User Manual
Nerva EXE II

NERVA

Content

Thank you for choosing the NERVA EXE II scooter

Thank you for choosing the NERVA EXE II Gran Turismo scooter. NERVA has harnessed the latest electric motor, battery and electronics technologies in the development of this vehicle, ensuring that you can enjoy feature-packed transportation that's comfortable for the passenger and affords effective protection from inclement weather, while being equipped with a high-performance motor unit that achieves not only high acceleration and maximum speed, but considerable autonomy as well.

In terms of the batteries used, the NERVA II scooter uses new LFP lithium battery technology, which does away with the need for various toxic materials such as manganese, nickel and cobalt that are used in conventional NMC lithium batteries. This new technology, used by the manufacturer BYD, has been selected to power the NERVA II, and thanks to its thermal stability it cannot burn or explode, guaranteeing extra safety for the vehicle user. That thermal stability also translates into greater longevity — NERVA in fact offers an exceptional 5-year warranty covering BYD's LFP batteries, one not currently available from any other electric vehicle brand.

The NERVA EXE II scooter is classified as L3e with a rated power of 11 kW, which will allow you to drive it with a "B" car driving licence held for at least 3 years without any additional procedures or costs, as well as with an A1 driving license from the age of 16.

About this manual

CAUTION

- **Text with this symbol indicates extremely dangerous situations that, if ignored, could result in serious damage or injury.**

WARNING

- **Text with this symbol indicates dangerous situations that, if ignored, could result in minor damage or injury.**

NOTE

- **Text with this symbol indicates dangerous situations that, if ignored, could result in damage to the vehicle.**

Safety instructions

Security pre-checks

WARNING

- **This section must be followed meticulously, otherwise you may suffer a serious accident or even be killed.**
- **Before starting a journey, first carry out safety checks on your vehicle. A vehicle without technical faults is a basic requirement for its integrity and safety, as well as for other road users.**
- **For your safety, use only original spare parts or accessories authorised and certified by NERVA ECO, S.L. If you need access to an approved product or accessory, please contact your authorised dealer or go to the website (www.NERVA.eco).**

Always check the following points:

- **Handlebars:** These must rotate smoothly, without any vertical looseness or play.
- **Brakes:** The front and rear brake levers must be free of oil and grease, have the recommended play, and illuminate the brake light on the rear light when operated. Check the brake fluid level in both brake pumps.
- **Accelerator:** The accelerator grip should have the recommended play, with smooth operation and immediate recovery when released.
- **Tyres:** The tyres must be at the recommended pressure, and the tread surface must not show any cracks or be worn down to the limit. Check the condition of the tyres.
- **Suspension:** When pressure is applied to the fork or shock absorbers, the vehicle must yield and recover when the pressure is released.
- **Lighting and horn:** Check the operation of the direction indicators, front headlight beams, rear light and brake light. Sound the horn. Clean the lenses of the various lighting components.
- **Load sharing:** Distribute the load evenly to keep the vehicle balanced, making sure that it does not interfere with handlebar movement or suspension travel, does not exceed the maximum load limit, and does not block any of the lights.

If you identify any problems with the vehicle, contact the NERVA Technical Assistance Service.

If the scooter is not used for a long period of time, a layer of rust may build up on the brakes and thus reduce the braking power. Such a layer of rust can cause the brakes to lock up. It is recommended that after a prolonged period of non-use, you brake carefully until they are working properly again.

Equipment

Safety starts with the equipment required to ride this scooter:

› Wear an approved safety helmet and fasten it correctly.

› Wear comfortable and appropriate protective clothing in bright or reflective colours to warn other traffic of your presence.

› Use gloves that keep your hands warm and offer an good sense of touch and abrasion resistance.

› Wear close-fitting clothing (neither too tight nor too loose) to avoid snagging on vehicle controls.

› Wear sturdy shoes with low heels and ankle protection.

Recommendations for safe driving

CAUTION

- **Braking distances can increase significantly with wet tyres or wet brake discs.**
- **Avoid abrupt use of the accelerator. Rough use can lead to loss of control of the vehicle.**
- **Beware of side wind, it can destabilise the scooter.**

WARNING

- **Always obey the traffic rules.**
- **Always adapt your driving mode to the road and traffic conditions.**
- **On wet or loose gravel, vehicle stability and braking may be limited by the condition of the tyres.**
- **The condition of your brakes and wheels depends directly on the way you drive.**

Safety is, to a large extent, determined by the user's driving style. Therefore, follow the recommendations below:

› Put your feet on the platforms and only put them out of the way to rest on the ground at stops.

› Hold the handlebars with both hands.

› Drive within your limits. Do not try to surpass your personal skills and abilities. Adapt to road and weather conditions, leaving room for unforeseen events.

› Exercise extreme caution and slow down in bad weather (icy, rainy, or windy).

› Do not take any kind of narcotic drug before driving. Your driving ability and reaction time may be impaired under the influence of alcohol, drugs and medication. Do not drive under the influence of any of them.

› It is recommended not to accelerate or brake sharply. Heavy use of the accelerator and brake can lead to high battery consumption. Please note that as an electric vehicle, power delivery is almost immediate. Use the accelerator with care in low grip conditions (wet, cold, etc.).

› Particular care should be taken in side winds and when overtaking large vehicles.

Cargo transported

WARNING

- **For your safety, do not exceed the weight limit under any circumstances.**
- **Take particular care when transporting liquids that may spill on the vehicle or harm other road users.**

The behaviour of the vehicle can be influenced by the load carried and its arrangement. Overloading affects the stability, handling and safety of the vehicle.

The maximum load supported by this vehicle is **170 kg**, taking into account the weight of the driver and potential passengers and luggage. Under no circumstances is it permitted to exceed this value.

Do not place any material outside the spaces designed for transport.

Do not exceed 10 kg of weight inside the main cargo compartment under the seat.

Distribute the load evenly and place it as close to the centre of the vehicle as possible.

Check that the load is securely fastened.

Vehicle identification

NOTE

- **The right side is taken from the driver's perspective.**

The vehicle can be identified in three different ways:

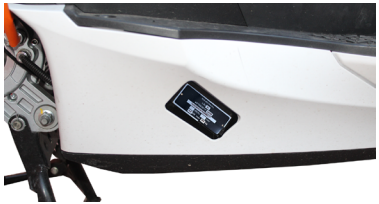
› The nameplate [**1**].
› The chassis number [**2**].
› Motor number [**3**].

Make a note of the VIN/chassis and motor numbers when ordering spare parts.

This section shows where to find these numbers.

1. Nameplate

This plate is visible through a small window in the lower fairing on the right side.



2. Chasis number

To access the frame number, the rubber mat on the platform where the right foot rests must be lifted.

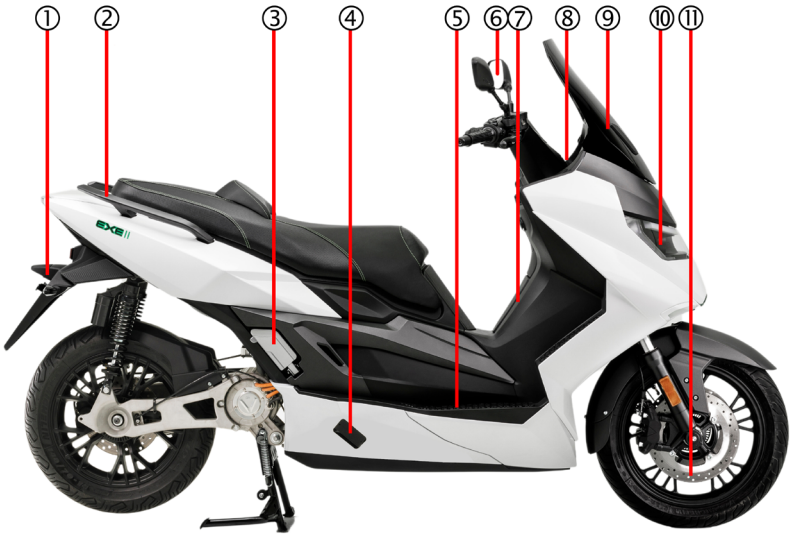
3. Motor number

On top of the electric motor housing, visible from the right-hand side.

Situación de los componentes y mandos

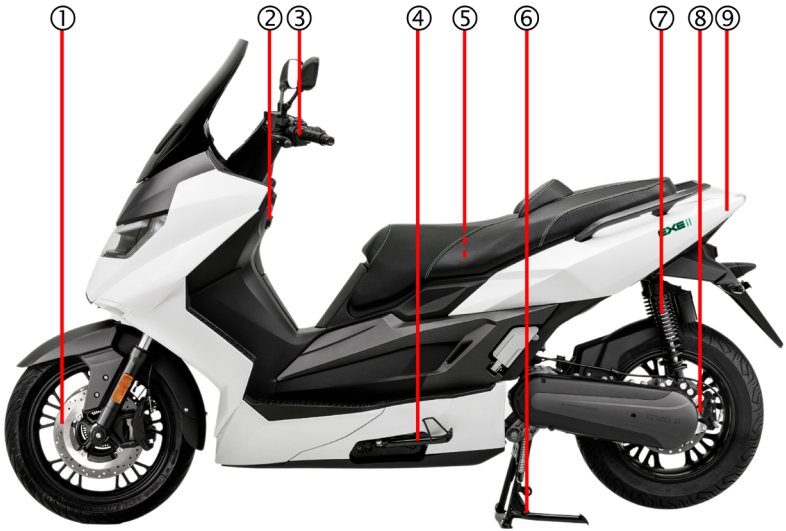
Right side view

[**1**] Number plate light
[**2**] Side handle
[**3**] Passenger footrest
[**4**] Vehicle identification plate
[**5**] Vehicle Identification Number (VIN)
[**6**] Rear-view mirror
[**7**] Charging connector cover Type 2
[**8**] TFT instrument cluster
[**9**] Windscreen
[**10**] Headlamp
[**11**] Front right disc brake



