



OPERATING INSTRUCTIONS

ello. For a life in motion

Probably the safest rollator in Europe with the comfort of an e-bike.

1. General Information

1.1 About ello

ello represents the latest development in the field of personal mobility.

ello is a latest-generation electric rollator based on an innovative integration of sensor technology and software control.

1.2 Warnings

These operating instructions contain warnings that are given varying levels of priority depending on their risk.

There are following warnings:

⚠ **DANGER** Immediate risk to the life and health of persons (serious injury or death)

⚠ **WARNING** Potential risk to the life and health of persons (serious injury or death)

⚠ **CAUTION** Potentially dangerous situation (minor injuries or material damage)

1.3 Service life

The manufacturer assumes a service life of five years for ello, provided the product is used as intended and all maintenance and care instructions are followed. The service life of the product depends on the frequency of use, the operating environment and maintenance. The service life of the product can be extended by using spare parts.

1.4 Warranty

The warranty conditions are part of the applicable country-specific general terms and conditions.

1.5 Explanation of symbols

1.5.1 Symbols used on ello



On/Off



Horn

1.5.2 Symbols on product labelling



The CE mark – device is authorised for european market



Operating instructions



Medical Device – device is a medical product



Height of the rollator



Unique Device Identifier – Individual product identification



Width of the rollator



Serial number



Max. user weight



Product reference



Date of manufacture



Manufacturer



Do not dispose of the appliance in household waste

IP 2X

Protected against solid foreign body with a diameter of ≥ 12.5 mm. Protected against access using a finger.

P X3

Protection against sprayed water from angles up to 60° from above.

2. Security

2.1. Intended use, indication and contraindication

Intended useello is a mobility aid and temporary seat for people with limited mobility. ello provides active support when walking by means of motorised drive and brake assistance and facilitates the transport of small loads on moderate inclines.

Indicationello is intended for people with reduced mobility who require a mobile walking aid to stabilise their gait or who wish to increase their range of movement.

The type of mobility restriction usually relates to strength, coordination, balance or pain caused by exertion.

ContraindicationsIf you use the rollator without having one of the above-mentioned walking impairments, it can lead to a deterioration in walking ability.

The rollator must not be used by persons weighing more than 120 kg.

In addition, people who are unable to safely control the rollator due to physical or cognitive limitations should refrain from using it. This relates to, among other things:

- People with severe balance disorders.
- People with dementia.

- People who are unable to perform specific movements with their fingers (e.g. pressing buttons) due to cognitive or motor impairments.
- People who are unable to use the basic features of a rollator, in particular activating and operating the mechanical brakes.
- People who no longer have both hands.
- People who no longer have both feet (this does not apply to people with prostheses).

In addition, people who are unable to steer the rollator safely due to limited strength and/or coordination of the hands or visual impairments should refrain from using it. These refer to, among others:

- People with Parkinson's disease, unless the disease is still at an early stage and those affected have sufficient motor skills to operate the ello.
- Blind or severely visually impaired persons.
- Deaf or severely hearing impaired persons.

This list is not exhaustive. Diseases or disabilities that are not listed here but cause similar symptoms or limitations also mean that the person affected should refrain from using the product.

2.2 Intended use

Place of use ello is designed for slopes of up to 15%. The support power is reduced when used on steep inclines. ello has protection class IP23. This means that ello is protected both against water spray falling from above and against the entry of solid foreign objects with a diameter ≥ 12.5 mm. ello has lights and reflectors and is therefore suitable for use in the dark.

Operation The rollator may only be operated by adults who have read the operating instructions.

Cleaning & care General cleaning and maintenance work on the ellos may only be carried out by persons who have read these operating instructions.

Maintenance & Repair Maintenance and repairs may only be carried out by trained service personnel. Contact a service centre in the event of faults or malfunctions. The service manual is available for service personnel.

2.3 Improper use

⚠ DANGER Risk of injury from improper use

If ello is not used as intended, persons may be put in danger.

