

# unu Scooter Manual

— V.02

unu

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# General introduction



**Please read this user manual carefully so you know how to drive the unu Scooter safely.**

# General notice

## A few steps to follow before you start driving.

- Drive safely, never drive without registration and insurance. Make sure you check the instructions on safe driving [here](#).
- Before driving, check the scooter's parts are in good condition. You'll find a list of what to look out for [here](#).
- Do not disassemble the unu Scooter yourself. This will void your warranty. Following these guidelines will keep your warranty valid and prolong the life of your scooter. Your guarantee statement is [here](#).
- You have to do regular inspections with the scooter as mentioned [here](#) to not void your guarantee. You can find the inspection plan in the seat box compartment.
- If in doubt, or if you have any problems you are not sure how to solve, contact the unu support team at [support@unumotors.com](mailto:support@unumotors.com).

# Getting started

# Mounting your mirrors

How to mount your mirrors safely and securely.



Click on the image to find our mirror mounting video (Youtube)

Open your starter kit box.

Everything you need to get started is in there.

1. First, to unlock your scooter, find your key card under the lid.



**Your mirrors must be securely mounted before you can legally drive on public roads.**

2. Then, hold your key card down on the icon to the left of the display until the LED turns yellow and then green.
3. To identify the left and right mirrors, take them both out and lay them down gently with each pointing away from the other to make a V shape with the mirror side facing up.
4. Take the left mirror, and turn the bolt up towards the mirror as far as possible.
5. Screw the mirror in clockwise by hand, as far as possible.
6. Once it's in all the way, turn the mirror back counterclockwise until it's in position, pointing away from the scooter with the mirror side facing you.
7. Now use your fingers to twist the bolt clockwise back down the thread.
8. Once it's completely screwed down, get the wrench from the starter kit box and sit down on the scooter.

9. With the mirror still slightly loose, position it so you can see the space right behind you.
10. Once it's in position, secure the bolt as tightly as possible by screwing it down clockwise with the wrench. Hand tightening the bolt is not enough and can lead to the mirrors falling off quickly.

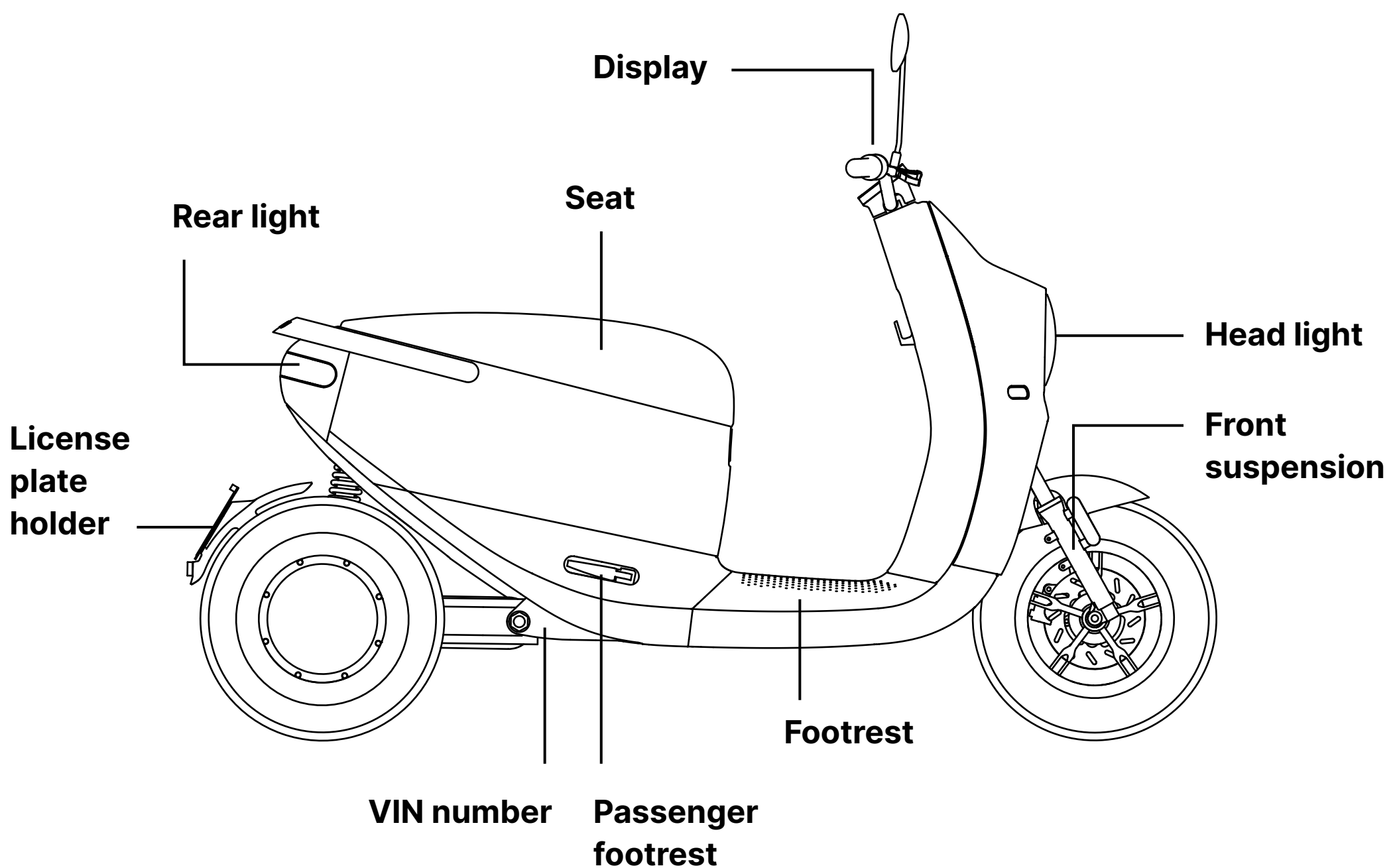
Now do the same with the right mirror.