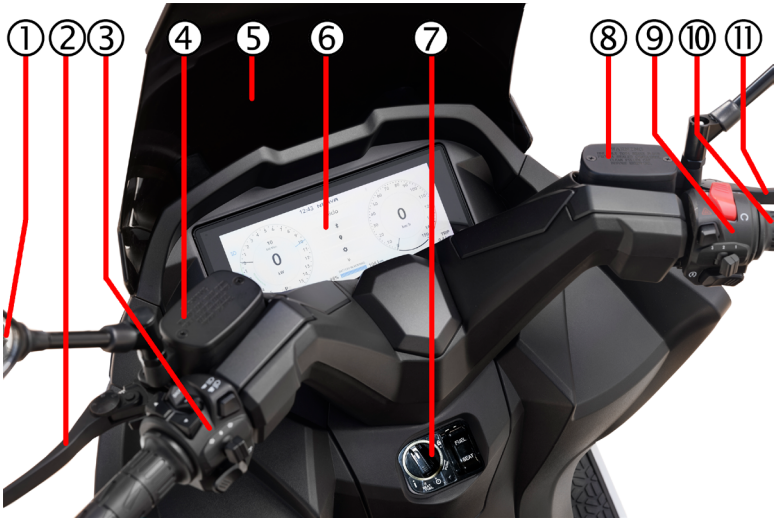
Left side view

[**1**] Front left disc brake
[**2**] Ignition knob
[**3**] Rear brake lever
[**4**] Side kickstand
[**5**] Main cargo compartment
[**6**] Central kickstand
[**7**] Shock absorber
[**8**] Rear disc brake
[**9**] Rear lamp



View from the driving seat

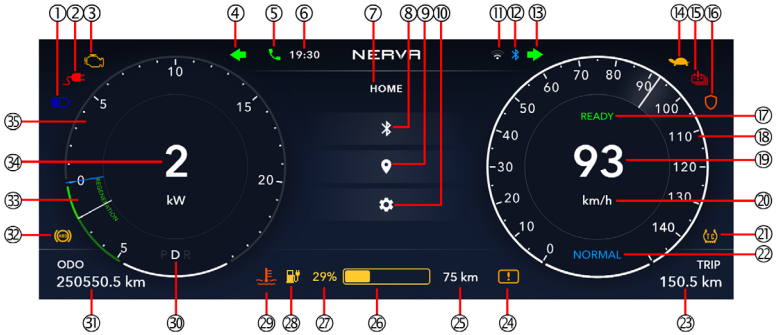
[**1**] Left rear-view mirror
[**2**] Rear brake lever
[**3**] Left-hand control switches knob
[**4**] Rear brake pump
[**5**] Windscreen
[**6**] TFT instrument cluster
[**7**] Ignition knob
[**8**] Front brake pump
[**9**] Right-hand control switches knob
[**10**] Accelerator grip
[**11**] Front brake lever



Instrument panel

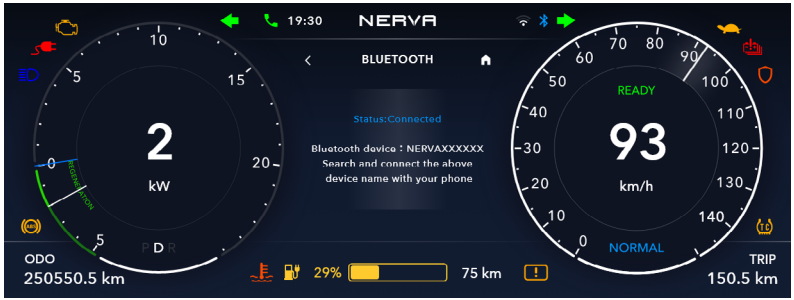
The scooter's instrument panel is based on a high-resolution TFT colour display. The display itself is grouped with a number of warning lights at the top of the display.
The components of the instrument panel are listed below.

[**1**] **High beam (main beam) indicator light:** This blue indicator light illuminates when the high beam or main beam is selected on the left-hand control switch knob. Switch to low beam or dipped beam when approaching another vehicle from the front or rear.
[**2**] **Recharge warning light:** This red warning light illuminates when the scooter's battery is being recharged.
[**3**] **Motor malfunction warning light:** This orange warning light illuminates when there is an anomaly in the motor. If this happens, reduce speed and take the vehicle to a NERVA Technical Assistance Service.
[**4**] **Left turn indicator light:** This green indicator light flashes together with the left-hand side indicators when the indicator switch on the left-hand control knob is moved to the left. To turn off the turn signals, press the switch to its centre position.



[**5**] **Incoming call light:** This green indicator light illuminates when a call is received on the mobile phone linked to the scooter. To answer the call, a helmet-mounted Bluetooth headset is required. The instrument panel display will show the number of the incoming telephone call:

[**6**] **Time clock:** Adjusted by synchronisation with the mobile phone.
[**7**] **Home:** It indicates that this is the main instrument panel display.
[**8**] **Bluetooth connection setting:** To start the process of pairing the scooter with a mobile phone via Bluetooth. Bluetooth communication with the mobile phone must be activated and connected to the device displayed on the screen



[**9**] **Access to GPS navigation:** See GPS Navigation section.
[**10**] **General Settings** See General Settings section.
[**11**] 4**G/5G coverage level:** It graphically displays the coverage level of the mobile phone linked to the scooter.
[**12**] **Bluetooth indicator light:** This blue indicator light illuminates when the mobile phone is linked to the scooter via a Bluetooth connection.
[**13**] **Right turn indicator light:** This green indicator light flashes together with the right-hand side indicators when the indicator switch on the left-hand control is moved to the right. To turn off the turn signals, press the switch to its centre position.
[**14**] **"Turtle" warning light:** This orange warning light illuminates when the battery charge (SOC%) is less than 15%. When this happens, the vehicle goes into battery saving mode. The maximum speed is limited.
[**15**] **Battery warning light:** This orange warning light illuminates when the vehicle detects that the batteries are not working properly. It is advisable to stop the vehicle and contact a NERVA Technical Assistance Service for repair.
This warning light lights up when a Level 1 or 2 alarm occurs:
- Level 1: Level 1 alarms are activated when the battery is operating just outside its safe operating limits. In this case, the battery warning light flashes.
- Level 2: Level 2 alarms are activated when the battery is operating close to its safe operating limits. In this case, the battery warning light lights up continuously.
If the warning light remains on after a complete charging cycle, please contact the NERVA Technical Assistance Service for repair.
[**16**] **Battery protection warning light:** This orange warning light illuminates when a battery protection mode is activated. This occurs when driving for a while at full power. With this protection mode, the functionality and durability of the components is ensured.
[**17**] **Ready message (READY):** This message appears when P-mode is deactivated indicating that the vehicle is ready for use.
[**18**] **Analogue speedometer:** Its needle, on a scale from 0 to 140 km/h, shows the cruising speed. When you change the units in General Settings to imperial, the graphic scale changes to mph (miles per hour).
[**19**] **Digital speedometer:** It displays the cruising speed in km/h (or mph, if imperial units are chosen) in numerical form.
[**20**] **Units:** In the frame settings screen you can choose between metric (km, km/h) or imperial (miles, mph) units.
[**21**] **Traction Control TC warning light:** The warning light will illuminate for a short time when the motorbike is switched on. It will flash as soon as the traction control is activated. When the traction control is faulty, the warning light will illuminate. In these situations, you should contact a Nerva Technical Assistance Service for repair. Traction control can be deactivated via the main menu.
[**22**] **Driving mode:**
(a) ECO mode: This mode is selected by setting the switch on the right-hand knob to position 1. In this mode, the maximum speed is limited to 50 km/h and is suitable to consume less energy from the battery preferably in urban use. Maximum available power is 60% and maximum torque is 70%.
(b) NORMAL mode: This mode is selected by setting the switch on the right-hand knob to position 2. In this mode, the maximum speed is limited to 80 km/h and is suitable for moderate consumption on secondary roads or urban bypasses. Maximum available power is 70% and maximum torque is 80%.
(c) SPORT mode: This mode is selected by setting the switch on the right-hand knob to position 3. In this mode there is no maximum speed limit and it is suitable for driving on motorways and dual carriageways. The vehicle's autonomous range is considerably reduced.
[**23**] **Trip odometer (TRIP):** Displays the distance travelled on a trip since this counter was reset. To reset, press and hold the SET button for 3 seconds.
[**24**] **Warning light:** This warning light illuminates when the vehicle detects that there is an anomaly in the DC-DC converter, instrument panel, ABS braking system or built-in charger.
[**25**] **Autonomy:** Estimation of the remaining range until the next recharge based on the pace maintained. Increasing the pace will decrease the range estimation and decreasing the pace will increase the range estimation.
[**26**] **Graphic battery charging:** Displays the remaining battery charge on a horizontal, segmen-

