CE

MOTOTRONIK

User manual | British English

Produced and published by Permobil
Edition: 0.1
Date: 2024-12-17
Order no: eng-UK

1 INTRODUCTION

Thank you for choosing a product from the Mototronik range, and welcome.

At Rehateam, constant research into quality and creativity are the cornerstone of our business.

Rehateam s.r.l., a serious and reliable company, genuinely focused on providing total customer satisfaction.

We have become industry leaders by making excellence and service our top priorities.

We hope that our Mototronik range models can meet your needs and improve your daily life.

All our models are built from carefully selected materials to offer the highest possible quality combined with fast, reliable service.

We perform continuous, meticulous quality control and our testing procedures offer the highest possible quality combined with fast, reliable service.

We acknowledge that we owe our success to our customers and all who have believed in us and helped us establish that quality is the supreme differentiator.

FOR THE DEALER

This manual MUST be handed to the user of this device.

BEFORE giving the device to the user, the dealer MUST carry out a general check of all its attachments and check its functionality.

After this check, the dealer should apply his stamp or that of the company he represents, his name and the date, on the WARRANTY CERTIFICATE, which must be kept by the user. This certificate must be retained by the occupant.

Products of the Mototronik range are intended for patients whose visual, cognition and reading capacities are not impaired. Consequently, the dealer must ensure the patient's suitability. See also chapter 5 5 *USER REQUIREMENTS*. If the patient is suitable for the use of this device, the dealer must provide precise information on the use of this device.

If the patient is suitable for the use of this device, the dealer must provide precise information on the use of this device.

FOR THE USER

BEFORE using the Mototronik, READ this manual in all its parts and keep it for possible future reference.

Check that the warranty certificate has been fully compiled by the dealer and keep it with care.

NOTE

This document is also available in PDF format for the visually impaired at www.rehateamprogeo.com which can also be accessed by scanning the QR code provided here.

2 SYMBOLS USED

DANGER!

Indicates a potentially hazardous situation, which, if not avoided, can result in death or serious personal injury.

CAUTION!

This symbol indicates an action that is forbidden or not recommended.

WARNING!

Indicates a potentially hazardous situation, which, if not avoided, may cause minor personal injuries or property damage.

IMPORTANT!

This symbol indicates important instructions or special information.


High voltage warning sign; indicates the presence of high voltages.


Burn hazard


Do not disperse in the environment. Recycling.


Danger of pinching hands and/or fingers

3 PRODUCT LABELS

progeo	Progeo brand logo		“UDI” code (Unique Device Identification)
MD	“MD” mark (Medical Device)		Year/month of production
CE	“CE” mark	SN	Serial number
MOTOTRONIK	Product name	Max 20 Km/h	Maximum speed
	Electrical device disposal via separated collection (special disposal, electrical components).	kg	Maximum towing load
	Not suitable for transporting the occupied wheelchair in a vehicle	Max	Maximum slope in use
	Read the user’s manual		Manufacturer data

4 INTENDED USE AND ENVIRONMENT OF USE OF THE DEVICE

4.1 INTENDED USE

The Mototronik is a specific device for disabled people using a manual wheelchair.

It is an auxiliary power assist system that is designed to be mounted to most manual wheelchairs, quickly and easily.

When coupling the Mototronik device to the wheelchair, the small wheels at the front rise off the ground and a single wheel, in the "traction unit", is used for steering.

Mototronik devices are classified for use with wheelchairs to which they are coupled pursuant to UNI EN 12184.

Mototronik devices are also compliant with the requirements of class B with a maximum range of about 50 km (for the version with a charged 11.6 Ah battery, on a flat course and a user weighing 75 kg).

In accordance with the definition of class B of UNI EN 12184, the device is for indoor use and can handle outdoor obstacles.

CAUTION!

Any other use or misuse could result in hazardous situations.

4.2 ENVIRONMENT OF USE

Mototronik series devices are made for use coupled to a manual wheelchair and can be coupled to most manual wheelchairs available on the market.

Mototronik solutions can be used both indoors and outdoors, with the limits stated in this document, and in general with the same limitations set for the use of the manual wheelchair.

4.3 CLINICAL USE AND TYPES OF USERS

The Mototronik is not intended for specific clinical use, but as a support to the mobility of persons who use manual wheelchairs.

Therefore, bearing in mind the operating precautions described in this document, there are no professional, technical or aptitude pre-requisites for the operation or use of a Mototronik device.

5 USER REQUIREMENTS

Mototronik series devices and their accessories can be used independently by a user:

- Who is an adult or teenager.
- Who is familiar with and has sufficiently practised the proper use of the device;
- Who is aware of the risks related to the use of the device;
- Who has sufficient physical and mental capacity to ensure the appropriate safe use of the device.

6 DEVICE LIFETIME

Mototronik devices are designed to be used on a daily basis, and consequently they undergo continuous stress that results in the inevitable wear of the parts.

Under normal daily use, the Mototronik has a lifetime of 5 years or 25,000 km, whichever is the earlier, provided it receives careful maintenance at the correct intervals.

The lifetime will considerably increase if the wheelchair is used only indoors or not on a daily basis.

7 INSTALLATION OF THE DEVICE

WARNING!

Mototronik devices supplied by Rehateam s. r. l. must be installed, adjusted and verified in their functionality and safety only on compatible wheelchairs, only by Rehateam s.r.l. or by specialised technicians authorised by Rehateam s. r. l. who decide, under their own responsibility, whether the specific wheelchair can ensure the correct and safe use of the Mototronik.

WARNING!

Any adjustments and/or any modification not carried out by Rehateam s.r.l. or carried out by unauthorised personnel will immediately void the warranty on the product and will relieve Rehateam s.r.l. from any responsibility for any malfunctioning and/or damage due to such adjustments/modifications.

IMPORTANT!

You will find the instructions on how to properly install the device in the MototronikSERVICE MANUAL which is available on the website www.rehateamprogeo.com

WARNING!

Before delivering the device to the end user, the supplier delivering the device itself must always make sure that the device is installed correctly and securely. The supplier must also provide the user with the necessary instructions for the correct use of the device.

IMPORTANT!

Making modifications to the device is forbidden.

8 SAFETY: WARNINGS AND PRECAUTIONS

This User's Manual is an integral part of the device and must always be available to the user. If it is lost or damaged, contact Rehateam s.r.l.
Should anomalies occur during use such as to affect the safety of the user, the device must not be used and you should promptly contact the technical assistance of the dealer authorised by Rehateam s.r.l.
Non-original spare parts and accessories have not been tested by the manufacturer. Therefore, we cannot certify that these components are compliant with the necessary performance and safety requirements.
Rehateam s.r.l. is not responsible for any damage caused by using non-original spare parts or accessories.
Notify the manufacturer in the event of serious accidents in relation to the device.
Manufacturer: Rehateam s.r.l., Vicolo Negrelli 5, 31038 Castagnole di Paese TV, Italia, tel. 0039 0422 484657, mail: info_it@permobil.com

WARNING!

The user must read this document and have become familiar with its contents before using the device. Rehateam s.r.l. disclaims all responsibility for non-compliance with the content of this document.

WARNING!

During the initial period of use, the user must familiarise themselves with the user guide to avoid potential risks caused by incorrect use.

WARNING!

If the device is not used in compliance with the specifications described herein, the safety level specified by the manufacturer may be reduced.

WARNING!

EMC – The device is compliant with ISO 7176-21:2009 CLAUSE 5.4 on electromagnetic compatibility, but to ensure the user's safety we recommend not using this device in the presence of strong environmental electromagnetic fields.

EMC – during its operation, this device can affect other devices with electromagnetic fields.

WARNING!

The Mototronik series of devices and their accessories can be used exclusively by a user who has been informed, who is aware of the associated risks and who has sufficiently practised the correct use of the same device and accessories.

WARNING!

The user is responsible for monitoring and maintaining the efficiency of the device and its accessories as indicated in this document.

WARNING!

Periodic maintenance must be carried out to ensure the proper functioning and safety of the equipment.

WARNING!

The use of the Mototronik device in public spaces (roads, pedestrian walkways, squares, cycle paths, etc.) must comply with the specific regulations of the country in which they are used. Rehateam s.r.l. is not responsible for this purpose for any use that does not comply with the specific regulations in force.

WARNING!

Moderate the speed in relation to the characteristics of the wheelchair, the conditions of the road surface, the lateral inclination of the road and the radius of the curve that you can face.

WARNING!

Always respect the limit of use of the wheelchair and make sure that the same wheelchair to which the Mototronik device is connected is in perfect condition of use. In particular, always make sure that the rear wheels are correctly tightened (see the user manual for the wheelchair).

WARNING!

It is necessary to pay attention to lateral drifts due to the presence of strong wind, to the transverse slope of the road or to lateral heeling when steering.

WARNING!

It is recommended to go downhill not more than two-thirds of the maximum speed; on slopes avoid sudden braking or acceleration. The stopping distance when going downhill can be significantly greater than on level ground.

WARNING!

On uphill or downhill routes, never attempt to overcome obstacles.

WARNING!

On terrain with uneven surfaces, cobblestones, pavé, paved or unpaved roads with holes and/or wedges, with stones or other obstacles (even those measuring only a few centimetres), pay the utmost attention to the front wheels, the wheelchair footplate and the Mototronik stand, which could collide with such irregularities and cause damage to the wheelchair and/or result in the user falling from the vehicle with consequent possible traumas/injuries. In such situations, proceed by attempting to avoid such irregularities and, in any case, by travelling at a speed of less than 3 km/h.

WARNING!

When the vehicle is in motion, avoid moving the centre of gravity, or making sharp movements with the body.

WARNING!

When entering a building and/or lift, always keep in mind the steering diameter of your wheelchair equipped with the Mototronik device. Avoid situations from which you would no longer be able to remove yourself because you are unable to turn your wheelchair.

WARNING!

Using Mototronik devices increases the risk of tipping when taking corners: reduce your speed before changing direction. Accelerate again only once you exit the curve.

WARNING!

Take narrow passages at the lowest speed and with the utmost caution.

WARNING!

