
Welcome to the electric era!

Thank you for having chosen a more sustainable mobility which makes air more breathable with lower consumption and great savings, as well as guaranteed autonomy; a way to do good to yourself and the planet.

Congratulations for having decided to embrace a new lifestyle and innovative thinking: using cutting-edge technology such as electricity can only have positive effects.

With the purchase of Askoll NGS₁, NGS₂ o NGS₃ you can finally enjoy a vehicle that concentrates the best of Askoll's functionality, design and technology. Askoll a company that has thirty years experience in the design and manufacture of electric motors.

This manual has been prepared to allow you to fully appreciate its quality. It contains information, warnings and advice on the proper use and maintenance of your new vehicle.

It is important to read it entirely before driving your vehicle for the first time. You will find out details and features that will reassure you of the choice made.

This publication is to be considered an integral part of the vehicle. If the vehicle is sold, the manual must be delivered to the new owner.

EN

The constant evolution in design, to guarantee the safety and quality standard of Askoll vehicles, may involve the fact that some information reported in this Use and Maintenance Manual may differ from the vehicle in your possession. We are sure that you will understand, therefore, that the data, the figures and descriptions shown here cannot constitute a basis for any claim.

TABLE OF CONTENTS

TABLE OF CONTENTS	II
GENERAL INFORMATION	1
SYMBOLS	1
IMPORTANT SAFETY INFORMATION	2
IDENTIFICATION	3
CONTROLS AND INSTRUMENTS	4
SCOOTER OVERVIEW	4
NGS ₁ LEFT SIDE	4
NGS ₁ RIGHT SIDE	4
NGS ₂ - NGS ₃ LEFT SIDE	5
NGS ₂ - NGS ₃ RIGHT SIDE	5
CONTROLS AND INSTRUMENTS POSITION	6
DASHBOARD (NGS ₁)	6
LH CONTROLS	7
Rear brake lever	7
Rear brake lever with combined function (solo NGS ₃)	7
Power regeneration switch	7
Turn signals warning light switch	8
Horn	8
RH CONTROLS	9
Front brake lever	9

TABLE OF CONTENTS

Throttle control	9
High beam headlight on/off selector	10
Riding mode switch	10
Motor start switch	11
KEY SWITCH	11
Enabling and disabling the system	11
INSTRUMENT PANEL	12
WARNING LIGHTS	13
Temperature warning light	14
Serious problem warning light	14
Operating turn indicators warning light	15
Lights warning light	15
High beam light indicator	15
Charging warning light	15
OBD Diagnostic Fault Detection System Indicators (onlyEuro5)	15
SPEEDOMETER (NGS₁ - NGS₂ - NGS₃)	16
MENU SETTING BUTTONS	17
DIGITAL DISPLAY (NGS₁ - NGS₂ - NGS₃)	18
USE	19
CHECKS BEFORE DEPARTURE	19
SAFE DRIVING	19
START-UP OPERATIONS	21
Steering lock engagement and release	21

EN

TABLE OF CONTENTS

Motor enable	22
Riding mode selection (NGS ₁ - NGS ₂ - NGS ₃)	23
Power regeneration mode selection	25
DISPLAY FUNCTIONS SELECTION	26
Odometer data display mode	26
Vehicle autonomy	26
Setting the clock	27
BLUETOOTH®	28
Connectivity	28
“ASKOLL DRIVE SMART” application	28
OBD DIAGNOSTIC (only Euro5)	29
SEAT	30
Opening the seat	30
Bag hook	30
PARKING THE SCOOTER	31
BATTERY AND RECHARGE	32
BATTERIES	32
Battery management in the first use of the scooter	32
Charge percentage	33
Disposal of exhausted batteries	36
BATTERY CHARGER	37

TABLE OF CONTENTS

SMART BATTERY CHARGER	38
Battery charger functions	38
Fans turning on	39
Charging splitter accessory	39
CHARGING THE BATTERIES	41
CHARGING WITH BATTERY ON THE VEHICLE	42
Locking the seat in raised position for cable passage	43
CHARGING WITH BATTERY OFF THE VEHICLE	45
ADJUSTMENTS AND PERIODIC MAINTENANCE	49
ADJUSTMENTS	49
REAR VIEW MIRRORS	49
HEADLIGHT	49
FRONT DISC BRAKE	50
REAR DRUM BRAKE (NGS₁)	51
REAR DRUM BRAKE (NGS₂ - NGS₃)	52
REAR DISC BRAKE WITH COMBINED FUNCTION (solo NGS₃)	52
ORDINARY MAINTENANCE PROCEDURES	53
TIRES	53
FRONT BRAKE FLUID LEVEL CHECK	54
REAR BRAKE FLUID LEVEL CHECK(solo NGS₂ - NGS₃)	55
HEADLIGHT BULB REPLACEMENT (NGS₁ - NGS₂ - NGS₃)	56
TAIL LIGHTS AND TURN SIGNALS	56
ORDINARY MAINTENANCE PROCEDURES TABLE	57

EN






TABLE OF CONTENTS

CLEANING THE VEHICLE	58
VEHICLE INACTIVITY	59
ERROR CODES	60
ERROR CODES	60
TECHNICAL DATA	63
SCOOTER DIMENSIONS	63
MOTOR DATA	64
BATTERY	64
VEHICLE DATA	64
HEADLIGHT DATA	65
TAIL LIGHT DATA	65
EU DECLARATION OF CONFORMITY	66

SYMBOLS

This manual contains particularly important information that should be read with care.








Each signal consists of a different symbol to make clear the content of the text that follows it, and to facilitate the placement of the subjects in the different areas.

 WARNING 	<p>This symbol indicates situations of particular danger, which could result in death or serious injury if not avoided.</p> <p>This version of the attention signal will be used within the manual.</p>
	<p>This symbol indicates a security generic warning. It is used to put warn about potential danger of personal injury or damage to things.</p>
	<p>Failure to fully comply with these requirements may cause serious damage to the vehicle and in some cases void the warranty.</p>
	<p>Right behaviour is indicated to prevent damaging nature by using the vehicle.</p>

EN

GENERAL INFORMATION

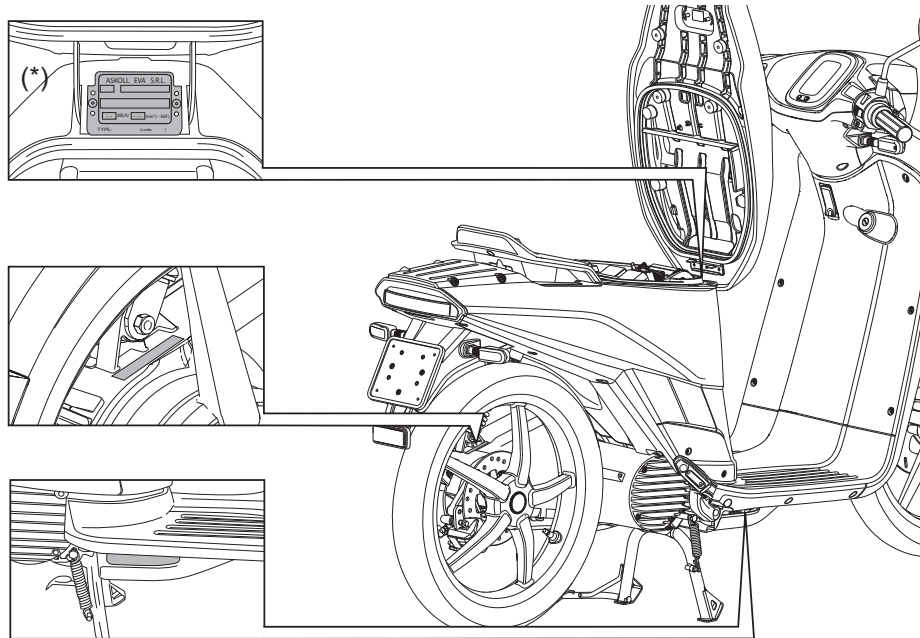
IMPORTANT SAFETY INFORMATION

	It is very important for you to know the electric scooter: read and understand this manual before the first use.
	This operating manual is part of the scooter, keep it for future reference. If the scooter is sold, the manual must be delivered to the next owner.
	The scooter is not intended to be used by persons with reduced physical, sensory or mental capacities, or lack of experience or knowledge, unless a person responsible for their safety has supervised or instructed them concerning the use of the scooter.
  	Failure to fully comply with these requirements may cause serious damage to people, the vehicle, the environment and in some cases void the warranty.
	Each processing that changes either performance or main structure of the scooter, besides from being forbidden by law, void vehicle compliance and approvals, making it dangerous.

IDENTIFICATION

Identification plates are stamped on frame, motor casing and battery compartment. They must be indicated when ordering spare parts.

It is advisable to check the correspondence of vehicle plates with the ones present in its documents.



EN

WARNING

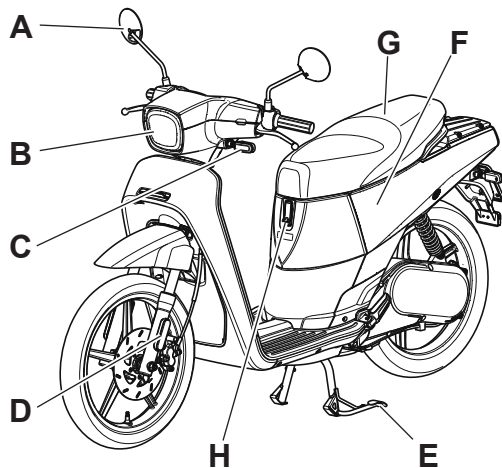


Alteration of identification plates can incur in serious penalties.

CONTROLS AND INSTRUMENTS

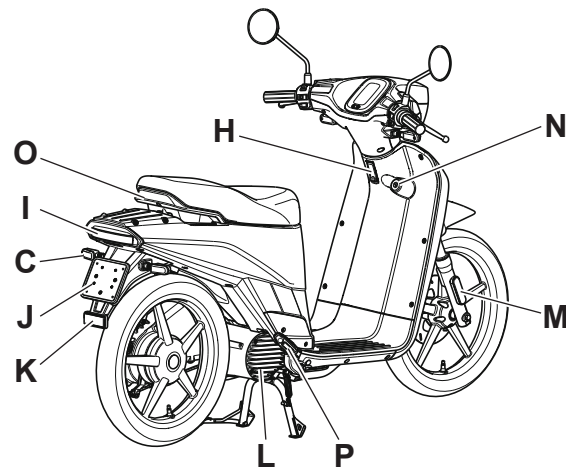
SCOOTER OVERVIEW

NGS₁ LEFT SIDE



- A. Rear view mirror
- B. Headlights
- C. Turn signal
- D. Front LH reflector
- E. Kickstand
- F. Battery compartment
- G. Seat
- H. Bag hook

NGS₁ RIGHT SIDE

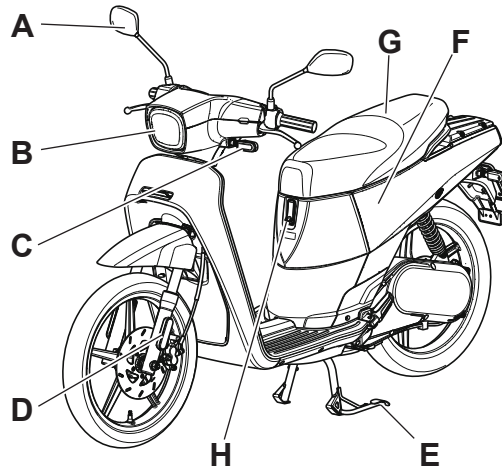


- I. Tail light
- J. License plate holder
- K. Rear reflector
- L. Motor
- M. Front RH reflector
- N. Ignition switch
- O. Passenger grab handle
- P. Passenger pegs

CONTROLS AND INSTRUMENTS

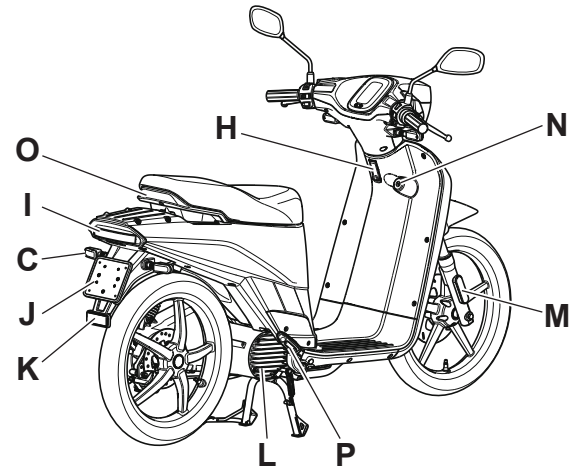
SCOOTER OVERVIEW

NGS₂ - NGS₃ LEFT SIDE



- A. Rear view mirror
- B. Headlights
- C. Turn signal
- D. Front LH reflector
- E. Kickstand
- F. Battery compartment
- G. Seat
- H. Bag hook