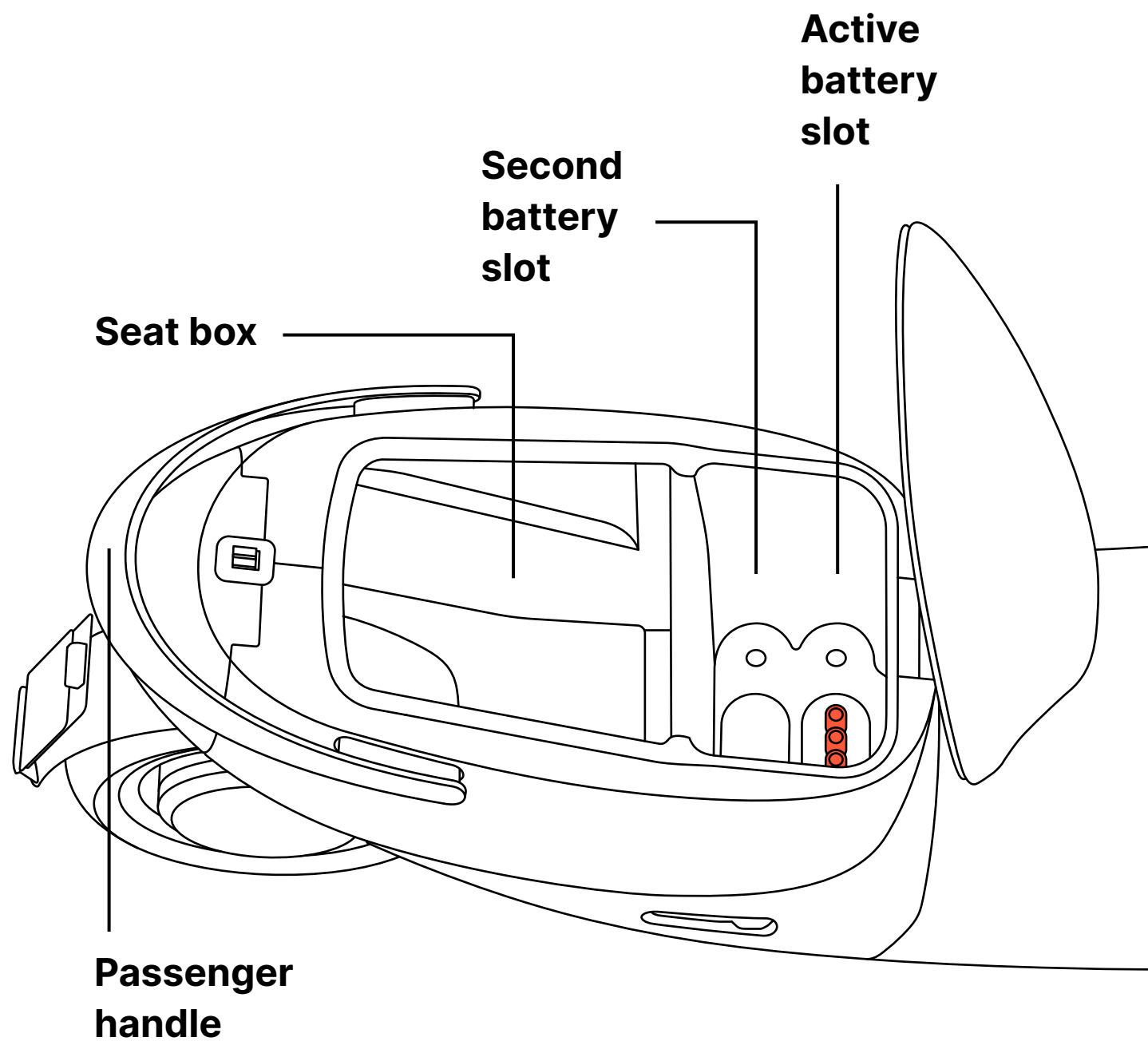
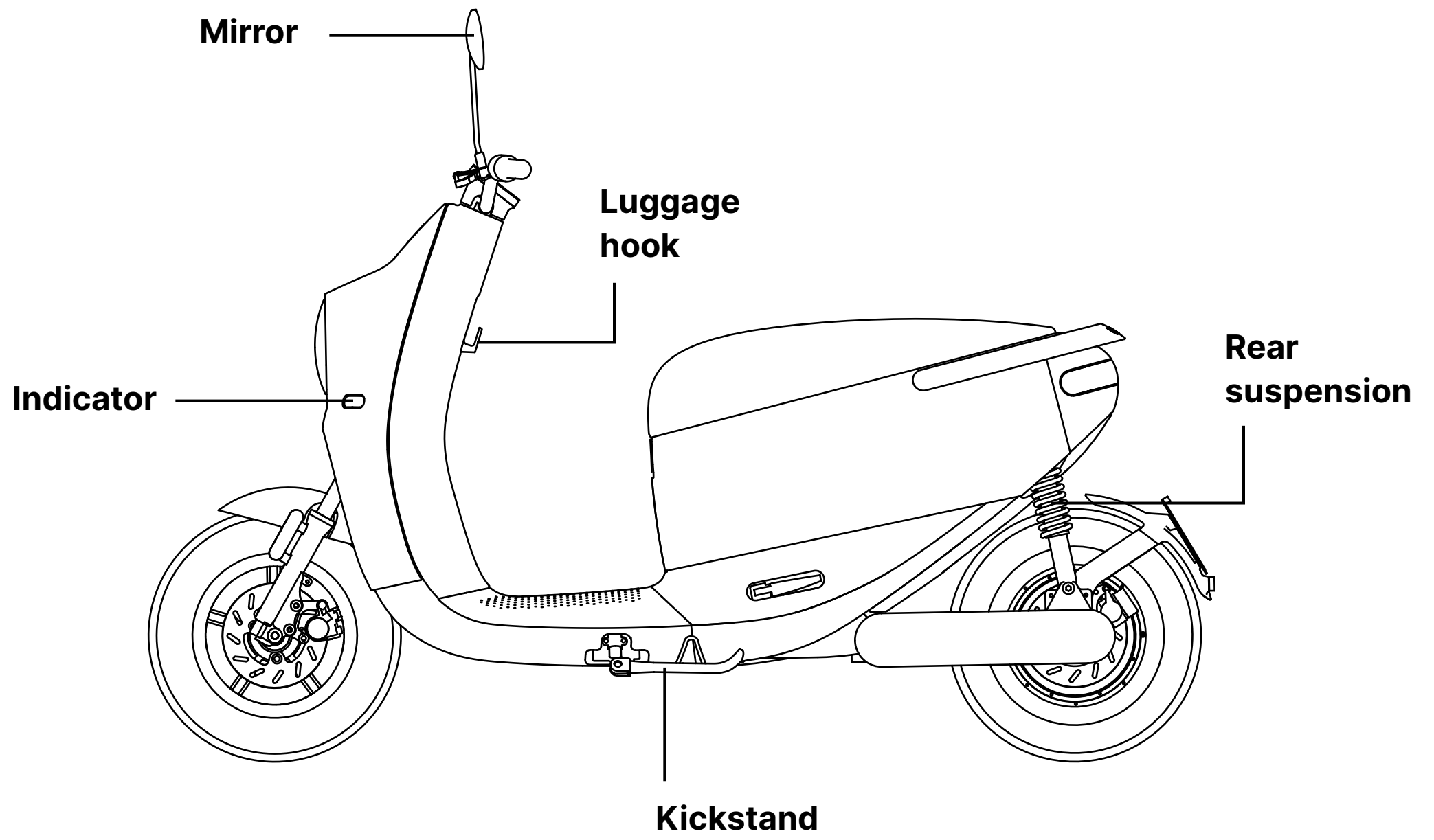


