



## ***MAX Chair (Non-Foldable)***

February 2024, ver. 01

Pub.No.50-8450-001\_01



**Ferno Slovakia s.r.o.**

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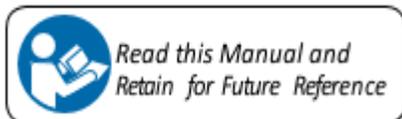
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## Disclaimer



This manual contains general instructions for the use, operation and care of this chair. The instructions are not complete. Safe and proper use of this chair is solely at the discretion of the user. Safety information is included as a service to the user. All other safety measures taken by the user should be within and under consideration of applicable regulations. It is recommended that training on the proper use of this chair be provided before using this chair in an actual situation.

Retain this manual for future reference. Include it with the chair in the event of transfer to new users. Additional free copies are available upon request from FERNO Manufacturing.



### Technical specification:

<i>Overall Height</i>	<i>1225 mm</i>
<i>Overall Width</i>	<i>595 mm</i>
<i>Overall Length</i>	<i>830 mm</i>
<i>Seat Width</i>	<i>445 mm</i>
<i>Front wheels /dia/</i>	<i>125 mm</i>
<i>Rear wheels /dia/</i>	<i>150 mm</i>
<i>Weight without track</i>	<i>20 kg</i>
<i>Track Load capacity</i>	<i>250 kg</i>

**TIP: Regular cleaning helps reduce the risk of transmitting disease and enables the equipment to function at its optimum**

### **WARNING**

**Untrained operators can cause injury or be injured. Permit only trained personnel to operate the chair.**

**Improper use of the chair can cause injury. Use the chair only for the purpose described in this manual.**

**Improper charging can cause injury or damage. Use only the Ferno-approved battery with the chair, and charge only with the Ferno-approved battery charger.**

**Using the chair with the track system unlocked can cause injury. Verify that the track system is locked before transporting the patient.**

**Lubricating the track system can result in injury to the patient and/or operators. Never lubricate the tracks or belts.**

**Improper operation can cause injury. Operate the chair only as described in this manual.**

**An unattended patient can be injured. Stay with the patient at all times.**

**An unrestrained patient can fall off the chair and be injured. Use restraints to secure the patient on the chair.**

**Helpers can cause injury or be injured. Maintain control of the chair, operate the controls, and direct all helpers.**

**Improper maintenance can cause injury. Maintain the chair only as described in this manual.**

**Attaching improper items to the chair can cause injury. Use only Ferno®-approved items on the chair.**

**Improper parts and service can cause injury. Use only Ferno® parts and Ferno®-approved service on the chair.**

**Modifying the chair can cause injury and damage. Use the chair only as designed by Ferno.**

**SPARE PARTS:**

Item	Part number	Description	QNT.
1	65-4515-011	ASSY BACK HANDLE LH	1
2	65-4515-021	ASSY BACK HANDLE RH	1
3	65-4514-011	ASSY ARMREST LH	2
4	65-4514-021	ASSY ARMREST RH	1
5	65-4113-001	ASSY HANDLER INTERNAL	2
6	75-0004-044	FRONT CHAIR WHEEL 125 MM	2
7	75-0004-043	REAR CHAIR WHEEL 150 MM	2
8	62-4400-001	4-POINT RESTRAINT	1
9	65-4507-001	ASSYBACK PANEL	1
10	65-4506-001	ASSY SEAT PANEL	1
11	50-4518-004	FOOTREST	1

**ACCESSORY:**

Item	Part number	Description	QNT.
12	65-0409-001	MAX POWER (REMOVABLE TRACK) w/PWRTX	1
13	60-0251-008	MAX FASTENER	1
14	65-1500-031	IV POLE	1

Ferno products meet the requirements of Medical Device Directive MDR 2017/745 as established by the European Union.

