

User manual



STRETCHER MODEL F2

This user manual contains general information about use, handling and maintenance of the stretcher. The manual contains all necessary instructions for proper use of the product. Safety and appropriate use of the equipment depend on precautions taken by the user. Safety information are made available to the user. All other safety measures taken by the user must be made in consideration of safety regulations applicable to this type of equipment. It is essential to be properly trained with the equipment before use in real-life situations.

Keep this manual for future reference. Provide it to new users. Copies of the manual are available from the Customer Service of your Ferno equipment dealer.

Disclaimer

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Additional instructions for the system F2:

Manual for the stretcher carrier F2

Additional manual for installation F1 – F2

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1. Safety instructions

1.1 Precautions

These precautions indicate potentially dangerous situations which, if not avoided, may cause serious injury or death.

- Staff not trained in handling the equipment may cause or suffer injury. The equipment may only be used by staff trained in its use.
- Improper use of the equipment may cause injury. Use it only for the designated purpose.
- Telescopic handles of the stretcher F2 may break when overloaded. Make sure not to exceed maximum permissible load.
- Improper use of the equipment may cause injury. Handle it in line with instructions contained in this manual.
- An unsupervised patient may suffer injury. Make sure to supervise the patient at all times.
- An improperly strapped patient may fall from the stretcher and suffer injury. Use the straps to secure the patient on the stretcher.
- Stretcher improperly mounted on the stretcher carrier may detach and cause injury. Make sure to properly secure the stretcher and check that the front and rear hooks are properly locked.
- Medical staff may suffer injury or cause injury. Keep control over the stretcher and direct the staff. Show them where to hold the stretcher and how to avoid pinching.
- Improper maintenance of the stretcher may cause injury. Perform only maintenance described in this manual.
- Attachment of unsuitable accessories to the stretcher may cause injury. Use only accessories from your Ferno dealer.
- Use of unsuitable spare parts and their improper installation may cause injury. Use only spare parts supplied by Ferno and install them as described in this manual.
- Any modification of the stretcher may cause injury. Read this manual and follow all instructions contained in it.

1.2 Important point

Important points emphasize key instructions for use of the equipment and maintenance information.



CAUTION

1.3 Note on blood-borne diseases

In order to reduce the risk of exposure to viral infections such as AIDS and hepatitis while handling the stretcher, follow the disinfection and cleaning instructions contained in this manual.

1.4 Instruction and safety labels

Instruction and safety labels are located on the stretcher. Read them and follow instructions shown on these labels. Immediately replace worn or damaged labels. New labels are available from your Ferno dealer. The following labels are attached to the stretcher:

- Maximum permissible load

- Points of possible pinching



2 – Training and skills of the medical staff



Staff not trained in handling the equipment may cause or suffer injury. The equipment may only be used by staff trained in its use.