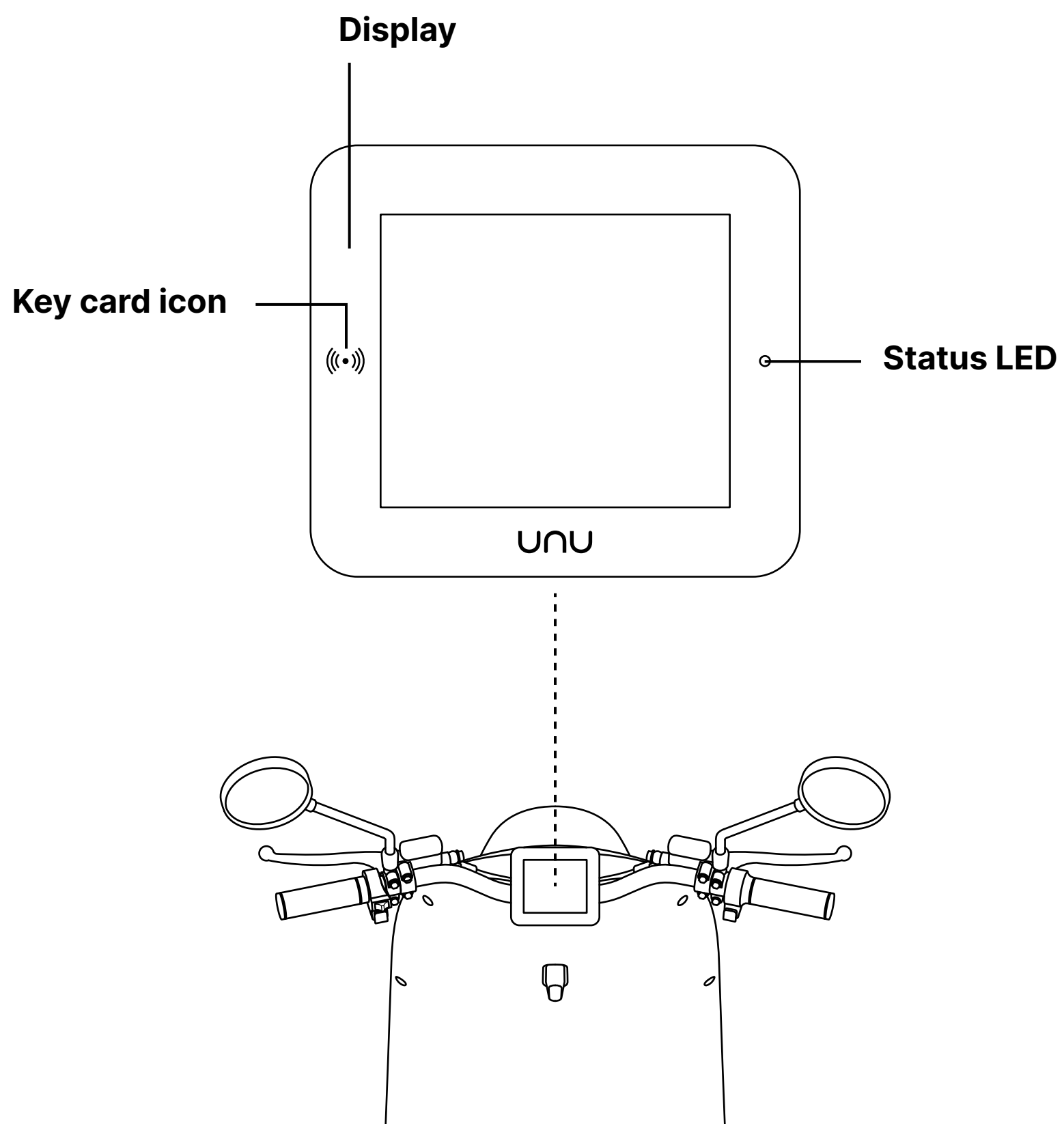
# Using your scooter

# Parts information

What the parts of your scooter are called and where to find them.







# **How your unu works**

A guide to operating your scooter properly and safely.

Read this before your first drive.

## **How to start**

To start, first unlock the scooter by holding your key card against the icon on the left of the display until the LED turns yellow and then green.

Then, sit down, raise the kickstand, and when the P of park mode is replaced by the speedometer on the display, you're ready to safely drive away.

## **How to stop**

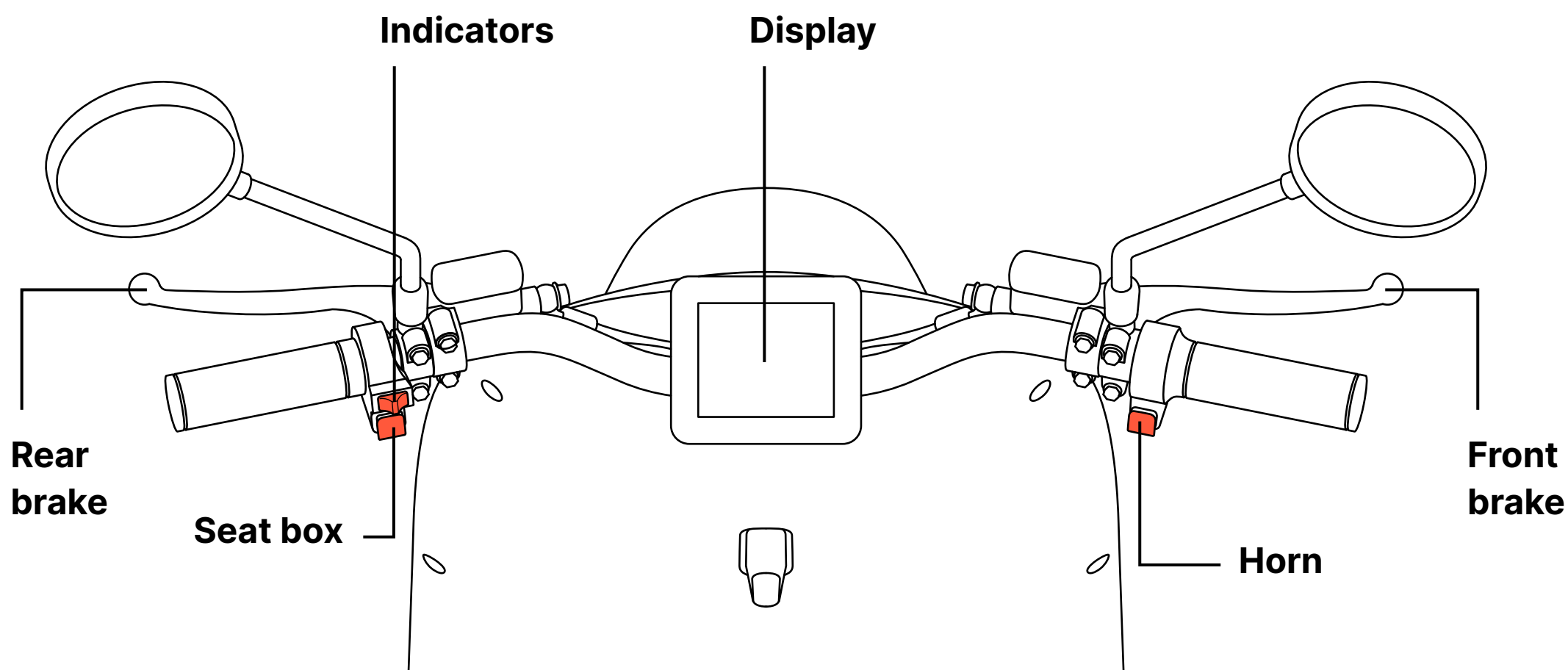
To stop driving, fold out the kickstand to reactivate park mode. The P of park mode will replace the speedometer on the display once this is successful.

## How to turn your scooter off

To turn your scooter off, hold the key card against the icon on the left side of the display until the LED turns yellow. You can also engage the steering lock by turning the handlebars all the way to the left before holding down the key card.

## The handlebars and the buttons

The unu Scooter only has three buttons. This is how they work.



### ↔ Indicators

This switch activates your scooter's left and right indicators.

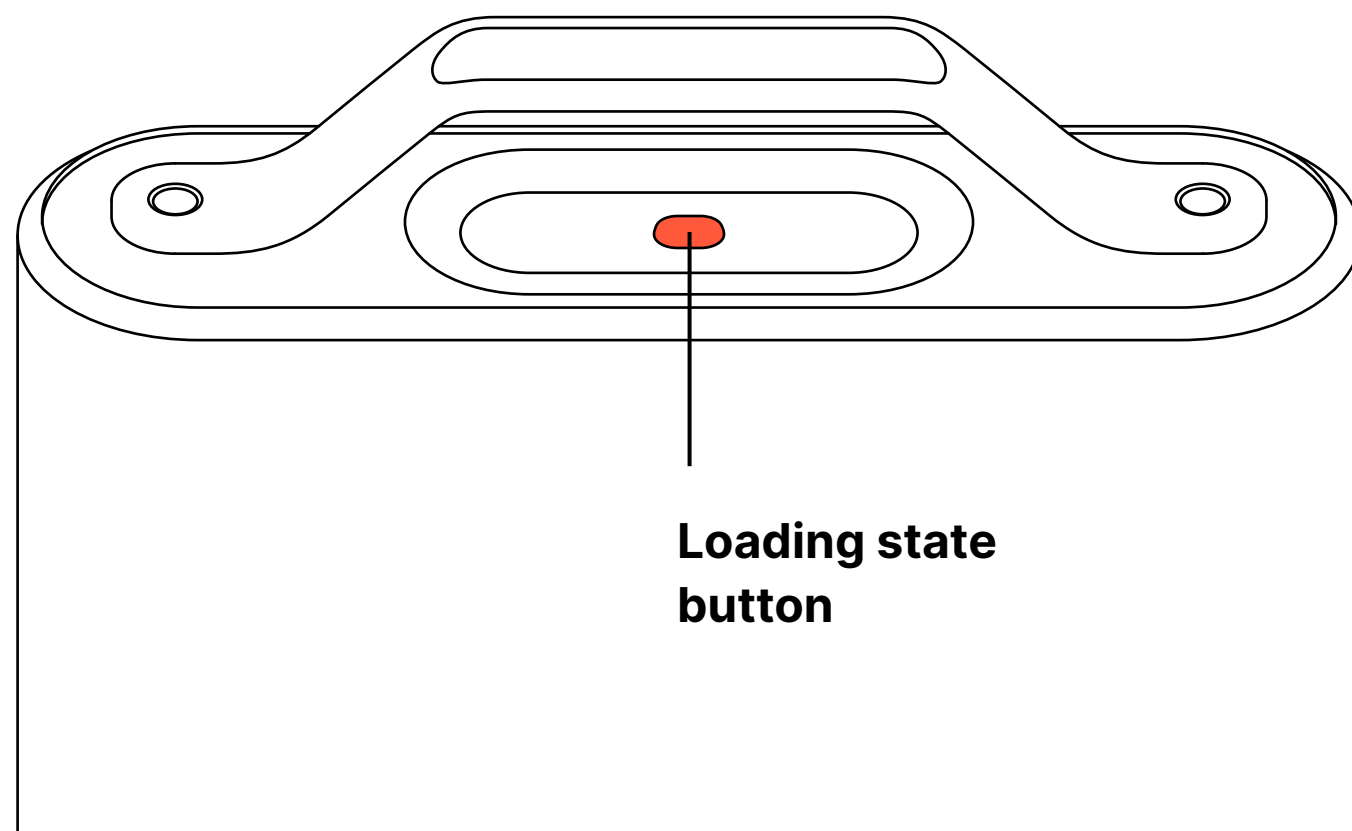
### 🪑 Seat box

This button opens the seat box when the scooter is turned on.

