (service symbol) will turn off, and the mileage will begin recounting from 0.

- 8. SET Settings button: This is the settings button for cruise control.
- 9. Right blinker: Same as item no. 1.
- 10. Clock: This clock is on the top left of the dashboard.
   The format of the clock is either 12h or 24h, and needs to be set from the APP.
- 11. Water temperature warning indicator: When riding, if the water temperature reaches H (high temperature), it means the water temperature is faulty. Please park the vehicle in a safe location, turn off the ignition, wait for the temperature to drop, check and refill the coolant, then restart the engine, and visit the KYMCO dealer shop for inspection or repairs immediately. The user should take extra care, riding forcibly when water temperature is at H (high temperature) may cause engine failures.

- 12. Seat open warning indicator: When this light is lit, the seat has been opened.
- 13. Tire Pressure Detection Indicator: After KEY ON, this indicator lights up if tire pressure is too high or too low. If tire pressure decreases rapidly, the indicator flashes quickly; if tire pressure decreases slowly, the indicator flashes slowly.
- 14. Parking brake indicator: When this light is lit, the parking brake is locked.
- 15. Instant fuel consumption display: The instantaneous fuel consumption is calculated for display reference according to the throttle openness.

There are three fuel consumption unit selections of km/L, L/100 km, and MPG. They must be set from the APP. (When TRIP A is reset, the average fuel consumption will also reset.)

## Caution

- When selecting Mile Gauge, the displayed unit is MPG, i.e. miles per gallon.
- The Average Fuel Consumption or Instant Fuel Consumption of the vehicle displayed by the meter is for reference only. The actual fuel consumption is dependent on the actual vehicle behavior.
- 16. I ABS warning indicator: The light should be turned off during travelling, indicating the ABS braking system is in operation. If the light stays lit during travelling, and cannot be resolved, please visit the dealer shop for repairs.

## Caution

If ABS Fault Indicator stays lighting up when vehicle speed is  $\geq$  6km/h, it indicates the ABS system is faulty. Please go to a local KYMCO dealer for check-up immediately.

Δ

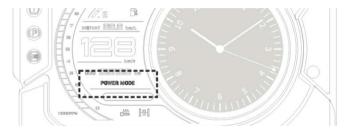
- 17. Speedometer: The unit is represented in km/h or mph, and must be set from the APP. When switching the setting, all units used in the dashboard will be switched simultaneously. (except that of tire pressure)
- 18. Odometer: Records the total accumulated mileage travelled.
- 19. Tachometer: Indicates engine speed in rpm; each scale multiplied by 1000rpm.
- ing the antong the left handlebal switches, switched between power/rain modes of the driver's need.
  ; each
- 20. Power/Rain mode: The MODE button is located among the left handlebar switches, and can be switched between power/rain modes depending on the driver's need.



MODE button

Mode switch:

When travelling normally, the diagram will read POWER MODE. Press the MODE button on the left handlebar, the diagram will change to RAIN MODE, indicating a switch to rain mode.



- 21. Tire pressure inspection receiver: When power is turned on, it will receive the tire pressure status signals from the front/rear wheels. (The unit can be set from the APP, between kg/cm<sup>2</sup>  $\rightarrow$  bar  $\rightarrow$  psi  $\rightarrow$  kpa.)
- 22. Heating the Handlebar: Refer to "Heating the Handlebar".



1. Indicator

2. Heater Button

- 23. Anti-tilting lock: The button is located among the right handlebar switches, when the anti-tilting lock is pressed, a white light on the dashboard will stay lit. Press the release button beside it to release the lock, then the white light will flash.
- 24. Dashboard angle adjustment: The dashboard has a 10-degree adjustable angle, the user may adjust it accordingly.





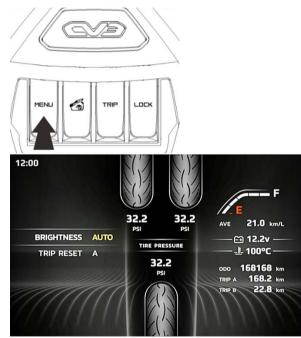
Anti-tilting lock

Caution

- In order to prevent accidents, do not perform adjustment when riding the vehicle.
- Adjust settings of the LCD Dashboard after parking at a safe location.
- When releasing the anti-tilting lock, please ensure that the main stand has been erected or the personnel on the vehicle places both feel on the ground for preparation to avoid the vehicle from tipping over due to slow reaction.
- When adjusting the dashboard, do not make adjustments forcibly to avoid damaging the adjustment mechanism.

#### LED dashboard – sub-screen

Press the "MENU" button in the center switch panel to enter the sub-screen selection menu, press again to return to the main screen.





Brightness adjustment

Short-press the up ( $\frown$ ) button among the right handlebar switches, select brightness adjustment and press "O" to enter the selection menu. Make the selection according to the scale graduation and press "O" to leave the page.

$(\frown)$ Button $\rightarrow$ Up Button
( $\sim$ ) Button $\rightarrow$ Down Button
(O) Button $\rightarrow$ Enter Button

TRIP A/TRIP B Mileage reset selection

Push the " $\sim$ " (Down) button of the right handlebar switch and then push "O" and you can access the menu. After selecting "TRIP RESET A or B", push "O" again to complete the resetting.

## How to enter the noodoe System

- Step 1: Download the app. Refer to "Download noodoe app", download the app and the system installs the app automatically.
- Step 2: For detailed operation of the button, please refer to "Introduction of Right Handlebar Switch Operation Button".
- Step 3: Refer to "Scooter Pairing" and creation upload for scooter pairing.

### noodoe Function

- A. Refer to "Introduction of App Function/Create Mode" for an introduction of app functions.
- B. Refer to "Find My Scooter" for locating scooters.
- C. Refer to "Message Notice" for the message notice function.
- D. Refer to "Welcome Light" for the welcome light function.

## Enter the noodoe Function

Step 1: Download the app. Refer to "Download noodoe app", download the app and the system installs the app automatically.

The user may enter the Google Play Shop (Android) or App Store (iOS) and search "noodoe."



Caution

Minimum supported version: Android 6.0 or above, iOS 12.1 or above.

You cannot run the app if your phone doesn't support Google service.

# Control Functions of Mechanism

### Step 2: Introduction to operation buttons





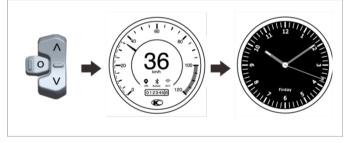
- ( ) Button  $\rightarrow$  Up Button
- ( $\searrow$ ) Button  $\rightarrow$  Down Button
- (O) Button  $\rightarrow$  Enter Button

### While Driving



Operate ( , ) and ( ) buttons to switch-over between 4 screens of Dashboard noodoe functions. Press (O) button to end the action.

#### When Stopped:



Message Notice:

•Operate (  $\frown$  ) and (  $\frown$  ) buttons to switch-over message notices in the Dashboard noodoe Function. Press the (O) button to activate or close message notices. Step 3: Scooter Pairing

To use Scooter Pairing, the user needs to enter the APP (cell phone)  $\rightarrow$  set up (cell phone)  $\rightarrow$  Scooter Setting  $\rightarrow$ KEY ON (Scooter)  $\rightarrow$  Select a new user or an existing user (Scooter) by the Operation Button  $\rightarrow$  Press (O) button to enter "Pairing Mode" (Scooter)  $\rightarrow$  Select Bluetooth Device (cell phone)  $\rightarrow$  Link (cell phone)  $\rightarrow$ Confirm Code (cell phone and Scooter)  $\rightarrow$  Press (O) button  $\rightarrow$  Pairing accomplished.

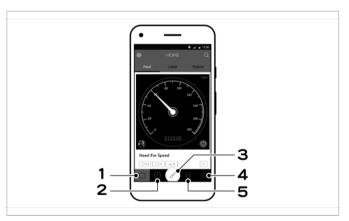


Uplinking creation User created Dashboard can be installed onto scooter. Cell phone display Dashboard display



noodoe Function

- A. Introduction app functions
- The user may browse and collect creations from users all over the world and install them into the Dashboard of your scooter.
- The user may collect or remix any creation they find, or design their own Dashboard in Create Mode.



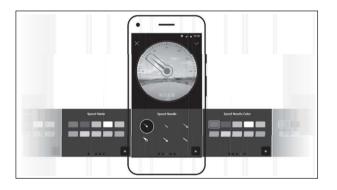
1 : Home/Feed 2 : My Dashboardes 3 : Create Mode 4 : My Profile 5 :

5 : Settings

Create Mode

Create Mode allows you to remix an existing template to your liking

Pick between Clock, Weather, Compass or Speed and unleash your creativity. You can change colors, fonts, upload your own images and more.



- B. Find My Scooter
- Forgot where you've parked? No worries, noodoe remembers. Tap the icon and the app will guide you back to where you last parked.
- Find your scooter either on the map or by following the directions from the app, complete with distance and direction.



Open the Bluetooth and the online function of the handset. The vehicle search function is designed with the following two display modes:

- 1. Map Mode
- 2. Azimuth Mode

Δ

- C. Message Notice
- Once the cell phone is linked, any incoming message will be forwarded to the scooter dashboard
- (Android users may select their display with → Setting → Application).



A message "For the sake of safety, no message is viewable when you drive the scooter." is displayed on the top of the noodoe Dashboard.

#### When Stopped:

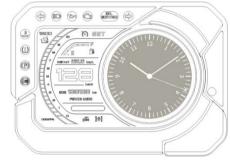


Any message received during your ride will be displayed automatically when you make a subsequent stop.

You may also press the ENTER button on the right handlebar switch (only when your stop the scooter) to manually search message contents.

#### D.Welcome Light

When searching for your motorcycle in a congested parking lot or during night hours, open the APP with the handset and then push "Find My Scooter". After that, it will light up the "Welcome" indicator to help you identify and find your scooter. It is a function designed for practical use.



## ᡗ Warning

- When using the noodoe function, make sure that the batteries of both the cell phone and scooter are fully charged. If you need to start the engine for charging, do it in a well ventilated place.
- If the battery voltage is too low when shutting down

the power, the "noodoe system" will turn off the Bluetooth / Online / Welcome function automatically. If the battery is still inactive after starting the engine, please contact your dealer for repair services.

• To conserve energy, the welcome light will turn off after 2 minutes.

# Caution

- 1. For enhancing accuracy of displayed weather and local information, you should activate GPS and Network functions of your cell phone. (In case of cell phone signal failure, previous information will be displayed until resumption of cell phone signal for displaying accurate information).
- 2. Switching over of Speed / Temperature / Time units is carried out from athe cell phone; minor differences resulting from the frequency of data updating is within a reasonable range.
- 3. Scanning speed and results of Bluetooth Device may be limited in compatibility issues due to cell phone specifications.
  - a. Scanning speed of Bluetooth Device is slow.
  - b. Pairing is unsuccessful.
  - c. Bluetooth error occurs during the link.

- 4. The User needs to set the cell phone's Cloud Messaging function to facilitate noodoe message display.
- While driving, noodoe will not display any message (including incoming call, message, LINE, FB, etc.).
   When the vehicle stops, noodoe automatically displays incoming calls and relevant information.
- 6. The last screen at the previous shut down will be the first screen on a restart.
- 7. The compass function must be activated by performing setup on a cell phone. Minor errors may exist depending on data update frequency.
- 8. The compass only performs self-verification to modify orientation when the vehicle starts to move, therefore it is normal that no orientation calibration is activated after connecting the noodoe App while the vehicle has not yet started moving.
- 9. Time in noodoe will be calibrated automatically after connecting noodoe with a cell phone.
- 10. The user shall never operate noodoe while riding the vehicle or an accident may occur.
- 11. The action of the Welcome Light function can be set using an app (enabled or disabled).

