

USER MANUAL

PEDAL-ASSIST HANDBIKE



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SECTION 1

DEFINITIONS

DECLARATION OF CONFORMITY

MANUFACTURER INFORMATION

ATTACHED DOCUMENTATION

INFORMATION ON DOCUMENTATION

ACKNOWLEDGMENTS

Dear Customer,

First of all, we would like to congratulate you on your choice and sincerely thank you for the trust you have placed in us. It is a well-placed trust because the high technological level and the quality of the materials ensure the perfect functioning of the handbike you have purchased.

Furthermore, our organization allows us to guarantee our customers continuous and accurate service for assistance and maintenance.

Please read the user and maintenance manual carefully and strictly follow the instructions provided to achieve the best results in terms of safety and durability over time. The manual also includes all the necessary procedures to handle any reasonably foreseeable emergency situations that may arise during use.

WARNING:

By purchasing this handbike, you have chosen a high-quality product. Your new handbike has been manufactured using precisely developed and produced components.

This manual contains a collection of useful recommendations for using the handbike, as well as interesting information about its construction features, care, and maintenance. We encourage you to read this instruction manual carefully, even if you are an experienced cyclist. Keep in mind that the instructions may be incomplete depending on the experience and skills of the person performing the operations.

In recent years, handbike construction technology has made great progress.



We care about your safety and would like to remind you of some important advice:

Never ride your handbike without a helmet and protective eyewear. Always wear appropriate clothing without loose accessories that could get caught in moving parts.

Whether riding in traffic or off-road, always drive with caution and in compliance with traffic regulations to avoid endangering yourself and others.

Before setting off, be aware that the handbike does not have safety features like those found in cars, such as ABS, airbags, an external body, or bumpers. Therefore, always ride cautiously, maintaining a safe distance and following the direction of traffic, as well as the traffic regulations in your country, whether on roads or off-road, which may vary from one country to another.

If you plan to let children use your handbike, be aware that some countries have specific regulations regarding children's use of such vehicles.

First and foremost, we encourage you to familiarize yourself with your handbike and all its components, including any additional accessories. Before getting on, refer to the instruction manual, where all standard components and optional features are illustrated as examples.

By law, **handbike riders are prohibited from:**

- Being towed by cars
- Riding without hands on the handlebars
- Riding against traffic

SAFETY RECOMMENDATIONS:

- **Brakes heat up during use**, especially on long descents, where it is advisable to extend braking time.
- **Do not touch the brakes immediately after use** and always check their effectiveness before riding.
- Always ride responsibly, paying attention to your own safety and that of others, avoiding dangerous behavior.
- **Modifications to any part or component of the handbike are strictly prohibited.**
- Keep hands, feet, hair, and other body parts away from rotating components such as wheels, gears, and motors while riding.
- Avoid riding with your hands in your pockets, riding hands-free, sudden collisions, slippery surfaces, and uneven roads. Stick to solid, dry, and clean surfaces such as paved, asphalt, or concrete roads.
- Do not ride on water, snow, sand, gravel, debris, or in adverse weather conditions. **Rain and snow can reduce braking efficiency and compromise visibility.**
- **Always wear a helmet, protective eyewear, and any necessary safety gear before riding to prevent accidents.**
- Follow the operating instructions for the **electrical system specifications and services.**
- **Inspect the handbike before every ride** to ensure it is free from obstacles and has sufficient battery charge. If any issues are detected, resolve them before riding.
- Avoid riding up or down ramps with **a slope greater than 15 degrees.**
- Do not accelerate or decelerate suddenly, and do not exceed the allowed speed limits. Maintain proper body balance and avoid leaning too far forward or backward.
- **When the battery is low, ride at a reduced speed** and charge the handbike as soon as possible.
- **In case of a fall, prioritize personal safety above all else.**
- **Give priority to pedestrians** and avoid startling them, especially children.
- Maintain a **safe distance from other cyclists** and do not ride side by side unless there is enough space for pedestrians to pass.
- **Avoid riding in poorly lit areas.** If necessary, ride cautiously and at a low speed.

- **Do not ride in reverse**, as it can be dangerous. Reverse riding is only permitted for short distances or to free yourself from an unexpected obstacle.

DECLARATION OF CONFORMITY

The handbike is accompanied by a declaration of conformity, issued in compliance with the applicable laws in the European territory.

PLEASE NOTE



BEFORE USING THE MEDICAL DEVICE IN ANY WAY, ENSURE THAT THE DECLARATION OF CONFORMITY IS PRESENT.