NGS₂ - NGS₃ RIGHT SIDE



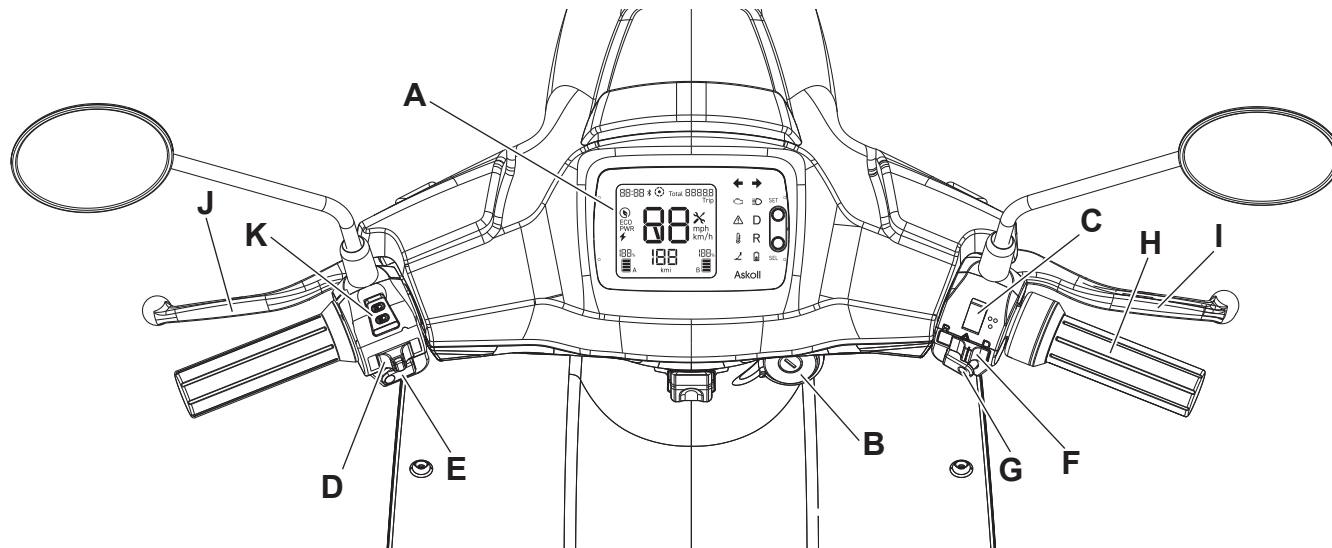
- I. Tail light
- J. License plate holder
- K. Rear reflector
- L. Motor
- M. Front RH reflector
- N. Ignition switch
- O. Passenger grab handle
- P. Passenger pegs

EN

CONTROLS AND INSTRUMENTS

CONTROLS AND INSTRUMENTS POSITION

DASHBOARD (NGS₁ - NGS₂ - NGS₃)



- A. Instrument panel
- B. Key switch
- C. Power regeneration switch
- D. Turn signals warning light switch
- E. Horn
- F. Forward gear driving mode selector
+ Reverse + 4 hazard lights

- G. Engine start button / MODE function - driving
mode selection
- H. Throttle control
- I. Front brake lever
- J. Combined brake control lever
- K. Headlight switch

CONTROLS AND INSTRUMENTS

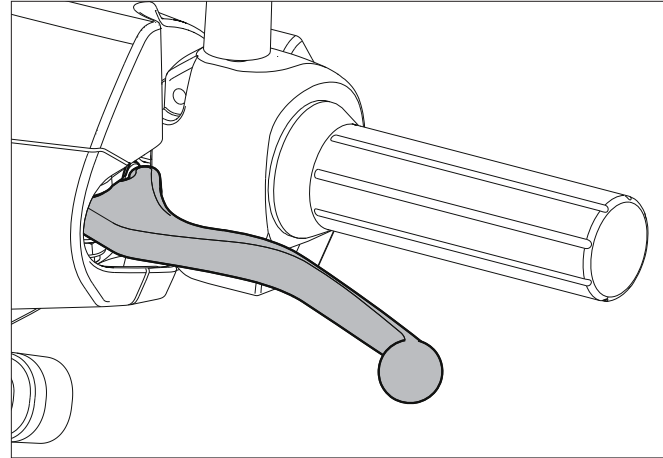
LH CONTROLS

Rear brake lever

The rear brake lever (drum for NGS₁, disc for NGS₂ e NGS₃) is located on the left side of the handlebar.

Rear brake lever with combined function (only NGS₃)

The brake acts on both wheels, with prevalence on the rear one to ensure greater safety and improved stopping distances.

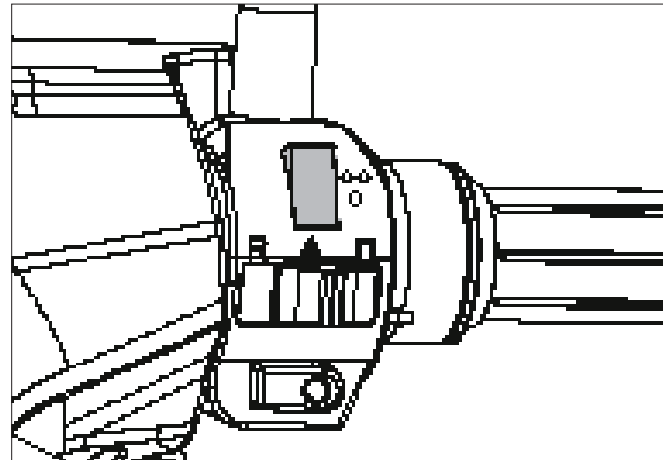


EN

Power regeneration switch

During scooter deceleration, the battery can be automatically recharged by activating the power regeneration mode.

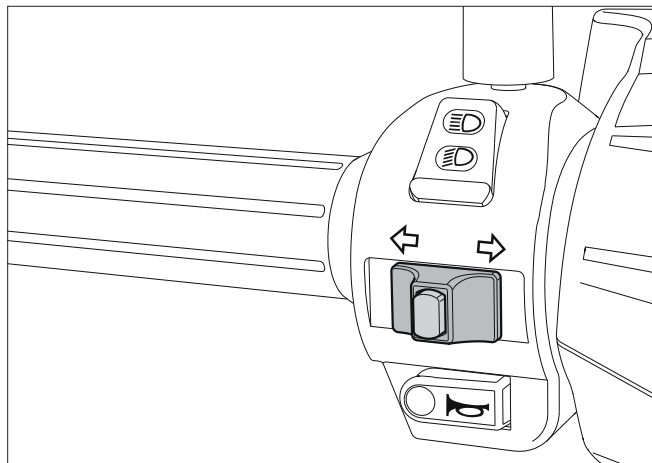
Use the 2 position turn indicators switch to activate or deactivate power regeneration.



CONTROLS AND INSTRUMENTS

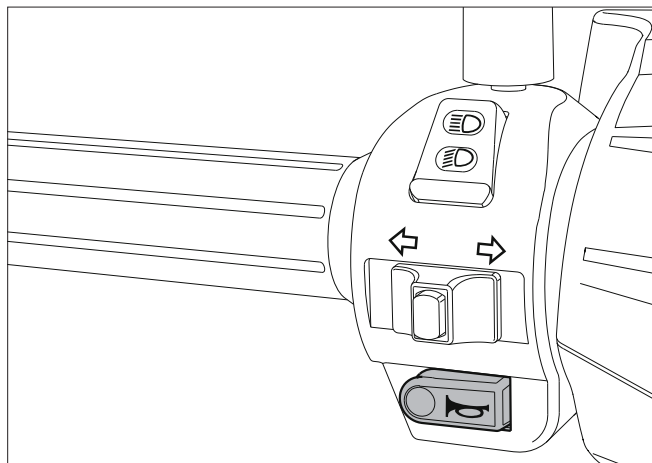
Turn signals warning light switch

Move the lever to the left to operate LH turn indicator.
Move the lever to the right to operate RH turn indicator.
Press the button in the centre of the lever to turn the indicators off.



Horn

Press to honk the horn.

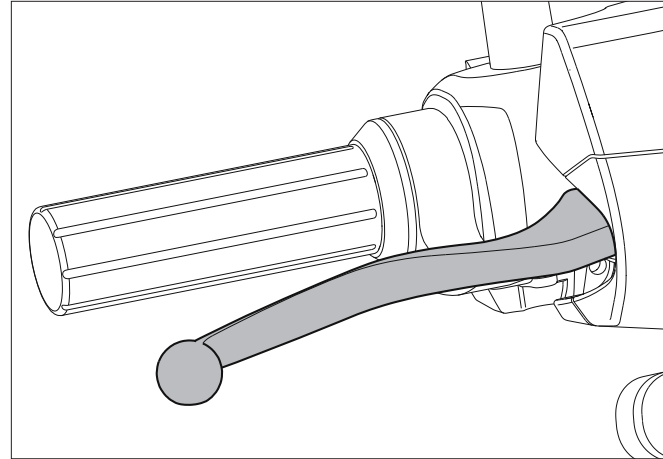


CONTROLS AND INSTRUMENTS

RH CONTROLS

Front brake lever

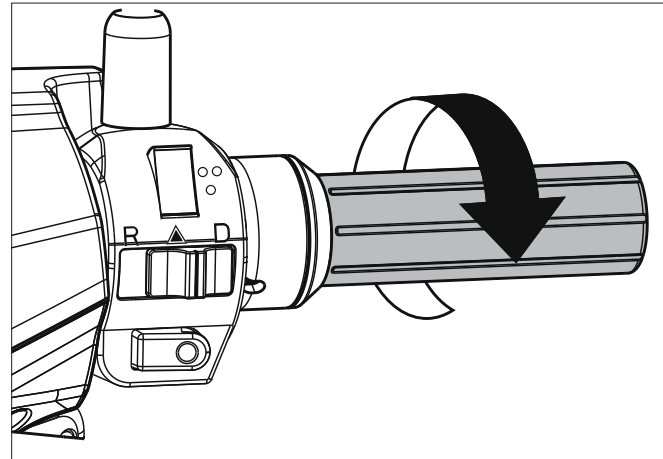
Front disk brake lever is placed on the right side of the handlebar.



EN

Throttle control

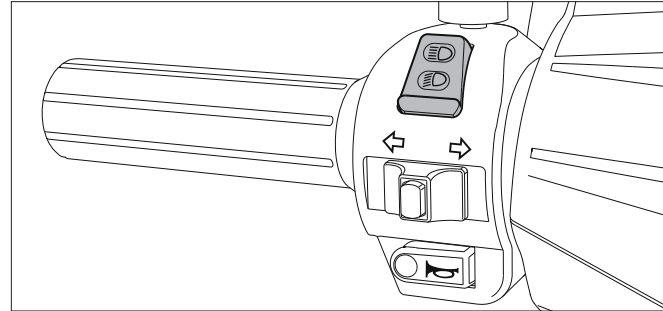
Scooter speed is adjusted through the grip.



CONTROLS AND INSTRUMENTS

High beam headlight on/off selector

Using the selector is possible to activate the high beam light.



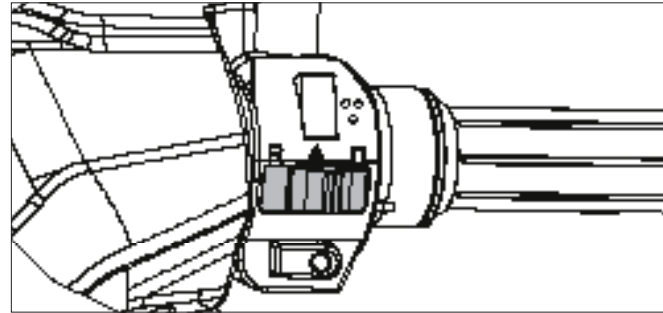
Driving mode selector

The switch can be used to select three different driving modes

Position D = proceed in forward gear

Position  = the 4 hazard lights are enabled

Position R = proceed in Reverse gear



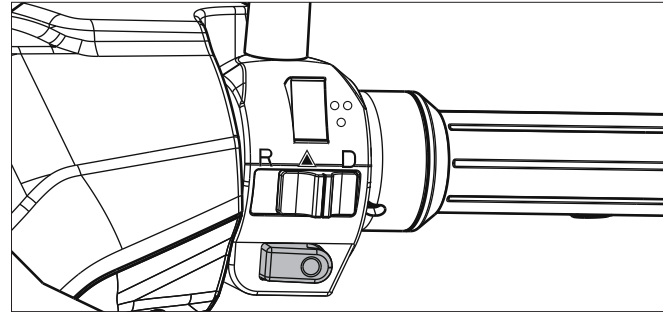
The reverse gear must only be engaged when the vehicle has come to a complete stop, with both brakes applied and with both feet on the ground. The maximum speed

in reverse is 3 km/h; when moving in reverse, the 4 hazard lights and the intermittent acoustic buzzer are enabled automatically. If reverse gear is engaged by mistake whilst moving in forward gear, the vehicle disregards the command but it is indicated on the dashboard by the letter "R", which lights up intermittently on the dashboard total mileage display; in any case, driving mode D remains enabled and the buzzer sounds continuously.

CONTROLS AND INSTRUMENTS

Motor start switch

Pressing the button for 3 seconds will start or stop the engine depending on key position.



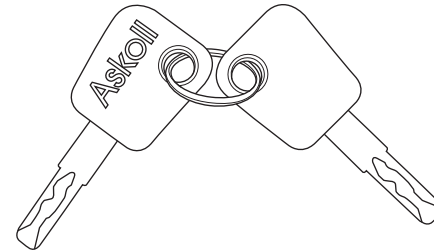
EN

KEY SWITCH

The key switch enables or disables system and steering lock.

The scooter is provided with a main key and a duplicate, both can be used to actuate the key switch and to open the seat.

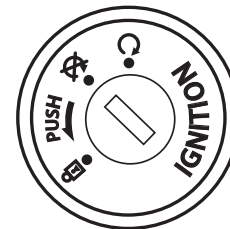
Please, keep the duplicate key separated from the main one.



Enabling and disabling the system

Turning the key to  enables the system.

Turning the key to  disables the system.



WARNING Do not turn or remove the key while driving

CONTROLS AND INSTRUMENTS

INSTRUMENT PANEL

NGS₁ - NGS₂ - NGS₃



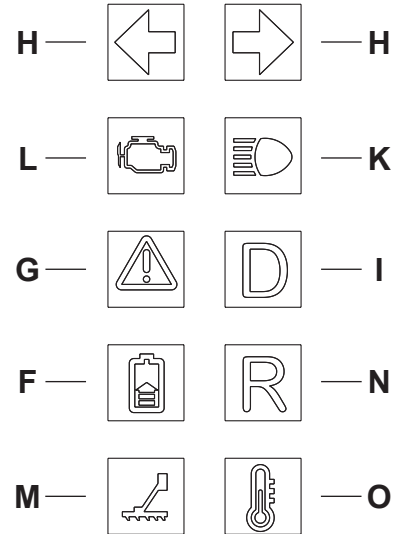
- A. Warning lights
- B. Speedometer
- C. Digital display
- D. Display controls

CONTROLS AND INSTRUMENTS

WARNING LIGHTS

- H. Operating turn indicators warning light
- L. Motor OBD diagnostic indicator
- K. High beam light ON indicator
- G. Serious problem warning light
- I. Forward gear indicator
- F. Charging warning light
- N. Reverse gear engaged indicator
- M. Kickstand OBD diagnostic indicator
- O. Temperature warning light

NGS₁ - NGS₂ - NGS₃



EN

CONTROLS AND INSTRUMENTS

Temperature warning light

The warning light indicating high temperature is amber, it turns on and remains on to indicate an overtemperature alarm. Its alarm code can be read on the display.

