

# **LOCKING SYSTEMS FOR STRETCHERS**

**SLAM-5026/MONDIAL** 

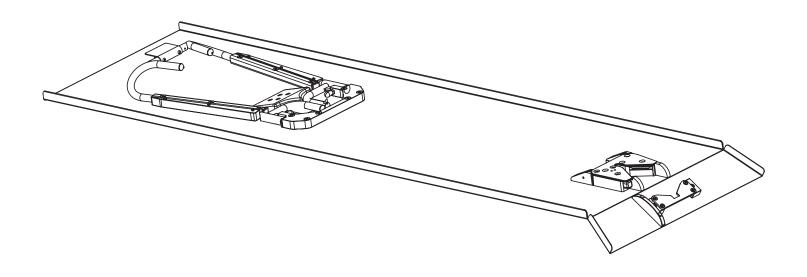
**SLAM 5026/MONDIAL** 25-000125 25-000126

**SLAM 26** 

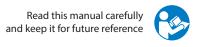
21-00048

**SLAM-5026/MONDIAL** 21-00040

21-00049







#### Ferno Technical Support

Customer Service and Technical Support are important aspects of every Ferno product. Before contacting us, note 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 for Italy)	800 501 711
Phone	0039 0516860028
E-mail	info.it@ferno.com

#### **Ferno Customer Service**

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



#### MANUFACTURER

Ferno s.r.l., Via Benedetto Zallone, 26 40066 - Pieve di Cento (BO) - ITALY

Telephone (toll-free for Italy)	800 501 711
Phone	0039 0516860028
Fax	(+39) 0516861508
Website	www.ferno.it

#### Compliance



Ferno's products meet the general safety and performance requirements of Regulation (EU) 2017/745 (MDR) concerning medical devices.

For any further information: www.ferno.it

## **Reporting accidents**

In the event of adverse events or serious accident in relation to the product, immediately contact Ferno S.r.l. and the competent authority of the member state in which the user has its main office.

E-mail: eu-regulatory.it@ferno.com

Phone +39 051 6860028

Fax +39 0518681508

#### **USE AND MAINTENANCE INSTRUCTIONS**



To download additional free copies of the use and maintenance instructions, visit the website

www.ferno.it

#### **Limitation of liability**

These instructions do not provide medical advice but contain general instructions for the operator regarding the use and maintenance of the product.

The instructions do not cover all possible applications and operations. Correct and safe use of the product is at the sole and exclusive discretion of the user, who must be thoroughly trained and qualified and follow the procedures in accordance with official emergency patient handling protocols.

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 the regulations in force in the country of use.

Before using the product, it is mandatory to train the staff in its correct use. Keep the instructions for future reference.

The configuration of some parts described or depicted in the documentation provided may differ from that of the product in the specific configuration made according to particular requirements or safety regulations; in this case, some descriptions, references or procedures indicated may be of a generic nature while retaining their effectiveness. Dimensioned drawings, illustrations and photographs are provided for illustrative purposes as a reference for easier understanding of the text.

To make the text easier to understand, these instructions contain abbreviations and symbols, the meaning of which is indicated in the following paragraphs.

In case of change of ownership, ensure that the instructions remain with the product. Additional free copies can be downloaded at www.ferno.it.

## Intellectual property declaration

The information in these instructions is the property of Ferno s.r.l. - Via Benedetto Zallone 26, 40066 Pieve di Cento (Bologna) Italy. All patent rights, design, construction, reproduction, use and sale rights relating to any item covered in these instructions are the confidential and exclusive property of Ferno s.r.l., except for rights expressly transferred to third parties or not attributable to parties owned by the supplier. ANY reproduction of these instructions, in whole or in part, is prohibited unless expressly authorised by Ferno s.r.l..

## **Limited warranty**

Ferno products are covered by a 24-month warranty against manufacturing defects. For the full terms and conditions of warranty and liability, see chapter *Warranty*.

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#### 1 - SAFETY INFORMATION

Read these instructions for use carefully. These instructions are an integral part of the product and must always be kept within reach of the user. For your personal safety and for that of patients, please observe the points below.

- Before using the device, carefully read all parts of these instructions for use and maintenance.
- Before using the device, perform all the checks indicated in section *Checks before use* in chapter *Use*.
- Before every use and periodically, carry out a thorough visual inspection to ensure that there are no signs of wear, damage and/or malfunctioning. A list of checks to be carried out on the device can be found in section Visual check of the Maintenance chapter.
- In order to avoid any infections and/or bacterial contamination and reduce the risk of exposure to blood-borne infectious diseases, follow the instructions in sections *Disinfection and cleaning* in the *Maintenance* chapter.
- Use the device only with Ferno-certified stretchers and only in the configuration specified by the manufacturer. Specifications for use are indicated in chapter Description and intended use.
- Always perform all manoeuvres carefully and correctly to ensure safety for the patient and yourself;
- Use is allowed only to trained and qualified operators (refer to the Operator training and skills chapter). Operators must follow the procedures while complying with official regulations for moving the patient in an emergency.
- Do not use the device if you are a minor, illiterate, have reduced physical or mental capacity, or are under the influence of drugs or substances that may reduce your reflexes.
- Any safety measure implemented by the user must comply with the regulations in force in the country of use.
- Follow procedures while complying with official regulations for moving the patient in an emergency.
- Always follow the local healthcare instructions and protocols, except when they contradict these instructions.
- Always assist the patient and never leave them alone during the operations with the device.
- Do not make unauthorised modifications to the device. Do not modify or alter the device.
- Ensure that all labels applied to the device are always intact and legible.