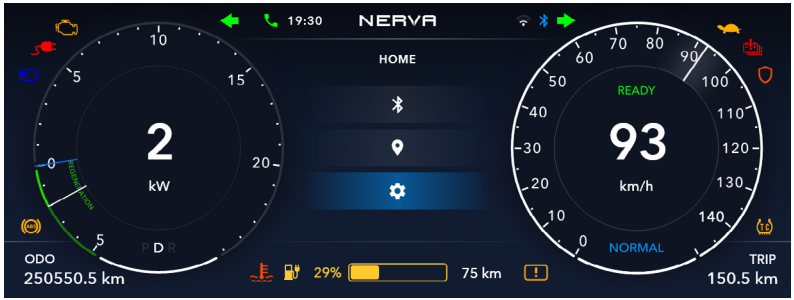
ted graphical scale.
[**27**] **Battery charge percentage:** Displays the remaining charge in the battery in a numerical percentage format.
[**28**] **Charge reserve indicator:** This orange warning light illuminates when the battery charge falls below 20%.
[**29**] **Motor overheating warning light:** This red warning light illuminates when the engine temperature exceeds 135°C.
[**30**] **Engine mode:** It displays the status of the engine. **Mode P (Parking):** In this mode, the scooter is active but is prevented from operating, either because the P button has not been switched off from the left hand control, or because the side kickstand is folded out. In this mode, the information on the right-hand side of the display is not shown and all lighting elements, including those on the instrument panel, are active. **Mode D (Direct):** The scooter is ready for use. Turning the accelerator grip starts the vehicle. **Mode R (Reverse):** In Mode D with the vehicle stationary, press button R on the left-hand control pad to activate the slow reverse gear for easier manoeuvring of the scooter.
[**31**] **Odometer (ODO):** Shows the total distance travelled by the scooter since its manufacture.
[**32**] **ABS Anti-lock Brake Warning Light:** This orange warning light remains illuminated until the vehicle starts to move and then it goes out. If there is a malfunction in the ABS anti-lock braking system, this warning light will illuminate when the vehicle is in motion. In this situation, the brakes will operate in a conventional manner without ABS functionality. Drive with caution and contact the NERVA Technical Assistance Service for repair as soon as possible.
[**33**] **Regenerated power:** This clock analogically displays the power regenerated by the motor in kW (kilowatts) in real time. On this scale, the needle gets bigger going anti-clockwise, being at full scale at 5 kW, showing the power regenerated by the engine that goes to the batteries when the acceleration is stopped or, to a greater extent, when the brakes are applied. In regenerative mode, the motor partially brakes the vehicle.
[**34**] **Digital display of consumed or regenerated power:** Numerically displays the power consumed or regenerated by the motor in kW. The regenerated power is shown in green.
[**35**] **Power consumption:** This clock analogically displays the power consumed by the motor in kW (kilowatts) in real time. From the needle's rest position (0), the needle increases clockwise with full scale at 11 kW.

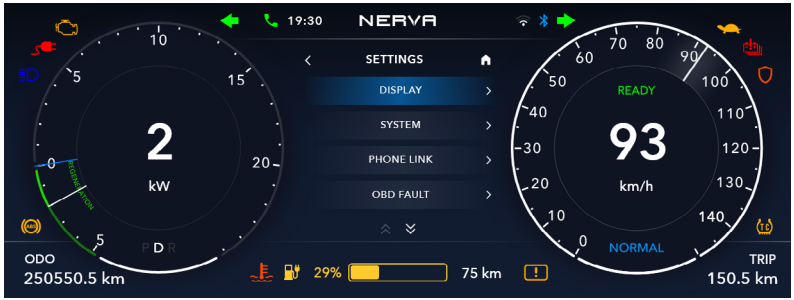
STOP screen

This situation may occur if:
The vehicle is operating outside its safe operating range and may damage critical components of the motorbike such as batteries, engine or any electronic components.
In these situations, the TFT display shows the word STOP. To warn the user, the message on the display will flash. Once this message is displayed, the vehicle shall stop for reasons of safety in 5 seconds. If the warning light remains on after a complete charging cycle, please contact the NERVA Technical Assistance Service for repair.

General Settings

Use the cursor button "↓" to select "⚙" and confirm your selection by pressing the "SET" button on the left-hand switch to enter the settings menu. The following screen will be displayed:





The options in the general settings menu are:

Display
- Vision: Day/ Night/ Auto
- Brightness: Auto/ Manual (5 levels)

System
- Language: English/ Spanish/ French
- Units: Metric (km)/ Imperial (miles)
- Time: 12H/ 24H

Phone link
- Android
- iOS

OBD FAULT
- ABS failures
- VCU failures
- MCU failures
- BMS failures

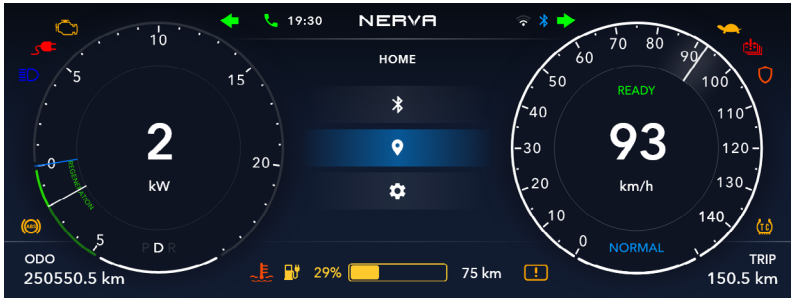
Version
- Version: V11.15
- UI Version: V11.21

Factory Reset
- Reset to factory settings? YES/NO

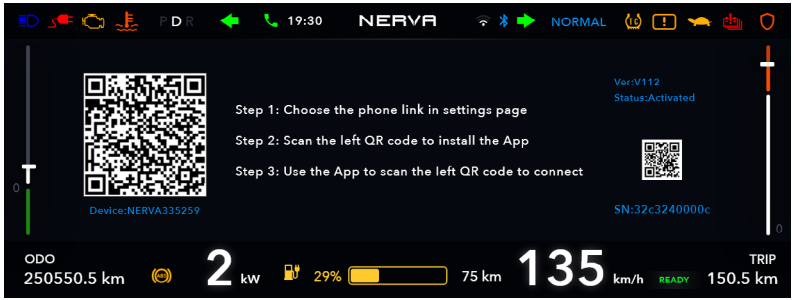
Use the cursor buttons "↑" and "↓" and confirm with the "SET" button to set the menu options. Press "BACK" to return to the previous option.

Mobile phone pairing

Select "" with the "↑" and "↓" cursor buttons, then press the "SET" button on the left-hand switch knob to confirm, which will open a menu allowing you to pair the screen with a mobile phone.



The following screen will appear:
The screen will display a QR code. Scan it with your mobile phone and you will be directed to the Carbit website, where you can download and install the Carbir Ride App for Android or iPhone operating systems. You can also install the App by going to the Play Store (Android) or App Store (Apple) and searching for "Carbit Ride").



Once the application is installed, the following main screen will be displayed:

Pressing ① accesses the Carbit Ride settings menu, while pressing ② connects the App with your mobile phone (via pairing).

Figure 1

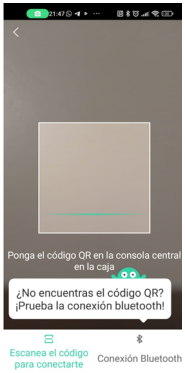


Figure 2

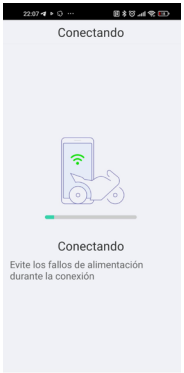


Figure 3

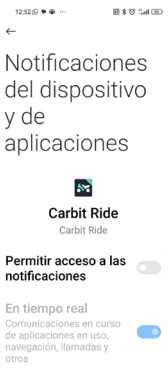


Figure 4

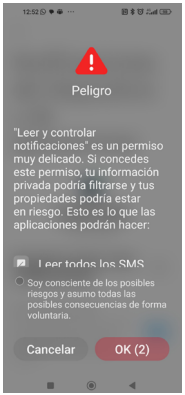


Figure 5

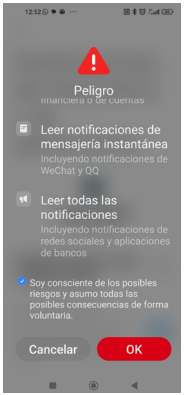


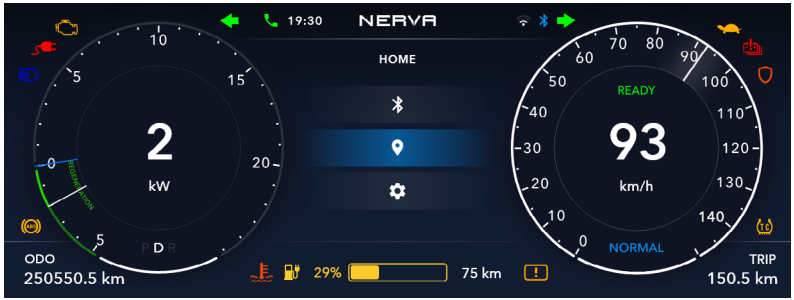
Figure 6

Figure 1 shows the options in the settings menu.
Figure 2 shows the QR scanner to pair the mobile with the NERVA EXE II screen through the QR code shown above to download the App. This screen allows pairing by both QR code and Bluetooth connection.
Figure 3 shows the process of pairing the NERVA EXE II display with the mobile phone.

To fully operate the application by interacting with the NERVA EXE II TFT display, notifications must be authorised. Figures 4, 5 and 6 demonstrate how the user may consent to read SMS messages, instant messages (e.g. WhatsApp) and all notifications (e.g. incoming calls) that will be displayed on the scooter's screen.

Navegador GPS

Select " " with the "↑" and "↓" cursor buttons, then press the "SET" button on the left-hand switch knob to confirm, which will open a menu allowing you to pair the screen with a mobile phone.
You will be shown the QR code screen shown above.



Launch the Carbit Ride App on your mobile phone. If you are Disconnected as shown in Figure 7, tap on Settings (three horizontal lines in the top left corner) and tap on WLAN Direct (Figure 8) to link the App to the vehicle via WiFi (you must have it activated on your mobile phone). NERVA_XXXXXXXXXXXXXXXXXX should appear in the search for devices near the mobile phone, which is the same name that appears under the QR code on the vehicle's display.
Return to the main screen of the App (Figure 9), you will see that the status of the App is now Connected (the pairing process only needs to be performed once).