The MAX Chair meets the following standards:

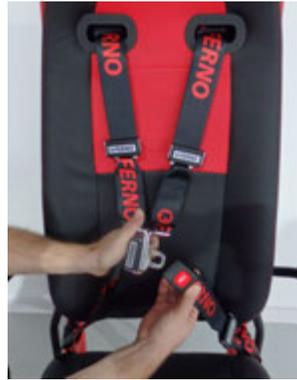
- EN 1865-1:2010+A1:2015
- EN 1789:2020



### 1.1. Using Patient 4-Point Restraints

Use the 4-Point Restraints to secure patient into the chair. Fasten the restraint using the metal male/female buckle system. Assess patient condition to determine optimum strapping procedure. Buckle the restraint and adjust the length.

To release the restraints, squeeze the two sides of the tang on the buckle inward at the same time and pull the buckle apart.



### 1.2. Telescopic carrying handles

The MAX chair is fitted with telescopic carrying handles to aid in carrying the chair when necessary. To change the position of the handles press the button and pull/push handles to extend or shorten. Ensure the handles are locked before attempting to lift or carry the chair. After using, return the handles to their original position.



### 1.3. Back handles

Back handles are used to lift the Max chair to overcome large obstacles. Ensure the handles are in 90° position before attempting to lift or carry the chair. After using, return the handles to their original position. When using the Max chair with Max Power the back handles must be folded down and telescopic carrying handlers used.



Final open position

## 1.4. Wheels

The Chair is fitted with two large wheels with brakes at the rear and two swiveling castors below the foot rest. The front swivel castors provide excellent maneuverability. ALWAYS inform the patient of your intentions.

To apply the brakes on the rear wheels, press down on the brake pedal above the wheels. To release the brake, raise the brake pedal with your foot.



## 1.5. Footrest

The footrest is used to support the legs and it is rotatable. The foot support is part of this chair. When preparing the chair for storage ensure castors are locked facing forward, the foot rest is up and all handles are not extended.



**WARNING**

**Do not pull down the footrest until patient is seated!!**

Once the patient has been seated comfortably in the chair, pull down the footrest and place their feet on to it. Fasten 4 – Point restraints to secure the patient.



## 1.6. Attaching and detaching the MAX Power (track)

When using the Max chair with the MAX Power:

The chair features an attachable track to aid operators when ascending and descending stairs.

### **To attach the track:**

First, position the tracks with the lock turned up to receive the axle of the chair. Next, lift the chair just slightly so the axel can be placed directly into the track lock. Press down on the chair until a click is heard, indicating that the chair is now firmly attached to the track. Then lift the end of the track toward the chair until the top lock is engaged and the track no longer swings free.



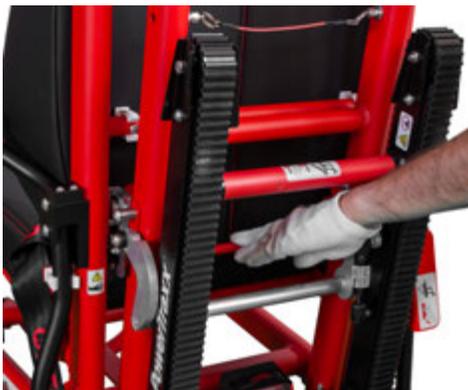
Locating lower Track lock onto axle

### **To detach the track:**

First, locate the bar between the track and chair labeled “push to unlock.” While holding the track's handle press down on this bar, unlocking the top lock.

Next locate the lever at the bottom of the track labeled “pull to unlock.” Pull up on this lever to disengage the bottom lock.

Pull the track toward the operator with two hands. The track is now free.



### 1.7. Fold & Unfold MAX Power (track)

The track aids in descending stairs. Do not unfold the track if the chair is not needed to descend stairs.