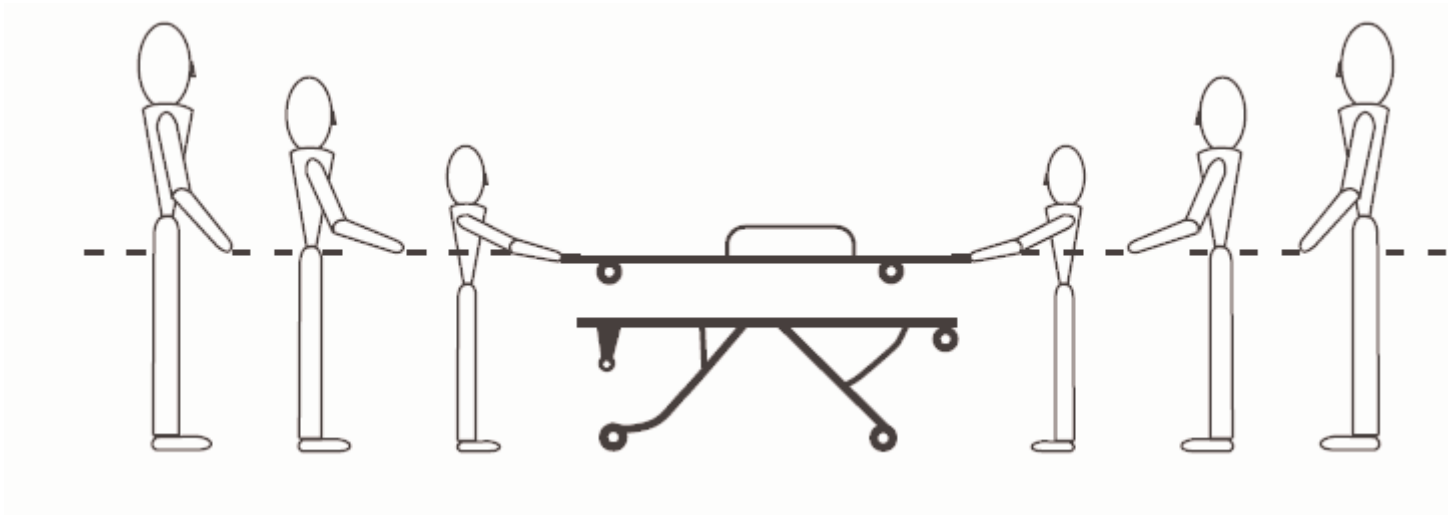
2.1 Skills

- Staff using the stretcher needs:
- knowledge and abilities of professional emergency
 - capacity to assist a patient in care
 - good understanding of procedures described in this manual

2.2 Training

- Staff being trained must do the following:
- follow the training programme
 - read this user manual
 - contact Ferno to obtain additional user manuals
 - learn to handle the stretcher before real-life use
 - be tested from knowledge about the stretcher
 - complete the training log – a copy is available on page 23.

2.3 Height and strength considerations



Staff must be able to lift and hold the stretcher, a patient and additional equipment high enough to be able to place it on the stretcher carrier.

Lifting and handling of the stretcher with a patient and additional equipment requires greater strength when the members of the staff are small. It is a fact that small staff must raise their shoulders higher.

Note: Lift only loads you are able to lift safely to avoid accident. See section “Additional assistance” on page 16.

3 – Technical specifications of the stretcher F2:

3.1 Description

The stretcher F2 (manual reference) is emergency transport equipment designed specifically to transport immobile patients, patients with reduced mobility and post-surgical transport.
The stretcher must be handled by two properly trained operators.

This professional equipment is mounted on the stretcher carrier F2 which a part of the Ferno product range consisting of the following transport equipment:

- Stretcher carrier F2
- Stretcher F2
- Straps F1 / F2

Stretcher F2 has the following specifications

- anodized aluminium treatment to avoid hands and clothing becoming dirty
- 4-part sleeping surface with 3 adjustable parts (5-part with 4 adjustable parts – optional)
- system of flexible adjustment of the backrest in 6 positions
- 4 wheels with 10 cm diameter
- 2 side straps (legs and knees), 2 chest straps and 2 shoulders straps forming the harness
- a mattress
- 4 telescopic handles adjustable in 3 positions
- the stretcher is available with the following options:
 - *retractable safety side barriers
 - *foot barrier

The following accessories are also available:

- *telescopic infusion holder
- *large, easy to fold instruments tray (42 (H) x 56(W) x 50 (L) cm)
- *3-point VSAV standard anchoring system

3. Specifications

Length:	
Sleeping surface.....	1870mm
Handles slid out	2260mm
Handles slid in	1915mm
Width:	
Total	560 mm
Bed	516 mm
Height:	
Stretcher alone	16 cm
Maximum permissible load	250 kg
Weight*	18 kg

Note that the values provided are rounded to the nearest whole number. Contact your Ferno dealer for more information. Ferno reserves the right to change the specifications of the equipment.
* without mattress, straps and accessories