It can be difficult to manoeuvre in front of a lift or in front of the entrance of a building as the steering diameter of the wheelchair increases when it is coupled to the Mototronik device; this could conflict with the standards of the buildings or the actual size of the entrances.

WARNING!

Before each use of your Mototronik device, make sure that the braking system (disc brake and electric brake) is effective. Perform some low-speed tests.

WARNING!

During the use of Mototronik devices, it is mandatory to pay the utmost attention to the protection of the braking system; in particular, the user must avoid obstacles (lateral and frontal) that could damage the disc.

WARNING!

Before starting to drive backwards, make sure there is no person, obstacle, stairs or slopes behind the wheelchair.

CAUTION!

After each restart, pay maximum attention, before accelerating, to check if the forward or reverse gear is currently selected, especially when close to obstacles, drop-offs, and any other kind of danger. In such cases, turn the device off and manually move the wheelchair to a safe place.

WARNING!

Always apply the correct amount of force to the brake. Squeezing the lever too hard may result in wheel locking; this will increase the braking distance and affect the overall stability.

NOTICE

At high speed, the user may lose control of the wheelchair and it may tip over. Never exceed 15 km/h and avoid impacts in general. In the event of a collision, the user could suffer serious injury to body parts.

NOTICE

Absolutely never use the Mototronik device along tramway, rail and light railway tracks. Pay the utmost attention at level crossings, keeping the wheels of the Mototronik device and the wheelchair at a safe distance. Failure to comply with this precaution could result in serious damage/injury to the device and the user. The same precautions apply to water drains, manholes and any kind of depression along the route travelled.

NOTICE

You must not permit the use of the MOTOTRONIK to children, incapacitated persons, or to those who are insufficiently familiar with the device or who are physically unsuited to use it.

NOTICE

It is forbidden to use the device after consuming alcohol, drugs and in general in the case of alteration of the psychophysical abilities of the user.

NOTICE

It is absolutely forbidden to remove, modify or replace components of the device. If necessary, such operations must be carried out exclusively by technical personnel authorised by Rehateam s.r.l.

NOTICE

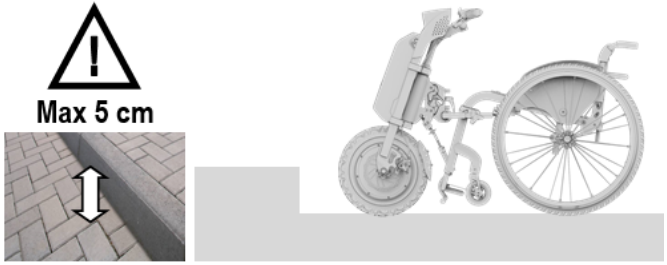
The use of Mototronik devices on roads with an unsuitable surface is not allowed.

NOTICE

The use of Mototronik devices for users plus wheelchair weighing more than 120 kg is not allowed; in addition to that, the user's weight must not exceed the specified maximum load of the wheelchair used.

NOTICE

The use of Mototronik devices in riding over, climbing or descending steps of more than 5 centimetres in height is not allowed.



NOTICE

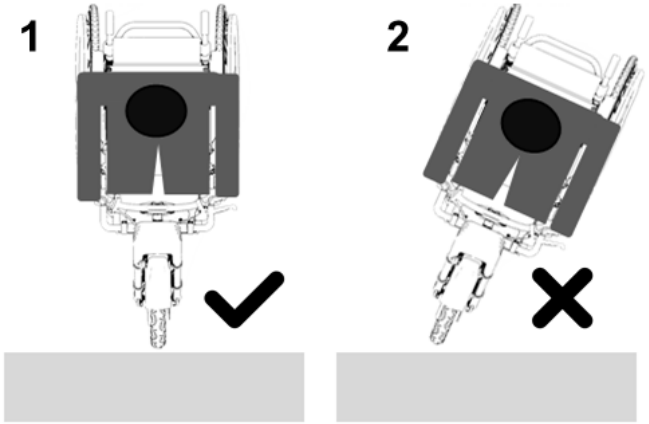
The use of Mototronik devices on routes with slopes of more than 10% (6°) is not allowed.

NOTICE

It is forbidden to overcome obstacles obliquely: make sure that the rear wheels overcome the obstacle at the same time. Never stop halfway.

The correct way to overcome steps and ascents is shown in figure 1. Figure 2 illustrates a dangerous situation.

In the case of wet or uneven terrain, the value of the maximum rated slope and the value of the maximum rated step height have been decreased to ensure the safety of the user.



NOTICE

It is forbidden to use the device in low light conditions (the equipment is not suitable for night-time use), with adverse weather conditions (rain, strong wind, etc.) and indeed, outside the environmental conditions of use.

NOTICE

During the use of Mototronik devices it is absolutely forbidden to make a U-turn on slopes of more than 5% (3°) and at a speed higher than gear 1.

NOTICE

It is forbidden to attempt to climb or descend a staircase.

NOTICE

The use of a Mototronik device in a way in which it is not coupled to a manual wheelchair is not allowed.

NOTICE

The use of Mototronik devices for the transport of more than one person is not allowed.

NOTICE

Do not leave the battery in the sun or in adverse weather when not in use.

NOTICE

Do not use the supplied battery to power systems other than the Mototronik for which it has been provided.

NOTICE

Do not throw the battery in water.

NOTICE

Do not short-circuit the battery.

NOTICE

Do not let children play with the battery pack.

NOTICE

Do not attempt to open the battery pack.

If the battery has reached its end of life, it must be disposed of in the special containers at designated collection centres.

The surface temperature may increase if exposed to external heat sources (e.g. sunlight): take great care to avoid contact.

While using the device, the brake system components can get very hot and contact of these components with the skin may cause scalding and burns: be extremely careful to avoid this consequence.

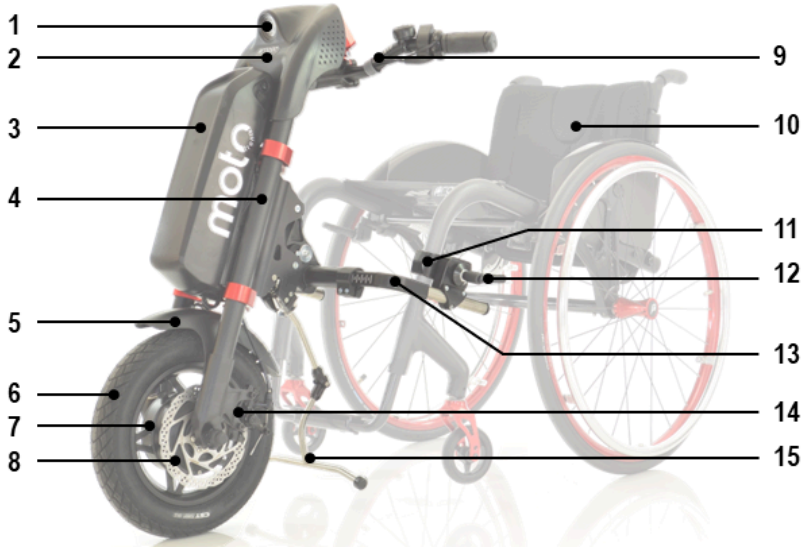
DANGER: The voltages inside the device can be lethal.

DANGER: Maintenance or cleaning of the device must always be carried out when the device is off and disconnected from the mains.

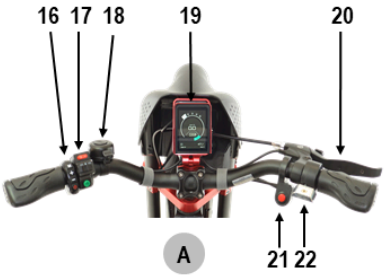
DANGER: Do not connect/disconnect power cables when the device is on.

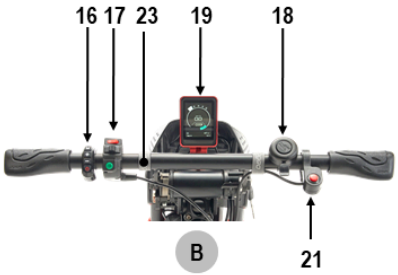
DANGER: Do not remove any part of the unit's cover panel; instead, contact the Technical Support Service.

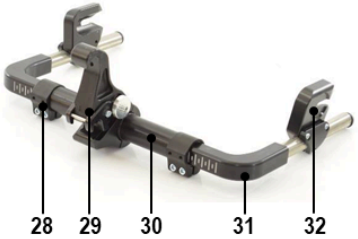
9 DESCRIPTION OF PARTS



1. Headlight
2. Spoiler
3. Battery
4. Two-stem frame
5. Fender
6. Tyre
7. Motorised wheel
8. Brake disc
9. 16 17 19 18
10. Manual push wheelchair
11. Clamps (fixed to the wheelchair's frame)
12. Locking lever
13. Connection frame
14. Brake calliper
15. Stand







"A". Standard handlebar
"B". Handlebar for quadriplegics
16. On/off and settings switch
17. Driving direction and cruise control switch
18. Bell
19. Display
20. Brake lever
21. Electronic brake button
22. Acceleration lever
23. Push&Pull handlebar
24. 12" motorised wheel
25. 14" motorised wheel
26. Battery charger
27. Clamps (fixed to the wheelchair's frame)
28. Arm's fixing clamp
29. Coupling block
30. Connection frame's central tube
31. Arm
32. Coupling fork

10 BATTERY AND BATTERY CHARGER

The batteries supplied with the Mototronik device are compliant with the EMC 2004/108/EC regulation issued by the European Union regarding the CE Classification.

It is, therefore, permitted to transport these batteries on a train, ship, or aeroplane.

Despite this classification, they are considered, according to the UN Recommendations on the Transport of Dangerous Goods, as dangerous material and classified as Class 9, respectively as code UN3480 (Lithium Ion Batteries) if transported as single units and UN3481 (Lithium Ion Batteries Contained in Equipment) if transported while connected to the Mototronik device.

This classification determines some restrictions regarding the transportation of the product by ship (IMDG Code) and by plane (IATA DGR) referring to: the quantity of batteries transported, type of transport (if transported as a single unit or connected to the device) and the Watt-hour value (Wh) of each individual battery.

