



# User and maintenance manual

TRANSLATION OF THE ORIGINAL INSTRUCTIONS



## VENICE POWER BLACK

Rel.28042025  
English (UK)



*Read this manual  
carefully and keep it  
for future reference*



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## Ferno Technical Support

Customer Service and Technical Support are important aspects of every Ferno product. Before contacting us, note the serial number of the product and specify it in all written communications. For all queries concerning technical support, contact Ferno s.r.l.:

Telephone (toll-free for Italy) 800 501 711  
 Phone 0039 0516860028  
 E-mail [assistenza.it@ferno.com](mailto:assistenza.it@ferno.com)

## Ferno Customer Service

For assistance and further information, contact Ferno s.r.l.'s Customer Service:

### MANUFACTURER



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### USER AND MAINTENANCE MANUAL

Further free copies of the instruction manual visit the website  
[www.ferno.it](http://www.ferno.it)

## Identification label



Product label

Venice serial number \_\_\_\_\_ Location of label on Venice line chairs: Main label located on the left rear side of the backrest frame.

Manufacturer's company name and physical address

Refer to the user manual and the Website

Brand

Languages in which the Generic Name must be translated

Production ID: serial number

Catalogue number

Medical device unique code

Date and place of manufacture

|                                                                                                                                                 |  |                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FERNO S.r.l.</b><br>Via B. Zallone 26<br>40066 Pieve di Cento BO<br>Italy (+39) 0516860028<br><a href="http://www.ferno.it">www.ferno.it</a> |  | Load capacity<br>XXX kg<br>XXX lb                                                                                                                                                                               |
| CE Marking<br>MD                                                                                                                                |  | Barcode - GTIN-13<br>X XXXXXX XXXXXX                                                                                                                                                                            |
| Brand<br><b>DEVICE TRADE NAME</b>                                                                                                               |  |                                                                                                                                                                                                                 |
| Languages in which the Generic Name must be translated<br>IT < device description translate > EN < device description translate >               |  | Medical device<br>GS1 - Data Matrix                                                                                                                                                                             |
| Production ID: serial number<br>REF XXXX-XX-XX SN XXXXXX                                                                                        |  | Storage and handling<br>                                                                                                                                                                                        |
| Catalogue number<br>UDI XXXX (00) 00000000000000                                                                                                |  |                                                                                                                                                                                                                 |
| Medical device unique code<br>ITA XXXX-XX-XX                                                                                                    |  | Swiss importer and authorised representative name and physical address<br>CH REP<br>www.ferno-schweiz.ch<br>FERNO S.R.L., Pieve di Cento, succursale di Savosa<br>Via Tesserete, 67 - 6942 Savosa - Switzerland |
| Date and place of manufacture                                                                                                                   |  |                                                                                                                                                                                                                 |

Product packaging label

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## **Limitation of liability**

This manual contains general instructions on the use and maintenance of the product. The instructions do not cover all possible applications and operations. The user is solely responsible for proper and safe use of the product. The safety information is provided as a service to the user and ensures only the minimum required level of safety to prevent injury to operators and patients. Any other safety measure implemented by the user must comply with applicable regulations. Before using the product, it is strongly recommended that staff be trained in its correct usage. Retain this manual for future reference. In case of change of ownership, ensure that the manual remains with the product. Additional free copies can be downloaded at [www.ferno.it](http://www.ferno.it).

## **Intellectual property declaration**

The information in this manual is the property of Ferno s.r.l. - Via Benedetto Zallone 26, 40066 Pieve di Cento (Bologna) Italy. All patent rights, design, construction, reproduction, use and sale rights relating to any item covered in this manual are the confidential and exclusive property of Ferno s.r.l., except for rights expressly transferred to third parties or not attributable to parties owned by the supplier. It is prohibited to reproduce this manual, either in full or in part, without the prior consent of Ferno s.r.l..

## **Limited warranty**

Ferno products are covered by a 24-month warranty against manufacturing defects. For the full terms and conditions of warranty and liability, see chapter *Warranty*.

# 1 - SAFETY INFORMATION

## 1.1 Warning

The danger symbols draw attention to potentially dangerous situations that, if disregarded, may result in accidents, damage and/or injury.

 **WARNING**

Untrained users may injure themselves, cause damage and/or physical harm. Allow only trained and qualified staff to use the device.

Improper use of the device may cause damage and / or injury. Use the device as described in this manual.

Occasional assistants may cause damage and/or physical harm, or injure themselves. Do not allow occasional assistants to carry out the preparation of the chair. Trained operators must supervise and direct use operations.

An unassisted patient is at risk of injury. Never leave the patient alone, and always assist the patient when using the device.

Failure to use the restraints can cause the patient to fall and endanger their safety. Always use restraints to secure the patient to the device.

Improper maintenance may cause serious accidents, injuries and/or damage. Perform maintenance as instructed in this user manual.

The use of improper and/or unauthorised devices may cause accidents, damage, and/or injury. Use only devices that have been approved and authorised by Ferno s.r.l.

Unauthorised modifications to the device can cause injury and/or damage. Use the device only as approved by Ferno.

Unauthorised repairs carried out by people not approved by Ferno s.r.l. will render all warranties null and void and may compromise the safety of the device.

Non-original spare parts and inadequate repairs may cause damage and/or injury. Use only original Ferno spare parts and refer exclusively to Ferno s.r.l.'s Customer Support.

## 1.2 Important

Boxes labelled "Important" contain important information on use and/or maintenance of the device.

**Important**

## 1.3 Blood-borne diseases

To reduce risks of exposure to infectious diseases that may be transmitted by blood, follow the instructions on disinfection and cleaning in this manual carefully.

## 1.4 Load capacity

Observe the load capacity of the device. Refer to section *General specifications*.

## 1.5 Compatibility with locking systems

The Venice Power Black chair is to be used with Ferno locking systems:

- Venice Lock
- Multi Chair Fastener
- Simple Clack

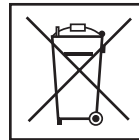
Any other configuration is not validated for use with the Venice Power Black chair. Ferno s.r.l is not liable for damage caused to users or third parties arising from improper use of the Venice chair.

## 1.6 Disposal

### CORRECT DISPOSAL OF THE BATTERIES

The Venice Power chair has a main rechargeable lithium ion battery to power the motorised system, and two non-rechargeable "AA" batteries for the control unit.

The batteries should be disposed of properly at the end of their life-cycle. Do not dispose of the batteries with household waste. For proper disposal, contact the appropriate authority.



**Li-ion**

### WEEE DIRECTIVE (EU)

Directive 2002/96/EC of the European Parliament and Council on waste electrical and electronic equipment (WEEE) restricts electrical and electronic equipment waste. For proper disposal, contact the appropriate authority.

## 1.7 Glossary of symbols

The symbols used in this manual and/or on the chair's labels are defined below. The CE mark is present on the chair and in this manual.



Danger: Risk of injury



Danger: Risk of electric shock



Danger: Mechanical risk



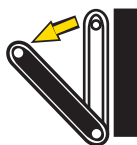
Read the user manual carefully



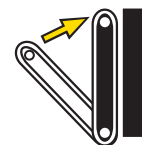
The chair requires at least two qualified operators for correct use.



Load capacity (in pounds, kilos and stone)



Open the track carriage



Close the track carriage



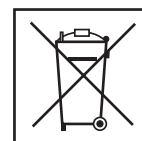
Battery charge is low (Replace the control unit batteries)



Do not wash with high pressure jets



This product meets European Union Standards



WEEE Directive: Dispose of batteries properly

## 1.8 Information and safety labels

The information and safety labels contain important information that the user needs to know.

Read and follow the label instructions. Replace worn and/or damaged labels immediately.

To obtain replacement labels, contact Ferno s.r.l.'s Customer Service.



**Chair opening/closing label**



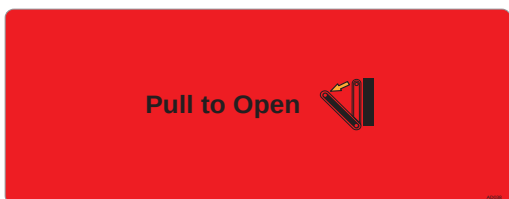
**Position of labels on the chair**

1



**Instructions on how to close the track carriage**

2



**Track opening label**

3



**Load capacity label**

4



**Do NOT lubricate label**

5



**Battery removal label**

## 2- OPERATOR TRAINING AND SKILLS

### 2.1 Skills

Operators who use the device must:

- Possess the skills required to assist the patient.
- Record the training sessions on the form found at the end of this manual.

### 2.2 Training

Operators are required to:

- Carefully read and understand all information in this manual.
- Attend a suitable training course on the use of the device.
- Practice with the device before using it in real situations with patients.
- Log the training sessions.

### INSTRUCTIONS FOR USE

This manual does not provide any medical instructions.

It is the responsibility of the operators to follow correct procedures and ensure the safety of both the patient and themselves.

This manual explains the use of the chair under ideal conditions and is purely indicative.

The chair should be used by a minimum of two duly trained and qualified operators.

The operators must work together and maintain control of the chair during all operations.

Follow procedures while complying with standard regulations for moving the patient in an emergency.

The presence of a third trained person as a supervisor, if available, may be helpful when the chair is used both up and down the stairs.

Lift only the weight that you can safely support. Obtain additional assistance for heavy loads (patient and equipment).



#### **WARNING**

**Improper use of the device may cause damage and / or injury. Use the device as described in this manual.**



#### **WARNING**

**An unassisted patient is at risk of injury. Never leave the patient alone, and always assist the patient when using the chair.**



#### **WARNING**

**Any configuration unauthorised by Ferno s.r.l. could cause damage and/or serious injury. If used in a different configuration, contact the Technical Service team at Ferno s.r.l. directly.**

#### **Important**

Ferno s.r.l. is not liable for damage caused to users and/or third parties arising from improper use of the device, or if the Venice chair is used with a device not approved by Ferno s.r.l..



The device requires at least two qualified operators for correct use.



Read the user manual carefully

## 3 - VENICE POWER BLACK

### 3.1 Description

The Ferno Venice Power Black chair (hereinafter simply referred to as "chair") is a device for transporting a seated patient up and down stairs and over flat or inclined surfaces.

The Venice Power Black chair can be configured with various accessories.

The chair must be used for professional use by at least 2 duly trained operators.

