



# User and Maintenance Manual



## SCOOP EXL Atraumatic Stretcher

Rel.210421  
English (UK)



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

## Ferno Technical Support

Customer Service and Technical Support are important aspects of every Ferno product. Before contacting us, please record 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, Italy only)	800 501 711
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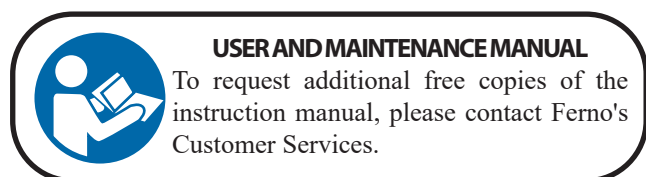
## Ferno Customer Service

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

### MANUFACTURER

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## Incident reporting

(MDR 745/17 Annex I, chapter III, section 23.4)

Any serious incident that has occurred in relation to the device should be reported to Ferno S.r.l. and the competent authority of the Member State in which the user is established.

E-mail	eu-regulatory@ferno.it
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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 the 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 obtained from Ferno's Customer Services.

## Declaration of ownership

The information in this manual is the property of Ferno S.r.l. of Via Benedetto Zallone 26, 40066 Pieve di Cento (BO), Italy.

All patent rights, and rights relating to the design, construction, reproduction, use and sale of any item covered in this manual are



SCOOP EXL Serial No. \_\_\_\_\_

Location: Rear of the body section, on the right side when viewed by operator.

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## Disclaimer

The products sold by Ferno are covered by a 24-month warranty against manufacturing defects. For the full terms and conditions of warranty and liability, see Chapter 9 *Warranty*, page 32.

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# 1 - SAFETY INFORMATION


Read the user manual carefully. It is an integral part of the product and must always be kept to hand. For your own personal safety and that of your patients, please note the following:

– Prior to each use, perform an inspection ensuring that there are no signs of wear, damage, or malfunction. Refer to section 6.4 *Inspection*, page 28.

– To prevent infection and / or bacterial contamination, refer to the information in sections 6.2 and 6.3, *Disinfection* and *Cleaning*, page 27.

## 1.1 Caution

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

 <b>WARNING</b>
<b>Untrained users may injure themselves and/or cause damage and/or physical harm. Allow only trained and qualified staff to use the SCOOP EXL stretcher.</b>
<b>Improper use of the stretcher can cause damage and / or injury. Use the SCOOP EXL stretcher as described herein.</b>
<b>Unauthorized modifications to the SCOOP EXL stretcher can cause serious damage, injury and / or unpredictable problems. Do not modify or alter the stretcher in any way.</b>
<b>Any damage to the components of the stretcher or the entire system can alter its performance and safety. Inspect the SCOOP EXL stretcher frequently, and especially before and after each use. Place the stretcher out of service if there are signs of wear or damage.</b>
<b>An unassisted patient is at risk of injury. Never leave the patient alone when bound to the stretcher. Always assist the patient throughout all rescue operations.</b>
<b>Failure to use the restraints can cause the patient to fall and endanger their safety. Always use the containment restraints for the patient as indicated herein.</b>
<b>Applications of the stretcher restraints that are not as described in this manual could cause accidents, damage and / or injury.</b>
<b>Casual assistants may cause damage and/or physical harm, or injure themselves. Do not allow casual helpers to perform stretcher preparation operations. Be extremely careful during all user operations.</b>
<b>Improper maintenance can cause serious accidents, injuries and/or damage. Perform maintenance as instructed in this user manual.</b>
<b>The use of improper and/or unauthorised devices can cause accidents, damage and/or injury. Use only devices that have been approved and authorised by Ferno.</b>

## **WARNING**

**Unauthorised repairs, and repairs carried out by people not approved by Ferno, 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 original Ferno parts exclusively, and only contact Ferno'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 the risk of exposure to infectious diseases that may be transmitted by blood, such as HIV-1 or Hepatitis, carefully follow the instructions on disinfection and cleaning in this manual.

### 1.4 Load capacity

Respect the maximum loading capacity of the SCOOP EXL stretcher. Refer to section 3.4 *General specifications*, page 8.

### 1.5 Compatibility

Use only accessories approved and authorized by Ferno.

The SCOOP EXL stretcher was tested with the following accessories which are applied during immobilization:

- 365-E Immobilizer (code 365-E)
- WizLoc Cervical Collar (code 0822074)
- restraint systems (listed in section 7.3 *Patient restraints*, page 31).

*The stretcher supports the use of the SAERBAG III fabric lifting and transport system, and the paediatric PEDI-SLEEVE immobilization device.*

Any other combination is not compatible with the specifications and instructions given in this manual. Ferno is not liable for damages caused to users or third parties arising from improper use of the SCOOP EXL stretcher.

## 1.6 Glossary of symbols

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



Read the user manual carefully



The stretcher requires at least two qualified operators for correct use



QR Code



Do not wash with high pressure water



Load capacity (in kilograms, pounds, and stones)



The product meets European Union Standards

## 1.7 Information and safety labels

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

Read and follow label instructions. Immediately replace the labels if they are worn or damaged. To obtain replacement labels contact Ferno Washington Italy's Customer Services (page 2).

The Manufacturer reference numbers, the CE mark, and the serial number, are on the rear of the stretcher (on the right side of the body as seen by the operator).



Main label

### SWR

Never exceed the load capacity of the SCOOP EXL stretcher. Inspect the stretcher if the carrying capacity has been exceeded (see section *Inspection*).

SWR- Strength to Weight Ratio = 28.4

Safety factor = 2



Load capacity (in kilograms, pounds, and stones)

## 2 - TRAINING AND RESPONSIBILITIES OF OPERATORS

### 2.1 Skills

Operators who use the stretcher must:

- have specific experience in immobilization, handling, and recovery of patients.
- possess the appropriate skills to assist the patient.

### 2.2 Training

Users are required to:

- Read and understand all information in this manual.
- Attend a suitable training course on the use of the stretcher.
- Practice with the stretcher before using it in real situations with patients.

- log the training sessions. An example of a form for logging the training sessions can be found on page 35.

#### **WARNING**

**Untrained users may injure themselves and/or cause damage and/or physical harm. Allow only trained and qualified staff to use the SCOOP EXL stretcher.**

#### **Important**

The operators must be able to ensure the safety of both themselves and their patients while using the stretcher. They must be able to assess the number of people needed to move the patient according to applicable regulations.

## 3 - THE STRETCHER

### 3.1 Description and intended use

The atraumatic SCOOP EXL stretcher (known as the "stretcher" in this manual) is a device made for the aid, immobilization and transport of the patient. The stretcher should be used only by trained and qualified staff. Any additional assistance needed to handle heavy patients and/or when the situation demands it must always comply with applicable healthcare protocols.

The stretcher can be adjusted in length according to the height of the patient up to 2100 mm. It can be folding away by placing the foot section within the body section, and can be divided into two or four parts for storage (see section 6.7 *Storage*, page 30).

*From serial number S/N 30001, the SCOOP EXL stretcher has been built with non-ferromagnetic metal components so that it can be used in magnetic fields with values no greater than 1.5 T. The field test carried out on the stretcher (model 65EXL-NM) exposed to a magnetic field with values up to 1.5 T, produced the following results:*

- the device suffered no stress in any of the fields;
- no eddy currents were detected while the device was moved within the fields;
- there were no appreciable temperature changes over the patient contact areas (all below 35° C) of the stretcher in any of the fields;

- imaging is possible without any problems and without any registered artifacts;

- a complete thermograph immediately subsequent to the imaging revealed no changes in the stretcher's temperature.

