# Rescue Bag for patient lifting and transport
# SAERBAG III

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

## Ferno Technical Support

Customer relations and technical support are important aspects of each Ferno product. Please have the product serial number available when calling, and include it in all written communications. For technical support questions, contact Ferno s.r.l.:

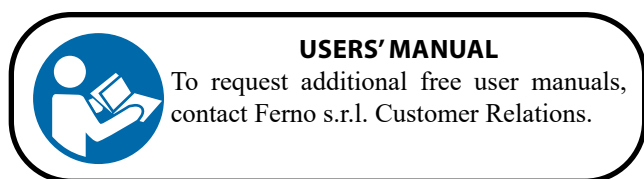| | |
|---|---|
| Telephone (Freephone) | 800 501 711 |
| Fax | +39 051 686 15 08 |
| E-mail | info@ferno.it |

## Ferno Customer Relations

For service or further information, contact Customer Relations, Ferno s.r.l.:

### MANUFACTURER

Ferno s.r.l., Via Benedetto Zallone 26

40066 - Pieve di Cento (BO) - ITALY

| | |
|---|---|
| Telephone (Freephone) | 800 501 711 |
| Telephone | +39 051 686 00 28 |
| Fax | +39 051 686 15 08 |
| Internet | www.ferno.it |

**USERS' MANUAL**
To request additional free user manuals, contact Ferno s.r.l. Customer Relations.
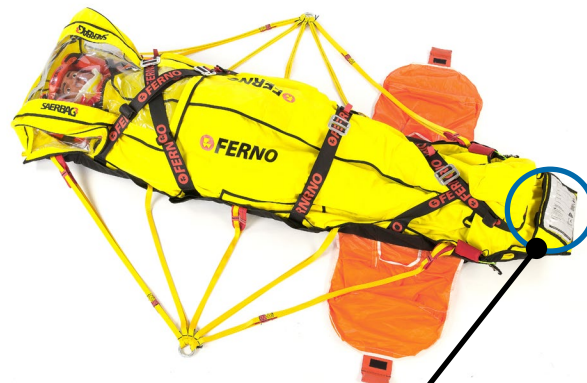
## Disclaimer

This manual contains general instructions for the use, operation and care of this product. These instructions do not cover all possible applications and operations. Safe and proper use of this product is solely at the user's discretion. Safety information is provided for the user and only ensures the minimum level necessary to avoid injury to operators and patients. All other safety measures taken by the user should be within and under consideration of applicable regulations. Operators must be trained before using this product. Retain this manual for future reference. Include the manual with the product in the event of transfer to a new user. Additional free copies are available upon request from Ferno s.r.l. Customer Relations.

## Proprietary Notice

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

Ferno s.r.l. reserves all patent rights, proprietary design rights, manufacturing rights, reproduction rights, use rights, and sales rights related to any article in this manual, except to the extent that



SAERBAG III serial number _____
Location: Main label positioned at the foot area.

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## Limited Warranty Statement

Ferno products are covered by a 24-month warranty against manufacturing defects. For complete terms and conditions of the warranty, and the limitations of liability and disclaimers, consult chapter *Warranty*, page 32.

## 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 |
| Support website - Ferno SOS | www.fernosos.it |
| Telephone | + 39 051 6860028 |
| Fax | + 39 051 6861508 |

# TABLE OF CONTENTS

# 1 – SAFETY INFORMATION

Read this Users' Manual carefully. It is an integral part of the device and must always be readily available. For your own personal safety and that of the patient, please observe the following:

– Before each use, inspect the device carefully to ensure it is not worn, damaged or malfunctioning. See paragraph 6.4 *Inspection*, page 28.

– To avoid infection or bacterial contamination, follow instructions in paragraphs 6.2 and 6.3, *Disinfection* and *Cleaning*, page 27.

## 1.1  Warning

Warning notices indicate a potentially hazardous situation which, if underestimated, could result in accident, damage or injury.

| ⚠ WARNING |
|---|
| **Untrained operators may injure themselves and/or cause damage or injury. Only trained, qualified operators should be allowed to use the Saerbag.** |
| **Improper use of the rescue bag may cause damage or injury. Use the Saerbag as shown in this manual.** |
| **Unauthorized modifications to the Saerbag may cause serious damage, injury or unforeseen operative problems. Do not modify or alter the rescue bag in any way.** |
| **Any damage to the rescue bag components or the whole system may affect its performance and safety. Inspect the rescue bag frequently and especially before and after each use. Do not use the rescue bag if it appears worn or damaged.** |
| **Unattended patients may injure themselves. Never leave a patient in the rescue bag unattended. Always attend to the patient during rescue operations.** |
| **Incorrect use of the straps can cause the patient to fall and be injured. Always use the restraint straps as instructed in this manual.** |
| **Improper use of the rescue bag can cause injury. Use the rescue bag only as described in this manual.** |
| **Before any rescue operation, ensure that the load is evenly distributed on the Saerbag lifting bridle arms.** |
| **Untrained helpers may cause damage and/or injury or hurt themselves. Do not allow untrained helpers to prepare the rescue bag. Take the utmost care during all operations.** |
| **Inadequate maintenance may cause serious damage or injury. Carry out maintenance as described in this manual.** |
| **The use of improper or unauthorized devices may cause accidents, damage or injury. Use only devices approved and authorized by Ferno s.r.l..** |

| ⚠ WARNING |
|---|
| **Repairs carried out by technicians not authorized by Ferno s.r.l. will render any type of warranty void and may make any operation involving the rescue bag dangerous.** |
| **Non-original parts and inadequate technical support may cause damage or injury. Use only original Ferno parts and contact Ferno s.r.l. Technical Support.** |

## 1.2  Important

Boxes with the word "Important" contain important information on the use and maintenance of this device.

| **Important** |
|---|

## 1.3  Bloodborne Diseases

To reduce the risk of infective bloodborne diseases, like HIV-1 or hepatitis, scrupulously follow the disinfecting and cleaning instructions in this manual.

## 1.4  Load capacity

Respect the SAERBAG III load capacity. See paragraph 3.4 *General Technical Specifications*, page 8.

## 1.5  Compatibility

The rescue bag should be used with the Ferno SCOOPEXL™ stretcher, the Ferno Millennia backboard and with Ferno vacuum mattresses.

Any other combination, that does not include Ferno products, has to be used by the user after necessary verification of the absolute compatibility with the rescue bag and the compliance with the norm EN 1865.

Ferno s.r.l. will not be held responsible for injury to operators or third parties caused by improper use of the Saerbag III.

## 1.6  Symbol Glossary

The following symbols are present in this manual and/or on the rescue bag label. The rescue bag and this manual both carry the CE marking.

| | | | |
|---|---|---|---|
| Read the Users' Manual carefully | Load capacity (in kilos and pounds) | This product meets European Union Standards | Do not clean with high pressure water |
| QR Code | Manufacturer | MACHINE WASH 60° DO NOT BLEACH DO NOT IRON DO NOT DRY CLEAN DRY FLAT DO NOT SPIN | Medical Device |

## 1.7  Information and Safety Labels

The information and safety labels provide important information that the user must be aware of.