Improper use means, among other things:

- Use by unauthorised persons.
- Use by persons who are ill, overtired or under the influence of substances or medication that impair their visual perception, coordination or judgement.
- Use of ello as a seat on public transport.
- Transport of a person sitting on ello.
- Transporting luggage that exceeds the load capacity of the bag.
- Use to descend steps ≥ 20 cm.
- Use on stairs.
- Use if ello is defective.
- Use in continuous rain, heavy rain or slippery conditions.
- Use in saunas or similar.
- Use by children.
- Unclothed use.
- Clean under running water.

2.4 Dangers when using the ello

2.4.1 Danger due to faulty sensors

ello and its sensors are redundant and have been extensively tested. Nevertheless, faulty sensor technology can lead to unexpected behaviour under certain circumstances.

- Switch off ello immediately if it could pose a danger. ello can be switched off and used like a conventional rollator without electrics.
- Afterwards, take ello to your service partner before using it again.

2.4.2 Danger on public transport

Do not sit on the ello when you are in a vehicle. There is a high risk of injury.

- Correct behaviour on public transport is described in chapter 3.4

2.4.3 Danger when negotiating steps

ello must never be used on stairs or for descending steps $\geq 20\text{cm}$ due to the high risk of falling.

- The ello frame must be folded and carried to navigate stairs and high curbs

2.4.4 Danger when used in adverse conditions

ello struggles with sufficient grip on smooth surfaces and/or steep inclines.

- Only use ello on surfaces and in situations that allow sufficient grip.
- If there is a lack of grip, shift additional weight onto the rear wheels to increase the downward force.

2.4.5 Danger when used as a standing aid

ello can roll away when used as a support for standing up.

- Apply the parking brake before using ello as a standing aid.

2.4.6 Dangers when sitting on ello

ello can accelerate unintentionally if the parking brake is not engaged.

- Apply the parking brake before sitting down.

ello only has a limited ability to prevent rolling away on a slope when the user is sitting on it.

- Only use ello as a seat when flat.

ello must never be used to transport people.

ello must be completely stationary when it is used as a seat;

if the back belt is not/incorrectly fitted, leaning back can lead to a fall.

- Before sitting down, check that the back belt is correctly fitted.
- Check that the handles are set at the height that corresponds to your height.

There is a slight risk the genital area can become trapped.

- You should therefore only use ello as a seat with clothes on.

2.4.7 Danger from overloading the bag

Overloading the bag can impair the driving characteristics and lead to a dangerous situation.

- Load the bag of the ello with a maximum of 5 kg.

2.4.8 Danger when using the obstacle button

Pressing the obstacle button deactivates the automatic braking function on slopes and can lead to a fall.

- Instead, increase the fitness level if the downhill braking effect is too strong.

2.4.9 Dangers when charging the battery

Batteries can heat up and start to burn during the charging process – especially if the components are damaged.

- Check the charger and battery for damage before charging.
- Charge the battery in a dry place, sufficiently far away from flammable materials.

Unsuitable chargers can cause an increased risk of fire.

- Only use the supplied charger.

Risk of tripping when the cable is plugged in.

- Remove the charging cable before using ello.

2.4.10 Dangers due to improper handling of the battery

Damaging or tampering with the battery can lead to personal injury

- Only use ello batteries
- Do not expose the battery to excessive heat, direct sunlight or fire.
- Make sure the battery does not come into contact with flammable materials.
- Check the battery for damage before use and stop using it if it is damaged.
- Do not expose the battery to mechanical shocks.

2.5 Danger from electromagnetic radiation

ello is largely insensitive to everyday interference from radio waves and has been subjected to appropriate stress tests. However, as ello is an electrical device, a negative influence from radio waves cannot be completely ruled out. In environments with high radiation exposure (e.g. hospitals), ello can actually behave unexpectedly.

- In this case, switch off ello.
- Inform your ello retailer immediately.

2.6 Danger due to electrical voltage

ello is operated with electric current at a voltage of up to 29.4 V. Touching live components or the battery can result in dangerous injuries and burns.

- Only have repairs carried out by trained personnel.