### 3.2 CE compliance

#### **EUROPEAN REGULATION ON MEDICAL DEVICES**

Ferno's products meet the requirements of European Regulation 17/745/MDR on medical devices.

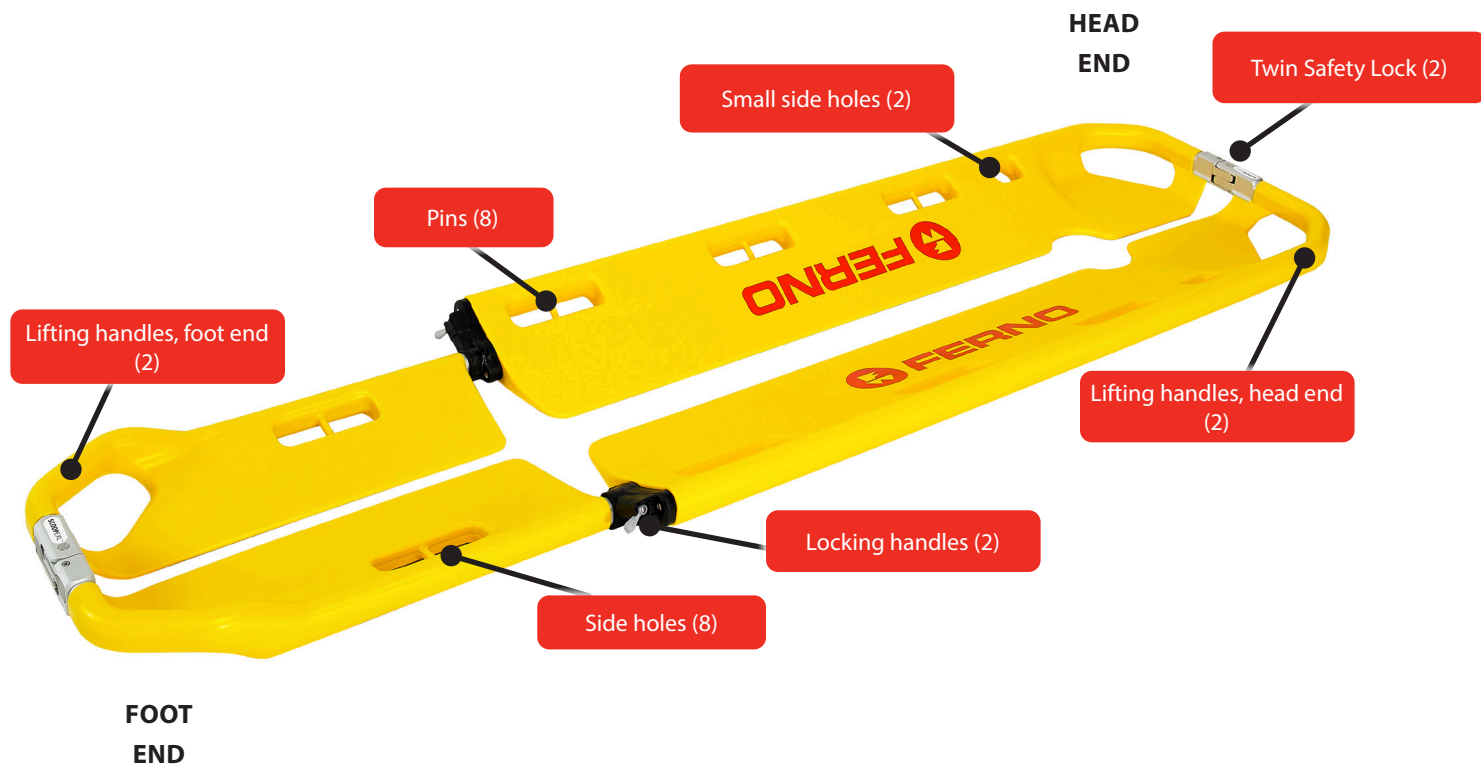
More information on: [www.ferno.it](http://www.ferno.it)



#### **STRETCHER COMPONENTS**

- Lifting handles (2 at the head end, 2 by the feet)
- Side handles (8, 4 on each side): each handle has a pin inside for attaching the restraint hook.
- Small side holes (2) for fastening the "H"-shaped Velcro band for the 365-E head immobilizer
- TSL Twin Safety Lock coupling systems (2). Each TSL is fitted with buttons to open the stretcher.
- Side locking handles (2) for adjusting the length of the stretcher
- Pin for attaching the restraint hooks (8)

### 3.3 Components (Stretcher)



### 3.4 General Specifications

Ferno reserves the right to change the specifications without notice. For more details, please contact Ferno's Customer Service (page 2).

Specifications		
<b>Load capacity</b>	500 lbs	227 kg
<b>Weight</b>	18 lbs	8 kg
<b>Length</b>		
Folded	47 in	1200 mm
Position 1	64 in	1635 mm
Position 2	69 in	1755 mm
Position 3	74 in	1880 mm
Position 4	79 in	2000 mm
<b>Width</b>		
Total	17 in	425 mm
<b>Height</b>		
Open for use	2.75 in	70 mm
Folded	3.125 in	80 mm
<b>Stretcher Construction</b>		
Alluminium frame, HDPE plastic panels		

**WARNING**

Improper use of the stretcher can cause damage and / or injury. Use the SCOOP EXL stretcher as described herein.

**WARNING**

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

**WARNING**

Never exceed the load capacity of the stretcher as specified in this manual.

**WARNING**

Never connect lifting devices directly to the stretcher's pins. The pins are intended solely for connecting the restraint hooks.

**Load capacity**

**227 kg  
500 lb  
36 st**

Never exceed the load capacity of the SCOOP EXL stretcher. Inspect the stretcher if the carrying capacity has been exceeded (see section 6.4 *Inspection*, page 28).

SWR- Strength to Weight Ratio = 28.4  
Safety factor = 2

**USER AND MAINTENANCE MANUAL**

To request additional free copies of the instruction manual, contact Ferno Customer Service (page 2).





## 4 - STRETCHER CONFIGURATION

### 4.1 Adjusting the length

The length of the SCOOP EXL stretcher is adjustable (4 positions). This adjustment allows the stretcher to be adapted to the height of the patient.

When preparing the stretcher, adjust its length so that it is properly adapted to the height of the patient.

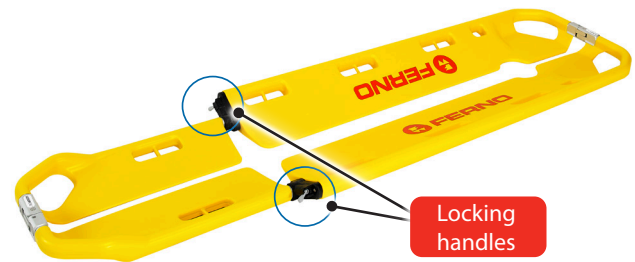


Figure 1 - Length adjustment system

#### ADJUSTING THE LENGTH

To adjust the stretcher length, proceed as follows:

1. Release the locking levers on both sides of the stretcher, positioning them facing upwards (Figure 2).
2. Pull out the foot section to the desired length. The stretcher can be locked in 4 different lengths, corresponding with the holes in the tubular part of the foot section (Figure 3A, 3B, 3C, 3D). While adjusting the length it is recommended to keep the two parts that make up the stretcher attached.



Figure 2 - Locking handles facing up: STRETCHER UNLOCKED



Figure 3A - Position 1



Figure 3B - Position 2



Figure 3C - Position 3



Figure 3D - Position 4

3. After reaching the desired length, lock the levers on both sides of the stretcher, positioning them facing downward (Figure 4). When correctly aligned, an audible click is heard.



**Figure 4 - Locking handles facing down: STRETCHER LOCKED**

4. Ensure the adjustment was successful and that the length of the stretcher is set according to the height of the patient.