When Welcome Light is set to enabled:

- a. The Welcome Light is only activated on a subsequent connection of a Bluetooth Device.
   Each activation lasts for 2 minutes before switching off automatically.
- After each ride, a single cell phone linkage will only activate the Welcome Light 3 times; the Welcome Light will shut off Bluetooth functions automatically after being activated 3 times.
- c. Entering the Find My Scooter screen will cover functions a and b, in which case the system enables the Welcome Light until the user gets out of Bluetooth range or disables the Bluetooth connection function.
- d. After the "Welcome" indicator extinguishes, it will maintain standby status for 1–3 days (allowing you to execute the setting in the APP). If the standby duration expires or if the battery voltage is too low (about 12V), the Bluetooth function will shut down automatically.
- 12. When the KEYLESS Main Switch is OFF, all the information will be removed, to prevent the leaking of personal info.

- 13. App info display speed may be limited due to network transfer rate, therefore resulting in slow data indication under poor networking speeds.
- 14. There are certain app notice limitations between iOS and Android systems.
- 15. There is a possibility that app functions may become unusable after upgrading iOS and Android software; some new cell phone models may have unusability issues.
- 16. When using the noodoe function, make sure that the batteries of both the cell phone and scooter are fully charged. If you need to start the engine for charging, do it in a well ventilated place.
- 17. The noodoe system will be switched off automatically if battery power is low (about 12V) for 30s; if battery voltage is lower than 11.8V, please start the engine or stop using the system and go to a KYMCO dealer for checking the circuitry.
- 18. The noodoe system may shut off and enter into protection mode due to excessive temperature rise under certain special environment or mode; however the system will resume operation when the temperature drops.

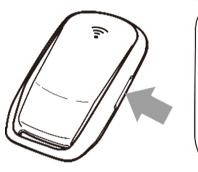
### KEYLESS car key



The KEYLESS is the hi-tech electronic main switch that does not need a key (per the figure above). Each vehicle is equipped with 2 sets of remote controllers and they should be preserved carefully. If the wireless key is lost, then you will not be able to open the KEYLESS main switch. For this reason, you are required to preserve the wireless key carefully.

# 🚺 Warning

If both keys of the KEYLESS main switch are lost or damaged, please contact your dealer to provide inspection or replacement services. Replacing the wireless key battery Use appropriate tools for opening





Model No. of wireless key battery: CR2032

## Caution

Ensure the positive terminal of the battery is installed in the correct position.

Do not touch the circuits and terminals inside to avoid malfunctions.

When replacing the battery, do not apply excessive force to the keyless car key.

 If both sets of keyless car keys are lost or damaged, please visit the dealer shop for relevant inspections or replacements.

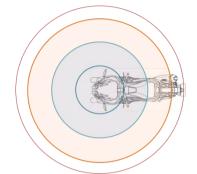
- When the keyless car key battery is low on power, it will affect the sensing distance. Please replace the battery as soon as possible.
- If one has electronic medical devices implanted in the body, please consult the physician or device manufacturers to confirm whether the radio waves will affect these medical devices.
- Do not expose the keyless car key to strong radio waves, or it may affect its functionality.
- Do not let the keyless car key come into contact with metal objects or coverings, or it may affect its functionality.
- The storage environment of the keyless car key should be free of humidity and high temperature.
- There are precision electronic components inside the keyless car key, please take note of the following items to avoid possible malfunctions or damages:
- Do not place or store the keyless car key inside the storage box, it may be damaged due to vibrations of road surfaces or overheating.
- Do not allow the keyless car key to drop, bend, or expose to strong impact.
- Do not immerse the keyless car key in water or other

liquids.

- Do not place heavy objects or apply excessive force onto the keyless car key.
- Do not expose the keyless car key to direct sunlight, high temperature or high humidity.
- Do not polish or attempt to alter the keyless car key.
- Keep the keyless car key away from strong magnetic fields or magnetic objects such as key rings, TVs, and computers.

## **KEYLESS** sensing distance

1. Remote sensing antenna (single open space): The best sensing distance is within 1.5m; sensing is not possible past 3.5 m.



2. Short-range sensing antenna (single open space): Can only be sensed when in close proximity to the sensing symbol.

### Caution

- The best sensing distance is 150 cm, but the actual sensing distance may differ due to environmental factors and battery power.
- When leaving the vehicle, ensure the handlebar has been locked, and the KEYLESS system has been

shut off, and bring the keyless car key with you.

### Short-range sensor

If the keyless car key is out of power and is unable to open the lock, the short-range sensor can be used to unlock.

Place the keyless car key on the right side of the center switch set, the short-rage sensor symbol.



Short-range sensor symbol



 As the battery power of the keyless car key diminishes, it will affect the remote sensing distance.

- When replacing the battery, avoid inappropriate operations which may damage the functionality of the car key. Please visit the professional service station for inspection.
- The sensing distance is for reference only, and the KEYLESS button is still required to start the power.
- The keyless car key uses radio wave technologies, the range of operation will be affected by surrounding environmental factors. If the keyless car key is placed in the storage box or front storage box, it may affect the communication between the keyless car key and the vehicle, leading to poor sensing.
- If the keyless car key is out of power, it may affect the sensing range or even lose its remote detection function. When this happens, the short-range sensing function can be used instead. Place the keyless car key within the short-range antenna detection range near the right side of the switch set, press the main switch button for a short beep sound to unlock and turn on power.
- Under power-on state, when the keyless car key leaves the short-range sensor location, if the vehicle is to be powered-off, it will make 10 warning beeps as

reminder. Press the main switch button again to turn off.

- The keyless key car should be carried with you at all times. Do not place it in the storage box or on the vehicle.
- Take caution when the keyless car key enters operable range, as any person without the keyless car key but within sensing range may start the engine and ride the vehicle away.
- When the keyless car key is not within sensing distance, the vehicle may not be started.
- When the keyless car key leaves the sensing distance, there can still be instances of power consumption.
   When the user is unable to operate the KEYLESS main switch, the battery in the keyless car key should be replaced as soon as possible.

## **KEYLESS Main Switch**



KEYLESS Main Switch

## KEYLESS Controller Theft Prevention Setting – Remote Sensing (Locking)

 When the user stops the vehicle and leaves, please press the KEYLESS main switch button. The system will make a long beep sound, and this will complete the power-off and locking action.

#### KEYLESS CONTROLLER Theft Prevention Setting – Remote Sensing (Unlock)

• Press the main switch button, and the main switch will make 2 short beep sounds. The screen will display the

power-on scanning screen. The engine can be started once completed.

- Under engine non-ignition state, when the keyless car key leaves the sensing distance, the system will make a beep sound after 30 sec and turn-off.
- When travelling, when the keyless car key leaves the sensing distance, the engine will not shut down. It needs to be turned off manually in idle state.
- When the keyless car key is out of power or there is interference in the environment, leading to the ability to lock the vehicle, the short-range sensor can be used.
- It is strongly recommended that the user shall use Remote Sensing (Locking) mode to activate the Theft Prevention function.
- If you cannot operate the KEYLESS main switch from long range, please replace the wireless key battery or use the near-range sensing function to lock the vehicle.

# KEYLESS controller anti-theft setting – short-range sensor (locking)

Place the back of the keyless car key near the right-side circular symbol of the center switch set and press the main switch button. There will be a long beep sound, and this will complete the locking action.

# KEYLESS controller anti-theft setting – short-range sensor (unlocking)

Place the back of the keyless car key near the right-side circular symbol of the center switch set and press the main switch button. The power will be turned on following 2 short beeps, and this will complete the unlocking action.





Under short-range sensor state, when the keyless car key leaves the short-range sensing location, the system will make 10 beep sounds before turning power off. Press again to turn power on.

## Steering Stem Lock

To further prevent theft, the steering stem should be locked when parking the vehicle.

Vehicle locking method:

Under the power-off state, turn the steering stem completely to the left, long-press the "LOCK" button for 2 sec, a long beep sound will indicate successful locking.





Steering stem unlocking method:

Long-press the main switch button, the system will make 2 short beep sounds to power on, and this unlocks the vehicle.

- The system will make 4 short beep for unsuccessful lock. Please confirm that the steering rod is completely turned to the left and try locking again.
- The system will make 4 short beep for unsuccessful unlocking. Please confirm that the steering rod is completely turned to the left and try unlocking again.
- If the keyless car key is out of power, it needs to be

operated through the short-range method.

- The levelness and safety of the parking location needs to be evaluated when locking and parking the vehicle, and lock the hand brake for safety.
- After locking the steering lever, confirm that the steering lever has been securely locked before leaving the vehicle.
- Do not park your scooter at locations where traffic safety may be obstructed.
- The wireless key storage position may affect the KEYLESS System (e.g. in the rear-side pocket or a backpack).
- After removing the wireless key, the vehicle will become inactive.
- The storage environment of the keyless car key should be free of humidity and high temperature.
- As the battery power of the keyless car key diminishes, it will affect the remote sensing distance.
- Avoid improper operating steps when replacing the wireless key.

If the wireless key is operating abnormally, please send it to the professional service station for repairs.

## Main Switch Functions

- There will be 2 beep sounds when opening the main switch, indicating power-on. At this time, the dashboard will perform a screen scanning, indicating prepare for engine start. Short-press 1 time for a beep sound to turn off.
- To avoid risks of power cut-off by accidentally pressing the main switch, the main switch button is rendered inactive while the vehicle is travelling. It is only operable when idle.



# A Caution

- Under any screen state, the screen will return to the main page when the vehicle is powered-off and turned back on.
- When the unlocking of the steering stem is unsuccessful, please confirm that the steering stem is turned completely to the left, and try unlocking again.

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## Right Handlebar Switch



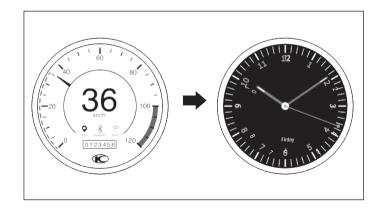
- 1. noodoe Pgup / Pgdn Button
- 2. noodoe Enter / Change Button
- 3. Front wheel anti-tilting lock release
- 4. Front wheel anti-tilting lock
- 5. Park Alert Switch
- 6. Engine Ignition Button

noodoe Pgup ( $\frown$ ) / Pgdn ( $\frown$ ) button

When operating the up  $(\)/down$   $(\)$  button, the related noodoe information in the middle of the dashboard will change.

#### noodoe Enter / Change Button

Press "O" to enter the selection menu and see the related noodoe information.

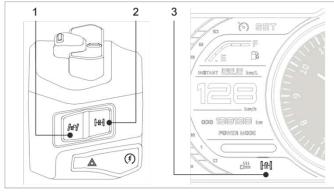


# Anti-tilting Lock Switch

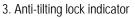
- 1. When starting the Front Suspension Lock function, it will trigger the Front Suspension Caliper and the Disk to carry out the locking. Such function helps the rider keep the motorcycle in the upright position when stopping or parking the vehicle.
- 2. When pressing this switch, the motorcycle will be maintained at the current vehicle angle.

# Front wheel anti-tilting lock release / Front wheel anti-tilting lock:

Match the buttons with the illustrated diagram shown.