### 📣 Horn

This button beeps your scooter's horn.

## The battery



- To find the battery, open the seat box using the button on the handlebars and check inside.
- To use the battery, slide it into the active battery slot (see [here](#)).
- To take the battery out, just lift it out.
- To charge the battery, place it on your charging dock in a well ventilated space.
- The battery is fully charged when the ring light is fully glowing.

## The unu Scooter's power management

Your unu Scooter can be in three different states:

1. **Ready** - Your scooter is turned on and is either parked or ready to drive.
2. **Standby** - Your scooter is turned off and either has a main battery inserted or not.
3. **Hibernation** - Your scooter is saving energy and needs to be woken up.

### Ready

The scooter can be turned on and off with the key card and has full connectivity features, including unu Cloud updates.

### Standby

In standby the scooter reduces the power consumption and hence its connectivity.

This power saving state lasts until the internal battery reaches 25%, which takes around 6-7 days from a full charge. After this, hibernation mode will start.

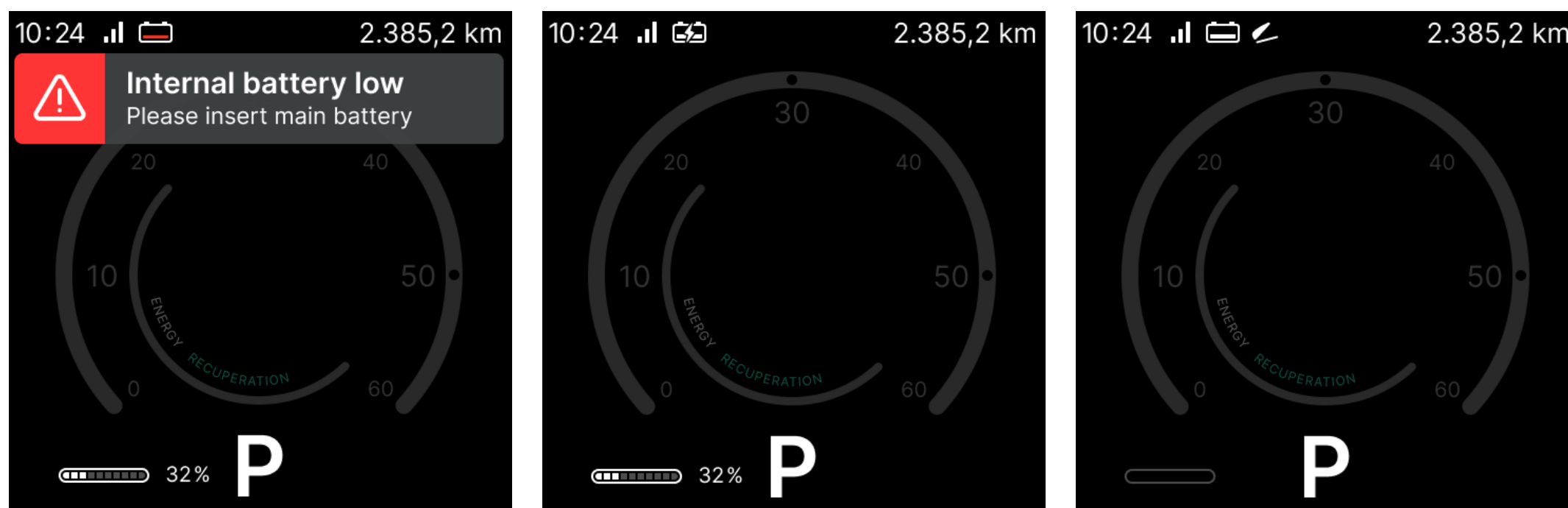


To check the charge of the internal battery, watch the internal battery icon in the top bar next to the connection icon. If you want to know the charge in %, press and hold both brake levers for at least 5 seconds while the scooter is parked. This will show the version box.



The internal battery will start recharging as soon as you reinsert a main battery and close the seat box.

We recommend only taking out the main battery to charge it.



## Hibernation

When the internal battery drops below 25%, after about 6 to 7 days on a full charge, your scooter will enter hibernation mode. In this mode the scooter is saving energy and shutting down most of its functions. And once your scooter is hibernating it will need to be woken up before you can turn it on with your key card.

You can wake your scooter up by pressing and holding both brake levers down until the LED on the display turns green (after about 10 seconds). Once the LED turns off, you can use your key card again as normal to turn the scooter on and insert a charged battery.

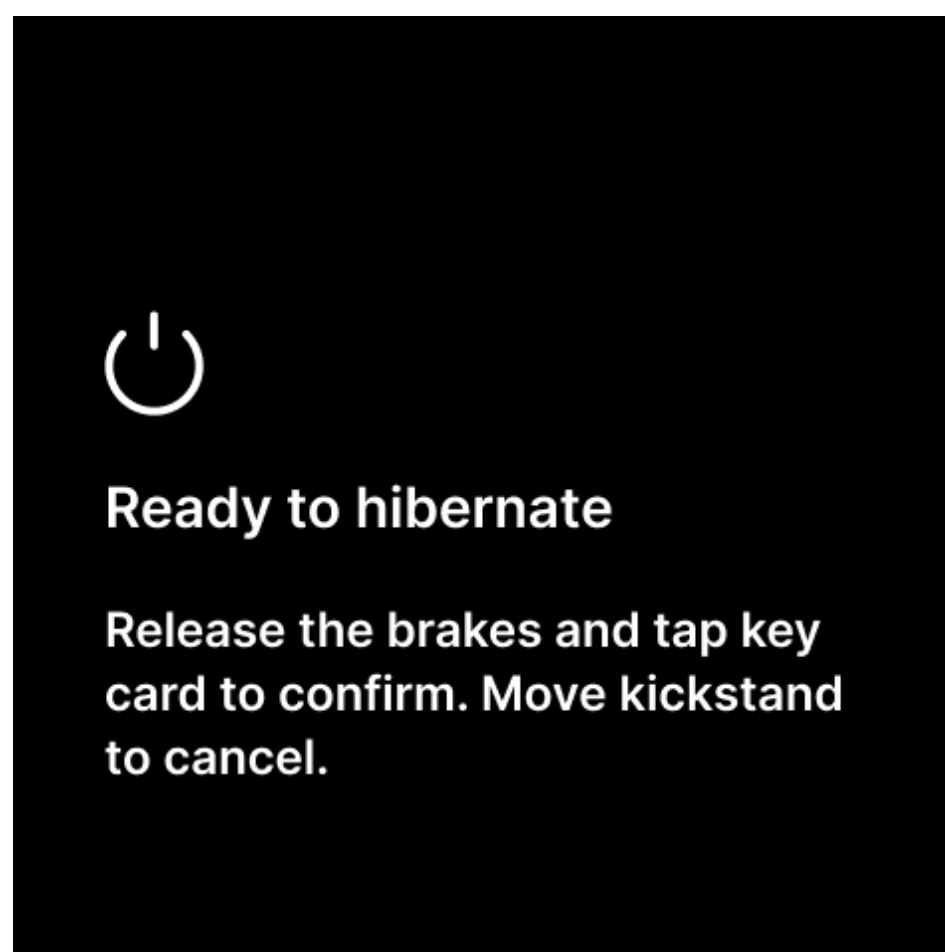
Don't let the internal battery charge drop below 5%. Below this limit you are running the risk of a drained internal battery which would need to be replaced.