IF THE MEDICAL DEVICE IS TRANSFERRED TO A THIRD PARTY, ALL ACCOMPANYING DOCUMENTATION MUST BE HANDED OVER ALONG WITH IT.

MANUFACTURER INFORMATION

COMPANY NAME	Maddiline Cycle S.n.c.
COMPANY ADDRESS	Via Campagnon - Sant'Ambrogio di Valpolicella – 37015 – Verona (VR)
VAT NUMBER	01684860230
SDI CODE	W7YVJK9
PEC (Certified Email)	maddinelli@pec.it
PHONE	+39(0)45 773 12 10
EMAIL	info@maddilinecycle.com
WEBSITE	www.maddilinecycle.com
PRODUCT LINK	https://www.maddilinecycle.com/it/prodotti

AUTHORIZED SERVICE



*Technical assistance **can only be performed by the manufacturer** or by a technician authorized by the manufacturer.*

ATTACHED DOCUMENTATION

Documents

Le documentazioni allegate alla handbike oltre al presente manuale sono:

- BAFANG DISPLAY MANUAL
- ROCK-SHOX MANUAL

MANUAL PRESENTATION



PLEASE NOTE

UPON RECEIVING THE MEDICAL DEVICE, BEFORE PERFORMING ANY OPERATIONS OR USING IT, CAREFULLY REVIEW ALL THE DOCUMENTATION INDICATED IN THE PREVIOUS PARAGRAPH.

This manual contains instructions for the handling, use, and maintenance of the electric pedal-assisted handbikes of all models by Maddline Cycle SNC.

The manual is divided into various sections, each addressing a series of topics, organized into chapters and paragraphs. The table of contents lists all the topics covered in the entire manual. The page numbering is sequential, and each page displays its respective number. This manual is intended for personnel responsible for the handling, use, and maintenance of the handbike and is related to the technical life of the handbike after its production, use, and any potential sale. In the event the handbike is transferred to a third party (whether through sale, lease, or any other reason), it must be handed over with all accompanying documentation.

The information contained in this manual is not intended to replace the knowledge and experience of the individuals who will use the handbike (in any form). The sole responsibility for its use, as designed, rests exclusively with the user. Before performing any operation on any unit of the handbike, it is essential to have read the entire manual and further explored the specific topics related to the operations intended. This manual contains proprietary and confidential information and may not be provided, even partially, to third parties for any use or in any form, without prior written consent from Maddline Cycle SNC.

Maddline Cycle SNC declares that the information contained in this manual is consistent with the technical and safety specifications of the handbike to which the manual refers. A certified copy of this manual is filed in the technical dossier of the handbike, kept by Maddline Cycle SNC. Maddline Cycle SNC does not recognize any documentation that has not been produced, issued, or distributed by itself or an authorized representative. This manual, along with the entire technical dossier, will be maintained by the manufacturer for the period prescribed by law. During this period, a copy of the documentation accompanying the product may be requested at the time of sale. The entire technical dossier remains available exclusively to control authorities for this period, who may request a copy. After this period, it will be the responsibility of the product manager to ensure that both the product and documentation comply with the applicable laws at the time of inspection.

Conventions

In order to achieve a quicker understanding of the topics, the manual uses graphic and typographic symbols, as well as conventions, which are described below.

Warning graphic conventions



PLEASE NOTE

THE NOTES CONTAIN IMPORTANT INFORMATION, HIGHLIGHTED OUTSIDE THE TEXT THEY REFER TO.



ATTENTION

THE ATTENTION INDICATIONS REFER TO PROCEDURES WHOSE COMPLETE OR PARTIAL NON-COMPLIANCE MAY CAUSE DAMAGE TO THE MEDICAL DEVICE, ITS COMPONENTS, AND MAY EXPOSE A PERSON TO MINOR AND MODERATE RISKS.



DANGER

THE DANGER INDICATIONS REFER TO PROCEDURES WHOSE COMPLETE OR PARTIAL NON-COMPLIANCE MAY CAUSE SEVERE DAMAGE OR INJURIES TO THE HEALTH OF THE USER OR OTHERS IN THE VICINITY, AND SERIOUS DAMAGE TO THE MEDICAL DEVICE.

Pictograms

The medical device contains the following pictograms:

Prohibitions

Prohibition of cleaning, oiling, greasing, repairing, or manually adjusting the moving parts.

Dangers



Electricity Hazard



Hand Crushing
Hazard



Generic Hazard



ATTENTION

The safety pictograms should not be removed, covered, or damaged.