To handle heavy patients and/or when the situation demands it, it is possible to rely on additional help, always in compliance with local healthcare regulations.



The device requires at least two qualified operators for correct use.



Read the user manual carefully

### 3.2 Venice Power Black

The Ferno Venice Power Black chair (code 21-00061) is a folding, motorised stair climbing chair

The chair has a load capacity of 230 kg and its standard version includes:

- a rear track equipped with motorised tracks and safety lights,
- an extendable carrying handle equipped with a controller,
- safety brake,
- Safety Speed Limiter,
- ergonomic backrest,
- two rear foldable handles,
- two brakes on rear wheels,
- two front caster wheels,
- footrest with non-slip footplate,
- two front straight handles adjustable in 5 positions,
- two two-piece body restraints with plastic buckle,
- one two-piece foot restraint with plastic buckle,
- a Milwaukee M28 battery,
- a Milwaukee M28C battery charger,
- a cable for motor pairing and
- a small storage bag for the cable.

### 3.3 Venice Power Black for the UK market

The Ferno Venice Power Black UK chair (code 21-00060) is a folding, motorised stair climbing chair

The chair has a load capacity of 230 kg and its standard version includes:

- a rear track equipped with motorised tracks and safety lights,
- an extendable carrying handle equipped with a controller,
- safety brake
- Safety Speed Limiter,
- ergonomic backrest,
- two rear foldable handles,
- two brakes on rear wheels,
- two front caster wheels,
- footrest with non-slip footplate,
- two front straight handles adjustable in 5 positions,
- a biosafe two-piece body restraint with cobra buckle,
- a biosafe two-piece foot restraint with cobra buckle,
- a cable for motor pairing,
- a small storage bag for the cable,
- two width-adjustable armrests.

### 3.4 CE Marking

Ferno's products meet the general safety and performance requirements of Regulation (EU) 2017/745 (MDR) concerning medical devices.

For any further information: [www.ferno.it](http://www.ferno.it)



### 3.5 Reporting accidents

In the event of a serious accident in relation to the device, immediately contact Ferno S.r.l. and the competent authority of the Member State in which the user has its head office.

E-mail: [eu-regulatory.it@ferno.com](mailto:eu-regulatory.it@ferno.com)

Phone +39 051 6860028

Fax +39 0518681508

### 3.6 Components (Venice Power)

#### Important

The Venice Power chair can be configured with a range of accessories and is equipped with a motorised track, a safety light and the possibility of adjusting the up and down speed.





#### MOTOR UNIT



#### MOTOR UNIT AND OTHER COMPONENTS INCLUDED

- Motorised system for ascending and descending stairs
- Control unit
- Rechargeable 28V lithium-ion battery
- 2x1.5V AA alkaline batteries
- 220-240 VAC battery charger, 50/60 Hz (Europe); CE certificate
- Auxiliary connection cable
- Cable storage bag

### 3.7 General specifications

Ferno reserves the right to change the specifications without notice. For further details, please contact Ferno's Customer Service.

#### VENICE POWER

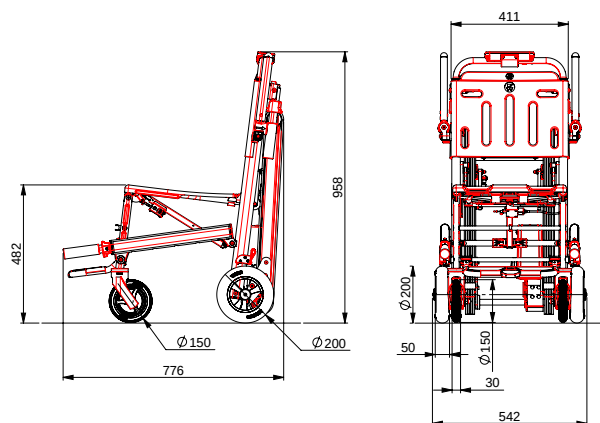
| Specifications                                   |          |        |
|--------------------------------------------------|----------|--------|
| <b>Load capacity</b>                             | 507 lbs  | 230 kg |
| <b>Weight</b>                                    | 55.1 lbs | 25 kg  |
| <b>Closed chair</b>                              |          |        |
| Width                                            | 21.34 in | 542 mm |
| Height                                           | 39.17 in | 958 mm |
| Depth                                            | 8.47 in  | 215 mm |
| <b>Open chair with closed tracks and handles</b> |          |        |
| Width                                            | 21.06 in | 542 mm |
| Height                                           | 38.54 in | 958 mm |
| Depth                                            | 30.55 in | 776 mm |
| <b>Open chair with open tracks and handles</b>   |          |        |
| Width                                            | 21.34 in | 542 mm |
| Height                                           | 37.72 in | 958 mm |
| Depth                                            | 30.55 in | 776 mm |

#### Load capacity

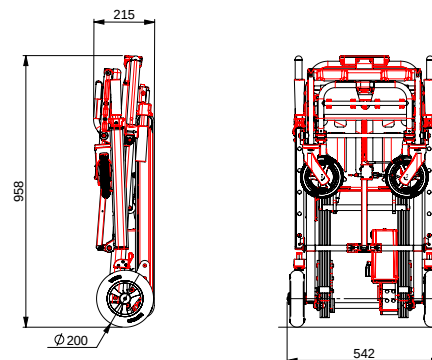
Never exceed the load capacity of the device. Inspect the device if the load capacity has been exceeded.



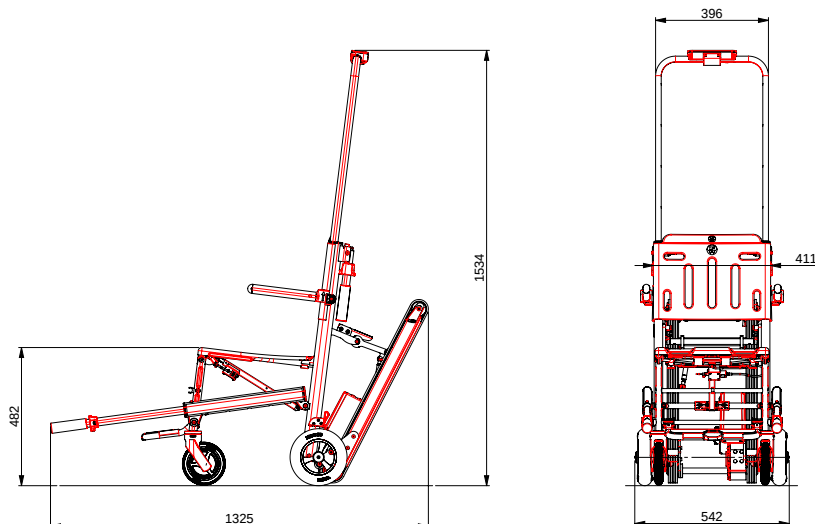
#### OPEN CHAIR WITH CLOSED TRACKS AND HANDLES



#### CLOSED CHAIR



#### OPEN CHAIR WITH OPEN TRACKS AND HANDLES



## 4 - ACCESSORIES

Ferno offers several approved accessories for the chairs from the Venice line. Always follow the directions in this instruction manual.

For more product information, contact *Ferno's Customer Service*.

### 4.1 Adjustable armrests

The armrest kit is an accessory that can be ordered when purchasing the chair or at a later date.

Installation must only be carried out by an authorised Ferno technician.

In order to raise or lower the armrests, simply bring them to the desired position.

To widen the armrest:

- Hold the armrest as close to the joint as possible.
- Raise the armrest while keeping it parallel to the ground.
- Turn the end of the armrest outwards.
- Release the armrest, ensuring that it is locked in place.

To narrow the armrest down:

- Hold the armrest as close to the joint as possible.
- Raise the armrest while keeping it parallel to the ground.
- Turn the end of the armrest inwards.
- Release the armrest, ensuring that it is locked in place.



Figure 1 - Armrest raised and lowered

|  <b>WARNING</b>                                                                         |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>The use of improper and/or unauthorised devices may cause accidents, damage, and/or injury. Use only devices that have been approved and authorised by Ferno s.r.l.</b> |  |



Figure 2A - Armrest widening: Step 1



Figure 2B - Armrest widening: Step 2



Figure 3 - Armrest closed and opened

## 4.2 Leg rest

The leg rest is an accessory that can be ordered when purchasing the chair or at a later date.

In order to be able to install the leg rest, it is first necessary to install the two coupling ring nuts that are part of the kit on your chair. This work can only be carried out by an authorised Ferno technician.

To attach the leg rest to a chair already fitted with ring nuts, insert the attachment clamp on the tubular frame by sliding it sideways until it engages on one of the two ring nuts.

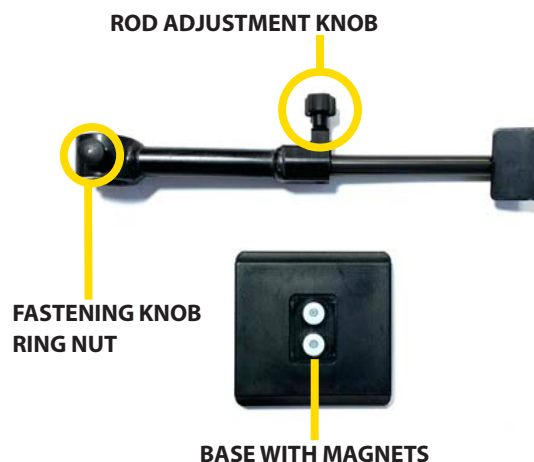
The ring nut allows the leg rest to be positioned at different angles, depending on the desired inclination.

Once the clamp has been applied to the ring nut, secure the mechanism by tightening the knob.

Adjust the length of the rod and lock it into position with the knob.

Finally, apply the magnetic base to support the limb.

When not in use, the telescopic arm and magnetic base can be stored in the red bag supplied as standard on Venice Power chairs and located on the back of the backrest.



**Figure 4 - Leg rest components**



**Figure 5 - Leg rest assembled**

## 4.3 Headrest

The headrest is an accessory that can be ordered when purchasing the chair or at a later date and is only compatible with the Venice Plus and Venice Power chairs, since it is to be applied to the extendable handle, which is not available on the Base version.

To apply it, use the side Velcro straps to fasten the ends around the handle tubes.



