

User manual



STRETCHER FERNO MONOBLOC F2

August 2014

This user manual contains general information about use, handling and maintenance of the stretcher Monobloc F2. 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 is 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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1. Safety instructions

1.1 Precautions

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



CAUTION

- 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.
- 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 hooks are properly locked.
- Improperly locked supporting bars may cause injury. Before unloading of the stretcher carrier from the ambulance, make sure that both supporting bars are straight and locked.
- 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

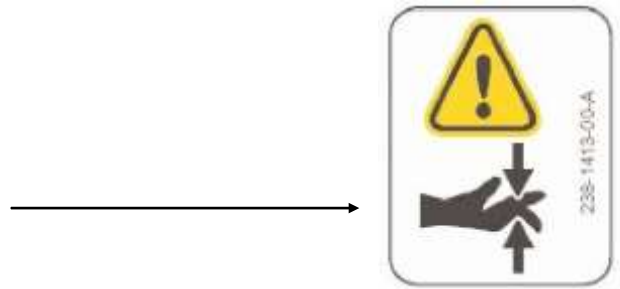
1.3 Note on blood-borne diseases

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 Monobloc F2. 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



CAUTION

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 Monobloc F2.
- complete the training log – a copy is available on page 24.

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 15.



3 - Technical specifications of the stretcher Monobloc F2

3.1 Description

The stretcher Monobloc F2 (manual reference) is a transportation equipment designed to carry emergency patients. The stretcher must be handled by two properly trained operators.

This professional equipment is part of the Ferno product range consisting of the following transport equipment:

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

The characteristics of the stretcher Monobloc F2 are:

- 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
- a bed position, a folded position and a loading position.
- reflective labels
- side loading, 200mm wheels with brakes.
- operator side, wheels 200mm with a maintenance line on each wheel.
- 2 side straps (legs and knees), 2 chest straps and 2
- shoulders straps forming the harness
- 1 mattress
- 4 telescopic carrying handles expandable to 3 positions.
- 1 pair of retractable safety side barriers.
- 1 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 standard anchoring system
- * Support for oxygen cylinder

3.2 Specifications

| | |
|--|-----------------------------|
| Overall length | 191.5 cm |
| Overall width | 56 cm |
| Mattress size. | 187(L) x 50 (l) cm |
| Folder size..... | 63(L) x 50 (l) cm |
| Seat dimensions | 124(L) x 50 (l) cm |
| Dimensions of side rails..... | 71 (L) x 21 (h) cm |
| Dimensions of straps (harness). | 150 (L) x 5(l) cm |
| Dimensions of the webbing (belt). | 170 (L) x 5(l) cm |
| Tablet dimensions | 42 (H) x 56 (L) x 50 (l) cm |
| Ambulance loading height..... | 50 or 54 cm |
| | 56 or 60 cm, 65 or 69 cm |
| Height of the mattress..... | 76 or 82 or 91 cm |
| Maximum load..... | 250 kg |
| Weight*. | 36 kg |

* without mattress, straps and accessories

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.