Medical Symbols

	Serial Number
	Item reference
	Medical device
	Manufacturing date
	Dispose of with electrical and electronic equipment in accordance with Directive 2012/19/EU, known as the WEEE Directive
	Manufacturer
	CE Mark
	The medical device complies with the requirements of Directive 2011/65/EU and Delegated Directive 2015/863.
	Grounding – Electrical Safety Class II
	Electrical Safety Class III for the handbike – product operating on a low-voltage battery

SECTION 2

WARRANTY

GENERAL SAFETY REGULATIONS

GENERAL DESCRIPTION

TECHNICAL DATA

SAFETY DEVICES

PREDICTED AND UNPREDICTED USE

WARRANTY

The warranty terms, fully outlined in the purchase contract, are valid only if the Handbike is used under the intended conditions. With the exception of maintenance procedures described in the **MAINTENANCE SECTION** and carried out according to the specified procedures, any repair or modification made to the Handbike by the user or unauthorized companies will void the warranty. The warranty does not cover damages caused by improper use, negligence, or poor/omitted maintenance.

The products we sell are covered by warranty under the following conditions:

1. The warranty is valid for a period of twenty-four (24) months for the handbike, 24 months for the battery, 12 months for the charger, and other electrical components.
2. The manufacturer commits to replacing, at its discretion, malfunctioning or incorrectly manufactured parts only after a thorough inspection and confirmation of poor construction.
3. Shipping and/or transportation costs are always the responsibility of the buyer.
4. During the warranty period, replaced products become the property of the manufacturer.
5. This warranty is available only to the original buyer who has followed the regular maintenance instructions outlined in the manual. Our warranty responsibility ends when the original owner transfers ownership of the product or if modifications have been made to it.
6. The warranty does not cover damages resulting from excessive strain, such as using the product after detecting an anomaly, using inappropriate operating methods, or failing to follow the usage and maintenance instructions.
7. The manufacturer assumes no responsibility for difficulties arising in resale or use abroad due to regulations in the country where the product was sold.
8. The defective part of the product must be returned to the manufacturer for replacement; otherwise, the replaced part will be charged to the buyer.
9. The manufacturer does not guarantee the product against damages or defects in the following situations: natural disasters, unauthorized maintenance or repair, damage caused by electrical power issues, use of parts or components not supplied by the manufacturer, failure to adhere to usage and maintenance guidelines, unauthorized modifications, shipping damage (other than shipping performed by the manufacturer), or failure to perform maintenance as outlined in the manual.
10. Wearable components are not covered by the warranty if the damage is due to normal use of the product.

Notice: *If you need to use the warranty, please provide the following information:*

1. Type of issue

2. *Purchase date (presentation of the purchase document)*
3. *Detailed description of the issue*



PLEASE NOTE

FAILURE TO COMPLY WITH THE INTERVENTION AND USAGE METHODS OF THE MEDICAL DEVICE DESCRIBED IN THIS DOCUMENTATION RESULTS IN THE EXPIRATION OF THE WARRANTY TERMS.

WARNING

If any part of the documentation is even partially illegible, consult the manufacturer before performing any further operation on the medical device. The personnel responsible for the use and maintenance of the Handbike must read this document, paying particular attention to the general safety rules and the methods of execution contained in the sections related to the operations within their competence. This chapter describes the general safety rules to be observed during any operation carried out with the product. The intervention procedures, described in the following chapters, must be executed by respecting both the indicated execution methods and the general safety rules of this chapter.

The safety rules and procedures for use and maintenance in this documentation may also complement the general workplace safety rules, which must ALWAYS be followed when the medical device is used in professional settings.

Different sectors or countries may have different safety regulations. It is therefore specified that in all cases where the manual rules conflict with or are less stringent than the regulations of the sector or country in which the medical device is used, the regulations of the sector or country will take precedence over the manual rules.

Failure to comply with the usage rules and intervention methods in the documentation will also result in the expiration of the warranty terms.



PLEASE NOTE

THE MANUFACTURER CANNOT BE HELD RESPONSIBLE FOR ANY ACCIDENTS OR DAMAGE RESULTING FROM THE USE OF THE MEDICAL DEVICE BY UNTRAINED OR UNAUTHORIZED PERSONNEL, OR FROM IMPROPER USE, OR FROM THE NON-COMPLIANCE, EVEN PARTIAL, WITH THE SAFETY RULES AND INTERVENTION PROCEDURES DESCRIBED IN THE DOCUMENTATION.