In this regard, if you are planning to take your device with you, please directly contact the shipping company or the airline chosen for your travel.

The data of the available battery models provided by Rehateam s.r.l. are listed below

- 48V 11.6 Ah (556.8 Kw/h) range up to 50 km — *see NOTE*.
- 48V 5.8 Ah (278.4 Kw/h) range up to 25 km — *see NOTE*.
- 48V 2.9 Ah (Fly) (139.2 Kw/h) range up to 15 km — *see NOTE*.

NOTE: with a fully charged battery, moderate driving along a flat route with a 75 kg user.

All of these batteries use the same fastening stand and charger.

All of these batteries are "maintenance-free"; however, follow the precautions in chapter 10.4 *WARNINGS FOR BATTERY AND BATTERY CHARGER*

10.1 ON/OFF SWITCHING AND CHARGE LEVEL OF THE BATTERY

On the upper right side of the battery, you will find the on-and-off switch.

In the lower left side of the battery, you will find a four-LED charge level indicator.

To display the charge level of the battery, switch it on and press the button **(1)** and 1, 2, 3 or 4 LED lights will light up.

1 LED = 20% charge; 2 = 50%; 3 = 75%; 4 = 100%.

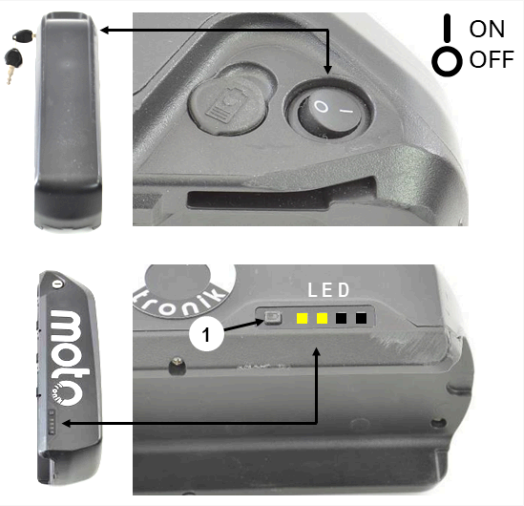
When you release the button, the LED lights turn off.

NOTE: you can also check the battery charge level, in percentage, on the display, see chapter 12.1 *DISPLAY*.

We recommend not to neglect the indication of the charge level.

Rehateam s.r.l. always recommends charging the battery after a long journey or overnight.

Lithium batteries have no memory effect, so they should be recharged without waiting for them to be discharged completely.



10.2 FITTING AND REMOVING THE BATTERY

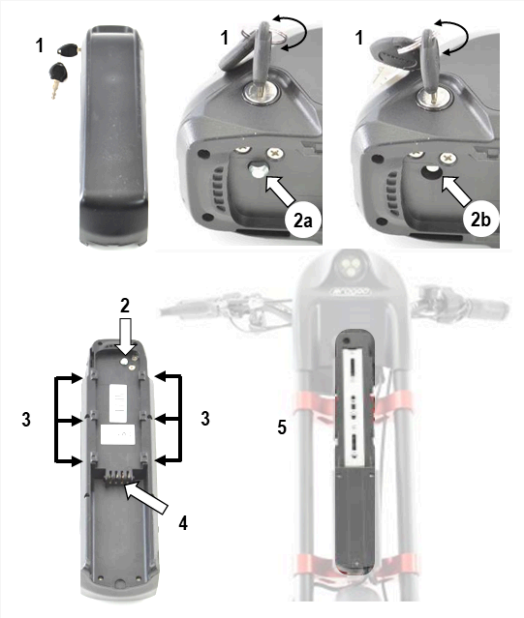
In the upper left side of the battery, you will find the key **(1)** that controls the lock pin **(2)** that lies on the rear side where you also find 6 coupling teeth **(3)** and the electric connector **(4)**.

You need to insert the battery and hook it to the battery support **(5)** on the motor unit.

To hook the battery, it is necessary that the pin does not stick out free **(2a).**

Should it stick out, in the lock position **(2b)**, you will not be able to insert the battery.

To pull the pin in, turn the key by 180°.

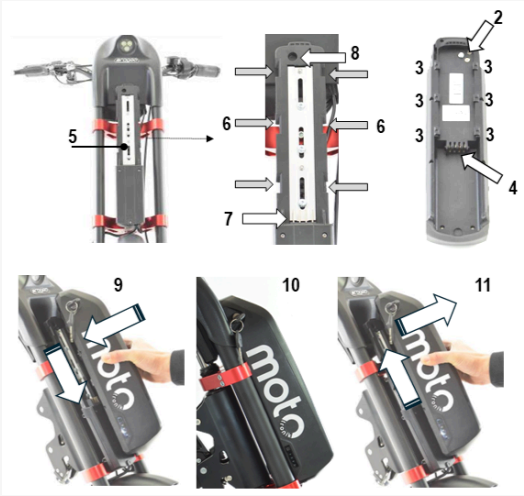


Take hold of the battery and align the 6 coupling teeth **(3)** with the notches **(6)** on the battery support, lean and slide the battery down **(9)**.

The connector **(4)** will engage in the slots **(7)**.

Turn the key to lock the battery **(10)** (the lock pin will stick out and it will insert into the hole **(8)** of the support.

To remove the battery **(11)**, insert and turn the key, take hold of the battery and slide it upward.



WARNING!

Before each Mototronik driving session, make sure the battery is locked to the support, then remove the key and store it in a safe space.

WARNING!

If the battery is not locked by means of the locking pin, it may detach and fall to the ground while driving.

WARNING!

With the battery properly locked, but with the key inserted, it is possible, while driving, that the key rotates to the extent that it unlocks the battery.

CAUTION!

Never drive the device with the key inserted in the battery.

10.3 BATTERY CHARGER AND CHARGING

To charge the battery, proceed as follows:

Press and hold down the "on/off" button **(1)** until the device switches off – see chapter 12.3 *SWITCHING ON/OFF THE DISPLAY*

Remove the battery, see chapter
10.2 *FITTING AND REMOVING THE BATTERY*

Flip the protection cap **(2)**.

Connect the plug **(3)** of the battery charger to the socket of the battery.

Connect the battery charger plug to the power supply

The LED light **(4)** on the upper side of the battery charger indicates the status:

No light: disconnected

Red: charging

Flashing Red: problem, see charger manual.

Green: charging finished, battery is fully charged.

Once the charging is complete, disconnect the plug from the power supply first, and then the battery charger plug from the battery.

Battery charging time (starting with a completely discharged battery).

- 48V 11.6 Ah (556.8 Kw/h) 5h 00’
- 48V 5.8 Ah (278.4 Kw/h) 2h 30’
- 48V 2.9 Ah (Fly) (139.2 Kw/h) 1h 15’

10.4 WARNINGS FOR BATTERY AND BATTERY CHARGER

IMPORTANT!

Never recharge the battery and operate the device simultaneously due to the risk of injury to yourself and others.

WARNING!

Only use the supplied battery charger together with the Mototronik device: any damage or malfunction due to non-compliance with these instructions or use of products that do not comply with Rehateam s.r.l. guidelines will not be covered by the warranty.

WARNING!

Ensure that the electrical voltage (Volts “V”) and frequency (Hertz “Hz”) of the power outlet where the battery charger is connected is compatible with the characteristics indicated on the battery charger.

WARNING!

When not using the battery, remember to charge it at least once a month.

WARNING!

Always charge the battery in a well-ventilated room and keep it away from flammable material.

WARNING!

If you see that the battery is damaged, its housing is broken, or if it swells or leaks, do not use it under any circumstances and contact Rehateam s.r.l. Technical Support immediately.

WARNING!

There is a risk of injury due to short-circuits and a risk of electric shock if the battery charger has been damaged. Avoid using the charger if it has fallen on the ground or has been damaged.

WARNING!

Avoid using extension cords unless this is strictly necessary.

If you must use them, make sure in advance that they are undamaged and in excellent condition, to prevent fire hazards and electrical shock.

WARNING!

Once the battery is fully charged, the charger automatically cuts the power supply. Do not leave the battery charger connected to the mains for too long after it has finished its charge cycle (green LED on).

WARNING!

Always charge the battery before you start.

Never use the device with an empty battery.

WARNING!

Always remove the battery from the device to perform the charging operation.

11 COUPLING AND REMOVING THE DEVICE

The Mototronik system is composed of three main units:

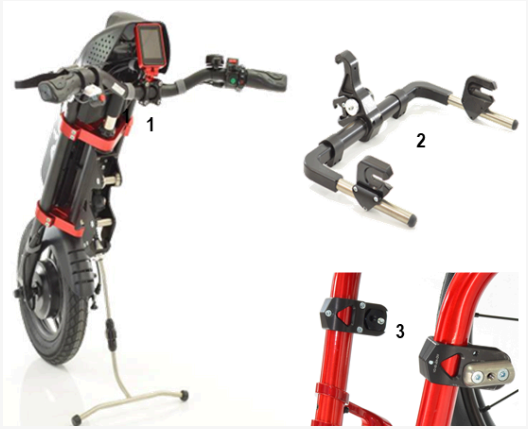
1. motor unit (removable)
2. connection frame (removable)
3. clamps (fixed to the wheelchair's frame)

The pictures refer to a standard 12″ Mototronik and they are to be considered valid for other models, too.

The reported instructions are intended for a user with good trunk control, good upper-limb control and no control of the lower limbs.

The better the body control, the easier the process will be.

On the other hand, the user may not find this process to be easy to carry out and, solely for the coupling and removing process, the help of an assistant may be necessary.



WARNING!

The coupling and removing operation must always be carried out with the system switched off (see chapter 12.3 *SWITCHING ON/OFF THE DISPLAY*).

Failure to comply with this warning may result in damages or injuries for which Rehateam s.r.l. cannot be held responsible.

WARNING!

Throughout the coupling and removing phase, position yourself in a flat area, away from any rough/uneven ground and far from personal safety hazards.

WARNING!

Before starting to drive the Mototronik, always check the system is securely locked as mentioned above.

Failure to comply with this warning may cause serious damage or injury for which Rehateam s.r.l. cannot be held responsible.