Read and follow label instructions. Replace worn or damaged labels immediately. To request new labels, contact Ferno s.r.l. Customer Service (page 2). The label shown below is applied to the rescue bag.

**⚠ WARNING**

1. **PERMIT ONLY TRAINED PERSONNEL TO OPERATE SAERBAG. UNTRAINED OPERATORS CAN CAUSE INJURY OR BE INJURED. IMPROPER USE OF SAERBAG CAN CAUSE INJURY.**

2. **NEVER USE THIS EQUIPMENT UNLESS YOU HAVE READ THIS WARNING LABEL, ALL APPROPRIATE OWNER MANUALS, INSTRUCTIONS AND COMPLETED AT LEAST A TRAINING PROGRAM FOR THE USE OF THE SAERBAG.**

3. **LOWER THE RISK OF DEATH, SERIOUS INJURY OR DAMAGE BY NEVER EXCEEDING THE LIMITS INDICATED IN THE USER MANUAL.**

**SAERBAG3**  **FERNO Italia**

MODEL: _____

PART NUMBER: _____

SERIAL NUMBER: _____

APPROVED WITH _____ KG

MAXIMUM GROSS WEIGHT _____ KG
(PATIENT + CLOTHING + EQUIPMENT)

MAX 160 kg 352 lb

**MANUFACTURED BY**
**Ferno Washington Italia s.r.l**
Via B. Zallone n. 26
40066 Pieve di Cento (BO)
Tel. +39 0516860028 - Fax +39 0516861508

CE

Numero Verde 800-501711

DATE OF MANUFACTURING:

PROPERTY OF:

**THE REMOVAL OF THIS LABEL VOIDS ALL WARRANTIES**

# 2 - OPERATOR SKILLS AND TRAINING

## 2.1 Skills

Operators using the rescue bag must have:

- Specific experience of patient-handling and rescue procedures.
- The ability to assist the patient.
- The necessary qualification according to current regulations for helicopter rescue operations.

## 2.2 Training

Operators should:

- Carefully read and understand all the information in this manual.
- Undergo adequate training in the use of the rescue bag.
- Practice with the rescue bag before using it in a real situation with a patient.

- Record training sessions. An example of the training session record form is shown on page 34.

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### ⚠ WARNING

**Untrained operators may injure themselves and/or cause damage or injury. Only trained, qualified operators should be allowed to use the SAERBAG.**

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### Important

Operators must be able to ensure their own safety and that of the patient while using the rescue bag. Technical Rescue procedures require special skills and are potentially hazardous activities. No rescue personnel should attempt technical rescue procedures unless they have received professional instruction and training.

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# 3 – THE RESCUE BAG

## 3.1 Description and intended use

The SAERBAG III lift and rescue bag (simply called "the rescue bag" for short in this manual) is a device for patient rescue and transport in a difficult environment.

The rescue bag must be used by trained and qualified operators. Additional assistance may be needed for heavy patients and/or if the situation requires it, according to local health protocol. It allows an immobilized patient to be transported on a Ferno SCOOPEXL stretcher, a Ferno Millennia backboard or a Ferno vacuum mattress and to be rescued using a winch and/or ropes in a difficult environment, thanks to its special integrated lifting bridle. It can be used for rescue with a winch from a rotary wing aircraft, according to the winch use procedures.

The rescue bag has 4 adjustable straps to correctly immobilize the patient. The two upper torso straps must be crossed; the leg strap must be fastened horizontally and the foot strap must be fastened in a "8" figure.

## 3.2 CE Conformity
### 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

The rescue bag has been tested according EASA CS 29.865 a), amdt. III.

### RESCUE BAG COMPONENTS

- Mylar cover to monitor the patient
- Safety straps with metal buckle (4): upper torso straps (2), leg strap and foot strap
- Lateral red lifting handles (6)
- Anti rotation tag-line links (6)
- EARS lateral anti rotation sails (2)
- Integrated lifting bridle for rescue
- Lifting bridle central lifting rings (2)
- Lifting bridle shortening system (with 4 loops)
- Inner rescue bag length adjustment system (with 2 straps)
- Inner straps to stabilize the stretcher/backboard (6)
- Lateral access for monitor cables

### STANDARD ACCESSORIES SUPPLIED

- Transport and storage rescue bag (1 standard supply)
- Users' Manual
- Maintenance handbook (*The Service Book*)

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### ⚠ WARNING

**Improper use of the rescue bag may cause damage or injury. Use the SAERBAG as shown in this manual.**

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## 3.3 Components (Rescue Bag)

HEAD SIDE

Torso Straps (2)

Leg strap

EARS lateral anti rotation sail (2)

Foot strap

FOOT SIDE

Lateral red lifting handles (2)

Monitor cable access

Integrated lifting bridle with central lifting rings (2)

Anti rotation tag-line links (6)

HEAD SIDE

Mylar cover

Patient body Velcro fastening

Straps to secure the immobilization device (6)

Velcro fastening at head side (2)

Length Adjustment System (2)

