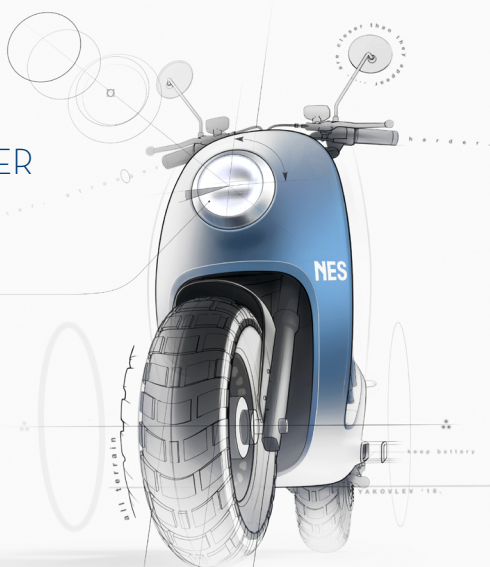


# NES

NITO  
ELECTRIC SCOOTER



SUPER LED



OWNER AND MAINTENANCE MANUAL



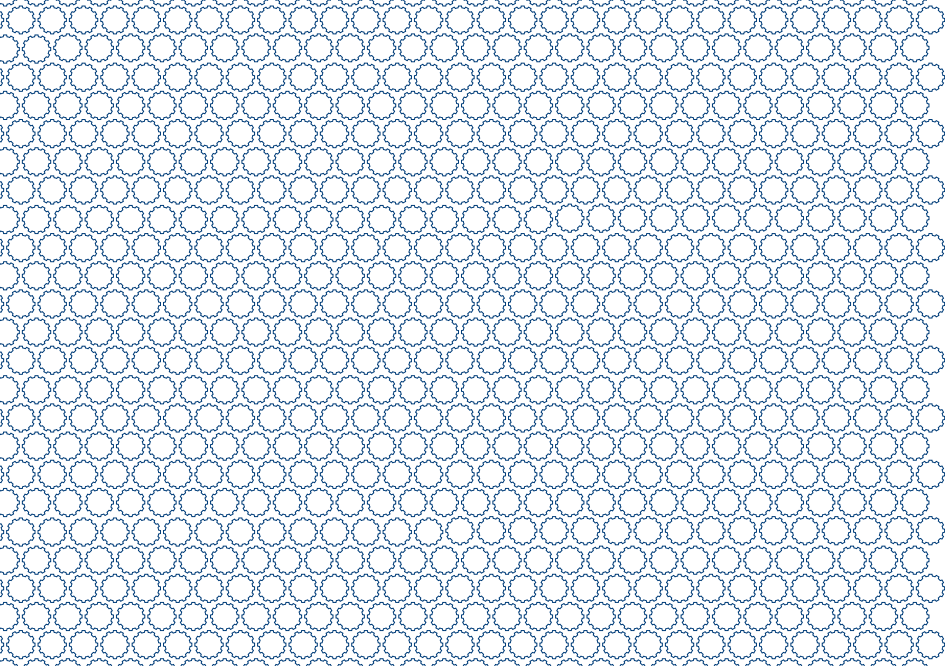
Thanks for choosing NITO.

Mobility for us means more freedom,  
fun and environmental regard.

The NES electric scooter is an icon of style,  
unequalled in performance, design and variety of  
options available.

This manual represents an integral part of the  
product and is provided to ensure the best safest  
possible use of the NES scooter. We invite you  
therefore to read these instructions paying close  
attention and to keep the manual in a safe place.

**WELCOME  
TO THE  
ELECTRIC ERA**





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# 01

## GENERAL GUIDELINES

- Read these instructions carefully before starting to use your NES electric scooter.
- This instruction manual must be conserved safely and consulted during the whole lifetime of the product.
- To drive the NES electric scooter you must be in possession of the appropriate driving licence for the model chosen (NES 5 or NES 10), as indicated in the Technical Data chapter of this manual.
- The scooter is not suitable for use by persons with reduced physical, sensory or mental capabilities.
- In case of doubts or questions, please contact your local reseller or the After-Sales NITO sending an email to **[support@nitobikes.it](mailto:support@nitobikes.it)**.