For the description of the alarm related to the code displayed refer to the chapter “**ERROR CODES**”.



Serious problem warning light

Serious problem warning light is red, it turns on together with the malfunction one.

Stop the vehicle when it turns on and read the error code on the display.

It is necessary to go to an authorized workshop to have the vehicle checked.

For the description of the alarm related to the code displayed refer to the chapter “**ERROR CODES**”.



Operating turn indicators warning light

Turn signals warning light is green, it turns on and blinks to indicate RH or LH activation and it turns off when they are deactivated.



Lights warning light

Lights warning light is green, it turn on when motor is enabled.



High beam light indicator

The high beam light indicator is blue, it is turned on by actuating the selector on the left stalk.



Charging warning light

Charging warning light is amber, it turns on and remains on when the battery charger is connected and batteries are being charged. It also turns on when power regeneration is active.



OBD Diagnostic Fault Detection System Indicators (onlyNGS₃ Euro5)

The colour of the On Board Diagnostic (OBD) lights are amber and illuminate during communication between the vehicle and the external diagnostic device.



CONTROLS AND INSTRUMENTS

SPEEDOMETER (NGS₁ - NGS₂ - NGS₃)

Speedometer indicates current speed.

The value is displayed in kilometres per hour (km/h) and miles per hour (mph).

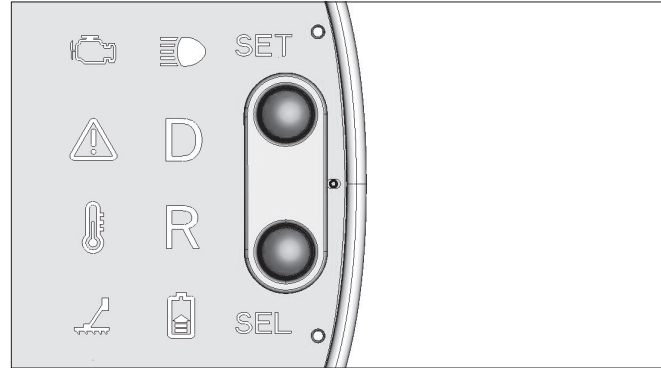


CONTROLS AND INSTRUMENTS

SPEEDOMETER (NGS₁ - NGS₂ - NGS₃)

Speedometer indicates current speed.

The value is displayed in kilometres per hour (km/h).

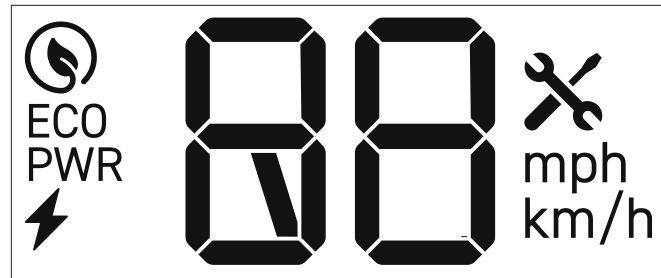


EN

MENU SETTING BUTTONS

The **SELECT** and **SET** buttons must be used for:

- select the parameter to display,
- reset displayed value (km/trip),
- set and confirm new values (hour).



CONTROLS AND INSTRUMENTS

DIGITAL DISPLAY (NGS₁ - NGS₂ - NGS₃)

On the digital display it is possible to have all the information regarding vehicle status, namely:

- battery presence on A and B compartments,
- battery charge,
- total mileage,
- partial mileage,
- mileage to go with remaining battery charge,
- time,
- alarms and their error codes.



CHECKS BEFORE DEPARTURE


Before using the scooter, it is always good practice to carry out certain controls:

- check battery charge,
- check headlight, tail light, turn signals and number plate light operation,
- check front and rear brakes operation,
- check fluid level in front brake reservoir,
- check tire pressure,
- check that the seat is not raised and locked and that charger cables are properly placed in the battery compartment.



To properly carry out these controls, refer to the instructions in this manual.

EN

SAFE DRIVING

WARNING	Before the first use, we suggest you to try the scooter in areas closed to traffic until you familiarise yourself with it.
WARNING	Always ride within the limits of your abilities.
	Riding under the influence of alcohol, drugs or certain medicines is dangerous and it is prohibited by law.
WARNING	Before you start riding, always wear a helmet and fasten it correctly.
WARNING	If you are carrying a passenger, before starting to drive check that he has worn the helmet and that it is correctly fitted and fastened.
WARNING	Recommend the passenger to always remain firmly attached to the appropriate grab handle while travelling.

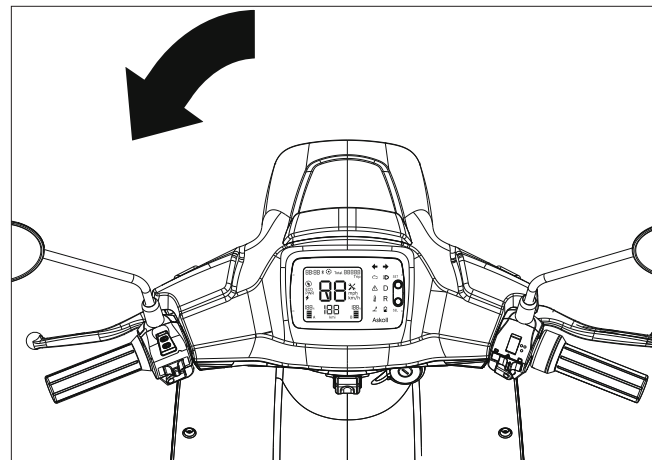
USE

WARNING	Avoid departing with the central kickstand down: when the rear wheel makes contact with the ground, it should not turn to avoid abrupt departure.
WARNING	Drive very carefully on bumpy, wet, snowy or slippery roads, it will be necessary to reduce speed and increase safety distance from other vehicles.
WARNING	Use both brakes to allocate braking action on both wheels.
	Do not brake hard on wet, slippery or dirt roads.
WARNING	If travelling on a wet road for some time without actuating the brakes, initially there will be less braking action. Under these conditions, periodically actuate the brakes.
	In case of rain visibility decreases, so reduce speed and drive carefully.
WARNING	On NGS₃ vehicles, if during acceleration the rear brake is applied at the same time until the wheel locks, this situation causes the control unit to enter into protection mode and the vehicle shuts down.

START-UP OPERATIONS

Steering lock engagement and release

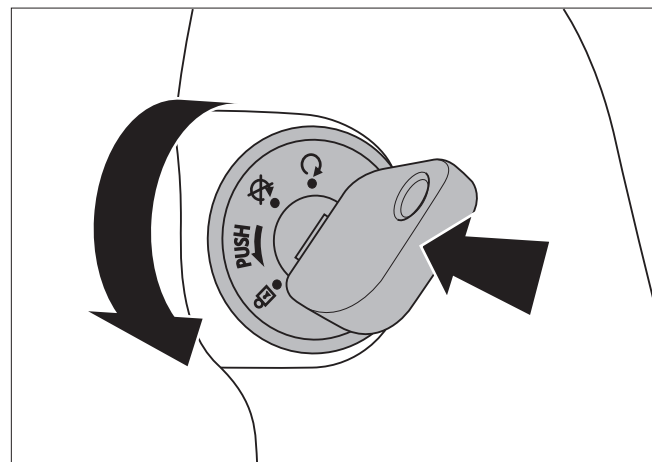
To engage the steering lock, turn the handlebar left until it stops.



EN

Press the key inwards and turn counterclockwise; while turning the handlebar slightly clockwise until the key is on the lock; now the steering lock is inserted and you can remove the key.


To disengage the steering lock, insert the key into the ignition switch and turn it right.





USE

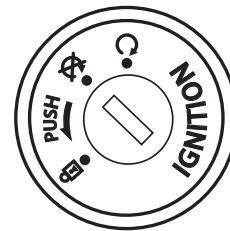
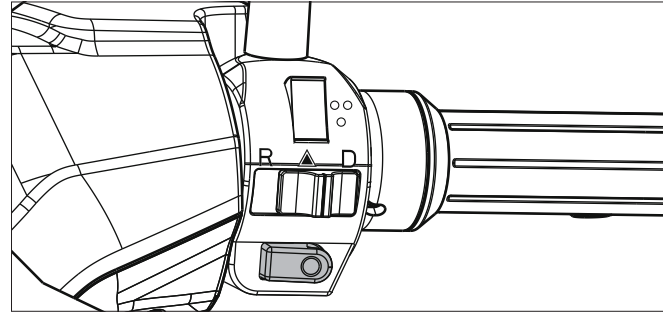
Motor enable

The engine must be enabled to start.

To enable the engine, insert the key into the switch and turn it to , then press for 3 seconds to enable the engine, motion warning light will turn on.

To disable the engine, press the engine enabling button again for 3 seconds and turn the key in the ignition switch to the left on .

The engine will be disabled also by rotating the key to .



Driving mode selection (NGS₁ - NGS₂ - NGS₃)

The switch can be used to select the following driving modes:

Position D = proceed in forward gear

Position  = the 4 hazard lights are enabled

Position R = proceed in Reverse gear

The various driving modes (NGS₁ - NGS₂):

ECONOMY mode

Maximum speed: 32 km/h.

The ECO icon appears on the display.

NORMAL mode

Maximum speed: 37 km/h.

No icon appears on the display.

POWER mode

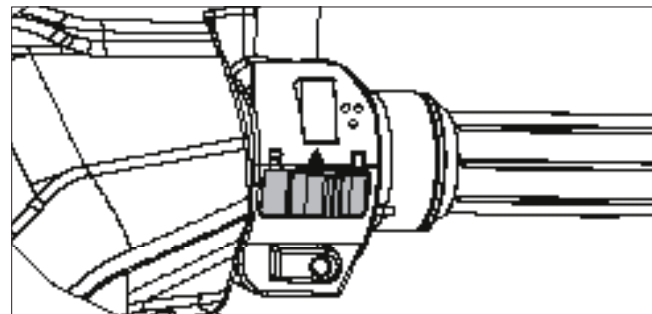
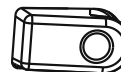
Maximum speed: 45 km/h.

The PWR icon appears on the display.

Version NGS₁: autonomy 40 Km*

Version NGS₂: autonomy 71 Km*

* according to Regulation (EU) No 168/2013.

**MODE**

The red “**MODE**” button has a dual function; press and hold for 1 sec to give consent for the vehicle to be switched on or off. Pressing the button in quick succession changes the assistance mode from ECO to NORMAL to POWER and so on.

EN

WARNING

Lithium-ion batteries undergo a progressive performance decay that reduces the initial autonomy values.

WARNING

The autonomy data indicated depend strictly on the conditions of use, which may be: slope and/or type of road surface, ambient temperature, average speed, motor assistance level, tyre pressure, weight carried and user's weight, age of batteries.

USE

Riding mode selection (NGS₃)

Three different riding modes can be selected through the ignition switch:

ECONOMY mode

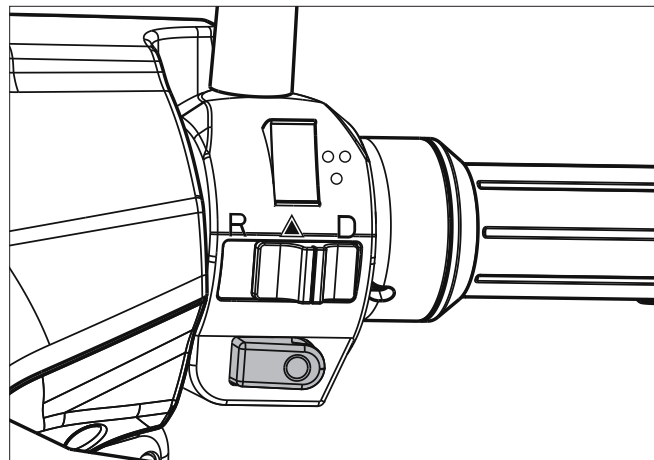
NORMAL mode

These modes are used to minimize consumption.

POWER mode

Full speed: 67 Km/h

The PWR icon appears on the display



Autonomy 96 Km according to regulation 168/2013 EC.

The autonomy values listed above are valid with the use of 2 batteries connected and with the same charging value.

WARNING

Lithium-ion batteries undergo a progressive performance decay that reduces the initial autonomy values.

WARNING

The autonomy data indicated depend strictly on the conditions of use, which may be: slope and/or type of road surface, ambient temperature, average speed, motor assistance level, tyre pressure, weight carried and user's weight, age of batteries.

Power regeneration mode selection

During scooter deceleration, the battery can be automatically recharged by activating the power regeneration mode.

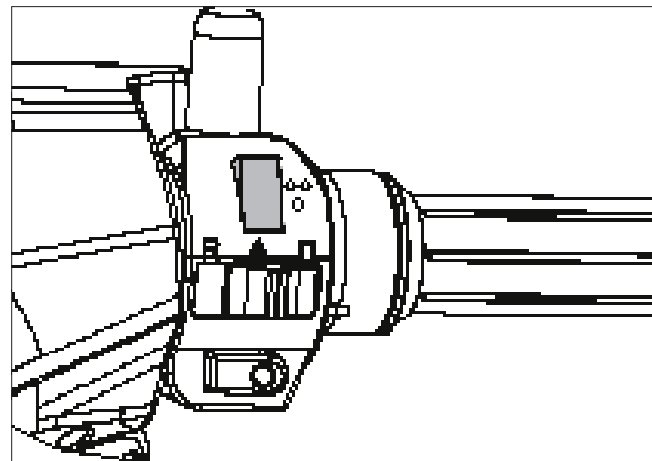
Use the 2 position turn signals switch to activate or deactivate power regeneration:

- The power regeneration mode is activated and deceleration increases pressing the button upwards.
- The power regeneration mode is deactivated pressing the button downwards.