5. Before any use of the stretcher, ensure the latches are locked (facing downward, Figure 4) and that the stretcher is properly locked into position.

After appropriately adjusting the length of the stretcher, check the locking levers are set correctly. To verify, check that both levers are pointing downwards, then pull out the foot section. If the section does not extend, the latches are locked correctly and the stretcher is locked in position.

## 4.2 Twin Safety Lock (TSL) System

The stretcher is fitted with two Twin Safety Lock (TSL) systems that allow you to open or close the stretcher lengthwise, splitting it into two equal parts (Figure 5).

The two TSL systems are positioned at each end of the stretcher (head end and foot end) and each has two buttons for the opening of the stretcher.



**Figure 5 - Twin Safety Lock (TSL) System**

### HOW TO OPEN THE STRETCHER

Each TSL consists of two buttons (Figure 5). To open the stretcher, proceed as follows:

1. Grasp the head-end lifting handles with both hands (Figure 6).
2. Press both buttons on the TSL simultaneously and open the stretcher, separating the two sides (Figure 6). This separates the two longitudinal parts which constitute the stretcher (Figure 7).
3. Repeat the same steps to open the stretcher at the foot end.



**Figure 6 - Opening stretcher using the TSL**



**Figure 7 - TSL open**

### HOW TO CLOSE THE STRETCHER

1. Grasp the head-end lifting handles with both hands.
2. Attach the two separate parts of the TSL in order to close the stretcher. It is not necessary to press the buttons to close the device.
3. Repeat the same operations for the foot end.
4. Check the TSL is locked correctly. To check the device is locked correctly, grip the handles and pull, trying to separate the two parts of the TSL, without pressing any buttons. If the two parts of the TSL do not separate, they are correctly attached and the stretcher is closed.

### 4.3 How to fold the stretcher

1. Place the stretcher on a flat surface (the ground).
2. Place the locking levers in the unlocked position, facing upward, on both sides of the stretcher (Figure 8).  
To unlock the latches, see Section 4.1 "Length adjustment", page 9.
3. Fully extend the foot section so that the hinges are fully exposed (Figure 9).
4. Place the foot section over the body section (Figure 9).
5. Place the levers in the locked position, facing downwards, on both sides of the stretcher (Figure 10).
6. If the stretcher is not used and is stored folded, ensure that all latches are in the closed position (facing downwards).



**Figure 8 - Locking handles facing upwards**



**Figure 9 - Positioning the foot section over the body section**



**Figure 10 - Locking handle facing down**

## 4.4 How to extend the stretcher

In the event that the stretcher is folded (foot section over the body section, Figure 9), follow these steps to extend the stretcher:

1. Place the stretcher on a flat surface.
2. Lift the foot section and place it on the same surface as the body section.
3. Release the locking levers so they are facing up (see section 4.1 "Length adjustment", page 9).
4. Adjust the length of the stretcher and lock it in the desired position (to correctly adjust the length of the stretcher see Section 4.1 "Length adjustment", page 9).

## 4.5 Lifting handles

The stretcher is equipped with four lifting handles at the head end and the foot end.

Grasp the lifting handles to lift the stretcher (Figure 11).

Lift only the weight that you can safely support. Use additional help when working with heavy loads (see Section 5.7 "Additional help", page 26).



**Figure 11 - Lifting handles**

## 4.6 Side holes

The stretcher is equipped with:

- 2 small lateral holes for fastening the "H"-shaped Velcro band of the 365-E head immobilizer. The small holes are provided only at the head end of the stretcher (Figure 12).
- 8 side handles (4 per side). Each handle has a pin inside for attaching restraint hooks (Figure 13).



**Figure 12 - Small side holes for "H"-shaped head immobilizer**

## 4.7 Pin

The stretcher is equipped with 8 pins for attaching restraint hooks. The pins are present in the side holes of the stretcher (Figure 13).



**Figure 13 - Side holes with pin**

## 5 - USING THE STRETCHER

### 5.1 Before putting the stretcher into service

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

- Before any operation with the stretcher, ensure that all components are present and that the stretcher shows no sign of damage or wear, and is fully operational. Refer to section 6.4 *Inspection*, page 28.

### 5.2 Instructions for Use

- This manual does not provide any medical instructions.
- It is the responsibility of the users to follow proper procedures to ensure the safety of both the patient and themselves.
- This manual explains the use of the stretcher in an ideal situation and is purely indicative.
- The stretcher should be used only by trained and qualified staff. A minimum of two trained and qualified operators are required.
- **Operators must work together and coordinate properly during all operations.**
- Follow the procedures applying standard protocols for handling the patient in an emergency.
- Lift only the weight that you can safely support. Obtain additional help when working with heavy loads.
- It is always required to follow the instructions and local healthcare protocols.
- Always assist the patient and never leave the patient alone during operations involving the stretcher.

#### WARNING

Improper use of the stretcher can cause damage and / or injury. Use the SCOOP EXL stretcher as described herein.

#### WARNING

Never leave the patient alone when bound to the stretcher. Always assist the patient throughout all rescue operations.



Read the user manual carefully



At least two qualified operators are required



Load capacity

#### WARNING

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

#### WARNING

Failure to use the restraints can cause the patient to fall and endanger their safety. Always use the containment restraints for the patient as indicated herein.

#### WARNING

Never connect lifting devices directly to the stretcher's pins. The pins are intended solely for connecting the restraint hooks.

### 5.3 Applying the belts

Use restraints to secure the patient to the stretcher.

#### TWO-PART RESTRAINTS WITH PLASTIC BUCKLES

1. Release the restraint by splitting it into two parts.
2. Passing one part of the restraint through the side handle of the stretcher (Figure 14).
3. Thread the restraint buckle through the ring (Figure 14), then pull the restraint so that it wraps the handle.
4. Repeat steps 1 through 3 for the other part of the restraint.
5. Before any operation with the stretcher, check that all the restraints are locked correctly and securely and are in good condition.



Figure 14 - Restraint with plastic buckle

#### TWO-PART RESTRAINT WITH SNAP HOOK

**Note:** *It is recommended that restraints with hooks are used with SCOOP EXL stretchers fitted with pins (section 4.7, Pins).*

6. Press the hook lever and attach the hook to the pin (Figure 15).
7. Make sure the hook is attached and locked correctly to the pin.
8. Repeat steps 1 through 3 for the other part of the restraint.
9. Before any operation with the stretcher, check that all the restraints are locked correctly and securely.

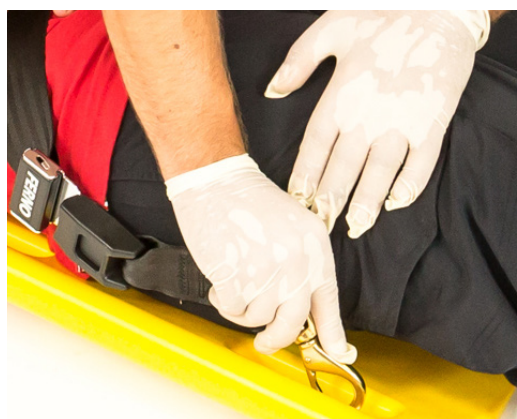


Figure 15 - Restraint with snap hook

#### Important

Restraints fitted with plastic buckles are ideal for use within the hospital.

Restraints fitted with snap hooks are suitable for outside the hospital and for transport.

For the belts, see Section 7.3 *Patient belts*, page 31.

## 5.4 Immobilization of the patient

The immobilization procedure should be performed by at least two trained and qualified operators. For the immobilization of the patient, proceed as follows.