If you don't plan to use your scooter for more than two weeks, make sure the battery is fully charged and in the active battery slot. Or put the scooter into hibernation manually (see next paragraph).

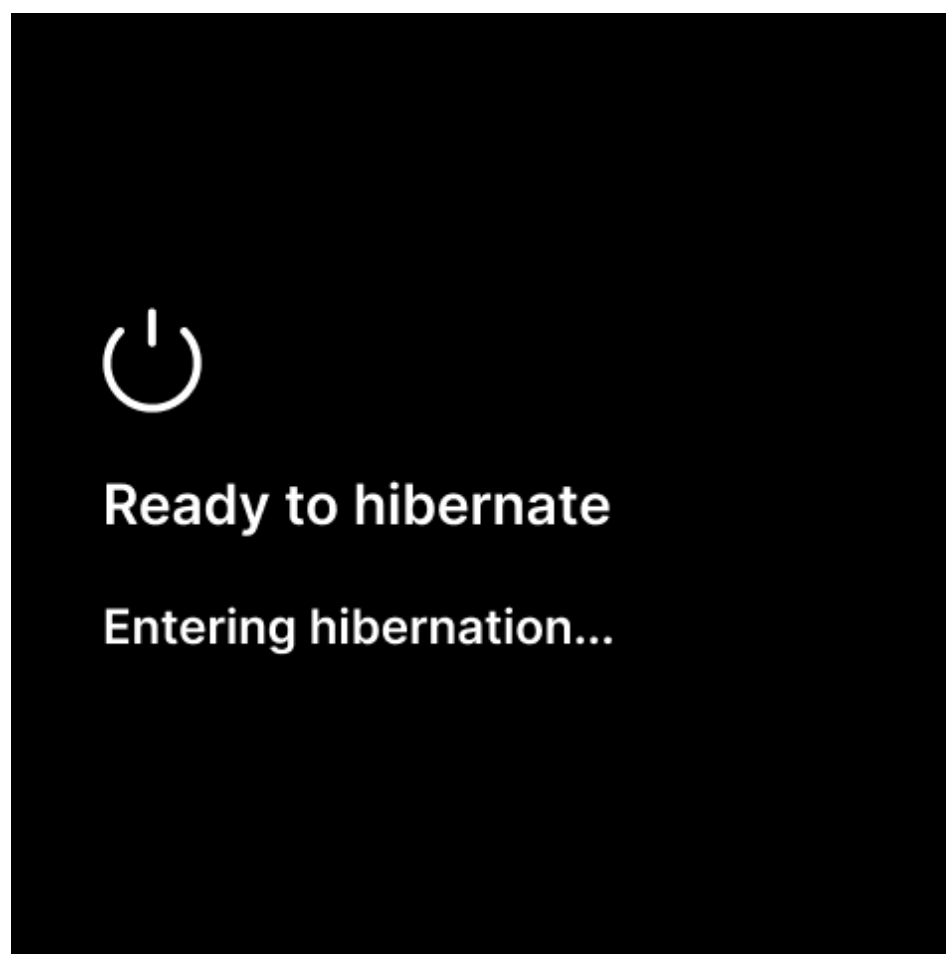
To be safe, every two weeks, fully recharge the battery and put it back into the scooter.

## Manual hibernation

- If you want to leave the scooter unattended for longer than two weeks, we recommend activating the hibernation mode manually to avoid the internal battery from getting drained too quickly. In this mode the scooter is running on the internal battery, so it makes no difference if a main battery is inserted or not. The more charged the internal battery is, the longer the scooter will last in hibernation.
- To activate hibernation manually, you need to put the scooter in park mode, close the seat box and press both brakes for about 15 seconds or until you see the hibernation screen.



- Release both brakes and tap your key card to confirm the hibernation mode.



- If you do not tap the key card within 60 seconds the hibernation initiation will be cancelled. In case you want to abort the hibernation initiation, simply pull up the scooter kickstand.
- If you want to wake up the scooter again, hold both brakes pulled until the green LED of the display comes up (about 10 seconds). Then tap the key card on the display to turn on the scooter.

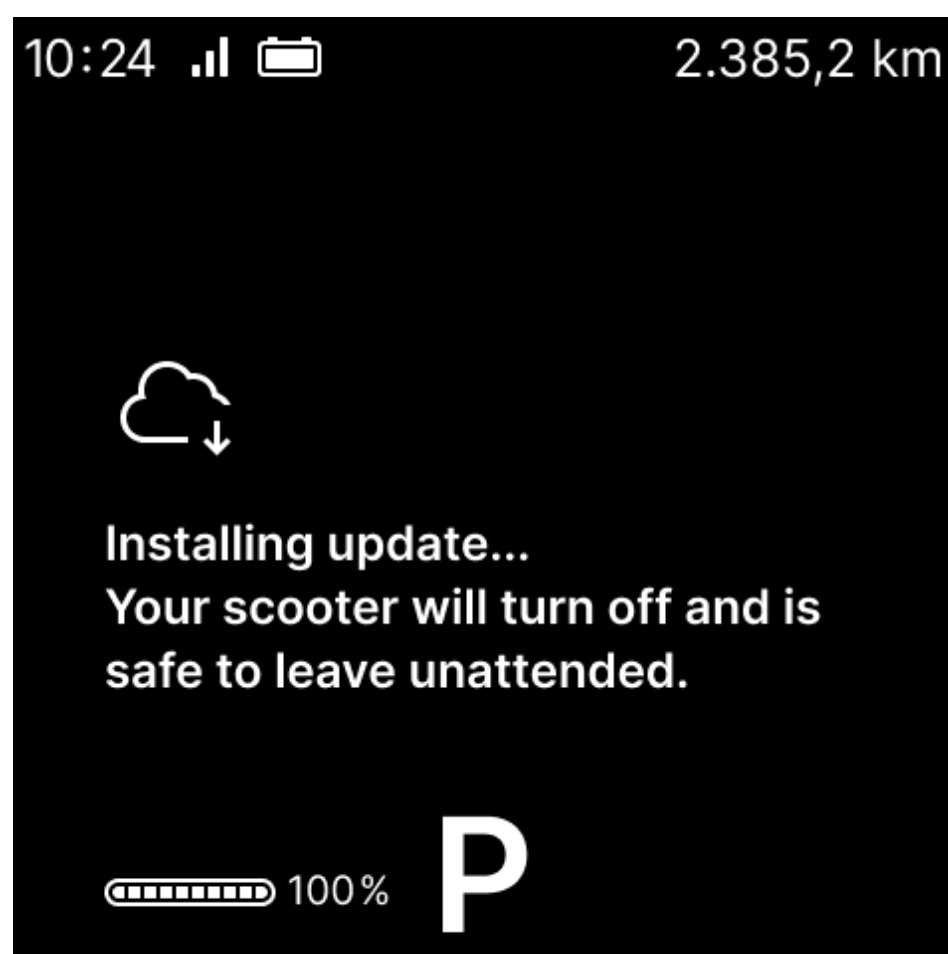
## Energy recuperation

Your unu Scooter regains energy and recharges the main battery every time you use the brakes. You can see this in real-time on the scooter display.

Recuperation is optimized for battery life and enables and disables automatically for the best and safest experience. For this reason, recuperation will be disabled if the battery cell temperature is below 2°C or above 42°C as well as when the state of charge of the battery is above 70-90%. This automatically prevents damage to the battery.

## Over the air updates

Your unu Scooter is connected to the unu Cloud whenever a main battery is inserted and will automatically download and install the most recent firmware version. This happens in the background but an alert on the display will tell you if you try to turn off the scooter during an installation.



You don't have to wait for it to finish as the scooter is fully disabled when this alert is visible and will turn itself off completely once the installation is complete.

To continue driving, just tap and hold your key card against the display to enable the scooter again and it's ready to go.

To check the current firmware version, press and hold both brake levers for at least 5 seconds while the scooter is parked. A box will appear on the display until you release the lever.