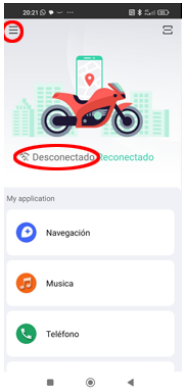


Figure 7

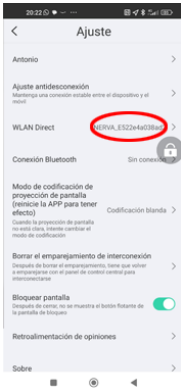


Figure 8

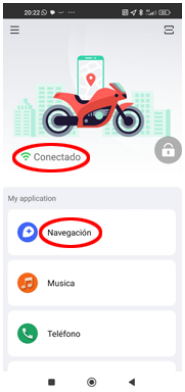


Figure 9

Click on Navigation:
A map of the area where you are located will appear (Figure 10). Enter the address of the destination in “Search here” on the mobile phone. You will be shown several routes to your chosen destination (Figure 11), choose one of them and click on GO. The mobile screen will display Figure 12 indicating that the navigation directions are transferred to the EXE II screen. If you want to follow the directions on your mobile phone, click on “Switch to phone navigation”.

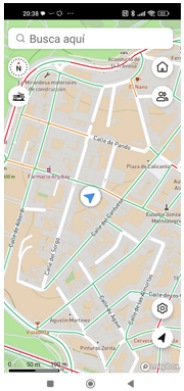


Figure 10

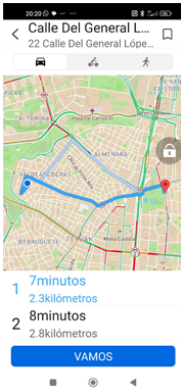
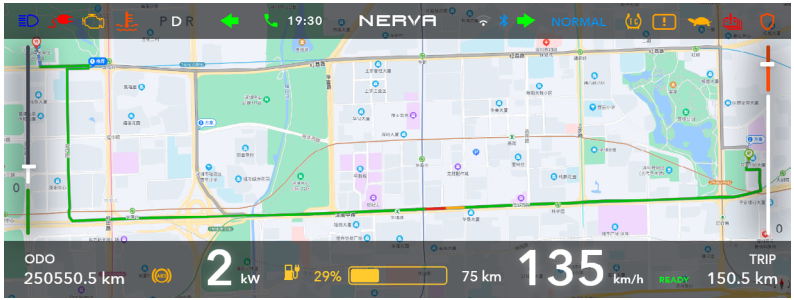


Figure 11

Figure 12

The EXE II screen will change its appearance showing the map with the itinerary to reach the chosen destination. You will hear the voice prompts through the loudspeaker of the telephone (or through the headset-microphone kit).
In addition to the map, the EXE II display will show basic information such as tell-tales, clock, driving mode, total/partial odometer, SOC and speedometer/consumption in numerical format.
As soon as you leave the mobile navigation, the EXE II Home screen will be displayed.



USB connector

On the upper left side of the leg cover, you will find a black rubber cover that covers and protects the USB connector where you can connect a mobile phone (to charge it on the move or use it as an auxiliary GPS navigator) or any other USB device. Its internal circuit has short-circuit and over-voltage protection. After using this connector, do not forget to cover it again with the cap.

KEYLESS key

The vehicle is delivered with two sets of KEYLESS electronic access fobs. Keep the spare access fob in a safe place.
Each Keyless key incorporates a unique, machined key blade that acts on the ignition knob to access the under-seat charging compartment when the battery charge is fully depleted. The same mechanical key blade is integrated into the KEYLESS key.
1. Button to deploy the metal key blade.
2. Vehicle disable button (range 10 metres). Press this button to disable the vehicle after the vehicle has been switched off from the ignition switch.
3. Locator button (range 15 metres). Press this button to locate the vehicle in a parking space. When pressed, the vehicle will emit a flashing sequence shown by the direction indicators.
4. Vehicle activation button (range 10 metres): Press this button to activate the vehicle and select the desired operation from the ignition knob.

Access to the mechanical key integrated into the Keyless key

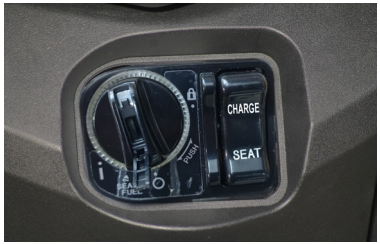
Press button ① to deploy the Keyless key's integrated mechanical spring to operate the ignition knob controls if the vehicle's battery is low or the Keyless key's battery-button is dead.

Keyless key backup

Order a new Keyless key from a NERVA point of sale, quoting the serial number on the back of the fob. For safety reasons, make a note of this serial number and leave it in a safe place

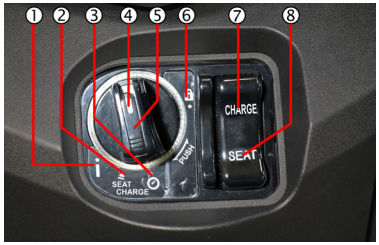
Use of the mechanical key

If the Keyless key's button-battery runs out of charge, you can access the seat or the hatch of the charging socket using the following manual procedure:



Slide down the cover in the centre of the contact knob and lift up the upper end of the contact knob. You will discover a central hole where you can insert the mechanical pin integrated in the Keyless key, which you can use to operate all the functions of the ignition knob.

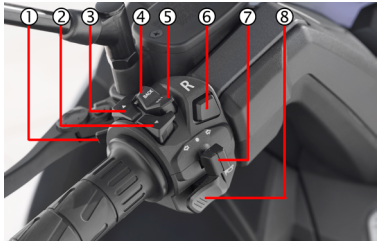
Ignition knob



For any operation with the ignition knob, first activate the scooter by pressing the activation button ① on the Keyless key and press the ignition knob; a blue outer ring will illuminate to indicate that the vehicle is activated.

[**1**] **ON position:** Turn the ignition knob so that the striped part points to this position to activate the vehicle, ensuring all its circuits are ready to operate.
[**2**] **SEAT/FUEL position:** Turn the contact knob so that the striped part points to this position. The seat lock and the charging connector cover lock shall be released and can be opened by pressing buttons ⑧ and ⑦ respectively.
[**3**] **OFF position.** Turn the ignition knob so that the striped part points to this position and the vehicle will be deactivated leaving all electrical circuits switched off.
[**4**] **Cover for the mechanical key:** Slide the cover in the centre of the ignition knob downwards, then insert the mechanical key supplied with the Keyless key to operate the ignition knob if the vehicle battery or the Keyless key's button-battery is depleted.
[**5**] **Ignition knob control:** To activate the ignition knob, the Keyless key must be in the vicinity of the scooter. Then press the knob and turn it to the desired position.
[**6**] **LOCK position:** First turn the handlebar all the way to the left, then press the knob and turn it anti-clockwise to this position. The handlebars will be locked to prevent theft of the vehicle.
[**7**] **FUEL position:** With the ignition knob control in position ②, press button ⑦ to open the charging connector cover and access the Type 2 charging socket.
[**8**] **SEAT position:** With the ignition knob control in position ②, press button ⑧ to open the seat and access the cargo compartment.

Left-hand control switches knob



[**1**] **High beam/dipped-beam/flashing trigger:** The trigger has three positions. In the "neutral" position, the vehicle has its dipped-beam headlamps on "". Pushing the trigger backwards will immediately activate the high beam flash (temporary high beam) "" and, when the trigger is released, the low beam will come on again; as long as the trigger is held down, the blue high beam indicator will be visible on the display. Pushing the trigger forward will turn on the high beam (main beam) "" and it will remain on until this trigger is pressed to return to low beam; in this position, the blue high beam indicator on the instrument panel display will be visible.

[**2**] **Button "↓" (Down):** Press this button to move the cursor down. Once the cursor is positioned at the bottom of the screen, if you press "↓" again, the cursor will be positioned at the top of the screen.

[**3**] **Button "↑" (Up):** Press this button to move the cursor up. Once the cursor is positioned on the top option of the screen, if you press "↑" again, the cursor will be positioned on the bottom option of the screen.

[**4**] **"BACK" button:** Press this button to return to the previous menu screen.

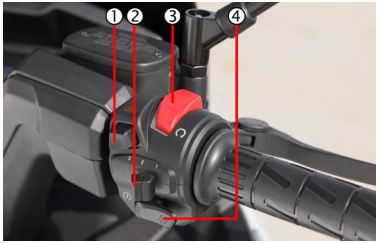
[**5**] **"SET" button (Confirm):** Confirm the option marked with the arrow keys by pressing the "SET" button.

[**6**] **"R" button (Reverse gear)** In "D" mode, press this button once and the letter "R" will appear under the left power clock, indicating that reverse gear has been activated for manoeuvring the scooter. Another touch on the trigger will reactivate "D". NOTE: In "R" mode, use the throttle with caution.

[**7**] **Indicator switch:** Moving this switch to the left will cause the left-hand direction indicators and the left-hand warning light on the instrument panel to flash. Moving this switch to the right will cause the right-hand direction indicators and the right-hand warning light on the instrument panel to flash. Moving the indicator switch to the centre will deactivate the turn signals.

[**8**] **Horn button:** Pressing this button will sound the horn

Right-hand control switches knob



[**1**] **Hazard warning lights:** Pressing this switch once will make all four of the scooter's direction indicators flash at the same time, as well as the two warning lights on the instrument panel, indicating to other traffic that there is a dangerous or emergency situation. Pressing this switch again deactivates the hazard warning lights.