Safety Rules

During the use of the Handbike, there may be instances of incorrect or unforeseen operation that are not addressed in the manuals. These situations, which are entirely abnormal, may sometimes be caused by environmental factors or by unforeseeable malfunctions.

If any problems of any kind arise that are not addressed in this document, contact the manufacturer for technical assistance.

If you believe you need to carry out an operation or intervention not foreseen in the manual by following a procedure different from those indicated in the Handbike documentation, consult the assistance service before proceeding to verify its feasibility.

The manual should be carefully stored. In case of deterioration or loss, the client may request a certified copy from the security service of Maddiline Cycle SNC.



ATTENTION

To prevent dangerous situations, it is necessary that all users designated and authorized to use the Handbike carefully read this manual, ensuring they understand the usage and intervention methods before using it in any form. If the usage instructions are difficult to understand, contact the manufacturer to receive all necessary assistance.

GENERAL DESCRIPTION AND TECHNICAL DATA

General Description

A handbike is a type of bicycle that allows users to move through the environment by utilizing the strength of their arms, which are used to operate cranks placed on the handlebars.

It is often used by individuals with disabilities or malformations of the lower limbs. The handbike in question has three wheels and is equipped with an electric motor that assists the user in operating the cranks on the handlebars.

In a very schematic way, a handbike can be described as consisting of a frame with a seat, on which the user can sit. Three wheels are attached to the frame: one front wheel and two rear wheels. The front wheel has a unique characteristic: as with traditional handbikes, it is connected to the steering mechanism and is responsible for directing the vehicle. It also serves as the driving force because it is connected to the pedals through the chain. Therefore, it is easy to understand that the two rear wheels are solely responsible for stability and maintain balance during movement and stops.

HANDBIKE TYPE	TERRAIN TYPE	RANGE
CARBIDE	Asphalt road	Competitive, sports, long-distance travel
RACE PRO EVO	Asphalt road and cobblestones	Competitive, sports, touring, medium and long-distance travel
RACE-X	Asphalt road and cobblestones, gravel, trails, dirt roads	Touring
CROSSWIND-X	Asphalt road and cobblestones, gravel, trails, dirt roads	Touring

Brakes on the handbike are available in various versions based on customer choice:

1. Three hydraulic disc brakes + parking brake
2. Front V-brake + front parking brake
3. Hydraulic or mechanical disc brake + parking brake
4. Backpedal + parking brake

Risk Class: Class I Medical Device

Technical Data

The product is sold in different variants regarding certain technical specifications.

	CARBIDE HYBRID	RACE PRO EVO HYBRID	RACE- Xe/EXTREME	CROSSWIND- Xe
Fork	Aluminum	Aluminum	Aluminum	Aluminum
Frame	Carbon	Aluminum	Aluminum	Aluminum
Gear	Mechanical or Electronic	Mechanical or Electronic	Mechanical or Electronic	Mechanical or Electronic
Brake	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)

Wheels	26"/26" 26"/20"	26"/26" 26"/20"	26"/26" 27,5"/27,5"	26"/26" 27,5"/27,5"
Tires	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)
Chainring	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)
Cassette	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)
Backrest	Carbon	Aluminum	Aluminum	Aluminum
Grips	Aluminum	Aluminum	Aluminum	Aluminum
Cranks	ErgAl	ErgAl	ErgAl	ErgAl
Motor	Hub motor 250W	Hub motor 250W	250W Central motor	250W Central motor
Battery	36V 14.5ah Bottle battery	36V 14.5ah Bottle battery	36V 14.5ah or 17.5ah battery	36V 14.5ah or 17.5ah battery
Accessories	Safety flag, safety bumper bar	Safety flag, safety bumper bar	Safety flag, safety bumper bar	Safety flag, safety bumper bar
Optional Accessories	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)	Choice (see order sheet)

Electrical Data for Models and Versions

	CARBIDE HYBRID/RACE PRO EVO HYBRID	RACE-Xe/RACE-Xe EXTREME/CROSSWIND-Xe
Charger	220V A.C. freq. 50&60 Hz 36V D.C.	220V A.C. freq. 50&60 Hz 36V D.C.
Charger Electrical Safety Class	Class II	Class II
Motor	250W	250W,
Battery	Li-ion 14,5ah	Li-ion 14,5ah Li-ion 17,5ah
Power Absorbed	250W	250W

Control Devices

The handbike control devices are:

- Grips
- Brake levers

- Gear levers
- Motor display (only in pedal-assist version)



DANGER

IT IS PROHIBITED TO MODIFY THE PRODUCT'S CONTROL SYSTEM. THE MANUFACTURER IS NOT RESPONSIBLE FOR IMPROPER AND UNAUTHORIZED USE OF THE PRODUCT DUE TO TAMPERING AND/OR NEGLIGENCE BY THE USER.