1. Lock release 2. Anti-tilting lock



- 1. When the main switch is turned on, if it is unlocked, the indicator will flash; the indicator will stay lit when locked.
- 2. When starting the vehicle, if the throttle opening is greater than the unlocking threshold, it will automatically unlock. The lock button will be inactive while riding, and can only be manually locked when the speed is lower than the locking threshold.
- 3. When pressing the Lock Switch, the Front Suspension Lock warning screen will constantly light up in white and the Buzzer will also sound once.
- 4. When pressing the Unlock Switch, the Front Suspension Lock warning screen will flicker in white and the Buzzer will also sound twice.

- Locking condition when idling: engine speed < 2000 rpm and wheel speed < 13 km/h
- Unlocking condition for anti-tilting: > 2200 rpm and wheel speed >2km/h
- If the engine is on, do not turn the throttle handle when walking the vehicle manually. When the speed reaches the unlocking threshold, after being unlocked, the 2-wheel vehicle can easily become unstable and

the 2-wheel vehicle can easily become unstable and risk tipping over.

- When starting the vehicle, it should be set to unlocking state for a smoother start.
- When the vehicle is starting or decelerating, as the vehicle is in between the unlocking and locking threshold, the rider must be careful when riding. The rider should familiarize themselves with vehicle operations and the device switching characteristics to ensure safety of usage.
- If the locking indicator turns orange, it means there are problems. Please restart the vehicle. If problem cannot be resolved, please visit the dealer shop for inspection and repairs.

# Narning

- 1. Before locking the Front Suspension, the rider must keep the motorcycle in an upright position. If the motorcycle is tilting, it may lead to an unstable center of gravity as to cause the overturning of the vehicle.
- 2. Be sure to release the front suspension locking under any of the following circumstances. Otherwise, it may lead to unbalanced riding and cause the overturning

of the vehicle.

- When riding on muddy, bumpy or coarse road surface conditions.
- When passing through obstacles deployed along the road such as crosswalks and the road humps, etc.
- When riding on the slope.
- If you need to walk the motorcycle, shut down the vehicle power beforehand. Otherwise, the Front Suspension might be released accidentally as to cause the overturning of the vehicle.
- 4. Do not execute the sliding by turning off the motorcycle when the Front Suspension is under locked status as it may result in uncontrollable riding during the sliding process. If starting the vehicle power during the sliding process, it may release the Front Suspension Lock inadvertently as to lose the balance.
- 5. After starting the Front Suspension locking when the vehicle is on stopped status, use the hand brake or operate the parking brake to prevent the vehicle from executing unexpected sliding.
- 6. When putting aside the vehicle for a long time, park the motorcycle with the Main Stand and unlock the

Front Suspension in the meantime.

- 7. If the voltage of the vehicle is low, the Front Suspension Lock will execute the unlocking function only. When the system determines that the vehicle has been supplied with sufficient voltage, the Front Suspension Lock will resume its normal operations.
- 8. If the system is abnormal, the Front Suspension Lock warning lamp will display in orange. After emitting a long warning sound for 6 seconds, the system will release the locking automatically; or the system will release the locking when the warning sound is emitted intermittently.

# Conditions required for Front Suspension Lock automatic shutdown

- 1. When the vehicle speed is higher than 2km and the engine revolution is over 2200rpm, the system will release the Front Suspension Lock automatically. In the meantime, the Front Suspension Lock warning lamp will flicker and the Buzzer will sound twice.
- 2. Tight accelerator status: The system will release the locking automatically if the short-time revolution of the engine is over 3000rpm.
- 3. Parking status: When the vehicle is under still status,

the system will release the locking automatically if the engine short-time revolution is over 3000rpm.

- When parking the vehicle, ensure that the main stand is erected, the anti-tilt button is pressed, and hand brake is lifted.
- When parked on sloped or uneven surfaces, there are still risks of tip over even with the anti-tilting lock. The owner should evaluate and park the vehicle on appropriate level ground to ensure safety.

# Park Alert Switch

▲ : Push this switch to the left, all the Park Alert Indicator (4 winkers, left and right, front and rear) will flash.

OFF: Push this switch to the right, all the Park Alert Indicator stop flashing.



Do NOT use the Fault Alert Light for prolonged period after stopping the engine, or power of battery will deplete.

## **Engine Ignition Button**

Be sure to pull up the front or rear brake lever when starting the engine electrically. After that, push this button to start the engine.

## Caution

To prevent the battery voltage from becoming too low to start the engine, if the motor is running slowly after starting the engine, please send it to KUANG YANG dealer for inspection.

#### **Engine Stop Switch**



 $\Re$ : At this position (2), engine is stopped and cannot be started; it requires switching back to " $\Omega$ " position to start the engine.

 $\bigcirc$ : At this position ①, starting the engine is allowed. During normal riding, put the Engine Stop Switch at " $\bigotimes$ " position. In the event of emergency, such as fuel cable jam or vehicle tumbling, turn the switch to " $\bigotimes$ " position to force-stop the engine.



Please note! When travelling under high speeds, do not shut off or turn on the engine switch arbitrarily, to avoid dangers of collision or concerns to traffic safety due to loss of speed.

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## Left Handlebar Switch



- 1. Cruise setting key
- 2. High/Low Beam Switch
- 3. Winker Switch
- 4. Reset/Adjust key
- 5. Set/Adjust key
- 6. Horn Switch
- 7. Handlebar Heater Indicator

Cruise control setting button:

The vehicle speed must be greater than 45km/h to set the setting.

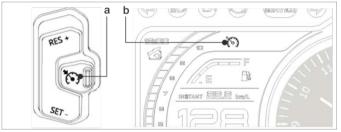
The steps are as follows:

- 1. Press cruise control button ON
- 2. Start the setting after the indicator is lighted.
- 3. Accelerate to the desired cruise range.
- 4. Press "SET" key.
- 5. Execute the cruise function

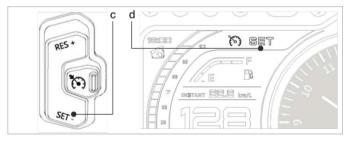
- After setting the desired speed, adjust the acceleration and deceleration between 45-130 km/hour (adjusted by 2km/hour each time).
- Condition to cancel cruise control: 1. Pull the brake 2. Press the cruise control button.
- RES function: Press this button if the rider wishes to resume the previous speed setting after cruise control is cancelled.
- To release the cruise with brake, press "RES" again and you may return to the speed set last time. If you need to release the cruise with the "OFF" key, then set the cruise once again.

## **Cruise Control Settings**

- 1.Setting cruise control
- a. Press ON to set cruise control
- b. When indicator light is lit, begin setup

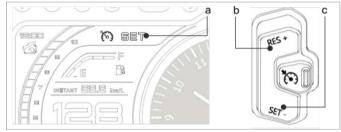


- c. Accelerate to the desired speed range
- d. Press the SET button
- e. Implement cruise control function



Cruise limit adjusting method

- a. Under cruise control state
- b. Press RES (+) for acceleration to cruising speed increases
- c. Press SET (-) for deceleration to cruising speed decreases



# 🚹 Warning

- Improper use of cruise control may cause failures, and lead to accidents. Do not use the cruise control system when riding in busy traffic conditions, bad weathers, or meandering, slippery, rough, or gravel roads.
- 2. When going up or down a slope, the cruise control may not be able to maintain its cruising speed.

- 3. To prevent from starting the Cruise Control System inadvertently, it should be shut down when not in use. please ensure that the cruise control indicator """ is turned off when not in use.
- 4. When the previous speed setting is too high for the current riding environment, it will be dangerous to use the resume function.
- 5. The memory of previous the cruise set value will be cleared after shutting down the vehicle power for 30 seconds.

# High/Low Beam and Passing Light Switch:

Pushing the switch to " $\equiv \bigcirc$ " for HIGH, to " $\equiv \bigcirc$ " for LOW. Over-pass Light Switch: Pressing this button will activate High Beam.

### Blinker Switch:

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

- $\triangleleft$ : This position is used for left turn.
- $\Rightarrow$ : This position is used for right turn.

The direction lights do not reset themselves automatically and should be reset after use. Failure to do so may affect riding safety.

## Horn Switch:

Horn will sound when Main Switch KEY is turned ON.

### Handlebar Heater / Indicator

- After turning ON the Main Switch, press and hold Handlebar Heater Button for 3s or more to activate/deactivate Handlebar Heating Function.
- After activating Handlebar Heater controller, click the button to select heating level in the sequence of 1 > 2 > 3 > 1 >2 ...



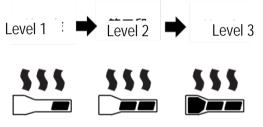
1: Handlebar Heater State Indicator

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- a. After turning ON KEYLESS Main Switch, a selfcheck is performed with the LED indicator flashing in a 1-white and 1-red format.
- b. After KEYLESS Main Switch ON and indicator selfcheck, in the event of a Handlebar Heater anomaly, the indicator will flash in red, with the Handlebar Heater function disabled. (Refer to anomaly states below for indicator flashing modes.)
- c. After KEYLESS Main Switch ON, press and hold the button to activate Handlebar Heater. Indicator lights in white constantly for normal operation.
- d. Turn KEYLESS Main Switch OFF or press and hold the button to deactivate Handlebar Heater. The indicator will go out, indicating the function is switched off.
- e. If Handlebar Heater is faulty, the indicator will flash in red.

## Troubleshooting

After re-starting (Key Off  $\rightarrow$  Key On) the vehicle, indicator will resume normal operation. Clicking the button when the indicator is flashing in red will stop the flashing. For the sake of your safety, please go to a KYMCO dealer for check-up.



## Dashboard Level Indication:

- a. On activation of heating function, Dashboard will receive signal from controller and display the current heating level to the user.
- b. Level Indication:
  - Level 1: 45°C
  - Level 2: 55℃
  - Level 3: 65°C
  - Heating Function OFF: All goes off.

(This is only the setting value; the actual temperature depends on the environment temperature and vehicle condition, a difference may exist.)

c. If the signal from the controller to the dashboard is faulty for any cause, a symbol flashes in the Dashboard.



- Please do not use the heating function for extended time if the vehicle is not under ignition state, this will result in early depletion of the vehicle battery.
- When restarting the vehicle, the handlebar heating function will be reset to off state.

#### **Rear Brake Lever**

Rear Brake Lever situates on the Left Handlebar; when applying the Rear Brake, hold the Front Brake Lever with left hand and apply a proper force on it.



# Caution

The rear brake handlebar is equipped with a position adjusting knob. Turn the knob and you can adjust the distance between rear brake handlebar and left handlebar. Please set the knob to the proper position and align with the Alignment Mark on the Rear Brake Lever.

# 🚺 Warning

Improper operation may result in danger.

## Front Brake Lever

Front Brake Lever situates on the Right Handlebar; when applying the Front Brake, hold the Front Brake Lever with right hand and apply a proper force on it.



# 🛕 Warning

Improper operation may result in danger.

# Caution

The front brake handlebar is equipped with a position adjusting knob. Turn the knob and you can adjust the distance between front brake handlebar and throttle handlebar. Please set the knob to the proper position and align with the Alignment Mark on the Front Brake Lever.

## Parking Brake Arm



This vehicle is provided with a Parking Brake Arm for locking up the rear tire, so as to prevent accident caused by rear tire movement when parking the vehicle on a slope.



Turn Parking Brake Arm to the left and click into lock position. To unlock, just turn Parking Brake Arm back to its original position (on the right).

## 🚹 Warning

- Never use the Parking Brake Arm while riding the vehicle, or loss of control of the vehicle and an accident may occur. Make sure the vehicle is fully stopped before using this Parking Brake Arm.
- When using the Parking Brake Arm, verify if rear tire is truly stopped from moving.
- Before riding your scooter, verify if the Parking Brake Arm is released, otherwise output power may be affected and the Parking Brake may be damaged.