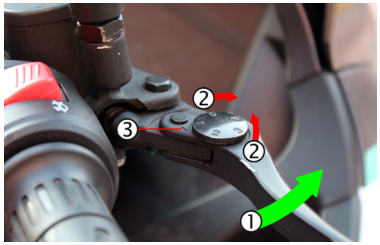
[**2**] **Driving Mode Switch:** This switch has three positions. The one on the right, marked "1" corresponds to the ECO driving mode. The centre position or "2" corresponds to the NORMAL mode. The left-hand position or "3" corresponds to the SPORT mode. For the driving mode selection to be operational, the vehicle must be engaged in "D" mode ("PARKING" mode deactivated).

[**3**] **Circuit breaker switch (red):**

If the on/off option is activated from the mobile application, this button will turn off the vehicle by

moving the switch down to the " ↻ " position . The vehicle will switch off after 10 seconds (the App must be open in the background on the mobile phone).
[**4**] **Button " ⓟ " "P" (Parking)/"D" (Direct):** Pressing the "ⓟ" button once will deactivate the "P" or Parking mode and switch to "D" or Direct mode to start driving. If the scooter has just been activated or the side stand is extended, the scooter will be in "P" or Parking mode. Pressing this button again will re-engage the PARKING mode. Depending on the selected mode, the display will show "P" or "D" at the bottom of the power clock (left).

Ergonomic lever adjustment



The front and rear brake levers are adjustable in the handlebar opening to suit the rider's ergonomics. No tools are needed to adjust them — this may be done by hand, even with gloves on:

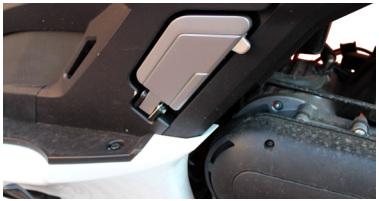
1. Use one hand to pull the lever outwards ①.
2. With the other hand, turn the wheel ② to the appropriate position, matching the position number with the small reference arrow ③.
3. Release the lever.

The wheel has five positions: position 1 is the furthest from the handlebars, while position 5 is the closest.

Passenger footrests

The NERVA EXE II features fold-down, platform-style footrests with a non-slip coating for the passenger to rest their feet on. To use them, open each foot board by pulling out the upper end. Retract the footrests when not in use to avoid snagging them against objects, which will simultaneously reduce the width by a few centimetres.

Foot board retracted



Foot board extended

Lighting

All of the vehicle's lighting is based on LED technology. LED lighting offers high visibility, helps you to be seen and stand out from other traffic, causes minimal power consumption and has a long service life compared to traditional incandescent bulbs. In the unlikely event that a component stops working, it must be replaced with a new one.

Headlamp

It is a set of double poly-ellipsoidal optics, each of which has two LED spotlights for the dipped beams (right optics only) and long beams (both optics).
It integrates the front indicators as vertical segments on both sides.
The contour of the assembly (not closed at the bottom) is formed by a light guide that acts as a parking light.

Indicators

The LED front indicators are integrated into the headlamp, while the rear indicators are attached to the rear mudguard assembly by means of an elastic bracket.

Rear light/Brake light

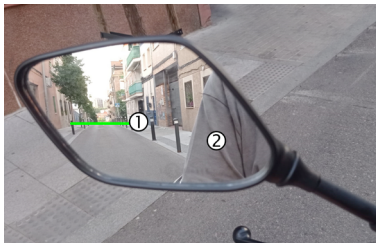
The tail lamp parking light is formed by a V-shaped LED light guide.
The interior of the "V" is completed by the brake light, which consists of a matrix of higher intensity LEDs.

Operation

Adjustment of rear-view mirrors

For your safety, it is essential that both rear-view mirrors be correctly adjusted and that the reflective surface of the mirror be perfectly clean and unbroken. If the mirror is broken, replace it with a new one.

Release the locknut at the base of the rear-view mirror mast with a 17 mm open-end spanner, and orient the mast with the handlebars straight so that it is perpendicular to the longitudinal axis of the vehicle (not parallel to the handlebars) to achieve the furthest point away from the mirrors.
Once the rear-view mirror mast is aligned, re-tighten the lock nut with the 17 mm open-end spanner to prevent it from moving.
Carry out the same adjustment procedure for the other rear-view mirror.



Orient the mirror so that the horizon line ① is at the centre of the surface and part of the user's arm ② appears in the inner corner of the mirror, serving as a reference for locating objects or vehicles behind the user's back. Do the same with the other rear-view mirror.

Cargo compartment

WARNING

- **Do not store valuables in the cargo compartment.**
- **Make sure that the seat is securely closed after pressing it down.**
- **The cargo compartment is not airtight. Water may leak from rain or washing. Avoid leaving objects that can be damaged.**
- **Never leave the Keyless key in the cargo area. If the compartment is closed with the Keyless key inside, the scooter can easily be taken away by anyone.**
- **Maximum loading capacity: 10 kg.**

Under the seat there is a bulky load compartment which accommodates a modular/full-face helmet and other smaller items in front of it.

Insert the modular/full-face helmet into the back of the compartment with the neck opening facing upwards, allowing you to insert other smaller items, such as gloves, into the compartment.

Opening of the cargo compartment

[**1**] With the Keyless key next to the scooter, turn the ignition knob to the SEAT/CHARGE position.
[**2**] Press the SEAT button.
[**3**] Open the seat by pulling the back of the seat upwards.

Closure of the cargo compartment

[**1**] Press down on the front of the seat until the latch locks.
[**2**] Turn the ignition knob to the OFF position or lock the handlebars.
[**3**] Check that the seat is correctly locked.

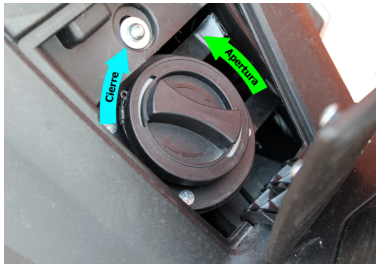
Charging the battery

The scooter's battery is charged by connecting the vehicle to the mains power supply via the quick-charge charger supplied with the vehicle or by connecting it to a public charging point. For this purpose, the scooter is fitted with a Type 2 connection located on the underside of the counter-shield.
The quick-charge charger can be connected to any 220 V 50 Hz domestic mains socket (Schuko type) and the maximum charging current can be adjusted.

For charging, follow the steps below:

Opening the lid of the recharge connection

Turn the ignition knob to the SEAT/FUEL position and press the FUEL button.



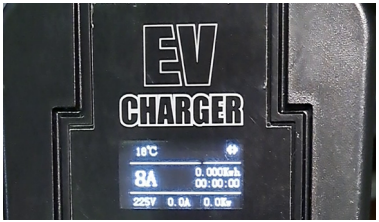
To access the Type 2 connection, activate the vehicle by pressing the ignition knob with the Keyless key nearby, and turn the knob fully clockwise. The access cover will be opened, revealing the plug covering the Type 2 connector. To open the plug, turn it a quarter in an anticlockwise direction and remove it, exposing the Type 2 connector. To close the plug over the Type 2 connection, place the plug over the connection, rotate it to find the snap-in point and rotate it clockwise.
You can also use a public charging point to charge your vehicle by plugging the Type 2 connection directly into the vehicle's charging socket.

Charger connection

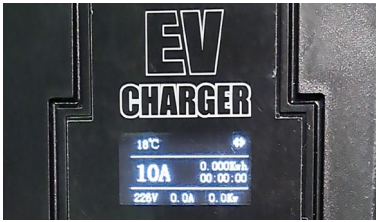
Connect the power input of the charger to an earthed domestic mains socket.

Before connecting the charger output to the Type 2 connector, you must select the charging current. By default, the charger operates in ultra-fast charging mode and will deliver a charging current of 16A equivalent to a power consumption of 3.6 kW. Check if the automatic system accepts that current or power, or if the maximum contracted power is higher than 3.6 kW.

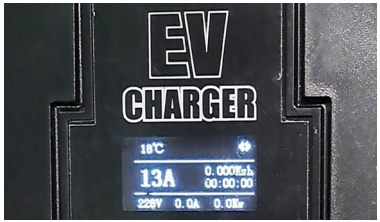
If this is not the case, you must select another maximum current value by pressing the button shown in the picture. The display of the charger will cycle through the following power values:



Slow charge: corresponds to a maximum current of 8 amps and a power consumption of 1.8 kW.



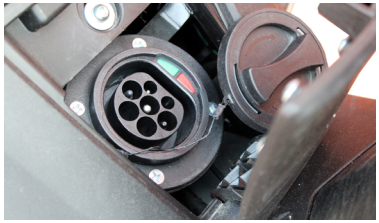
Medium charge: corresponds to a maximum current of 10 amps and a consumption of 2.25 kW.



Medium charge: corresponds to a maximum current of 10 amps and a consumption of 2.25 kW.

Ultra-fast charge: corresponds to a maximum current of 16 amperes and a consumption of 3.6 kW

Connect the Type 2 connector of the charger to the Type 2 connection of the vehicle.



With the ignition switch OFF, the TFT display on the instrument panel will light up, showing the battery charge percentage and the recharge indicator light "" in red.
You can also use a public charging point with a Type 2 connection to charge the vehicle battery.

Recharge completed

1. When charging is complete, disconnect the mains power cord and then the Type 2 connection.
2. Cover the end of the charging cable to the charging socket with the rubber plug.
3. Close the plug of the recharging socket by fitting it with the Type 2 recharging socket and turning it clockwise.
4. Close the lid by pressing it gently.
5. The vehicle is now ready for use.