Failing to observe these instructions, wholly or in part, could result in serious damage to persons, the vehicle or the environment. Under certain circumstances, it could render the guarantee void.

The manufacturer reserves the right to make changes to the vehicle and to this manual for the purpose of improvement without prior warning.

# Manual purpose

The aim of this manual is to allow you to fully appreciate the qualities of your NES scooter.

Contained here are information, warnings and advice on how to use and maintain the vehicle correctly for maximum safety.

It is essential to read this manual completely before attempting to ride the vehicle for the first time.





## Safety

- Always wear a helmet, fastening it on correctly (ensure it is approved).
- When carrying a passenger, before moving off make sure they are wearing a helmet and that it is fastened on correctly.
- Do not exceed the scooter's maximum weight limit of 150 kg, including loads.
- On uneven roads, or in rainy, snowy or slippery conditions you must reduce your speed and increase the safety distance between you and other vehicles. Proceed with utmost caution.
- At night or in low visibility conditions always wear reflective, florescent clothing to maximise your visibility to other drivers. When changing lane or turning, use appropriate signals and the horn when necessary.
- Be attentive to the vehicles around you and do not assume that other drivers can see you. Be always ready to make an emergency stop or carry out a fast manoeuvre to avoid obstacles.
- Carry out correct maintenance of the scooter to maintain it always in a safe optimal riding condition.
- Driving under the influence of alcohol, drugs or certain medicines is very dangerous for yourself and for others, and is prohibited by law.
- Any modification that alters the performance or main structure of the scooter is prohibited by law and makes the vehicle no longer compliant with the approval standards and therefore compromises safety.



## Preliminary checks

- Check that the instrument panel display illuminates correctly and that the battery charge level is correct.
- Check that the direction indicators, scooter and licence plate light are functioning correctly.
- Examine visually the state of wear of brake pads on both brake callipers and ensure they are being worn uniformly on both sides of the disk.
- At least once a month or when the tyres seem deflated, check their pressure using a pressure gauge and visually examine the state of wear using a wear indicator. Always check tyre pressure “from cold”.

- Check the level of the brake liquid in the tank found in the handlebar.
- Check the saddle is closed correctly.
- Check that the battery compartment is closed correctly.

## Guarantee

- As required by law, the product is covered by a guarantee for manufacturing defects encountered within 2 years of the purchase date.



## Vehicle identification

The vehicle identification label is situated on the rear left of the body and indicates: manufacturer's name, Roadworthy Certificate (RC) number, vehicle power and weight.



## Motor identification

The motor's identification code is shown in the image on the side here.





# O2

## *DESCRIPTION AND FEATURES*

The NES electric scooter is unbeatable in terms of performance, design and personalisations when compared with other electrical scooters on the market today.

72 different configurations are possible with fairings in four colours, board wood and saddle finishes each in a choice of three different colours, and two tyre colours.

Superior performance and design allow electrical mobility to reach everywhere.





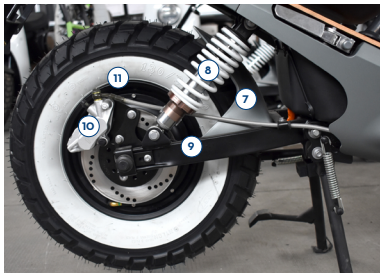
## Scooter components

- ① REAR VIEW MIRRORS
- ② RIGHT HANDLE WITH THROTTLE CONTROL AND FRONT BRAKE ACTIONING LEVER
- ③ LEFT HANDLE WITH REAR BRAKE ACTIONING LEVER
- ④ FRONT LED HEADLIGHT
- ⑤ LIFTABLE SADDLE FOR ACCESS TO HELMET STORAGE COMPARTMENT (IF PRESENT)
- ⑥ TWIN TUBE HYDRAULIC SHOCK ABSORBER SITUATED BETWEEN CHASSIS AND SWINGARM
- ⑦ REAR LED LAMP AND DIRECTION LIGHTS
- ⑧ BRAKE DISKS
- ⑨ REAR KNOBBED TYRE 130/90-10
- ⑩ FRONT KNOBBED TYRE 120/90-10
- ⑪ CENTRAL AND SIDE STAND
- ⑫ DIRECTION INDICATORS
- ⑬ BATTERY COMPARTMENT
- ⑭ BATTERY CHARGER