## **Extra features**

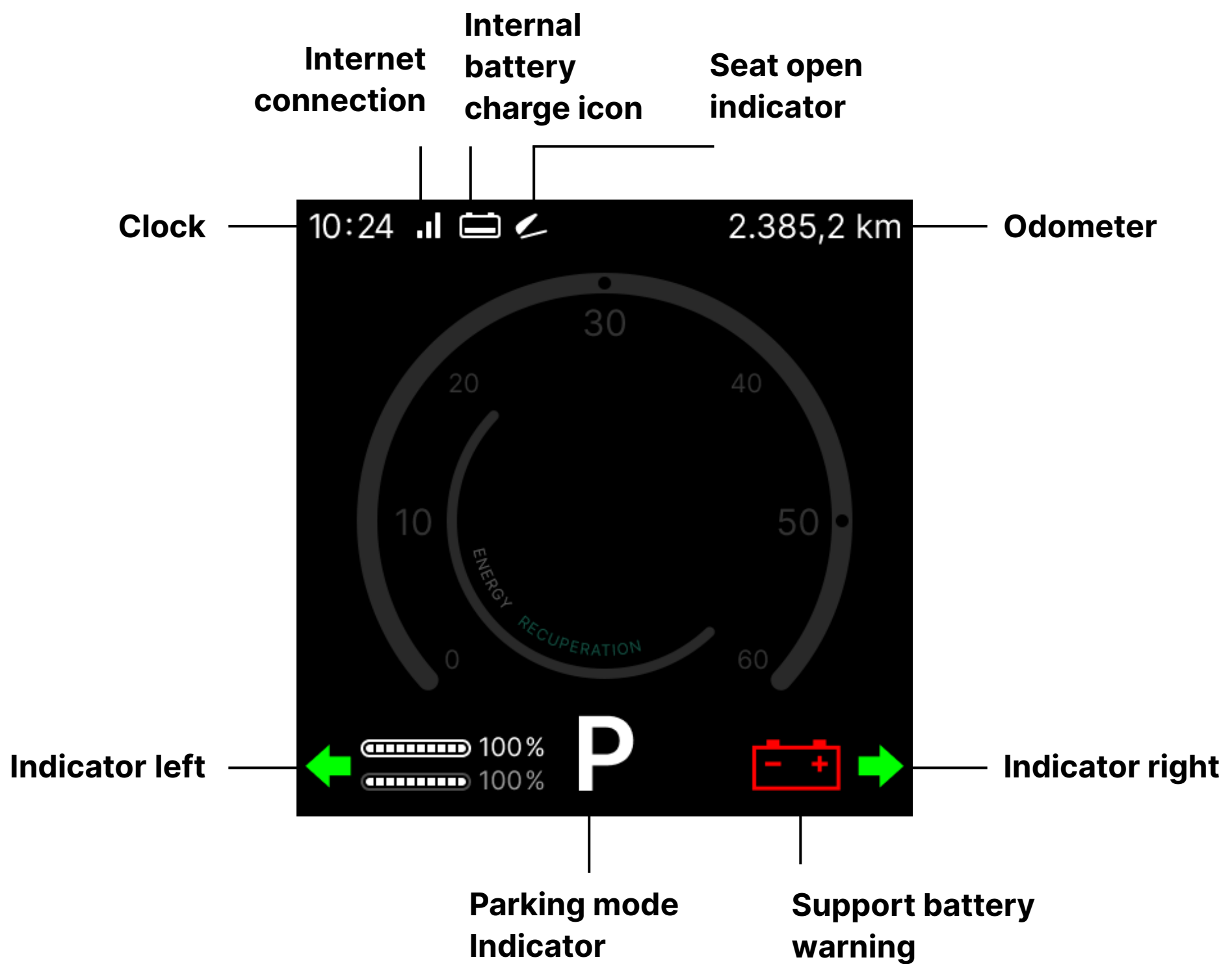
New features are continually being added to the scooter via over the air updates. The unu App, once released, will connect to your scooter and extend the experience.



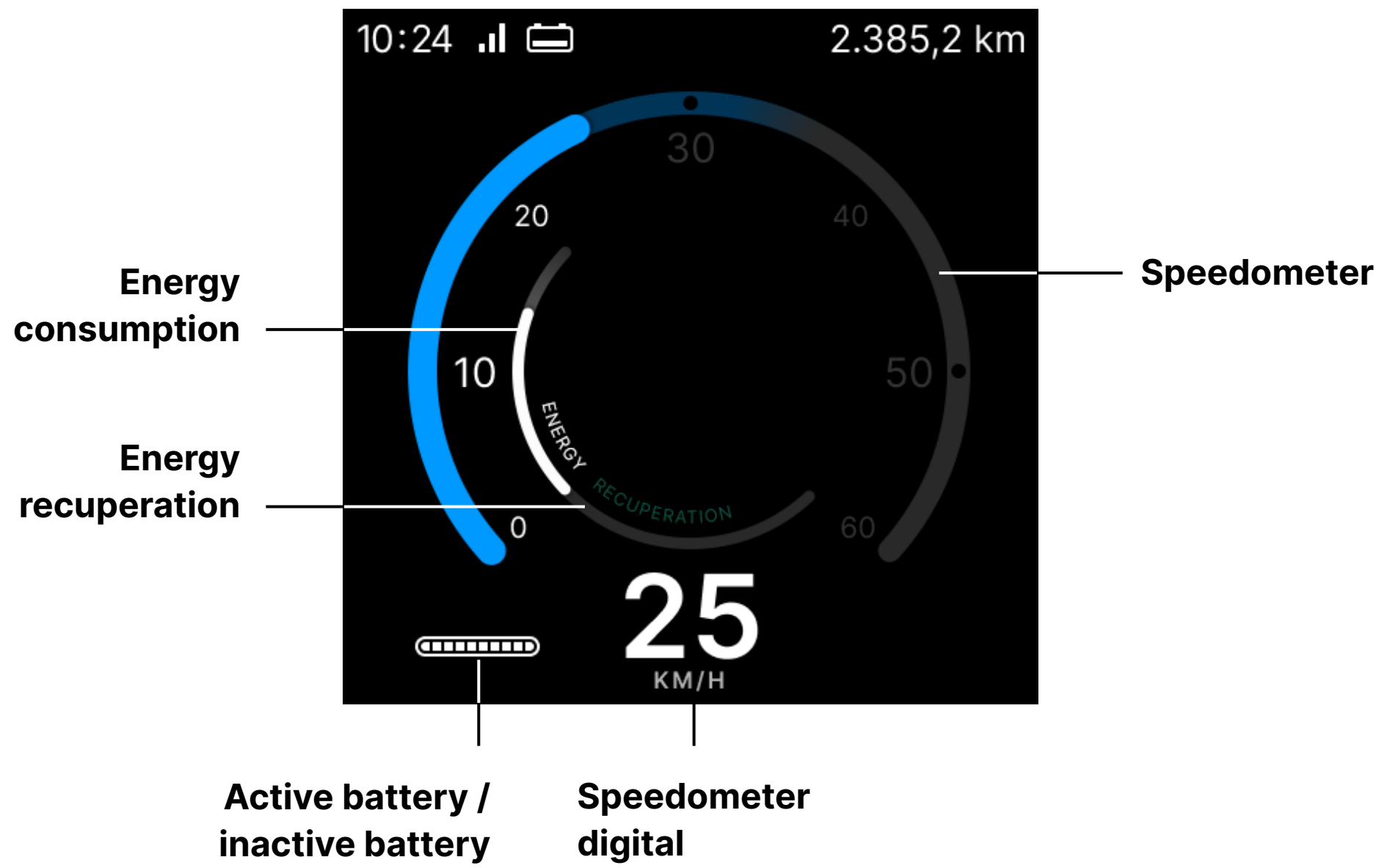
# The scooter display

Here's what all the parts of your scooter's display show.