# **Control Functions of Mechanism**

#### Foot brake



Foot brake pedal

This vehicle is equipped with the foot brake function as an auxiliary to the front/rear braking system. Thus, the foot brake has a linkage to the front/rear brake when braking.

# 🚺 Warning

Improper operation may result in danger.

Due to the linkage between the systems, there will be feelings of linkage when braking; this is a normal phenomenon.

#### **Helmet Hook**



Helmet Hook

A Helmet Hook is provided on the front edge of Seat Pad. Lift up the Seat and put the buckle of the Helmet around the Hook, then close up the Seat Pad.

# 🚹 Warning

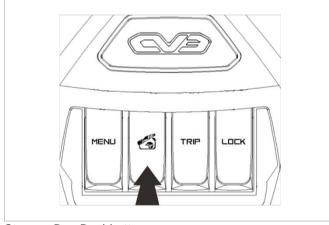
- Do not ride your scooter with a helmet hanging on the hook, otherwise the hanging helmet may hit other vehicles or obstruct the rider, leading to obstructed operation safety.
- The hooks can only be used for hanging helmets. Do not use them for other purposes to avoid danger.

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#### Storage Box

1.Electronic

- When the KEYLESS main switch is at KEY ON, press the "SEAT" button in the center switch to open the storage box.
- Pushing the seat to its original position will close it up.



Storage Box Pushbutton

- The Storage Box is located under the seat cushion and it can be used to store the safety hat and other objects.
- If the KEYLESS Main Switch is on "KEY OFF" status, show the key near such main switch and you will be allowed to open the Storage Box without turning on the Main Switch. However, you cannot open the Storage Box if the KEYLESS Main Switch is outside the sensing range.



Storage Box

# **Control Functions of Mechanism**

- 2. Mechanical:
- When the vehicle is out of power or if one does not have the KEYLESS car key, it will require a physical key to open the storage box.
- Insert the key and twist to the right until the seat pad opens, then the storage box can be opened.



The key hole is located on the bottom left of the seat.

Do Not exceed the following load limits:	
Storage Box	
10 kg	

# Warning

- Store the safety hat with the most appropriate method. If the object exceeds the capacity of the Storage Box and you attempt to close the seat cushion forcefully, it may cause the seat cushion damage.
- For the purpose of theft prevention, do not put valuables in the Storage Box. Close the Seat Pad when leaving the vehicle.
- Please safe keep the physical key to avoid the predicament of replacing the whole set of keys.

- You may not be able to put the safety hat in the Storage Box due to the dimensions and the shape. Please select a safety hat that is suitable for the capacity of the Storage Box.
- Make sure not to leave the key in the Storage Box while closing it.
- To prevent mold generation, do not leave a wet raincoat or clothing in the Storage Box.

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- Empty the Storage Box before washing the vehicle, so that objects do not get wet.
- Due to engine operation and environmental factors, the Storage Box tends to be warm and humid; do not put fragile, flammable or easy to decay objects in it.
- Please do not place alcohol, gasoline, volatile objects, lithium batteries, lighters, any electronic items, and items at risk of burning or explosion into the storage box to avoid danger.

# **Control Functions of Mechanism**

Components inside the Storage Box LED:

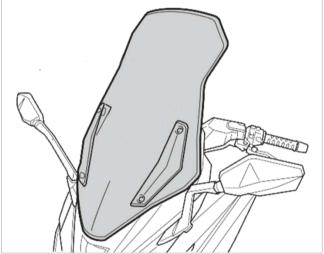
The lamp lights up when Seat Pad is lifted up, goes out when closed. (After closing the seat pad, confirm that the " isign on the dashboard is turned off)



1: LED storage box light switch

## Windshield

There are two options of Windshield Height subjecting to rider's need.

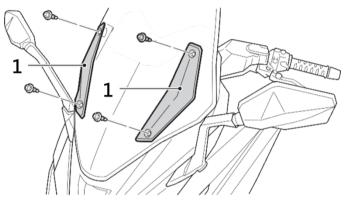


Windshield

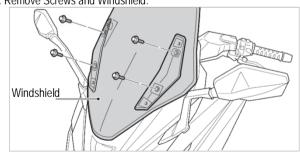
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Adjusting Windshield Height

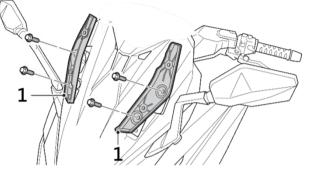
1. Remove the screw and then remove the front Windshield protection cover.



1: Front windshield protection cover 2. Remove Screws and Windshield.



3. Remove the Windshield spacer holder.



1: Windshield spacer holder

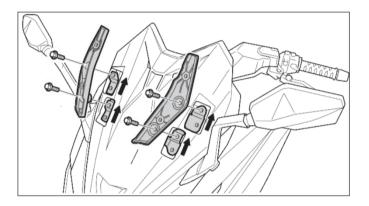
- 4. Install the Windshield spacer holder at the most appropriate position. Tighten screws to specified torque.
- 5. Install the Windshield with screws to the fixing position.
- 6. Tighten screws to specified torque.

## 🚺 Warning

Slackened Windshield can lead to accidents. Make sure that screws are tightened to specified torque.

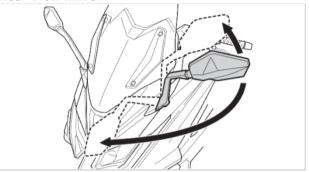
Λ

7. Restore the front windshield protection cover and then install the screw.



Tightening Torque: Securing Seat screws 20-28 N-m (204-285.6 kgf-cm) Windshiled screws 10-14 N-m (102-142.8 kgf-cm)

#### **Rear View Mirror**

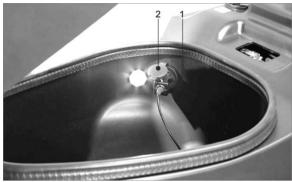


Rear View Mirrors are the important equipment for securing the rider's safety before and during riding. Proper use of the Rear View Mirror is essential. Rear View Mirror is designed to be capable of turning forward and backward. When parking in a narrow space or putting down the vehicle, you may adjust the Rear View Mirror to a proper position.

## 🚹 Warning

- Adjust Rear View Mirrors to proper positions before riding the vehicle.
- To secure safety of the rider as well as other vehicles in behind, never remove the Rear View Mirror or replace them with inadequate ones.

#### 12V Power Socket



1. 12V Power Socket2: Protection Cap

- This vehicle is equipped with the 12V power socket on the left front side inside the storage box.
- Your may connect a low power consumption product to the Socket, for charging the product while the engine is running.
- The maximum load for the power socket: 25W Max.
- To avoid electrocution or short-circuit, make sure to cover-up the protection cap after using the 12V Power Socket.
- To prevent any accident from occurring, park your Scooter at a safe location before using the 12V

#### Power Socket.

# Warning

- 12V Power Socket can only be used with a running engine.
- To prevent power depletion of battery, do not charge a product using the 12V Power Socket without running the engine.
- To prevent fuse from being blown, do not charge a product with a load exceeding 25W; if overheat occurs during charging, the system will cut off power supply automatically.
- After riding and before leaving the vehicle, make sure the product is unplugged and the Protection Cap is properly covered back.
- If the power is disconnected, reduce the load, turn off the main switch and then restart the power.
- Do not attempt to alter the power to prevent damaging the wiring system of the entire vehicle.

# **Control Functions of Mechanism**

#### **Rider Backrest**



1: Rider Backrest

To enhance the riding comfort of the rider, the backrest has 3 adjustable positions.

#### Rear Seat

The CV3 adopts the split-type seat design, where the rear seat padding can be switched between solo rider and 2-person rider mode.

#### Solo rider mode switch

- 1. Open the Storage Box
- 2. Push the rear seat locking lever forward to release the lock
- 3. After unlocking, the rear seat can be taken out
- 4. Finish by replacing the key hole trim



Seat locking lever

Δ



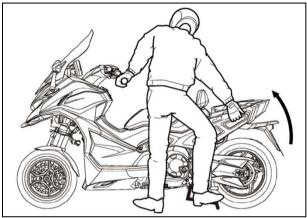
key hole trim

# 🛕 Warning

- Ensure that the locking latch firmly locks onto the seat when the seat pad is replaced, to prevent dangers of the seat falling while riding.
- If the locking latch is loose or faulty, please visit the dealer shop for repairs.

# **Control Functions of Mechanism**

#### Main Stand



#### 1: Main Stand

When parking with Main Stand, stop the engine and turn the Main Switch off. While keeping the vehicle perpendicular to the ground, holding the Left Handlebar with left hand and Rear Grip with right hand, thread upon the Main Stand using the right foot and exert force with both right foot and right hand to lift the vehicle up to a standing pose.

## 🚹 Warning

- Make sure the Main Stand springs up fully before riding the vehicle.
- The Main Stand must not come in contact with the ground while riding the vehicle, otherwise it may interfere the riding and cause loss of control due to abrasion with the ground.
- Main Stand may fail to spring up to position while running the vehicle if the bracket spring becomes weak. Go to a KYMCO service station for replacement as soon as possible.

## Caution

When using the main stand to erect the vehicle, release the anti-tilting lock first to avoid parking difficulties due to unlevelled vehicle conditions.

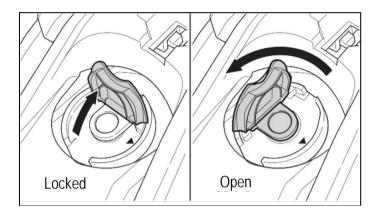
## Fuel Filler Cap



The fuel filler cap can be seen after opening the seat pad.

# 🚹 Warning

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.



Open the fuel filler cap by lifting upwards, then twist to the left to open the cap.

Close the outer cover of the Gasoline Tank and then screw back the Gasoline Tank cover. After confirming that the Gasoline Tank cover is correctly restored, press the Gasoline Tank outer cover until it is latched securely.

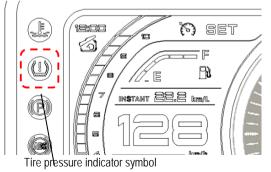
## TPMS, Electronic Tire Pressure Sensor

Operation instructions:

TPMS consists of 3 wireless Tire Pressure Sensors (per unit for two front wheels and rear wheel respectively, which are installed in the tire valve.) After sensing current tire pressure, the sensor will transmit such value to the controller wirelessly. The controller will then transmit the signal to the meter where it will be displayed through the meter and indicator in order to inform the driver about the current tire pressure value.

# Warning

1. When the KEYLESS Main Switch is set ON, the Tire Pressure Sensor related Model Symbol on the left side of Dashboard will light up; if this symbol then goes out automatically, the tire pressure is normal (as shown in the Figure).



 When KEYLESS Main Switch is set ON, the Tire Pressure Sensor related Model Symbol on the left side of Dashboard will light up; if this symbol stays on constantly, the tire pressure is not normal (as shown in the Figure). Described as below is the abnormal phenomenon:

Front Tire Pressure

 $\geq$  3.2kgf/cm<sup>2</sup> or < 1.6kgf/cm<sup>2</sup>

Rear Tire Pressure

 $\geq$  3.75kgf/cm<sup>2</sup> or < 1.65kgf/cm<sup>2</sup>

The owner needs to replenish or release tire pressure if the reading is too low or too high. Consult the dealer for assistance if you have any questions.