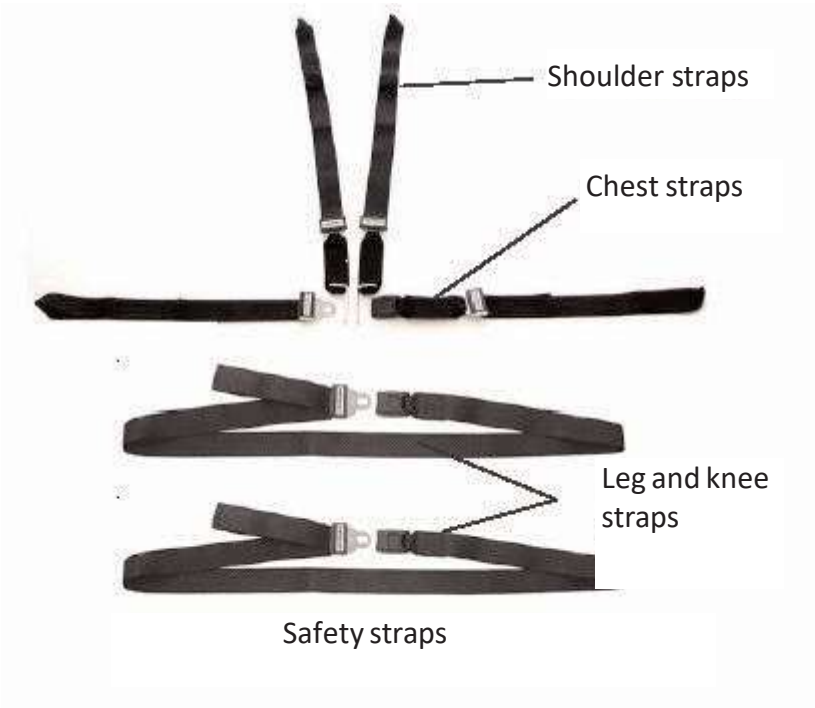
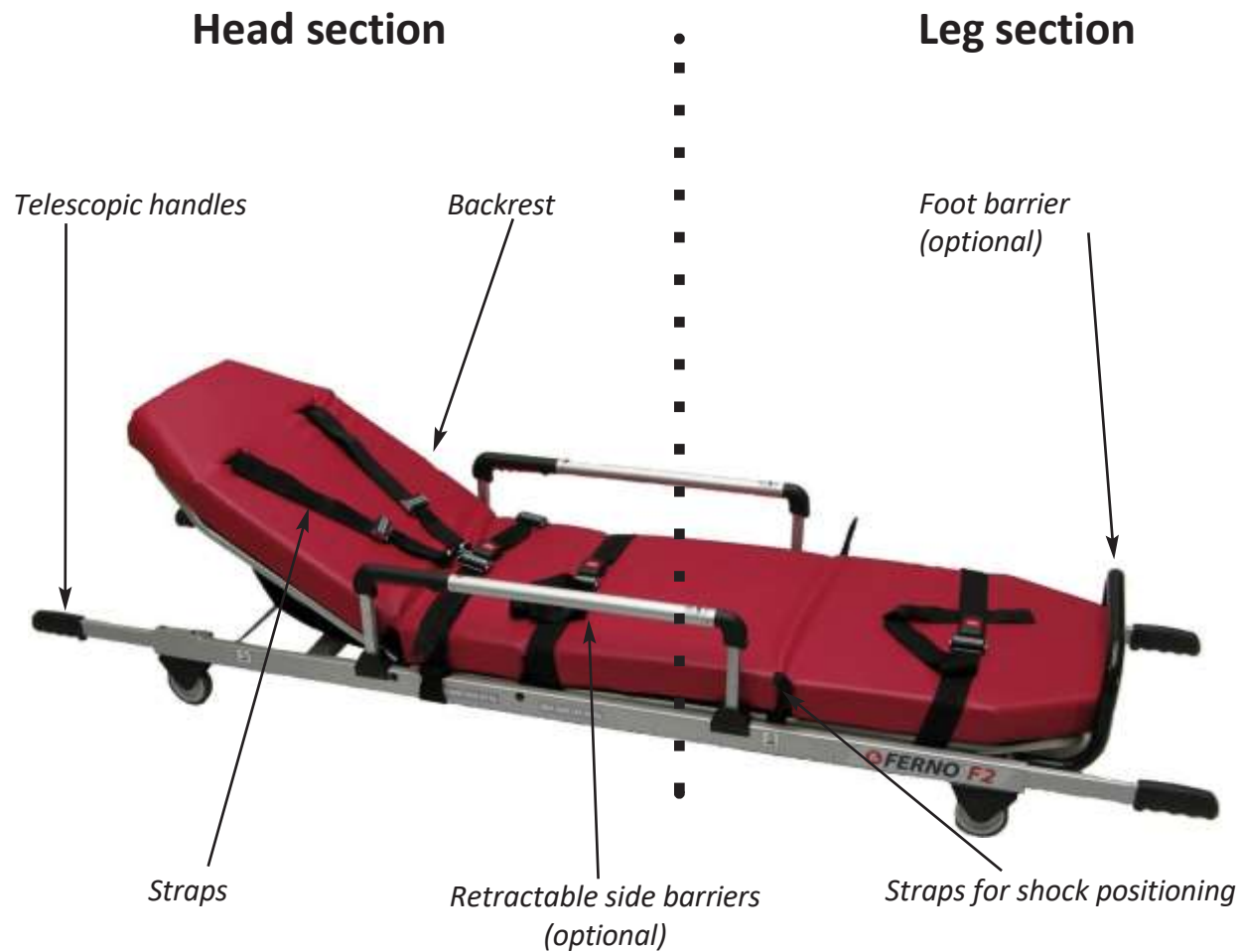
Improper use of the equipment may cause injury. Use it only for the designated purpose.