DANGER

ANYONE WHO IS TO PERFORM ANY OPERATION WITH THE PRODUCT MUST UNDERSTAND THE MEANING AND USE OF THE CONTROL SYSTEM.

Alarms

Our handbikes are designed for specific use. When adding additional components, such as fenders or similar, evaluate their compatibility before purchasing. In the case of bells, horns, or lighting devices, ensure these components or accessories are allowed for road circulation. For racks, seats, towing trailers, etc., comply with the appropriate use of the purchased model.

Fixed Guards

All moving or dangerous parts are protected by plastic and metal structures that are guards requiring specific equipment to bypass. These guards should never be removed except for specific maintenance interventions. After completing the work, they should be properly reassembled, and their stability should be checked.

Medical Device Limitations

- The handbike can support a maximum weight of 120 kg. Exceeding this weight compromises the product's performance and may cause permanent, irreversible damage.
- Prolonged use of the medical device with excessive weight can cause eventual frame breakage, or in the case of the electric version, damage to the pedal-assist system.
- Prolonged use with excessive weight may lead to the breakage of the motorized system.
- The medical device does not cure any disease but assists patients with motor difficulties or disabilities.

Contraindications

The handbike should not be used in the presence of:

- Perception disorders
- Severe balance issues
- Loss of both arms
- Joint contractures/damages in both arms
- Inability to sit
- Insufficient or reduced vision

Side Effects

The side effects from using the medical device are:

- Skin redness if the patient is allergic to the material covering the seat. If this occurs, suspend the use immediately.



PLEASE NOTE

THE DATA RELATE TO THE MEDICAL DEVICE IN STANDARD CONFIGURATION. THE TECHNICAL DATA PROVIDED ARE INDICATIVE. THE MANUFACTURER RESERVES THE RIGHT TO MODIFY THEM IF NECESSARY AND TO MAKE THE CHANGES KNOWN.

Fixed Guards

The live parts, moving components, and parts that reach dangerous temperatures of the Handbike are prevented from contact and are isolated by fixed guards, which require special tools for removal.

It is forbidden to operate the Handbike with fixed guards removed from their position and to tamper with it in any form.

Identification Plates

An identification plate is applied to the Handbike, which contains the identifying details and main technical data.



ATTENTION

TO SAFEGUARD THE INTEGRITY OF ALL COMPONENTS OF THE MEDICAL DEVICE, IT IS ESSENTIAL TO COMPLY WITH THE TECHNICAL DATA PROVIDED ON THE PLATE.

INTENDED USE AND UNINTENDED USE

Intended Use



ATTENTION

SINCE IT WOULD BE IMPOSSIBLE TO LIST ALL OPERATIONS THAT SHOULD NOT OR CANNOT BE PERFORMED, ANY OPERATIONS (OTHER THAN NORMAL ONES) NOT EXPLICITLY DESCRIBED IN THE DOCUMENTATION OF THE MEDICAL DEVICE SHOULD BE CONSIDERED IMPOSSIBLE.

The medical device is designed and manufactured for use in private settings and is not intended as a support and mobility system for patients with motor difficulties or disabilities that make walking difficult and/or impossible.

Unintended Use

No use other than those described in the "Intended Use" section is permitted.

- Do not use the device if the seat or structure is compromised.
- Do not allow children to play on the device.
- Avoid sitting down violently on the medical device.
- Do not sit on, climb, or jump on the backrest, rear safety bar, or footrests.
- Never exceed the maximum allowed weight capacity.
- Do not position the handbike near heat sources, in humid environments, or on uneven floors.
- Do not place or stack heavy objects on the handbike.
- It is not suitable for simultaneous use by more than one person.
- Do not wash the handbike with water jets.
- Do not allow more than one user to use the device at the same time.
- Do not operate switches or disconnect the plug with wet hands.
- Do not replace the plug in any way.
- Do not use with a voltage different from the one indicated on the label, and do not insert the plug into multiple outlets.
- Do not use if the electrical cable, battery, plug, or power socket is damaged.
- Do not damage, break, modify, bend, retract, twist, or wrap the electrical cable during use.