Where you find this symbol on the device, pay attention not to pinch/squeeze your hands/fingers

11.1 COUPLING AND UNCOUPLING THE CONNECTION FRAME

11.1.1 Fitting

Make sure that the two lock levers **(1)** are unscrewed so that the room between the washer **(3)** and the half-moon-shaped block **(2)** is about 1 cm (or a little wider) to allow the passage of the coupling forks **(4)**.

If the levers, when unscrewing them, come off or if they have previously been removed, insert them, and screw them until they leave a space of 1 cm.

Grasp the connection frame **(5)** with one hand or two hands and keep it balanced horizontally with respect to the ground.

Align the two coupling forks to the half-moon-shaped blocks, insert them and slide them all the way **(6)** and **(7)** .

Screw the lock levers making sure the washers perfectly fit the round housings **(8)** in the coupling forks. Finally, firmly tighten the two lock levers.

DANGER!

For added safety, during each session of use of the Mototronik, check that the levers **(1)** are tight.

In fact, if the levers **(1)** were loose, the system could suddenly disengage from the wheelchair.

Failure to comply with this warning may cause serious damage or injury for which Rehateam s.r.l. cannot be held responsible.

11.1.2 Removal

Once the motor unit is detached, loosen the two levers **(1)** just enough to be able to pull off the connecting frame **(2)**.

Slide the connection frame off using one or two hands.

The two levers can now be screwed and attached to the clamps **(3)** or they can be unscrewed, removed **(4)** and stored in the most practical and/or appropriate location (for example, in the seat canvas pocket).

11.2 COUPLING AND UNCOUPLING THE MOTOR UNIT

11.2.1 Coupling with standard handlebar

Approach **(1)** the motor unit slowly with the wheelchair (the stand keeps it upright). .

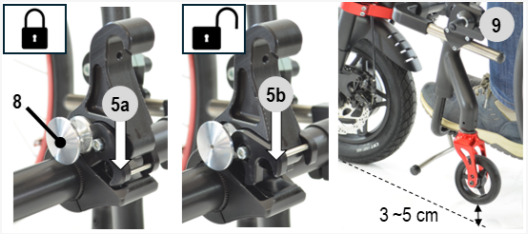
Grip the handlebar on both handles and pull it towards you **(2)** so that the hook **(3)** of the coupling block engages with the upper axle **(4a)** of the motor unit central block.

Now, push the handlebar forwards and upward until the double hook **(5)** inserts and automatically locks over the lower axle **(4b)** of the motor unit central block.

A clack**(7)** will indicate successful coupling.

Attempt to shake the system to make sure the coupling is secure.

If it fails to connect, the lock double hook may be in lock position **(5a)**.
To bring the double hook into the open position **(5b)**, press button **(7)**.
Now repeat the steps from point **(1)**.
Check that the front wheels are between 3 and 5 cm above the ground.



11.2.2 Coupling with the Push&Pull handlebar for quadriplegics

Similar to what is described for the standard handlebar, but with the following observations.

- Do not brake the wheelchair
- With the Push&Pull handlebar for tetraplegics, pushing the handlebar forward activates the brake, so the motor unit remains braked while the wheelchair approaches it.

11.2.3 Uncoupling with standard handlebar

Brake the wheelchair with its own parking brakes.

Push the handlebar forwards a little, then press and keep pressed the brake lever **(1)**.

Press the button **(2)** to open the lock double hook **(3)**.

The button may be hard to push, that is due to the pressure exerted by the wheelchair and by the motor unit right on the axle **(4)**.

To release that pressure, keep the brake lever pressed, push the handlebar forwards, and press the button.

Now, after releasing the brake lever, the motor unit detaches from the axle **(4)** and it moves forward pivoting on the axle **(5)** that is still inserted in the hook of the coupling block.

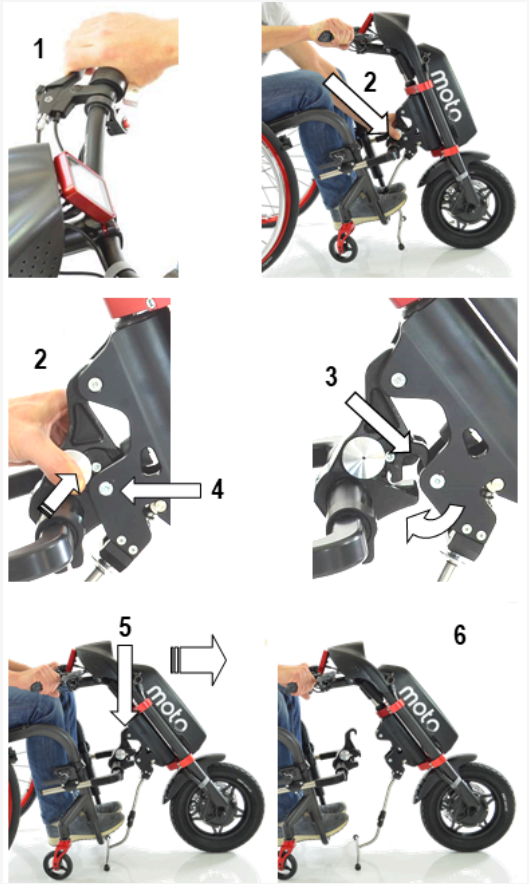
Push the motor unit forwards to detach it from the connection frame **(6)**.

The motor will remain in an upright position thanks to the stand.

CAUTION!

While removing the Mototronik, pay maximum attention to the safety of the upper limbs (fingers, hands, arms) as they may be affected by the abrupt movement of the handlebar (or other parts of the device) if it is released too quickly.

To avoid such danger, after pressing the release button, gently release the handlebar by lowering the wheelchair gently.



11.2.4 Uncoupling with the Push&Pull handlebar for quadriplegics

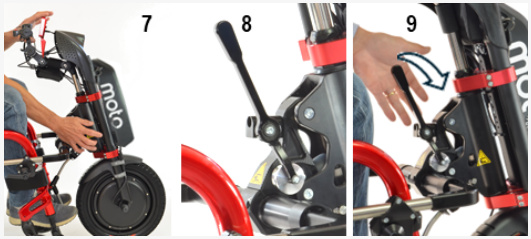
Similar to what is described for the standard handlebar, but with the following observations.

Do not brake the wheelchair.

With the Push&Pull handlebar, when pushing the handlebar forward, you operate the brake.

Press the button **(7)** and release the brake (let the handlebar turn backwards).

If the device is equipped with the lever **(8)** to facilitate the release operation, push the lever **(9**) outwards to push the button – see chapter 17.6 *EASY-RELEASE LEVER*.



CAUTION!

While removing the Mototronik, pay maximum attention to the safety of the upper limbs (fingers, hands, arms) as they may be affected by the abrupt movement of the handlebar (or other parts of the device) if it is released too quickly.

To avoid such danger, after pressing the release button, gently release the handlebar by lowering the wheelchair gently.

11.3 REMOVING THE MOTOR UNIT COUPLED TO THE CONNECTION FRAME

You can also detach the "motor unit/connection frame" assembly in a single quick operation.

Brake the wheelchair with its own parking brakes.

Loosen the two levers **(1)** just enough to be able to remove the connection frame as indicated in the chapter
11.1 *COUPLING AND UNCOUPLING THE CONNECTION FRAME*.

Now **(2)**, at the same time, push the handlebar forward and move the body backwards several times but gently as if you were trying to do a wheelie until you detach the "motor unit/connection frame" assembly **(3)**.

The frame can now be left attached to the motor unit **(4)**, or it can be detached **(5)**, see chapter
11.2 *COUPLING AND UNCOUPLING THE MOTOR UNIT*

IMPORTANT!

This operation, although possible and expected, wears more on the coupling forks and half-moon-shape blocks. Please note that the warranty does not apply to parts subject to wear and tear.

CAUTION!

Perform this operation very carefully to avoid unbalancing or even falling off the wheelchair.

This operation is not recommended with the Push&Pull handlebar for quadriplegics.

11.4 COUPLING AND UNCOUPLING THE STAND

To remove the stand, take hold of it at the top **(1)** and press the button **(2)**, then swing the stand down **(3)**until it detaches from the motor unit **(4)**.

To insert the stand, take hold of it and bring it close to the motor unit.

Then insert the axle **(5)** into the slot C **(6)** and swing up the stand until it locks in the housing **(7)**.

To prevent wear on the coupling, it is recommended to hold the button **(2)** down before engaging it in the housing **(7)**.

Check that the lower side of the stand folds towards the motor unit **(8)**.

If it folds towards the other direction (**9**), remove it, and remount it correctly.

To check the stand is securely locked, take hold of it and, without pressing the button, try to swing it down: it must not detach.

WARNING!

Before leaning the motor unit with the stand to the ground, make sure the stand is correctly mounted and locked.

The lower side of the stand must fold towards the motor unit; otherwise, the motor unit will fall to the ground. Furthermore, in the wrong position, the stand may impede the motor unit from coupling with the connection frame.

WARNING!

Always be careful when resting the motor unit with the stand on the ground.

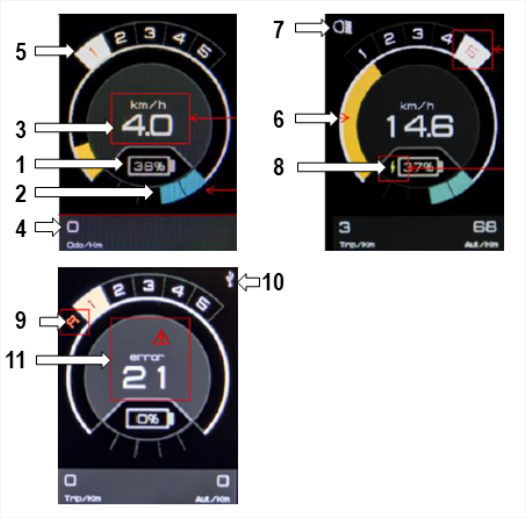
Uneven terrain (e.g., with holes) or sharp manoeuvring (e.g., fast handlebar rotation) could cause the motor unit to fall.