Combining braking with deceleration, charging will be greater.

When power regeneration mode is activated, charging warning light is on.

With a high level of battery charge, power regeneration mode is not activated.



EN

USE

DISPLAY FUNCTIONS SELECTION

Odometer data display mode

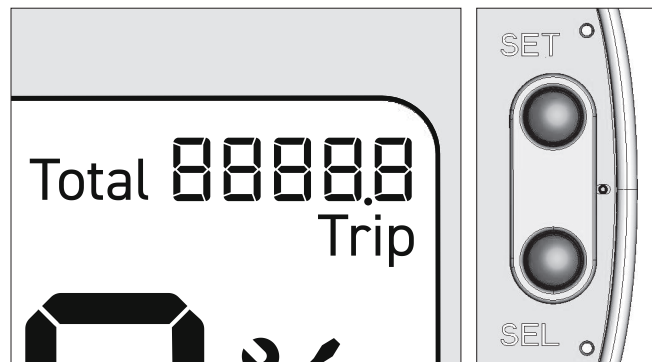
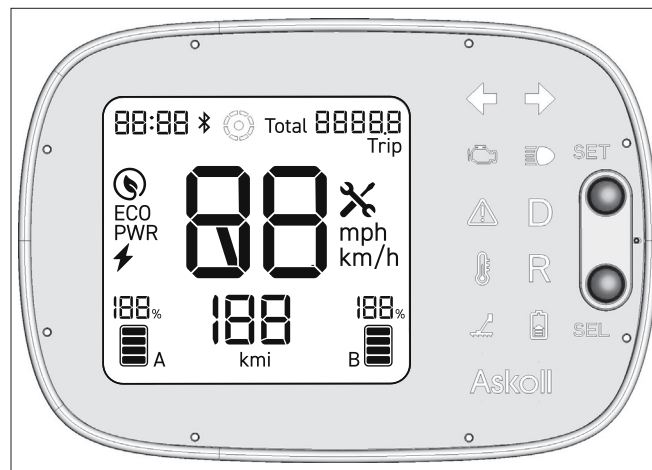
Upon power up, all display lights will remain lit for a few seconds.

Press **SELECT** to change the parameter shown on the display:

- Km** Total mileage.
This parameter cannot be modified.
- Km/trip** Partial mileage.
Keep SET pressed to zero during parameter display.
- Km/⚡** Mileage to go with remaining battery charge. The value varies depending on the conditions of use, remaining battery charge, riding mode set and power regeneration mode selected.

Vehicle autonomy

The vehicle range value shown on the display is an estimate of the remaining distance the vehicle will travel in standard conditions. The estimate becomes less reliable as the number of kilometres indicated decreases..

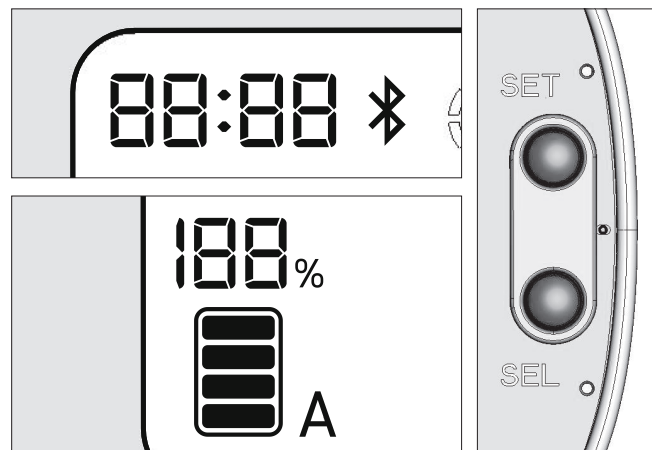
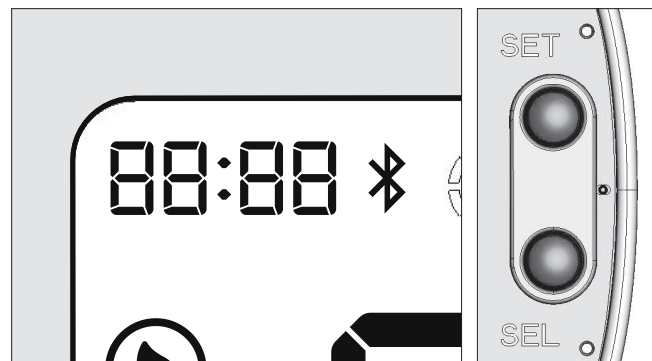


Setting the clock

- Press and hold the **SELECT** button for about 2 seconds: the two digits corresponding to the time will start flashing.
- Press **SELECT** repeatedly to set the correct time.
- Press the **SET** button: the minute digits will start flashing and the hour digits will return to fixed.
- Press **SELECT** repeatedly to set the correct minutes.
- Press the **SET** button to exit the setting.

Since time is stored in the vehicle battery, in case of two batteries, it is convenient to set the clock with both batteries installed to synchronize time. In any case, if there are two batteries, the time stored for the battery in compartment **A** is always displayed.

For battery description and positioning in compartments A and B refer to chapter **"BATTERY AND RECHARGE"**.



EN

USE

BLUETOOTH®

The NGS₂ e NGS₃ scooters are equipped with a Bluetooth module that allows the connection of a mobile device to the vehicle.

Connectivity

The connection status is indicated by the appropriate Bluetooth symbol on the digital display:

- **Flashing symbol:** the module is waiting for connection (only when the vehicle is stationary and for a maximum time of one minute).
- **Symbol on:** the module is connected to a device.
- **Symbol off:** there are no devices connected, the connection timeout has expired or the vehicle is running.



When the vehicle is on, the Bluetooth module is always active and ready for connection, even if the symbol on the display is off.

“ASKOLL DRIVE SMART” application

You can download the “ASKOLL DRIVE SMART” application for connecting to the BLUETOOTH® system from “Google Play Store” or “Apple Store”, depending on the operating system (Android / iOS) of your device.

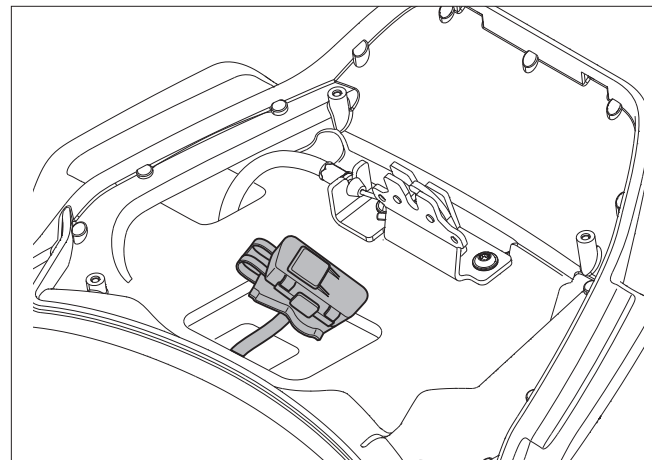
The BLUETOOTH® trademark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of these trademarks by ASKOLL EVA is under license. Other trademarks and trade names belong to their respective owners.

Hereby, Askoll EVA SpA, Via Industria 30, 36031 Dueville (VI) Italy, declares that the HWE213 radio equipment complies with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following address: “http://mobility.askoll.com/site/en/assistenza_ricambi/”

OBD DIAGNOSTIC (solo NGS₃ Euro5)

The NGS₃ Euro5 scooter is equipped with the OBD (On Board Diagnostic) error detection diagnostic system, according to the provisions of the EURO5 Environmental Standard that became effective on all new vehicles produced from January 01, 2021.

According to the requirements related to the ISO 19689:2016 standard, concerning the communication between the vehicle and the external diagnostic equipment, the OBD connection for electronic error detection is located under the seat, inside the passenger handle body.



EN

USE

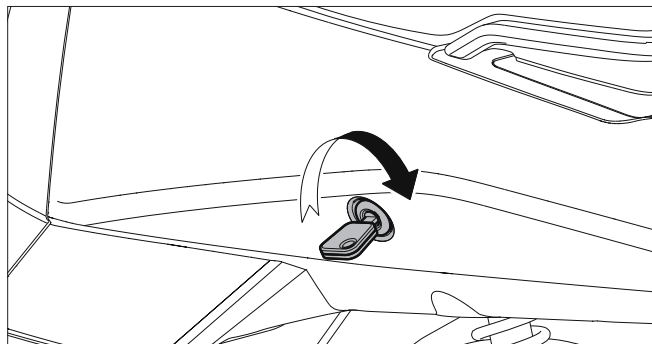
SEAT

Opening the seat

The lock for opening the seat is located under the left side of the seat.

Insert the key into the lock, turn it clockwise and fold the seat forward.

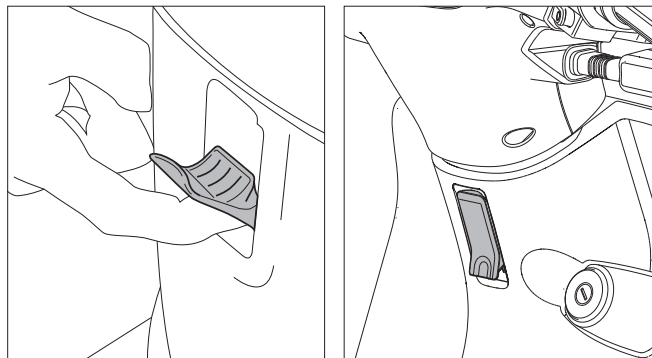
While closing, the seat lock will automatically lock.



Bag hook

Pressing on the bottom of the hook, the upper part comes out and it is possible to hang an object.

Releasing the hook, it will automatically return to its housing.



WARNING

The object carried should not tamper or restrict movement of the legs.

WARNING

Avoid placing all the weight on the hook, the object carried should also rest on the platform.

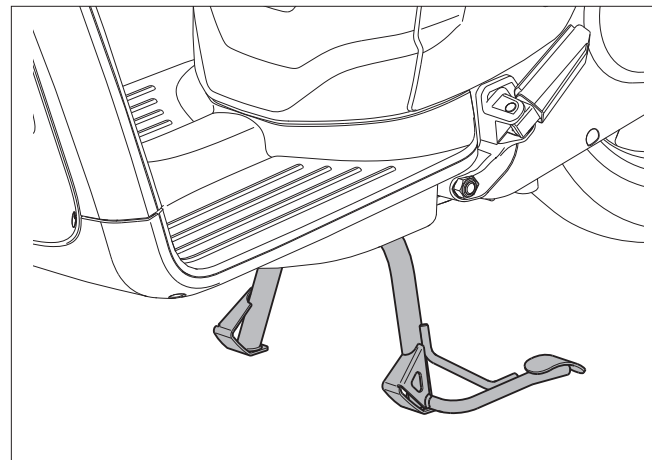
PARKING THE SCOOTER

Use the kickstand to park.

Lower the kickstand with your foot until the opening is complete and simultaneously lift the scooter manually, grabbing the luggage rack with your right hand and accompanying it until the scooter is fully supported.

WARNING Pushing the scooter forward, the kickstand automatically returns to the starting position: **this operation must always be performed before getting on the scooter.**

WARNING Avoid sitting on the scooter when it is parked on the kickstand.



EN

WARNING Use the kickstand on compact and flat surfaces.

WARNING Pay attention to manoeuvres with parked vehicle in particular when placing the scooter on the kickstands to prevent it from falling.

BATTERY AND RECHARGE

BATTERIES

The first equipment of the vehicles NGS2 includes two lithium ion batteries. The NGS1 models are supplied with a standard battery, while the second is supplied as an option (batteries model TVC102). The NGS3 models are supplied with two standard batteries (batteries model TC103).

High capacity (3500 mA) batteries mod. TC107 are available **on request** for a greater autonomy of the vehicle.

The two batteries are housed in compartments **A** and **B** under the seat.

Weight of each battery: 7.8 kg (TVC102) - 8.1 kg (TC103).

The batteries must be recharged at an ambient temperature between 0 °C and +45 °C.

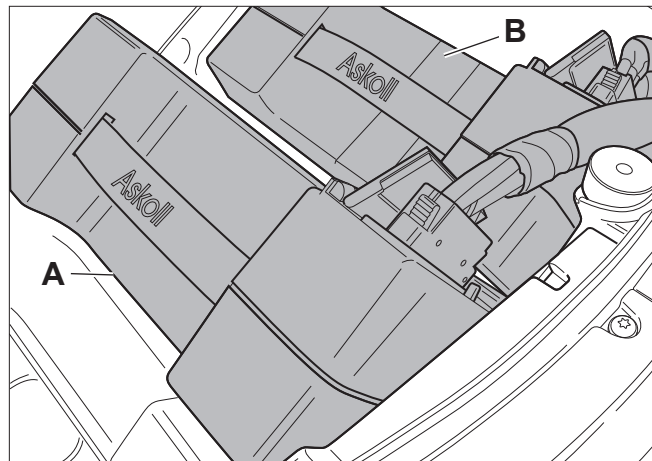
There may be autonomy reduction at low temperatures.

If using the scooter model NGS₁ the system allows to use the second optional battery at the same time. The vehicle can still circulate using a single battery that can be placed indifferently in both compartment **A** and compartment **B**. With the use of two batteries the autonomy doubles.

The battery is an always active component, it may show light voltage drops even with the control panel off.

Battery management in the first use of the scooter

With new batteries it is necessary to perform at least 3 - 4 complete charging/discharging cycles, bringing the charge to 100% and discharging the battery at a value close to 0%, this allows you to properly align the batteries in the first period of use.



Charge percentage

The remaining charge expressed as a percentage depends strictly on the conditions of use (slope and/or type of road surface, ambient temperature, speed, motor assistance level, tire pressure, weight carried and user's weight, age of batteries).