**Figure 6 - Headrest**

## 5 - FEATURES OF THE VENICE POWER CHAIR

### 5.1 Opening and closing the chair

#### OPENING THE CHAIR

1. Stand next to the chair, hold the backrest with one hand and the seat at the release lever with the other hand.
2. Activate the release lever and keep it pulled until the operation is completed, then separate the seat from the backrest until the chair is completely open, and lock it in open position by releasing the lever.
3. Make sure that you reached the maximum opening and the locking system works correctly. If you try to bring the seat closer to the backrest, without pulling the red lever, the chair should not close.

#### CLOSING THE CHAIR

1. Fasten the restraints, adjust them and secure them so that they do not obstruct the closing of the chair.
2. Stand next to the chair, hold the backrest with one hand and the seat at the release lever with the other hand.
3. Activate the release lever and bring the seat closer to the backrest.
4. Release the lever and ensure that the chair is fully closed and properly locked.

**Note:** Tilt the chair slightly forwards during the closing to help the front wheels reach the correct position.  
Once the chair is closed, turn the front wheels inwards to block them with the special magnets.



Figure 7 - Chair release lever



#### WARNING

Using the chair with the seat not correctly open may cause damage and/or injury. Make sure that it is properly open before transporting the patient.



Figure 8 A and B - Closing the chair



Figure 9 - Closing the wheels

## 5.2 Rear foldable handles

The operator positioned behind the back of the chair can use the folding rear handles to move the chair on flat and sloping surfaces, and to lift the chair if an obstacle must be overcome.

### OPENING THE HANDLES

To open the handles, simply lift them upwards until they lock into place.



**Figure 10 - Opening the rear handles**

### CLOSING THE HANDLES

To close the handles, grasp them and unlock the red blocks adjacent to the handles with your thumbs, pulling them towards you while guiding the handles downwards.



**Figure 11 - Closing the rear handles**

## 5.4 Rear wheel brakes

In order to engage the rear wheel brakes, push the red lever down with the foot.

Push the red lever up with the foot to disengage them.



**Figure 12 - Engaging the brake**



**Figure 13 - Disengaging the brake**

## 5.3 Telescopic front handles

The chair is equipped with two front telescopic handles that can be adjusted to 5 different positions.

### TELESCOPIC HANDLE ADJUSTMENT

1. Pull the red slider with your fingers and pull or close the handles to the desired position.
2. Release the slider and slide the handle forwards or backwards until correctly locked.
3. Lock both handles in the same position.
4. Check that both handles are properly locked by trying to pull or push them without operating the lever. If the locking unit is correctly engaged, handles will not move.



14A



14B

Figure 14 - Opening the telescopic handles



15A

15B

15C

15D

15E

Figure 15 - Telescopic handle positions

## 6 - MOTORISED TRACK

### 6.1 Motorised track and handle with controller

The Venice Power chair is equipped with a motorised track system for going up and down flights of stairs. During up and down movements, the tracks must always be open; when not in use, the tracks can be folded up so that they take up less space.

#### OPENING THE TRACKS

Using the red tube between the two tracks at the back of the chair, pull the shoe towards you, making sure that it locks in the fully open position.

Try to close the track carriage to make sure that the locking system is engaged. If the locking system is correctly engaged, the carriage should not close.



#### WARNING

The use of the chair without correctly locking the track support may cause damage and/or injury. Ensure the track carriage is properly locked before carrying the patient.

The use of the chair on stairs requires a minimum of two trained and qualified operators.

Make sure that the track carriage is fully opened and locked before use.

Never lubricate the tracks. Lubricating the tracks can cause unpredictable device behaviour, causing damage and / or injury to the patient and / or operators.

Moisture, water, snow, ice, or debris on and inside the track carriage can cause erratic operation and a sudden change in the weight to be supported by the operators. Ensure that the track carriage and the tracks are clean and dry before using the chair on stairs.

Moisture, water, snow, ice, or debris on the stairs may affect the balance of the operators. To prevent possible damage and / or injury, clean the stairs or choose an alternative route.

#### CLOSING THE TRACKS

To close the track carriage, use the lever located on the right-hand side of the track carriage, pressing it until the shoe is completely and correctly closed.



16A



16B

Figure 16 - Opening the tracks



Figure 17 - Closing the tracks

## CARRYING HANDLE

The Venice chair is equipped with an adjustable handle to manoeuvre it when going downstairs.

The use of the chair with the tracks is always envisaged in combination with the extendable carrying handle, which can be adjusted in height to suit different user builds.

In order to adjust the handle, proceed as follows:

- Turn the rear knob to unlock the handle.
- While keeping the knob turned, raise or lower the handle with the other hand to the desired height.
- Release the knob and slide it slightly up or down until the desired locking position is reached.



Figure 18 - Adjusting the handle

## 6.2 Motorised system components

- **CONTROLLER:** it is installed to the extendable handle and allows the operator to control the speed and movement of the tracks, to monitor the battery charge level and other functions of the chair.
- **MOTOR:** The motor is located at the rear of the chair and it controls the tracks' movement. The motor receives inputs from the controller to adjust the speed and movement of tracks.
- **MAIN BATTERY:** Milwaukee lithium-ion rechargeable 28 V battery, easily removable from the motor housing by means of the appropriate buttons and re-inserted in the holder.



Figure 19 - Motorised system components

## 6.3 Controller

The chair is equipped with a controller, located on the extendable handle, including a control unit and housing for 1.5 V AA batteries.

The controls are easily accessible and identifiable thanks to the symbols affixed to the unit, enabling correct usage by the operator.

The control unit has the following controls:

1. Speed selection button
2. Up and down buttons
3. Up and down buttons with pressure sensor
4. Main battery indicator
5. Brake Button
6. Connection problem indicator
7. Controller battery indicator
8. Lights button

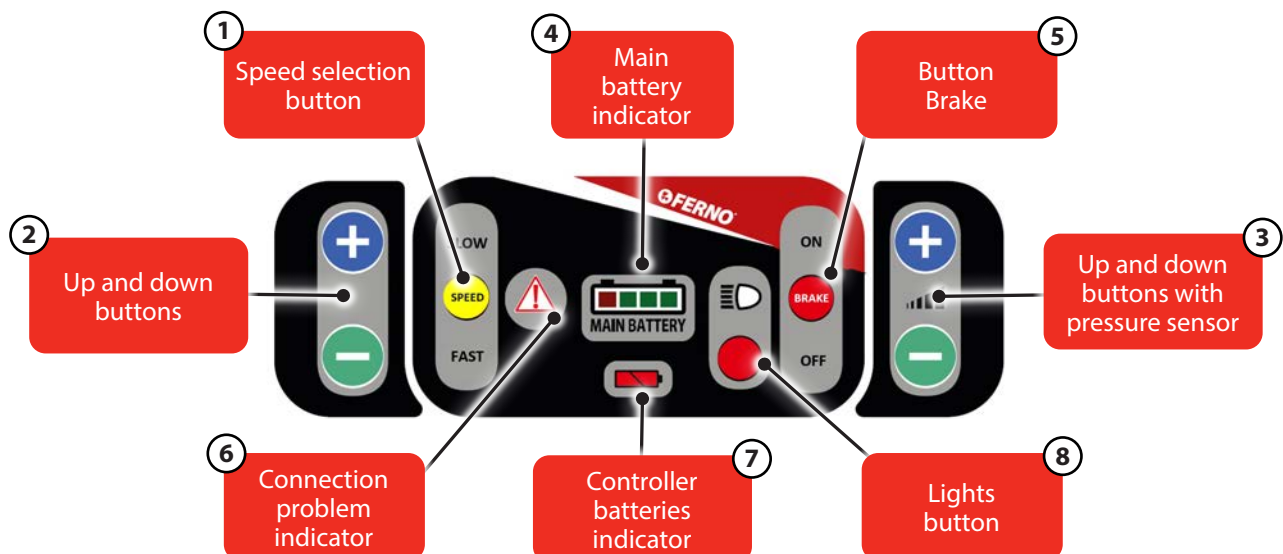


Figure 20 - Control unit

## 1. SPEED SELECTION BUTTON

The speed selection button allows you to select the desired maximum speed for chair movement when going up or down ("FAST" for fast mode and "SLOW" for slow mode).



To select the desired speed, proceed as follows:

1. Make sure the chair is switched on and the pairing with the controller is active.
2. Press the speed selection button until the desired mode icon lights up.

It is impossible to select or deselect both modes at the same time, one of the two necessarily remains selected.

## 2. UP AND DOWN BUTTONS

The ascent and descent controls on the LEFT side of the controller are identified by labels with the symbols "+" and "-".

These controls move the tracks at the speed selected with the speed selection button ("FAST" or "SLOW").

To initiate the movement of the tracks, place your hands on the carrying handle so that the buttons are accessible to your left thumb.

- **TO GO UP STAIRS:** Press the "+" symbol button.
- **TO GO DOWN STAIRS:** Press the "-" symbol button.

When the buttons are released, the chair stops moving.



## 3. UP AND DOWN BUTTONS WITH PRESSURE SENSOR

The ascent and descent controls on the RIGHT side of the controller are identified by labels with the symbols "+" and "-".

These buttons contain a pressure sensor that adjusts the track movement speed. As the pressure increases, the up or down rate increases.

The maximum speed that can be reached with these buttons is the speed previously set with the speed selection button.

To initiate the movement of the tracks, place your hands on the carrying handle so that the buttons are accessible to your right thumb.

- **TO GO UP STAIRS:** Press the "+" symbol button.



- **TO GO DOWN STAIRS:** Press the "-" symbol button.

When the buttons are released, the chair stops moving.

## 4. MAIN BATTERY INDICATOR

It shows the charge status of the 28V Milwaukee battery housed in the motor unit.



## 5. BRAKE BUTTON

The brake function (BRAKE) prevents track movement when the controls are not pressed. By default, the brake function is always active, as shown by illumination of the ON symbol.



The operator can enable or disable this safety feature through the central red button.

It is impossible to select or deselect both modes at the same time, one of the two necessarily remains selected.

- **BRAKE FUNCTION ENABLED:** ON icon lights up on controller.
- **BRAKE FUNCTION DISABLED:** OFF icon lights up on controller.

During the way up and/or down the stairs, when the operator releases one of the up or down controls, the brake function helps hold the chair in position, thus greatly reducing the effort needed to keep the device still.