12 USER INTERFACE

12.1 DISPLAY

The device is provided with an LCD display that shows several operative parameters.

1. Battery icon: it shows the battery charge level as a percentage.
2. Blue bar: it shows the overall charge level divided into 5 sections each representing 20% of the battery level.
3. Speed in km/h or mph. In the case of malfunctioning, the speed value will be replaced by the “error” message along with the error identification number and a warning symbol (**11**).
4. It shows the values that will alternatively be showed on the display, the values are: ODO= odometer; TRIP= partial distance (resettable); AUT. = battery range; WATT/W= power in Watts; VOLT/V= voltage in Volts
5. Indicates the level of maximum speed you have selected (numbers from 1 to 5).
6. A curved bar that graphically shows the speed reached.
7. Shows if the optional light is on.
8. The lightning symbol indicates when the EBS is charging the battery.
9. Indicates the reverse gear is selected ("R" blinking).
10. The USB symbol indicates that the USB port is active.
11. “error” message accompanied by the error identification number and a warning symbol



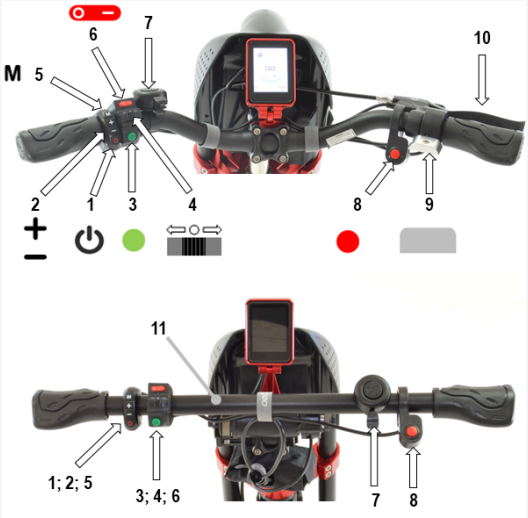
CAUTION!

Any action and/or tampering of the display to modify the performance and the security features of the device is strictly prohibited.

The sole and only actions possible are those specified in the sub-chapters of this chapter.

12.2 CONTROL TOOLS

1. Display on/off button and headlight on/off
2. Selection buttons
3. cruise control button (green)
4. Forward/reverse gear (black switch)
5. Setting button
6. No function (red switch)
7. Bell
8. EBS electronic brake (red button)
9. Acceleration lever
10. Disc brake lever
11. Push&Pull handlebar for braking and accelerating



12.3 SWITCHING ON/OFF THE DISPLAY

Make sure the battery is properly inserted and switched on, see chapter 10.1 *ON/OFF SWITCHING AND CHARGE LEVEL OF THE BATTERY* and 10.2 *FITTING AND REMOVING THE BATTERY*

To switch the display on, press the on/off button once

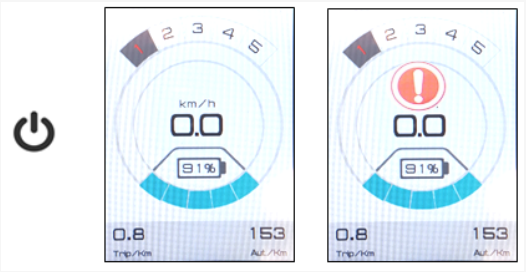
To switch the display off, press and keep pressed the on/off button for at least three seconds.

The display also switches itself off after approximately 5 minutes of inactivity. The display also switches off when you switch the battery off

If the (!) symbol appears on the display, it means that, while switching it on, the accelerator button was pressed.

This is a safety system that prevents the device from activating the motor accidentally while switching the system on.

With this symbol on the display, the device does not work. To unlock the device, switch the display off and then switch it on without pressing the accelerator button.



When the display is switched on, the Full Led headlight is switched on, if present, and the headlight symbol appears at the top left of the display, see chapter 17.1 *Full Led HEADLIGHT*,

12.4 SPEED SELECTION

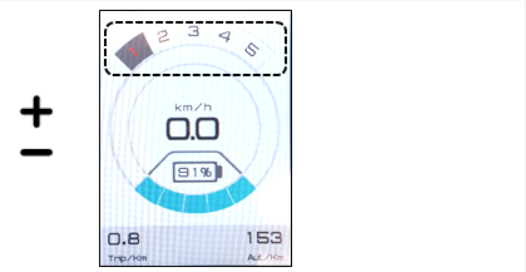
When you press the **+** button, you increase the speed level; with the **-** button, you decrease it**.**

The display will highlight the speed level (1, 2, 3, 4, 5).

The speed levels are proportional to the maximum speed of level 5.

For instance, if the maximum speed of level 5 is 15 km/h, level 1 will allow for a speed of 3 km/h, 2 will allow 6 km/h, 3 will allow 9 km/h, and 4 will allow 12 km/h.

The maximum speed of level 5 is adjustable, see chapter 13.



12.5 FORWARD/REVERSE GEAR

When the switch is in the central position **1** or on the left-hand side **2**, the driving direction is forward.

When you move the switch to the right-hand side **3**, you engage the reverse gear.

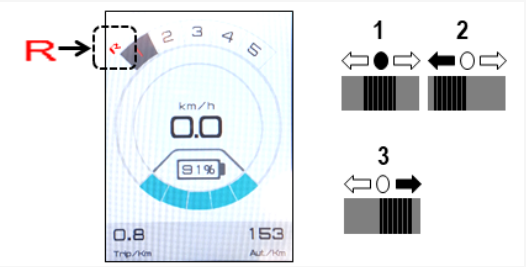
When you engage the reverse gear and throughout the time of use, the system beeps intermittently and the display will indicate the blinking red letter **R**.

As a safety measure, after engaging the reverse gear, the motor does not receive the accelerator control and, therefore, it does not spin the drive wheel.

This is particularly useful if, for example, behind the user, there is a flight of stairs that could be taken unintentionally due to an accidental or otherwise unwanted engagement of the reverse gear.

To start driving in reverse gear, it is always necessary to press the accelerator button all the way down, then release it, and finally press it to move at speed within the set limits that are very small compared to the forward gear.

The maximum reverse gear speed is adjustable, see chapter 13 *SETTINGS*



12.6 ACCELERATOR

The accelerator is proportional for both directions of travel (forward and reverse) and returns to neutral when released.

The motor response to the accelerator is adjustable, see chapter 13 *SETTINGS*

Standard handlebar

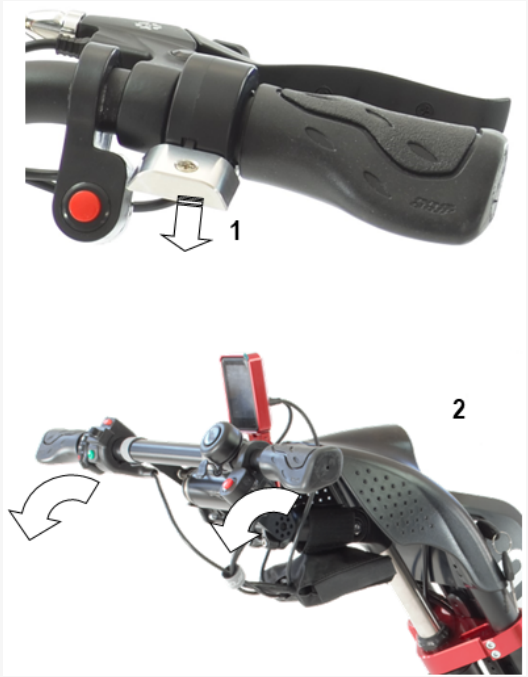
Press lever **(1)** to accelerate.

This lever allows you to adjust the speed proportionally to what is pressed for both driving directions (forward and reverse).

as an alternative to the lever, you can opt for the knob accelerator, see chapter 17.5 *KNOB ACCELERATOR*

Push&Pull handlebar for quadriplegics

Push the handlebar **(2)** down to accelerate



12.7 MECHANICAL DISC BRAKE

The mechanical disc brake is operated by the lever placed on the Standard handlebar **(1)** or by pushing the Push&Pull handlebar **(2)** forward.

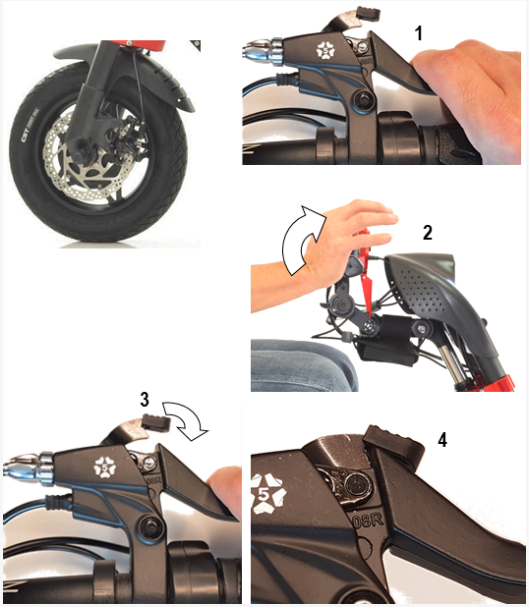
The extent of braking depends on the pressure exerted on the lever or handlebars.

For both Standard and Push&Pullhandlebars, the first short section only activates the electronic brake (EBS), see also chapter 12.8 *EBS (Electronic Brake System) electronic brake*.

The brake lever of the Standard handlebar also allows the parking brake function.

To operate the parking brake, press the brake lever, rotate lever **(3)** towards the brake lever and release the brake lever **(4)**.

To release the parking brake, press the brake lever, push the lever **(3)** forward and release the brake lever.



12.8 EBS (Electronic Brake System) electronic brake

This feature slows down the Mototronik device by electrically reducing its speed.

During EBS braking, the energy produced will be recovered and used to recharge the battery.

When the lightning symbol appears next to the battery symbol on the display, it means that the battery is receiving the charge.

Press the red button to activate the EBS.