Important

Do not exceed the maximum permissible load of the stretchers and the stretcher carrier which is 250 kg

3.3 Components of the stretcher

Figure 1: Components of the stretcher





To obtain user manuals for accessories, contact your Ferno dealer or visit the website: www.ferno.com

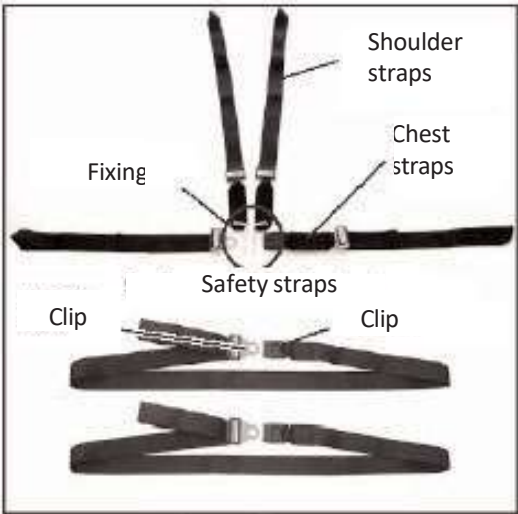
4 – Strapping the patient

A set of straps is provided with the stretcher (see Figure 2)

Always strap the patient properly using the straps. Adjust them so the patient’s blood circulation does not stop and he or she lies comfortably.

Make sure to keep the straps properly fixed when moving the stretcher or the stretcher carrier. Refer to the instructions on safety straps in this manual for additional information.

Figure 2: Safety patient straps



For optimum performance of shoulder straps, run them under the crossbar of the stretcher carrier as shown on Figure 3

Figure 3: Position of shoulder straps



5 – Use of stretcher

5.1 Position of the backrest

5.1.1 Adjustable backrest – 4-part plane

The adjustable backrest can be moved in the range 0° – 90°. To adjust the backrest:

1. Hold the control bar (Figure 4-A) and lift or lower the backrest to the desired position.
2. Release the control bar of the backrest

Note: Backrest is controlled by mechanical bar to improve handling.



Make sure to control the lowering of the backrest to prevent it from going down too abruptly. If there is a patient on the stretcher, the backrest must be hold firmly to prevent that it is lowered suddenly.

5.1.2 Adjustable backrest – 5-part plane

In case of 5-part plane the backrest is identical as in point 5.1.1. above but also includes a mechanically adjustable headrest that allows to place a patient’s head in 3 positions (up, flat and hyperextended).

This additional system must be used in accordance with good medical practice.

The position of the headrest is changed using the red lever bar right below it (Figure 4-B). As with the adjustable backrest, make sure to support and control the headrest before any adjustment.

5.2 Position of jointed leg rest (version 4-part plane)

The leg rest consists of two planes (middle plane and rear plane) that are adjustable in several positions. (see Figure 5).

5.2.1 Adjusting middle plane

The angle of the middle plane is changed using two side straps until the control bar under the bed locks in a lock designed for this purpose. (see Figure 6)

To lower the middle plane to horizontal position, lift the bed at its ends and use two small red levers on the side of the bed so that the control bar slides out the lock. The bed is then slowly lowered to horizontal position.