(Standard tire pressure under normal inflation: Front Tire 2 kgf/cm<sup>2</sup>; Rear Tire 2.7 kgf/cm<sup>2</sup>)

- 3. Do Not remove wireless Tire Pressure Sensor or Controller, or TPMS function will be lost.
- 4. No re-adjustment of TPMS is required when a new tire or rim is replaced.
- 5. Re-adjustment of TPMS is required when replacing a new wireless tire pressure sensor and controller; please consult a KYMCO dealer.
- 6. When replacing a tire rim, the Tire Pressure Sensor shall be kept in a correct order to distinguish the front one and the rear one.

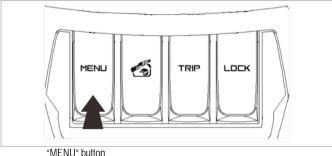
# Control Functions of Mechanism

## TPMS Learn Code Operation:

- Applicable to owner and dealer service personnel.
- Re-adjustment of TPMS is required when replacing a new wireless tire pressure sensor and controller.
- When performing code learning, keep the vicinity clear of other vehicle or transmitter, to prevent miss-triggering.
- Confirm that the electronic tire pressure detector has been correctly installed, that the tire pressure meets the intended pressure value and that the tires are correctly installed.

## Learn Code Activation Procedure:

1. Press and hold the "MENU" button in the center switch.





- 2. Press the KEYLESS main switch to ON.
- 3. Wait until the image of tires appear and release the "MENU" button.
- 4. TPMS is now entered into Code Learning Mode.
- 5. The red colored tire indicates it is under code-learning state.
- 6. Flatten or refill the tire so that the change in tire pressure is greater the 3 psi, then the sensor will be activated within 1 min. Once there is a reading of the tire pressure, the code-learning settings of a tire is completed.
- 7. After the code-learning settings of a tire is completed, it will automatically go to the next tire for code-

learning.

- 8. The operator will also go the next tire and repeat the above steps for code-learning settings.
- If one wishes not to code-learn, press the "O" button to skip to the next round of code-learning. If codelearning is not completed within 2 mins, it will exit the code-learning mode.
- 10. After the code-learning settings, press the "O" button to leave exit, or press KEYLESS main switch ON-OFF to restart.

- 1. After acquiring the vehicle, inflate the tire till over 20psi and then let the TPMS PC learn the initial value automatically so that it may operate normally in the future.
- 2. Re-do Code Learning after replacing parts.
- 3. Because the tire pressure detector is mounted on the nozzle position, keep the tool-inserting position away from the nozzle when replacing the tire.
- 4. Make sure the direction is correct when replacing a part.
- 5. Tire Pressure values are for reference only.

- 6. Slackening of nut during parts installation will cause air leakage.
- 7. If the tire pressure cannot be detected, it means the tire pressure detector battery is running out of the power. In this case, make a part replacement.

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#### Change Pressure Unit

With KEYLESS main switch ON, open the APP and Bluetooth and connect with the vehicle. When connected, select "Setting" -> "Preference Setting" -> the display unit for tire pressure can be changed according to the owner's preference. After the setting, the dashboard will change simultaneously.





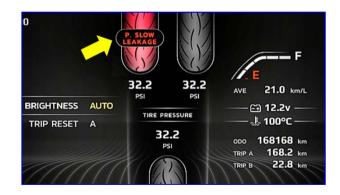
### TPMS abnormal status:

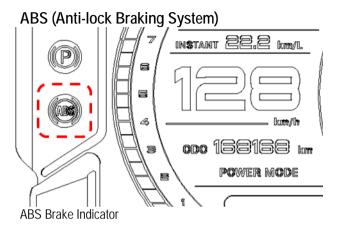
Depending on the TPMS error state, the dashboard will display with the indicator light and the message bar as well as the tire pressure screen. The messages are as follows.

Abnormal status	Meter indicator display	Meter icon display (English display) Remarks		Displayed priority sequence	
Tire pressure low	Abnormal indicator lighted	PRESSURE LOW			
Tire pressure too high	Abnormal indicator lighted	PRESSURE HIGH	Flashing	Execute according to the priority sequence of the event being detected.	
Tire pressure SENSOR voltage low	Abnormal indicator lighted	SENSOR VOL. LOW	frequency: Lights up for 1 second and goes out		
Tire pressure quick deflating	Abnormal indicator quick flickering	P. FAST LEAKAGE	for 0.5 second.		
Tire pressure gradual deflating	Abnormal indicator slow flickering	P. SLOW LEAKAGE			
Display the unintended initial value.	Picture empty	UNPAIRING	Indicator keeps lighted		
TPMS fails to receive the signal from the SENSOR.	Abnormal indicator Error received and "" lighted and " " displayed.		Flashing frequency: Lights up for 1 second and goes out for 0.5 second.		



1. Tire pressure indicator 2. Message bar





The ABS Brake System is designed in double-electronic control mode. It can be used to activate the front, rear and pedal brakes separately. When ABS is activated, the rider can feel pulses acted by ABS on the handlebar; in which case the rider needs to hold the handlebar constantly, without "press-and-releasing" it, or the ABS effect may be diminished.

The ABS Brake Indicator situates on the left upper corner of Dashboard (as shown in the figure); it lights up when the Main Switch is activated and does not go off automatically. The ABS Brake Indicator only goes off when engine is started and vehicle runs above 6km/hr.

# Caution

ABS is controlled by ECU; if ABS fails, the ABS Brake Indicator will light up; ABS may lose its function, but the original brake still works; the ABS resumes normal braking functionalities.

# Caution

- When riding on a rough or pebbled road surface, effective ABS braking distance will become longer.
- Always keep a proper safety distance with preceding vehicles while riding a scooter.
- ABS gives optimal performance with a longer braking distance.
- To avoid deterioration of ABS performance, do not remove or damage the wheel sensor or the rotor of wheel sensor.
- When activating power of KEYLESS Main Switch, or when vehicle speed exceeds 6 km/h, ABS will execute a self-diagnosis. During this self-diagnosis session, a vibration may be felt on the Brake Lever if

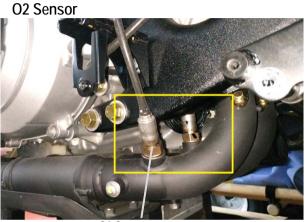
you pull it gently, which is a normal phenomenon.

- In the event of an emergency brake in response to a special road condition, ABS system helps preventing a locked wheel resulting from the sudden braking action, allowing the rider being able to steer the vehicle smoothly. An ABS system controls the braking force automatically to prevent the tire from skidding.
- An ABS system will not shorten braking distance in the following conditions: when running on a soft and unleveled road or a descending slope, the braking distance is even longer than a vehicle without ABS. Therefore models with ABS have the optimal performances on flat road surfaces.
- An ABS System comprises an ABS ECU and front and rear tire speed sensors. Using tires not conforming to original specifications may affect the detection of speed sensors and result in abnormal ABS activation.

# 🚹 Warning

- Using tires not conforming to original size specifications may result in malfunctioning of the ABS system, or even an accident of the rider due to malfunctioned activation of the Anti-lock Braking System. Therefore it is a must that you use tires conforming to KYMCO specifications.
- When ABS activates, you may feel a light vibration on the Brake Lever, which is a normal phenomenon.
- When vehicle speed is below 6km/h, the ABS system will not activate.
- When the power fails or the system is faulty, it will lead to the failure of the ABS System. At this time, the ABS brake indicator will be lit.

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O2 Sensor

This vehicle is provided with O2 Sensor for reducing generation of pollutants in the exhaust gas.

# 🚺 Warning

Do not dismantle or replace O2 Sensor by yourself, otherwise the O2 Sensor may deteriorate or lose efficacy.

### Muffler and Catalytic Converter



Muffler

Catalytic Converter is used for reducing generation of pollutants in the exhaust gas.

77

# ᡗ Warning

Exhaust Control System

Complying with EPA Exhaust Emission Standard, the scooter is equipped with following parts in the Exhaust Control System:

- Electronic Control Unit (ECU)
- Crankcase Ventilation Valve
- Catalytic Converter
- Throttle

Various sensors:

- Air Intake Temperature Sensor
- Air Intake Pressure Sensor
- Throttle Position Sensor
- O2 Sensor
- Temperature Sensor

After using the vehicle, the exhaust system becomes extremely hot due to heat from the exhaust gas

To prevent fire or burn:

- Park the vehicle properly so that pedestrian or children cannot reach.
- Do not park the vehicle in the vicinity of flammables.
- Make sure the exhaust system has cooled off before performing any maintenance.
- Never turn off the main power switch while riding the vehicle. Otherwise a great amount of non-burnt gas mixture will enter into muffler and combust there, damaging and burning the Catalytic Converter.
- Use only unleaded gasoline; leaded gasoline can result in aging and failure of Catalytic Converter.

### Proper Riding Method Starting the Engine

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



Engine Stop Switch

 $\Re$ : Engine will stop and cannot be started when setting switch to this position. Re-start of engine is only possible after setting the switch to  $\Omega$  position.

 $\bigcirc$ : The Engine can be started when setting the switch to

this position.

Caution

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



- 1. Confirm that the KEYLESS car key is within sensing range.
- 2. Press the main switch button to turn power ON.
- 3. Make sure the throttle grip is fully closed.
- 4. Confirm that the engine stall switch has been switched to " $\bigcirc$  ".

# Caution

When not in use after stopping the vehicle, be sure to set the main switch key to the "OFF" position to prevent the battery from discharging excessively.

5. Hold the front brake lever or the rear brake lever, and then press the "Electric Start" button and the engine will become active.



6. If starting is difficult, release the Start Button and wait for a few seconds before trying again. Each re-

try shall not exceed 5 seconds, for preserving battery power.

# Caution

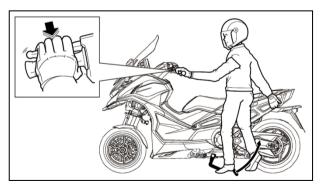
- Keep finger off from Start Button immediately when engine starts.
- Never push the start button when engine is running, or engine parts may get damage.
- When starting the engine, the rear brake lever shall be set to braking state, the brake light shall light up when the power is connected.
- Allow 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.

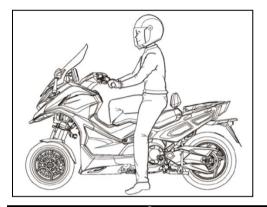
# Warning

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

### Proper Riding Method

- Keep the Rear Brake Lever in braking state and push the vehicle forward, the Main Stand will spring up automatically.
- Mount the vehicle from the left side and then sit squarely, with both feet touching the ground to prevent tilting. Adjust the rear view mirror to the intended position.
- Release the front wheel anti-tilting lock device after sitting properly with both feet on the ground for support, and watch out for the change of center of gravity from 3 wheels to 2 wheels after unlocking the device.



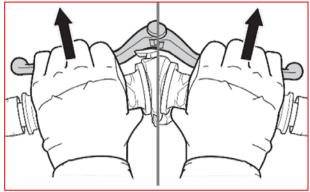


# 🚹 Warning

- 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.
- Before advancing, keep the Rear Brake Lever in braking state. DO NOT raise engine rpm arbitrarily.
- The front wheel locking device will be automatically released as the openness of the throttle reaches the threshold; thus, the rider must be careful with such dangerous actions.
- The owner must practice the vehicle's shift of center of gravity between the unlocking/locking state of the locking device. This is of utmost importance and is a matter of personal safety.

# **Proper Riding Method**

#### **Release Front and Rear Brake Levers**



# 🚹 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.
- The more the turning range, the quicker the vehicle speed. Increase fuel (throttle) slowly
- When taking off or riding on an up-slope, slowly turn the Throttle Grip to increase horsepower.
- When returning to the original position, the vehicle will reduce its speed. Be agile while returning the Throttle Grip.