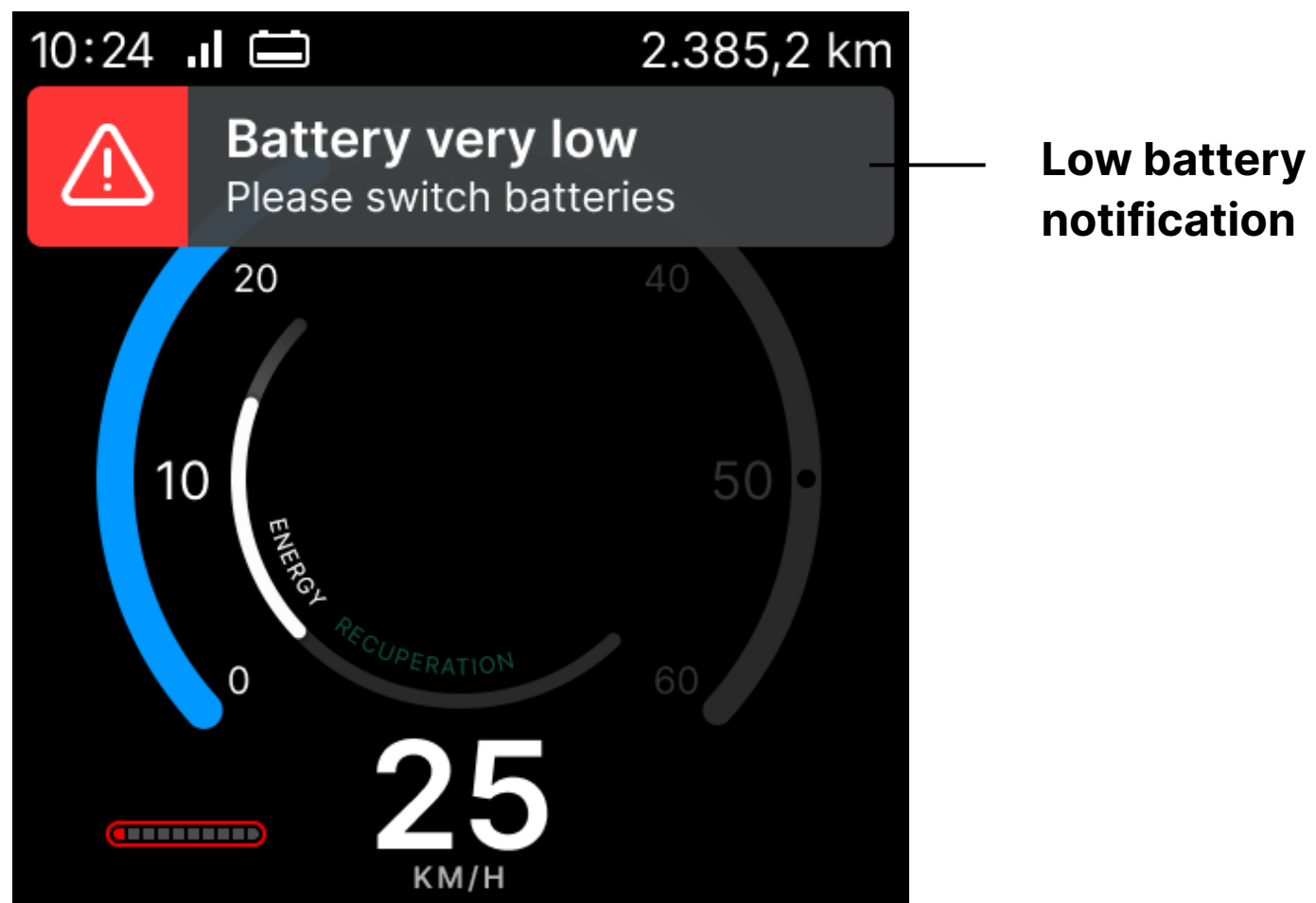
## Parking mode



# Driving mode



# Notifications



Other notifications that you may come across:

- Low battery
- Automatic turn off
- Seat open
- No battery
- Critical issues  
(battery, electrical and general)

# Looking after your battery

How to prolong your battery's life by using, charging and storing it properly.

## Using your battery

Your unu battery is built for everyday use, all year round, but there are a few points to always keep in mind. Failing to follow these points can damage the battery and reduce its lifespan drastically.

- Try to operate the battery between 20% and 80% charge to maximize its lifespan. Unlike older battery technologies, lithium-ion technology is well suited to short charges. There's no need to completely drain your battery and charge it up to 100% every time.
- Only use the battery when the outside temperatures are between  $-10^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$ . Using the battery at  $0^{\circ}\text{C}$  will reduce the capacity temporarily by 30%. At  $-10^{\circ}\text{C}$ , the capacity will be temporarily reduced by 45%.

- If the temperature outside is below 0°C, you should wait until your battery has reached room temperature before you try and charge it.
- You can check the state of charge at any time by pushing the button underneath the handle of the battery. Turn it off by pressing the button again.
- When charging, make sure that the room temperature is between 0°C to +45°C. Charging the battery outside of this range can cause permanent loss of capacity or total loss of function.
- Do not leave your battery on the charger for more than 24 hours to avoid a loss in capacity. When it's full, it no longer needs to be on the charger.
- The charger will heat up a little during the charging process due to normal losses in the conversion of electricity.
- Only use the charger in a well-ventilated

space. With proper ventilation, the charger will not get too warm to touch. The charger will automatically reduce its charging current from 5A to 2A if it gets too hot. If your charger gets so hot you feel uncomfortable touching it, unplug it and contact unu Support immediately.

- Only charge an unu battery with an unu charger. Using a different charger or battery can lead to an overload that will damage your battery or charger.
- Don't expose the battery to water or other corrosive liquids. The electrical connectors are on its underside so don't set the battery down in any liquid, such as puddles after rain.
- Don't place the battery near any sources of heat such as radiators or open fires.



**If the battery gets dropped from higher than 30cm or if you can see any dents or breaks in the battery casing, contact unu Support immediately. Don't use or charge the battery until you have.**

- Don't park your scooter in direct sunlight on hot days, park it in the shade. When exposed to direct sunlight, the battery can heat to over 45°C which causes damage and decreases its lifespan.
- Don't place any sharp objects in the seat box when using your scooter. These objects can damage the battery casing or even the battery cells inside.

## **Disposing of your battery**

- If your battery is damaged or has been confirmed as broken, do not throw it away. Contact unu Support and we will organize proper disposal for you.

# Driving safely

Follow the law and stay safe while driving your scooter.

## When driving

- Always follow your country's traffic rules. Visit the government web page for the most up to date advice.
- Always wear a helmet when driving your scooter. We also recommend wearing safety clothing and gloves.
- Do not give your unu Scooter to anyone who can't operate it. This will keep others safe and avoid unnecessary damage.
- Never drive with more than two people (one driver and one passenger) at the same time.
- Always stick to speed limits and signal properly when turning and changing lanes.
- Do not drive on the sidewalk.



- Do not drive after drinking alcohol or taking other substances which affect your ability to drive.
- Always check for vehicles behind you and use your indicator before changing lanes.
- Never use your mobile phone or another electronic device while driving.
- Remember you're not as visible driving a scooter as you would be driving a car.
- Anticipate the behavior of other road users to avoid having to react at the last minute.
- Be aware that the unu Scooter is almost silent and pedestrians and other road users may not hear you approaching.
- Don't drive too close to parked vehicles to avoid having no time to respond to car doors opening.
- Always have both hands on the handlebars when braking to avoid losing your balance.
- Always squeeze both brakes at the same time.

Excessive braking, especially on only one wheel can lead to its blocking and cause you to lose control of the scooter.

- When turning corners, reduce your speed and be particularly aware of dangerous road conditions.

## **Dangerous driving conditions**

Dangerous driving conditions dramatically increase the braking distance and reaction time needed.

Wheels are quicker to block when braking sharply and you can't turn with the same speed, so in all dangerous driving conditions:

- Reduce your speed
- Approach intersections with even more care than usual
- Turn corners with less speed and banking than you would under ideal driving conditions.

These are some potential hazards to look out for.

- **Wet roads**, whether from rain, frost or other sources always have less grip than dry roads.
- **Avoid water deeper than 15 cm.** Water can cause rust and damage to the electrical parts of your scooter. As a guide, the front axle is 20cm above the road.
- **Cobblestones** offer less grip because of their surface and the gaps between them.
- **Leaves and other objects like grit** on the ground prevent proper contact between your tires and the road.
- **Painted signs**, manhole covers and oil stains on the road are much more slippery than the rest of the road.
- **Tram rails** are always slippery because of their smooth surface. They can also guide your tire in an unintended direction causing you to lose balance. If you can't avoid it, cross them at an obtuse angle and with as little banking as possible.