WARNING

- **If the battery is not 100% charged after 24 hours of recharging, contact the NERVA Technical Assistance Service.**
- **Avoid extreme ambient temperatures for the battery: above 35°C or below -15°C.**
- **Avoid exposing the battery to corrosive liquids.**

Charger states

STATUS	MESSAGE VIA LED			
	POWER ●	CHARGE ●	FAULT 1 ●	FAULT 2 ●
Initial mode	Blink 1s	Blink 1s	Blink 1s	Blink 1s
When connecting	Fixed activation	Switched off	Switched off	Switched off
Charging mode	Fixed activation	Blinking	Switched off	Switched off
Full load	Fixed activation	Fixed activation	Switched off	Switched off
Power failure in self-diagnosis	Fixed activation	Switched off	Fixed activation	Fixed activation
Communication exception	Fixed activation	Switched off	Switched off	Fixed activation
Overvoltage or undervoltage	Fixed activation	Switched off	Fixed activation	Switched off
Ungrounded	Fixed activation	Switched off	Switched off	Flashing (1s ON and 1s OFF)
Over current	Fixed activation	Switched off	Flashing (1s ON and 1s OFF)	Switched off
Current leakage	Fixed activation	Switched off	Flashing (1s ON and 1s OFF)	Flashing (1s ON and 1s OFF)
Overheating protection	Fixed activation	Fixed activation	Fixed activation	Fixed activation

Side kickstand

WARNING

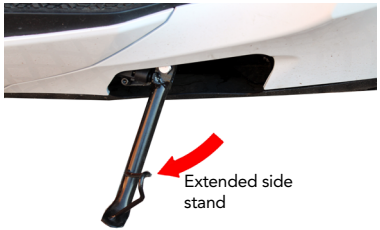
- **Ensure that the scooter is always on firm, level ground. The side kickstand must not be used on sloping terrain, as it could collapse and cause the scooter to fall to the ground.**
- **For the scooter to exit PARKING mode, the side kickstand must be folded down, as it contains a safety system that prevents the scooter from being driven with the side kickstand folded out.**

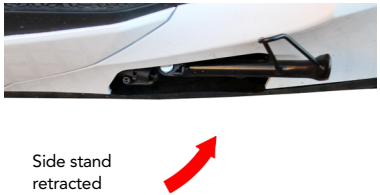
The scooter has a side kickstand accessible from the left side of the vehicle. The side kickstand is equipped with a safety switch which switches off the power supply to the electric motor when the side kickstand is extended.

If the stand is extended, the scooter goes into PARKING mode (the motor does not run in this mode).

1. Ensure that the scooter is securely fastened before folding the side kickstand.
2. Once the side kickstand has been folded out, slowly tilt the scooter to the left until it is fully resting on the side kickstand.

If the support surface is sloping, soft or uneven, if it is windy, or if parking for a long period of time, only the central kickstand should be used.





Central kickstand

The scooter is equipped with a central kickstand. When resting on it, the scooter lifts up at the rear until the rear wheel is in the air:

To raise the vehicle onto the centre stand, follow the steps below:

1. Disable the vehicle by turning the ignition switch to the OFF position.
2. Step off the scooter from the left side, holding the handlebars firmly.
3. Hold the left handlebar grip with your left hand and the rear frame tube with your right hand. Push down on the centre stand lever with the right foot until the two support points of the stand touch the ground.
4. Put your body weight on the central kickstand lever and pull up and back on the left handgrip.
5. Check that the vehicle is firmly supported.

Driving instructions

Start-up

CAUTION

• Do not switch off the scooter during activation. This could damage the vehicle's electrical circuits.

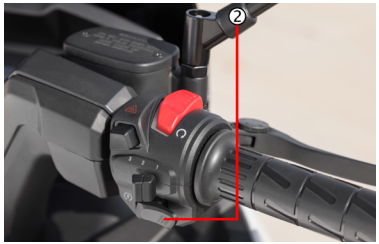
• Do not start the scooter immediately after it has been switched off. This could damage its electronic circuits. Allow at least 2 to 5 seconds to elapse before re-activating it.

WARNING

• Hold down the rear brake lever to prevent the vehicle from moving. Avoid accelerating when the scooter is stationary if you do not intend to drive. You could lose control and cause an accident.

NOTE

• The scooter has a safety switch on the side kickstand. If the stand is folded out, the scooter will not exit PARKING mode. Once the side kickstand is retracted, press the PARKING button [2] on the right-hand control knob to start off.



1. Lower the vehicle from its central kickstand or retract the side kickstand.
2. Activate the scooter and turn the ignition knob to the ON position ①.
3. Wait until the display turns on completely.
4. Press the "MODE" button on the right-hand knob ② and check that the letter "D" (DIRECT) appears at the bottom of the consumption clock.
5. Choose the driving mode you want to use.
6. Turn the accelerator gently to start the vehicle moving.

Driving modes

WARNING

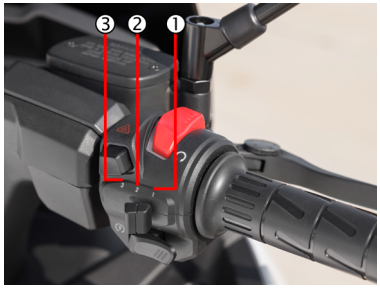
• If the scooter is driven at high speed and is switched to a lower mode, the scooter progressively slows down to the maximum speed of the new driving mode and the accelerator no longer responds to increases in speed

• Do not drive in the ECO driving mode on motorways or dual carriageways. Not only is the maximum speed in this mode lower than the mandatory minimum speed on these roads, but it can also lead to and/or cause a serious accident.

• Use of the SPORT driving mode is disabled if the battery is at 25% charge or lower. If your are riding in SPORT mode when this charge state is reached, the vehicle will automatically switch from SPORT mode to NORMAL mode

NOTE

• Please note that frequent use of the SPORT mode decreases the range of the vehicle, due to increased power consumption. Prolonged use of the SPORT mode may increase the temperature of the vehicle's electrical components, resulting in reduced motor performance.



The vehicle has three driving modes, which are selectable from the “M” button on the right-hand switch, to provide the user with different driving experiences. To select the Driving Mode, the side kickstand must be retracted and the “PARKING” mode deactivated. Mode selection may be done by brief presses of the “M” button, with the selected mode appearing on the display. The three modes are presented cyclically.

› **ECO:** This allows for more relaxed driving, ideal for inner-city driving. Speed and acceleration are limited, allowing for greater vehicle range.

› **NORMAL:** This driving mode resembles the behaviour of a 125 cc scooter. It allows a smooth ride without abrupt power delivery. At the same time, it is possible to drive at higher speeds than in ECO mode.

› **SPORT:** This allows you additional power and speed, accessing the full power the scooter has to offer.

The maximum speeds and approximate ranges for each driving mode are dereared below:

MODE	MAXIMUM SPEED KM/H*	APPROXIMATE RANGE OF AUTONOMY**
ECO	50km/h	180km
NORMAL	80km/h	140km
SPORT	100km/h	90km

(*) The maximum speed values shown are standard. For fleets of delivery vehicles, other values can be fixed either when the vehicles are pre-delivered or later at a Nerva Technical Assistance Workshop.
(**) Indicative values Range varies substantially depending on driving style, weather and road conditions.

Economic driving

It is recommended to accelerate gently so that the power consumption is not excessive and you do not lose control of the scooter.

The following cases are unfavourable for battery consumption:

› City traffic with many stops and traffic lights.
› Journeys with constant starts and stops.
› Driving in slow-moving, heavy traffic.

Battery consumption is also affected by poor road conditions or steep slopes.

The weight carried is also a major factor in electricity consumption. The maximum load, taking into account the weight of the driver and possible passengers and luggage, is 150 kg. Driving while overloaded is not permitted under any circumstances.

If pushing or manoeuvring the vehicle is required, first press the PARKING button to disable the accelerator. This prevents accidental operation and an accident.

ABS braking

ADVERTENCIA

ABS reduces the braking distance compared to a conventional braking system, especially on low-grip road surfaces (e.g. in the rain). However, it has some limitations that you should be aware of.

- **When driving on loose soil, gravel or uneven surfaces, the braking distance is extended.**
- **Braking on a curve may cause the vehicle to swing outwards or skid. It is always recommended that you brake before entering a curve.**
- **At speeds below 10 km/h, ABS is not operational and operates in a conventional manner.**
- **Under no circumstances use tyre sizes other than those approved by NERVA. The NERVA EXE II's phonic wheel sensors measure the rotational speed of the wheels. If the tyre size changes, the speed sensors become out of calibration, affecting the operation of the ABS.**

PRECAUCIÓN

- **When one or both channels of the ABS are activated, the rider can feel pulses or pulsations at the levers. This is normal and you should continue to apply the brakes.**

The scooter is equipped with dual-channel ABS anti-lock braking system on both brakes. This safety system controls the front and rear brakes independently, preventing them from locking and thus preventing accidents.
When the scooter is activated, the ABS warning light will remain illuminated and will only go out when the scooter is started. If the ABS warning light remains illuminated or illuminates while driving, this indicates that an abnormality has been detected in the ABS system. However, if this anomaly occurs, the braking system shall continue to operate in the conventional non-combined non-CBS and non-anti-lock manner. Please contact a NERVA Technical Assistance Service to solve the problem.

Front brake

The front brake is operated by the right-hand lever.

Rear brake

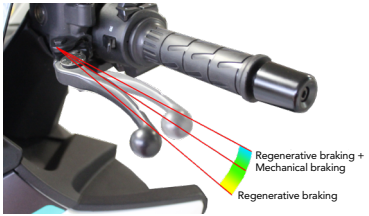
The rear brake is operated by the left-hand lever.

Regenerative braking

In addition to mechanical disc brakes, the vehicle has a regenerative brake. When the traction provided by the motor is no longer used, its use as an motor brake can be reversed, producing electricity in its retention which is used to partially recharge the batteries. This regenerative braking is activated electronically when the accelerator is released and, to a greater extent, when one of the brake levers is actuated and depending on the travel of the brake lever.