## WHEEL COMPONENTS

- ① DUAL-PISTON FRONT BRAKE CALLIPER ACTING ON PERFORATED STEEL DISK
  - ② METAL BRAIDED HYDRAULIC HOSES CONNECTING CALLIPER TO BRAKE PUMP
  - ③ FRONT ALLOY 10" DIAMETER RIM
  - ④ FRONT MUDGUARD BOLTED TO FORK
  - ⑤ TELESCOPIC FORK
  - ⑥ REFLECTOR
- ⑦ REAR MUDGUARD BOLTED TO SWINGARM
  - ⑧ COIL SPRING SHOCK ABSORBER
  - ⑨ OSCILLATING SWINGARM HINGED TO CHASSIS
  - ⑩ DUAL-PISTON REAR BRAKE CALLIPER ACTING ON PERFORATED STEEL DISK
  - ⑪ METAL BRAIDED HYDRAULIC HOSES CONNECTING CALLIPER TO BRAKE PUMP





## Accessing OBD and USB ports

The basic model of the NES scooter comes fitted with an USB port, an OBD port for accessing diagnostics information and a battery recharging socket.

To access the sockets, open the bay by simply pressing on the side.

The USB port with led indicator and OBD port are active only when the scooter is in ON mode.

- ① BATTERY CHARGER SOCKET
- ② OBD PORT
- ③ USB PORT



# Instrumentation



## INSTRUMENTS AND CONTROLS POSITIONING



- ① HORN PUSH-BUTTON
- ② DIRECTION INDICATORS
- ③ REAR BRAKE CONTROL LEVER
- ④ HEADLIGHT/FLASHING INDICATORS SWITCH
- ⑤ DISPLAY
- ⑥ FRONT BRAKE CONTROL LEVER
- ⑦ THROTTLE CONTROL
- ⑧ DRIVE MODE SELECTOR
- ⑨ FOUR HAZARD LIGHTS BUTTON
- ⑩ HORN PUSH-BUTTON



## Keyless ignition

The NES scooter has a keyless ignition that can be used for activating the electric steering lock and anti-theft mechanism.


Pressing **START** the system is set to ON mode and the "READY" icon appears on the display.

-  **Lock open key:**  
anti-theft and steering lock off
-  **Lock closed key:**  
anti-theft and steering lock on

**START** START: ignition



## Start\_Stop Push-button

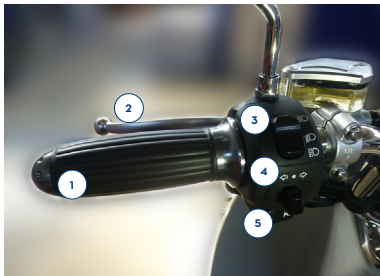
The start push-button is enabled only when the system is set to ON mode .

## Power ON and OFF

To power on first press the key  and then the Start\_Stop push-button or press twice  and then the key **START** on the remote controller.

To power off press the Start\_Stop push-button.





## DRIVING FUNCTIONS LEVER AND CONTROL

- 1 LEFT HANDLE  
(DRIVING FUNCTION ONLY)
- 2 REAR BRAKE LEVER
- 3 HIGH-LOW BEAM HEADLIGHT  
SWITCH
- 4 DIRECTION INDICATOR SELECTOR  
(PRESS TO CANCEL)
- 5 HORN BUTTON  
(MAINTAINED PRESSURE)
- 6 FRONT BRAKE LEVER
- 7 RIGHT HANDLE, THROTTLE  
ACTIVATED BY ROTATING HANDLE  
(ON RELEASE THE SCOOTER TENDS  
TO SLOW DOWN)
- 8 LOW, ECO AND SPORT DRIVING  
MODES SELECTOR
- 9 4 HAZARD LIGHTS PUSH-BUTTON  
TO HORN BUTTON (MAINTAINED PRESSURE)
- 10



## Display functions

The digital display provides all the information on vehicle status.