2.7 Danger due to high temperatures

The following section contains information on hazards from hot surfaces. To avoid this, please observe the following instructions:

ello

Solar radiation and ambient heat (e.g. in a car) can cause metal elements in particular to heat up considerably. There is a risk of skin injuries if there is direct skin contact with these surfaces.

- Protect the device from direct sunlight and other sources of heat.
- Allow the surfaces to cool down before use.

Battery

The battery may heat up during operation. There is a slight risk of burns in the event of direct contact.

- In these cases, allow the battery to cool down before removing it.

2.8 Safety features

ello has a number of safety features that are part of the safety strategy.

2.8.1 Safe braking in the event of a malfunction

- If ello detects an error that could affect the safety of the device, it brakes before switching off.

2.8.2 Lighting and reflectors

- 2x front lights (white)
- 2x rear lights (red)
- 1x floor lighting (white)
- Automatic activation by light sensor
- Reflectors on the wheels

2.8.3 Fall prevention

- Emergency braking. ello brakes sharply if a certain level of acceleration is exceeded.
- The acceleration threshold depends on the selected fitness level.

2.8.4 Hand recognition

- ello brakes automatically if no hand is detected on the handle.
- On an incline, ello slowly rolls further downhill to remind the user to activate the parking brake.

2.8.5 Maximum wheelie angle

- To prevent tipping backwards, the motor assistance stops when the obstacle button is pressed as soon as a certain angle of inclination is exceeded.

2.8.6 Brake and assist control

- Forward assistance – uphill & when the obstacle button is pressed – is deactivated when a brake is applied.
- ello brakes electrically if the mechanical brakes are set too loosely.
- ello brakes electrically when the mechanical brakes are applied.
- Safety mechanism for the obstacle button:
 - ➔ The additional support when pressing the obstacle button only works if a hand is detected on the right handle.
 - ➔ The brake deactivates the obstacle button.

2.8.7 Fold detection

- ello recognises when it is folded and switches itself off.

2.8.8 Signal colour on height adjustment

- An orange element warns you if the height adjustment of the handles has not been set correctly.

2.8.9 Do not use during charging

- ello cannot be used electrically during charging in order to minimise the risk of tripping over the charging cable.

2.8.10 Back strap

- ello's back strap prevents you from falling backwards off the device when using the seat.

2.8.11 Fire protection

- The material of the battery housing has a fire protection classification of V-1 (UL 94) to reduce the risk of fire due to the battery.

2.8.12 Avoidance of burns

- Handles, seats and back belts are made of materials that transfer heat poorly to the human body.
- Seats are not black and therefore heat up less in the sun.

2.8.13 Seating surfaces with profile

- The profile in the seats reduces the likelihood of you unintentionally sliding off the seat.

3. Product description

3.1 Overview of functionality

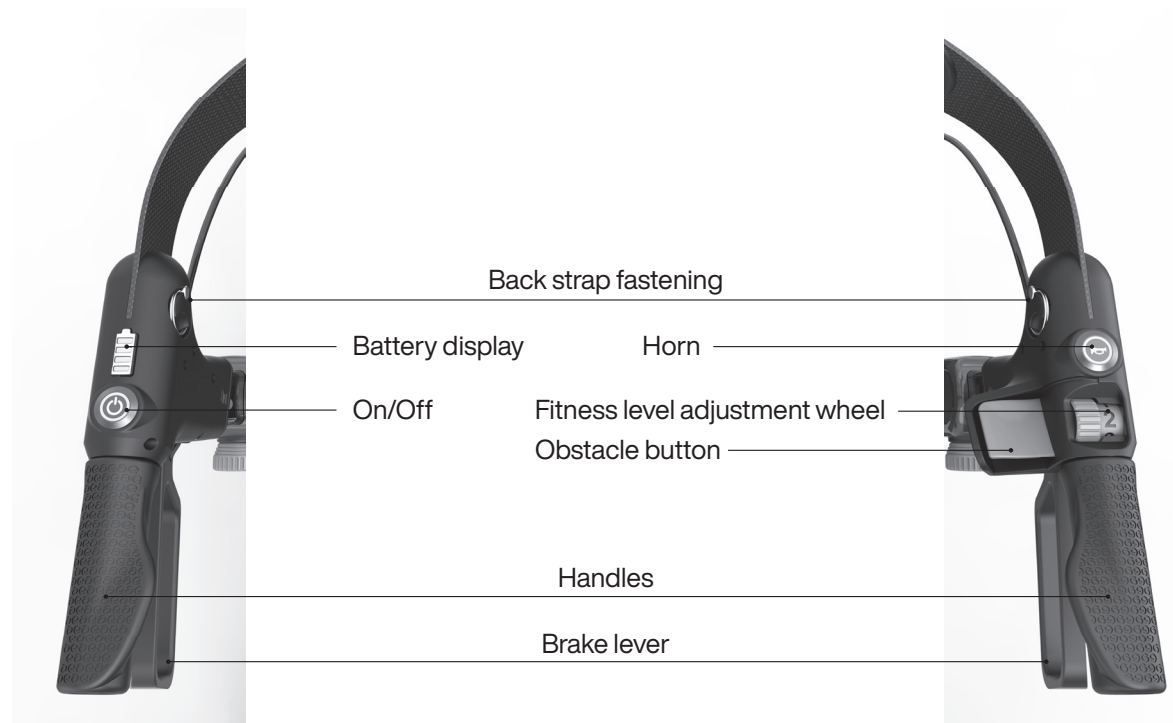
ello is particularly easy to operate and works on the basis of its sensor data.