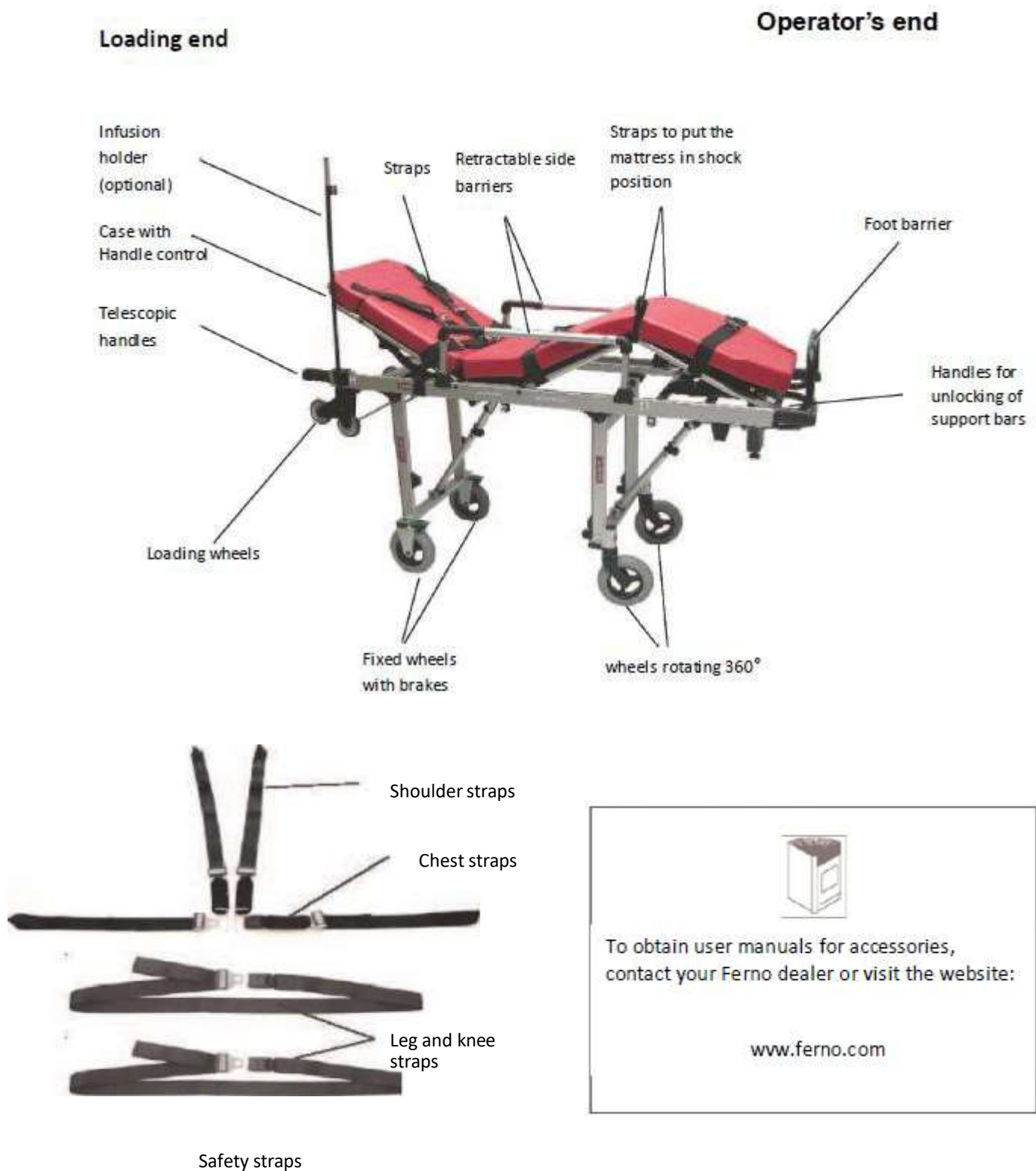
Improper use of the equipment may cause injury. Use it only for the designated purpose.



Maximum load of F2 Monobloc

3.3 Components of the stretcher Monobloc F2

Figure 1: Components of stretcher Monobloc F2



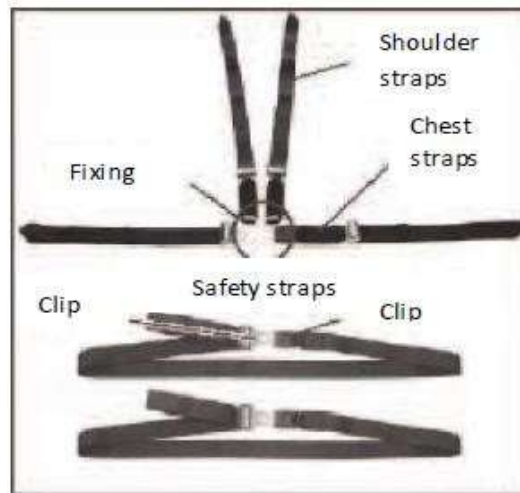
4 – Strapping the patient

A set of straps is provided with the stretcher (see Figure 1)

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 Monobloc F2

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 held 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



Figure 7: Rear plane adjustment

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 the bed is slowly lowered to horizontal position.



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 8)



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

It consists of two parts (Figure 9):

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 7-A : Side safety barriers



Figure 9 : 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 10).



Figure 9: Telescopic handles

5.6 Instruments tray (optional)

Large instruments tray is available (optional).
(See Figure 11). It folds easily.