FOOT SIDE

Velcro fastening at foot side

FRONT VIEW
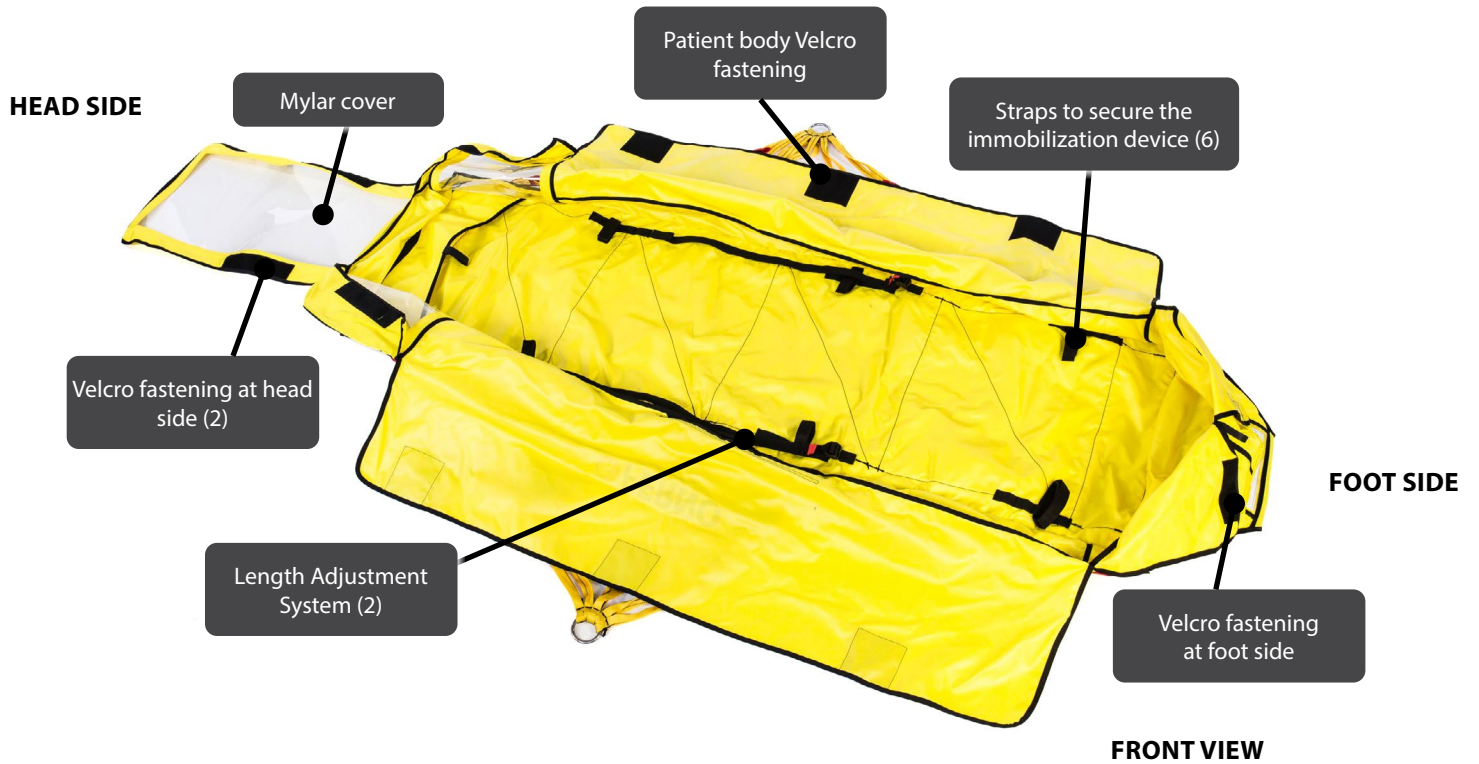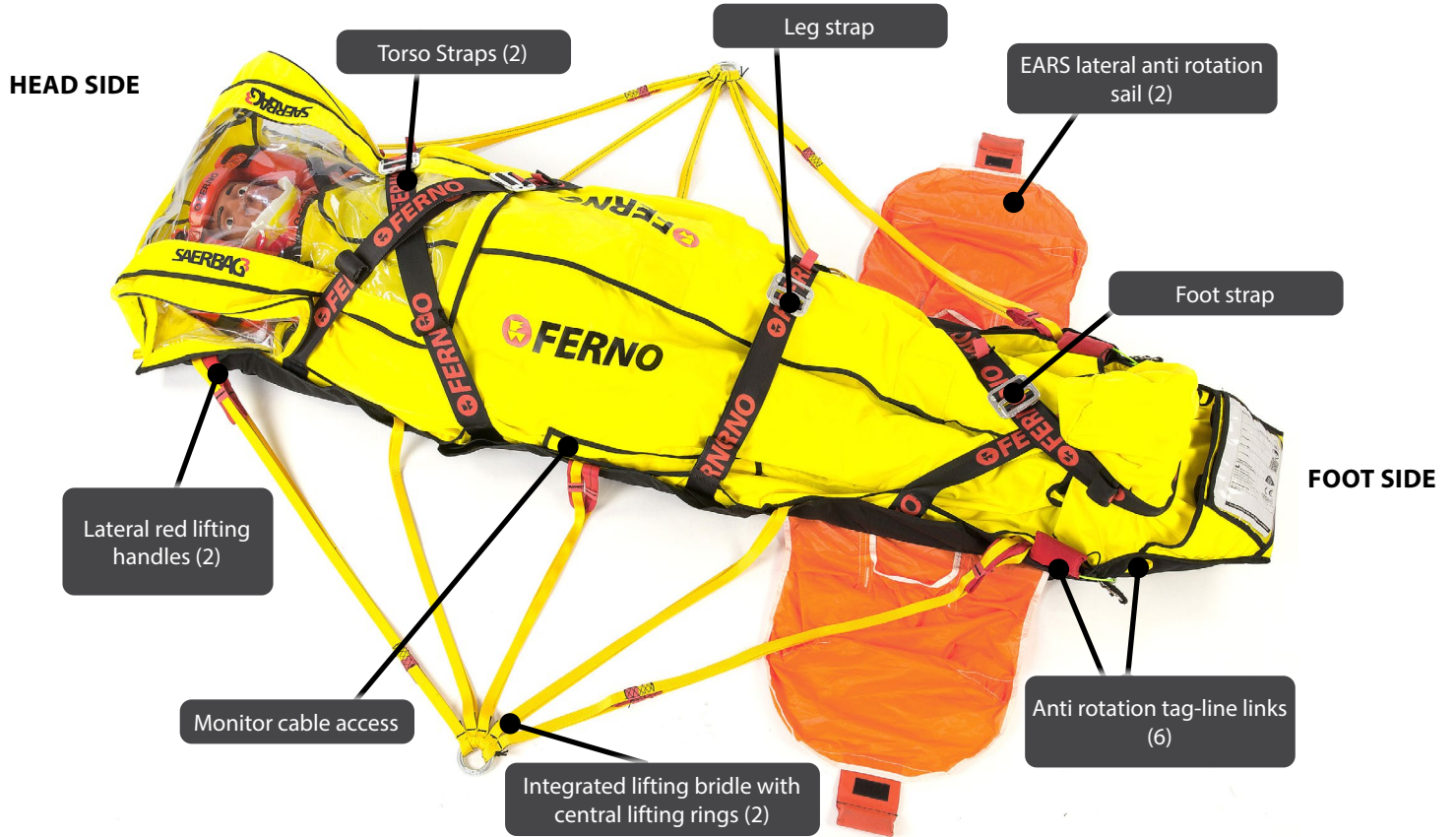
## 3.4 General Technical Specifications

Ferno reserves the right to change specifications without notice. For further information, contact Ferno Customer Relations (page 2).

| | |
|---|---|
| **Maximum length** | 2000 mm |
| **Minimum length** | 1450 mm |
| **Width** | 600 mm |
| **Weight** | 5 kg |
| **Load Limit** | 160 kg |

*\* Note:* **the weight includes straps, lifting bridle and all rescue bag components.**

### Load Limit

**MAX 160 kg 352 lb** Never exceed the Saerbag load limit. Inspect the rescue bag if the load limit has been exceeded (see paragraph 6.4 *Inspection*, page 28).

### Technical Rescue

**MAX 160 kg 352 lb** The SAERBAG III is used to transport a person during rescue. Specialized training is required for use.

### ⚠ WARNING

**Untrained operators may injure themselves and/or cause damage or injury. Only trained, qualified operators should be allowed to use the SAERBAG.**

### ⚠ WARNING

**Do not exceed the load limit of the rescue bag shown in this manual.**

### ⚠ WARNING

**Check the load limit of the devices used to lift the Saerbag III. Never exceed the lower load limit of devices used for lifting.**

**USERS' AND MAINTENANCE MANUAL**

To request additional free users' manuals, contact Ferno s.r.l. Customer Relations (page 2).

# 4 – RESCUE BAG CONFIGURATION

## 4.1  Length Adjustment

The Saerbag III has an internal length adjustment system (Figure 1). This system allows the rescue bag to be adapted to the patient immobilization device placed inside. It has two straps on both sides of the rescue bag that can be adjusted by the operator.

Adjust the rescue bag to the length of the immobilization device inside when preparing it for use and before any rescue operation.



*Figure 1 – Internal length adjustment system*

**ADJUSTING THE LENGTH**

To adjust the rescue bag length:

1. Place the immobilization device in the rescue bag. First insert the head area (Figure 2) then the foot area (Figure 3) of the SCOOPEXL stretcher/backboard.