The percentage of charge between the 2 batteries may be misaligned but is not a symptom of malfunction, when the batteries are discharging and fall below the threshold of 20% residual charge ("reserve" mode) it is recommended to recharge the batteries to 100%.

The batteries must never remain with a residual charge of less than 20% for more than 30 days. If the scooter is not used for long periods of time, it is recommended never to leave the batteries completely discharged, but to always charge them at least 50%, and to disconnect the batteries from the scooter.

Check that the charge is being maintained every 2 months.

After leaving the batteries unused for a long period, recharge the batteries to 100%.

BATTERY AND RECHARGE

	If the scooter remains off for a long period at low temperatures (0°C to +10°C), recharging might take longer.
	If the scooter is not used for a long time, the batteries must be recharged at least once every two months. In any case, the batteries must never remain with a residual charge of less than 20% for more than 30 days.
	Batteries must not be used at an ambient temperature outside the range of -10 °C to +45 °C.
	Batteries may only be recharged using the charger provided by the manufacturer.
	The batteries must not be subjected to shock and must not show signs of external damage of any kind.
	Batteries, both during recharging and storage, must not be exposed to heat/cold, humidity, dust or weather.
	The warranty covers malfunctions of batteries resulting from manufacturing defects, inability to recharge and discharge.
	The warranty does not cover degradation of battery performance due to normal use and ageing.
	The manufacturer reserves the right to assess the validity of the warranty on the basis of battery analysis.
	Never disconnect wires from the electrical system with motor running so as to prevent battery damage.
	Disassembling and/or tampering with the batteries will make the warranty void.
	Respecting the environment, at the end of their life cycle, batteries must be collected and disposed of according to law.

BATTERY AND RECHARGE



Do not use this battery for purposes other than those indicated. Use other than intended could result in short circuit within the battery which could catch fire.



Fire hazard

- Do not disassemble or brake the battery.
- As a result of an accident with serious mechanical damage to the battery, there could be short circuits within the battery itself and it may be damaged or catch fire.
- In case of an accident leave the vehicle outdoors for about an hour at a safe distance from any flammable material. With a finger touch the battery briefly and cautiously. If you sense an unusually high temperature, leave your vehicle where it is. Do not continue using it for any reason. As soon as the battery has cooled, take the vehicle to your dealer.
- In the presence of flames or smoke rising from the battery, stop the vehicle immediately. Then turn off the fire with a fire extinguisher, if available. If a fire extinguisher is not available, wait until the fire has extinguished and all parts of the vehicle have cooled down. If there is a risk that the fire spreads to nearby objects, notify the Fire Department.

WARNING

After charging and before removing the batteries, disconnect the power plug of the battery charger from the socket.



Failure to comply with the recommendations described above will invalidate the battery warranty.

EN

BATTERY AND RECHARGE

Disposal of exhausted batteries

At the end of its useful life, a battery pack containing lithium batteries must be disposed of according to the Current Regulations and cannot be disposed of as simple waste.

The European Directive for this type of waste establishes that the States adhering to this convention undertake to adopt “appropriate measures” so that exhausted accumulators are collected separately, for the purpose of their possible recovery or disposal.

In any case, for more updated information on this topic, the user must contact the municipal office in charge of this concern.



BATTERY CHARGER

Batteries are charged using the specific charger supplied.

The charger supplied with the vehicle is the SMART model, which offers higher performance and shorter charging times.



The battery charger supplied is designed for mainly indoor use.

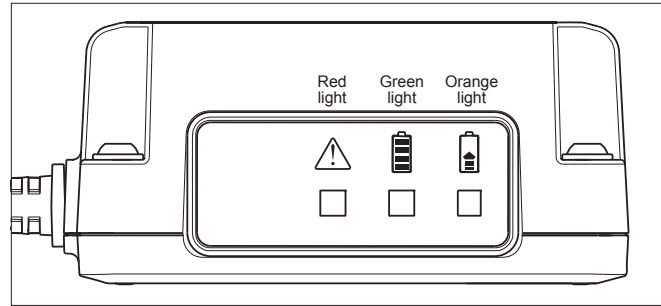
EN

BATTERY AND RECHARGE

SMART BATTERY CHARGER

This charger is intended for use with Askoll vehicles only.

The battery charger is activated only when connected to the mains with appropriate power cable.



Battery charger functions

- **LED OFF:** battery charger not connected to the mains.
- **GREEN LED on:** Battery connected and charged.
- **Flashing orange LED:** battery connected but gives an error, charging not operational. If the problem persists, take the battery to a service centre.
- **ORANGE LED lit:** charging in progress.
During charging, the amount of charge is indicated by the GREEN LED emitting fast flashes as follows:
 - 1 flash GREEN LED:** battery very low.
 - 2 flashes GREEN LED:** battery half charged.
 - 3 flashes GREEN LED:** battery close to being fully charged.
- NOTE:** if there are two batteries connected together via the charge splitter accessory, the indication refers to the battery that is the most discharged of the two.
- **Flashing RED LED:** indicates high battery charger temperature, charging may continue at low or very low rate with longer charging time. Place the battery charger in a cool place and never on top of a battery. Make sure that the ventilation grids are free and that the fans are working properly, if not please contact a service center.
- **RED LED on:** error detected, charging not possible. Try disconnecting and reconnecting from the battery and power supply. If the problem persists, contact a service center.

Fans turning on

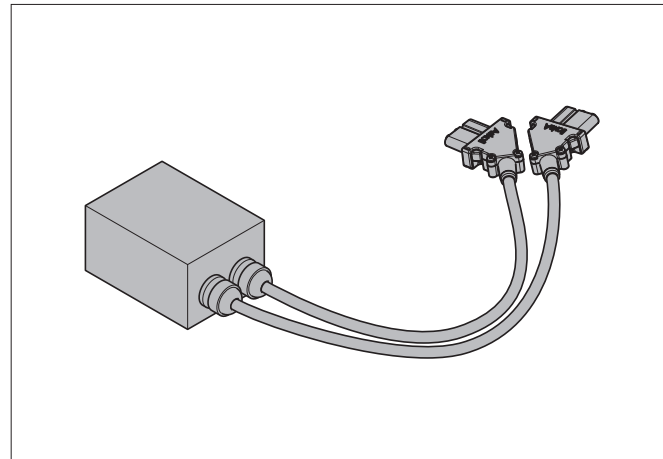
The battery charger fans turn on under the following conditions:

- The first 2 seconds after connecting the battery charger to the power supply
- The battery charger is charging.
- The internal temperature of the battery charger is above 50°C.






EN

Charging splitter accessory

The charging splitter accessory, **supplied and usable only with the battery charger model SMART and in “OFF VEHICLE” mode**, allows to charge two batteries at the same time.



BATTERY AND RECHARGE

	<p>The battery charger is not intended to be used by persons with reduced physical, sensory or mental capacities, or lack of experience or knowledge, unless a person responsible for their safety has supervised or instructed them concerning the use of the charger.</p> <p>Keep the battery charger and batteries out of the reach of children, make sure that they do not play with the devices.</p>
	<p>Risk of electric shock</p> <ul style="list-style-type: none">• This device is equipped with a 3-pole plug with grounding contact. Make sure that the power outlet has 3 pins and grounding contact. If not, contact an electrician to replace the outlet.• Do not try to neutralize the grounding contact safety of the 3-pole plug.• Connect the device to a power supply network protected by a differential switch with a sensitivity not exceeding 30mA.• The electrical connection of the device must comply with the details on its electrical data label.• Do not use extension cords. If the length of the power cord is not sufficient, consult an electrician or qualified installer.• Do not cut or repair the power cord.• The power cord of this device is of special type: if it is damaged it must be replaced by the manufacturer, or by its service centre or by an operator with similar qualification, in order to avoid all risk.
	<p>The battery chargers model STANDARD and SMART are intended to be used exclusively for charging batteries model TC102, TC103 and TC107 in indoor environments. Do not use the battery charger for purposes other than those specified.</p>
	<p>Risk of burns: Always wait until the battery charger has cooled down before touching or handling it.</p>
	<p>When charging is finished wait until the battery charger has cooled down and then store it in the battery compartment or in a protected indoor environment.</p>

BATTERY AND RECHARGE

CHARGING THE BATTERIES

Charge level of the batteries is shown on the left side of the digital display of the vehicle. On the display, the **A** icon indicates the charge of the battery housed in compartment **A**, the **B** icon indicates the charge of the battery housed in compartment **B**. When the charge level is close to 0%, charging is required.

Batteries can be recharged in two ways:

CHARGING WITH BATTERY ON THE VEHICLE

CHARGING WITH BATTERY OFF THE VEHICLE



EN



Charging must be performed indoors and protected from weather.



To recharge the batteries first connect the battery charging connector to the battery outlet and then connect the battery charger plug to the mains.

BATTERY AND RECHARGE

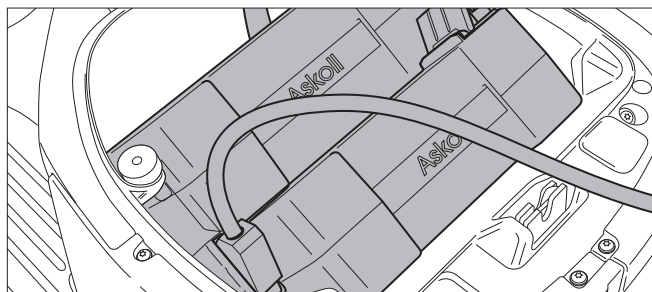
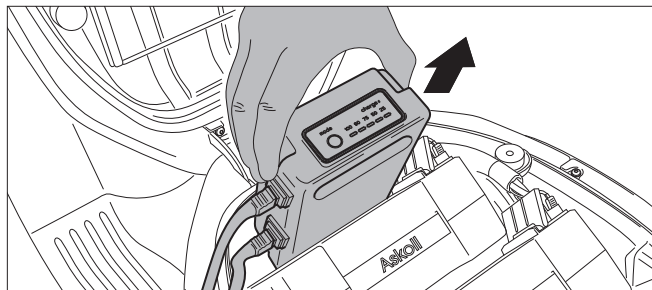
CHARGING WITH BATTERY ON THE VEHICLE

To recharge with battery on the vehicle proceed as follows.

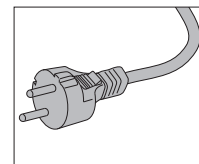
Disable the system.

Lift the seat, take the battery charger out of its housing and place it on top of the rear luggage rack to avoid overheating the battery compartment during charging.

Check that the batteries are properly inserted into the compartments and connected to the connectors, then connect the charging cable.



Connect the battery charger plug to the socket.



While charging, the amber light on the instrument panel will turn on and remain lit until the plug is removed from the mains.



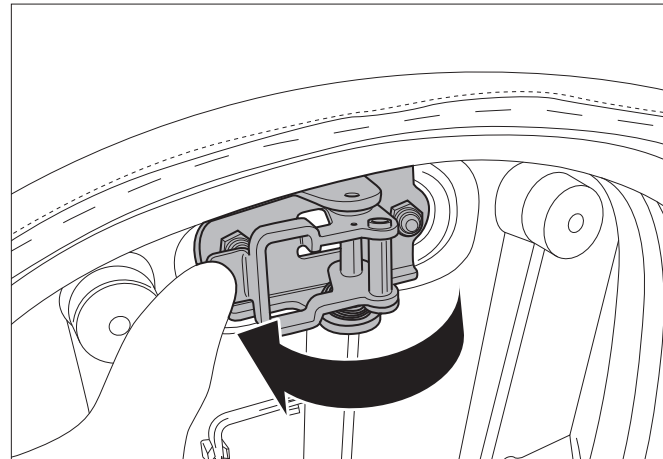
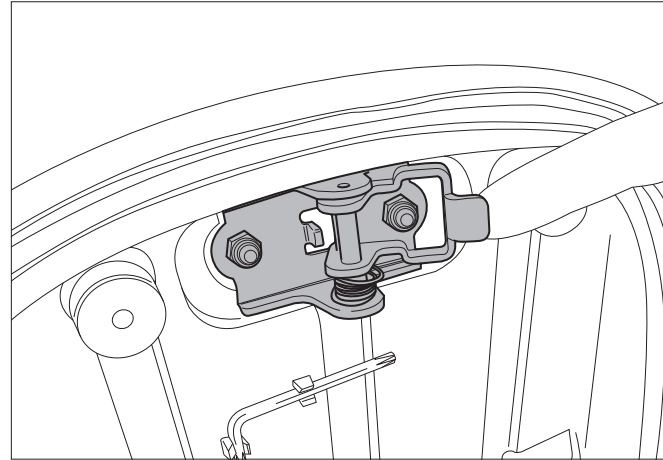
BATTERY AND RECHARGE

Locking the seat in raised position for cable passage

While charging the battery on the vehicle you can close the seat using its lock while maintaining a sufficient opening for the charging cable.

This can be useful in case of outdoors charging so as to keep batteries covered but allowing heat generated by the process to escape.

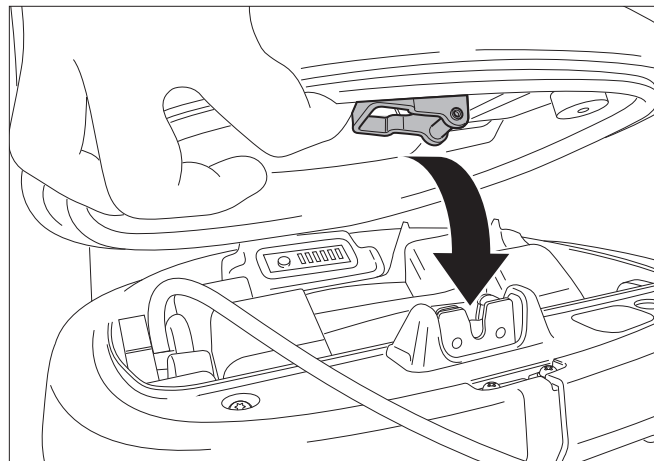
Open the seat, move the spring closing mechanism to the left and press.



