

# User and Maintenance Manual





# **TSL Extender - Scoop EXL**





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 note the serial number of the product and specify it in all written communications. For all queries concerning technical support, contact Ferno Washington Italia s.r.l.:

Telephone (toll-free, Italy only)	800 501 711
Fax	+39 0516861508
Email	info@ferno.it

#### **Ferno Customer Service**

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

#### MANUFACTURER

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40066 - Pieve di Cento (BO) - ITALIA

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#### USER AND MAINTENANCE MANUAL

To request additional free copies of the instruction manual, please contact Ferno Washington Italia's Customer Services.

## **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 Washington Italia's Customer Services.

#### **Intellectual Property Declaration**

The information in this manual is the property of Ferno Washington Italia s.r.l. of Via Benedetto Zallone 26, 40066 Pieve di Cento (BO), Italy. All patent rights, design rights, construction, reproduction, use and sale relating to any item covered in this manual are the confidential and exclusive property of Ferno Washington Italia s.r.l., except for rights expressly transferred to third parties or not attributable to parties owned by the supplier. It is prohibited to reproduce this manual, either in full or in part, without the prior consent of Ferno Washington Italia s.r.l..

#### **Limited Warranty**

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 the Warranty chapter.

## **SAFETY INFORMATION**

#### Warning

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

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Untrained users may injure themselves and/or cause damage and/or physical harm. Use of the device must be entrusted to trained and qualified personnel only.

Incorrect use of the device may result in damage and/or injury. Use the device as instructed in this manual.

Casual assistants may cause damage and/or physical harm, or injure themselves. Always maintain control of the device, operate the controls, and coordinate any assistants.

An unassisted patient is at risk of injury. Never leave the patient alone and always assist the patient during use of the device.

Incorrect attachment of the restraints could allow the patient to move, resulting in injury and/or damage.

Failure to use the restraints can cause the patient to fall and endanger their safety. Always use restraints to secure the patient.

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

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

Unauthorised repairs, and repairs carried out by people not approved by Ferno Washington Italia, 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 only Ferno original parts and contact only Ferno Washington Italia's Customer Support.

#### Important

Boxes labelled "Important" contain important information on use and/or maintenance of the device.

#### Important

#### **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.

#### 🔥 WARNING

Incorrect use of the device may result in damage and/or injury. Use the device as instructed in this manual.

# OPERATOR TRAINING AND SKILLS

#### Skills

Operators using the device must:

- have experience in the specific field of handling and transportation of patients.
- possess appropriate skills to assist patients.
- be aware of rescue procedures.

#### Training

Operators are required to:

- carefully read and understand all the information in this manual or contact Ferno Washington Italia's customer service.
- attend a suitable training course on use
- practise using the device before doing so in real situations with patients.
- keep a record of training sessions. An example of a form for logging the training sessions can be found on page 35
- Follow a training programme designed by those responsible for staff training.

## Description

The TSL Extender is an accessory made of aluminum alloy of the highest quality that works with the Scoop EXL stretcher its built-in TSL locking system. The TSL Extender is referred to throughout this manual as the "device".

The device is intended for the movement and transport of large sized patients, with the aid of the Scoop EXL stretcher.

The device must be used by trained and qualified persons, and is for professional use by at least two qualified operators. More operators may be required depending on local protocols.

Additional assistance may be required to handle heavy patients and/or when the situation demands it, and should always be provided according to local health protocols.



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A minimum of two qualified operators are required to use the device.

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#### **CE Compliance**

#### **MEDICAL DEVICES DIRECTIVE**

Ferno's products meet the requirements of European Directive 93/42/EEC concerning medical devices.

For further information: www.ferno.it

#### Load capacity

Respect the load capacity of the device.



#### Load capacity

Inspect the transport system if you have exceeded the carrying capacity.

#### <u> WARNING</u>

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

#### Application

The two "Extenders" must be applied to the Scoop EXL stretcher, (empty for easy installation) and checked to ensure they are installed correctly.

- 1. Separate both sides of the Scoop EXL stretcher. Apply the "Extender" to the Scoop EXL stretcher's TSL system (fig. 1).
- 2. Lock the Scoop EXL stretcher by bringing the opposing components together.
- 3. Check the connection is tight (fig. 2).

Repeat the preceeding for the opposite side of the Scoop EXL stretcher



Figure 1



Figure 2



#### Loading the patient:

The patient loading sequence must be as described in the Scoop EXL stretcher manual; only use additional staff for the carrying of the stretcher.

# **USING THE TSL EXTENDER**

#### Before using the device

The personnel who will use the device must have read and understood the information in this manual.