*Figure 2 – Inserting the head area*



*Figure 3 – Inserting the foot area*

2. After having placed the immobilization device in the rescue bag correctly, pull the inner straps (on the right and left) towards the head side of the rescue bag to adjust the length of the rescue bag to the SCOOPEXL stretcher/backboard (Figure 4, 5).

3. Ensure that the rescue bag is correctly adjusted to the length of the device used.



*Figure 4 – Rescue bag length adjustment*



*Figure 5 – Adapting the rescue bag length to the SCOOPEXL stretcher*

**LENGTHENING THE RESCUE BAG**

To open the rescue bag to its original length, pull the buckles of the inner straps (on the right and left) in the opposite direction (towards the foot area of the rescue bag).

## 4.2 Straps

The rescue bag has two upper torso straps, one leg strap and a foot strap (Figure 6).

The two upper torso straps must be crossed; the leg strap must be fastened horizontally and the foot strap must be fastened in a "8" figure. Straps can be adjusted in both directions (right and left).

Fasten all straps before using the rescue bag. Adjust the straps properly so they do not constrict the patient. Ensure you have fastened and secured the straps correctly before any rescue operation.

*Figure 6 – Using the straps*

**SECURING THE STRAPS**

Each strap has two buckles: a large one and a small one (Figure 7).

To secure the straps:

1. Take the small buckle in one hand and the large one in the other (Figure 7).

2. Insert the small buckle in the large one (Figure 8, 9).

*Figure 7 – Small and large strap buckles*
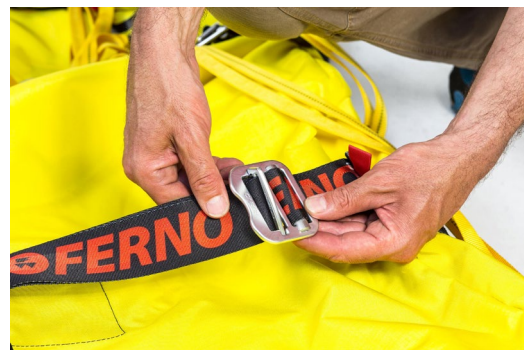
*Figure 8 – Placing the small buckle in the large one*

3. Place the small buckle on the large one so that the strap is secured correctly (Figure 10).
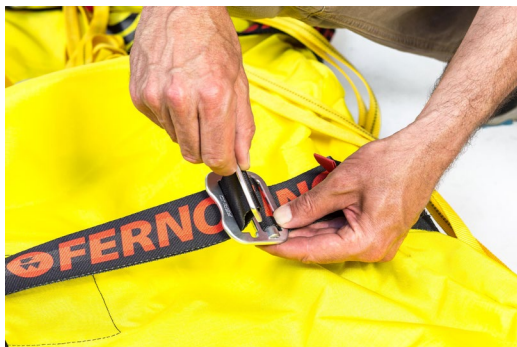
*Figure 9 – Placing the small buckle in the large one*

*Figure 10 - Strap Secured Correctly*

**ADJUSTING THE STRAPS**

Once the strap has been applied and secured correctly, it should be adjusted. To adjust the straps:

1. Once the strap has been secured correctly, take the free end of the strap and pull the red tab through the buckle to adjust it to the correct length. (Figure 11).

2. Ensure that the straps are correctly adjusted and do not constrict the patient before any operation.



*Figure 11 – Adjusting the straps*

**UNDOING THE STRAPS**

To undo the straps:

1. Lift the small buckle (Figure 12).

2. Unhook the small buckle by passing it through the large buckle (Figure 13).



*Figure 12 – Lifting the small buckle*



*Figure 13 – Unhooking the small buckle*

| **Important** |
|---|
| Before rescue, ensure that any excess strap length has been secured in order not to hamper operations. |

| **Important** |
|---|
| Before any rescue operations ensure that the patient is secured by the rescue bag straps **AND** by the strap of the immobilization device. |

## 4.3  Applying the straps

**TORSO STRAPS**

Torso straps are positioned so that they can be crossed easily by the operator.

Torso straps are numbered in this manual to make application easier (Figure 14). They are numbered clockwise (from the operator's point of view).



*Figure 14 -Torso Strap Numbers*

To apply the torso straps:

1. Place (Figure 15) the small buckle of the first torso strap on the left of the rescue bag (3, Figure 14) in the large buckle of the first torso strap on the right of the rescue bag (1, Figure 14).

2. Follow instructions in "*Securing the straps*", page 10.



*Figure 15 – Placing the small buckle in the large one*



*Figure 16 - Placing the small buckle in the large one*

3. Place the small buckle of the second torso strap on the left of the rescue bag (4, Figure 14) in the large buckle of the second torso strap on the right of the rescue bag (2, Figure 14). Fasten the strap by following instructions in "*Securing the straps*", page 10, and position it so that the two torso straps are crossed.

4. Adjust the straps (Figure 17). To adjust the straps see "*Adjusting the straps*", page 11.



*Figure 17 – Adjusting the strap*



*Figure 18 -Torso straps correctly applied*

5. Tuck in the excess of the straps using the integrated elastics. Ensure that any excess strap length has been secured in order not to hamper rescue operations. Ensure that the straps are applied correctly so that the patient is secure inside the rescue bag.

## LEG STRAP

To apply the leg strap:

1. Hold the strap with the large buckle (right side, operator's point of view) and the part of the strap with the small buckle (left side, operator's point of view).

2. Follow instructions in "*Securing the straps*", page 10.

3. Adjust the straps (Figure 19).

4. Tuck in the excess of the straps using the integrated elastics. Ensure that any excess strap length has been secured in order not to hamper rescue operations.

Ensure that the straps are applied correctly so that the patient is secure inside the rescue bag.



*Figure 19 – Adjusting the straps*



*Figure 20 –Leg strap correctly applied*

## FOOT STRAP

To apply the foot strap:

1. Fasten the foot area with the Velcro fastenings (Figure 21).

2. Insert the sides of the foot area into the rescue bag (Figure 22). Always close the foot area before applying the foot strap.



*Figure 21 - Closing the foot area*



*Figure 22 - Closing the foot area*

3. Follow instructions in "*Securing the straps*", page 10.

4. After having fastened the strap, stretch it to its fullest length to make it easier to create a "8" figure.

5. Cross the strap to form a "8" figure (Figure 23).

6. Apply it to the foot area to ensure the patient's feet are secured correctly (Figure 24).



*Figure 23 - Crossing the foot strap*



*Figure 24 – Applying it to the foot area*

7. Adjust the strap to secure the foot area (Figure 25). To adjust the straps see "*Adjusting the straps*", page 11.

8. Tuck in the excess of the straps using the integrated elastics. Ensure that any excess strap length has been secured in order not to hamper rescue operations.