1. Align the patient (Figure 16).
2. Apply cervical collar if necessary (Figure 17). For the correct application of cervical collar consult the WizLoc collar manual (to request copies of the manual contact Ferno Italia Customer Service, page 2).



**Figure 16 - Aligning the patient**



**Figure 17 - Fitting the cervical collar**

3. Apply the immobilizer (Figure 18). For the correct application of the immobilizer refer to the 365-E head immobilizer manual (to request copies of the manual contact Ferno Italia Customer Service, page 2).
4. Place the stretcher next to the patient, adjust the length of the stretcher so that it is suitable for the height of the patient (Figure 19). To adjust the length of the stretcher, see section 4.1 *Adjusting the stretcher*, page 9.



**Figure 18 - Fitting the head immobilizer**



**Figure 19 - Adjusting the length of the stretcher**

5. Before loading the patient on the stretcher, align the patient's jugular with small lateral holes on the stretcher (Figure 20). Take additional care during this operation as this positions the patient correctly on the stretcher.
6. The two operators, arranged respectively at the foot and the head of the stretcher, open it by pressing the buttons on the TSL system, longitudinally separating the two sides of the stretcher (Figure 21).



**Figure 20 - Aligning the patient's jugular**



**Figure 21 - Opening the stretcher**

7. Position the two longitudinal parts under the patient, starting with the head end. If the patient is not cooperative, use a third operator to hold the patient's head.
8. First close the head end via the TSL, ensuring the immobilizer is set correctly (Figure 22).
9. As the first operator (head end) maintains control of the patient's head, the second operator proceeds to complete the loading of the patient on the stretcher, and the locking of the foot end using the TSL (Figure 23 and 24).



**Figure 22 - Closing the TSL (head end)**



**Figure 23 - Closing the TSL (foot end)**



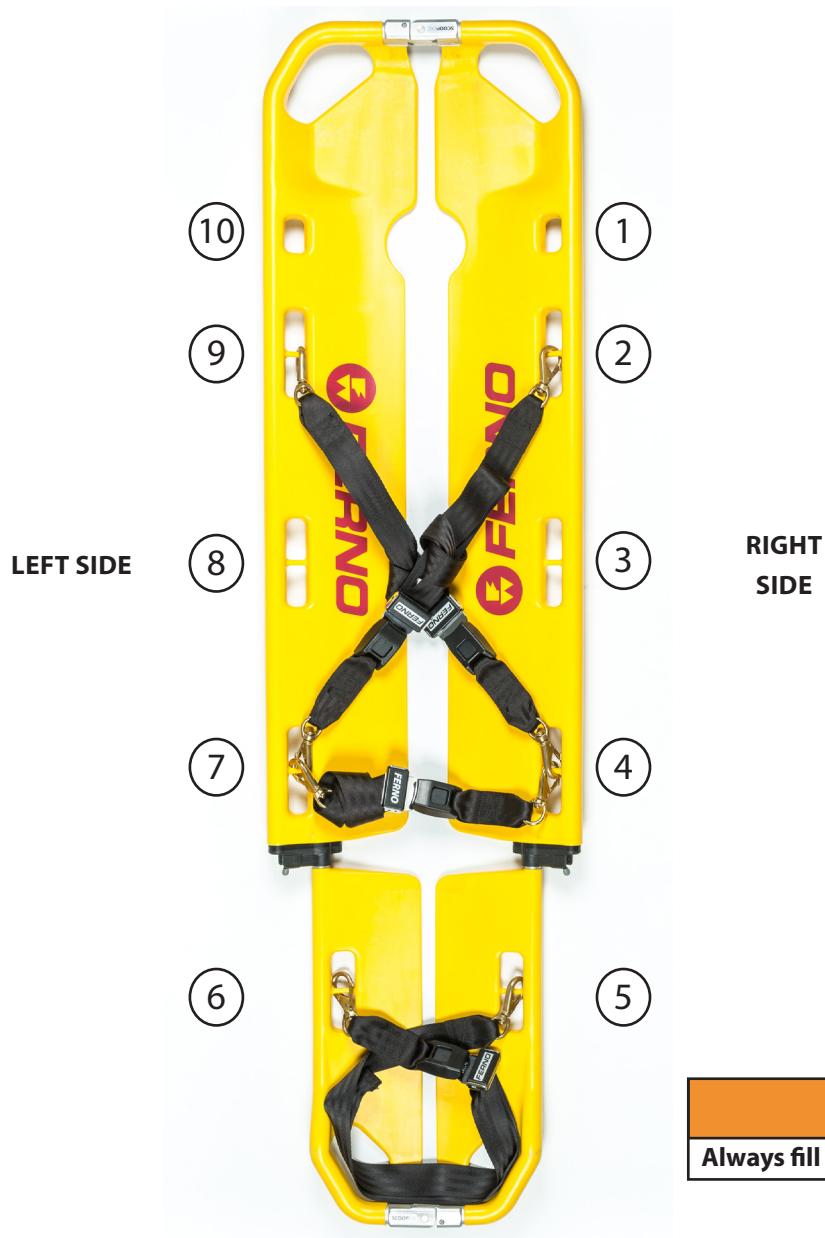
**Figure 24 - Completion of patient loading**

**⚠ WARNING**

The operator at the head must check the patient's alignment is correct, maintain contact with the patient, and ensure they are on a smooth surface.



10. Proceed with attaching the restraints. We recommend the use of 4 restraints:
- 2 thoracic restraints: 9 on 4 / 2 on 7
  - 1 leg restraint: 7 on 4
  - 1 foot restraint: 6 on 15
11. Apply the restraints as described below (Figure 25). For the application of the restraints and identification of the correct holes on the stretcher, see Figure 25. In Figure 25 the numbering of the holes is clockwise from 1 to 10.
- The two chest restraints should be applied in a cross configuration.
  - The leg restraints must be applied in transverse configuration.
  - The foot restraints must be applied in a figure-eight configuration.

**Important**

**Tip**  
Do not separate the restraints when attaching them, so as to speed up the immobilization process.

**WARNING**

Always fill the popliteus hollow with spacers:

**Figure 25 - Arrangement of patient immobilization restraints (operator view)**

**THORACIC RESTRAINTS**

1. Attach the hook of the first chest restraint to pin 9 (left side as viewed by the operator). Pass the restraint over the shoulder and onto the patient's chest, then attach the second hook on the opposite side (right side relative to the operator) to pin 4 (Figure 25). Depending on the patient's size, you can proceed with attaching to pin 3 or 4.
2. Attach the hook of the second chest restraint to pin 2 (right side relative to the operator). Pass the restraint over the shoulder and onto the patient's chest, then attach the second hook on the opposite side (right side relative to the operator) to pin 4 (Figure 25). Depending on the patient's size, you can proceed with attaching to pin 7 or 8.
3. Adjust the tension of the restraints properly so as not to create unwanted stress to the patient.



**Figure 26 - Applying the first chest strap**



**Figure 27 - Applying the second chest strap**



**Figure 28 - Adjusting the thoracic restraints**

**BASIN RESTRAINT**

1. Attach the first hook to pin 7 (Figure 25).
2. Pass the restraint over the patient's legs.
3. Attach the hook to pin 4 on the opposite side.
4. Adjust the restraint correctly so as not to constrict the patient unnecessarily (Figure 30).



**Figure 29 - Applying the leg restraint**



**Figure 30 - Adjusting the leg restraint**

**FOOT RESTRAINT**

1. Attach the first hook to pin 6 on the foot end.
2. Attach the second hook to pin 5 on the opposite side.
3. Extend the restraint (Figure 31) to allow creation of a figure-eight shape.
4. Cross the restraint and insert the foot into the loop (Figure 32).
5. Adjust the restraint so that the feet are held properly and securely (Figure 33).