Reusing any part of the medical device after it has been decommissioned releases the manufacturer from any liability arising from its use.



PLEASE NOTE

THE MANUFACTURER CANNOT BE HELD LIABLE FOR ANY INCIDENTS OR DAMAGE ARISING FROM UNINTENDED USE OF THE MEDICAL DEVICE.

RESIDUAL RISKS

Important:

- Do not wet electrical connections or the control device with water or other liquids.
- Ensure the area where the medical device is used and maintained has at least 200 lux of illumination.
- Maintenance should only be performed following the instructions in the manual.

During the design phase, solutions were adopted to ensure the safe use of the medical device in all phases of operation: transport, adjustment, activity, and maintenance. However, not all potential risks for the user and environment have been eliminated due to technological reasons (device reliability) and management difficulties (excessive difficulty in elimination). Therefore, residual risks are indicated, such as electrocution, etc.



Do not insert hands, feet, or other body parts into any moving part of the medical device when it is in use. There is a high risk of crushing and/or cutting off a limb.



All electrical components for pedal-assisted models, under tension in the medical device, are isolated and prevented from contact and cannot be reached by an operator during normal and correct operational activities. The live electrical components are always marked with the following pictogram.

SECTION 3

MOVEMENT
CONFIGURATION
USE

MOVEMENT

It must be kept in mind that, although carefully protected and packed, the medical device must be considered fragile and handled with care and attention.

Before moving the Handbike, check its integrity and that of its parts. If any damage, missing parts, deformation, or signs of impact are found, report it to the authorized service center before proceeding with any further operations.

In particular, check the integrity of:

- Structure
- Electrical power cables
- Battery
- Seat
- Accessories
- Gear
- Brakes
- Tires
- Spokes
- Wheels
- Cranks
- Grips
- Bolts
- Any motor and battery

Moving the Medical Device

The medical device must be moved assembled, one unit at a time. Details on the movement operations are provided in the following sections.



DANGER

FOLLOW SAFETY INSTRUCTIONS DURING THE HANDLING OPERATIONS OF THE MEDICAL DEVICE.

Manual Movement

The weight of the assembled medical device is indicated in this manual and on the attached label. Given its weight and size, it can be manually moved by a single person.

To perform the manual movement of a unit, it is sufficient to:

- Have each operator hold it firmly and securely.
- Ensure each operator lifts it while being particularly careful not to bend their back (see the image below for the correct posture).

The handbike is equipped with wheels. The handbike is moved by lifting the front wheel. The parking brake can remain engaged since it only locks the front wheel, not the rear wheels.

LOCATIONS

For all pedal-assisted handbikes:

- The area for using the medical device must be chosen so that it cannot be hit by steam jets, water, or other liquids.
- The location chosen for battery charging must allow for easy connection of the plug to the building's power supply.
- The path of the charger cable must be limited so that it does not pose a risk to people (e.g., tripping hazard).
- There must be at least 30 cm of space around the perimeter of the medical device during the charging phase.

Temperature

- In use: from 0°C to 40°C.
- Not in use: from 15°C to 30°C.
- During storage: from 0°C to 40°C..

Store the battery in a dry place, not too hot or cold, 5°C – 25°C.

Relative Humidity

- In use: from 1% to 70%, no condensation.
- Not in use: from 1% to 70%, no condensation.
- During storage: from 1% to 70%, no condensation.

CONFIGURATION

Warning

The medical device has been tested and adjusted by the manufacturer before sale. Before preparing the medical device for use, completely remove any protective coverings and packaging material. It is complete with all necessary components for use.

Assembly and Setup of the Handbike

- Make sure you have all the components and tools necessary to assemble the bike.
- Ensure you have a clean workspace and free time.

- Place the frame on a table.
- Mount the rear wheels on the handbike.
- Install the rear safety bar.
- If your handbike is pedal-assisted, check that the battery is properly installed. If the bike was shipped without a battery, insert the battery manually.
- Double-check all mounting screws while on the table.
- Remove the bike from the table.
- Check the tire pressure.
- Check the rear suspension pressure.
- Engage the parking brake.
- Get on the handbike.
- If it's pedal-assisted, turn on the display after getting on.
- Perform a few rounds at moderate speed to check the full range of gears, controls, and the position of the gear shifters, backrest, and handlebars.
- Make adjustments if necessary.
- Familiarize yourself with the position, feel, and functionality of the controls.
- Break in the brakes by doing sprints and then gradually braking harder without stopping, until you feel the braking power increase. This will happen when the pads and discs share an even surface of material.