## WARNING

**The brake function is an additional safety measure to ensure safe patient transport. It is therefore recommended to keep it switched on at all times. Pay the utmost attention and control the chair when going down the stairs if the brake function is disabled.**

## 6. CONNECTION PROBLEM INDICATOR

It lights up when no connection has been established between the controller and the motor.



If it comes on, redo the pairing procedure as explained in *Pairing procedure with auxiliary cable*. If the procedure does not work and the problem persists, contact Ferno Technical Support.

## 7. CONTROLLER BATTERY INDICATOR



It indicates the charge status of the AA batteries in the controller. The indicator lights up when the batteries need replacing. To replace batteries, please refer to the section *Control unit battery replacement*.

## 8. LIGHTS BUTTON



The Lights button switches the lights fitted on the motor on and off; the lights improve safety, illuminating the surroundings in which the chair is being used.

Press the button to switch on the lights; press again to switch them off.

### WARNING

**DO NOT OPEN THE ELECTRICAL HOUSINGS OR REMOVE SAFETY COMPONENTS.**

**The motor unit contains no user-serviceable parts. In case of malfunction, contact Ferno s.r.l. for Technical Assistance.**

### WARNING

**Do not remove the motor plastic cover.**

### WARNING

**Incorrect charging of the chair may cause damage and / or injury. Use only batteries approved and authorised by Ferno, and recharge only with chargers approved and authorised by Ferno.**

**Do not leave the VENICE POWER chair unattended on surfaces with a gradient over 10°. There is a risk of tipping.**

**Take extra care when using the VENICE POWER chair on carpeted stairs, as there may be a risk of pulling the carpet from the steps and causing harm to operators and / or the patient. Ensure the carpet is secure.**

**Allow use of the chair only by trained and qualified personnel.**

**In case of stairs with steps with rounded profiles, take the utmost care when using the chair.**

**When going up or down a spiral staircase, take the utmost care and allow use of the chair only by trained and qualified personnel.**

**Do not deactivate the brake button unless strictly necessary. The brake function ensures safe transportation for both the patient and for the operators. Pay the utmost attention and ensure you have full control of the chair while going up and down stairs, regardless of whether the brake function is active or has been disabled by the operator.**

## 6.4 Motor

The motor, located at the rear of the chair, at the base of the tracks, consists of the following elements:

1. Power button with integrated indicator light
2. Battery insertion slot
3. (Top) safety light
4. Connection port for coupling cable



**Figure 21 - Motor unit components**

### POWER BUTTON

The power button is located on the motor top side and is used to switch it on.

### SWITCHING ON

- Once the battery is installed, press the power button, which will light up blue (Figure 22 A).
- To establish the connection between the controller and the motor, press one of the up/down controls on the controller.
- It may take a few seconds to establish the wireless connection. When the connection is active, the control unit emits a recognisable acoustic signal and the light on the power button changes from blue to green (Figure 22B). The chair is ready for use.
- To switch off the chair, press the power button again. The indicator light goes out.

We recommend keeping the chair switched off when not in use so as to preserve the battery charge and avoid any accidental activation of the movement system when the chair is not in use.



**Figure 22 - Power light: pairing not active with blue light (22A), pairing active with green light (22B)**

### BATTERY INSERTION SLOT

It is located to the side of the motor. For more information on the battery, see the *Battery Section* (Figure 23).



**Figure 23 - Battery insertion slot**

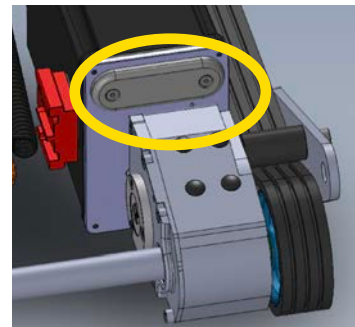
### SAFETY LIGHTS

One is placed in the upper part and the other in the lower part of the motor unit (Figures 24 and 25), and are activated by pressing the lights button on the controller. Likewise, they are switched off by pressing the button again.

The lights always come on simultaneously; it's not possible to operate them individually. If the lights do not both light up correctly, please contact Ferno Technical Service.



**Figure 24 - Upper safety light**



**Figure 25 - Lower safety light**

## CONNECTION PORT FOR COUPLING CABLE

It is located on the side of the motor, at the top, and, once the protective cap has been removed, allows the motor to be connected by cable to the controller in order to couple them or to allow the chair to operate if the AA batteries in the controller are flat (Figure 26).

When the cable is not in use, be sure to close the hole with the plug to ensure that no dirt or liquids enter the motor compartment.

For the pairing procedure, see chapter *Pairing procedure with auxiliary cable*.



Figure 26 - Connection port for coupling cable

## 6.5 Battery

*The Milwaukee battery and charger instructions replace those provided in this manual. For additional information, refer to the manuals of these components.*

The chair is equipped with a Milwaukee® 28 VDC Lithium-ion battery. The design adopted means the battery is protected from dirt, body fluids, rain, etc.

Use only Milwaukee® batteries and chargers approved by Ferno. To request additional batteries and chargers, see Chapter *Accessories*.

Lithium-ion batteries have no memory effect. It is not necessary to fully discharge the battery before recharging.

Charging time is approx. 1 hour. The charging time varies according to the charging frequency, the charge level, and age of the battery. If the battery is fully discharged, the charging time will be longer.

The range of operating temperatures recommended by the Manufacturer for the battery is between -10°C and +49°C. Battery capacity may be affected if it is stored for a long period at temperatures below -17°C or above 66°C.

Dispose of the battery when it reaches the end of its working life.

Do not dispose of the battery with household waste.

### BATTERY USAGE

The slots on the battery are compatible with those of the charger, and with those on the chair. To remove the battery from the chair or battery charger, press the two red buttons and pull the battery out (Figure 27).

To check the battery charge status, press the appropriate button on the battery (Figure 28).

ONLY store the battery in a cool, dry environment. DO NOT store in an environment where the temperature exceeds 50°C.

If you have two batteries, always keep the spare battery charged and ready for use.

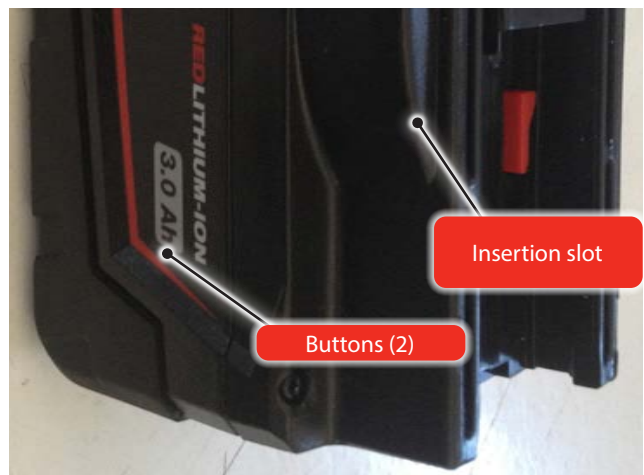


Figure 27 - Battery

Use the charger supplied as standard to charge the main battery.

If not already inside, insert two 'AA' batteries into the control unit.

Ensure the tracks are working properly. If necessary, adjust the tension.

If the batteries are fully charged but the UP / DOWN controls do not work, it is possible that the connection is to be reset.



### WARNING

**Incorrect charging of the chair may cause damage and / or injury. Use only batteries approved and authorised by Ferno, and recharge only with chargers approved and authorised by Ferno.**

### Important

The battery capacity may be affected by the storage conditions if the chair is to be stored for an extended period at temperatures below -17°C or above 66°C.

### Important

For longer battery life, always switch off the chair when it is not in use.

Lithium-ion batteries have no memory effect. It is not necessary to fully discharge the battery before recharging.

#### BATTERY CHARGE INDICATORS

The battery is fitted with four indicator lights, which show the charge status of the battery when pressing the appropriate button (approx. 25% intervals).

- LEDs 2-3-4 Green Light = Battery good
- LED 1 Red Light. = Battery  $\leq 25\%$
- LED 1 Red Flashing. = Replace battery urgently

Upon pressing the button, the indicator lights showing the battery level will light up briefly. If the battery is fully charged, all 4 LED indicators will light up simultaneously. If the battery has a charge level below 10%, pressing the button will cause the first LED to blink four times.

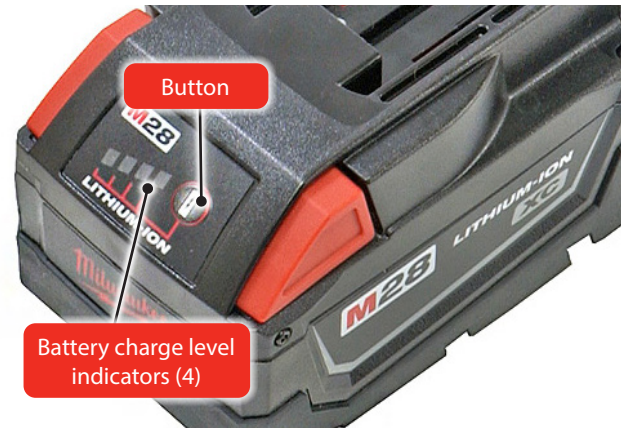


Figure 28 - charge level indicators

#### BATTERY SWITCH-OFF

The battery will switch off in case of internal overtemperature. Pressing the button on the battery will cause the LEDs to light alternately. Wait for the battery to cool down before use. When the battery is ready for use, press the Battery button to check the charge level.

### Important

In case of overheating, the battery switches off for protection purposes. Wait for the battery to cool before reusing use.

### 6.5.1 Fitting and removing the battery

**Fitting the battery:** Align the battery slots with the special supports on the chair. Insert the battery into the support until you hear an audible click. Ensure the battery is properly locked before using the chair.

**Removing the battery:** Fully press both red buttons marked PRESS (both left and right buttons), and extract the battery.



Figure 29 - Battery fitted correctly

## 6.5.2 Battery warnings

### MAIN BATTERY

The main battery charge can be checked in two ways:

1. press the button on the battery to see its charge level.
2. check the battery charge level on the controller by means of the specific indicator.

### CONTROL UNIT BATTERIES

The control unit is powered by two 1.5V AA batteries. If the  icon at the centre of the control panel lights up, this means the batteries must be replaced.

If the control unit's indicators do not light up, and the controls do not work, you may need to replace the batteries.

## 6.6 Battery charger

*The Milwaukee battery and charger instructions replace those provided in this manual. For additional information, refer to the manuals of these components.*

The chair is supplied with a battery charger.