EN

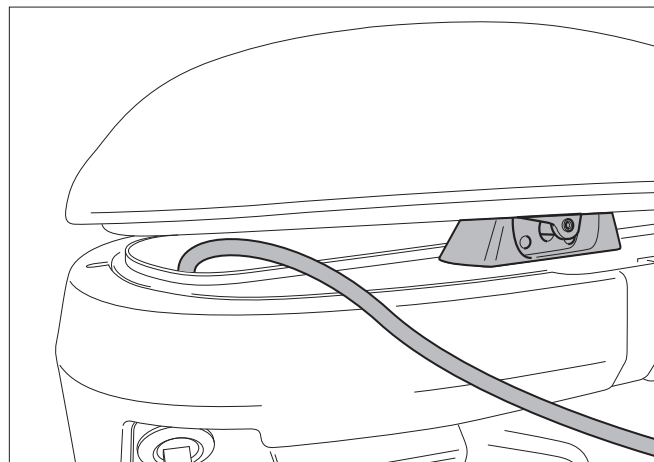
BATTERY AND RECHARGE

Close the seat pressing the mechanism.



The seat is locked in raised position to allow the charging cable to pass.

Open the lock with the key and lift the seat to automatically return to its original position.

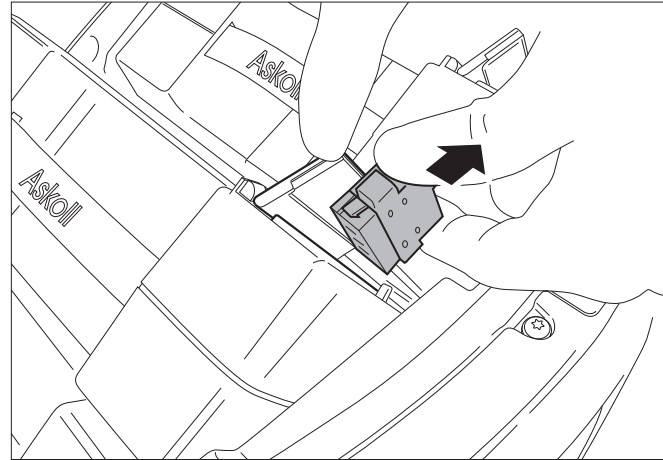


BATTERY AND RECHARGE

CHARGING WITH BATTERY OFF THE VEHICLE

The charger can be removed to allow charging a battery leaving the scooter the possibility to circulate only with the other one.

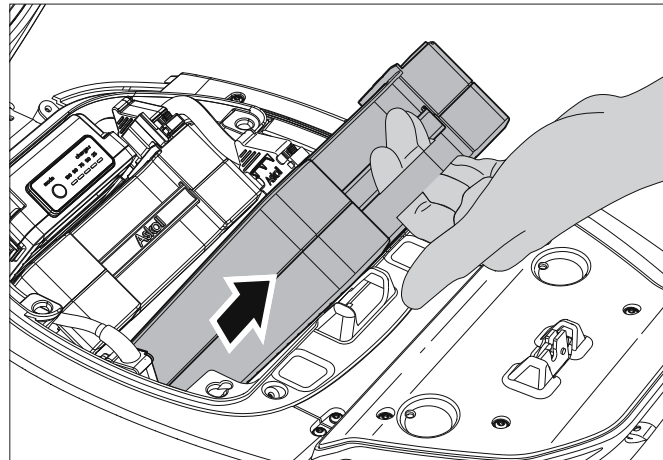
Disconnect the cable from the battery.



EN

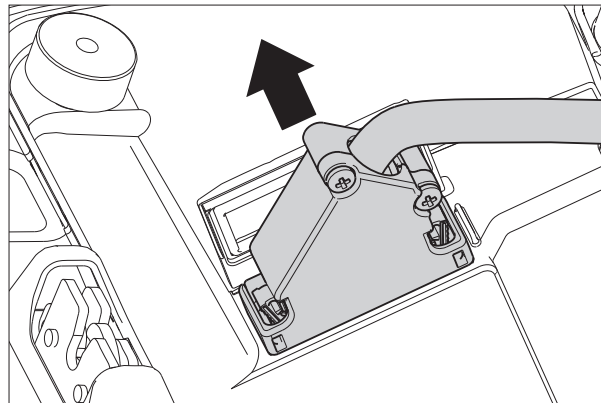
Remove the battery from the compartment using the lifting handle.

Once removed, hold it with both hands.

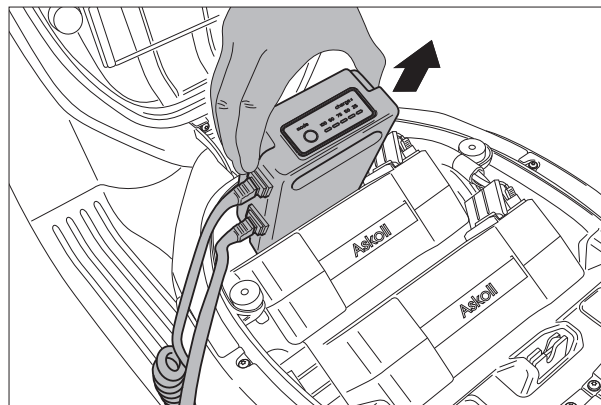


BATTERY AND RECHARGE

Disconnect the connector of the battery charger cable from its socket.



Remove the charger from its housing along with its two cables.

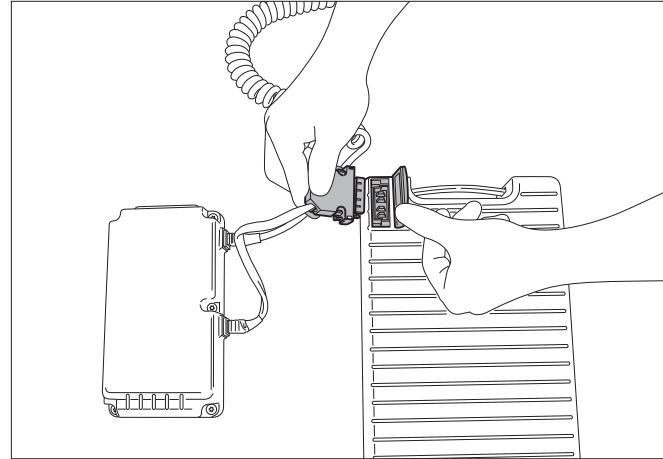


When removing the battery charger it is recommended to handle it with care to prevent it from falling on yourself or on the ground.

BATTERY AND RECHARGE

Place the battery and charger on a stable surface.

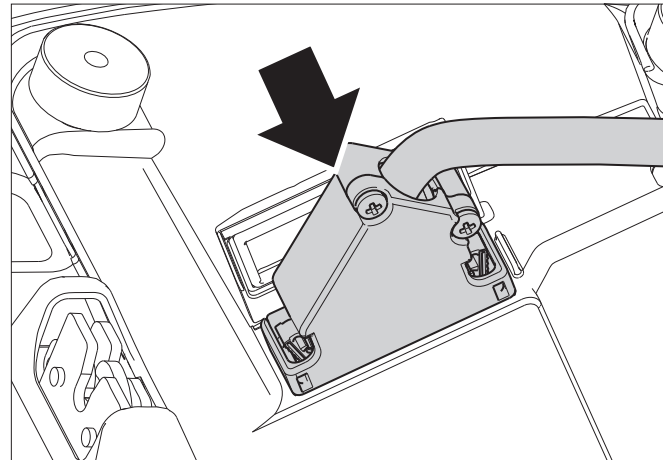
First connect the battery charger cable to the battery socket underneath the spring-loaded flap, making sure to insert it all the way in, and then connect the charger to the mains supply.



EN

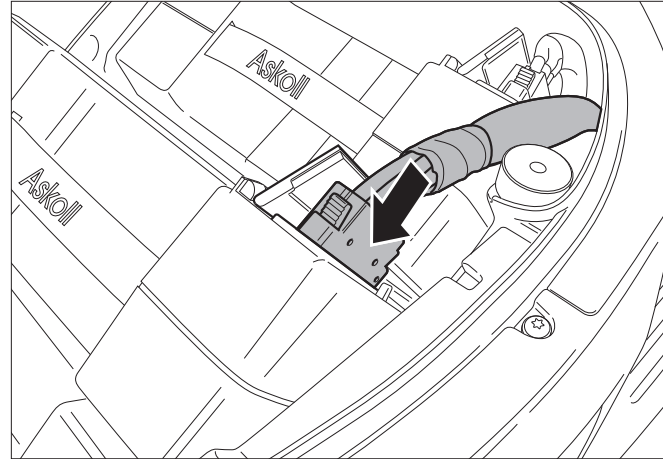
First place the charger on the vehicle and connect the cable with connector to the vehicle socket.

first place the battery charger back on the vehicle and connect the cable connector to the socket on the vehicle.

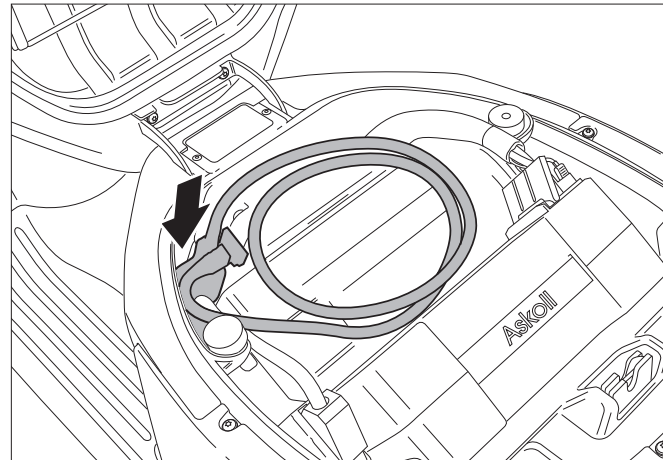


BATTERY AND RECHARGE

Place the battery in its compartment holding it by the handle and plug the vehicle cable connector to the socket under the spring flap on the battery, insert the connector all the way in and make sure it is properly secured.



Then place the power cable plug next to the battery charger and rewind the cable on top of the battery.

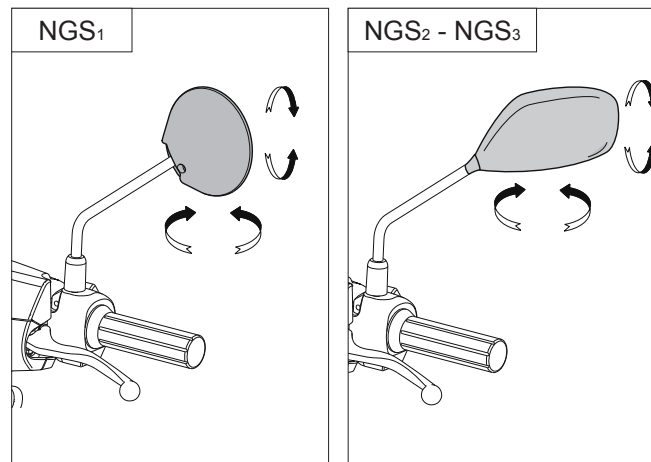


ADJUSTMENTS AND PERIODIC MAINTENANCE

ADJUSTMENTS

REAR VIEW MIRRORS

On the right and left of the handlebar, two mirrors are mounted and can be adjusted manually by rotating the rod to the desired position.

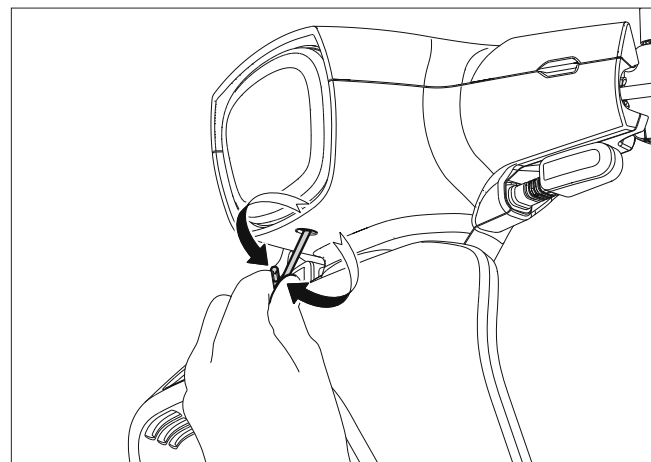


EN

HEADLIGHT

It is possible to adjust the height of the front headlight beam from the adjustment screw located under the headlight, using the **TORX T 20** key supplied as an accessory and stored under the seat.

By rotating the screw 1/2 turn clockwise, the light beam will point downwards while counterclockwise it will point upwards.



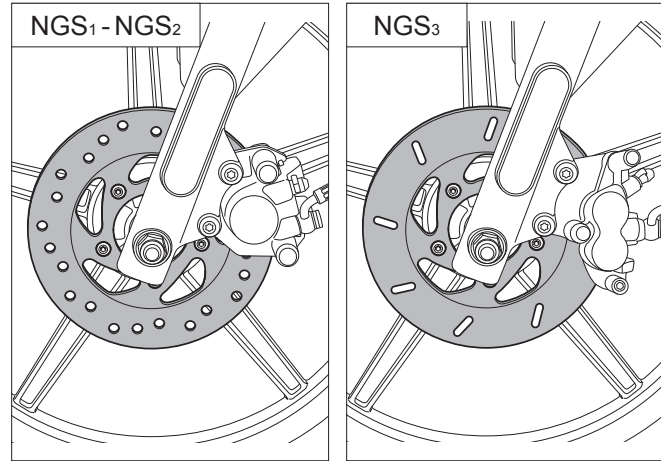
ADJUSTMENTS AND PERIODIC MAINTENANCE

FRONT DISC BRAKE

The wear of disc and pads is automatically compensated, therefore it has no effect on the operation of the brake and does not require registration.

If there is excessive stroke and the lever is too close to the grip when operating the brake, it could be due to the presence of air in the circuit or to irregular operation of the brake.