Use

- Get on the handbike.
- Place your legs on the footrests located on the sides of the front wheel.
- Secure your feet with the Velcro straps.
- Secure your legs with straps to the fork to avoid injury.
- Find a comfortable position (adjust the seat and backrest).
- If it is a pedal-assisted handbike, turn on the display to activate the battery and motor. Set it to the lowest level, in the lowest gear.
- Position your hands (right and left cranks).
- Start pedaling.

USE



ATTENTION

PRACTICE RIDING IN AN AREA WITH A SMOOTH ROAD SURFACE, AWAY FROM OBSTACLES AND PEOPLE WHO COULD BE HIT.



ATTENTION

THE MAXIMUM ALLOWED WEIGHT OF THE RIDER, INCLUDING LUGGAGE, MUST NOT EXCEED 120KG. OTHERWISE, THE USAGE ADVICE FROM THE COMPONENT MANUFACTURERS COULD FURTHER LIMIT THE MAXIMUM ALLOWED CAPACITY.



ATTENTION

DO NOT ALLOW YOURSELF TO BE DISTRACTED BY THE DISPLAY OF THE ON-BOARD MOTOR. IF YOU DO NOT FOCUS ATTENTIVELY ON THE TRAFFIC, YOU RISK BEING INVOLVED IN AN ACCIDENT. THEREFORE, IF YOU WISH TO MAKE ADJUSTMENTS ON THE ON-BOARD DISPLAY REGARDING THE GEAR LEVEL AND/OR ASSISTANCE, STOP AND ENTER THE DESIRED SETTINGS.

Battery Charging

The battery charge is indicated on the motor display. If the battery is low (below 30%), remove the battery from the frame.

Charge the battery using only the supplied charger, which plugs into the power socket. The plug input is located directly on the battery.

Avoid the charger coming into contact with water or being stored in humid places. Do not charge the battery in the sun. Keep the battery and charger away from heat sources (e.g., radiators). If the pedal-assisted handbike is used infrequently or not at all, it is still recommended to perform a full charge cycle at least once a month.

The battery should not be too charged or completely discharged. In this case, ensure the charge level does not exceed 60% and does not drop below 30%. Store the battery in a dry place, with a temperature between 5°C and 25°C. Contacts should always be clean (if possible, clean with spray).

Turning On

Consult the "Display Manual" attached to this document.

Spegnimento

Consult the "Display Manual" attached to this document.

SECTION 4

MAINTENANCE DISPOSAL

MAINTENANCE

Safety



DANGER

REMOVE THE MEDICAL DEVICE FROM THE ELECTRICAL SYSTEM BEFORE PERFORMING ANY CLEANING OR MAINTENANCE OPERATIONS (IF IT IS CHARGING).



DANGER

DISCONNECT THE BATTERY FROM THE MEDICAL DEVICE BEFORE PERFORMING ANY CLEANING OR MAINTENANCE OPERATIONS.

The medical device's lighting (natural and/or artificial) in the maintenance area must ensure the following minimum lighting value: 200 lux. Use appropriate tools and equipment for the intervention you are about to carry out.



Internal interventions on the medical device should be carried out by authorized personnel.

For any maintenance, tuning, disassembly, and reassembly operations, in addition to the instructions in this manual, the general workplace safety standards in the location where these operations are carried out must be followed.

Inspection Intervals

After the first break-in period, which can range from 200 to 500 km depending on the type of use, take the device to a specialist for a full inspection of all components. Subsequently, the device should undergo regular maintenance at set intervals. The table below shows the regular maintenance/inspection intervals for average usage of up to 1,500 km per year (about 100 hours of use). For greater usage, the intervals should be shortened proportionally. If you have good mechanical knowledge, experience, and suitable equipment, such as a torque wrench, you can perform the following checks yourself. If any anomalies are found during the checks, appropriate

measures should be taken. If you're unable to address the issue, consult an authorized dealer.

COMPONENT	TYPE OF INSPECTION/CHECK	INSPECTION FREQUENCY
Lights System	Functionality	Before each use
Tires	Operating pressure	Before each use
Valves	Closure	Before each use
Quick Release	Tightening	Before each use
Chain	Lubrication	Before each use
Tires	Profile height and sidewalls	Monthly
Wheels	Wheel centering and spoke tension	Monthly
Hubs	Bearing play	Monthly
Brakes	Pad thickness	Monthly
Hydraulic Cables/Tubes	Oil leakage	Monthly
Steering Set	Bearing play	Monthly
Pedals	Quick release mechanism	Monthly
Derailleur and Gear	Cleaning and lubrication	Monthly
Battery	Connection cleaning	Monthly
Fork	Cracks	After each crash / Every 6 months
Frame	Cracks	After each crash / Every 6 months

The following operations must be performed by an expert in new-generation bicycles or in a specialized workshop.