Figure 4-a: Adjustable backrest



Figure 4-b: Adjustable backrest – 5-part plane



Figure 5: Leg rest

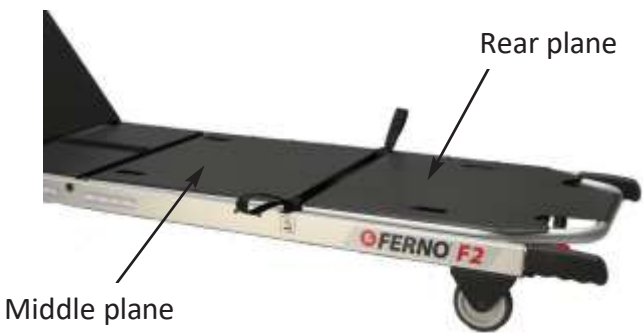


Figure 6: Inclining middle plane



5.2.2 Adjusting rear plane

The rear plane is adjusted by lifting the bed as shown in Figure 7 until the control bar located under the bed locks in a lock designed for this purpose.
To lower the rear plane, move two small red levers at the end of the bed downwards while lifting the bed. Once the control bar leaves the lock bed is slowly lowered to horizontal position.

Figure 7: Rear plane adjustment



Examples of different rear plane positions:



5.3 Retractable side safety barriers (optional)

Side safety barriers are attached to the stretcher to ensure patient comfort and safety. Keep the side safety barriers up except when transferring patient on the stretcher. To lower them press the red handle on the bottom of the barrier and move it backwards as indicated by the arrow.
Pay attention to the risk of pinching due to improper handling (Figure 7-A)

Figure 7-A : Side safety barriers



Side safety barriers are not designed to lift the stretcher.
Hold the frame and handles when lifting and carrying the stretcher.

5.4 Infusion holder (optional)

It consists of two parts (Figure 8):
1. Fixation installed on the side bar of the stretcher. It can be attached to the left or right side as needed.
2. Telescopic holder. If not used, it can be stored under the bed attached using two clips.

Figure 8 : Infusion holder



5.5 Retractable handles

- Telescopic handles are located at the ends of the stretcher F2.
- Use telescopic handles to lift and carry the stretcher.
- Press the button on the bottom of the handle and pull the handle. The system offers two different lengths (see Figure 9).



Figure 9: Telescopic handles

Figure 10:



5.6 Instruments tray (optional)

Large instruments tray is available (optional).
(See Figure 10). It folds easily.

6 – Operational instructions

6.1 Before operation

- Medical staff who will work with the stretcher must be trained. See section “Training and skills of medical staff” on page 7.
- If stretcher is used in combination with the stretcher carrier F2, read the user manual for stretcher carrier F2. It is necessary to receive training on the use of this equipment.
- Attach the mattress and straps to the frame of the stretcher.
- Make sure that the stretcher is working properly. Follow the instruction in section “Preventative maintenance of stretcher” on page 18.

6.2 Instructions for use

- Use the stretcher with at least two persons trained in its handling.
- Medical staff may need assistance when working with heavy loads (patient and equipment). Refer to section “Additional assistance” on page 16 for information on positioning of medical staff.
- Follow the emergency procedures when handling the stretcher.
- Never leave the patient alone.
- Always strap the patient properly.



- Improper use of the equipment may cause injury. Handle it in line with instructions contained in this manual.
- An unsupervised patient may suffer injury. Make sure to supervise the patient at all times. An improperly strapped patient may fall from the stretcher and suffer injury.
- Follow instruction in this manual to use the stretcher safely.

6.3 Mounting stretcher on stretcher carrier

It is possible to mount the stretcher on the stretcher carrier in two directions: head forward or backward. The stretcher is secured to the stretcher carrier when hooks under the stretcher are locked (see Figure 11).

Mounting stretcher on stretcher carrier

- 1. Block the wheels of the stretcher carrier to avoid movement when handling.
- 2. Operators (2 persons) must place the stretcher on the end of the stretcher carrier (see Figure 11) and fix stretcher hooks in stretcher carrier locks.
- 3. Operators (2 persons) must slide the stretcher on wheels along the stretcher carrier until hooks lock.

Note: The second operator at the end of stretcher may hold the stretcher carrier’s frame and help the operator at the other end to lock hooks.

- 4. The first operator must check that the stretcher is properly fixed by pulling them. The stretcher must remain fixed on the stretcher carrier.
- 5. Unblock the stretcher carrier’s wheels in order to move it.

Dismounting stretcher from stretcher carrier

- 1. Block the wheels of the stretcher carrier.
- 2. The first operator must unlock the stretcher by unlocking the bar on the stretcher carrier (see Figure 12). Both operators then have to dismount the stretcher from the stretcher carrier by pulling backward.
- 3. Both operators must lift the stretcher together to remove them from the stretcher carrier.