- 220-240 VAC, 50/60 Hz (Europe)

Charging Time: approx. 1 hour. If the battery is completely discharged, the charging time may be longer. The charging time can vary based on the frequency of charging, the charge level of the battery and the battery's age.

Store the charger **ONLY** in a cool, dry environment. **DO NOT** store in environments with temperatures above 50°C.

### INDICATOR LIGHTS

The charger has two lights (red and green), indicating:

- **RED (steady):** the battery is connected and charging.
- **GREEN (steady):** charging completed.
- **RED (flashing):** Overheating. Recharge the battery only when the temperature range is between 0°C and 65°C.
- **RED/GREEN (alternating flashing):** the battery is damaged or not functioning correctly. Replace the battery immediately.

### Important

The battery capacity can be affected by the conditions in which it is stored, such as storage for long periods in environments with temperatures below -17°C or above 66°C.



**Figure 30 - Battery Charger**

### CHARGING THE BATTERY

**Fitting and charging the battery:** Align the battery slots with the special supports on the battery charger. Insert the battery into the support until you hear an audible click. Make sure the battery is securely attached and that the indicator light on the charger turns on.

**Removing the battery:** Fully press both red buttons marked **PRESS** (both left and right buttons), and extract the battery.

## 7 - BEFORE PUTTING THE CHAIR INTO SERVICE

Before performing any operations with the chair, make sure that all the components and restraints are present, that the chair does not show any signs of damage or wear, and that it is fully operational.

### 7.1 Restraint application

Use restraints to secure the patient to the chair. Each restraint must be secured to both sides of the seat and of the backrest, as well as to the aluminium frame of the chair. Always secure all restraints before transporting the patient.

#### ASSEMBLING THE TWO-PIECE RESTRAINTS IN STANDARD HORIZONTAL CONFIGURATION

The horizontal configuration described below is the one recommended for using the chair using only the restraints supplied with standard chairs. The two two-piece restraints with the Ferno logo and the black foot strap supplied are therefore sufficient for this configuration.

1. Pass the restraint loop through the slot in the seat or backrest panel, from the rear to the front.
2. Make sure that the restraint wraps around the aluminium frame of the chair.
3. Form a cow hitch by inserting the buckle (male or female) into the loop, then pull the restraint tight.
4. Repeat steps 1 to 3 for the other restraint end.
5. Repeat steps 1 to 4 for the femoral restraint.
6. Using the black strap supplied, follow the same application procedure using the vertical tubes of the chair front frame, as shown in the photo.



**Figure 31 - Inserting the restraint into the loop**



**Figure 32 - Cow hitch**



**Figure 33 - Tightened cow hitch**



**Figure 34 - Restraint standard configuration**

Other possible permitted uses involve the use of several restraints or different restraints and are listed below.

### CROSS CONFIGURATION

For cross configuration, an additional two-piece restraint is required, which is not supplied with the device.

In this configuration, three two-piece restraints with the Ferno logo will be used, two for the chest and a third restraint at femoral height, and the black foot strap supplied. However, to be able to obtain it, it is necessary to remove the backrest (Figure 36).

In order to apply them proceed as follows:

1. Fasten one end of the first chest restraint using one of the two upper horizontal loops on the backrest.
2. Fasten the other end of the restraint using the panel vertical slot on the opposite side of the backrest, thereby creating a diagonal pattern.
3. Repeat the same operation for the second chest restraint using the remaining loops (Figure 4).
4. Fasten the femoral restraint using the seat side loops, making sure to wrap the frame correctly.
5. Fasten the foot restraint using the vertical tubes of the chair front frame.



**Figure 35 - Applied foot restraint**



**Figure 36 - Chest restraints in cross configuration**

### CONFIGURATION WITH KWIK KLIP RESTRAINTS

The Kwik Klip restraint kit is a possible accessory for Venice chairs, so it is not supplied with the chair.

In this configuration, a Kwik Klip restraint kit and the black foot strap (supplied) will be used.

In order to apply them proceed as follows:

1. Separate the restraint buckles
2. Insert the loop of one of the shoulder straps into one of the horizontal slots at the top of the chair backrest, inserting it from the back towards the front.
3. Insert the buckle inside the slot and tension the shoulder strap.
4. Repeat this operation also for the second shoulder strap using the adjacent slot.



**Figure 37 - Locking slots for Kwik-Klip restraints**

5. Apply the ends of the femoral restraint to the seat slots, using the same procedure as for cow hitch closure, but inserting the restraint loop from the bottom upwards.

6. Fasten the buckles by crossing the shoulder straps over the chest until the configuration shown in the photo is obtained.



### WARNING

Only use approved restraints for the chair.



### WARNING

Failure to use the restraints can cause the patients to fall and endanger their safety. Always use restraints to secure the patient to the chair.



Figure 38 - Applied Kwik-Klip restraints

## 7.2 Restraints for the UK market

For the UK market, the Venice Power Black chair comes with a different set of 2 biosafe restraints compared to the standard equipment.

There are only two restraints for this model, one for the chest and one for the tibia, as shown in the photo.

The restraints shall be applied in the same way as the standard ones, but the thigh strap is missing in this configuration.

For corpulent patients it is suggested to use an additional pelvic strap or to create an "X-restraint" (using 2 chest restraints) to provide better upper body support for more corpulent or bariatric patients.

Below are the codes for the biosafe restraints specific to the UK market:

- 0698-3009 Biosafe upper body/lap strap for Venice PowerTraxx (metal Cobra buckle)
- 0698-3017 Biosafe leg/ankle strap for Venice PowerTraxx (metal Cobra buckle)
- 0698-3018 Biosafe extension strap for Venice leg strap (metal Cobra buckle)



Figure 39 - Venice Black chair with biosafe restraints



Figure 40 - Biosafe restraint

## 8 - USE OF THE VENICE POWER CHAIR

### 8.1 Before putting the chair into service

Staff using the chair must have carefully read and understood the information contained in this manual.

Before any operation with the chair, ensure:

- that all the components and restraints are present,
- that the chair does not show any signs of damage or wear,
- that the chair is fully functional.

Refer to section *Inspection*.

### 8.2 Additional help

The chair should be used by at least two duly trained operators.

Ferno recommends that the operators and/or assistants stand at opposite ends, with one facing the other, and that an additional supervisor assists patient's handling. Follow applicable chair transport regulations.

The operators must maintain control of the chair, operate and coordinate properly. The illustrations below show the correct positioning of operators and assistants.



#### WARNING

**Occasional assistants may cause damage and/or physical harm, or injure themselves. Always keep the chair under control, activate the controls, and coordinate the assistants.**

| Direction                                |  DESCENT |  ASCENT |
|------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Two operators and an optional supervisor |          |          |

**Legend: O = Operator H = Helper S = Supervisor P = Patient**

### 8.3 Instructions for Use

This manual does not provide any medical instructions.

It is the responsibility of the operators to follow correct procedures and ensure the safety of both the patient and themselves.

This manual explains the use of the chair under ideal conditions and is purely indicative.

The chair should be used by a minimum of two duly trained and qualified operators.

The trained operators must work together and maintain control of the chair during all operations.

Follow procedures while complying with standard regulations for moving the patient in an emergency.

Ferno recommends the presence of a third trained person as a supervisor when the chair is used both up and down the stairs.

Lift only the weight that you can safely support. Obtain additional assistance for heavy loads (patient and equipment). See section *Additional help*.

Always follow the local healthcare instructions and protocols, except when they contradict this manual.

Always assist the patient and never leave them alone during the operations with the chair.

Always use restraints to secure the patient to the chair.

If the battery is stored separately from the chair, install it before using the chair.

Remove any water, ice, snow, debris, and obstacles from the stairs before using the chair.

Remove any water, ice, snow, or debris from the tracks and their carriage before using the chair on the stairs.

The chair can still be used for manual descent of stairs even without the help of the motor. Refer to section *Use without the aid of the motor*.



Read the user manual carefully



Use with a minimum of two qualified operators



### WARNING

**Improper use of the chair may cause damage and / or injury. Use the chair as described in this manual.**



### WARNING

**An unassisted patient is at risk of injury. Never leave the patient alone, and always assist them when using the chair.**



### WARNING

**Hold the chair firmly while the patient sits down. As an extra safety measure, if the tracks are open, close them before seating the patient.**

## Important

Store the battery and the charger either indoors, or in an ambulance. Do not store in environments where the temperature is below -17°C or above 66°C.

## 8.4 Handling the chair

### GENERAL GUIDELINES

Whenever possible, use the chair on flat surfaces free from obstacles.

Use the track carriage to overcome any obstacles, such as differences of level and ramps, according to their height.

Close the track carriage and use the rear folding carrying handles and the front telescopic handles to lift and move the chair on irregular surfaces.

### HELPING THE PATIENT SIT ON THE CHAIR

Open the chair and make sure that it is correctly locked in open position.

Lock the brakes and ensure that the chair does not move backwards/forwards.

Assist the patient by following the acknowledged procedures and local protocols.

Fasten and adjust thorax and femoral restraints.

### HELPING THE PATIENT TO STAND UP

Lock the brakes and ensure that the chair does not move backwards/forwards.

Unfasten the thorax and femoral restraints.

Assist the patient by following the acknowledged procedures and local protocols.

### MOVING THE CHAIR

#### Operator at Head End:

Disengage the rear wheel brakes.

If you are on level ground, move the chair using the folding rear handles.

When transporting on stairs, fold down the rear folding

handles, adjust the extendable handle to the required height and use it to guide the chair up or down stairs, as explained in the following paragraphs.

#### **Operator at Foot End:**

If you are on level ground, help the head end operator as required and assist the patient.

When transporting on stairs, extend the front extendable handles to the required length and use them to guide the chair up or down stairs, as explained in the following paragraphs.

## **8.5 Going up stairs**

### **GENERAL GUIDELINES**

The use of the chair for going up the stairs requires a minimum of two trained and qualified operators working together. If necessary, seek the help of additional staff (see section *Additional help*).

Ferno recommends that the two operators take opposite sides, with one facing the other, when carrying the patient up or down stairs.

If necessary, an additional trained supervisor can help the head end operator by supervising the manoeuvre and anticipating them when going up stairs.

Follow local regulations concerning the use of chairs.

If the operator is tired or needs to assist the patient, you can stop on the stairs during transport.