Ensure that all the straps are applied correctly so that the patient is secure inside the rescue bag.
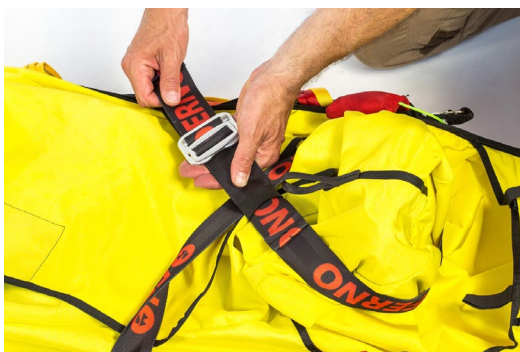


*Figure 25 – Adjusting the foot strap*



*Figure 26 – Foot strap correctly applied*

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**Important**

**Observe the following when using the rescue bag:**

- SAERBAG III is designed to lift and rescue a person secured on an immobilization device (maximum load 160 kg).
- Check that ALL straps have been fastened as shown in this manual:
  - Torso Straps (2)
  - Leg strap
  - Foot strap

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## 4.4  The cover

The rescue bag has a semi-rigid Mylar cover with 3 windows: one at the front and two at the sides (Figure 27, 28).

These allow the operator to monitor the patient and offer greater comfort during rescue operations.

Ensure that the cover is closed using the Velcro fastenings and secured with the two torso straps before any rescue operation (Figure 27).



*Figure 27 - Mylar cover (front view)*



*Figure 28 - Mylar cover (side view)*

## 4.5 – Lifting bridle

The rescue bag has an integrated lifting bridle (Figure 29).

The lifting bridle has 10 arms (5 per side) and two central lifting rings that karabiners must be attached to before any rescue operation.

It has a shortening system with 4 integrated red loops on the outer arms of the lifting bridle (on the right and left), that ensure correct load distribution if the rescue bag has been shortened to adapt it to the length of the immobilization device inside. For the shortening system see paragraph 4.5.1 "*Lifting bridle shortening system*", page 16.



*Figure 29 – Integrated lifting bridle*

## 4.5.1 Lifting bridle shortening system

The lifting bridle shortening system ensures a correct and adequate distribution of load on the arms of the lifting bridle if the rescue bag has been shortened to adapt it to the length of the SCOOPEXL stretcher inside.

The red loops of the lifting bridle shortening system are positioned on the outer arms of both sides of the lifting bridle (right and left, Figure 30).



Red loops

*Figure 30 – Lifting bridle shortening system*
*Shown by the arrows: red loops*

To shorten the lifting bridle :

1. Use the red loops sewn on the outer arms of the lifting bridle (Figure 30).

2. Place correctly sized karabiners in the loops (Figure 31).

3. Attach both karabiners to the central ring (Figure 31).

4. Carry out the same operation on the lifting bridle arms on the opposite side (Figure 32A).

Use the loops of the lifting bridle shortening system to ensure the arms are correctly positioned during rescue operations.



*Figure 31 - Karabiners connected to loops and the central ring*



32A

32B

*Figure 32 - A: Karabiners connected correctly on both sides*
*B: Lifting bridle shortening system*

## 4.6 EARS anti rotation sail

The rescue bag has two EARS anti rotation sails (Figure 33). The EARS anti rotation sails control rotations caused by the movement of the helicopter during rescue operations.

They are positioned in the foot area on both sides of the rescue bag and are stored in pockets on the sides of the rescue bag. The sails have an orange handle outside the pocket.

Always leave the handle visible and easily reachable for the operator by fastening it with Velcro to the outside of the pocket.



*Figure 33 – EARS, anti rotation sails*

**TAKING OUT THE SAIL**

1. Hold the orange handle (Figure 34).

2. Pull the handle outwards so the sail comes out completely (Figure 35).
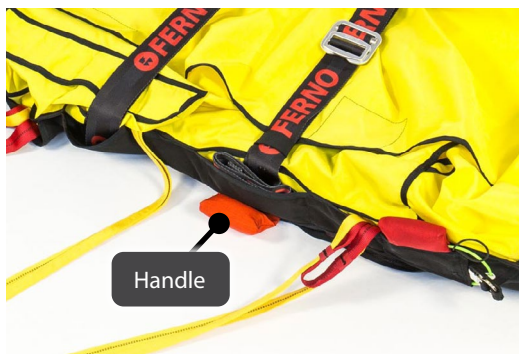


*Figure 34 - EARS anti rotation sail handle*



*Figure 35 – Taking out the EARS anti rotation sail*

**PUTTING THE SAIL BACK**

1. Open the pocket.

2. Fold the sail in a concertina shape inside the pocket (Figure 36 e 37).



*Figure 36 – Placing the sail in the pocket*
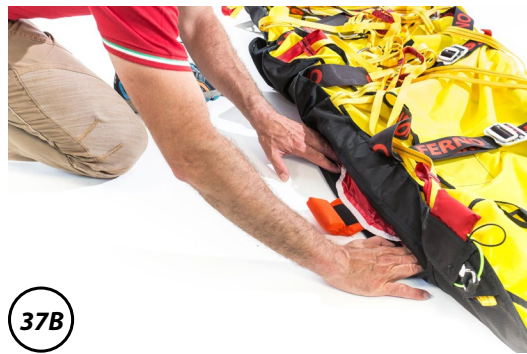
**Figure 37 – Completing the insertion of the sail in its pocket**

3. Once completely inserted, attach the handle to the Velcro fastenings on both sides (Figure 38).



**Figure 38 - Securing the handle to the Velcro**

4. Close the pocket with the Velcro fastening, leaving the handle outside (Figure 39).



**Figure 39 - Closing the pocket**

Keep the two EARS sails in the pockets when not in use.

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## Technical Rescue

Technical Rescue procedures require special skills and are potentially hazardous activities. No rescue personnel should attempt technical rescue procedures unless they have received professional instruction and training.

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## 4.7  Anti rotation tag-line links

The rescue bag has 6 anti rotation tag-line links at the head, sides and foot area of the rescue bag (see paragraph 3.3 *Components (Rescue bag)*, page 7).

Among the 6 links there are two top release systems on both sides of the rescue bag in the foot area (Figure 40).



*Figure 40 – Top release system*

### 4.7.1 Top release systems

The two lateral release systems allow the operator to undo the tag line at any time without a fuse system.

Both systems are positioned in the foot area (after the EARS sails) on both sides of the rescue bag. They have a red handle.

Each system has (Figure 41):

1. a red handle,

2. a green string,

3. a strap, with:

   o   two differently-sized rings (a small one and a large one) sewn on,

   o   an eyelet in the strap

   o   a white loop.

Prepare the top release system before use.



*Figure 41 – Top release system components*

**PREPARING THE SYSTEM**

1. Position the connector between the two rings sewn onto the strap (Figure 42).

2. Flip the large ring over the small one so that the small ring is inside the large one and the connector is fixed between the two rings (Figure 43).