To fold the track into the back of the chair, push the lever downwards as shown, until the track locks into position:

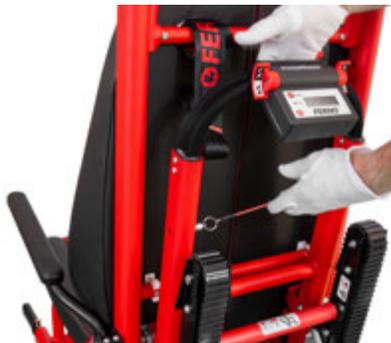


To unfold the track from the rear of chair, pull the bar fitted to the track until the track locks into position:



## 1.8. Adjust handle of the MAX Power

The MAX Power is fitted with an adjustable height handle. To adjust the handle, the operator must pull up on the red cable under the handle. This disengages the handle to slide up or down. When the desired position is reached the operator must release the cable.



Pull the red cable under the handle upward and slide the handle up or down to its desired position.

## 1.9. MAX Fastener

The MAX Fastener is for use with Ferno® products only. No guarantee is given for usage with other carriers than those of Ferno. MAX Fastener is attached to the floor of the ambulance. The floor or tray to which the mounting components are attached must have sufficient strength to hold the mounted fastening system and MAX chair with patient.

The locking pin of the MAX Chair is inserted into the Fastener and wheeled forward until a click is heard, ensuring it is locked. To unlock, press the button located inside the end of the fastener.

It is the users' responsibility to ensure safe practices for the patient and themselves. To install the MAX Fastener, a skilled professional who is familiar with ambulance construction is required. Consult the ambulance manufacturer for ambulance structural details and ambulance warranty information. Inspect the ambulance for anything that might interfere with the installation.



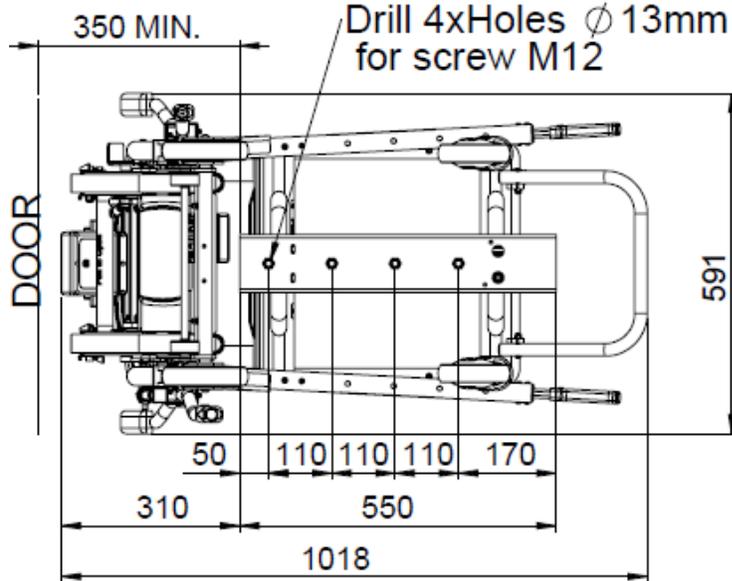
**Hardware Provided:**

73-3501-003	FLAT WASHER 13x24x2,5 S/S, RoHS	4 pcs
73-1306-040	M12x30 HEX. SOCKET HEAD DIN912 ZPS, RoHS	4 pcs
73-2303-005	M12 LOCK HEX NUT DIN 985 ZPS, RoHS	4 pcs