When the brake function is active, if the operator stops pressing the controls, the tracks stop turning, thus allowing operators to stop on the stairs.

For the brake function, see section *Brake Button*, for the procedure for stopping on stairs, see section *How to stop on the stairs*.



#### **WARNING**

**Failure to use the restraints can cause the patient to fall and endanger their safety. Always use restraints to secure the patient to the chair.**



#### **WARNING**

**Never leave the patient alone at any time.**

### **GOING UP STAIRS**

1. **Operator at head end:** Reach the stairs with the chair and engage the rear wheel brakes.
  - Open the track carriage until it properly locks in open position. Ensure the track carriage is open and correctly locked.
  - Adjust the extendible carrying handle to the desired height and ensure it is locked correctly to the same length.
2. **Operator at foot end:** Extend the two telescopic front handles to the desired length. Ensure that both handles are locked properly.
3. **Possible supervisor:** Stand behind the operator at head end, keeping one hand on the operator's back, and guiding them on the way up the stairs.
4. **Operator at head end:** Disengage the brakes.
5. **Both operators:** Work together to tilt the chair backwards so that the tracks rest on the first steps. This allows you to find the correct angle.
6. **Operator at head end:** to ensure optimum grip on the steps and smoother transport, make sure you push on the handle in the direction of your knees (Figure 41).
7. **Operator at head end:** Press the UP control to proceed with ascending the stairs.
8. **Both operators:** Move at a constant pace on the stairs. To maintain the correct angle on the way up the stairs, proceed as follows:
  - **Operator at head end:** apply light pressure on the carrying handle towards your knees.
  - **Foot end operator:** apply light upward pressure on the telescopic handles.



#### **WARNING**

**The use of the chair without correctly opening or locking the track carriage may cause damage and / or injury. Ensure the track carriage is properly locked before carrying the patient.**



**Figure 41 - Correct application of forces during handling on stairs**



**Figure 42 - Incorrect application of forces during handling on stairs**

9. **Both operators:** At the end of the ascent, the head end operator lowers the rear wheels to the ground and releases the movement controls.
10. **Both operators:** Move the chair away from the steps so that the front wheels are over the edge of the last step and tilt the chair forward so that they also rest on the landing.
11. **Operator at head end:** Brake the chair, close the tracks, adjust the carrying handle to the desired height and open the rear handles.
12. **Operator at foot end:** Close the telescopic front handles.
13. **Both operators:** release the brakes and move the chair on level ground.

## Important

The movement up stairs is ensured by the movement of the tracks; this means it is not recommended to pull the handle upwards as it is useless for the up movement and in some cases even counterproductive as it could lead to a lack of grip of the shoe on the steps, making the transport more uncomfortable for the patient and operators (Figure 42).

## 8.6 How to stop on the stairs

To stop on the way up and/or down the stairs, proceed as follows:

1. **Operator at head end:** Release the controls. The tracks will stop automatically.

**Note:** the tracks will stop automatically when the ascent and descent controls are not pressed **ONLY** if the BRAKE function is active.

To restart:

2. **Operator at head end:** Press the correct control to restore the ascent or descent movement.
3. **Both operators:** Continue with the ascent or the descent of the stairs.

## 8.7 Going down stairs

### GENERAL GUIDELINES

*Use of the chair on the stairs must be managed by a minimum of two qualified and trained operators. If necessary, seek additional help to control the chair (see section Additional help).*

Ferno recommends that the two operators take opposite sides, with one facing the other, when carrying the patient up or down stairs.

If necessary, an additional trained supervisor can help the foot end operator by supervising the manoeuvre and anticipating them when going down stairs.

Remove any water, ice, snow, or obstacles from the stairs before using the chair.

Remove any water, ice, snow, or obstacles from the tracks and their carriage before using the chair on the stairs.

Ensure that the track carriage is open and properly locked before using the chair on stairs.

If the operator is tired or needs to assist the patient, you can stop on the stairs during transport (see section *How to stop on the stairs*).

### GOING DOWN STAIRS

1. **Operator at head end:** Take the chair near the stairs and engage the brakes.
  - Open the track carriage and lock it in open position. Ensure the track carriage is correctly locked.
  - Set the extendible carrying handle to the desired height and ensure that it is locked correctly.
  - Close the rear foldable handles.
2. **Operator at foot end:** Extend the telescopic front handles to the desired length. Ensure that both handles are locked properly.
3. **Supervisor (third operator):** Position yourself at the foot end, keeping one hand on the operator's back, and anticipate them to guide them down the stairs.
4. **Operator at head end:** Disengage the brakes.
5. **Both operators:** Work together to bring the chair over the edge of the first step and tilt it, so that the tracks get a grip on the step edge.
6. **Operator at head end:** Press the down control on the control unit to make the tracks move.
7. **Both operators:** Move at a constant pace on the stairs. To maintain the correct angle on the way down the stairs, proceed as follows:
  - **Operator at head end:** apply light pressure on the carrying handle in the direction of your knees.
  - **Foot end operator:** apply light upward pressure on the front telescopic handles.
8. **Both operators:** When the chair reaches the bottom of the stairs and the rear wheels rest on the floor, the head end operator stops pressing the controls and tilts the chair forwards so that all four wheels touch the floor. The foot end operator closes the telescopic handles. The operator at head end closes the carrying handle, closes the track carriage and opens the rear handles to move the chair.



Figure 43 - Going down stairs



### WARNING

Occasional assistants may cause damage and/or physical harm, or injure themselves. Always keep the chair under control, activate the controls, and coordinate the assistants.

## 8.8 Use without the motor

### GOING UP STAIRS

If problems occur on the way up the stairs, operators should lift the chair with the patient seated, and transport them up the stairs.

1. Before lifting the chair, check that the patient is properly secured with the restraints. Use additional restraints and assistance if necessary.
2. Ferno recommends that the two operators take opposite sides, with one facing the other, when carrying the device up and down stairs, and that a third trained operator, if present, assists the one at the head end in the role of supervisor. Follow local regulations for the transport of the chairs. Seek additional help if necessary (see section *Additional help*).
3. **Operator at foot end:** Extend the telescopic front handles to the desired length. Make sure that the handles are properly locked and retain your grip.
4. **Operator at head end:** Adjust the extendible carrying handle to the desired height and ensure that it is locked correctly. Close the tracks so they do not interfere with the transport of the chair on the stairs.

5. **Supervisor:** Stand behind the head end operator and, keeping one hand on their back, guide them during the transport.
6. **Operator at head end:** Disengage the rear wheel brakes.
7. **Operators and Supervisor:** The operators work together to lift and carry the chair on the stairs. The supervisor places one hand on the head end operator's back and provides verbal directions.
8. **Both operators:** At the end of the climb, place the chair on the floor making sure that all 4 wheels are on the landing.
8. **Operator at foot end:** Close the telescopic front handles.
9. **Operator at head end:** Close the carrying handle, close the track carriage and open the rear handles to move the chair.

### GOING DOWN STAIRS

If the system loses power and the tracks turn freely, the speed limitation device is activated automatically when the chair exceeds a predetermined safe speed limit on the way down the stairs.

Pay the utmost attention and be sure to maintain control of the chair while going down the stairs without the motor. Refer to section *Going down stairs*.

## 8.9 Speed Limiter SSL

The SSL function ("*Safety Speed Limiter*") trips automatically when the chair exceeds a predetermined safe speed limit on the way down the stairs. This ensures safely controlled descent during patient transport.

The SSL function also guarantees safe operation of the chair even when the battery is low or damaged, or the circuit board is not working properly. In these two cases, contact the Technical Support Service immediately. In case of a low battery, recharge the battery immediately.

## 9 - MAINTENANCE

### 9.1 Routine and preventive maintenance

The chair is a medical device requiring regular maintenance, hence you are recommended to comply with the following schedule:

1. ROUTINE maintenance: Ferno recommends carrying out routine maintenance operations once a year. Ferno engineers will issue a maintenance certificate for the device after maintenance.
2. PREVENTIVE maintenance: preventive maintenance operations are to be carried out by the user, as specified in the table.

If the chair undergoes particularly heavy use, maintenance should preferably be carried out on a more frequent basis. If there are signs of wear and damage, discontinue use of the chair and immediately contact Ferno's Technical Support Service.

Ferno directly carries out repair maintenance operations, without the need of dealers, mechanics or external service centres.

You are thus invited to be wary of those who present themselves as Ferno's authorised technician. We suggest you to directly contact our SOS service using the reference

| Minimum preventive maintenance intervals     | At every use | Every month | When needed |
|----------------------------------------------|--------------|-------------|-------------|
| Disinfection                                 | •            |             |             |
| Cleaning                                     |              |             | •           |
| Inspection                                   | •            | •           |             |
| Lubrication - At least every 6 months        |              |             |             |
| Voltage adjustment - At least every 6 months |              |             |             |

#### Important

When not in use, store the device in an indoor environment that is dry and protected from direct sunlight.

#### Important

After disinfection / cleaning, ensure that the device and its components are completely dry before use.

### 9.2 Disinfecting the device

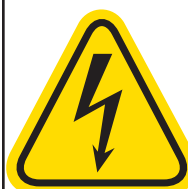
1. Remove restraints and any other accessory from the product.
2. Remove the battery and cover its connectors so as not to damage cables and connectors with liquids.
3. Disinfect all equipment (including accessories such as cushions, restraints, etc.) with a cloth or sponge dampened with disinfectant solution, let it sit for 10-20 minutes; use brushes to rub and clean the least accessible parts;
4. Use a cloth to rinse and dry the treated surfaces, make sure that all the device's components are completely dry before using them;
5. After cleaning, be sure to refit on the device the restraints and/or any other accessory that was removed.

#### Important



**DO NOT WASH WITH HIGH PRESSURE WATER**

Do not use high pressure water to clean the device.



**WARNING**

**DO NOT OPEN THE MOTOR HOUSING.**

There are no user serviceable parts inside. Contact Ferno s.r.l. for Technical Assistance.



**WARNING**

If the load capacity of the chair has been exceeded, discontinue use and have it serviced.

#### Important

Disinfectants and detergents containing phenols (if above the threshold of 2500 ppm), chlorine-based (bleach) or iodine-based solutions can cause damage. Do not use products containing these chemicals.

### Important

Before disinfection / cleaning, make sure the chair is switched off.