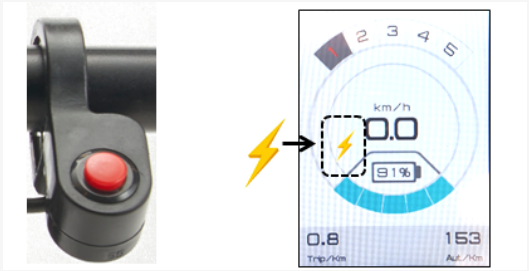
The EBS is also activated when using the mechanical brake.

For the Standard handlebar, when pressing the brake lever, the first short section only drives the EBS while, beyond this point, the disc brake is operated.

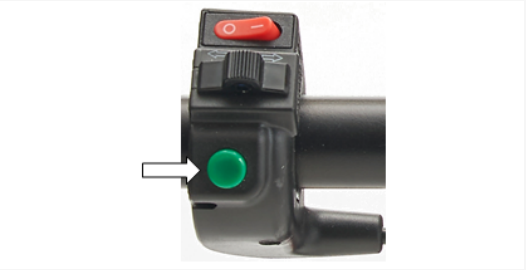
For the Push&Pull handlebar, the first short stretch of the forward thrust of the handlebar (braking action) only drives the EBS while, beyond this point, the disc brake is operated.

In both cases, the two brakes combine.

The braking intensity of the EBS is adjustable, see chapter 13 *SETTINGS*.



12.9 CRUISE CONTROL



The cruise control function adapts and allows you to maintain a fixed speed while driving.

Press the green button to activate this function, which will make the Mototronik proceed at the speed detected at the time of activation.

The Cruise Control function can be deactivated by one of the following modes:

- by operating the Standard handlebar brake lever or by pushing the Tetra handlebar forward (braking action);
- operating the EBS electronic brake, see chapter .

CAUTION!

When using the cruise control function, it is mandatory to pay the utmost attention to road hazards in order to be able to intervene promptly on the control so as to avoid any type of collision that may cause damage to persons and/or property.

CAUTION!

The cruise control function does NOT deactivate if you press the green button again, neither if you engage the reverse gear, nor if you press the accelerator lever.

CAUTION!

Do not start or use the cruise control function on uphill slopes greater than 10% (6°), nor on downhill slopes greater than 5% (3°) (or lower according to the surface condition).

CAUTION!

Although the cruise control adapts the speed, there may be a slight difference between the set speed and the actual speed when descending a slope. We recommend setting a lower speed when going downhill.

12.10 USB PORT TO CHARGE YOUR MOBILE PHONE

It allows you to charge your mobile phone by plugging it in with its own cable.

(1) Press the **"M"** button once to activate the USB port.

The symbol representing USB will appear on the display when the port is active **(2)**; if it does not appear, press the **“M”** button again,

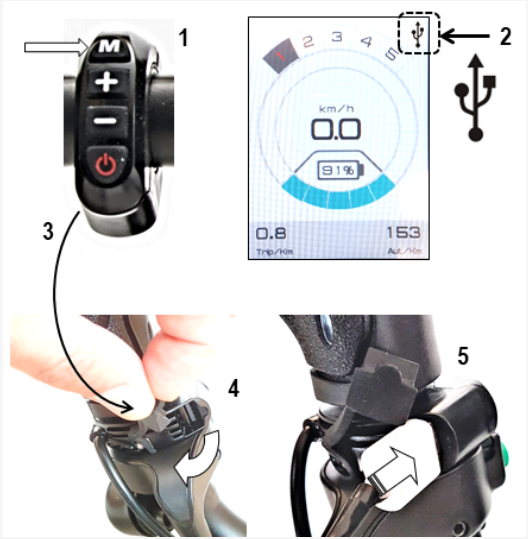
You can find the USB at the back of the display control switch **(3)**.

Flip up the rubber cover **(4)** and plug the cable into the port**(5)**.

The device will now start to charge the mobile phone.

When the recharge function is no longer necessary, press the **"M"** button to deactivate the USB port (the USB symbol will disappear from the display)

Disconnect the connector and close the cover.



13 SETTINGS

You can change some operative parameters of the Mototronik and of the display by working on the display itself.

All parameters shown are written in English.

Before accessing the settings, it is recommended to switch off the Full Led headlight, see chapter 17.1 *Full Led HEADLIGHT*

To access and modify the setting of the parameters:

Press and hold the **"M"** button for at least 3 seconds to enter the settings menu.

Once you are in the menu, you can scroll and select the options by using the **“+”** or **“-”** buttons.

The selected option is highlighted.

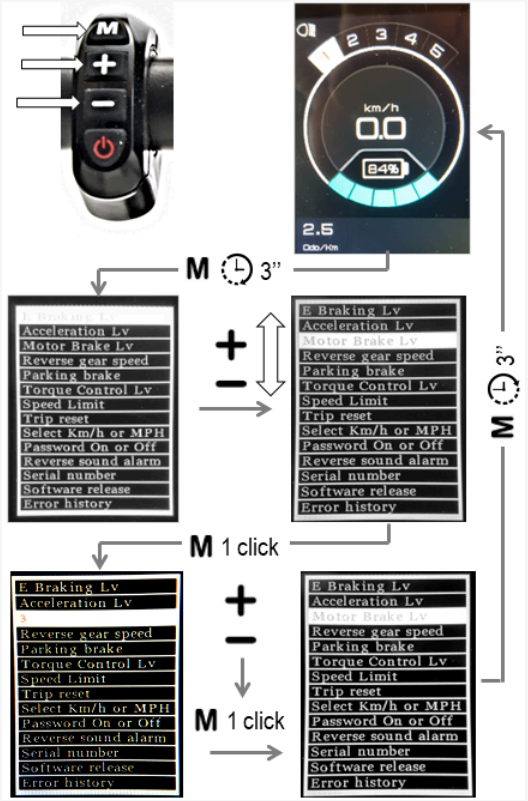
To access the selected option, press the **”M”** button once.

You can modify the value of the option by using the **“+”** or **“-”**buttons.

The value of some parameters, even if not confirmed, can be tested without exiting the menu; the speed to perform the test, where applicable, will be the speed level selected before entering the menu (it is not possible to change the speed level at this stage; you need to go back to the initial screen).

To confirm your choice, press the **“M”** button once; the display will show the settings menu again.

To exit from the menu, press and hold the **“M”** button for at least 3 seconds.



13.1 DEVICE PARAMETERS

Each active parameter listed in the settings menu can be changed by following the instructions above.
Parameter variation is possible only within the limits set by Rehateam s.r.l.

ELECTRONIC BRAKE LEVEL E Braking Lv	The electronic brake EBS is a brake that works directly on the device's motor and should not be confused with the motor brake When you press the red button, or you press the disc brake lever (or you push the Push&Pull handlebar) for a first short stretch, the EBS comes into operation and the device brakes with a certain intensity. This can be used as both the main brake and for complementary braking (in combination with the disc brake and/or the motor brake). The braking power varies from 0 to 10 where 10 corresponds to the maximum and 0 to the minimum (with a value of 0 the braking power is zero).
ACCELERATION LEVEL Acceleration Lv	Adjusts the rate of change of velocity and varies from 0 to 10 where 0 corresponds to the fastest response.
MOTOR BRAKE LEVEL Motor brake Lv	The motor brake acts when the acceleration is released. The extent of the braking action can be adjusted. The braking power varies from 0 to 10 where 10 corresponds to the maximum and 0 to the minimum (with a value of 0 the braking power is zero).
REVERSE GEAR SPEED Reverse Gear Speed	You can adjust the speed of the reverse gear. The speed level varies 0 to 10 where 10 corresponds to the maximum and 0 to the minimum. The reverse gear speed is much lower than the forward gear. Continuing to press the "**+**" and "**-**" buttons, values above 10 may appear on the display (15, 25, etc.; if you press "**-**" after 0, the value 5000 appears), these values do not increase the speed of the reverse gear.
PARKING BRAKE Parking brake NOT ACTIVE	Even if you enter this setting, the ON and OFF values have no effect.
TORQUE CONTROL Torque Control NOT ACTIVE	Even if you enter this setting, the ON and OFF values have no effect.

SPEED LIMIT Speed Limit	It is possible to adjust the speed limit with reference to level 5. The other levels (1, 2, 3, and 4) will be automatically calculated according to the maximum speed value you set. Selectable values are expressed in km/h and vary from 0 up. *NOTE*: although you can select a speed of 70 km/h, for example, the device will still not exceed the speed set by the manufacturer (according to the law). Therefore, compared to the maximum possible speed set by the manufacturer, you can only decrease the value.
TRIP RESET Trip Reset	You can reset the distance value in km or miles. YES = reset; NO = do not reset
SELECT KM/H OR MILES/H Select km/h MPH	To change the speed and distance unit of measurement. Select KM/H (kilometres per hour) or MPH (miles per hour).
PASSWORD ON OR OFF Password On or Off NOT ACTIVE	Even if you enter this setting, the ON and OFF values have no effect.
REVERSE SIGNALLING SOUND Reverse Sound Alarm NOT ACTIVE	Even if you enter this setting, the ON and OFF values have no effect.
SERIAL NUMBER Serial Number	Viewing only. Shows the serial number of the Mototronik control unit.
SOFTWARE RELEASE Software Release	Viewing only. Shows the display software edition.
ERROR HISTORY Error History	Viewing only. This section is intended for the Mototronik dealer/distributor and cannot be changed.

14 TYRE PRESSURE

To always ensure correct braking and fluidity characteristics of the Mototronikdevice, it is necessary that the tyre is always well inflated.

Remove, with your fingers, the plastic cap **1**, which covers the inflation valve placed on the rim of the wheel.

Use a compressor or pump equipped with a pressure gauge to bring the pressure up to the correct level.

Screw the plastic cap back on.

CAUTION!

On a weekly basis, check the correct tyre pressure as indicated on the tyre (an intermediate value between min. and max. is recommended).

A correct tyre pressure makes the device much more fluent and easier to move and control.

NOTICE

Do not exceed the pressure indicated on the tyre because you may damage the tyre and the inner tube.

Always respect what indicated on the tyre.

IMPORTANT!

Tyre used for version 12″:62-203 12 ½ X 2 ¼.

Tyre used for version 14″:57-254 14 X 2.125

15 TRANSPORT IN THE CAR

To load the Mototronik device into the car, the device and battery must be turned off and it is advisable to disassemble all removable parts **1**.