ello recognises inclines and adapts automatically: It brakes on descents and provides support on climbs.

Additional, more powerful electrical assistance can be activated using the obstacle button. This helps to raise the front wheels (wheelie) to overcome obstacles or makes driving on uneven terrain easier. This feature is not intended to pull the user along permanently.

If ello is switched on, additional safety features are active. When switched off, ello can be used like a conventional rollator.

3.2 Components





3.3 Operation

3.3.1 Brakes

⚠ CAUTION Engage the parking brake during breaks.

ello can roll away unattended – especially on slopes. Therefore, always apply the parking brake when not using the device.



Running brake: Pull the brake lever upwards



Apply the parking brake: Press the brake lever down until it engages. To release the parking brake, pull the lever upwards (to the neutral position).

3.3.2 Set fitness level

The fitter you are, the higher the fitness level you should choose.
The level is personalised and does not need to be changed in everyday life.
The fitness level influences:

- Braking support downhill. The higher the fitness level, the less ello slows you down.
- Behaviour when using the obstacle button. The higher the fitness level, the more the obstacle button is activated.



3.3.3 Driving on level ground

ello does not pull independently on level ground.

- Additional support can be activated on difficult surfaces by pressing the obstacle button.
- ello's safety features are active.

3.3.4 Going uphill

- ello automatically recognises inclines and provides support accordingly – only to compensate for its own weight, not to pull the user along.
- Assistance is deactivated when the brakes are applied.
- Additional support can be activated by pressing the obstacle button.
- The safety features of the ello are active.

3.3.5 Going downhill

⚠ DANGER Do not use the obstacle button when going downhill.

Pressing the obstacle button deactivates the automatic braking function on slopes – there is a risk of falling!

- ello automatically recognises slopes and brakes accordingly.
- The braking force depends on the set fitness level:
 - Highest level: Weak braking effect.
 - Lowest level: Strong braking effect.
- ➔ Increase the fitness level if the braking effect downhill is too much.
- You can also brake mechanically using the brake levers – just like with a conventional rollator.
- The safety features of the ello are active.

3.3.6 Sitting on ello

⚠ **DANGER Do not forget to engage the parking brakes.**

ello can accelerate unintentionally if the parking brake is not engaged – high risk of falling!

⚠ **WARNING ello should only be used as a seat when flat.**

ello only has a limited ability to prevent rolling away on a slope when the user is sitting on it.

1. Apply the parking brakes.
2. Ensure that the back strap is correctly fitted and that the attachment is flush with the handle (see illustration).
3. Carefully take a seat on ello.