### WARNING

**Warning: during disinfection, use gloves and any appropriate PPE according to the risk assessment guide. Also ensure there are no signs of wear and / or damage.**



### WARNING

**Improper maintenance may cause serious accidents, injuries and/or damage. Perform maintenance as instructed in this user manual.**

## 9.4 Inspection

To ensure optimal use of the chair, it is important to keep all its components in good conditions and remove any dirt, debris, and body fluids. The chair must be inspected before and after use and must be cleaned after each use.

The device should be inspected regularly by maintenance personnel. Perform the indicated check-list and take note of each maintenance operation on the "service book" (at the end of the manual) so as to create a log of all the checks, even in case of repair procedures.

The track carriage and the tracks must be inspected after each use. When not in use, store the chair in a dry, indoor environment and inspect it at least once a month.

If signs of wear or damage are found during inspection, discontinue use of the chair and immediately contact Ferno's Technical Support Service for repairs or maintenance. See chapter *Technical Support*.

## 9.3 Cleaning the device

1. Wash all components of the product with a cloth or sponge dampened with detergent solution (rinsing the sponge frequently with clean water);
2. If necessary, remove stains with a stiff bristle brush (not metal), or a light solvent, paying attention to the labels.
3. Use a cloth to rinse and dry the treated surfaces, make sure that all the device's components are completely dry before using them.
4. After cleaning, be sure to replace on the device the restraints and any other accessory that was removed.

### CLEANING RESTRAINTS WITH PLASTIC BUCKLES

1. Remove the restraints from the product.
2. Place the restraints inside a mesh bag (not supplied with the products) and put it in the washing machine.
3. Wash the restraints with hot water using a cleaning and disinfecting product and selecting a cycle for delicate items, with slow spin. Do not bleach.
4. Remove the restraints from the mesh bag and let them dry in the open air. Do not tumble dry.
5. Re-fit the restraints only once they are dry.



### WARNING

**Improper maintenance may cause serious accidents, injuries and/or damage. Perform maintenance as instructed in this user manual.**



### WARNING

**Lubricating the tracks and their carriage can cause damage and / or injury to the patient and / or operators. Do not lubricate the track carriage and the tracks.**

### Important

#### DO NOT WASH WITH HIGH PRESSURE WATER

Do not use high pressure water to clean the chair.



#### CHECK-LIST FOR INSPECTION OF THE CHAIR

- Are all the components present?
- Does the chair show signs of wear?
- Are all screws, bolts, and pins in place and securely mounted?
- Do all the moving parts work properly?
- Do all the locking devices work properly?
- Does the chair move smoothly?
- Are the restraints correctly installed?
- Are the restraints in good conditions? Do they show cuts or worn edges?
- Do restraint buckles show visible damage? Do they work correctly?
- Do the installed accessories work properly without interfering with the operation of the chair?
- Is the power button working properly?
- Do the up and down controls work correctly?
- Are the tracks and track carriage working properly without excessive noise and without coming loose or out of their housing?
- Are there visible signs of damage on the motor housing, the control unit, the batteries, or the battery charger?
- Is the battery easily inserted into the holder on the motor housing?
- Do the lights on the battery and control unit work properly?
- Does the battery charger cable show signs of wear, cuts or fraying?
- Does the safety lighting work properly?

#### CHECK-LIST FOR INSPECTION OF THE TRACK CARRIAGE AND TRACKS

- Is there any lubricant, dirt, or debris on the tracks or track carriage?
- Are the tracks and track carriage visibly damaged?
- Are the bolts and nuts securely fastened?
- Are the tracks and track carriage working properly?

## 9.5 Lubricating the device

Disinfect and clean the chair before lubricating. Lubricate the points requested (see picture on the following page) when necessary, then move the articulated parts back and forth several times to help the lubricant spread on the joint. Remove any excess lubricant with a neutral detergent.



### WARNING

**Never lubricate the tracks, the track carriage, or any other part of the system. Lubricating the tracks or the track carriage can make the chair operate unpredictably, with the possibility of injury to the patient and/or operators.**



### WARNING

**Lubricating the parts that do not have to be lubricated results in dust and particle deposits inside the lubricated parts and causes damage. Lubricate only the points indicated.**

### Important

Do not lubricate parts unnecessarily as this can cause dirt and particles to build up on the lubricated parts and cause damage. Lubricate **only** the points indicated.

## LUBRICATION POINTS

○ lubricant cleaner (recommended product WD40)

○ silicone spray

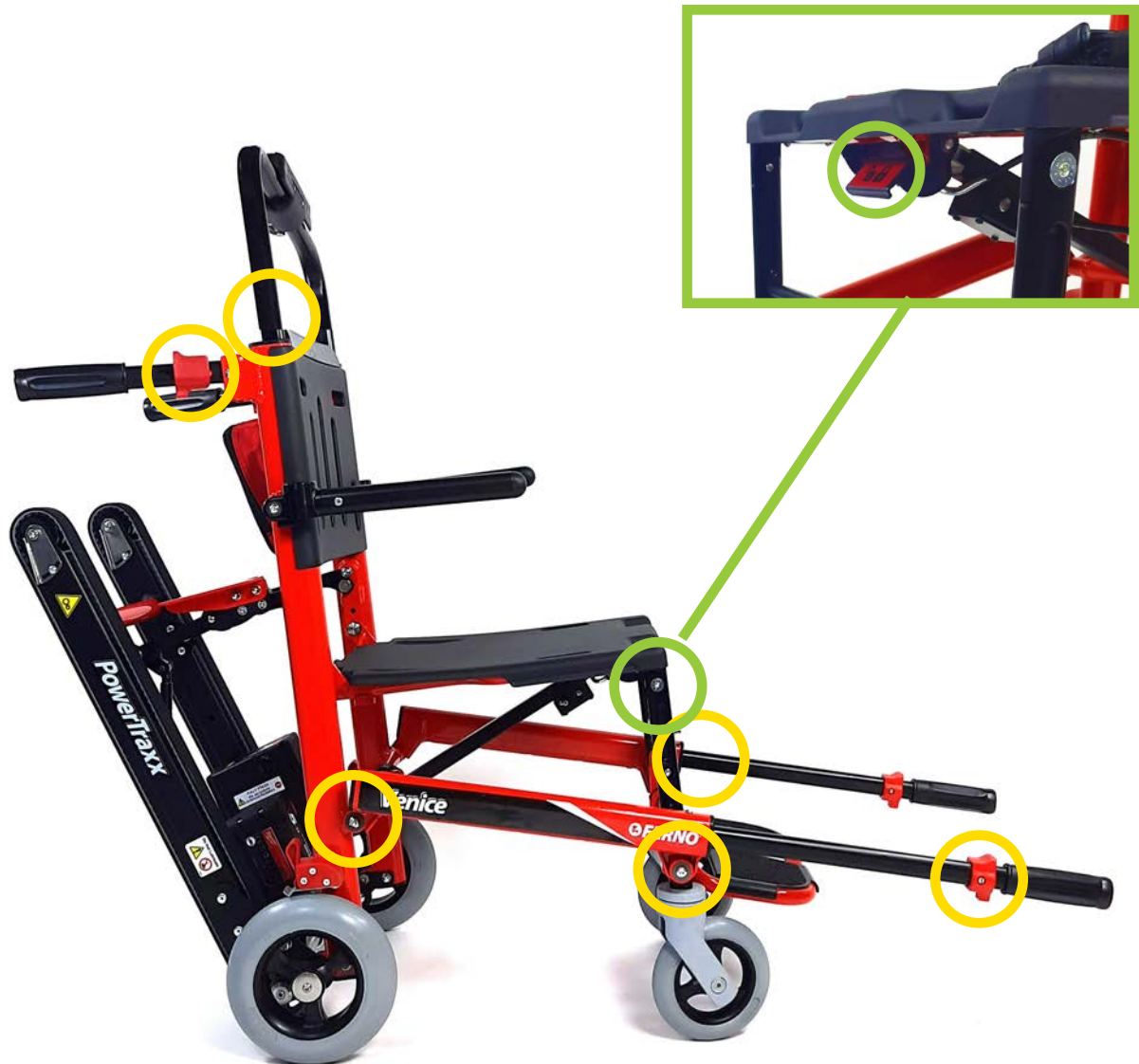


Figure 44 - Lubrication points

## 9.6 Replacing the control unit batteries

The chair is fitted with a control unit powered by two "AA" type batteries. If the controls do not respond and the display does not turn on, replace the batteries.

If the “low charge” indicator light (⚡) switches on, the batteries must be replaced. Access to the batteries is achieved by opening the compartment below the control unit.

The auxiliary cable connection port is positioned next to the battery slot. Read the section *Pairing procedure with auxiliary cable*.



**Figure 45 - Battery compartment**

### TO REPLACE THE TWO AA BATTERIES:

- Use a cross head screwdriver to undo the battery compartment screws. Lift the battery compartment cover.
- Remove the batteries, see figure.
- Remove the batteries from their compartment and replace them, taking care to re-fit the rubber seal correctly.
- Repeat the steps in reverse order.



**Figure 46 - Opening the battery compartment**



**Figure 47 - Changing the batteries**

## 9.7 Adjusting track tension

### TOOLS REQUIRED

|   |                                   |
|---|-----------------------------------|
| 1 | Hex socket wrench (13 mm or 1/2") |
| 1 | Rubber mallet                     |
| 1 | 6 mm Allen wrench                 |
| 1 | T-25 Allen wrench                 |

Over time, the tracks can become loose due to wear, or you may find that the tensioning of the two tracks is not equal.

### Important

Track adjustment requires the intervention of two operators.

To adjust the tension of the tracks, it is necessary to act on the track tensioning system located at the top of each shoe. Each shoe has two metal plates with tabs and fixing screws, one on the inside and the other on the outside of the shoe.

Using a 13 mm Allen wrench (1/2 in) and a 6 mm hex socket wrench, loosen the main screw.



Figure 48 - Layout of the track tensioner systems.

Using a T-25 Allen wrench, loosen the two small lower screws: one is on the outer side and the other is on the inner side of each shoe, as shown in the photo.



Figure 49 - Procedure for slackening the track tensioner

The track tensioner will now be released.

While one operator turns the tabs of the track tensioner in the opposite direction to one another, the other operator gently tightens the top screw using the 13 mm Allen wrench (1/2 in) and the 6 mm hex socket wrench.

### Important

It is recommended to assign re-tensioning of the tracks to technical staff.