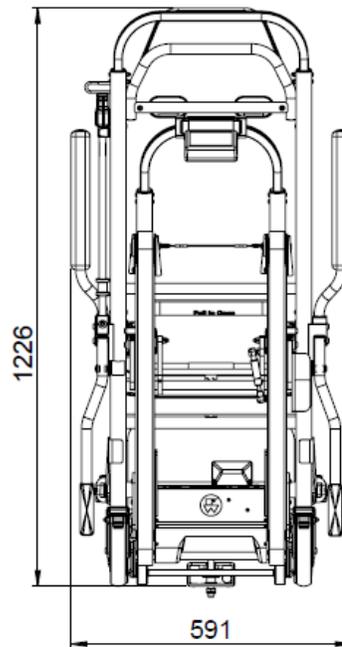
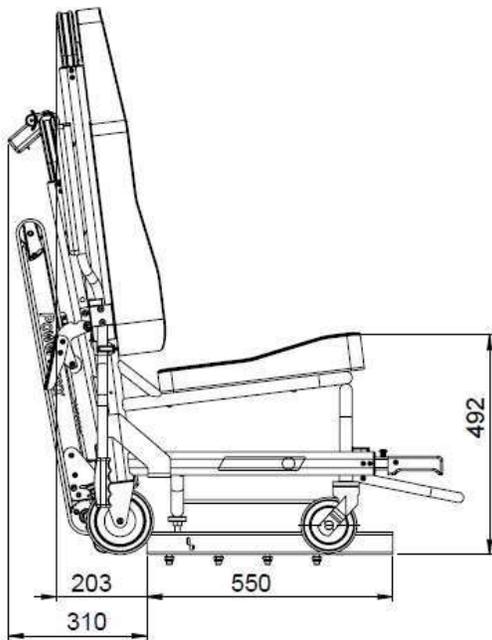
# INSTALLING TO AMBULANCE

## BOTTOM VIEW



SIDE VIEW

REAR VIEW



## 2. Intendend use

For the purpose of this manual, the MAX Chair will be referred to as the Chair and the person being transported on the Chair will be referred to as the patient. MAX Chair / non-foldable chair is a handling device designed for transporting patients to the ambulance. Patients are transported in this chair in a seated position inside the ambulance, on stairs and level ground. In addition to the wheels the Chair is fitted with a track system to allow the operators to glide the chair down stairs instead of lifting and carrying. The Chair will glide smoothly down a wide range of stair types and can quickly return to a four-wheel chair at the end of a run of stairs.

## 3. Safety Precautions

To ensure safety and satisfaction with your new Chair, all users should read these instructions and the individual portions of recognized emergency care manuals that relate to the application and use of Carrying Chairs. It is recommended that a minimum of two trained operators control a loaded Chair on stairs, they should assess whether additional assistance is required.

### 3.1 Operator Skills

Minimum recommended skills are as follows:

- The strength, balance, co-ordination and common sense to safely operate the Chair
- The ability to select the proper equipment and procedures for the circumstances
- Operators should have been trained in the operation of the Chair
- The ability to understand and follow the procedures described in this manual
- Operators should have a working knowledge of emergency patient-handling procedures

### 3.2 Operator Training

Minimum recommended training is as follows:

- A training plan approved by an EMS training officer (or equivalent)
- Read and understand the instructions in this manual
- Practice using the fully-equipped Chair with weight and under simulated conditions
- Trainees should be tested to verify their understanding of Chair operation
- Keep training records. Annual refresher training for all Chair operators is recommended

### 3.3 Warning

Warning notices indicate a potentially hazardous situation which if not avoided, could result in injury or death.

 <b>WARNING</b>
Bleach, phenols and iodine can cause damage. Do not apply products containing these chemicals to the Chair.
Improper lubricants can cause damage. Use light oil to lubricate the Chair.

 <b>WARNING</b>
Blood borne Disease Notice - To reduce the risk of exposure to blood borne diseases (such as HIV-1 and hepatitis), when using the Chair, follow the maintenance instructions in this manual.
When using the Max chair with Max Power the back handles must be folded down and telescopic carrying handlers used.

 <b>WARNING</b>
<b>NEVER LUBRICATE OR ALLOW LUBRICANTS TO COME INTO CONTACT WITH THE TRACK SYSTEM</b>

 <b>WARNING</b>
Unfold the track for use only when it is occupied and only when you need to transfer the patient upstairs or downstairs.

Every three months lubricate the hinge pins with light oil paying particular attention to the cross section bolts.