- ① BATTERY CHARGE LEVEL
- ② JOURNEY TOTAL MILEAGE IN KMS
- ③ SPEED INDICATOR
- ④ CONTROL UNIT TEMPERATURE INDICATOR
- ⑤ DIRECTION INDICATORS
- ⑥ ENGINE FAILURE INDICATOR
- ⑦ HIGH-LOW BEAM LIGHT INDICATOR
- ⑧ "READY" SYSTEM STATUS





# 03

## BATTERY USE

The NES scooter comes fitted with a Lithium battery with an autonomy of 90\* / 80\*\* km in ECO mode (NES 5 and NES 10), with a lifetime of approx 1000 recharging cycles.

A number of factors affect battery autonomy:

- Use on urban or extra-urban roads requiring continual use of the throttle.
- Use of the scooter outside normal riding conditions.
- Use on roads with a steep slope or particularly uneven surfaces.
- Prolonged thermal shocks.

\* Test performed at constant speed, 20 kph in ECO mode and 35 kph in SPORT, on a flat road with a 75 kg driver.

\*\* Test performed at constant speed, 35 kph in ECO mode and 50 kph in SPORT, on a flat road with a 75 kg driver.



## Battery procedures for first scooter use

In the case of a new battery, you must carry out at least 3 to 4 complete charging/discharging cycles.

This optimises battery yield and is necessary for arriving at the number of recharging cycles indicated in the specifications.

## Recharging operations

The battery must be recharged using the battery charger provided in the supply. The charger has a recharging status indicator and can be connected to a power supply of 220V.

Do not use the battery charger for other purposes than that indicated here.

During the recharging phase, the led on the charger indicates the percentage of charge with three different colours.

- Flashing yellow: below 80%
- Flashing red: above 80%
- Steady green: 100%





When fully charged it is recommended to disconnect the charger.  
if it remains connected, the charger can restart to keep the charge level at 100%

**WARNING:** all battery recharging and removal operations must be carried out with the scooter switched off.

Do not use a different battery charger to the one provided in the supply; any damage resulting from improper use of incompatible battery chargers will be exclusively the responsibility of the customer ⚠

**IMPORTANT:** all recharging operations using the battery charger must be carried out by inserting the recharger plug into the socket on the scooter or - if the battery has been removed - into the battery socket. Only afterwards must it be connected to the electrical socket.

The NES scooter can be recharged in two ways:

- directly connecting the battery charger to the scooter socket
- connecting the battery charger to the battery (after removal)



## Recharging with battery charger connected directly to scooter socket

Open the flap simply by pressing. Connect the battery charger first to the socket on the scooter and then to the electrical socket.



## Recharging by connecting battery charger to battery (after removal)

### ***Access to the battery compartment and battery removal***

To access the battery compartment, insert the key provided into the lock and turn it.  
Pull the strap to lift up the wooden board.

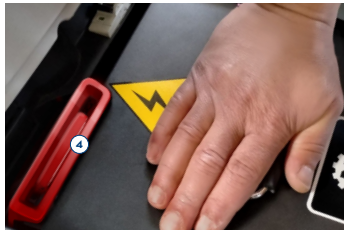
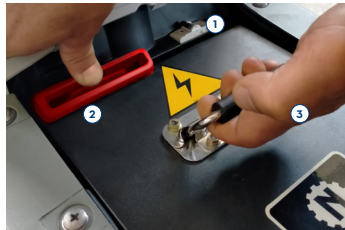


**After turning off the safety switch** ①, unlock the security attack ② and remove the battery from the bay assisted by the special handles ③.

When putting the battery back in its compartment, make sure that it is correctly inserted by pushing it down until the safety switch trips ④.

**Connect the charger** to the battery sockets and then to the power socket.

**WARNING:** the scooter must be switched off before removing and inserting the battery. ⚠





## Vehicle inactivity

In preparation for long periods of inactivity it is advisable to:

- Carry out a complete charging cycle to ensure the best efficiency of the battery, recharge it at least once a month ⚠
- Turn off the safety switch located in the battery compartment
- Carry out general cleaning of the scooter, drying it with a soft cloth
- Disconnect the battery as described previously or, preferably, remove it altogether from the vehicle. In the latter case, conserve the battery in a environment that has a constant temperature and far from sources of heat and direct sunlight. This improves battery operation and prolongs its lifetime.
- Where possible store the scooter in sheltered place
- Park the scooter on its central stand so that the wheels do not remain for too long in contact with the ground in same position
- Cover the scooter with a protective covering.