Hereafter, you will find the recommended sequence of operations to be carried out.

Depending on your physical abilities and also depending on the type of vehicle into which the device is to be loaded, some of these operations may be different.

- Turn the display off (see chapter 12.1 *DISPLAY*).
- Turn the battery off (see chapter 10.1 *ON/OFF SWITCHING AND CHARGE LEVEL OF THE BATTERY*).
- Remove the battery (see chapter 10.2 *FITTING AND REMOVING THE BATTERY*).
- Remove the motor unit from the wheelchair (see chapter 11.2 *COUPLING AND UNCOUPLING THE MOTOR UNIT*).
- Remove the connection frame from the wheelchair (see chapter 11.1 *COUPLING AND UNCOUPLING THE CONNECTION FRAME*).
- Remove the stand from the motor unit (see chapter 11.4 *COUPLING AND UNCOUPLING THE STAND*).
- Load the parts individually into the car boot – to balance the weight of the motor unit, take hold, with one hand, of the fork's tube between the two supports **2a 2b** and, with the other hand, of the fork's tube **3**just under the support.

  To remount the Mototronik, mount the stand and then follow the instructions above in the opposite sequence.

CAUTION!

When loading and unloading the Mototronik pay the utmost attention not to damage the (electric and mechanical) wires that run inside the frame of the device as these could be pinched or broken.

If some elements of the electric or mechanical system get damaged during the loading and unloading of the Mototronik device, do NOT under any circumstances use the device and take it immediately to an authorised Rehateam s.r.l. service centre.

16 CLEANING

Constant cleaning of the device, in all its parts, guarantees a longer life and better functionality of the device itself. It is recommended to:

- Before proceeding with the cleaning operations, turn both the battery and the display off.
- Do not use abrasive substances, neither aggressive detergents nor high-pressure water jets.
- Clean the device with a soft damp cloth.
- Carefully dry the device whenever it gets wet.
- If the device becomes smeared, soften the dirt as soon as possible and remove it; then carefully dry the device.
- Carry out external cleaning of the entire device at least once a month and after each outing on muddy terrain.
- Be careful not to wet the electrical parts (battery, display, motor).
- Do not wash parts with running water.
- Dry the parts immediately after washing them with a soft cloth.
- If the electrical parts get wet, let them dry and do not use the device until they are thoroughly dry.

17 ACCESSORIES

CAUTION!

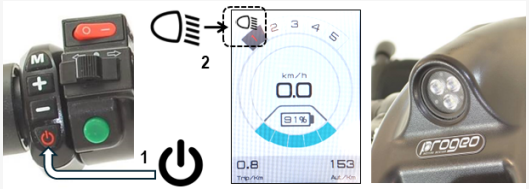
The accessories with which the Mototronik device can be equipped are exclusively those present in the order form.

The use of any accessory other than those on the order form shall void the product warranty.

17.1 Full Led HEADLIGHT

When the display is switched on, press the on/off button **(1)** once to turn the headlight on or off.

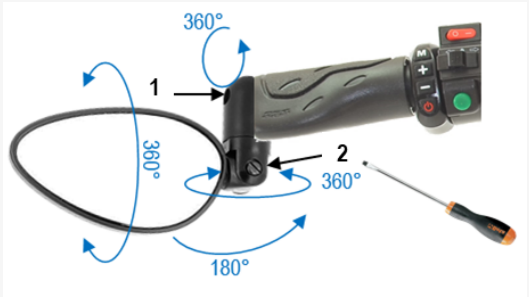
When the headlight is switched on, the display shows the headlight symbols **(2)**.



17.2 REAR-VIEW MIRROR

It can be mounted both on the right and on the left side.

To adjust the mirror, loosen the joints **(1)** and **(2)** with a slotted screwdriver, then move it where necessary and finally fix the joints.



17.3 REMOVABLE BASKET

To mount the basket **(1)**, fit the support **(2)** to the hooks of the support **(3)**, swing it down, press the button **(4)** and continue the rotation all the way down, then release the button.

Make sure the basket is safely attached by shaking it.

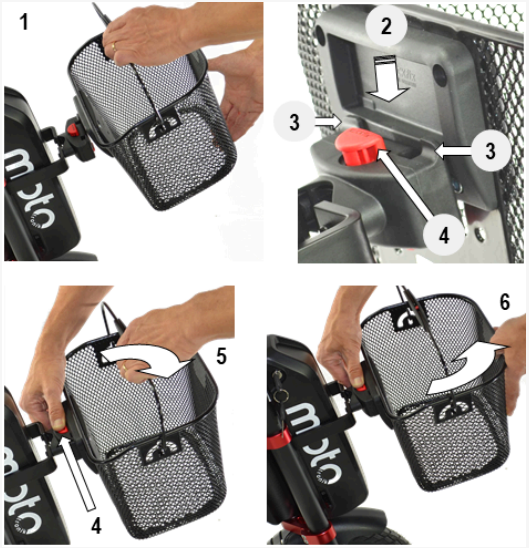
To remove it, press the button **(4)**, slightly swing the basket upwards **(6)** and pull it off.

CAUTION!

The maximum load of the basket is 7 kg.

CAUTION!

Before detaching the motor unit from the wheelchair, it is recommended to empty the basket to avoid dropping the device.



17.4 REMOVABLE BALLAST

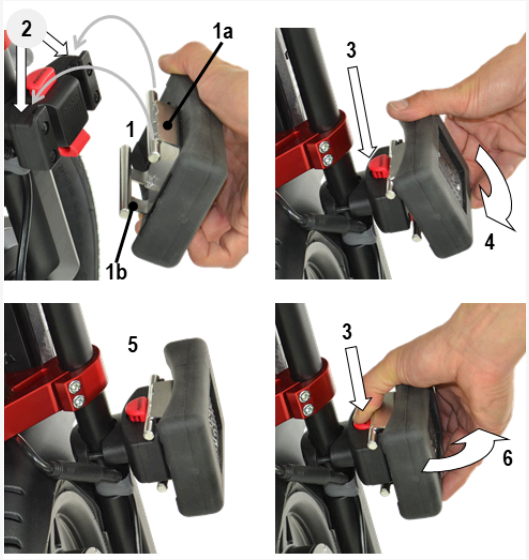
Present on both sides of the device, it increases the weight of the drive wheel to increase traction.

Particularly useful when going uphill, the weight of the ballast is 2.2 kg each.

To mount the ballast, place the support **(1)** with the part without the opening **(1a)** in the hooks of the support **(2)** and then swing it down **(4)** until the part with the opening **(1b)** engages.

Make sure the ballast is safely attached by shaking it.

To remove it, press the button **(3)**, swing the ballast upwards **(6)** and remove it.



NOTICE

DO NOT use a ballast only on one side; in fact, this would unbalance the steering and could result in loss of control of the vehicle.

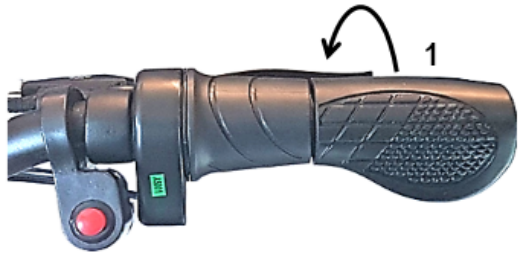
CAUTION!

Before detaching the motor unit from the wheelchair, it is recommended to remove both ballasts to avoid dropping the device.

17.5 KNOB ACCELERATOR

Replaces the lever accelerator and works by rotating the moving part **(1)** of the grip.

When the moving part is released, it automatically returns to the neutral position.



17.6 EASY-RELEASE LEVER

It helps with releasing the motor unit. Especially useful for users with limited strength in their arms/hands.

Push the lever **(1)** outwards **(2)** to press the button **(3)** and release the motor unit. See also chapter 11.2 *COUPLING AND UNCOUPLING THE MOTOR UNIT*.

17.7 HANDLEBAR STEM EXTENSION

It allows you to adjust the handlebar in a higher or closer (to the user) position.

Range of the extension: from + 160 to + 240 mm, every 20 mm.

17.8 TRANSPORT BAG

Protects the device during transport and/or storage.

The connecting frame and the stand must be disassembled (see chapters 11.1 *COUPLING AND UNCOUPLING THE CONNECTION FRAME* and 11.4 *COUPLING AND UNCOUPLING THE STAND*) and inserted into the bag separately.

18 MAINTENANCE

Mototronik devices should be subjected to periodic maintenance, in this way, the operation of the device can be guaranteed in terms of safety, reliability and effectiveness.

Rehateam s.r.l. is not responsible for any damage due to non-maintenance or insufficient maintenance; for the same reason, the validity of the warranty will not be guaranteed.

Extraordinary maintenance can only be carried out by technicians authorised by Rehateam s.r.l.

18.1 ORDINARY MAINTENANCE

The following routine maintenance checks are recommended:

- at least once a week, the tyre pressure; a deflated tyre affects the device's fluidity, safety and power consumption.
- at least once a month, the tyre condition. To replace the inner tube or the tyre, turn to a technician authorised by Rehateam s.r.l.
- at least once every two months, the fixing of all bolts of all fixing elements.
- at least once a month, the fixing nuts of the wheel's axle.
- check, before each use, the brake system: (the pads, disc, and the braking system in general is subjected to wear and tear and efficiency is weakened.)
- check the good condition of the battery, before each use.

Do not remove any component from the device. Only technicians authorised by Rehateam s.r.l. can remove components from the device.

The only components that can be removed by the user are the battery and the stand.

For replacement of any component, contact only the technicians authorised by Rehateam s.r.l.

18.2 EXTRAORDINARY MAINTENANCE

Have the entire device serviced, at least once a year, and/or whenever a malfunction is detected, by a specialised technician authorised by Rehateam s.r.l.

19 STORAGE

If the Mototronik device is not used for a medium-long period (over 4 months), store it clean in a dry and covered place and inside a box (preferably that of the original packaging). It is also advisable to switch off and remove the battery from the device.

At the time of re-use, it is necessary to carry out a general check of the wheelchair following the same points of chapter 18.1 *ORDINARY MAINTENANCE*.