*Figure 42 – Positioning the connector between the two rings*



*Figure 43 – Securing the connector between the two rings*

3. Flip the small ring over the large ring to line up with the eyelet hole (Figure 44).

4. Take the white loop and place it inside the small ring and eyelet (Figure 45).



**Figure 44 – Flipping the small ring over the large one**



**Figure 45 – Placing the loop in the small ring and eyelet**

5. Take the green string and place it in the loop coming out at the back of the strap (Figure 46).

6. Replace the green string in its pocket (Figure 47).
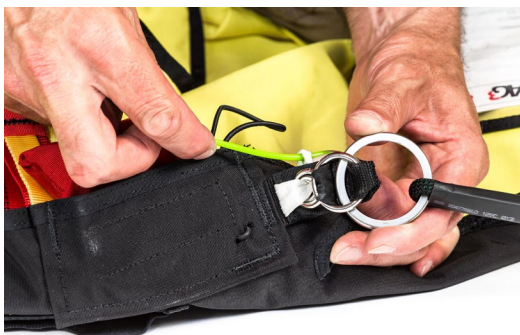


**Figure 46 – Placing the green string in the loop**
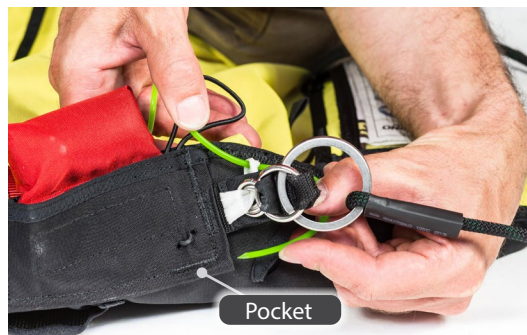


**Figure 47 – Replacing the green string in the pocket**

Check that each step has been carried out correctly and that the system is ready for use. After having prepared the system, check that it will hold. To check that it will hold, pull the connector from the opposite part of the system. If the system does not undo and the connector remains secured correctly, then it is ready for use.



**Figure 48 – Top release system correctly prepared**

**HOW TO RELEASE THE SYSTEM**

If, at any point of the rescue phase, the operator decides to release the tag-line, proceed as follows:

1. Hold the red handle (Figure 49).

2. Pull the red handle (Figure 50).



*Figure 49 – Holding the red handle*



*Figure 50 – Pulling the red handle*

3. By pulling the handle the green string comes out of its pocket (Figure 51) and the white loop is freed so that the connector can be undone from the tag-line (Figure 52).



*Figure 51 – String pulled out*



*Figure 52 – Connector undone from the tag-line*

## 4.8 Securing straps

The inner securing straps allow the SCOOPEXL stretcher/ backboard to be further secured inside the rescue bag.

The rescue bag has 6 lateral straps inside (Figure 53).

Each strap can be placed in 4 different positions, thanks to 4 loops in the rescue bag that allow the straps to be moved according to the length of the patient immobilization device.

To apply the straps to the SCOOPEXL stretcher/backboard:

1. Open the strap.

2. Insert it in the handle of the stretcher.

3. Fasten both sides of the strap with Velcro, so that the strap fits firmly around the stretcher handle.

Ensure you have correctly applied the straps to the immobilization device for greater internal stability.



*Figure 53 – Securing straps*

## 4.9 Lifting Handles

The rescue bag has 6 red lifting handles in the head, center, and foot area.

Hold the lifting handles to lift the rescue bag if needed (Figure 54).

Only lift loads that you can hold safely. Seek additional help for heavy loads.



*Figure 54 - Lifting Handles*

## 4.10 Monitor cable access

The rescue bag has monitor cable access on the left side (operator's point of view).

It allows cables to be inserted to monitor the patient (Figure 55).



*Figure 55 – Monitor cable access*

# 5 – USING THE RESCUE BAG

## 5.1  Before using the rescue bag

Operators using the rescue bag must have carefully read and understood the information in this manual.

- Before any operation involving the rescue bag, ensure that all its components are present and that the rescue bag is not damaged or showing signs of wear and is working perfectly. See paragraph 6.4 *Inspection*, page 28.

## 5.2  Instructions for use

- This manual does not provide any medical advice.
- It is responsibility of the users to ensure correct and safe practices for the patient and themselves.
- This manual illustrates use of the rescue bag in an ideal setting and should be considered as a guideline only.
- The rescue bag must be used by trained and qualified operators.
- **Operators must work together and cooperate correctly during all operations.**
- Follow standard protocol procedures for emergency patient handling.
- Only lift loads that you can hold safely. Seek additional help for heavy loads.
- The rescue bag can be used for a range of circumstances and scenarios. It is the responsibility of trained Emergency Service personnel to evaluate the patient's conditions and determine the most suitable equipment and procedures.
- Always follow guidelines and local medical protocols.
- Always attend to the patient and never leave him alone when using the rescue bag.
- Technical rescue operators must have received adequate professional training and instruction on procedures to be used.

⚠️ **WARNING**

**Improper use of the rescue bag may cause damage or injury. Use the Saerbag III as shown in this manual.**

⚠️ **WARNING**

**Never leave a patient in the rescue bag unattended. Always attend to the patient during all rescue operations.**

Read the Users' Manual carefully

MAX
160 kg
352 lb

Load Limit

⚠️ **WARNING**

**The use of improper or unauthorized devices may cause accidents, damage or injury. Use only devices approved and authorized by Ferno s.r.l..**

⚠️ **WARNING**

**Incorrect use of the straps can cause the patient to fall and be injured. Always use the restraint straps as instructed in this manual.**

⚠️ **WARNING**

**Before any rescue operation, ensure that the load is evenly distributed on the Saerbag lifting bridle arms.**

## 5.3  Preparing the rescue bag

1. After immobilizing the patient correctly on the immobilization device, place the rescue bag on the ground and position the lifting bridle and straps to the side (Figure 56).

2. Open the rescue bag (Figure 57).



**Figure 56 - Positioning the rescue bag on the ground**

**Figure 57 - Opening the rescue bag**

3. Position the immobilized patient on the device inside the rescue bag, inserting the head area first (Figure 58) and then the foot area (Figure 59). Insert the head area of the stretcher (SCOOPEXL stretcher/backboard) in the special housing in the rescue bag.



**Figure 58 – Inserting the head area**

**Figure 59 – Inserting the foot area**

4. Adjust the length of the rescue bag correctly, using the internal length adjustment system in order to hold the stretcher and avoid it slipping out during rescue operations. Ensure the rescue bag is adjusted so that it perfectly fits the immobilization device. To adjust the length see paragraph 4.1 *Length Adjustment*, page 9.

5. Use the 6 internal straps to ensure that the SCOOPEXL stretcher/backboard is secured even more safely inside the rescue bag. Apply the straps in correspondence with the SCOOPEXL stretcher/backboard, placing them in the appropriate loops and fastening them with Velcro to firmly wrap the handles of the SCOOPEXL stretcher/backboard. To apply the straps see paragraph 4.8, *Securing straps*, page 22.

6. Before closing the rescue bag, ensure that the patient is properly immobilized on the device inside.

7.  Close the patient body area (Figure 60), the head area (transparent cover) and the foot area of the rescue bag (Figure 61). Ensure that the head and foot areas are fastened with Velcro.

8.  Apply patient straps correctly.



*Figure 60 – Closing the patient body area*



*Figure 61 – Closing the head and foot areas*

9.  To apply straps correctly see paragraph 4.3 *Applying straps*, page 12:

    ○   The two torso straps must be crossed.

    ○   The leg strap must be applied horizontally.

    ○   The foot strap must be applied in a "8" figure.

10. Adjust the safety strap so the patient is not constricted. To adjust the strap see "*Adjusting the straps"*, page 10.