**Figure 31 - Extending the foot restraint**



**Figure 32 - Inserting the feet through the loop**



**Figure 33 - Foot restraint applied correctly**

### Important

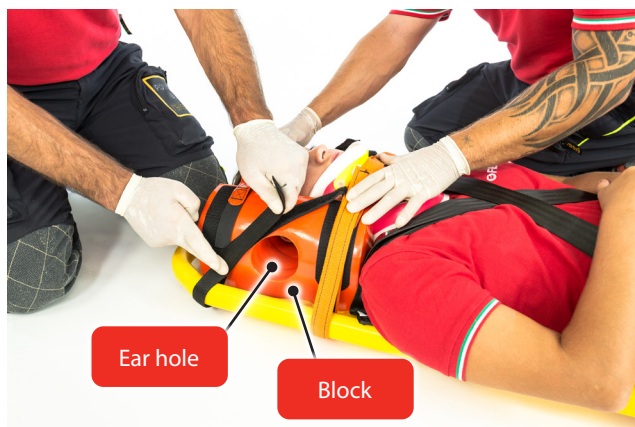
If it is not possible to use the figure-eight restraint configuration on the feet, or the patient has a splint applied, proceed by attaching the restraint horizontally:

- Snap the first hook to pin 6;
- Pass the restraint over the patient's feet;
- Snap the second hook to pin 5 on the opposite side;
- Adjust the restraint so that the feet are correctly and firmly locked.

- At the end of the process and after correct adjustment of restraints, pull together all the excess and arrange them so they do not interfere with stretcher operations.
- Once the application of the restraints is complete, proceed with the application of the H-shaped Velcro band to stabilize and immobilize the patient's head. **Apply the H-shaped Velcro band only after the restraints have been fully fastened.**
- Place the band over the patient's collar (Figure 34).
- Insert the orange Velcro system into small side hole 10 (Figure 34; to identify hole 10, see Figure 25, page 17). Attach the two constituent parts such that they cover the hole in the stretcher. Repeat the process on the opposite side.
- Insert the black Velcro system into the lifting handle at the head end (Figure 35). Position it so that it is adjacent to the ear hole of head immobilizer block. Attach the two parts that form the unit such that they wrap around the stretcher carrying handle. Repeat the process on the opposite side.
- Adjust the restraint to avoid placing excessive pressure on the neck.



**Figure 34 - Applying the head strap**



**Figure 35 - Applying the head strap**

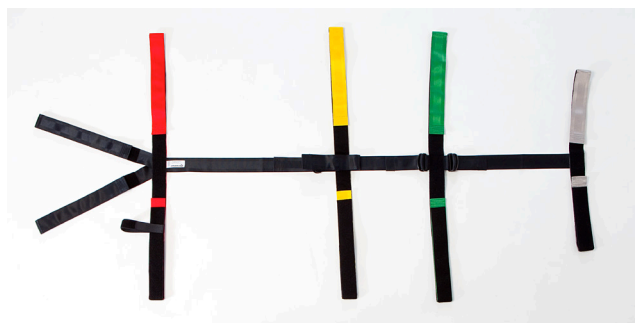


**Figure 36 - Proper patient immobilization**

**Important**

Apply the Velcro H-strap only **AFTER** setting the restraints correctly.

18. Restraints with snap hooks are one of the patient containment systems that can be used with the SCOOP EXL stretcher. The E-770 "spider" system can be used instead of the model 773 restraints (see Chapter 7 *Accessories*, page 31).



**Figure 37 - 770-E "spider" restraint system**

**⚠ WARNING**

**An unassisted patient is at risk of injury. Never leave the patient alone when bound to the stretcher. Always assist the patient during all operations with the stretcher.**

**⚠ WARNING**

**Applications of the stretcher restraints that are not as described in this manual could cause accidents, damage and / or injury.**

**⚠ WARNING**

**Failure to use the restraints can cause the patient to fall and endanger their safety. Always use the containment restraints for the patient as indicated herein.**

**⚠ WARNING**

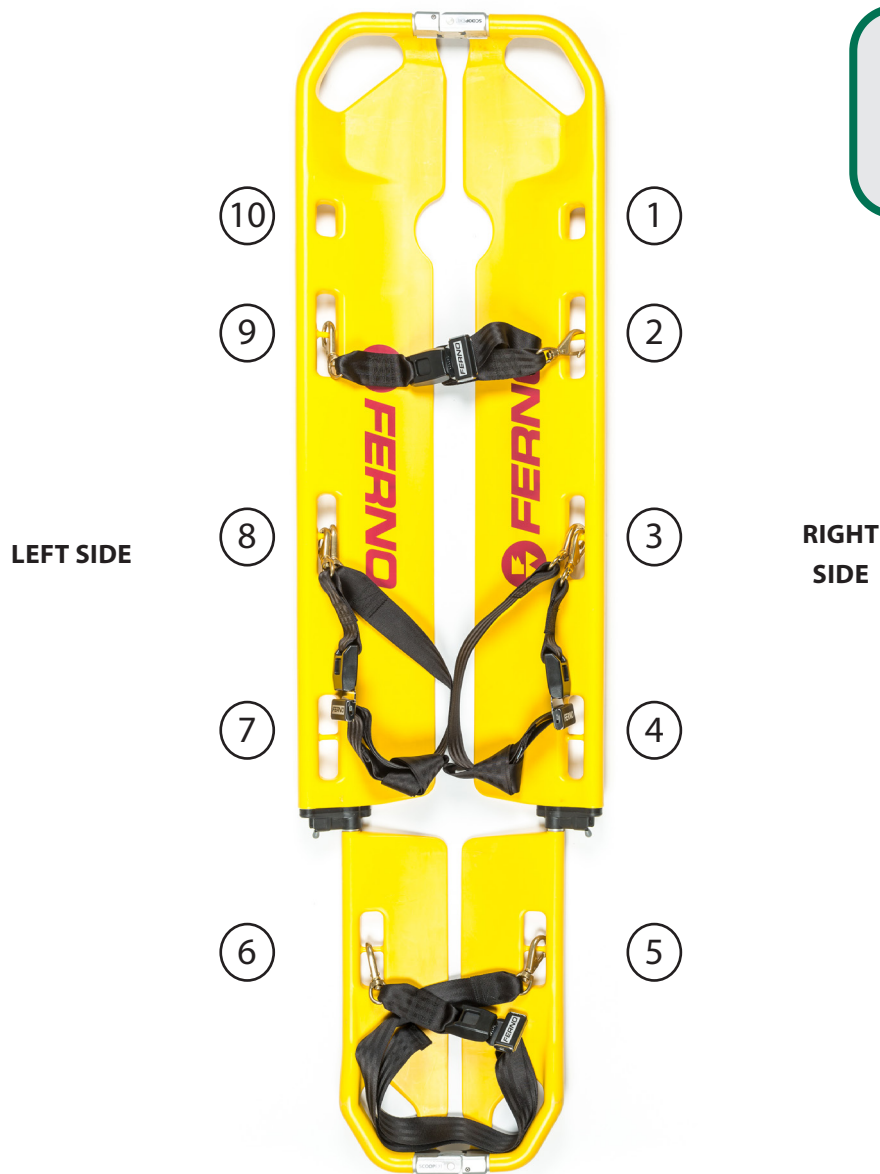
**The tilting procedure requires specific skills and MUST NOT be performed by operators who have not received professional instruction and training.**

## 5.5 Tilting the patient

The tilting procedure should be performed by at least two trained and qualified operators. It should not be performed by operators who have not received professional "LIMITED SPACE MANOEUVRES" instruction and training. For training courses, contact Ferno's Customer Services (page 2).