After removing the battery it must be stored in a suitable moisture free environment with a temperature range of 20 °C to 35 °C.

**WARNING:** storage of batteries at temperatures over 40 °C or below 0 °C for prolonged periods may significantly reduce their expected useful lifetime. ⚠



## Battery information

Given the considerable importance of external temperatures on the good functioning of batteries, use of the scooter at temperatures below  $-5^{\circ}\text{C}$  or above  $45^{\circ}\text{C}$ , is strongly discouraged.

For optimal performance, the scooter should be used in the temperature range between  $+5^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$ .

## Precautions using lithium ion batteries

Lithium ion batteries are distinct for their small dimensions and high energy density.

Be careful when handling these batteries, incorrect or improper use can cause personal injury and/or material damage. ⚠

- Do not create a short-circuit: during transportation and conservation, make sure that the terminals are not in a contact with metal or other conductive materials
- Avoid dropping, crushing or perforating the batteries. Improper use can cause internal damage and short-circuits that are not always visibly externally
- Do not expose the batteries to contact with liquids
- Do not burn the batteries or expose them to temperatures over  $60^{\circ}\text{C}$
- Do not attempt to disassemble a battery
- If a battery has been dropped or has had an impact with a hard surface, independently of the condition of the external covering, you must:
  - stop using the battery and contact your local reseller or the After-Sales NITO
  - dispose of the battery in compliance with disposal instructions



# 04 MAINTENANCE



## Routine maintenance (by user)

Condition and efficiency of braking system:

- visually check the state of wear of the front and rear brake pads, ensure they are worn uniformly on both sides of the disk by both pairs of brake callipers; check also that the liquid level in the brake tank has not diminished.

**NOTE:** if the rate of consumption of the brake pads is unusually high, or the level of liquid has gone down, contact an authorised service centre.





- Status and functioning of lighting, warning and direction indicator systems.

**NOTE:** the lighting, warning and direction indicator system are made up of LEDs. In the event of an anomaly or operational failure, contact an authorised service centre.

- Tyre condition and efficiency (uneven wear, cuts on sides, abnormal bulging): check the pressure regularly and if necessary adjust before starting off.

**WARNING:** Always check tyre pressure “from cold”; an incorrect pressure level could cause uneven tyre wear and make driving dangerous. ⚠

**NOTE:** If abnormalities are noted in the tread pattern, contact an authorised service centre. Consult the Routine Maintenance manual for the other scooter parts.



YEARS	AFTER FIRST 1.000 KM	EVERY 3000 KM	EVERY 6000 KM	EVERY YEAR	EVERY 2 YEARS
<b>SPARE PARTS</b>	<b>INTERVENTION:</b>				
<b>Battery</b>	I	I	I	I	I
<b>Lighting / switches</b>	I	I	I	I	I
<b>Steering stem bearings</b>	I		I/C/L/A		I/C/L/A
<b>Wheel bearings</b>	I		I/L		I/L
<b>Tyres</b>	I	I	I	I	I
<b>Tight fitting of all visible screws</b>	I	I	I	I	I
<b>Braking system</b>	I	I	I	I	I
<b>Brake fluid</b>	I	I	I	I	I
<b>Central / side stand</b>	I/C/L	I/C/L	I/C/L		I/C/L
<b>Telescopic fork</b>	I		I		I
<b>Rear shock absorber</b>	I		I		I
<b>Handlebar and controls</b>	I	I	I	I	I

A: Adjust

C: Clean

I: Inspect

L: Lubricate

R: Replace



Maintenance is based on what happens before: km traveled or time elapsed since the last service.

The warranty is valid only if the vehicle has been subjected to the programmed maintenance services and if it has not been improperly used.