The regenerative brake has its own range of travel on the brake lever. Only motor brake regeneration is active during this range of travel. If the lever continues to be actuated, the mechanical brake comes into action. At that moment, both types of brakes act simultaneously.

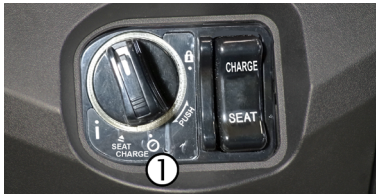
The use of regenerative braking assists the braking process by using fewer brake pads than mechanical brakes, and also helps to maintain battery charge.



Traction Control TCS

This scooter is equipped with a safety system that prevents the rear wheel from slipping on slippery surfaces (e.g. rain, snow or ice): the TC (Traction Control) system. If the TC system detects that the rear wheel is spinning faster than the front wheel, this is a sign that the rear wheel is skidding on the road, and so it automatically switches off the motor power and switches to regenerative braking so that the motor hold prevents further wheel spin.
The TC warning light illuminates briefly during the ignition period of the motorbike. During use, the warning light will flash if the system is activated. If it stays on, an anomaly has occurred in the system. In this case, please contact the NERVA Technical Assistance Service to solve the problem.

Stopping the motor



To turn the motor off, turn the ignition knob to the OFF position ①.

It is recommended to lock the steering when the vehicle is parked by turning the handlebars fully to the left, pressing the ignition knob and, at the same time, turning it to the LOCK position ②. If you let this second operation take too long and it doesn't allow you to move the knob to LOCK, you will need to reactivate the scooter with the Keyless key by pressing the centre of the ignition knob.

Maintenance instructions

Brake fluid level

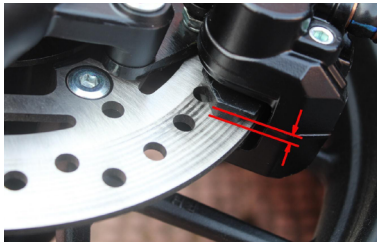
With the scooter on its central kickstand on a level surface, turn the handlebars until the brake pump of which you wish to check the level is horizontal. Through the sight glass on the pump reservoir, check that the brake fluid level is above the "LOWER" mark.

If the brake fluid level is below the "LOWER" mark, check the brake pads for wear. If the brake pads are not worn, check for brake fluid leaks at the pump cover, brake lines, and brake linkages or banjo fittings.

Brake fluid needs to be changed every 15,000 km or every 2 years (whichever comes first). The change requires bleeding air from the hydraulic system. For your safety, entrust this operation and the repair of brake fluid leaks to a NERVA Technical Assistance Service.

Recommended brake fluid: DOT-4

Brake pads

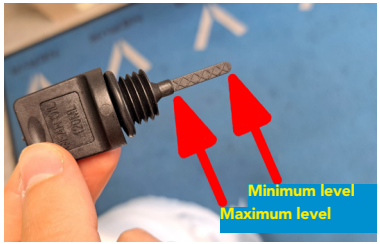


Check the brake pad wear by observing the thickness of the brake pad lining at the calliper end in contact with the disc. Verify that the thickness of the friction material of each pad is more than 2 mm. If wear is noticeable, do not press down on the thickness as this may damage the disc surface and replace both pads at the same time. For your safety, entrust this operation to a NERVA Technical Assistance Service.

Final drive oil level

Unscrew the final drive oil dipstick by hand.

Wipe the rod with a cloth.
Screw the rod back into the hole as far as it will go and remove the rod again by unscrewing it.



Check that the oil stained part of the dipstick is between the maximum and minimum level marks. If the dipstick has not been stained with oil, it means that the oil level is below the minimum level and may irreversibly damage the final drive. Immediately upper up a certain amount of SAE 80W-90 oil until the level is between the two marks on the dipstick.
If the level exceeds the maximum level mark on the dipstick, the oil pressure in the gearbox is high and can damage the oil seals. Remove a certain amount by loosening the drain screw and recheck that the oil level is between the two marks.
Once the check has been completed, screw the dipstick back into its hole and tighten it securely.

Cleaning the scooter

CAUTION

- **Do not use steam or high-pressure jets to wash the scooter. Such systems can damage or fog the headlamps, instrument panel, braking system and electrical system. The use of pressure washers, regardless of the intensity of the pressure, immediately voids the vehicle warranty.**
- **Never use paint polish on plastic parts.**
- **After a relatively long journey, thoroughly clean the bodywork and apply a corrosion protection agent.**
- **Use mild and environmentally friendly cleaning products. Never use aggressive detergents.**
- **Use a soft, clean cloth to dry the scooter.**

WARNING

- **Plastics and upholstery can be damaged if corrosive and penetrating cleaning agents are used.**

To clean the scooter, use a soft sponge and clean water. Afterwards, wipe dry with a cloth.

After cleaning, always carry out a brake test before driving again.

To avoid bodywork damage or scratches, do not use dry cloths to remove dust or dirt.

As a precaution, we would recommend protecting the parts most exposed to corrosion using a commercial product dedicated to this purpose, especially in winter (on account of the salt that is added to asphalt to prevent it from freezing.)

Long-term storage of the scooter

The following steps are recommended for proper long-term storage of the scooter:

1. Clean the scooter before storing it.
2. Store the scooter in a dry room.
3. Raise the scooter on its central kickstand, chocking the fork with timbers so as to ensure that neither tyre rests on the ground, which can cause permanently deformation.
4. Cover the vehicle with a protective cover.
5. To protect the batteries, maintain an environment with a temperature below 35°C and humidity below 75%.
6. If the vehicle is to be stored for a long period of time, the battery should be kept at a charge between 30 % and 60 % SOC. 30 % to 60 % SOC.
7. It is not recommended to exceed half a year of storage. After a period of storage with no use of the battery, an inspection should be carried out to check the condition of the battery.
8. In the event that the storage period exceeds half a year, charge the battery to 50 % every 6 months.

Commissioning

To restore the vehicle after a long period of storage, follow the steps below:

1. Clean the vehicle.
2. Check tyre pressure.
3. Check the condition of the brakes.
4. Carry out the activities as indicated in the maintenance plan.

Tyre and wheel maintenance

If the scooter is not to be used for an extended period of time, it is recommended that the scooter be placed on the central kickstand. Thus, the weight of the vehicle does not rest on the wheels.

It is advisable to spray tyres with a silicone rubber treatment to prevent tyres from hardening. To do this, the tyres must first be thoroughly cleaned.

Do not store the vehicle or tyres in hot spaces for prolonged periods of time.

Technical changes, accessories and spare parts

CAUTION

- **We recommend the use of original accessories and spare parts only.**
- **The safety, suitability and reliability of the original accessories and spare parts have been tested specifically for this vehicle.**
- **For certified accessories and original spare parts, please contact an authorised service centre. A list of NERVA sales outlets and Technical Support Services can be found at www.NERVA.eco.**

Unauthorised technical modifications may lead to cancellation of EC type-approval.

NERVA ECO S.L. is not responsible for any modifications made to the vehicle, nor for any accessories that have not been tested and distributed by the company's authorised service network.

Modifications and/or installation of accessories not approved by NERVA ECO SL. may lead to the loss of the vehicle warranty.

Condition of tyres

WARNING

- **All tyres are tubeless (TUBELESS).**
- **The scooter is equipped as standard with the following tyres:**

  - Front: 120/70-15 MC 56 S
  - Rear: 140/70-14MC 62S

- **Use only tyres with the approved or equivalent dimensions and bearing the European type-approval mark. The use of non-approved tyres or rims increases the risk of an accident. NERVA ECO S.L. is not responsible for any damage to tyres and rims that may occur as a result of poor maintenance or after manipulation of these by any technical service servicio técnico.**

The condition of tyres should be checked regularly. A worn tyre has inferior grip and can lead to accidents.
Do not drive without valve caps. These must be firmly tightened to prevent the wheel from losing pressure.
To check the condition of the tyres:

› Measure the depth of the drawing (Minimum depth: 2 mm, equivalent to the outer ring of a 1-euro coin)
› Check the wear mark

Tyre pressure

Adjust the tyre pressure according to the weight of the load.
Never exceed the maximum permissible weight for each tyre.

Incorrect pressure has a direct effect on vehicle safety and performance. This also affects the service life of the wheels.

Always measure tyre pressure when the tyre is cold (without having travelled too many kilometres to the measuring point).

TYRE	DRIVER ONLY	WITH PASSENGER
Front tyre	2.5 bares(atm.) 36.26 PSI	2.5 bares(atm.) 36.26 PSI
Rear tyre	2.5 bares(atm.) 36.26 PSI	2.5 bares(atm.) 36.26 PSI

Batteries

CAUTION

- **Due to the high voltage between the terminals, do not touch the electrical terminals under any circumstances.**

Do not access the batteries under any circumstances. Tampering with the batteries by personnel not authorised by NERVA ECO S.L. will lead to the suspension of the warranty.
For proper operation and maintenance of the batteries, we recommend as follows:

1. Charge the batteries with a suitable charger approved by NERVA ECO S.L.
2. Do not expose the battery to fire or heat. Keep away from hot spots such as heat or fire. Do not store the vehicle in a place with high temperature.
3. Pay attention to the polarity of the terminals. Do not connect the battery in reverse polarity to a charger or device.
4. Do not strike the batteries with a hammer, nail or similar tool that may damage the mechanical integrity of the battery.
5. Do not immerse the battery in water. Do not store in a damp environment.
6. Avoid direct sunlight, high temperatures and high humidity. Store the batteries in an environment with a temperature below 35°C and above -15°C, and a humidity below 75%.
7. If the vehicle is to be stored for a long period of time, the battery should be stored with a charge of between 30 % and 60 % SOC. It is not recommended to exceed half a year of storage.
8. In the event of storage beyond half a year, charge the battery to 50% every 6 months.