 <b>WARNING</b>
<ul style="list-style-type: none"> <li>✓ Never exceed the maximum load capacity of 250 Kg.</li> <li>✓ Only qualified personnel trained in the use of the Chair should use it.</li> <li>✓ For safety purposes, it is essential that patients should always be secured with restraints.</li> <li>✓ Never leave a loaded Chair unattended.</li> <li>✓ Avoid rapid Chair repositioning – this may cause injury to the patient.</li> <li>✓ Establish regular inspection procedures and responsibilities to ensure proper maintenance as described.</li> <li>✓ In cases of cervical, spinal or some fracture injuries, use of the Chair for patient transfer is not recommended.</li> <li>✓ Improper maintenance can cause injury and unpredictable operation. Maintain the Chair only as described in this manual.</li> <li>✓ Improper parts and service can cause injury and damage. Use only FERNO approved parts and service.</li> </ul>

## 4. MAX Chair (Non-Foldable) Operation

-Refer to Quick Set-up Guide

### **Guidelines for using the track system:**

- Using the Chair on stairs requires a minimum of two trained operators. FERNO Manufacturing recommends using a third person as a “spotter”.
- Verify that the track is fully opened and locked into place before using it.
- Verify that the telescopic handles are locked before lifting.
- Never lubricate track belts. Lubricated track belts can perform unpredictably, resulting in injury to the patient and/or operators.
- Moisture, water, snow, ice or debris on or between the track and belts can cause irregular track-belt performance that results in sudden changes in the weight operators must support. Make sure the track and track belts are clean and dry before using the Chair on stairs.
- Always clear stairs of debris etc., which could interfere with the operation of the Chair or impede the operators

### 4.1 Checking the MAX Chair (Non-Foldable)

The following checks are required each day before the use of the Chair:

- Overall cleanliness of the Chair.
- Check that there are no bent or damaged parts, missing fasteners, etc.
- Check that the wheels rotate freely with no excess movement or damage.
- Check that the track system opens and closes correctly, examine the tracks for damage.
- Check the upholstery for cracks, splits or any loose fabric or stitching, etc.
- Check that the upholstery is correctly secured to the frame.

**If in any doubt then contact a FERNO Field care Service Engineer.**

## 5. Operating Procedure

### 5.1 General Information

#### IMPORTANT:

Always inform the patient before a maneuver.

Chair operation requires a minimum of:

- Two trained operators when the Chair is being used to transport a patient on stairs.

- One operator only, can safely use the Chair on flat surfaces including single steps, thresholds etc. but this must be at the discretion of the operator who must assess all likely conditions.

- One operator can safely load/unload a patient using the Chair from a vehicle fitted with a ramp, automatic tail-lift or other approved mechanical lifting mechanism.

- Circumstance such as access, weather conditions or patient weight may require additional help when operating on stairs; this must be assessed at the time however the following is a suggested configuration:

- Placement techniques, heavy patients, rough terrain or unusual circumstances may require more additional help; this must be assessed at the time however the following is a suggested configuration.

- Keep the load limit of the Chair in mind when working with a heavy patient. If it suspected that the load limit has been exceeded then a full inspection of the Chair should be conducted, preferably by FERNO Field care.

- Operators must take extra precautions when operating the Chair on uneven ground. If the ground is too uneven it is recommended to transfer the patient by pulling the chair backwards.



#### WARNING

Regular cleaning helps reduce the risk of transmitting disease and enables the equipment to function at its optimum

With the back of the patient facing the operator.

- Extra precautions should be taken to prevent the Chair from slipping in adverse, wet or icy weather conditions.

- Stay with the patient at all times and always use the patient restraints provided.

- Always follow good lifting procedures as specified in current manual handling regulations and your appropriate training manual.

- Follow standard emergency patient-handling procedures when operating the Chair.

- Medical advice is beyond the parameters of the manual. It is the user's responsibility to ensure safe practices for both themselves and the patient.