### Caution

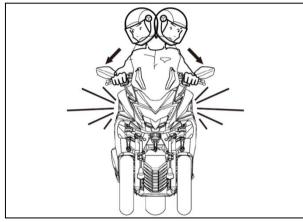
• For prolonging engine service life, do not speed up suddenly when the vehicle is still cold.

- Do not turn the Throttle Grip rapidly, or the vehicle may dash out.
- When the vehicle is starting under the 3-wheel state, the vehicle will automatically unlock as the speed exceeds the unlocking threshold and become the 2wheel state; prepare for the shift in the center of gravity.
- If one lacks confidence about the change of center of gravity, it is strongly suggested to unlock the vehicle first and start it under the 2-wheel state for safety.

# **Proper Riding Method**

### **Proper Riding**

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



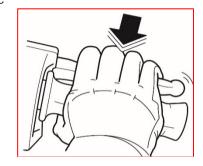
Running-in a new engine

- Run-in Period of a new engine is 300km; keep speed under 80 km/h in this period.
- Avoid speeding-up rapidly.

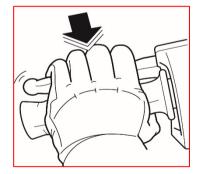
# 🚺 Warning

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

#### Brakes Front Brake



Rear Brake



### Foot 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.
- The foot brake acts as the auxiliary brake for the front / rear brake linkage. Please apply gradual braking force according to the road conditions, and do not apply hard braking to avoid dangers.

# 🚹 Warning

Braking on a wet or sandy road requires a longer

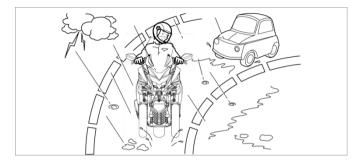
effective braking distance and is more difficult.

- Slow down while running on mountain roads; it will be more difficult to brake while running down-slope, more dangerous as well.
- Do not brake or turn abruptly.
- Abrupt braking and turning are the causes for the extremely dangerous side skidding or tumbling.
- If you lack confidence about the operations of this vehicle, please proceed slowly to practice and familiarize yourself with the braking system.

# 🚺 Warning

During rainy days, special care should be used when operating the motorcycle as the road surface condition during rain is different from that of sunny days. Because a longer braking distance will be required, reduce speed and use the brake at an earlier stage.

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



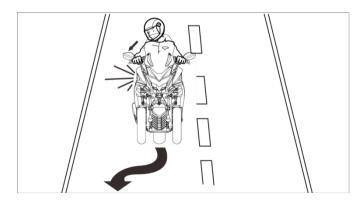
# 🚹 Warning

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

### Proper Parking Method

When approaching to a parking location:

- Switch on the winker in advance and take heed of vehicles behind you while slowly pulling-over.
- Restore the refueling handle to its original position and then use the front, rear and pedal brakes at an earlier stage. At this time, the brake lamp will be lit in order to warn vehicles approaching from behind.
- When the vehicle stops, lock it into the 3-wheel mode and avoid risks of tipping over from losing the of sense of gravity.

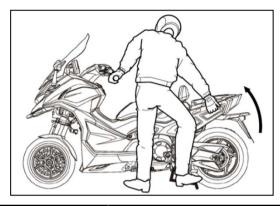


### At full stop of vehicle Turn off the blinker. Turn off the KEYLESS Main Switch.



### 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 unlevel 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.



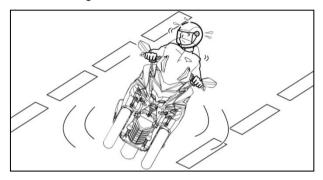
# 🚺 Warning

- If the KEYLESS Main Switch can be turned off during the crusing process, it means the fail-safe function has failed. Go to a KYMCO dealer or service station for repair as quickly as possible.
- To prevent theft, lock the steering lever when leaving the vehicle after parking and please also keep the wireless key with you at all times.
- Before erecting the main stand, release the locking mechanism to ease the standing action.
- When the mechanism is locked, it will lead to standing difficulties if the vehicle is not in level state.

# **Proper Riding Method**

### 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 the leakage of gasoline from the tipped over vehicle leading to dangers, the main switch should be turned off manually, or the ignition switch be set to the shut-off position when the vehicle is tipped over.
- When the vehicle is tipped over, confirm that the antilocking device is in unlocked state, and turn off the

vehicle. Lift it, make sure the surroundings are safe, and move the vehicle to a safe location.

- If the vehicle cannot be lifted, do not lift by force to prevent the vehicle from tipping over again from imbalance. When necessary, request the assistance of others to lift the vehicle.
- If personnel are stuck under the tipped vehicle, call out for help accordingly, as it is outside of personal capabilities.

### Checks before Riding

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

- If you are not familiar with the motorcycle inspection and maintenance, please contact KWANG YANG dealer for services.
- Injury or electrocution may occur if any body part or clothing touches a running engine. Please stop the engine while performing vehicle 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.

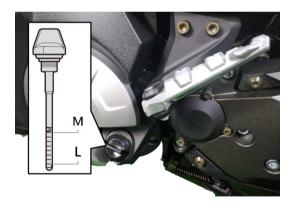
• To avoid damaging the vehicle, never carry out any maintenance without receiving a professional training or lacking of a special tool.

# Engine Oil and Oil Filter

Before riding the vehicle, 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.

# Check/Replenish Engine Oil

- 1. Park the vehicle on flat ground and brace up the Main Stand. Activate KEYLESS 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 the oil level; when the oil surface nears L, please refill the engine oil to between M and L.



# Caution

- Engine and Muffler are extremely hot. Take special care to prevent burn while checking oil level.
- After warming up the engine, stop engine and wait for 1 minute; then verify oil level with Oil Level Guide.

# Recommended Oil Specification

Specification:

- SAE: 10W/40 MA
  - API: SL Class or better
- First oil change when running 1000 km; afterwards every 5000 km.

# ᡗ 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.

# 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.

# 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.

# Using Fuel Tank Cap

Stop Engine first

- 1. Turn KEYLESS Main Switch to OFF position, keep turning clockwise to the end will open the Fuel Tank Outer Cover. Then open Fuel Tank Cap.
- 2. Use only #95 unleaded gasoline or better.
- 3. Restore the Fuel Tank Cap until it is properly positioned. Check if the Fuel Tank Outer Cover is securely latched.

# 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.

# **Checks before Riding**

### **Check Steering Stem**

- 1. Check for any slackening by swaying it up and down, forward and back, and left and right.
- 2. Check if Handlebar is too tight.
- 3. Check the Handlebar for any colliding.
- 4. Left-right turning steer. The steering link components shall not present any loosening sign.
- 5. When finding any anomaly, go to a KYMCO dealer or service station for repair.



Check and adjust the front and rear brake components.

- 1. Adjust brake lever clearance using adjustment knob (totally 4 adjustment positions).
- 2. Push the brake lever forward when adjusting the knob (default setting is 3).
- 3. After adjustment, pull the Brake Lever (1) with hand until reaching a position where fingers feel comfortable; check if the clearance at the front end of Brake Lever is within the specified dimension.
- 4. The pedal distance of the foot brake is automatically adjusted by default. If the pedal distance is found to be larger than normal or is faulty, please visit the dealer shop for repairs.



Adjust brake lever

### Inspection of front/rear brake oil

- 1. Set the handlebar squarely and then check the brake oil in the left and right fuel tank. Keep the level between the Upper Mark and Lower Mark.
- 2. If the oil level is approaching the lower limit "L" mark, check the abrasion extent of the brake lining.
- 3. If the brake lining is not worn exceeding a specified limit, most likely there is a leakage of brake fluid; go to a dealer for repair.



Brake oil peep window

### Front / rear brake oil replenishing

- 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 10000km or 1 year.



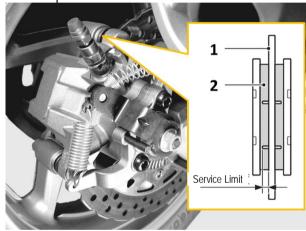
Reservoir Cover of Brake Fluid

# 🏠 Warning

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

# Check Front/Rear Brake Lining

- Is braking effective?
- Verify the braking effect of the front and rear brakes at low speed.



1. Brake Disc 2. Brake Pad Lining

• Check Brake Lining Limit

Check the brake lining, when the wear limit is reached, please contact the KYMCO dealer shop for replacement.

# Check Tires

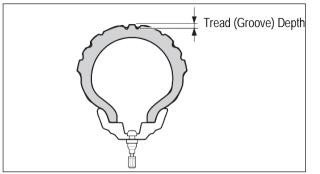
- Check the ground-contact status of the tire and see if the tire air pressure is normal. If low, inflate the tire to reach normal pressure.
- In case of a gripping anomaly, check tire pressure for normal readings using a pressure gauge.

Pressure measurements of cool tire:				
With 1 rider				
Front wheel 2.0 kgf-cm <sup>2</sup>	Rear wheel 2.70 kgf-cm <sup>2</sup>			
With 2 persons				
Front wheel 2.0 kgf-cm <sup>2</sup>	Rear wheel 2.70 kgf-cm <sup>2</sup>			
back the tire areaves for any metal or nebble chi				

- Check the tire grooves for any metal or pebble chips; remove them, if present, before riding.
- Replace the tire if there is a fracture or the limit of the groove depth is reached.

# 🏠 Warning

When the tire pressure is very low or the tires are incorrectly balanced, riding of the vehicle will lead to dangerous rotational vibrations.



(See arrow indication in the drawing.)

Measure the groove depth at the center of the tread pattern. Take measurements at several points since uneven wear may occur.

Replace the tire if any of the measurements is lower than the service limit. Make sure the wheel is properly balanced when a new tire is replaced.

Service Limits:

Front Tire 0.8 mm

Rear Tire 0.8 mm

Tire groove abrasion inspection: Check the tires before starting a journey.

In case of finding a transverse line (minimum pattern depth), nail or glass chip on the tire, or crack line on the side wall of tire, go to Kymco dealer for replacing with new one.

Excessive wear of tire tread pattern will result in reduce friction and the tire will become more prone to be punctured; it also affects safety of operation.

Tire Specifications:				
Front Tire Specifications:				
110 / 70-13				
Rear Tire Specifications:				
160 / 60-R15				

# Checks before Riding

Check the Brake Light

Turn on the KEYLESS main switch power. Respectively pull the Front and Rear Brake Levers, verify if Brake Light goes on. Check Brake Light for stain or fracture.

\_\_\_\_\_

# Caution

Turn KEYLESS Main Switch to "ON" but Engine Stop Switch to "OFF".



Brake Light

Check the Tail Light Turn on the KEYLESS main switch power. Check if the Tail Light goes on. Check the Tail Light Lens for stain or fracture.



Tail Light

Check the Headlight Turn on the KEYLESS main switch power. Turn on ignition of the engine. Check if the Headlight goes on. Check the Headlight Lens for stain or fracture.



Headlight

### Check Winkers

Turn on the KEYLESS main switch power. Operate Winker Switch to verify if each Winker works. Check Winker lens for stain or fracture.



### **Rear Winker**



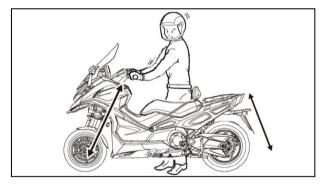
Rear Winker

Checks before Riding

6

#### **Check Front/Rear Cushion**

Hold the front brake. Press the handlebar hard several times and then check if the front fork is operating and bouncing smoothly. When detecting any damage or if the front fork cannot operate smoothly, please contact KWANG YANG service center for inspection or replacement.