3.3.7 Overcoming obstacles with ello

1. Pull ello slightly towards you and press the obstacle button at the same time.
2. The front wheels lift up. Push the front wheels over the obstacle and release the obstacle button.
3. Apply the brakes. The front wheels touch down again.
4. Push the rear wheels over the obstacle.
5. If necessary, press the obstruct button again.

3.3.8 Descending steps

⚠ **WARNING Do not use ello to descend steps $\geq 20\text{cm}$.**

ello can tip over if you try to step off a step that is too high – risk of falling!

- ello brakes automatically when descending steps to minimise the risk of falling – both when descending forwards and backwards.

3.3.9 Understanding the battery display

- The battery display on the left handle has 4 (four) charging bars.
 - At the latest, charge the battery when only 2 (two) charge bars (orange) light up.
 - When the last charging bar flashes red, ello is in energy-saving mode. Some features can only be used to a limited extent in energy-saving mode.
- 💡 **Tip:** Switch off ello when you are not using it to save the battery.

3.3.10 Horns

- Press the horn (on the right-hand handle).



3.4 Handling

3.4.1 Preparing ello for use

⚠ **CAUTION Risk of jamming when folding.**
You could pinch your fingers if you open it carelessly.

1. Make sure that the parking brakes are engaged.
2. Remove the transport lock.
3. Carefully unfold the ello and check that it is fully unfolded.
4. Check your personal fitness level (adjusting wheel on the right handle).
5. Switch on ello (press and hold the on/off switch for 1 second).
6. Release the parking brakes.



3.4.2 Stowing ello away after use

⚠ CAUTION Store ello properly.

Store ello in a dry place to prevent damage.

1. Apply the parking brakes.
2. You can either switch ello off or fold it up (the device switches off automatically when folded up).
3. Optional: Attach the transport lock.

3.4.3 Transport by car

1. Fold up ello.
2. Fasten the transport lock to prevent unintentional unfolding.
3. Lift ello into the car.

💡 Tip:

- Remove the battery to reduce the weight.
- Set the handle height to the lowest level to reduce the dimensions.



3.4.4 Transport on public transport

⚠ DANGER Do not use ello on public transport – high risk of falling.

ello is not a suitable seat on public transport because of the wheels.

1. Place ello in the designated area.
2. Engage the parking brakes.
3. Take a seat in a labelled seat.

3.4.5 Lifting up the device

⚠ WARNING Lift ello carefully – risk of falling.

Only lift ello if you are physically able to do so. Otherwise, ask for help.

1. Fold up ello
2. Attach the transport lock
3. Grab the ello by the folding handle and frame



3.4.6 Charge battery

⚠ DANGER Do not expose the battery to excessive sun/heat.

Do not charge the ello battery in the sun.

Charge the battery in the device

1. Insert the charger into the battery through the opening in the battery compartment.
2. Plug the charger into the socket.
 - The battery display flashes during charging.
 - ello does not work while charging.

Charging the removed battery

1. Open the battery compartment and remove the battery.
2. Plug the charger into the battery.
3. Plug the charger into the socket.

LED display of the charger

Green: Battery fully charged or not plugged in.

Orange: Battery is charging.

3.5 Settings

3.5.1 Choose the right handle height

⚠ CAUTION Set the handle height correctly.

An incorrectly selected handle height can lead to problems with posture.

1. The upper edge of the handle should be at wrist height (see picture).
2. Check that both handles are set at the same height.



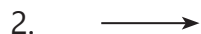
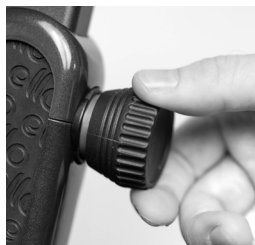
Minimum handle height: 80 cm
Maximum handle height: 100 cm

3.5.2 Adjusting the handles

⚠ CAUTION Check that the height adjustment is correctly attached.

As long as the orange-coloured component is visible, height adjustment is not set correctly.

1. Turn the rotary knob ↺ anti-clockwise.
2. Pull the rotary knob and set the desired height.
3. Release the rotary knob and allow it to engage.
4. Turn the rotary knob clockwise ↻ to close.