#### WARNING

Improper use can cause injury! Use the Chair only for the purpose described in this manual.

### 5.2 Moving the Chair

- Place the patient on the Chair using local protocols for patient handling. Ensure that the patient is seated with their back fully against the back panel and their head securely positioned on assy back panel.

- Restraints must be applied before moving the Chair.

- When moving patients always inform them of what you are going to do.

### 5.3 Using the Chair on Level Ground and on Stairs

- The Max Chair is fitted with telescopic carrying handles to aid in carrying the chair when necessary.
  - Inform the patient so that they are aware about what is happening.
- Two castor wheels are affixed to the foot end frame. These assist with movement on level ground and mean that the Chair can be used without tilting backwards.
- The operator at the foot end of the Chair assists as required with obstacles like door frames or uneven surfaces. The rear handles can be used to overcome larger obstacles.

### 5.4 Gliding the Chair Downstairs

- It is strongly recommended that the following procedures be practiced with a chair loaded with dummy weights such as bagged builders sand or gravel.
  - Using the Chair on stairs requires a minimum of two operators. Use additional help as needed to control the Chair.
    - It is recommended that the two operators face each other when transporting a patient down stairs. If available a third person should assist by acting as a guide for the foot-end operator.
    - Ensure the route down the stairs is clear of obstructions that could affect the safety of the operators or the function of the tracks.

1. **Head-end operator** – fully extend the handle of Max Power and ensure it is locked.
2. **Head-end operator** – lower the track and ensure it is locked.
3. **Foot-end operator** – take up position on the stairs facing the chair gripping the lower foot-end handle.
4. **Both operators** – working together, guide the Chair over the edge or the top step, allowing the track belts to engage the step.
5. **Both operators** – move the Chair slowly downwards until the tracks are resting on the top two or three steps.

This establishes the glide angle. Ensure both operators are comfortable before proceeding.

 <b>WARNING</b>
<b>Avoid rapid Chair repositioning as this may result in patient injury. Support the Chair while adjusting handles.</b>
<b>Never leave a patient unattended in the Chair and always use restraints.</b>

#### 6. To maintain the glide angle:

- **Foot-end operator** – applies slight downward pressure on the extended upper handle.
  - **Head-end operator** – applies slight upward lift to the telescopic handles.
7. **Both operators** – when chair reaches the bottom of the steps and rear wheels are on the floor, the foot end operator releases the telescopic handle, the head-end operator tips the Chair forward until all four wheels are on the floor.
  8. If this is the end of the stairs then the **Head-end operator** can fold the track and lower the upper handle to a comfortable height.

Head end operator leans the Chair backwards until the patient's weight is on the transport wheels.

At this point, the lower handle is more easily accessible to the foot end operator. The Chair can then be rolled towards the foot of the stairs. Position both track assemblies squarely against the facing edge of the step. The operators can then move the Chair up the stairs by pushing (foot end operator) and pulling (head end operator).

The head end operator is responsible for guiding the Chair up the stairs whilst the foot end operator assists as required.

If there is a need to maneuver the Chair on stairs the head end operator may need to adjust the upper handle to a higher or lower position.

### **TOPAUSE DURING DESCENT**

To pause during the descent, tilt the Chair forward just enough to allow the rear wheels to rest on the step while both operators hold the Chair in place. To continue down the stairs, tilt back the Chair and regain the glide angle (see step 5 above).

**Up Stairs:** Once the patient is seated on the Chair and restrained, adjust the upper handle into a position that is comfortable for your height. The upper handle position can be changed to provide a better hand grip. Always inform the patient about what is happening.

## **6. Care of the MAX Chair (Non-Foldable)**

### **6.1. Disinfection**

Disinfect all surfaces of the Chair including the back and seat panel and patient restraints. Follow disinfectant manufacturers' directions for use. Spray or wipe disinfectant onto the patient restraints. Do not immerse in disinfectant.