COMPONENT	TYPE OF INSPECTION/CHECK	INSPECTION FREQUENCY
Hydraulic Cables/Tubes	Oil leakage	Monthly
Suspension	Bolt tightening	Monthly
Bottom Bracket	Bearing play	Monthly
Crankset	Bearing play	Monthly
Bolts and Nuts	Tightening	Monthly
Chain	Inspection/replacement	Dopo 750km
Bottom Bracket	Greasing	Annualmente
Bottom Bracket	Oil change/inspection	Annualmente
Shock Absorber	Inspection	Annualmente
Crankset	Tightening	Annualmente
Hubs	Greasing	Annualmente
Steering Set	Greasing	Annualmente

Mechanical Cables	Greasing	Annualmente
Motor	Inspection	Annualmente
Wheels	Wheel centering and spoke tension	Se necessario
Handlebar and Stem	Inspection	Ogni 2 anni
Handlebar and Stem	Replacement	Dopo una caduta

Regularly cleaning your MADDILINE handbike will prevent damage and corrosion of components caused by weather, saltwater, winter salt, dust, mud, sweat, dirt, etc. Avoid cleaning the handbike with a high-pressure water jet. Pressure washers can exceed the protection barriers of components, causing the loss of grease and lubricants, increasing friction and corrosion of the components. Over time, the bearing surfaces may be damaged, affecting the function of components.

Avoid performing operations without the proper tools or knowledge. Avoid cleaning your handbike up close with a high-pressure water jet (pressure washer). Graphics and decals may get damaged, and warranty may be voided.

Protect all parts subject to impacts or wear with protective films. Accidentally lubricating brake discs and pads could compromise your braking safety. Clean with specific products and replace brake pads if damaged.

During cleaning, check if any components or the frame have sustained damage, cracks, alterations, or material deformations. In such cases, consult an authorized dealer and replace any damaged components.

Do not use degreasers containing acetone, methylene chloride, or solvents, non-neutral cleaners, or chemical cleaners, as they could damage the surface. Always use bike and/or handbike-specific degreasers or solvents.

We recommend using a light water spray with specific solvents for bikes and/or handbikes to wash the handbike, and use tools like sponges, brushes, and chain washers. Carefully dry the handbike and lubricate the drivetrain. Be cautious to protect the brake discs and calipers from lubricants.

Extraordinary Maintenance

Extraordinary maintenance is required in cases of faults or breakages due to intense usage, unforeseen accidents, or inappropriate use of the medical device.

The situations that may arise are entirely unpredictable, so it is not possible to describe appropriate intervention procedures.

In case of need, consult the technical service to receive the correct instructions for the situation. Extraordinary interventions require a good working knowledge of electrical and mechanical systems. With such experience, interventions can be performed using the diagrams and drawings attached to this documentation.

In any case, always consult the manufacturer before beginning any extraordinary intervention to confirm the correctness of the planned action.

All electrical or mechanical interventions, whether ordinary or extraordinary, must be performed by specialized personnel (see AUTHORIZED SERVICE).

OUT OF SERVICE AND DISPOSAL

Disposal of Packaging

All materials are environmentally friendly and recyclable. Please help preserve the environment by using the appropriate recycling channels.

Disposal

The materials used to construct the medical device do not require any special disposal procedures. If necessary, refer to local regulations for disposal of its materials and components. Contact specialized centers for the proper disposal procedures of the medical device and its components.

The possibility of reusing some parts of the medical device, both as mechanical units and as raw materials for other constructions, is the full responsibility of the user.



PLEASE NOTE

THE MANUFACTURER IS IN NO WAY RESPONSIBLE FOR DAMAGE CAUSED BY THE MEDICAL DEVICE IF NOT USED IN ITS INTEGRAL VERSION AND FOR THE USES AND OPERATING MODES SPECIFIED IN THIS MANUAL. THE MANUFACTURER IS IN NO WAY RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY RESULTING FROM THE REUSE OF PARTS OF THE MEDICAL DEVICE AFTER ITS DISPOSAL.