→ **Snow** is generally a very dangerous and slippery surface to drive on. Extra risk comes from the ice underneath, which isn't always visible. We advise against driving on snow and all wet surfaces under 4°C. If you do drive on snow, do it at your own risk, drive with extra care and use special tires marked with the M+S sign.

# Looking after your scooter

A few safety points before you go anywhere.

## Regular professional checks

Your unu Scooter needs a full inspection at one of our partner garages after its first 500 km. It then needs another after 4.000 km or 12 months, whichever comes first.

These inspections need to happen within these milestones to keep your guarantee valid.

Always keep the inspection invoices, you will need them if you make a claim.

Depending on the location and the season, the price of the inspection can vary between approximately €50 and €90.

You can find your local partner garage [here](#).

If you have any questions about the inspection or maintaining your scooter in general, email us at: [support@unumotors.com](mailto:support@unumotors.com)

## Regular personal checks

Personal safety checks should be done regularly. Regular checks can identify problems before they become dangerous. It's a good habit to get into.

### → **Check the steering**

Move the handlebars fully from side to side. The movement should be smooth and you should feel no stiffness or resting points at any point.

### → **Check the brakes**

Pull both brake levers to make sure they move smoothly with no stiffness or resting points. Neither lever should reach all the way to the handlebar and should snap back to their original position quickly once released. If the scooter was not used for a while, some squeaking is normal and will disappear quickly with regular use.



**You need to have regular professional checks to keep your guarantee valid.**

→ **Check all the lights**

Start by testing the indicators, both left and right. Then, with the kickstand folded in, pull on each lever separately to check they both activate the brake lights.

→ **Check tire pressure**

A fully inflated tire should have a pressure of 2.8 bar. It isn't safe to drive with tire pressure below 2.0 bar. Pressure is gradually lost over time so regular checks are necessary. Signs of low tire pressure are reduced stability, harder steering, a reduced range and increased wear on the tires. For safety and general maintenance, we recommend checking tire pressure once a week. Check the pressure by attaching a pump to the valve on each tire and reading the gauge.

## **Parking your scooter**

To protect your scooter from damage, keep the following four points in mind when you're parking:

- When parking on a slope, make sure the front wheel faces uphill. This prevents the

scooter from starting to roll by itself or after a push.

- Always place the kickstand on a level and solid surface and keep a distance of over 10 cm to curbs and edges.
- Park your scooter facing in the direction of the street and buildings. This protects it from strong winds which could push the scooter over.
- As an extra precaution to prolong the life of the scooter we recommend protecting it from bad weather conditions like rain or snow using a breathable cover.

## **Storing your scooter**

Your unu is designed to be outside all year round. Here are a few points that will prolong its lifespan and avoid cosmetic damages if you're planning on leaving it parked and unused for several weeks or longer.

- Clean off salt and dirt using water, a brush and cloth. To avoid rust, let the



scooter dry off before putting it in storage or covering it.

- If you want to use a cleaning agent, only do so in a designated area of a car wash site.
- Do not use a high-pressure cleaner, use a wet towel to avoid damage to the seat and bodywork.
- Store your scooter in a place with temperatures above 0°C.
- Using a cover is recommended. Make sure it's breathable to provide regular ventilation. Covering the scooter without ventilation will cause damage to the paint on metal and plastic parts and might lead to rust due to trapped humidity.
- Pump up the tires to 3,0 bar while in storage.
- Avoid letting your scooter stand in the same position for long periods of time. Rotate your scooter's wheels a little every 3-4 weeks to avoid resting spots, which will have a negative impact on your driving experience.

When you're ready to use your scooter again, make sure to check all its main functions and the tire pressure.

# What to do in an emergency

## What to do after an accident

No one expects to be involved in an accident, but whether it's your fault or someone else's, they can and do happen.

Here are a few things to keep in mind in case it happens to you.

- It doesn't matter if it's a small knock or a big accident, the law requires you to stop as soon as possible.
- Make notes of any injuries and call the relevant authorities if anyone is or could be injured. Call 112 in case of an emergency.
- Write down the personal details of everyone involved, including license plates, driver details, witness names, etc.
- Don't forget to take pictures of the vehicles and document the location of the incident.

- Contact your insurance provider.
- And if your scooter needs a repair, contact unu: [support@unumotors.com](mailto:support@unumotors.com) or by phone on 0049 (0)30 220 1212 99.

# What to do if your scooter doesn't turn on

## If your scooter won't turn on

If you haven't used your scooter for a while and it's been parked without the main battery inserted, it may be hibernating. Click [here](#) to read how to activate it and get moving again.

If it isn't hibernating, your scooter may need a reboot.

## Reboot

This is activated by following the unique sequence listed below.

1. Put your kickstand down.
2. Open a timer on your phone but don't start it just yet. Find somewhere to place your phone as you'll need both hands free.
3. Press and hold the left brake lever.

4. Start the timer and press and hold the right brake lever and keep both pressed for 10 seconds.
5. When the timer shows 10 seconds release the right brake lever for 1 second and then press and hold it down again.
6. When the timer shows 20 seconds release the right brake lever for 1 second and then press and hold it down again.
7. When the timer shows 30 seconds release the right brake lever for 1 second and then press and hold it down again.
8. When the timer shows 40 seconds release both brake levers fully.
9. The LED on your display should turn green for about 6 seconds.
10. When the LED turns off you can tap your key card and get started.

If your scooter still won't turn on,  
please contact unu [support@unumotors.com](mailto:support@unumotors.com)  
or by phone on 0049 (0)30 220 1212 99.

## If your scooter breaks down while driving

If you have a problem with your scooter while driving follow these steps to get back on the road quickly and safely.

- Find a safe place to park and make a note of the location of the incident, or drop a pin on your smartphone map.
- And if your scooter needs a repair, please contact unu: [support@unumotors.com](mailto:support@unumotors.com) or by phone on 0049 (0)30 220 1212 99.

# Technical information

All of your scooter's technical details in one place.

The unu Scooter, its charger and battery are in accordance with the directive 2014/53/EU. You can find the declaration of conformity [here](#).

## Main parameters

Unloaded weight	81.5 kg
Max laden weight	269 kg
Top speed	25 km/h, 45 km/h
Allowed person/s	2 persons
Dimensions	1820 mm 700 mm 1050 mm



## Frame

Front tire	10" rim with Heidenau K 80 SR, Tire pressure = 2,8 bar
Rear tire	11" rim with Heidenau K 80 SR, Tire pressure = 2,8 bar
Front brakes	Hydraulic disc brake
Rear brakes	Hydraulic disc brake
Minimum ground clearance	170 mm
Seat height (R-point)	Driver: 945 mm Passenger: 1000 mm

## **Seat box**

Dimensions	L 420 mm W 320 mm H 350 mm
Storage volume	33,4l (independent of batteries)

## **Battery**

Mass	10,65 kg
Voltage	50.8 V
Capacity	1,68 – 1,78 kWh / 31,88 – 33,78 Ah
Nominal charging current	5 A

## **Motor**

Motor type	Brushless electric hub motor (Bosch Automotive Products)
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Motor controller

Electronic control  
unit (Bosch  
Automotive  
Products)

Nominal power

According to  
134/2014 -  
Regulation 85

**unu Scooter Standard**

3kW 45 km/h

1.9 kW at 560/min @ 33 Nm

**unu Scooter Plus**

4kW 45 km/h

2,7 kW bei 550/min @ 46 Nm

Energy Recovery System

Yes

## Frequency Bands of Radio Equipment on the Scooter

Function	Frequency
GSM modem	900 / 1800 MHz 35 dBm
NFC reader	13,56 MHz
Bluetooth®	2,4 GHz 5,16 dBm

## Charger

Mass	3,7 kg
Input voltage	100 – 240 V AC
Output voltage	58,2 V DC
Maximum power	300 W
Output current	5 A

## Accessories

Helmet	Matte Black, ECE/22-05 certified
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