11. Before lifting, check that the whole system (head, body and foot area), is closed correctly, that straps have been applied and adjusted correctly and that the load distribution on the lifting bridle arms is correct. If you have to use the lifting bridle shortening system to correctly distribute the load, make sure you use the red loops. To use the lifting bridle shortening system see paragraph 4.5.1 "*Lifting bridle shortening system*", page 16.

12. When you have checked everything, made adjustments and checked that the load is distributed correctly on the lifting bridle arms, you can proceed with the patient rescue.

| ⚠ **WARNING** |
|---|
| **Incorrect use of the straps can cause the patient to fall and be injured. Always use the restraint straps as instructed in this manual.** |

| ⚠ **WARNING** |
|---|
| **Unattended patients may injure themselves. Never leave a patient in the rescue bag unattended. Always attend to the patient during rescue operations.** |

| ⚠ **WARNING** |
|---|
| **Before any rescue operation, ensure that the load is evenly distributed on Saerbag lifting bridle arms.** |

| ⚠ **WARNING** |
|---|
| **Improper use of the rescue bag can cause injury. Use the rescue bag only as described in this manual.** |

## 5.4  Using the rescue bag as a chair

If the patient is not traumatized, the rescue bag can also be used to evacuate the patient in a sitting position. In this case no patient immobilization device is needed.

1. To prepare the rescue bag, see paragraph 5.3 *Preparing the rescue bag*, page 24.

2. Help the patient into a sitting position.

3. Attach the rings of the lifting bridle to the two links for the anti rotation line at the head area, using correctly sized karabiners. Each ring should be connected to the link on the same side (left with left and right with right).

4. When the rescue bag has been properly prepared, the patient is correctly secured and all checks have been carried out, the patient can be lifted. During lifting the patient will automatically be in a sitting position.

## 5.5 Rescuing the patient from a rock face

If the patient is rescued from a rock face, the rescue bag must be prepared beforehand. Ensure that the patient immobilization device has been placed inside the rescue bag before it is lowered.

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### Technical Rescue

Technical Rescue procedures require special skills and are potentially hazardous activities. No rescue personnel should attempt technical rescue procedures unless they have received professional instruction and training.

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### ⚠ WARNING

**Unattended patients may injure themselves. Never leave a patient in the rescue bag unattended. Always attend to the patient during rescue operations.**

# 6 - MAINTENANCE

## 6.1 Routine Maintenance

The sheet requires regular maintenance. Ferno recommends routine maintenance every two years. The Ferno technical staff will issue a certificate of conformity for the device after maintenance. The table on the right shows the minimum maintenance schedule. The lifting bridle arms and central lifting rings must be checked regularly. If there are any signs of wear or damage, stop using the rescue bag and contact Ferno Technical Support (page 2) immediately.

Keep a record of maintenance operations. The rescue bag is supplied with a maintenance handbook to record maintenance operations, checks, repairs and training carried out. The handbook must be kept with the Saerbag III throughout its whole period of use and must always be kept up to date.

## 6.2 Disinfection

Disinfect the rescue bag by leaving it in water (max. 20°C) with neutral disinfectant for about an hour. Rinse with clean water. Dry flat.

Suitable gloves are recommended during disinfection (e.g. disposable gloves or household gloves).

## 6.3 Cleaning

Wash the rescue bag in a washing machine (max. 60°C) with delicate neutral detergent like Marseille soap. Do not bleach or spin. Rinse with clean water. Dry flat.

Do not clean with high pressure water.

Suitable gloves are recommended during cleaning (e.g. disposable gloves or household gloves).

Always follow the washing instructions shown on the label inside the Saerbag III (head area).

| Maintenance Schedule | Each Use | As Needed | Each Month |
|---|:---:|:---:|:---:|
| **Disinfection** (page 27) | • | • | |
| **Cleaning** (page 27) | | • | |
| **Inspection** (page 28) | • | • | • |

---

⚠ **WARNING**

**Inadequate maintenance may cause serious damage or injury. Carry out maintenance as described in this manual.**

---

### Important

Store the SAERBAG III indoors in a dry place indoors, away from direct sunlight.

---

### Important

Products containing bleach, phenol or iodine may damage the rescue bag. Do not use products containing these elements to clean/disinfect the rescue bag.

---

### Important

After disinfection/cleaning, ensure that the rescue bag and its components are completely dry before replacing it in its carrying case.

---

### Important



MACHINE WASH 60°
DO NOT BLEACH
DO NOT IRON
DO NOT DRY CLEAN
DRY FLAT DO NOT SPIN

---

### Important

**DO NOT CLEAN WITH HIGH PRESSURE WATER**

 Do not clean the rescue bag with high pressure water.

## 6.4 Inspection

To guarantee optimal use of the rescue bag, all components must be in good condition, free from dirt, residue and body fluids. The rescue bag must be inspected before and after every use and cleaned after every use. If not used, it must be stored indoors in a dry place and be inspected at least once a month.

Have the sheet inspected regularly by the maintenance staff. Perform all the checks indicated in this page (on the right) and note any maintenance done in the "service book" to keep a record of all checks, also in the case of repairs.

If signs of wear or damage are found during the inspection, remove the rescue bag from service and contact immediately Ferno's Technical Support Service for repairs/maintenance. See Chapter 8 *Technical Support*, page 31.

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**RESCUE BAG INSPECTION CHECKLIST**

- Does the rescue bag show signs of damage or wear? Are all components present?

- Are the two torso straps, the leg strap and the foot strap present?

- Are the straps in good condition with no cuts or worn edges?

- Do the strap buckles (large and small) hold correctly and are they free from visible damage?

- Is the Mylar cover in good condition with no cuts, holes or worn edges?

- Do the Velcro fastenings (at the head, patient body and foot area) show evident signs of damage or wear? Do they seem to be coming away from the rescue bag?

- Are the lifting bridle and the central lifting rings in good condition and are they free from signs of damage or wear? Does the lifting bridle have cuts or worn edges?

- Are the red loops of the lifting bridle shortening system in good condition and free from cuts or worn edges?

- Is the stitching undone or breaking?

- Are the securing straps inside the rescue bag? Are the loops and securing straps in good condition, with no cuts or worn edges? Does the Velcro on every strap work properly?

- Are there any visible signs of damage on the rescue bag or its components?

## 6.5  Storage

The rescue bag should be cleaned and stored in a dry place indoors, away from direct sunlight. When not in use it can be stored in its handy carrying case (Figure 62).

To replace the rescue bag inside the carrying case correctly, proceed as follows.



*Figure 62 – Carrying case Flying-Rescue bag III*

**REPLACING THE RESCUE BAG**

1. Put the rescue bag on the floor and place the straps and lifting bridle inside the rescue bag (Figure 63).

2. Fold the two sides of the rescue bag inwards (Figure 64).



*Figure 63 – Place the straps and the lifting bridle inside*



*Figure 64 – Close the sides*

3. Place the rescue bag in its carrying case (Figure 65).

4. Fasten the side strap (Figure 66).



*Figure 65 – Placing the rescue bag in the carrying case*



*Figure 66 – Fastening the strap*

5. Fold the rescue bag over and place it completely inside the carrying case (Figure 67).

6. Close the carrying case.

The Flying-Rescue bag III carrying case has another compartment at the back to store the SCOOPEXL stretcher together with the rescue bag. Place the SCOOPEXL stretcher, in two parts, in its compartment (Figure 68).