Check if Head Light, Tail Light or Winker goes on normally.

Start engine and turn on switches, check if Head Light, Tail Light or Winker goes on normally, and check for any stain or fracture on the light lens. Check Dashboard for normal display.

Check the Horn for working normally.

Set the KEYLESS Main Switch in the "START" position and then press the "HORN" button switch.

Check Rear View 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 1.02-1.428 Kgf-m. Therefore when fixing the Rear View Mirror onto the vehicle, it shall not be totally rigid (either exceptionally loose).

Check the 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.

For any others, check if previous anomalies still exist.

# **Checks before Riding**

Inspect the outer transmission belt



- Erect the vehicle with the main stand, rotate with rear wheel manually, visually inspect whether the outer belt has abnormal scuff marks.
- Whether there are foreign objects attached, and remove them.
- Whether the belt and the pulley are rubbing on a single side, and has no more gap.
- The screws of the top / bottom cover of the belt are loose.

If the above problems cannot be resolved, please visit the KYMCO service station for inspection or replacement.

# Caution

- Please do not adjust the belt and remove relevant rear wheel mechanisms arbitrarily. They should be repaired by professionals at the KYMCO service station.
- If there are cracks or deformed damages to the top/bottom covers, they should be repaired immediately for safety.

# ᡗ Warning

- Please do not ride the vehicle with the top / bottom belt covers removed.
- Do not insert any tools or bodily parts into the vehicle when the engine is turned on or is moving.
- Do not spray or apply any oil or unknown solvents to the belt to prevent the mutation of the material.
- The passenger shall not use the top cover as the footrest. This may deform the cover and affect the belt.

# Simplified Maintenance and Repair Regular Checks

To ensure comfortable riding, regularly checking of your vehicle is necessary. Please go to a KYMCO dealer or service station for after sales service and maintenance. Refer to User Manual for Check Schedule and

Check Items.

Regular check is also required when vehicle is left idle for a long period of time.

### Initial Check

Please perform the initial check of a new vehicle within 1 month from the date of purchase or at the mileage of 1000km.

### Precautions

If a cleaning, adjustment, or replacement is necessary based on the check result, please carry it out as required.



Take safety precautions while performing maintenance.

- Brace the vehicle with its main stand on a level location.
- Operate with proper tools.
- Carry out preparations with the engine stopped.
- Engine body and muffler are extremely hot after engine stops, take care not to be burnt.

Overview of Regular Maintenance I: Inspection; clean, lubricate, replenish, remedy or replace as required. A: Adjustment. C: Cleaning. R: Replace. T: Tightening. M: Maintenance. D: Diagnosis

ems	Maintenance mileage	1000 km 600 mile	5000 km 300mile	10000 km 600 mile	15000 km 900 mile	20000 km 12000 mile	25000 km 15000 mile	30000 km 18000 mile	Remarks
E	Engine Oil	R	R	R	R	R	R	R	I: Inspection
Lubrication System	Engine Oil Screen	С	C/R	C/R	C/R	C/R	C/R	C/R	A: Adjustment C: Cleaning R: Replace T: Tightening
	Engine Oil Filter	R	R	R	R	R	R	R	
Fuel:	Fuel Pump and Fuel Pump Filter		VC	VC	VC	VC	VC	VC	M: Maintenance D: Diagnosis
Fuel Supply System	Throttle Free Play		I	I	I	I	Т	I	<ul> <li>The maintenance and diagnostic works should be implement as per the standard procedures.</li> </ul>
Air Filter	Air Filter					R		1	<ul> <li>If it is determined the vehicle needs to be cleaned, lubricated</li> </ul>
≥	Canister			-		1	1	1	
Air Supply System	CVT System Filter Wool			R		R		R	adjusted and replaced during operation or inspection, and not cause pollution to the environment, these tasks can be carried out and recorded directly. If the issue will cause see pollution or emission, the handling can only be carried out after reporting and approval is granted.
	P.C.V Evaporative Emission Control Valve		_	_					
	O2 Sensor		-		_		_	-	
	Catalytic Converter		-		_		_	-	
Trai	Cam Chain								
	Transmission outer belt					R			
etra	CVT Driving Belt					1	1	1	
lin	Valve Clearance	Check and Adjust at every 40000 km (24000 mile)						extended period due to the change in petroleum property	
হন	Spark Plug			I		R		I.	(generation of gel), we suggest customers carry out maintenance works.
lgnition System	Ignition Circuit and ECU			I.		I.		I.	CVT clutch outer should be cleaned to remove any dirt or foreign object inside during regular maintenance.
	Throttle Body					M/I		M/I	We recommend that you add a bottle of Kymco fuel injector
2	Fuel Injector Diagnostic Tool			1/D		VD		VD	
22 0	Idle Air Bypass Valve			D/M		D/M		D/M	<ul> <li>cleaner every 1000km to the fuel tank (follow the instruction</li> </ul>
Engine Management	Engine Water Temperature Sensor		D	D	D	D	D	D	for cleaner volume).
n ner 18	Air Intake Temperature and Pressure Sensor		D	D	D	D	D	D	Clean the fuel injectors and the throttle body every 3 month
	Ignition Coll		D	D	D	D	D	D	less than 10000km.
	Battery		D	D	D	D	D	D	
	Important Body Bolts	Т	Т	Т	Т	T	T	T	<ul> <li>If engine or clutch is replaced, the following items should be</li> </ul>
	Brake System (Disc)						1	-	recorded from the beginning: Engine Oil, Engine Oil Scree
	Brake cable (oil pipe)	1		1	1	1	1	1	
	Brake Fluid		1	R	I	R	1	R	Engine Oil Filter.
	Coolant			R		R		R	

#### Random maintenance items

Item	Situation and Handling
Ignition System	If the ignition failure, engine overheating or engine stalling problems are noticeable and occur constantly, perform maintenance and inspection.
Remove Carbon Deposits	If horsepower decreases considerably between 10000 and 15000 km, remove the carbon deposits in the exhaust system, cylinder head and piston head.
Drivetrain	If the top speed drops considerably between 10000 and 15000 km, perform CVT System maintenance and inspection.
Piston	If you use the vehicle intensely before 1000 km, the pistons, piston rings and cylinder block can be worn down or cause of a seized engine. In this case, clean or bore the engine or replace it with a new one.
Fuel Injector	Please remove the carbon deposits or gummy residues inside the fuel injector every 1000 km or when the vehicle has not been operated for a long time.
Water tank heat sink and water tank front protection net.	Execute the inspection and cleaning for every 1000km of journey. Earlier cleaning and maintenance will be required if the running area is dusty and rainy.
ABS wheel speed sensor / reading disc	Execute the maintenance and inspection for every 5000km. If required, make new parts replacement.

### **Check Battery**

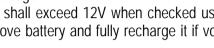
This vehicle uses maintenance-free battery. No battery fluid replenishment is required.

Check battery voltage:

Battery voltage shall exceed 12V when checked using a voltmeter. Remove battery and fully recharge it if voltage is too low.

Method of replacement

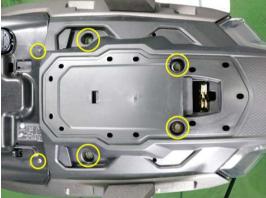
Disassembly and installation of the cover





Detach the rear seat pad, and remove the rubber cover of the rear seat pad

Remove a total of 6 screws, and detach the seat pad cover



Disassembly of the battery cover

1. Remove 3 screws to detach the battery cover.



2. Remove the positive/negative pole screws from the battery.



3. Remove Battery

#### Installation of the battery Install in the reverse sequence.

# Caution

Please note, before installing the battery cover, attach the positive pole cable to the fixing groove inside the cover. Adjust the cable hole position after replacing the cover, then lock the positive/negative terminals in place. Finally, tighten the battery cover.



# 🚹 Warning

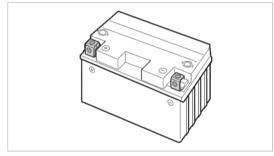
Tenons and grooves are provided on outer covers. To prevent breaking the tenon by pulling or bruising it at portion of an acute angle, you need to be very careful when removing or installing an outer cover. If you worry about breaking the latch, or are not confident with its operations, please allow the KYMCO dealer shop to handle it.

# Caution

- Battery tends to self-discharge and become weak when the vehicle is left idle for a long time. Remove Battery from the vehicle and fully re-charge it; then store it in a cool and well ventilated place.
- Remove the negative cord from the battery if the vehicle is expected to idle for a long time.
- A weakened battery voltage is displayed on the Dashboard; you will need to remove the battery and fully re-charge 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.

**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.



- Keep away from naked fire when removing/installing a battery.
- For removal, turn KEYLESS 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.

Precautions on using batteries:

- 1. 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.
- 2. 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.

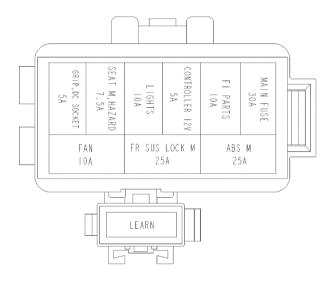
- 3. Store batteries in a location where children cannot access.
- 4. The battery is located underneath the rear seat cushion. Remove the rear seat cushion and remove the seat cushion cover, and the battery will be exposed. For re-charging the battery: When battery power is about to deplete, immediately go to a KYMCO dealer for re-charge. Keep in mind that the more option devices installed on the vehicle, the faster the battery power depletes.

### Fuse Replacement

The fuse is located to the left of the battery. Open the fuse cover to get to the fuse.

- Turn KEYLESS Main Switch off, check for blown Fuse.
- Only replace with a fuse of specified capacity.
- Identify the cause of a blown fuse before replacing it.

Fuse Specification:					
MAIN FUSE :	FI PARTS:	CONTROLLER 12V :			
30A	10A	5A			
LIGHTS :	SEAT M,HAZARD:	GRIP, DC SOCKET :			
10A	7.5A	5A			
FAN :	FR SUS LOCK M:	ABS M :			
10A	25A	25A			



### Backup fuse

When replacing the fuse, the spare fuse should be placed on the top side of the battery protective cover. Remove the 2 screws from the top side of the cover.

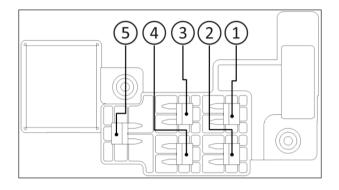


Remove the backup fuse cover.

Flip to its back to obtain the backup fuse.



#### Backup fuse specifications and configuration



1. 5A	2. 7.5A	3. 10A
4. 25A	5. 30A	

## 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 vehicle.

## 🚹 Warning

- The use of oversize fuse as replacement is strictly prohibited, as the circuit may overload and burn out.
- The use of non-fuse or short-circuit methods as fuse replacement is strictly prohibited, as this may cause the circuit to burn out or cause fire to the vehicle.

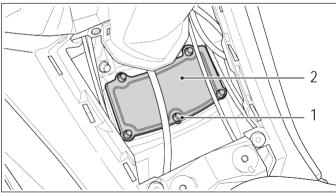
## Air Filter

Replace Air Filter Element as specified in Regular Maintenance Schedule.

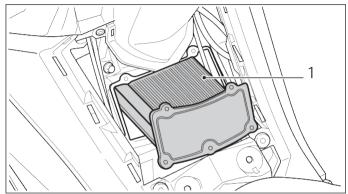
Check and replace Air Filter Element more frequently if vehicle is often used in dusty environments or damp areas.