Figure 10: instruments tray

5.7 Stretcher Monobloc F2 configuration

Figure 12: Configuration “bed” for moving



Configuration 2 : Folded



Figure 14: sitting position for the transfer of patient



5.8 Using controls of stretcher

5.8.1 Control handles of stretcher

Monobloc F2 Control handles are located at the rear of the stretcher carrier. They are accessible to the operator as shown on illustrations. Use red and green control handle to unlock supporting bars when loading the stretcher carrier. See section “Instruction for use of stretcher Monobloc F2” for more information.



Figure 15: Control handles (Operator's end)

5.8.2 Blocking of wheels

Front wheels are equipped with brakes. Push the green lever with your foot and the wheel is blocked. Keep close to the stretcher carrier and keep it under control. Block wheels only for the designated purpose (Figure 16). Never leave the stretcher with a patient unattended.



Figure 16: Blocking of wheels

6 – Operational instructions for carrier Monobloc F2

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.
- 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 19.

6.2 Instructions for use

- Use the stretcher Monobloc F2 with at least two persons trained in its handling.
- Operators must cooperate. It requires good communication and good coordination of their movements. - Medical staff may need assistance when working with heavy loads (patient and equipment). Refer to section “Additional assistance” on page 15 for information on positioning of medical staff.
- Follow the emergency procedures when handling the stretcher Monobloc F2.
- Never leave the patient alone.
- Always strap the patient properly.
- When unloading the stretcher from the ambulance, make sure that supporting bars are properly locked before releasing the stretcher Monobloc F2.



- 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 Transfer of patient

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

Note: Do not exceed the maximum permissible load.

- 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 Position the stretcher bed position for displacement



6.4 Additional information

Handling stretcher carrier with lying patient requires at least two persons trained for use of this equipment. Work with heavy load (stretcher, patient and other accessories) may require additional assistance. Medical staff must have the stretcher carrier under control at all times during use.

The following diagram shows a suggested placement of the various operators and nursing staff