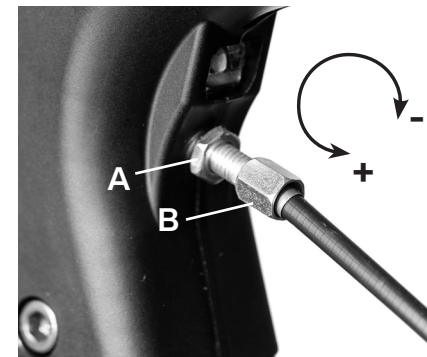


3.5.3 Fine-tune the braking force

⚠ DANGER Check the brake settings regularly.

Incorrectly adjusted brakes can lead to serious accidents.

1. Loosen the fastening nut (A) → turn anti-clockwise (in the "+" direction).
2. Set the braking force → turn the adjusting screw (B):
 - Increase brake → (B) turn anti-clockwise (in the "+" direction).
 - Release the brake → turn (B) clockwise (in the "-" direction).
3. Tighten the fastening nut (A) again → turn clockwise (in the "-" direction).



3.5.4 Care & maintenance

⚠ CAUTION Do not clean with running water.

Cleaning with running water/high pressure can damage ello.

- Clean ello with a damp cloth.
- If necessary, use disinfectant or a mild cleaning agent.
- Avoid excessive liquids or aggressive cleaning agents.
- Have ello serviced regularly (at least every 6 months) by your service partner.

4. Error display

Error code	Cause	What needs to be done?
Buttons flash blue. Rollator goes out.	Sensors recognise that ello is folded.	Make sure that ello is fully unfolded. Take ello to the service centre if necessary.
Buttons flash yellow. This may restrict the features.	ello overheats or recognises temporary voltage drops.	Switch ello off temporarily and allow it to cool down if necessary.
Buttons light up yellow. This may restrict the features.	Error recognised.	ello can be used at short notice. Bring it to the service centre promptly.
Buttons light up red. Electrical functions are switched off.	Serious error detected.	Switch off ello and take it to the service centre.

5. Notes on the battery

1. General

- Do not puncture or otherwise damage the battery.
- Do not drop the battery.
- Do not remove the battery housing.
- Keep battery contacts away from metal objects to avoid short circuits.

2. Transport

- Avoid temperatures above 60 °C and below -10 °C during transport.
- Avoid major shocks and mechanical loads during transport.

3. Storage

- Store the battery in a dry, cool place.
- Protect the battery from fire and similar sources of heat.
- Avoid contact with liquids, especially water.
- Store the battery at a charge of around 50-70% to increase its service life.
- Storage temperature should be between 15 °C and 25 °C.

4. Waste disposal

- Never dispose of the battery in household waste.
- The battery can be returned to the specialist retailer where ello was purchased. Alternatively, take the battery to an authorised recycling centre or collection point.
- Tape the contacts before disposal to prevent short circuits.
- If recycling elsewhere, ensure that local environmental standards are complied with.

6 Technical specifications

6.1 Device

	max. load	
User weight	120 kg	
Bag loading	5 kg	
	Model 55R/G/B	Model 62R/G/B
Seat height	55 cm	62 cm
Handle height	80 cm – 100 cm	80 cm – 100 cm
	Unfolded	Folded
Width	64 cm	34.5 cm
Depth	72.5 cm	72.5 cm
	Without battery	With battery
Weight	12 kg	12.2 kg
Protection class	IP23	
Operating temperature range	-10 °C – 40 °C	

6.2 Battery

Kind	Rechargeable Li-Ion battery
Mass	Approx. 430 g
Rated capacity	3.2 Ah
Tension	Operation: 25.9 V Loading: 29.4 V
Energy capacity	82.88 Wh → Suitable for transport in aircraft (hand luggage)
Recommended fire extinguisher	Dry powder
Charging current	1 A
Running time (with average use)	1 week
Operating temperature range	Discharge (use): -20 °C ~ 55 °C Charging: 0 °C ~ 45 °C
Storage temperature range	-10 °C ~ 60 °C

Manufacturer

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Medical supply store



This product fulfils the requirements of Regulation (EU) 2017/745 on medical devices.

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