Replace Air Filter Element

- 1. Remove outer covers of vehicle.
- 2. Remove Air Filter Cover.
- 3. Loosen Air Filter Cover Fixing Screw and take out Air Filter Element.



- 4. Take out Air Filter Element
- 5. Replace a new Air Filter Element



1. Air Filter Element Precautions on replacing Filter Element:

- Make sure the Air Filter Element is positioned correctly in the case.
- Do not start engine when Air Filter Element is not installed, or dirty air may enter the engine and cause abnormal wear.
- Do not wet the Air Filter Element when cleaning the vehicle, or engine start may become difficult.
- 6. Install Air Filter Cover and tighten Fixing Screw.
- 7. Re-install outer covers of vehicle.



Replace with a new Air Filter Element every 5000km.

## CVT Transmission System Filter Wool

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

Based on the maintenance cycle indicated in the periodic maintenance schedule, clean the filtering core and then replace the filtering core every 10,000km.

Replace Filter Wool

- 1. Remove side plate on the right.
- 2. Remove Fixing Bolts of Crankcase Right Cover.
- 3. Remove 2 Fixing Bolts of Filter Wool.
- 4. Replace Filter Wool.

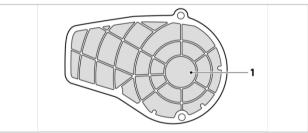
Insert Method: Operate in reversed procedures as removal.



1: Crankcase Right Cover 2: Side plate on the right

Cleaning Method

- 1. Remove side plate on the right.
- 2. Remove Fixing Bolts of Crankcase Right Cover.
- 3. Remove 2 Fixing Bolts of Filter Wool.
- 4. Clean Filter Wool body with air jet and clean out dirt from Crankcase Right Cover.



1: Filter Wool Body

**User Precautions:** 

- 1. Do not remove battery cable when KEYLESS Main Switch is set to ON.
- Tighten torque: 0.1~0.2 kgf-m (do not exceed 0.6 kgf-m). Tighten bolts using a maintenance tool; do not tighten it excessively or the bolt may break and cable may get loose, resulting in an accident.
- 3. After installation, make sure that bolts will not slacken and wires will not interfere with chassis, so as to prevent any potential danger.
- 4. When the user or personnel of service station removes the muffler, it is necessary to disconnect O2 sensor connector first.

# 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.

## Change Oil

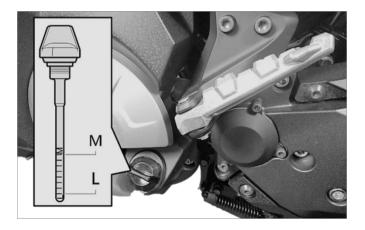
Oil Change Period First oil change when running 1000 km; afterwards every 5000 km. In order to maintain optimal engine performance, check the oil level every 1,000 km. Replenish to standard level in case of shortage.

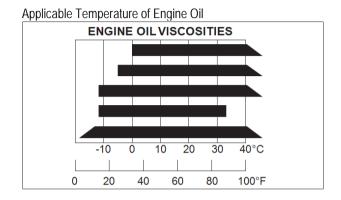
Oil Capacity:

Dismantle: 3.0L (full capacity)

Change oil: 2.6L (excluding oil filter)

2.7L (including oil filter)





# Caution

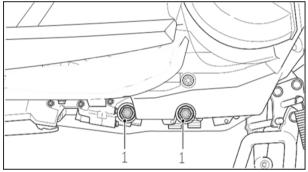
To avoid using poor quality oil, please go to a KYMCO dealer for oil change.

Oil Change Period

- 1. Remove Oil Level Guide.
  - ♦ Remove Drain Bolt.
  - ♦ Drain all the oil. Warming up the engine before changing oil facilitates oil draining.
- 2. Clean Oil Screen and re-install it. Tighten Drain Bolt after wiping it clean.
- 3. Fill the fresh engine oil and the replenishing volume

shall be 2.6L each time (if the engine oil filter is included, then the replenishing volume shall be 2.7L).

- 4. Fully tighten the Oil Level Guide.
- 5. After warming up the engine, stop engine and wait for 1 minute; then verify oil level with Oil Level Guide.



1. Drain Bolt

# Caution

• 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.
- $\diamond$  Idling often.
- $\diamond$  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.

Oil Filter Element Tightening Torque:

11 N-m (110 kgf-cm)

Engine oil discharge bolt tightening torque:

9 N-m (90 kgf-cm)

Magnet Screw Tightening Torque:

28 N-m (280 kgf-cm)

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.

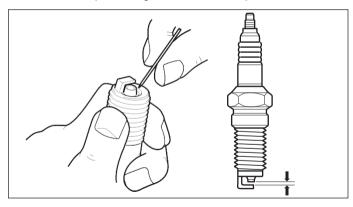
## Spark Plug Check and Adjustment

Dirty electrode or excessive gap can cause poor sparking. Cleaning Method

Use a Spark Plug Cleaning Device is the best way If a Spark Plug Cleaning Device is not available, clean with a needle brush.

Adjustment

Normal Gap of Spark Plug is 0.7-0.8mm (See the Figure). Do not use a Spark Plug other than the specified one.



Specified Spark Plug: (NGK) CR7E

## 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.

Tightening Torque: 100-140 kgf-cm

#### Check Coolant

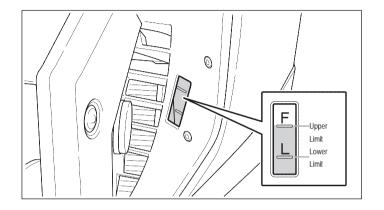
For the sake of safety, check level of coolant before riding the vehicle. Replace the coolant as specified in Regular Maintenance Schedule.

Check Level of Coolant

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



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



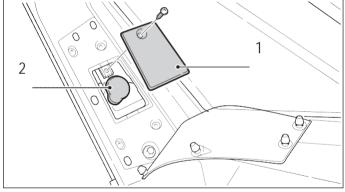
## Caution

- Before riding the vehicle, check the radiator and piping 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.

## Replenish Coolant (Fill the Reserve Radiator)

- 1. Stand the vehicle upright on flat ground.
- Open Reserve Radiator (remove screw 1 and cover 2), replenish water to Upper Limit. If level of coolant gets excessively low, something must be wrong.

Go to a KYMCO Dealer for check and repair.



1: Protection cover 2: Water tank cover

# Caution

- Water temperature is very high after riding, do not open the cap of radiator.
- Use soft 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 radiator additives to ensure performance of the cooling system.

# 🚹 Warning

If the vehicle is being used in freezing or frozen environments, coolants with anti-freezing properties must be used to prevent damage to the coolant system due to freezing. In case of fault of vehicle:

Go to a KYMCO dealer for check and repair if any fault occurs when riding the vehicle. Use only original parts for replacement.

Check following items if engine does not start or engine stops when riding the vehicle:

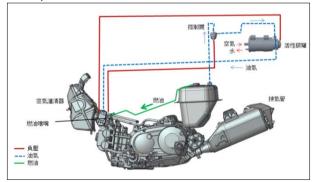
- Whether gasoline is sufficient.
- Whether Dashboard Fuel Indicator approaches E. Replenish with 95 unleaded gasoline or better.
- Whether proper method is used for starting the engine.
- Others, whether any part is faulty.
- Whether the engine shut-off switch is in the correct position.

# Introduction and maintenance to the environmental mechanism

#### Introduction to the exhaust emission control system

Exhaust Emission Control System:

The exhaust emission control device of this model of the vehicle uses the fuel injection system to control the emission pollution effectively. Then, through the ternary catalyst converter in the exhaust system, the pollutants are transformed again, to achieve the result of ultra-low exhaust pollution.



# Warning

The exhaust pipe is extremely hot. The vehicle must be parked in places where passersby and children cannot touch arbitrarily.

# Caution

- 1. Ensure that the exhaust emission control system functions normally, please inspect and maintain your vehicle on a regular basis.
- 2. Ensure that the exhaust emission control system performs normally, please do not modify the vehicle arbitrarily so that the exhaust emission pollution will not be affected and incur fines.
- 3. If there are questions, please consult the Company's dealer shops or do inspections at scooter exhaust inspection and repairs stations recognized by the Environmental Protection Administration.

Maintenance for the exhaust emissions control system Method of operation:

- 1. For replacement of the filter for the air filter, please refer to method of operation for "air filter".
- 2. Engine oil: For better lubrication performance and smoother movements of the engine, please change the oil at 1000 km for a new vehicle, then every 5000 km afterwards.
- 3. Gasoline: To prevent the performance of the ignition system from affecting the combustion efficiency, 92 unleaded gasoline or above must be used. The use of leaded gasoline is strictly prohibited. (Using leaded gasoline may lead to the premature aging and failure of the catalyst converter inside the exhaust pipe)
- 4. For standard values of relevant exhaust tests for injection-type exhaust concentrations, please visit the exhaust testing station or inspection station for adjustments or repairs.

Introduction to evaporative emission control system (E.E.C)

The E.E.C device is used to collect the evaporated oil and gas from the gas tank and the throttle valve, to prevent the oil and gas from being released into the atmosphere and cause environmental and air pollution.

Inspection of evaporative emission control system (E.E.C)

- 1. The emissions value of said vehicle model comply with the 7th-phase regulation standards. Please do not arbitrarily adjust the settings of the parameters.
- 2. Please do not remove or modify the vacuumed tube of the E.E.C device.
- 3. To reduce emission pollution, when the vehicle is idle, do not turn the throttle handle repeatedly.
- 4. Aside from regular maintenance, if visible abnormalities are found (such as poor ignition, emission of black smoke), visit the Company's dealer for inspection or repairs immediately.
- 5. Only use 92 unleaded gasoline or above to ensure the normal functioning of the pollution prevention parts.
- 6. Please refer to the items list of exhaust emission control system maintenance for maintenance.

	Keyless	Noodoe	TPMS	
Manufuctuer	Fames Technology Co., Ltd	Kwang Yang Motor Co., Ltd	Lihjoen Speed Meter Co., Ltd	
CE	report CE	report CE	report CE	
FCC	Receiver 2ABPM-S300068900T Control 2ABPM-S100334400T		<b>FC</b> 2AMA5-LJ-39600	
JRF			€ R 021-170813	
КСС			Receiver: MSIP-CRM-LIJ-39660-LGC6-00 Control: MSIP-REM-LIJ-39650-LGC6-E00	
NCC	Receiver:       CCAN21LP0680T6         Control:       CCAN21LP0670T3	CCAN17LP0260T0	Receiver:       CCAL17LP0150T9         Control:       CCAL17LP0140T6	
SRRC				

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## Specifications CV3 - SBA1CA

Item	Specifications	Item	Specifications
Engine Type	SBA1	Total Length	2140 mm
Displacement	550.4 c.c.	Total Width	785 mm
Cylinder diameter × Stroke	69*73.6	Total Height	1450 mm
Compression Ratio	11	Axle Base	1580 mm
Gear Shifting Method	CVT	Front wheel axle base	465 mm
Clutch	Wet Centrifugal Type	Front Tire	110/70-13
Ignition Method	ECU Full Transistor Type	Rear Tire	160/60-R15
Starting Method	Self Start	Minimum revolving radius	2550 mm
Total Oil Content	3.0L	Vehicle weight (working mass)	282 kg
Fuel type	95 unleaded gasoline or better		
Battery Capacity	12V 11.2Ah		
Spark Plug	NGK CR7E		

CV3 Series Operation Instructions – KWANG YANG MOTOR CO., LTD.

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