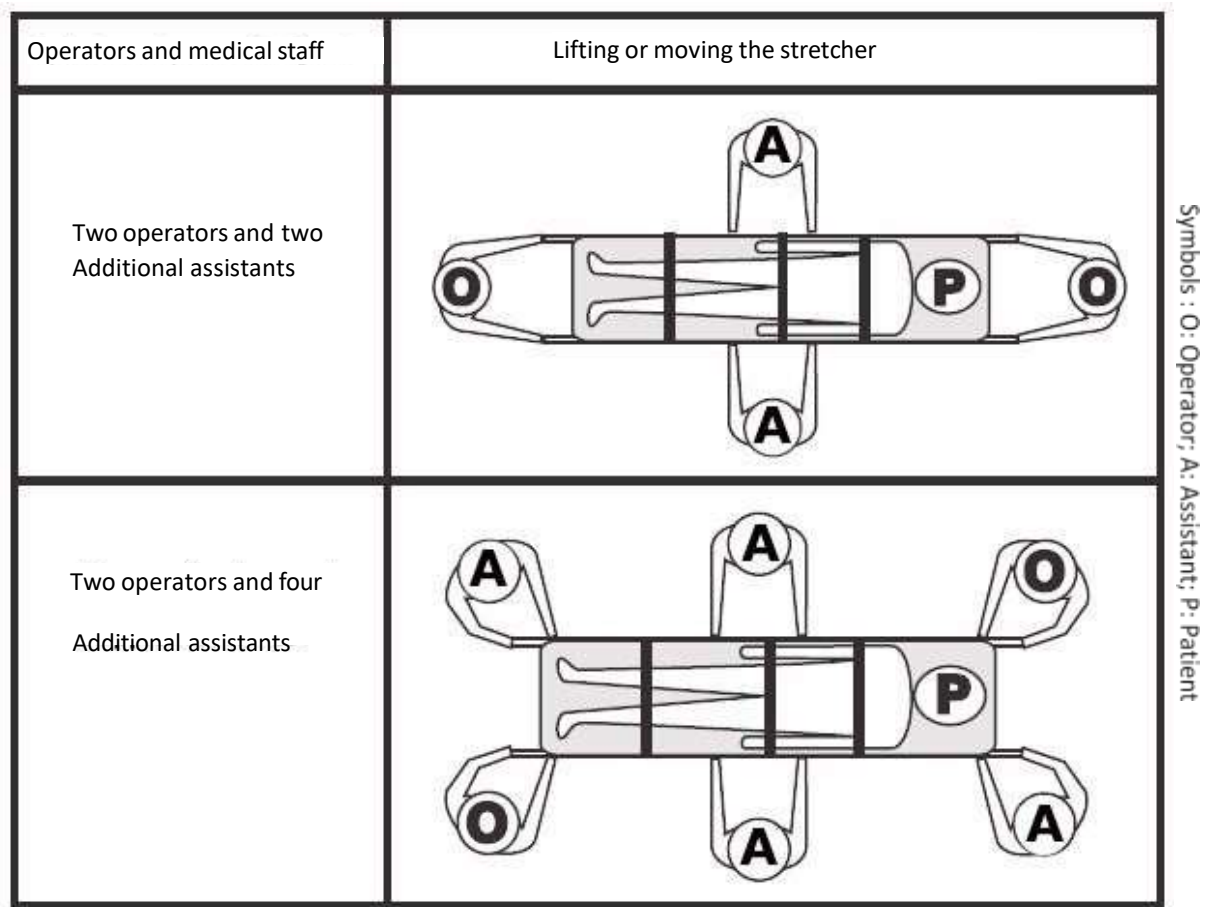


Figure 18: Additional information



Maximum possible load

CAUTION

Operators may suffer or cause injury. Show them location of handles to avoid pinching
Operators may suffer or cause injury. Perform stretcher maintenance Periodically and necessary checks.



6.5 Loading stretcher into ambulance

Two operators trained in its handling are necessary.
(Patient lying on stretcher carrier)

1. Operator 2: stay close to operator 1 and be ready to assist if necessary.
2. Operator 1: load stretcher carrier and stretcher into ambulance so that the guiding wheels are placed on ambulance loading platform and front supporting bar leans against the loading platform.
3. Operator 1: Unlock front supporting bar using green handle and continue the manoeuvre by pushing stretcher carrier with stretcher forward until rear supporting bar leans against loading platform. Rear supporting bar is locked which is a safe position.
4. Operator 1. Unlock rear supporting bar using red handle. Finish loading.
5. Operators 1 and 2: Check that stretcher carrier with stretcher is properly fixed in the ambulance in the locking system (Lock Ferno F1 – F2)

Figure 19: Loading stretcher Monobloc F2



6.6 Unloading stretcher from ambulance

Two operators trained in its handling are necessary.

(Patient lying on stretcher carrier)

Stretcher carrier F2 features two independent supporting bars that unlock automatically.

Green and red control handle must not be used when unloading.

1. Operator 2: stay close to operator 1 and be ready to assist if necessary.
2. Operator 1: Release stretcher carrier from the lock. (See user manual for the locking system).
3. Operator 1: Hold stretcher carrier's frame with both hands (palms up) and start to pull stretcher carrier with stretcher backwards, out of the ambulance.
4. Operators 1 and 2: Make sure there is enough room for rear supporting bar to let it open completely and lock.
5. Operator 1: Hold stretcher carrier's frame high enough above ground to let it open completely. If the supporting bar is on solid ground and locked, you are in safe position.
6. Operator 1: Continue the manoeuvre and let the front supporting bar open completely and lock. Ensure that the loading platform is high enough above ground to let the front supporting bar open completely. Leave guiding wheels of stretcher carrier on the loading platform.
7. Operators 1 and 2: Make sure that stretcher carrier with stretcher does not move backwards and check if the front supporting bar is properly locked.
8. Operator 1: Continue the manoeuvre. Stretcher carrier with stretcher now stands on 4 wheels. Move it away from the vehicle.

Figure 20: Unloading stretcher carrier



7. Maintenance

7.1 Maintenance planning

The stretcher carrier 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.

| Minimum maintenance intervals | After every use | As necessary | Every month |
|-------------------------------|-----------------|--------------|-------------|
| Disinfect (page 18 and 19) | ● | | |
| Clean (page 18 – 19) | | ● | |
| Check (page 19) | | ● | ● |
| Lubricate (page 20) | | ● | |

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.

Caution

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.

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 carrier. Follow maintenance instructions in this manual.

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.

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.

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?

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 supplied by Ferno.



CAUTION

Improper installation of stretcher Monobloc F2 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 Monobloc F2 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 are available at your Ferno dealer .

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]