Figure 11: Mounting and dismounting the stretcher



Figure 12: Dismounting stretcher from the stretcher carrier



Improperly mounted stretcher may detach from the stretcher carrier and cause injury. Make sure to mount the stretcher properly and check the lock.

6.4 Transfer of patient

Place the stretcher (or stretcher mounted on the stretcher carrier) as close to the patient as possible to minimize lifting and transfer. Follow your internal regulations and the following instructions.

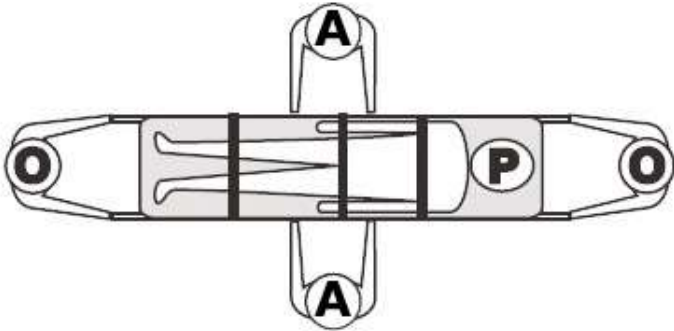
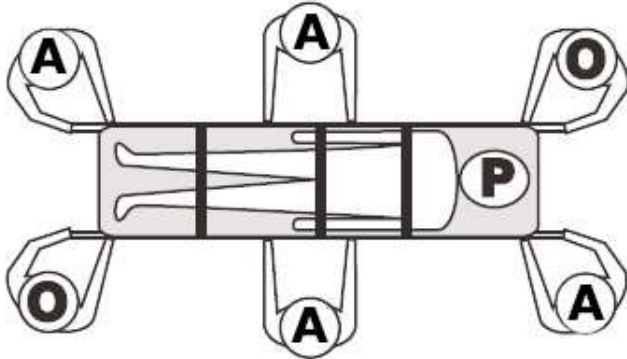
Note: Do not exceed the maximum permissible load.

Transferring patient on the stretcher:

- 1 - Dismount the stretcher from the stretcher carrier and place it near the patient (see Figure 13)
- 2 - Lower side safety barriers (optional).
Loosen the straps and remove them from the backrest and the leg rest so as not to interfere with patient transfer.
- 3 - Transfer the patient on the stretcher. Follow applicable medical procedures and also your internal regulations.
- 4 - Lift side safety barriers (optional). Adjust the backrest and/or leg rest and adjust and tighten the straps.
- 5 - Move the stretcher with patient on the stretcher carrier. Mount the stretcher to the stretcher carrier. See section „Mounting stretcher on the stretcher carrier“ on page 14.

Figure 13: Transferring patient on the stretcher



Operators and medical staff	Lifting or moving the stretcher
Two operators and two additional assistants	
Two operators and four additional assistants	

Symbols : O: Operator; A: Assistant; P: Patient



Maximum permissible load



CAUTION

Operators may suffer or cause injury. Show them location of handles to avoid pinching.



CAUTION

Operators may suffer or cause injury. Perform stretcher maintenance periodically and necessary checks.

7. Maintenance

7.1 Maintenance planning

The stretcher requires regular maintenance. Follow the maintenance schedule. Maintenance log can be found on page 24. The table on the right shows minimum required maintenance intervals. Use detergents following instructions of the producer and read the safety data sheets. Recommended detergents can be purchased from your Ferno dealer. (See page 20)

7.2 Disinfection and cleaning of straps

Remove the straps from the stretcher. Clean and disinfect them. Dry them after cleaning and/or disinfection and put them in place.

7.3 Disinfection and cleaning of mattress

- 1. Remove the mattress from the stretcher.
- 2. Cover the whole surface with disinfectant following the producer’s instructions.
- 3. Wash the mattress with warm soapy water using a soft cloth.
- 4. Rinse the mattress with clean water.
- 5. Dry the mattress with a cloth.
- 6. Do not use pressure washer.

Minimum maintenance intervals	After every use	as necessary	every month
Disinfect (page 17 and 18)	●		
Clean (page 17 – 18)		●	
Check (page 18)		●	●
Lubricate (page 19)		●	



Improper maintenance may cause injury. Perform only maintenance described in this manual.