After a period of storage with no use of the battery, an inspection should be carried out to check the condition of the battery.
If the battery is leaking, smoking or damaged, stop using the unit immediately.
The batteries may only be handled by authorised NERVA ECO S.L. technicians. Tampering by unauthorised persons will lead to the suspension of the warranty.

Maintenance plan

The first inspection of the vehicle after delivery is of utmost importance to ensure proper functioning over a long period of time

WHICHEVER COMES FIRST DISTANCE/ DISTANCE TRAVELLED	500 KM/ 2 MONTHS	2.500 KM/ 6MONTHS	5.000 KM/ 12MONTHS	7.500 KM/ 18MONTHS	10.000 KM/ 24MONTHS	12.500 KM/ 30 MONTHS	15.000 KM/ 36 MONTHS	17.500 KM/ 42 MONTHS	20.000 KM/ 48 MONTHS	FOLLOWING
Gearbox oil (80W90, 120 cc)	C				R				C	Every 15,000 (or every 2 years)
Belt tension			R		R		R		R	Every 15,000 (or every 2 years)
Nuts and bolts	R		R		R		R		R	Every 5,000 (or every 1 year)
Steering and bearings	R		R		R		R		R	Every 15,000 (or every 2 years)
Front and rear suspension	R		R		R		R		R	Every 15,000 (or every 2 years)
Brake system: brake pads and brake discs	R		R		R		R		R	Every 5,000 (or every 1 year)
Brake fluid	R		R		R		R		R	Service every 5,000 km and change every 15,000 km (or every 2 years) since the last change.

C: Change.
R: Review. Replace, clean and/or adjust if necessary.

Technical specifications

Motor	**Peak power**	19 kW
	Maximum continuous net power	11 kW
	Type	AC alternating current
	Operating voltage	84V AC
	Maximum torque value	53 Nm
Transmission	**Type**	Belt/gear drive
	Final ratio	6.409
	Transmission case oil	80W90, 120 cc
Chassis	**Front suspension**	Telescopic fork
	Rear suspension	Double shock absorber. Hydraulic shock absorption, pre-load adjustable
	Front tyres	120/70-15 MC 56 S
	Rear tyres	140/70-14 MC 62 S
	Front rim dimension	3,0 x 15
	Front rim dimension	4,0 x 14
	Front tyre pressure	2,5 atm
	Rear tyre pressure	2,5 atm
	Frenos delanteros (ABS modulator)	- Disc: 2 discs of 260 mm diameter each - Clamp: 2 opposed parallel pistons of 22.2 mm diameter - Brake pump: to the right of the handlebars, with a 14 mm piston diameter

TECHNICAL SPECIFICATIONS		
Chassis	**Rear brake (ABS modulator)**	- Disc: 230 mm diameter - Clamp: 2 opposed pistons, 32 mm in diameter. - Brake pump: to the right of the handlebars, with a 12.7 mm piston diameter.
Electric equipment	**Main battery**	LiFePo4 115.2 V (38.4V*3) 7.83 kWh
	Secondary battery	12A 6Ah
	ABS relay valve power supply fuse	15A
	Fuse output DC DC 12V	35A
	ABS motor power supply fuse	25A
	Supplementary battery fuse	35A
	Headlamp	Low beam or dipped beam:12V 6,5 W/ High beam or full beam: 12V 13 W
	Position light	LED 12V 2,5 W
	Instrument panel	7 W 3,2 W
	Rear brake light/position	LED 12V 9 W / 2,3 W
	LED front indicators	LED 2 x 12V 4,5 W
	LED rear indicators	LED 2 x 12V 0,7 W
Dimensions and weights	**Net weight**	224 kg
	Length	2230 mm
	Width	800 mm
	Height	1340 mm
	Distance between axles	1610 mm
	Maximum permissible weight	170 kg

Vehicle warranty

The warranty terms are as follows:

En caso de que ocurra una avería, NERVA ECO SL proporcionará, mediante el servicio técnico autorizado, un servicio de garantía dentro de las obligaciones legales:

1. For the first 36 months after the registration date of the vehicle, NERVA ECO S.L. will undertake to remedy any deficiencies caused by component failures and/or manufacturing defects by repairing or replacing the affected part through an authorised dealer, in accordance with the statutory warranty regulations. NERVA ECO S.L. may refuse the requested repair or replacement if the failure has been caused by negligent or improper use of the unit. Repairs or replacements may also be refused if the maintenance schedule has not been respected.
2. The installation of replacement components within the warranty period does not extend the warranty period which began with the delivery of the vehicle.
3. The warranty does not cover wear and tear caused by normal use. Wear and tear due to improper use is also not covered by the warranty.
4. Applications from users will be rejected if any of the following circumstances should apply:
   - Tampering of any kind with the scooter.
   - Transmission modifications
   - IInstallation of accessories or spare parts that have not been approved by NERVA ECO S.L.

   Repairs carried out in workshops not authorised by NERVA ECO S.L. and failure to comply with the maintenance intervals will also void the warranty.
5. When submitting a warranty claim, the customer must present the correctly completed Maintenance Booklet.

Warranty exclusions

The following circumstances are outside the official guarantee offered by NERVA ECO S.L.:

1. After the guarantee period has expired.
2. Defects due to repair, adjustment, maintenance or any other operation outside the specifications of NERVA ECO S.L. and/or outside the authorised service network.
3. Failure to pass the inspections scheduled by NERVA ECO S.L. as per the Maintenance Booklet.
4. Defects arising from improper use of the vehicle, such as participation in any kind of competition, use outside traffic lanes, on roads in poor condition or in hostile areas.
5. Use outside the parameters set out in the User Manual.
6. Damage caused by use as a rental vehicle.
7. Damage due to the use of non-original spare parts or accessories not approved by NERVA ECO S.L.
8. Damage caused by the transformation or modification of the vehicle and/or its components.
9. Damage caused by ageing or prolonged storage.
10. Perceptual sensations not affected by vehicle performance and operation such as noise, vibrations, looseness, etc.
11. Consumable parts:Brake pads
    - Brake discs
    - LED lighting elements

- Fuses 10 A, 15 A, 20 A y 35 A
- Gaskets
- Rubber parts
- Transmission belt
- Rear cogs
- Crown gears, Transmission gears
- Tyres
- Oil
- Greases
- Pipes
- Electrical and control cables
- Cable sleeves
- Grips
- Adhesives

1. Natural wear and tear from normal use. For example: wear to the transmission kit, seat and stands.
2. Damage resulting from the use of pressurised water such as: condensation, water seepage, rust, paint damage, upholstery damage, adhesive products, logos or any type of malfunction.
3. Damage due to incorrect transport or storage.
4. Any intervention carried out by persons outside the services authorised by NERVA ECO S.L.
5. Damage caused by weather accidents, catastrophes, fire, collision, traffic accidents or theft.
6. Damage caused by smoke, chemicals, oil, animal droppings, saline water, salt or other similar materials.
7. Warranty claims that do not match the MODEL, VIN / CHASSIS NUMBER, TRUCK NUMBER or MOTOR NUMBER OF THE PRODUCTS SUPPLIED
8. Parts such as controllers, batteries, chargers, etc., which have their seals or labels removed, shall be exempted from warranty.
9. Vehicles that have not been maintained and/or repaired at a NERVA Authorised Dealer.

The official NERVA ECO S.L. guarantee does not assume or cover the following points:

1. Costs resulting from periodic maintenance.
2. Costs of cleaning, inspection and/or assembly prior to delivery.
3. Expenses of carrying out estimates for repairs outside the coverage of the guarantee offered by NERVA ECO S.L.
4. Additional indirect expenses caused by a vehicle breakdown, such as: towing, transport, communications, lodging, per diems, etc.
5. Financial compensation for the maintenance and repair period. Whether or not they are covered by the guarantee, the guarantee does not cover the costs of loss of time, loss of business, loss of working hours, costs for rental vehicles, etc.

Parts that are replaced within the warranty period will be warranted for the remaining warranty period.

All replaced parts become the property of NERVA ECO S.L. NERVA ECO S.L. reserves the right to introduce modifications or improvements to its vehicles with the aim of improving performance and/or durability.

Battery warranty

In the event of a breakdown or failure of the battery, NERVA ECO S.L. will provide a warranty service through the authorised service centre.
Such warranty shall have an extension of 5 years or 80,000 kilometres, whichever occurs first, from the date of delivery of the vehicle.
The following causes will void the warranty:

1. The cause of the damage is due to improper use of the battery or force majeure.
2. Battery voltage exceeds 91.2 V (cell > 3.8 V) at the time of charging.
3. Battery voltage is below 48 V (cell < 2.0 V). 48 V (cell < 2.0 V).
4. An attempt has been made to charge the battery by reversing its polarity.
5. There is mechanical damage to the battery, such as puncture or crushing. The warranty is immediately void if any attempt is made to open or modify the external structure of the battery.
6. An attempt has been made to charge the battery under high-temperature conditions that may bring it close to near-fire temperatures.
7. Short-circuit caused by human manipulation or other means.
8. Wetting or immersing the battery in water by human or other means.
9. Improper charging/discharging of the battery, prolonged storage of the battery or any other form of use that does not comply with the User Manual or other NERVA instructions leading to rapid battery discharge or other failures.

The battery will remain under warranty as long as it is charged with a suitable charger approved by NERVA ECO S.L., following the operating instructions.

Summary of warranty periods

COMPONENT	WARRANTY PERIOD
Battery	5 years or 80000 km, whichever comes first
Controller	3 years
Charger	3 years
DC DC	3 years
Motor	3 years