Before any operation with the stretcher, ensure that:

- all the components and restraints are present, there are no signs of damage and wear, and it is fully operational.
- follow the instructions in Configuring the device.

#### 🚯 WARNING

Incorrect use of the device may result in damage and/or injury. Use the device as instructed in this manual.

# 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 Ferno Customer Support: www.ferno.it

Description	Kit
EASY LIFT (short hangers)	PS0765EXL-S
EASY LIFT (long hangers)	PS0765EXL
LBS extensions (non-adjustable, 30 cm) (recommended)	0313942
LBS extensions (non-adjustable, 61 cm)	0313659
LBS extensions (non-adjustable, 91 cm)	0313670



#### 🚺 WARNING

It is extremely important to always check the connection of the parts before using the stretcher for either practice or real-life situations.

#### **Instructions for Use**

- This manual does not provide any medical instructions.
- It is the responsibility of the operators to follow correct procedures and 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 device must be used by a minimum of two or more trained and qualified operators.
- The operators must work together and maintain control of the device during all operations.
- Follow the procedures applying standard protocols for handling the patient in an emergency.
- Ferno recommends the presence of a supervisor during use of the stretcher in SAR environments.
- Lift only the weight that you can handle safely. Obtain additional assistance for heavy loads (patient and equipment). Refer to Additional Help instructions described in the manual for the Scoop EXL stretcher.
- Always follow the instructions and local health protocols.
- Always assist the patient and never leave the patient alone during operations involving the device.
- Always use the original restraints to secure the patient to the stretcher.
- Remove water, ice, snow or other debris or obstacles from stairs before using the device.

# Use of the stretcher in a "safe" environment

The operators must lift and carry the stretcher, making use of assistants to help them avoid obstacles or difficult terrain.

- Before lifting the device, verify that the patient is properly secured by the restraints. Use additional restraints and assistance if necessary.
- Ferno recommends that the two operators take opposite sides, with one in front of the other, when carrying the stretcher up and down stairs, and that a third trained operator assists the one at the head of the stretcher. Follow applicable transport protocols. Seek additional assistance if required (see the section on Additional Help, in the Scoop EXL Stretcher instruction manual).
- 1. Both operators: must hold the top tube of the stretcher with the palms facing upwards.
- 2. Supervisors: Stand behind the operators and, if necessary, guide them during transport.
- 3. Operators: work together to lift and transport the stretcher. The supervisor places his hand on the operator's back and provides verbal directions.
- 4. Both operators: After completing the move, they should put the stretcher down on the ground, ensuring it is stable.

Attachment points

On certain terrain, it is advisable to use the attachment points to ensure safe transfer of the stretcher.

#### **Additional assistance**

The stretcher must be handled by a minimum of two qualified and trained operators. Ferno recommends that the operators and assistants take opposite sides, with one in front of the other, and that a third trained and qualified operator assists during transfer of the stretcher.

The trained and skilled operators must maintain control of the stretcher, and coordinate properly using visual and verbal contact

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Ensure all the restraint (belts) and locking systems of the device are secured when the patient is seated. If they are open, lock them before seating the patient.

### Loading

Loading requires a minimum of two operators. Additional assistance may be useful or necessary in many situations. Use an even number of assistants and position them in such a way as to keep the stretcher as horizontal as possible. The trained operators must in any case always retain control and provide assistants with instructions.

It is possible to slip on smooth surfaces. Avoid any rocks, logs, branches, debris, scrap materials, etc. that could damage the webbing, or cause discomfort or injury to the patient.

Transport the TSL Extender on a gurney or stretcher with wheels

Use restraints or automatic joint systems to secure the TSL Extender basket

## <u> W</u>ARNING

Casual assistants may cause damage and/or physical harm, or injure themselves. Always maintain control of the device, operate the controls, and coordinate any assistants.

## Inspection

Make sure trained personnel checks the following:

- All the components are present
- Welds show no signs of cracks, fractures or other signs of breakage
- The tubular structure of the stretcher is not dented, cracked or bent
- The Durathene mesh is not ripped or torn, and is securely attached to the structure
- The yellow back support is securely fixed to the structure
- The safety warning labels are perfectly visible and legible
- The restraints are in good condition, with no cuts or signs of excessive wear
- The restraint buckles do not bear any obvious signs of damage and work properly

## MAINTENANCE

#### **Routine maintenance**

The device requires regular maintenance. It is recommended to perform preventive maintenance on the device once a year. The table at the right shows the minimum maintenance schedule. When the device undergoes particularly heavy use, maintenance should preferably be carried out on a more frequent basis by Ferno's technical personnel. Repairs must be performed by Ferno's qualified personnel using original spare parts.