Important:
Disinfectants and detergents containing chlorine, phenol compounds or iodide may cause damage. Clean and disinfect the equipment using only products that do not contain these chemical substances.

7.4 Disinfection and cleaning of the stretcher

To disinfect: Wipe all surfaces with disinfectant following the producer’s instructions. Ferno recommends you to check the stretcher and detect possible damage.

To clean: Wash all parts of the stretcher with warm water mixed with neutral detergent. Use brush to remove stains. Do not use wire brush. Dry with a cloth and let the stretcher dry.

7.5 Preventative maintenance

Let your maintenance staff check the stretcher. Follow the list of points to be checked on the right and check the stretcher by points in the list.
If the check reveals damage or excessive wear, do not use the stretcher until repaired. See section “Spare parts” on page 20.

List of points to check

- Are any components missing?
- Are screws, nuts, bolts, rivets and pins properly fixed?
- Do all moving parts function correctly without grinding?
- Is the stretcher excessively worn?
- Is stretcher properly mounted on the stretcher carrier?
- Do accessories installed on the stretcher function properly without interfering with movement of medical staff?
- Is the ambulance equipped to accommodate the stretcher and the stretcher carrier?
- Are fasteners supplied by Ferno properly installed?
- Are straps in good conditions? Do they stop patient’s blood circulation?
- Are safety loops free of damage and do they function properly?
- Is the infusion holder free of damage and in good condition?

Important: High pressure water enters joints removing the lubricant and possibly causing corrosion. Do not use pressure washers or steamers.

Important: Use of abrasive detergents may damage the stretcher. Follow maintenance instructions in this manual.

7.6 Lubrication of stretcher joints

Disinfect and clean the stretcher prior to lubrication. Use only recommended lubricants to lubricate the stretcher. Do not lubricate points marked with the symbol: Ø

Figure 14: Lubrication of stretcher joints



Lubrication points (Use a small amount of lubricant)

Symbol	Place	No. of lubrication points	Lubricate with
Ø	Hinges of backrest and leg rest	4	Do not lubricate
1	Telescopic handles	4	Synthetic lubricant EZ-1

8 – Accessories

Ferno offers a complete range of medical emergency accessories (straps, infusion holders, blankets, etc.). Always follow instructions provided with these accessories. Keep instructions contained in this manual. Take into account all technical specifications (component size modifications, door width, etc.) when using the equipment and accessories.

9 – Spare parts

Contact your Ferno dealer to order spare parts. The dealer is the only representative authorized by Ferno to inspect, maintain and repair the products supplies by Ferno.



- Improper installation of stretcher components may cause injury.
Use only accessories supplied by your Ferno dealer.
- Use of spare parts not supplied by your Ferno dealer may cause injury.
Use only services and equipment supplied by Ferno.
- Any modification of the stretcher may cause injury.
Read this manual and follow instructions provided by your Ferno dealer.

10 – Limited warranty

General terms of warranty

Ferno-Washington, Inc. (Ferno) warrants that its products will be free of any production defects (parts, workmanship and transport) for 3 years, except:

- (A) External treatment (surface treatment, paint, etc...) are warranted for 1 year.
- (B) Additional components (straps, fabric, foam, etc...) are warranted for 1 year.
- (C) Repair and associated services are warranted for 90 days or until the end of the period indicated above.

This limited warranty applies when the equipment is properly used and maintained. Otherwise, warranty does not apply.

The warranty period begins on the invoice date or the delivery date subject to proof of delivery. Shipping costs are borne by the customer. Ferno is not liable for damage caused by shipment or damage caused by use of the product.

Limited warranty liability

If the equipment or its part is defective, Ferno shall repair it in its workshops or replace it or refund to the customer the net invoiced price. Any other compensation is excluded.

These are the general warranty terms. They are limited.

Terms and conditions of warranty are available at phone number: +421 32 7781071

11. Customer service:

The customer and after-sale service constitute an integral part of every piece of equipment supplied by Ferno. For more information, contact your dealer or customer service:

Phone: +421 32 7708010

Fax: +421 32 7708011

Website: www.fernosk.sk

Make sure to have at your disposal the serial number of your Ferno stretcher if you contact customer service and quote it in all correspondence.

Training log

[illegible]

Maintenance log

[illegible]