If you cannot get the correct tension in the tracks, the tracks should be replaced. Contact the Ferno Technical Support Service.

TAKE THE UTMOST CARE NOT TO OVER-TIGHTEN THE SCREWS.



**Figure 50 - Adjusting track tension.**

Using a T-25 wrench, tighten the lower small screws.



**Figure 51 - Adjusting track tension.**

When the operation is complete, check the tension of the tracks before using the device.

To check the tension of the tracks, pull the track away from the shoe, at its halfway point, making sure that the inner distance is about 1 cm at the most (Figure 52).



**Figure 52 - Checking track tension.**

## 9.8 Replacing ABS panels

The ABS panels on the backrest and the seat can be replaced.

### BACKREST PANEL

**Removing the backrest panel:** Loosen the four screws on the backrest cross-pieces. Then remove the backrest cover.

**Fitting the backrest panel:** Position the panel with the horizontal restraint openings up. Snap the panel onto the frame, reposition the backrest panel over the top crossbar, aligning the screw holes and retighten the four fixing screws.

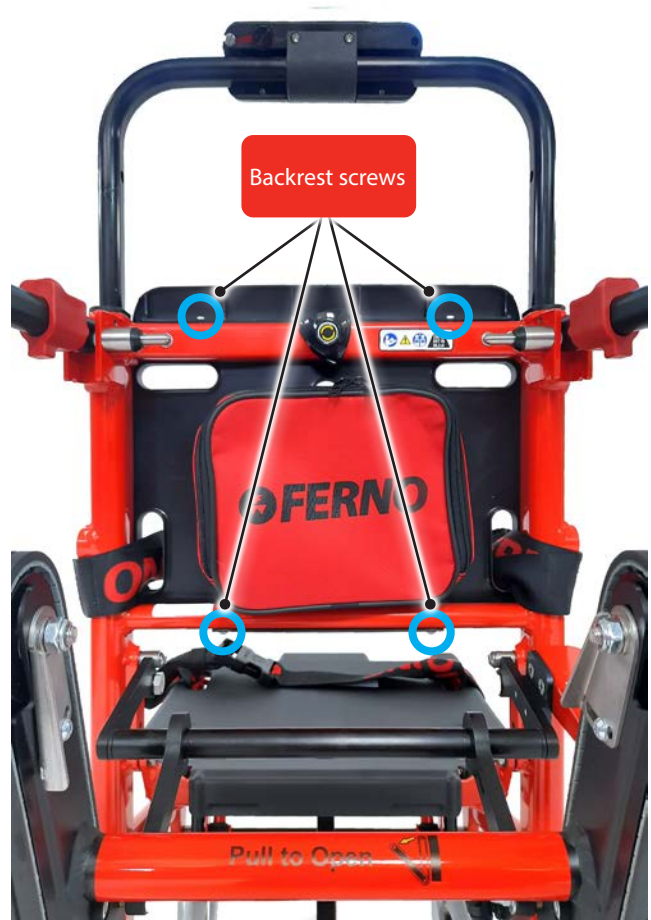


Figure 53 - Backrest panel screws

### SEAT PANEL

**Removing the seat panel:** Pull both front borders of the panel upwards to separate the seat from the frame, then remove the panel completely from the chair.

**Fitting the seat panel:** Align the panel with the chair frame and push it downwards until it fits into place.



Figure 54 - Replacing the seat panel

## 9.9 Pairing procedure with auxiliary cable

The chair is supplied as standard with an auxiliary cable. This cable is inside the bag on the rear side of the chair backrest. It can be connected permanently (if required) to the control unit and the motor, bypassing the wireless connection. If permanently connected, position the cable so that it is not crushed when opening, closing and using the chair.

The auxiliary cable allows to re-establish the wireless connection between the control unit and the motor. The wireless control unit and the motor are connected during the assembly procedure and should not disconnect during normal use.

If the connection is lost, perform the following reconnection procedures:

1. Open the control unit connector compartment with the help of a coin (Figure 55). Insert the auxiliary cable connector in the port inside the compartment.
2. Remove the door protection on the motor housing (Figure 56).
3. Plug one connector of the spiral cable into the controller port and the other connector into the motor housing.
4. Press the power button of the chair and wait for the wireless interface and the motor to be synchronized. A double beep will confirm that connection has been successfully completed.
5. Disconnect the cable from the controller.
6. Disconnect the cable from the motor housing and stow it in the bag provided.



**Figure 55 - Opening the connector compartment**



**Figure 56 - Port on the motor housing**



**Figure 57 - Cable connected to the controller**



**Figure 58 - Connecting the cable to the connector compartment**



Figure 59 - Correct cable routing during use

## 10 - TECHNICAL SUPPORT

### Technical Support Service

For technical support concerning our products, contact the Ferno s.r.l.'s Technical Support Service.

|                                |                     |
|--------------------------------|---------------------|
| Telephone (toll-free in Italy) | 800.501.711         |
| Phone                          | +39 0516860028      |
| Fax                            | +39 0516861508      |
| E-mail                         | assistenza@ferno.it |
| Website                        | www.ferno.it        |

For more information on the Venice device, and to schedule training courses on its correct use, contact the Ferno s.r.l. Customer Service team.

### WARNING

**Non-original spare parts and inadequate repairs may cause damage and/or injury. Use only original spare parts and refer exclusively to Ferno s.r.l.'s Customer Support.**

### WARNING

**Unauthorised modification of device could cause serious damage, injury and / or unforeseeable operating problems. Do not modify or alter the device in any way.**

## 11 - LIST OF ACCESSORIES AND SPARE PARTS

Ferno offers a full range of emergency medical service accessories. For their correct use, follow the instructions provided with the product. Store the instructions together with this manual. When using the accessories, pay attention to any additional factors, such as height and width of doors, etc.

For further information, contact Ferno's Customer Service or dealer.

### 11.1 Accessory list for Venice Power Black chair and related products

Codes may vary, check them during the purchase.

Headrest for Venice series (10-1964-001)



Armrest kit for Venice series (21-0084-001-N)



Leg rest kit for Venice series (25-00014)



Kwik-klip restraints (0314002)



Venice Lock locking system (25-00069)



Multi-chair 2.0 locking system (21-00050)



Simple Clack locking system (25-1000-020-UK)



## 11.2 Spare parts for Venice Power Black chair

Codes may vary, check them during the purchase.

Milwaukee® M28 Battery (MWK-BATTERYM28-5AH)



Milwaukee® M28C Battery Charger (MWK-CHARGERM28C)



Backrest

(10-00255)



Two-piece foot restraint with plastic buckle (10- 2379- 002)



Two-piece foot restraint with plastic buckle (10- 2379- 002)



ABS seat panel

(10-2346-001\_3)



ABS backrest panel

(10-2347-001\_2)



Pairing cable

(KIT-CABL-RJ-M2)



Red bag for cable

(10-1532-001)



Anti-slip footplate

(25-00073)



## 13 - WARRANTY

### Warranty Terms and Conditions

Ferno's products are guaranteed against manufacturing defects for a period of 24 months from the date on the Ferno s.r.l. shipping document.

Ferno s.r.l. guarantees its spare parts for a period of 12 months.

During the warranty period, Ferno will repair and/or replace any parts found to have manufacturing defects free of charge.

Collection and maintenance of the device are included in warranty (to be borne by Ferno), while the right to call and the sending of the technician are EXCLUDED by the maintenance at the customer's site.

The warranty does not cover consumables or parts subject to wear and tear due to normal use of the product, all parts typically subjected to sliding or rolling friction (bearings, brushes, lubricants, shoes, tracks, etc.), parts potentially exposed to oxidation or corrosion (copper or metal alloy contacts, electrical, electronic and mechanical equipment), and batteries.

The surface finishes (gelcoat/resin, paint, powder paint, decals, tape, inscriptions, etc.) are guaranteed for 90 days.

Repairs are performed by trained technical staff at the Ferno s.r.l. site in Via Zallone 26- 40066 Pieve di Cento (BO), Italy or at the Customer's premises if suitable arrangements with Ferno s.r.l.'s Customer Service have been made.

Technical support at the Customer's premises must be arranged beforehand with the Technical Support Service.

The intervention provides that the right to call and the sending of the technician will be charged.

Repairs are guaranteed for 6 months from the date of repair. This warranty applies only when the product is used according to the instructions in the user manual provided. Misuse and negligence invalidate this warranty.

The warranty is valid from the day the product is shipped from Ferno s.r.l.

Ferno s.r.l. is not liable for damages incurred during shipment or due to misuse of the product.

The warranty is rendered null and void in the case of:

- failure to observe the operating instructions,
- misuse,
- inappropriate use or handling,
- repairs by non-authorised persons,

- damage during transport due to improper packaging of items returned by the user,

- inadequate maintenance,

- failure to use original spare parts.

In cases not covered by the warranty, Ferno s.r.l. will not cover the transport costs for sending or returning the product.

### Limitation of liability

If a product is found to be defective, Ferno s.r.l. will repair and replace it according to the regulations in force. The following cases are not covered by warranty:

- labels or plates bearing the manufacturer's logo, the serial or registration number, which have been tampered with;
- the product that has undergone modifications, repairs or treatment by personnel not authorised by Ferno s.r.l.;
- the product not used in compliance with the instructions, or used for purposes other than those for which it was designed.

### Warranty claims

Contact Ferno's Customer Service immediately if you receive a product that is suspected to be defective. A representative will assist the customer through the complaints procedure. Before returning a product to Ferno s.r.l., contact Ferno's Customer Service to request authorisation.

### Claims

Any complaints must be communicated to the reseller, or to Ferno s.r.l.'s Customer Service, within 5 days of receipt of the product or of discovery of the alleged defect.

### Return authorisation

No product will be accepted without the prior approval of Ferno s.r.l..

Products returned for business reasons, or for reasons not relating to nonconformity of the product, will be accepted only after verification by Ferno s.r.l. authorised personnel.



[illegible]

*Product User and Maintenance Manual, required to operate the product safely, maintain its efficiency and reliability, and comply with the terms of the warranty.*

Rel.28042025 English

**Ferno s.r.l.**

Via Benedetto Zallone 26  
40066 - Pieve di Cento (BO) - ITALY

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| Fax                             | 0039 0516861508   |
| E-mail                          | info.it@ferno.com |
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6942 - Savosa - SWITZERLAND

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