### To tilt the patient, proceed as follows:

1. Align the patient (Figure 16).
2. Apply cervical collar if necessary (Figure 17). For the correct application of cervical collar consult the WizLoc collar manual (to request copies of the manual contact Ferno Italia Customer Service, page 2).
3. Apply the immobilizer (Figure 18). For the correct application of the immobilizer refer to the 365-E head immobilizer manual (to request copies of the manual contact Ferno Italia Customer Service, page 2).
4. Place the stretcher next to the patient, adjust the length of the stretcher so that it is suitable for the height of the patient (Figure 19). To adjust the length of the stretcher, see section 4.1 *Adjusting the stretcher*, page 9.
5. Before loading the patient on the stretcher, align the patient's jugular with small lateral holes on the stretcher (Figure 20). Take additional care during this operation as this positions the patient correctly on the stretcher.
6. The two operators, arranged respectively at the foot and the head of the stretcher, open it by pressing the buttons on the TSL system, longitudinally separating the two sides of the stretcher (Figure 21).
7. Position the two longitudinal parts under the patient, starting with the head end. If the patient is not cooperative, use a third operator to hold the patient's head.
8. First close the head end via the TSL, ensuring the immobilizer is set correctly (Figure 22).
9. As the first operator (head end) maintains control of the patient's head, the second operator proceeds to complete the loading of the patient on the stretcher, and the locking of the foot end using the TSL (Figure 23 and 24).
10. Proceed with attaching the restraints. We recommend the use of 4 restraints:
  - 1 x thoracic restraint: 9 on 2
  - 2 x inguinal restraints: 8 on 8 / 3 on 3
  - 1 x foot restraint: 6 on 5
11. Apply the restraints as described below (Figure 38). For the restraint configuration and identification of the correct holes on the stretcher, refer to Figure 38. In Figure 38 the numbering of the holes is clockwise from 1 to 10.



**Tip**  
**Important**  
 To improve patient comfort, insert padding on pressure points.

**Figure 38 - Arrangement of restraints for patient tilting (operator view)**

**WARNING**  
 The tilting procedure requires specific skills and **MUST NOT** be performed by operators who have not received professional instruction and training.

**Important**  
 When tilting the patient, make sure not to exceed an angle of 70°, and maintain the inclined position for the minimum possible period.

**THORACIC RESTRAINT**

1. Snap the first hook to pin 2 (right side as viewed by the operator, Figure 38).
2. Pull the restraint under the armpit of the patient; in the case of a female patient the restraint must pass over breast.
3. Snap the second hook to pin 9 on the opposite side (left side as viewed by operator).
4. Adjust the tension of the belts properly so as not to create unwanted stress to the patient.

**INGUINAL RESTRAINTS**

1. Insert the long end of the first restraint between the patient's legs, a little above the crest.
2. Pull the restraint under the right leg and snap both hooks to pin 3 (right side as viewed by operator) making sure that the restraint wraps the leg in the groin area.
3. Do the same on the other side with the left leg and attach both restraint hooks to pin 8 (left side as viewed by operator).
4. Adjust the tension of the restraints properly so as not to create unwanted stress to the patient.

**FOOT RESTRAINT**

1. Attach the first snap hook to pin 6 on the foot end.
2. Attach the second snap hook to pin 5 on the opposite side.
3. Extend the restraint (Figure 31) to allow creation of a figure-eight shape.
4. Cross the restraint and insert the foot through the loop (Figure 32).
5. Adjust the restraint so that the feet are held properly and securely (Figure 33).
12. At the end of the process and after correct adjustment of restraints, pull together all the excess and arrange them so they do not interfere with stretcher operations.
13. Once the application of the restraints is complete, proceed with the application of the H-shaped Velcro band to stabilize and immobilize the patient's head. **Apply the H-shaped Velcro band only after the restraints have been fully fastened.**
14. The application of H-shaped Velcro strap is described on page 20.

**CAUTION:** Pad the restraints' pressure points to improve patient comfort.

 **WARNING**

**Failure to use the restraints correctly may cause the patient to fall and endanger their safety. Always use the containment restraints for the patient as indicated herein.**

**Important**

Apply the Velcro H-strap only **AFTER** setting the belts correctly.

**Important**

If it is not possible to use the figure-eight restraint configuration on the feet, or the patient has a splint applied, proceed by attaching the restraint horizontally:

- Snap the first hook to pin 6;
- Pass the restraint over the patient's feet;
- Snap the second hook to pin 5 on the opposite side;
- Adjust the restraint so that the feet are correctly and firmly locked.



## 5.6 Lifting and carrying

Before transporting, make sure that:

- 1) the patient's cervical collar, the head immobilizer and seat restraints have been applied,
- 2) the patient is correctly secured on the stretcher,
- 3) TSL systems are properly connected and locked (to lock the stretcher properly, see section 4.2 Twin Safety Lock (TSL) System, page 10)
- 4) the latching side levers are in the locked position facing down (to lock the stretcher, see Section 4.1 Adjusting the length, page 9).

To immobilize the patient on the stretcher properly, see section 5.4 *Patient immobilization*, page 15.

Carry the stretcher carefully on uneven surfaces. Two trained and qualified operators are required for lifting and transportation of the stretcher.

If transporting a heavy adult patient, lift and carry the stretcher with the use of additional help (paragraph 5.7 *Additional help*, page 26).

### To carry the stretcher, proceed as follows:

1. Position operators at each end (head end and foot end) of the stretcher. If additional helpers are involved, use positions as indicated in paragraph 5.7 *Additional help*, page 26.
2. Grasp the lifting handles with your palms facing up.
3. **Both operators:** coordinating with each other, proceed with lifting and carrying of the stretcher and patient. Use suitable techniques for lifting and carrying the stretcher.

Only lift weight that each person can manage safely. Use additional trained operators when lifting and carrying the stretcher. Refer to Section 5.7 *Additional help*, page 26.

### Proceed as follows for carrying the stretcher in a vehicle:

WARNING: Reset restraints set for tilting the patient to standard immobilization configuration before moving the vehicle.

#### WARNING

Improper use of the stretcher can cause damage and / or injury. Use the SCOOP EXL stretcher as described herein.

#### WARNING

Never exceed the load capacity of the stretcher as specified in this manual.

#### WARNING

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

#### WARNING

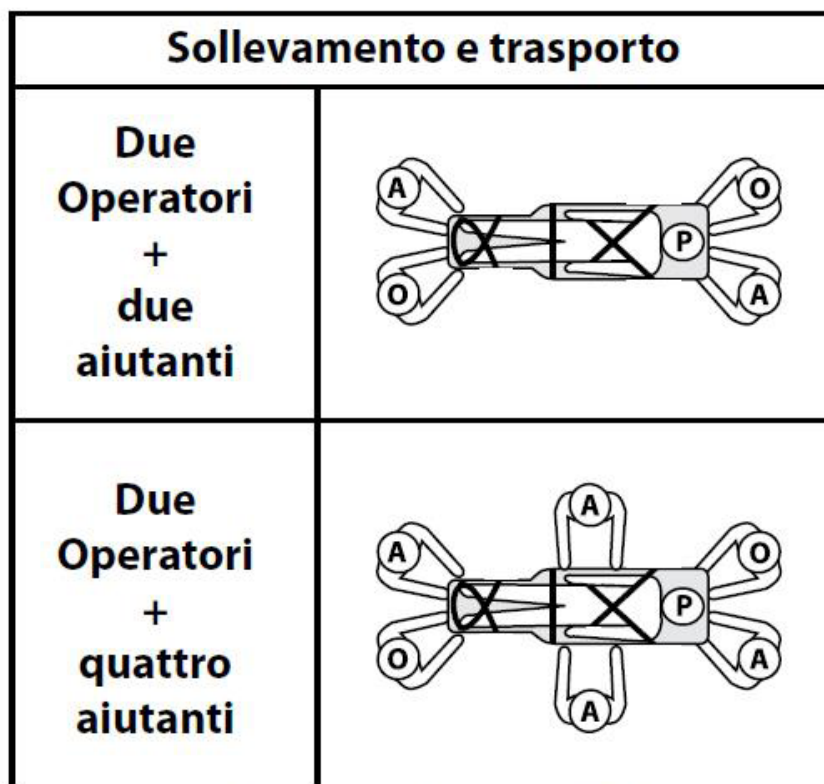
Never connect lifting devices directly to the stretcher's pins. The pins are intended solely for connecting the restraint hooks.