If there are signs of wear and damage, discontinue use of the stretcher and immediately contact Ferno's Technical Support Service.

Minimum maintenance schedule	After each use	Whenever necessary	Every month
Disinfection	•	•	
Cleaning		•	•
Inspection	•	•	•
Lubrication		•	
Adjusting tightness		•	

#### Disinfection

1. After each use, clean the stretcher and the mesh with a non-abrasive cloth and disinfectant, or mild detergent, in warm water, then rinse thoroughly.

2. Do not put the device directly in the disinfectant.

3. During disinfection, ensure there are no signs of wear and/or damage.

4. Dry with a cloth. Ensure 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.

#### Important

When not in use, store the device in an indoor environment that is dry and protected from direct sunlight.

#### **Disinfecting / Cleaning Restraints**

1 Remove the restraints from the stretcher as described.

2 Fasten the restraints to each other to prevent damage to same or the washing machine.

3 Place the fastened restraints in a fabric bag (not supplied), and then in an industrial washing machine.

4 Wash at low temperature with detergent and use a delicate cycle. Do not use bleach or other aggressive products.

5 Remove the restraints from the bag and leave them to drip dry. Do not put in a tumble dryer.

6 Once dry, release the buckles and reattach the restraints to the stretcher as described.

#### Important

The use of products containing chlorine, phenols and iodine may harm the product. Do not use products containing these agents for cleaning/disinfection.

#### Important

Before disinfection/cleaning, ensure the restraints and seats have been removed.

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

#### Lubrication

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

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

It is possible to choose 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. Eliminate any excess.

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

#### Important

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

# 6.6 Monitoring and locking of the coupling pins

There are two threaded pins in each Twin Safety Lock (TSL) system.



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

The procedures described should be performed solely and exclusively by qualified technical staff. Contact Ferno Washington Italia's Technical Support Service.

#### **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 unscrews 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.

#### **REINSTALLING 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 Washington Italia's Technical Assistance Service.

# **TECHNICAL SUPPORT**

#### **Technical Support Service.**

For technical support concerning our products, please contact Ferno Washington Italia'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 use of the Ferno device, and to schedule training courses on correct use of the device, contact Ferno Washington Italia's Customer Service.

#### **WARNING**

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

## \Lambda WARNING

Unauthorised modification of the stretcher may cause serious damage, injury and/or unforeseeable operational problems. Do not modify or alter the stretcher in any way.

#### **Warranty Conditions**

Ferno's products are guaranteed against manufacturing defects for a period of 24 months from the date on the Ferno Washington Italia s.r.l. shipping document.

Ferno Washington Italia 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). 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 Washington Ferno Italia s.r.l. site in Via Zallone 26- 40066 Pieve di Cento (BO), or at the Customer's premises if suitable arrangements with Ferno Washington Italia'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 Washington Italia 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 Washington Italia s.r.l., and the shipping rates are not covered by this warranty. Ferno Washington Italia s.r.l. is not liable for damages sustained during shipment or due to misuse of the product.

Products sold by Ferno Washington Italia s.r.l. that do not bear the Ferno trademark are covered by the warranty of the original manufacturer. Ferno Washington Italia s.r.l. does not extend the periods of warranties of other manufacturers; Ferno Washington Italia 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-authorised 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 Washington Italia does not bear the transport costs for sending or returning the product.

## WARRANTY

#### **Limitation of liability**

If a product is found to be defective, Ferno Washington Italia s.r.l. will repair and replace it, or, at its own discretion, refund the purchase price. Under no circumstances can Ferno Washington Italia 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 Washington Italia 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 Washington Italia 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 Washington Italia, and/ or by personnel not authorized by Ferno Washington Italia;

- 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 the "Warranty Terms & Conditions" section.

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

#### 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 Washington Italia s.r.l., contact Ferno's Customer Service to request authorisation.

## Complaints

Any complaints must be communicated to the reseller, or to Ferno Washington Italia 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.

#### **Return authorisation**

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

Products returned for business reasons, or for reasons not relating to lack of conformity of the product, will be accepted only after verification of their condition by Ferno Washington Italia s.r.l. qualified personnel.

TRAINING RECORD		
Date	Instructor Name	Training Type

Type of Maintenance	Maintenance
	Technician

Product User and Maintenance Manual, required to operate the product safely, maintain its efficiency and reliability, and ensure the validity of the warranty.

#### Rel. 161115 English

#### Ferno Washington Italia s.r.l.,

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