Before using the Mototronik device, reread the instructions of chapter 11 *COUPLING AND REMOVING THE DEVICE* and carry out a precautionary driving test to check that there are no defects.

In case of malfunctions, faults or broken parts, consult an authorised dealer for the necessary repair.

20 TROUBLESHOOTING GUIDE

If you encounter a defect while using your Mototronik device, you should contact Rehateam s.r.l. or an authorised dealer.

Problem	Cause of the problem	Solution
The device does not turn on	The battery is not turned on.	Turn the battery on – see chapter 10.1 *ON/OFF SWITCHING AND CHARGE LEVEL OF THE BATTERY*
	The battery is discharged.	Charge the battery – see chapter 10.3 *BATTERY CHARGER AND CHARGING*
	The battery is badly fitted.	Check the fitting of the battery; remove it and refit it again – see chapter 10.2 *FITTING AND REMOVING THE BATTERY*
	General problems.	Turn to a service centre authorised by Rehateam s.r.l.
You feel excessive vibrations while driving.	Some bolts may be loosened.	Turn to a service centre authorised by Rehateam s.r.l.
The display is on, but the device does not work.	The display shows the symbol (**!**) because you turned it on while pressing the accelerator lever.	Turn the display off and then turn it back on – see chapter 12.3 *SWITCHING ON/OFF THE DISPLAY*
	The display plug is detached.	Connect the display plug or turn to a service centre authorised by Rehateam s.r.l.
The motor unit does not couple to the connection frame.	The lock double hook of the central block does not move, and it remains in the "open position".	Clean and lubricate the moving parts of the hook.
	The knob on the central block of the motor unit is too long.	Adjust the knob.

Problem	Cause of the problem	Solution
Coupling the connection frame to the wheelchair is difficult	The lock levers of the coupling forks are not sufficiently loosened.	Loosen the levers as much as necessary to let the forks slide in – see chapter 11.1 *COUPLING AND UNCOUPLING THE CONNECTION FRAME*
	The coupling forks have moved.	Turn to a service centre authorised by Rehateam s.r.l.
	The clamps or the half-moon-shape supports have moved.	Turn to a service centre authorised by Rehateam s.r.l.
The wheelchair castors touch or are too close to the ground	The coupling block of the connection frame is positioned too high.	Turn to a service centre authorised by Rehateam s.r.l.
	The device's wheel is deflated.	Inflate the wheel.
	The device's wheel is punctured.	Turn to a service centre authorised by Rehateam s.r.l.
The Mototronik device is noisy when using it	The wheel touches the fender.	Check that there is no interference between the tyre and the fender such as mud, pebbles, etc., and remove any such interference.
	The brake's pads touch the disc.	Turn to a service centre authorised by Rehateam s.r.l. to adjust or replace the brake pads
	A strange noise can be heard.	Turn to a service centre authorised by Rehateam s.r.l.

20.1 ERROR LIST

“error” 01r Motor control/Flash failure	**“error” 02** Motor control/Motor overload	**“error” 03** Motor control/Overvoltage	**“error” 04** Motor control/Low voltage
“error” 05 Motor control/Drive power failure	**“error” 06** Motor control/High drive temperature	**“error” 07** Motor temperature too high	**“error” 08** Motor phase loss

“error” 09 Motor control/Motor response fault	**“error” 10** Motor control/Current out of range	**“error” 11** Err. Motor control/Overspeed	**“error” 12** Acceleration fault
“error” 13 Cruise button fault	**“error” 14** Brake button fault	**“error” 15** Motor control/Watchdog fault	**“error” 16** Motor control/Microprocessor fault
“error” 17 Motor control/ALU Microprocessor fault	**“error” 18** Motor control/Flow Control App. fault	**“error” 19** Motor control/Memory Fault	**“error” 20** Motor control/CRC fault
“error” 21 Motor control/Master Echo out of phase	**“error” 22** Motor control/Master parameters out of range	**“error” 23** Canbus Fault	

CAUTION!

Do not use the Mototronik device if it behaves abnormally; in such a case, immediately contact Rehateam s.r.l. or an authorised dealer.

21 TECHNICAL SPECIFICATIONS

Classification	
According to the Medical Devices Directive	Risk class I
Protection against electrical hazards	Class II
Degree of protection against direct and indirect contact	Type B
Use in oxygen-rich environments	No protection
Operating conditions	Device for continuous operation
General characteristics	
Type of traction	Electric
Brake	Mechanic disc brake
Brake disc diameter	160 mm
Type of use	Outdoor and indoor
Performances	
Maximum speed	20 km/h or less according to local regulations
Autonomy with battery 11.6Ah	up to 50 km *
Autonomy with battery 5.8 Ah	up to 25 km *
Autonomy with battery FLY 2.9Ah	up to 15 km *
Maximum rated slope	10% (6°)**
Maximum rated obstacle height	50 mm
Power of 12″ motor	250 W (maximum peak 750 W)
Power of 14″ motor	1000 W (maximum peak 1500 W)
Voltage of 12″ and 14″ motor	48 V
Maximum towing load	120 kg ***
Device lifetime	5 years or 25,000 km

** with a charged battery, moderate speed, flat course, and user weighing 75 kg.*
*** With charged battery, flat course, and user weighing 75 kg.*
**** User's weight plus wheelchair weight.*

Dimensional data	
Length	400 mm
Width	540 mm
Height	900 mm
Weight of 12″ motor unit	10.0 kg.
Weight of 14″ motor unit	13.0 kg.
Weight of connection frame	2.0 – 2.4 kg.
Weight of stand	0.5 kg.
Weight of clamps (pair)	0.5 kg.
Weight of battery 11.6AH	3.2 kg.
Weight of battery 5.8AH	2.0 kg.
Weight of battery FLY 2.9AH	1.5 kg.
Environmental conditions of use	
Maximum altitude	2000 m.
Atmospheric pressure	700 ÷ 1060 hPa
Temperature	- 25° ÷ + 40°C
A range between 0°C and 40°C is recommended for enhanced performance	
Relative humidity	30 ÷ 90%
Environmental conditions of transport and storage	
Temperature	- 40°÷ + 65°C
A range between 10°C and 50°C is recommended	
Relative humidity	30 ÷ 90%

ⓘ Before a long storage period, fully charge the battery.
During a long storage period, check the battery charge level and charge it at least once a month.
Before you start using the battery again after a long storage period, fully charge the battery.

22 DISPOSAL/RECYCLING OF MATERIALS

When the Mototronik device is to be disposed of (end of life of the product), it is necessary to consider any local regulations in force for waste disposal or recycling.

A description of the materials used is provided below.

- Aluminium: L-shape tubes, central tube of the connection frame, coupling forks, clamps, main frame.
- Steel: stand, connection frame tubes, bolts and nuts.
- Plastic: fender, spoiler.
- Rubber/PU: grips, tyre.
- Packaging: cardboard.
- Lithium battery.

Packaging: plastic bags made of soft polyethylene, cardboard. Alternatively, you can return the backrest to your dealer for disposal.

CAUTION!

In the event of disposal, be aware of any broken or damaged parts which could create a situation of potential danger with cutting or pinching injuries.

The use of suitable protection is recommended.

23 WARRANTY

The warranty agreement exists only between Rehateam s.r.l. and its authorised dealers. For this reason, the client may not make warranty claims directly. The following warranty conditions are therefore presented solely for information purposes.

General conditions of the warranty

Rehateam s.r.l. provides assistance on its products provided they have been used correctly and that adequate maintenance has been carried out on all parts of the device. The warranty covers all material and production defects provided that such defects can be shown to have been caused prior to delivery of the product to the authorised dealer.

How to make use of warranty rights

To benefit from all warranty rights on all our products, the authorised distributor/retailer must carry out an inspection, within 7 days from the date of delivery, on the products received, in order to ascertain any manufacturing defects, and secondly, if a manufacturing defect is found, the authorised distributor/retailer must immediately report it in writing to Rehateam s.r.l.

All defects which, in spite of scrupulous control, have been identified only after the expiry of the period indicated above, must also be reported in writing to Rehateam s.r.l.

Warranty period

Rehateam s.r.l. provides a guarantee of 24 months on the traction device and 12 months on the batteries, starting from the date of delivery, excluding those components that are subject to normal wear and tear during everyday use.

Repair of defects and replacement

The warranty on defects on contact parts is at the complete discretion of Rehateam s.r.l., either for the repair of the defect or for the replacement of the part itself. The authorised distributor in cases of simple repairs may take action independently to eliminate the defect or bring the defect to the attention of Rehateam s.r.l. in specific cases.

Limits of the warranty

The warranty does not cover additional costs (e.g. repair, packing, labour costs, incidental costs).

The following are not covered by the warranty:

- Damage caused during shipment and not notified to the carrier at the moment of delivery.
- Repairs carried out by unauthorised dealers or personnel.
- Parts subject to wear and tear.
- Damage to property or injury to persons caused during use of our products.
- Damage caused maliciously or where the buyer is at fault or resulting from incorrect or improper use of the product.
- Damage caused to the wheelchair, to objects and to persons resulting from any device or object, which is mounted on or added to the wheelchair without written authorisation from Rehateam s.r.l.

All claims for compensation are excluded from the warranty except for those specifically mentioned in the preceding paragraphs of this chapter.

Rehateam s.r.l. accepts no responsibility for failure to respect or execute the indications established in the individual contracts, if the following events have prevented and/or made it impossible to respect the terms of the contract itself:

embargoes, import and export bans on contracted products, legal regulations, strikes and lock-outs, shortages of raw materials, accidents or other force majeure circumstances.

Rehateam s.r.l. is not obliged to disclose any technical variations made to its products, which may be subject to modifications and updates as deemed necessary.

24 WARRANTY CERTIFICATE

REHATEAM s.r.l.

Vicolo Negrelli 5 — 31038 Castagnole di Paese (TV) — Italy

0039 0422 484657

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info_it@permobil.com

www.rehateamprogeo.com

DISTRIBUTOR / DEALER

Stamp

Date of delivery to user: .....

MEDICAL DEVICE
CLASS I

CE

product label

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