### 5.7 Additional Help

Two trained and qualified operators are required for the use of the stretcher. Operators may need assistance to lift heavy adult patients.

- The trained operators must stand at the head and foot end of the stretcher, they must always maintain control of the stretcher and direct their assistants.

The illustrations below show the positioning of operators and helpers. It is very important that the operators are always opposite each other to maintain eye contact.



Legenda: O=Operatore, A=Aiutante, P=Paziente

<b>WARNINGS</b>
<p>Casual assistants may cause damage and/or physical harm, or injure themselves. Do not allow casual helpers to perform stretcher preparation operations. Be extremely careful during all user operations.</p>

	<p><b>Load capacity</b></p> <p>Never exceed the load capacity of the SCOOP EXL stretcher. Inspect the stretcher if the carrying capacity has been exceeded (see section 6.4 <i>Inspection</i>, page 28).</p> <p>SWR- Strength to Weight Ratio = 28.4</p> <p>Safety factor = 2</p>
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## 6 - MAINTENANCE

### 6.1 Routine and preventive maintenance

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

**ROUTINE** maintenance: the stretcher has to be subjected to a routine maintenance intervention once a year by Ferno skilled technicians.

**PREVENTIVE** maintenance: preventive maintenance operations are to be carried out by the user, as specified in the table on the right.

If the device 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 device 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.

### 6.2 Disinfection

1. After each use, clean the surfaces of the stretcher with a cloth and a non-abrasive surface disinfectant.
2. It is advisable to extend the leg section to the furthest position and disinfect with the stretcher in an upright position (foot end down).
3. Do not immerse the stretcher directly in disinfectant.
4. During disinfection, check that there are no signs of wear and/or damage.
5. Dry with a cloth. Make sure that all the components of the device are completely dry before reusing them.

It is advisable to wear suitable gloves (e.g. household or disposable gloves) during disinfection.

### 6.3 Cleaning

1. Clean all surfaces of the stretcher with a cloth, warm water and soap or a mild detergent soap.
2. If necessary, to remove stains, use a soft brush or a light solvent, paying attention to labels.
3. Dry with a cloth. Make sure that all the components of the device are completely dry before reusing them.

Do not wash with high pressure water

It is advisable to wear suitable gloves (e.g. household or disposable gloves) during disinfection.

Maintenance Periods	After each use	Whenever necessary	Monthly
<b>Disinfection</b> (page 27)	•	•	
<b>Cleaning</b> (page 27)		•	•
<b>Inspection</b> (page 28)	•	•	•
<b>Lubrication</b> (page 29)		•	

**Important**


The use of products containing bleaches, phenols and iodine can damage the stretcher. Do not use products containing these elements for cleaning and disinfecting the stretcher.

**Important**

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

**Important**

**DO NOT WASH WITH HIGH PRESSURE WATER**



Do not use high-pressure water to clean the stretcher.

## 6.4 Inspection

To ensure optimal use of the stretcher, it is important to keep all the components in good condition and to remove all traces of dirt, debris and bodily fluids.

The stretcher must be inspected before and after each use, and cleaned after each use. While not in use, it must be stored in a dry indoor environment and should be inspected at least once a month.

Ensure the stretcher is regularly inspected by trained maintenance personnel. Perform the checks listed on this page.

If any signs of wear or damage are found during inspection, discontinue use of the stretcher immediately and contact Ferno's Technical Support Service to request repair or maintenance.

Refer to Chapter 8 *Technical Assistance*, page 31.

### CHECKLIST FOR

#### STRETCHER INSPECTION

- Does the stretcher show signs of damage or wear? Are all the components present?
- Are the two chest belts, the leg belt, and the feet belt present?
- Are the straps in good condition, without tears or frayed edges?
- Do the snap hooks and belt buckles attach firmly, and not show any visible damage?
- Do the moving parts (couplings, levers, hooks and telescopic sections) work properly?
- Is the Twin Safety Lock system working properly? Does the stretcher close and lock correctly, uniting the two halves of the stretcher securely?
- Are the latching levers functioning properly?
- Is it possible to lengthen the stretcher and lock it properly in the 4 positions?
- Are the attachment pins fixed in their seats? Refer to section 6.6 *Inspection and locking of the coupling pins*, page 29).
- Are the pins for the belt snap hooks fixed in their seats?
- Do the attachments for the head and feet require lubrication?
- Are there visible signs of damage on the stretcher or its components?

### Important

Store the SCOOP stretcher EXL in an indoor environment, dry and protected from direct sunlight.



### WARNING

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

## 6.5 Lubrication

Clean and disinfect the stretcher before lubricating it. Use appropriate lubricants.

The couplings for the head and foot sections are lubricated during assembly of the stretcher, but may require additional lubrication, if necessary, during normal use.

It is possible to use one of the following methods (A or B) of lubrication:

**A. WHITE LITHIUM GREASE:** apply a small amount of white lithium grease on the sliding surfaces of the couplings. Remove any excess.

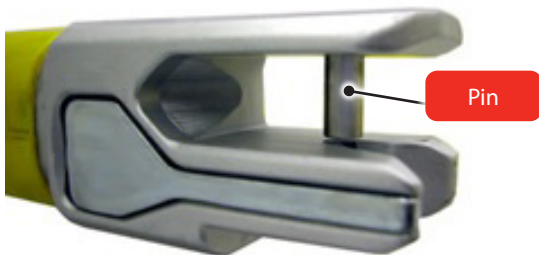
**B. GENERAL TEFLON LUBRICANT SPRAY:** spray a small amount of lubricant on sliding surfaces of the couplings. Remove any excess.

### Important

If you lubricate components that do not need to be lubricated, this may allow dirt and foreign particles to accumulate, causing damage to these components. Lubricate **only** the components indicated.

## 6.6 Inspection and locking of the coupling pins

Each Twin Safety Lock (TSL) system includes two threaded pins (Figure 39).



**Figure 39 - Pin**

During assembly of the stretcher, thread-lockers are applied corresponding with such pins. If a pin has come loose, it is possible to apply an additional thread-locker, as reported in the subsection "*Reinstalling the pins*".

The procedures described should be solely and exclusively by qualified technical staff. Contact Ferno's Technical Support Service (page 2).

### INSPECTION OF THE PINS

To check if the pin is loose, proceed as follows:

1. Use 12 mm max. needle-nose pliers
2. Cover the nose pliers with duct tape to prevent damage to the surface of the pins.
3. Try to unscrew the first pin. If the pin holds and you cannot unscrew it without further effort, the pin is locked into place. If the pin is unscrewed easily, follow the instructions in the subsection "*Reinstalling the pins*".
4. Check the remaining three pins and reinstall only the pins that are not locked properly.

### RE-INSTALLATION OF THE PINS

In the event that one of the pins is loose, proceed as follows to lock it properly:

1. Unscrew the loose pin and remove it from the Twin Safety Lock system.
2. Completely remove all traces of thread-locker in the pin's thread and seat.
3. Dry the cleaned surfaces of the thread of the pin and seat.
4. Apply Loctite 270 on the dried surfaces of the two threads until they are completely covered by the thread locker.
5. Insert the pin into the coupling seat and use the pliers to tighten it.
6. Remove any excess thread-locker.
7. Let the thread-locker dry for a few hours before resuming use of the stretcher.