*Figure 67 – Folding the rescue bag*



*Figure 68 – SCOOPEXL storage compartment*



*Figure 69 - KIT-FLYING III-Y*

# 7 - ACCESSORIES

Ferno offers various accessories approved for use with the SAERBAG III. Always follow the instructions in this Users' Manual.

For further product information, contact Ferno Customer Relations (page 2).

> ⚠️ **WARNING**
>
> **The use of improper or unauthorized devices may cause accidents, damage or injury. Use only devices approved and authorized by Ferno s.r.l..**

## 7.1  SAERBAG III Accessories

| Description | Code |
|---|---|
| Holdall, yellow | BAG SAERBAG III-Y |
| Holdall, military version | BAG SAERBAG III-G |
| Rescue Bag/backpack for Kit FLYING III | FLYING-BAG III |
| Transport/storage bag for head immobilizer 365-E | 10-9900-005 |
| Single-patient high protection blanket | MW1002 |

## 7.2  SAERBAG III Models

| Description | Code |
|---|---|
| Rescue Bag yellow (w/holdall) | SAERBAG III-Y |
| Rescue Bag military version (w/holdall) | SAERBAG III-G |
| Kit for helicopter rescue* | KIT-FLYING III-Y |
| Kit for helicopter rescue* | KIT-FLYING III-G |

**\* Both kits include:**

**1 rescue bag Saerbag III (yellow "Y" or military vers. "G") w/holdall, 1 SCOOPEXL stretcher, 4 restraints model 773, 1 head immobilizer 365-E w/ transport and storage bag, 1 cervical collar WizLoc, 1 single-patient high protection blanket and 1 rescue bag/backpack FLYING-BAG III.**

**KIT-FLYING III-Y: shown in figure 69, page 30.**

# 8 – TECHNICAL SUPPORT

## 8.1  Technical Support

For product technical support, contact Ferno s.r.l. Technical Support.

| | |
|---|---|
| Telephone (Freephone) | 800 501 711 |
| Telephone | +39 051 686 00 28 |
| Fax | +39 051 686 15 08 |
| E-mail | info@ferno.it |
| Internet | www.ferno.it |

For information on the correct use of the SAERBAG III and to organize training courses on the correct use of the device, contact Ferno s.r.l. Customer Relations.

> ⚠️ **WARNING**
>
> **Non-original parts and inadequate technical support may cause damage or injury. Use only original Ferno parts and contact Ferno s.r.l. Technical Support.**

> ⚠️ **WARNING**
>
> **Unauthorized modifications to the SAERBAG may cause serious damage, injury or unforeseen operative problems. Do not modify or alter the rescue bag in any way.**

# 9 - WARRANTY

## 9.1 Warranty Conditions

Ferno products are guaranteed free from manufacturing defects for 24 months from the date shown on the Ferno s.r.l. delivery note.

Ferno s.r.l. parts have a 12-month warranty.

During the warranty period all parts with properly ascertained manufacturing defects will be repaired and/or replaced, not including labor costs or transfer, transport and packaging costs.

The warranty does not cover consumables or components subject to wear associated with normal product use, any parts typically subject to sliding or rolling friction (ball bearings, brushes, lubricants, tracks and belts, etc.), parts potentially subject to oxidation or corrosion (copper or metal alloy elements, electrical and mechanical apparatus) and batteries.

External finishes (gel coat/resin, paint, powder coating, decals, ribbons, lettering, etc) are guaranteed for 90 days.

Repairs are carried out by specialized technical staff at the Ferno s.r.l. headquarters in Via Zallone 26- 40066 Pieve di Cento (BO) or at the Customer's premises if approved by Ferno s.r.l. Customer Relations.

Technical support carried out at the Customer's premises must be approved and will include partial reimbursement of expenses sustained that will be documented upon request. For info on the cost of technical support contact Ferno s.r.l. Technical Support Department.

Repairs are guaranteed for 6 months from the date of completion. This warranty applies only if the product is used according to the users' manual supplied. Improper or careless use will render this warranty void.

The warranty begins on the day on which the product is sent by Ferno s.r.l. and does not cover delivery costs. Ferno s.r.l. is not responsible for damage in transport or for damage caused by improper use of the product.

Products that do not have the original Ferno trademark, sold by Ferno s.r.l., are covered by the product manufacturer's original warranty. Ferno s.r.l. will not extend a warranty beyond the product manufacturer's warranty period; Ferno s.r.l. will not be held responsible for products manufactured by others.

The warranty will not apply in the case of:

– failure to observe instructions for use,

– wrong usage,

– inappropriate use or handling,

– repairs to the device by unauthorized personnel,

– damage in transport due to improper packaging when returned by the user,

– lack of maintenance,

– failure to use original parts.

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

## 9.2 Disclaimers

If a product is defective, Ferno s.r.l. will repair or replace it, or refund the cost price, at its option. Ferno s.r.l. will not be responsible for refunding more than the cost of the product. The buyer accepts these terms in lieu of all damages. Ferno s.r.l. does not make any other express or implicit guarantees, nor does it make any guarantee as to the merchantability or suitability for particular ends of its product or the products

of others. In the case of infraction of the limited warranty, legal procedures must be archived within a year of the date on which an infraction was or should have been discovered. Ferno s.r.l. reserves the right to cancel the warranty on products sold:

- If labels or plates showing the manufacturer's trademark, serial number or registration number have been erased or removed

- If the product has been altered or repaired or if work has been carried out without authorization by Ferno s.r.l. or its personnel

- If the product has not been used according to the instructions supplied or for purposes other than that for which it was designed

- According to paragraph 9.1 "Warranty Conditions".

Under no circumstances will Ferno s.r.l. be held responsible for direct or indirect damage caused by use other than that described in the users' manual and for which the product was designed.

## 9.3  Warranty Requests

If you suspect that you have received a defective product, contact Ferno Customer Relations immediately. A representative will deal with your complaint. Obtain authorization from Ferno Customer Relations before sending products to Ferno s.r.l.

## 9.4  Complaints

Any complaints must be communicated to the vendor or to Ferno s.r.l. Customer Relations within 5 days of receipt of the product or discovery of the alleged defect.

Complaints or controversies regarding a single product do not exonerate the buyer from the obligation of receiving and paying for other products in the same order, unless otherwise agreed with the seller.

## 9.5  Authorization for Returns

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

Products returned for commercial reasons, i.e. for reasons that do not derive from defects of conformity, will only be accepted after they have been checked by specialized Ferno s.r.l. staff.

## 9.6  Life Cycle

The Saerbag 3 has a life cycle of 10 years, after which time our technical staff will assess the state of the device and confirm its conformity or otherwise.

| TRAINING RECORD | | |
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| **Date** | **Instructor's name** | **Type of Training** |
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| MAINTENANCE RECORD | | |
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*Product users' and maintenance manual, needed for the safe operation, efficiency and reliability of the product and to render warranty conditions valid.*

**Pub. N° MU-094-F**