Effective braking action should begin after approximately 1/3 of the brake lever stroke.



WARNING

In case of brake malfunctions check brake pad wear, if thickness is reduced both are to be replaced at an authorized workshop.

WARNING

After replacing the pads operate the brake lever several times to reposition them and bring the lever to the right position.

ADJUSTMENTS AND PERIODIC MAINTENANCE

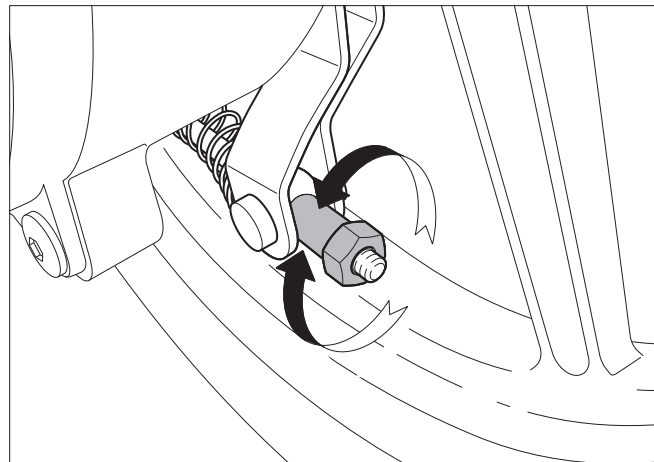
REAR DRUM BRAKE (NGS₁)

To adjust rear brake act on the nut as shown.

Tightening the nut, free play of the control lever decreases and braking action increases.

Conversely, loosening the nut, free play of the control lever increases and braking action decreases. After adjustment, with the brake control lever in rest position, check that the wheel turns freely.

Effective braking action should begin after approximately 1/3 of the brake lever stroke.



EN

ADJUSTMENTS AND PERIODIC MAINTENANCE

REAR DRUM BRAKE (NGS₂ - NGS₃)

The wear of disc and pads is automatically compensated, therefore it has no effect on the operation of the brake and does not require registration.

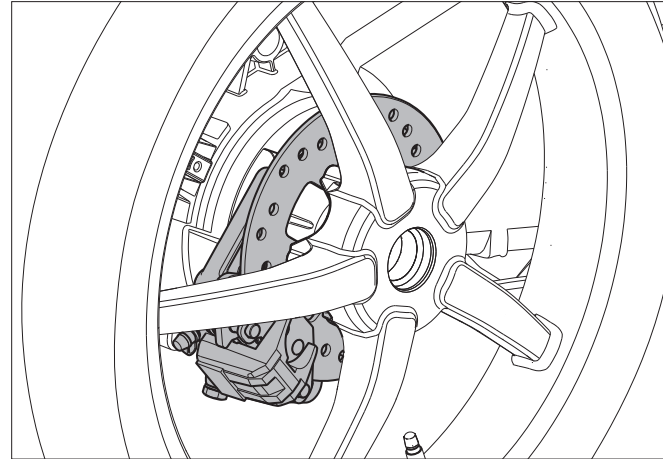
If there is excessive stroke and the lever is too close to the grip when operating the brake, it could be due to the presence of air in the circuit or to irregular operation of the brake.

Effective braking action should begin after approximately 1/3 of the brake lever stroke.

REAR DISC BRAKE WITH COMBINED FUNCTION (only NGS₃)

The scooter model NGS₃ uses the dual braking: actuating the rear brake automatically also activates the front brake.

The distribution has prevalence on the rear and the adjustment of the rear adjusting nut affects both wheels.



WARNING

In case of brake malfunctions check brake pad wear, if thickness is reduced both are to be replaced at an authorized workshop.

WARNING

After replacing the pads operate the brake lever several times to reposition them and bring the lever to the right position.

ADJUSTMENTS AND PERIODIC MAINTENANCE

ORDINARY MAINTENANCE PROCEDURES

TIRES

The vehicle is equipped with tubeless tires.

Regularly check tyre pressure and, if necessary, adjust it before riding.

NGS₁

Front tyre pressure 2 bar.

Rear tyre pressure 2,5 bar.

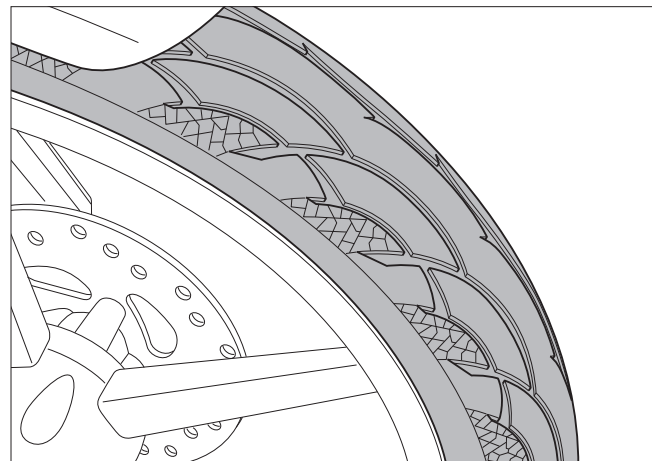
NGS₂ - NGS₃

Front tyre pressure 2 bar.

Rear tyre pressure 2,8 bar.

Tires have a wear indicator and must be changed as soon as these are visible on the tread.

Check also for cuts in the sides or irregular wear. In this case consult an authorized workshop for replacement.



EN



Always check tyre pressure when cold, wrong pressure causes abnormal tyre wear and makes driving dangerous.



Tyres should be replaced when treads reach the wear limit provided by law.

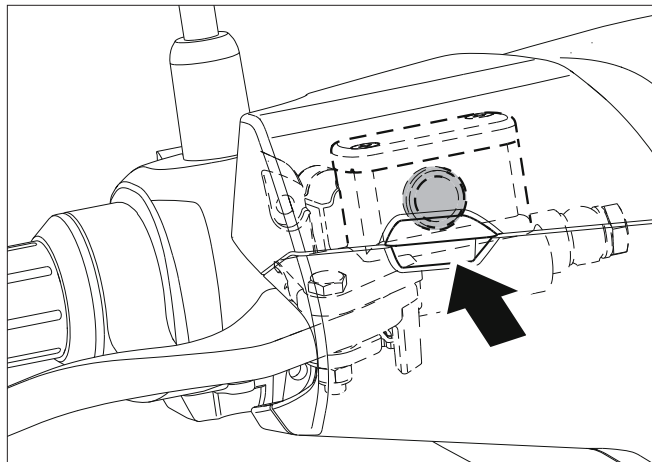
ADJUSTMENTS AND PERIODIC MAINTENANCE

FRONT BRAKE FLUID LEVEL CHECK

The front brake fluid reservoir is equipped with an inspection window to control the level in the tank.

To check the fluid level the tank, it is possible to look through the inspection window through the slot at the front right of the handlebar cover.

If the brake fluid level is low or insufficient, **DO NOT** fill the reservoir but check the brake pads and brake disc for wear and any leaks in the brake circuit.

**WARNING**

The brake fluid is hygroscopic, i.e. It absorbs moisture from the surrounding air. If the moisture in the fluid exceeds a certain value, the braking will be inefficient.

WARNING

It is advisable to change the fluid every 2 years, never use brake fluid from partially used or open containers.

WARNING

Check that only DOT4 brake fluid is used.

WARNING

The brake circuit fluid has a high corrosive power. Do not allow it to come into contact with skin or painted parts. In case of contact with the skin, wash with plenty of water.

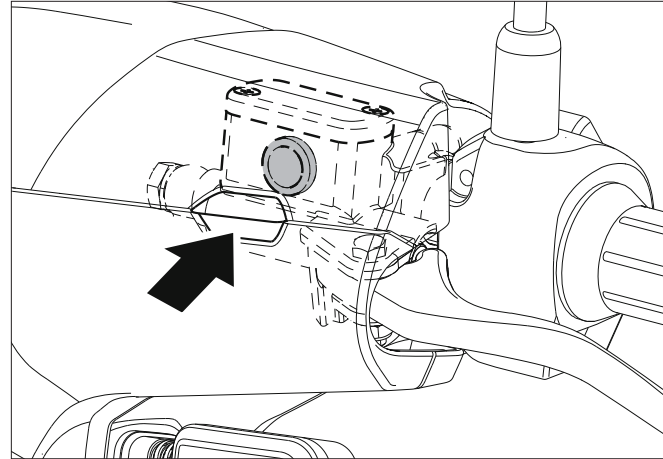
ADJUSTMENTS AND PERIODIC MAINTENANCE

REAR BRAKE FLUID LEVEL CHECK (sol oNGS₂ - NGS₃)

The rear brake fluid reservoir is equipped with an inspection window to check the level in the tank.

To check the fluid level the tank, it is possible to look through the inspection window through the slot at the front left of the handlebar cover.

If the brake fluid level is low or insufficient, **DO NOT** fill the reservoir but check the brake pads and brake disc for wear and any leaks in the brake circuit.



EN

WARNING

The brake fluid is hygroscopic, i.e. It absorbs moisture from the surrounding air. If the moisture in the fluid exceeds a certain value, the braking will be inefficient.

WARNING

It is advisable to change the fluid every 2 years, never use brake fluid from partially used or open containers.

WARNING

Check that only DOT4 brake fluid is used.

WARNING

The brake circuit fluid has a high corrosive power. Do not allow it to come into contact with skin or painted parts. In case of contact with the skin, wash with plenty of water.

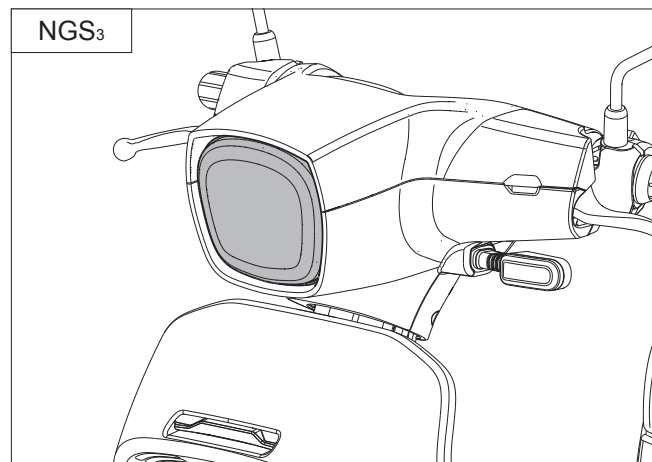
ADJUSTMENTS AND PERIODIC MAINTENANCE

HEADLIGHT (NGS₃)

In the scooters model NGS3 the headlight is equipped with a LED lamp and there is no need to replace it.

If the bulb is exhausted it is necessary to change the complete headlight.

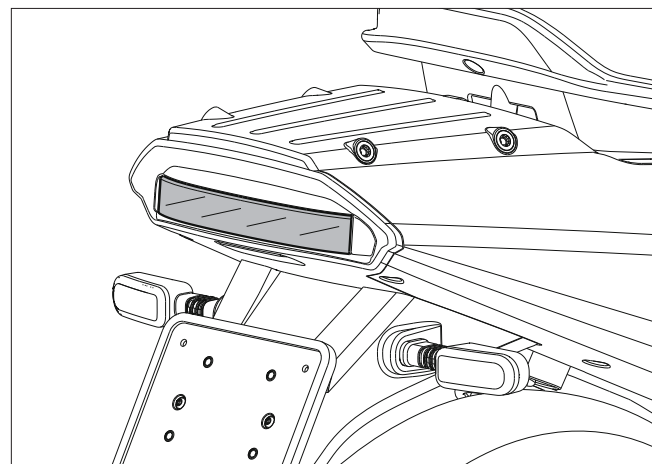
For the replacement, contact an authorized service point.



TAIL LIGHTS AND TURN SIGNALS

The tail light, front and rear turn signals and number plate light are equipped with LEDs and are integrated to the vehicle structure.

For their replacement, contact an authorized service point.



ADJUSTMENTS AND PERIODIC MAINTENANCE

ORDINARY MAINTENANCE PROCEDURES TABLE

C: check; R: adjust; L: lubricate; S: replace

Years	1° check*	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years
Km x 1.000	1	3	6	9	12	15	18	21	24	27	30
Front / rear brake fluid (replace every 2 years)		C	S	C	S	C	S	C	S	C	S
Front / rear brake pad wear	C	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S
Front / rear brake disc check	C	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S
Rear brake shoe wear		C/R	C/R/S	C/R/S	C/R/S	C/R/S	C/R/S	C/R/S	C/R/S	C/R/S	C/R/S
Transmission belt	C	C	S	C	S	C	S	C	S	C	S
Pulleys check	C	C	S	C	S	C	S	C	S	C	S
Nuts, bolts, fasteners	C	C	C	C	C	C	C	C	C	C	C
Kickstands	C/L	C/L	C/L	C/L	C/L	C/L	C/L	C/L	C/L	C/L	C/L
Handlebar bearings	C		C		C		C		C		C
Front/rear tire	C	C/S	C/S	C/S	C/S	C/S	C/S	C/S	S	C/S	C/S
Front fork / rear shock absorber	C	C	C	C	C	C	C	C	C	C	C
Electrical devices and electrical system operation check	C	C	C	C	C	C	C	C	C	C	C

EN

NOTE: (*) at 1000 Km **ALWAYS** perform the first vehicle check.

Service start date: the services must be carried out within the specified mileage. If the indicated mileage is not reached, it is recommended to service the vehicle once a year.

ADJUSTMENTS AND PERIODIC MAINTENANCE





CLEANING THE VEHICLE

To avoid oxidation, wash the scooter every time it is used in extreme weather conditions or roads sprinkled with salt or de-icing products, conditions of air pollution such as cities, industrial zones, areas of high salinity or moisture in the atmosphere such as maritime areas.

Keep the frame clean from long-accumulated dirt, residues of industrial dust, dead insects, bird droppings, etc.

Use a low pressure water jet to soften dirt accumulated on the paintwork, then remove it with a soft sponge soaked with abundant water and shampoo, rinse and dry with a suede.