## Extraordinary maintenance (in authorised service centre)

Refer to your authorised vehicle service centre for operations regarding checking or replacing components:

- Tyres
- Brake pads
- Brake oil
- Rear suspensions
- Brake disks
- Battery
- Electric motor



# Technical data

	NES 5	NES 10
<b>Performance</b>		
Top Speed	45 kph	90 kph
ECO mode range	90 km*	80 km**
SPORT mode range	75 km*	60 km**
Gradeability	30 %	



\* Test performed at constant speed, 20 kph in ECO mode and 35 kph in SPORT, on a flat road with a 75 kg driver

\*\* Test performed at constant speed, 35 kph in ECO mode and 50 kph in SPORT, on a flat road with a 75 kg driver

<b>Basic Information</b>		
Dimensions (mm)	Length 1,840 - Width 760 - Height 1,120	
Wheelbase	1.320 mm	
Saddle height	810 mm	
Ground clearance	180 mm	
Weight	98 kg	
Maximum load	248 kg	
Front tyre	120 x 90 R10	
Rear tyre	130 x 90 R10	
Suspension	Direct acting hydraulic	
Front brake	Twin piston 200 mm disk brake	
Rear brake	Twin piston 180 mm disk brake	
Approval	For two people	
Driving licence	AM/A1/B	A1/B



	NES 5	NES 10
<b>Battery (removable)</b>		
Type		Lithium ions
Voltage / Amperage		72 V - 30Ah
Weight		12.6 kg
Recharging time		3 - 4 hours
Recharging cycles		About 1000
Recharging Input		110 V / 220 V
Recharging cost type		€ 1.60 approx.
<b>Power Train</b>		
Motor		NITO Brushless
Power		4 kW
<b>Electrical System</b>		
Lights		LED
Dashboard		LCD
On-Board Diagnostics (OBD)		Standard
USB Charger		Standard

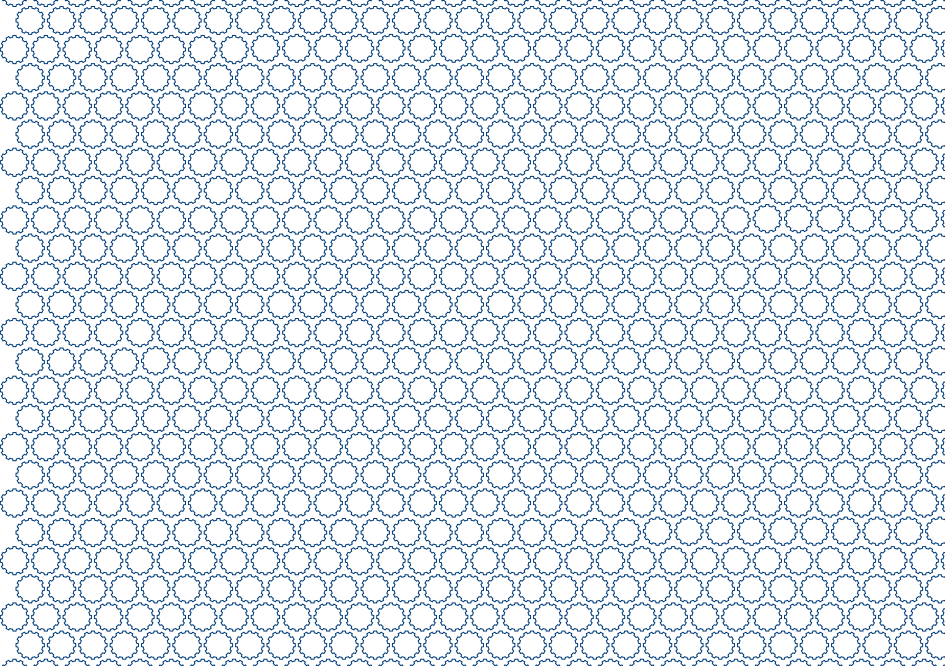
Cold tire pressure						
	kPa	kgf/cm <sup>2</sup>	PSi	kPa	kgf/cm <sup>2</sup>	PSi
Front	175	1.75	25	200	2	29
Rear	200	2	29	225	2.25	33



## Accessories

The NES scooter has a line of optional accessories that can be found in authorised customer assistance centres or the [nitobikes.com](http://nitobikes.com) site.

- Windscreen available in S/M sizes, transparent or smoke-coloured, size L only transparent
- NITO personalised Jet helmet
- Helmet storage compartment (supplied as standard on NES 10)
- Rear utility storage box
- Top case support
- Leather saddle in black or brown





[nitobikes.com](http://nitobikes.com)