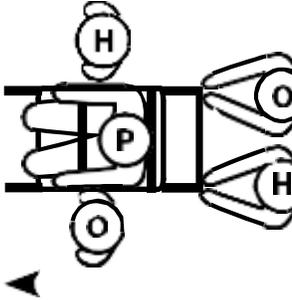
### **6.2. Cleaning**

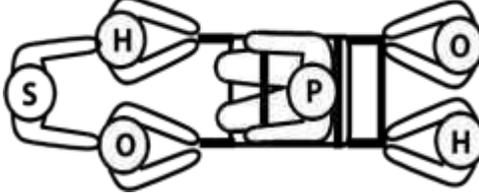
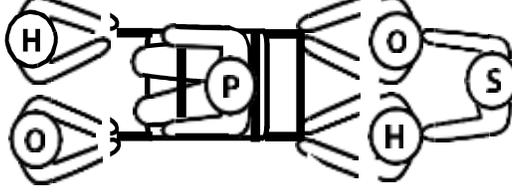
Clean the Chair and its components with a clean cloth or soft brush and warm soapy water. Rinse with warm water and air dry. Do not clean with products containing bleach or phenol. A stiff bristled brush can be used if necessary.

### 7. Using additional help

Operating the chair requires a minimum of two trained operators. Ferno recommends positioning a trained operator at each end of the chair, that operators and helpers face each other when transporting a patient up or down stairs, and that a third trained person “spot” for the lead operator. Follow all applicable local protocols for carrying chairs.

The trained operators should maintain control of the chair and operate the controls, and the designated lead operator should direct all helpers. The charts below show suggested placement for operators and helpers.

Direction	Rolling on Flat Surface	 <b>WARNING</b>
Two Operators and Two helpers		Helpers can cause injury or be injured. Maintain control of the chair, operate the controls, and direct all helpers.
		<div style="display: flex; align-items: center;">  <div> <p><b>Load Limit</b></p> <p>551lb 250kg</p> <p>Inspect the chair if the load limit has been exceeded</p> </div> </div>

Direction	 <b>DESCEND</b> 	 <b>ASCEND</b> 
Two Operators and One helper		
Two Operators and Three helpers		

**Key:** O = Operator H = Helper S = Spotter P = Patient

### 8. Maintenance

The MAX Chair (Non-Foldable) requires regular maintenance. Set up and follow your own maintenance schedule but use the following as a minimum.

More frequent maintenance will be required in situations of heavy use. If any damage is discovered, take the Chair out of service until repair or replacement can be made.

When using any product for maintenance, follow the manufacturers' guidelines and read the manufacturers' material safety data sheet.

Action	As Needed	Each Month
Disinfecting	•	
Cleaning	•	
Inspection	•	•
Lubrication		•

<b>WARNING</b>
<b>Improper maintenance can cause injury. Maintain the Chair only for the purpose described in this manual.</b>

<b>WARNING</b>
<b>Improper use can cause injury! Use the Chair only for the purpose described in this manual.</b>

### 9. Warranty and Service

Standard terms and conditions apply to all sales. A copy is available upon request. These contain full details of warrant terms and do not limit the statutory rights of the customer.

For service, maintenance and any questions regarding this, or any other FERNO product, please contact:

Ferno Slovakia s.r.o.

Bošáca 893, 913 07

Slovakia

Tel:+421(0)327708010

or your local distributor

<p><b>Registered Office:</b></p> <p><b>FERNO Slovakia s.r.o.</b></p> <p><b>Bošáca 893, 913 07 Slovakia</b></p> <p><b>Tel: +421(0) 32 7708010</b></p> <p><b>e-mail:sales.sk@ferno.com</b></p> <p>As our policy is one of continuous development FERNO Slovakia s.r.o. reserves the right to change the specifications without notice.</p>
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*CE Authorized Representative for Ferno Slovakia*

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