Avoid washing the scooter under direct sunlight, especially in summer, to prevent it from drying and warming the shampoo immediately before rinsing since this may damage the paint.

	Do not use high pressure water jets to washing, so as to prevent damaging delicate components of the vehicle.
	When washing do not direct the water jet directly on delicate components such as electrical wiring or their connections.
	Never use rags soaked in gasoline, alcohol or potentially corrosive liquids to wash painted surfaces, plastic or the seat to avoid loss of gloss and mechanical properties of the materials, or even damaging them.
	The scooter must be washed in areas equipped for collecting and purifying the liquid used.



ADJUSTMENTS AND PERIODIC MAINTENANCE

VEHICLE INACTIVITY

In preparation for a long period of inactivity it is advisable to:

- make a general clean up of the scooter,
- store in a covered place,
- park the scooter on the kickstand so that wheels are not in contact with the ground in the same position.
- cover the scooter with a canvas.

EN

CODICI DI ERRORE

ERROR CODES

Communication system failure: detection of communication problems between intelligent units.

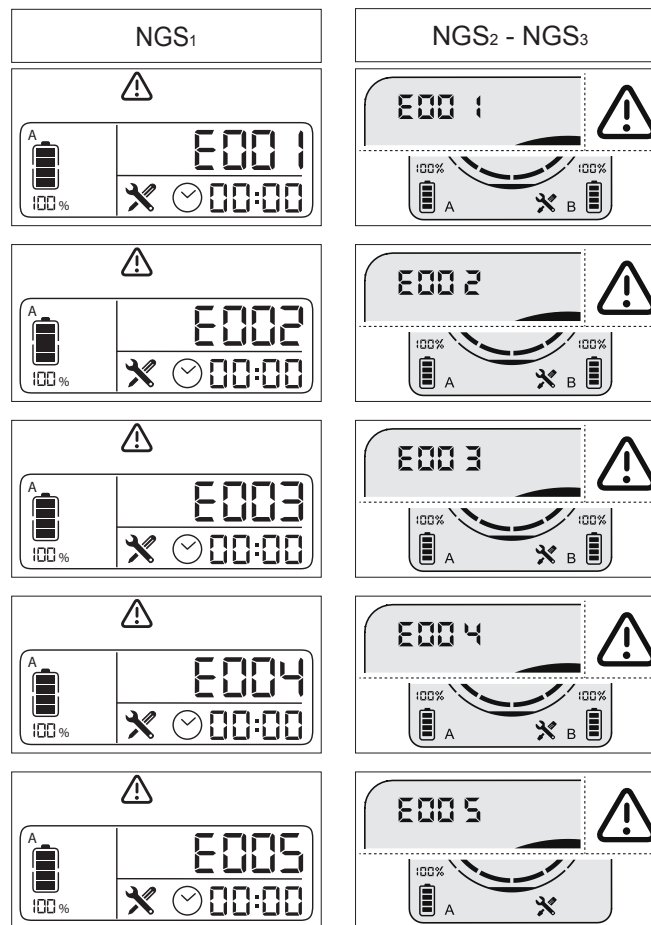
It is advisable to take the vehicle to an authorized workshop.

Inverter failure: the system detects a failure on the inverter. It is advisable to take the vehicle to an authorized workshop.

ECU failure: the system detects a failure on the ECU. It is advisable to take the vehicle to an authorized workshop.

Power circuit failure: the system detects an abnormal absorption by the motor. For safety reasons the system does not supply power. It is advisable to take the vehicle to an authorized workshop.

Battery A Fault: the system detects a fault in battery pack A. it is recommended to take the battery to an authorised workshop.



CODICI DI ERRORE

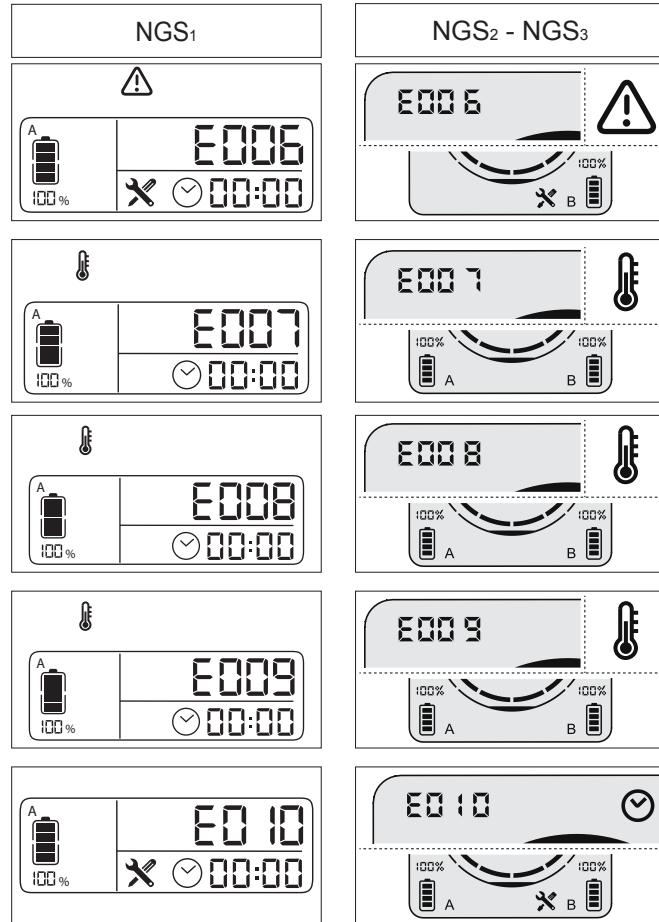
Battery B fault: the system detects a fault in battery pack B. It is recommended to take the battery to an authorised workshop.

Battery overtemperature: the system detects excessive temperature on the batteries and inhibits the supply power. Remove the vehicle from places with high temperature and wait for the batteries to cool down.

Inverter overtemperature: the system detects excessive temperature on the electronic unit. The system does not supply power until the temperature drops. Remove the vehicle from sources of heat.

Motor overtemperature: the system detects excessive temperature on the motor. It can function at reduced power to allow cooling.

Headlight malfunction: the system detects the failure or malfunction of the front lamp. Check its operation and replace it at an authorized workshop.



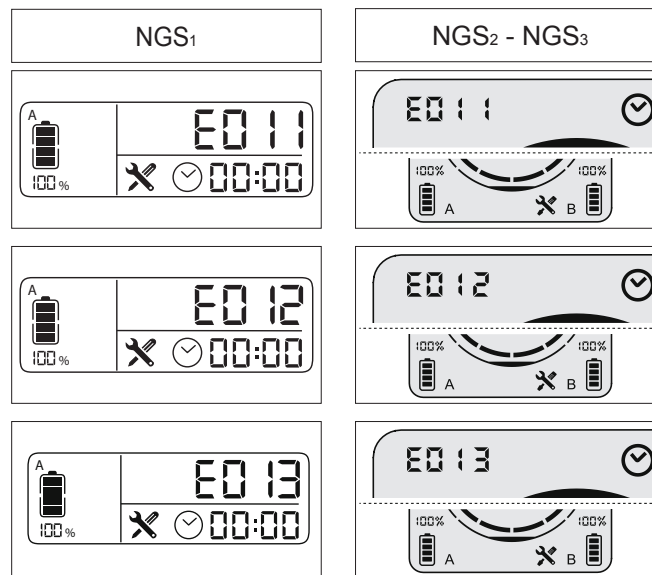
EN

CODICI DI ERRORE

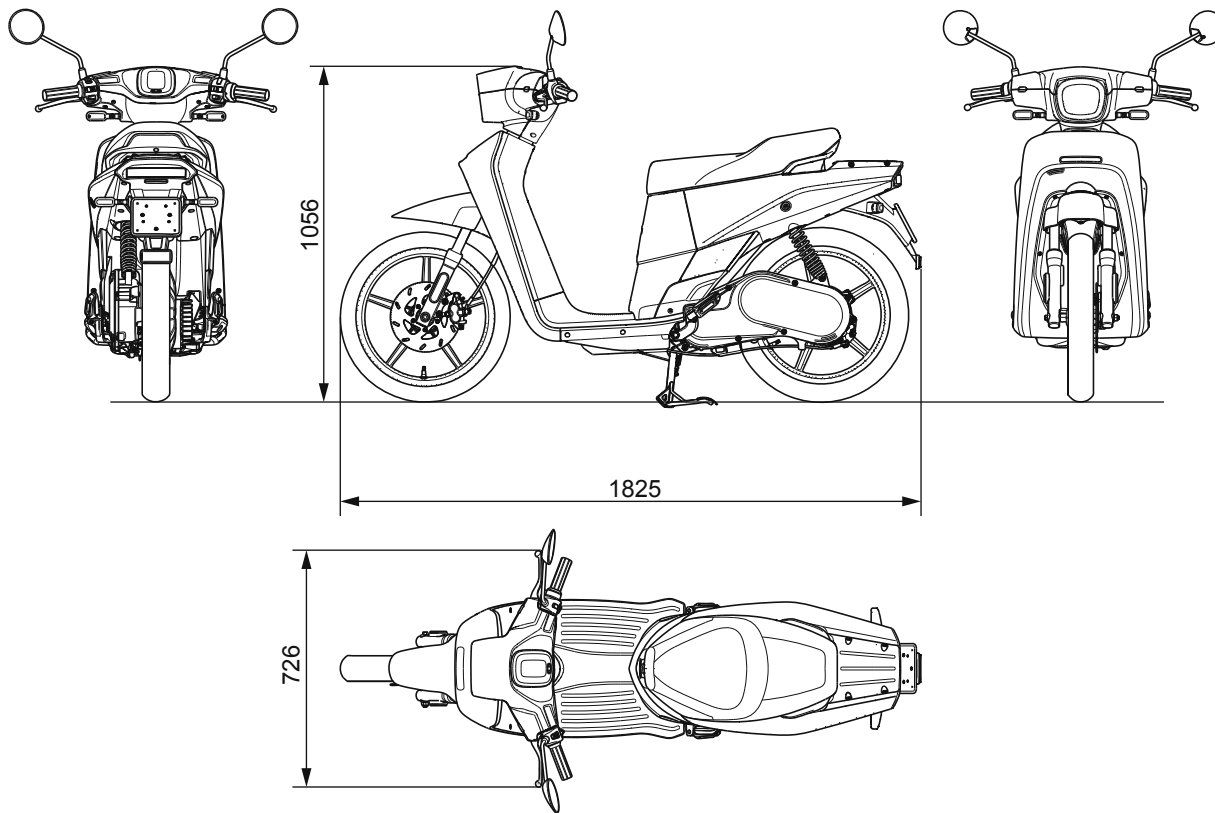
Turn signals malfunction: the system detects the failure or malfunction of the turn signal. Check its operation and replace them at an authorized workshop.

Tail light and number plate light malfunction: the system detects the failure or malfunction of the Tail light and number plate light. Check its operation and replace them at an authorized workshop.

Front position light circuit fault (NGS₃ only): the system detects a short circuit in the front position light.



SCOOTER DIMENSIONS



EN

TECHNICAL DATA

MODEL	NGS ₁	NGS ₂	NGS ₃
MOTOR DATA			
Model	Brushless permanent magnet sinusoidal motor		
Motor type	EME 200		EME 201
Operating voltage	54 V		
MAX power	1.5 kW electronically limited	2.2 kW (1.4KW 1 battery version) 2.7 KW (version 2.8 with 2 batteries connected and with the same charge)	2.7 kW electronically limited * with 2 batteries connected and with the same charging value according to 168/2013 EC

BATTERY			
Model	TVC102		TC103
Charge	LI - ION		
Weight	7,8 Kg		8,1 Kg
Autonomy	40 Km according to 168/2013 EC	71 Km * with 2 batteries connected and with the same charging value according to 168/2013 EC	96 Km * with 2 batteries connected and with the same charging value according to 168/2013 EC
Operating temperature	When operating -20°C to +45°C		

VEHICLE DATA	
Length	1825 mm
Width	726 mm
Wheelbase	1245 mm
Rearview mirror connection height	1056 mm

TECHNICAL DATA

MODEL	NGS ₁	NGS ₂	NGS ₃
VEHICLE DATA			
Front tire pressure	2 bar		
Rear tire pressure	2,5 bar	2,8 bar	
Net weight	72 Kg	77 Kg	
Max. weight	245 Kg (vehicle + driver + additional load)		
Maximum permissible weight on the rear carrier luggage rack	10Kg centered on the luggage rack		
Seats	2		
Transmission	Mixed poly-v / toothed belt		

EN

HEADLIGHT DATA			
Headlight	H8 35W		LED
Turn signals	LED		
Dashboard lights	LED		

TAIL LIGHT DATA			
Tail light	LED		
Brake light	LED		
Turn signals	LED		
License plate light	LED		

TECHNICAL DATA

Askoll

Askoll EVA SpA
Electric Vehicle Askoll

EU Declaration of Conformity

This Declaration of Conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: Askoll EVA S.p.A.
Address: Via industria 30, 36031 Dueville (VI), Italia

Object of the declaration

Description: Battery charger for e-Scooter battery pack
Type: TVC20x; TC20x
Models: TVC202; TC203; TC204; TC205; TC206

The object of the declaration described above is in conformity with the following relevant Union harmonization legislation:

Directive 2014/35/EU (LVD);
Directive 2014/30/EU (EMC);
Directive 2011/65/EU; Delegate Directive (EU) 2015/863

The following harmonized standards have been applied:

EN 60335-1:2012+AC:2014+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021;
EN 60335-2-29:2004 + A2:2010 + A11:2018;
EN 62233:2008;
EN 55014-1:2017+A11:2020; EN 55014-2:1997+A1:2001+A2:2008+AC:1997
EN 61000-3-2:2014; EN 61000-3-3:2013;
EN IEC 63000:2018

Place of issue

Dueville

Date of issue

19/10/2021

Name, function, signature

Gian Franco Nanni (CEO)



EN

NOTE