If a pin is missing, put the stretcher out of service immediately and contact Ferno's Technical Assistance Service (page 2).

## 6.7 Storage

The stretcher must be stored in a clean, dry, indoor place, away from direct sunlight. When not in use, it can be stored in its practical carrying bag (Figure 40).

The stretcher must be folded up to fit inside the carrying bag (Figure 9, page 11). To fold the stretcher properly, see Section 4.3 *How to fold the stretcher*, page 11.



Figure 40 - Emergency Kit Storage Bag

## 6.8 Disposal

When the device is no longer suitable for use, if it wasn't been contaminated by any particular agents, can be disposed of as normal solid waste, otherwise follow the current regulations for demolition.

## ACCESSORIES AND RELATED PRODUCTS

Ferno offers a full range of accessories for emergency medical services. Follow the instructions provided with the product. Keep the instructions together with this manual. When you are using accessories, pay attention to additional factors such as height and width of doors, etc. For more information, contact the Ferno Customer Support.



TSL Extender



Saerbag 3 (hoistable rescue bag)



### WARNING

The use of incorrect or unsuitable items on the stretcher may cause injury. Use only approved items from Ferno on the stretcher.

## 7 - ACCESSORIES

Ferno offers various accessories approved for use with the SCOOP EXL stretcher. Always follow the directions in this instruction manual. For more product information, contact Ferno Customer Service (page 2).

### 7.1 SCOOP EXL stretcher accessories

Description	Code
Head Immobilizer	365-E
WizLoc 449-I Cervical Collar (3 pcs.)	0822074
WizLoc Cervical Collar, for military (1 pc.)	0819759
Emergency Bag / backpack	FBI300000
EasyLift, long hangers	PS0765EXL
EasyLift, short hangers	PS0765EXL/S
Horizontal restraint	561-O
Vertical restraint	561-V
365-E transport / storage bag	10-9900-005
TSL Extender	TSL Extender
SS-Shoulder Support	21-0120-11
Emergency Kit - Transport Bag	Emergency Kit

### 7.2 SCOOP EXL Stretcher Models

Description	Code
SCOOP EXL stretcher, yellow with 4 restraints, mod.773 (metal buckle and hook) for use outside hospital	0108004IT/773
SCOOP EXL stretcher, yellow with 3 x 2-part restraints (plastic buckle and hook) for in-hospital use	0108004PIT
SCOOP EXL Kit complete with 1 x SCOOP EXL, yellow with pin, 1 x 365-E head immobilizer, with carrying / storage bag and 4 x 773 restraints	KIT-65EXL/773
EMERGENCY KIT complete with 1 x yellow SCOOP EXL, with pin, 1 x 365E head immobilizer, 1 x WIZLOC collar, 4 x restraints (mod.773), FW100 blanket, bag/backpack	65EXL-EK

### 7.3 Patient belts

Description	Code
773 Restraints, 2-piece with buckle and metal hook	0314009
"Spider" restraint system	770-E
436 restraints, 2-piece with metal buckle and snap hook (3 pcs.)	0313079
2-piece restraints with plastic buckle, black / red logo	430-PA-2-N
2-piece restraint with plastic buckle and hook	0313847
2-piece restraint with metal buckle, burgundy	430-2-201
1-piece restraint with metal buckle, red logo	430-1-N
1-piece restraint with plastic buckle, burgundy	430-PA-1-201
2-piece restraint with metal buckle, burgundy	430-PA-2-201
2-piece restraints with plastic buckle, black with red logo	430-2-N
1-piece restraint with plastic buckle, black/red logo	430-PA-1-N

#### WARNING

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

## 9- WARRANTY

### 9.1 Warranty Terms & 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 guarantees its replacement parts for a period of 12 months.

During the warranty period, Ferno will repair and/or replace any parts found to have manufacturing defects, excluding the costs of: manual labour, travel, transport, and packaging.

The warranty does not cover consumables or parts prone 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, mechanical equipment), or batteries.

The surface finishes (gelcoat/resin, paint, powder paint, decals, tape, printing, 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), or at the Customer's premises if suitable arrangements with Ferno's Customer Services have been made.

Technical support at the Customer's premises must be arranged beforehand and involves a refund of costs incurred and documented on request. For information on the costs of technical support, please contact the relevant office at Ferno s.r.l..

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 invalidates this warranty.

The warranty is valid from the day the product is shipped from Ferno s.r.l., and the shipping rates are not covered by this warranty. Ferno s.r.l. is not liable for damages sustained during shipment or due to misuse of the product.

Products sold by Ferno s.r.l. that do not bear the Ferno trademark are covered by the warranty of the original manufacturer. Ferno s.r.l. does not extend the periods of warranties of other manufacturers; Ferno s.r.l. assumes no responsibility for products manufactured by others.

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

- Failure to observe the instructions on use,

- Misuse,
- Inappropriate use or handling,
- Repairs by non-authorized 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 does not bear the transport costs for sending or returning the product.

### 9.2 Limitation of liability

If a product is found to be defective, Ferno s.r.l. will repair and replace it, or, at its own discretion, refund the purchase price. Under no circumstances can Ferno s.r.l. be held liable for more than the sale price of the product. The buyer accepts these conditions for all types of damage. Ferno s.r.l. does not offer other warranties, either express or implied, or any implied warranties of merchantability and fitness for a particular purpose for its own products, or those manufactured

by others. In case of infringement of the limited warranty, any legal actions must be filed within one year from the date on which the infringement was, or should have been, discovered. Ferno s.r.l. reserves the right to terminate the warranty of the products sold:

- If the labels or plates bearing the manufacturer's logo and/or the serial or registration number are rendered illegible or removed;
- If the product has undergone modifications, repairs or treatment unauthorized by Ferno, and/or by personnel not authorized by Ferno;
- If the product is not used in compliance with the instructions, or for purposes other than those for which it was designed.
- as indicated in section 9.1, "Warranty Terms & Conditions".

Ferno s.r.l. cannot, in any event, be held liable for direct or indirect damage due to usage that is non-compliant with the instructions in the user manual or the intended purpose of the product.

### 9.3 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.

not relating to lack of conformity of the product, will be accepted only after verification of their condition by Ferno s.r.l. qualified personnel.

### 9.4 Complaints

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.

Claims or disputes regarding a single product does not release the buyer from the obligation to collect and pay for other products in the order, unless otherwise agreed with the seller.

### 9.5 Return authorization

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

Products returned for business reasons, or for reasons

## 8- TECHNICAL SUPPORT

### 8.1 Technical Support Service

For technical support concerning our products, please contact Ferno's Technical Support Service.

Telephone (toll-free, Italy only)	800 501 711
Phone	+39 05 16860028
Fax	+39 05 16861508
Email	info@ferno.it
Internet	www.ferno.it

For information on using the SCOOP EXL stretcher, and to schedule training courses on the correct use of the device, contact Ferno's Customer Service team.

 **WARNING**

**Non-original spare parts and inadequate repairs may cause damage and/or injury. Use only Ferno original parts and contact only Ferno's Customer Support.**

 **WARNING**

**Unauthorized modifications to the SCOOP EXL stretcher can cause serious damage, injury and / or unpredictable problems. Do not modify or alter the stretcher in any way.**

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*User and maintenance manual of the product, required for safe operation, maintaining the efficiency and reliability of the product, and ensuring the validity of the warranty.*

**Rel. 210421**  
**English**

**Ferno S.r.l.**

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