#### **IMPORTANT**

Ferno s.r.l. shall not be liable for any damage to users or third parties due to improper use of the device.

#### **WARNING**

Untrained or unsuitable users may injure themselves, cause damage and/or physical harm. Allow use of the device only by trained and qualified personnel.

Improper use of the device may cause damage and/or injury. Use the device as described in these instructions.

Unauthorised modification of the device could cause serious damage, injury and / or unforeseeable operating problems. Do not modify or alter the device in any way.

Damage to the device may affect its performance and safety. Inspect the device frequently, particularly before and after each use, and take it out of service if there are signs of wear or damage.

Incorrect use of the device may cause the stretcher to fall during transport, causing damage or injury to the patient and personnel on board the vehicle. Always ensure that the stretcher is correctly locked to the device.

Occasional assistants may cause damage and/or physical harm, or injure themselves. Do not allow occasional assistants to secure the stretcher to the device.

Incorrect installation of the device may affect its performance. Ensure that the correct installation procedures have been followed and carry out the required tests before using the device.

Unauthorised repairs carried out by people not approved by Ferno s.r.l. 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. In case of malfunction, damage or maintenance requirements, contact Ferno Technical Support.

Improper maintenance may cause serious accidents and/or damage. Perform maintenance as described in these instructions.

Inadequate cleaning and disinfection can cause infections, contamination and bacterial diseases. Clean and disinfect as prescribed.

## 2 - SYMBOLS

# 2.1 Glossary of symbols

The symbols used in these instructions and/or on the device labels are defined below.

#### **Important**

The boxes marked "Important" contain important information on the use and/or maintenance of the device.

#### **IMPORTANT**

#### **WARNING**

The boxes marked "Warning" draw attention to potentially dangerous situations that, if disregarded, may result in accidents, damage and/or injury.



#### **Forbidden**

Boxes marked "Forbidden" contain a prohibition that must be observed for safety reasons or for the correct use of the device.



#### **FORBIDDEN**

Symbol	Definition
	General danger, risk of injury
8	Prohibition of using high-pressure water
(€	CE Marking
***	Manufacturer of the medical device
ITA	Date of manufacture of the device
<del>**</del>	Protect the device from the weather
类	Protect the device from light sources
[i	Read the instructions for use carefully
CH REP	Authorised representative of the European Community
	Importer symbol

Symbol	Definition
GTIN	Global Trade Item Number (GTIN)
LOT	Manufacturer's batch code/number
MD	Medical device indication
SN	Manufacturer's serial number
UDI	Unique Device Identification Code (UDI)
REF	Manufacturer's catalogue number
EN1789 <b>10</b> COMPLIANT	Regulatory compliance label (placed on Slam)
<b>1</b>	Release button warning label (placed on Slam)
	The device is unlocked
	The device is locked

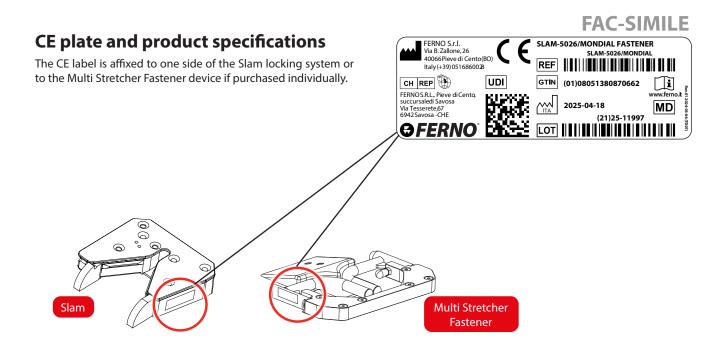
#### 2.2 Labels

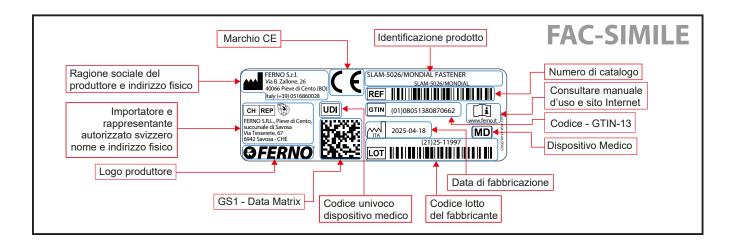
#### WARNING

The labels on the device are essential for the correct and safe use of the product. Do not remove or damage them and ensure that they are always clearly legible.

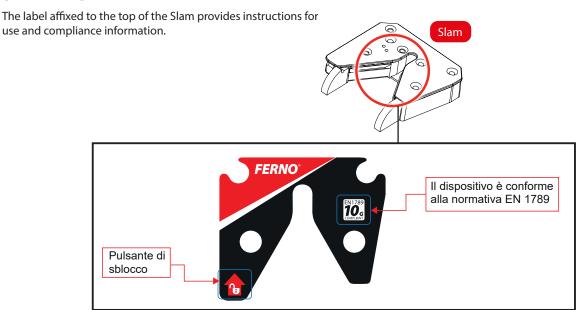
## **WARNING**

Replace labels immediately if they are damaged and/ or not completely legible. To obtain replacement labels, contact Ferno s.r.l.'s Customer Service.





#### **SLAM LABEL**



## **Product packaging LABEL**

The following label is applied to the product packaging.



#### 3 - OPERATOR TRAINING AND SKILLS

## **WARNING**

Operators using the device must be trained in its correct use and practise with it before using it in real situations with patients.

#### **WARNING**

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

#### 3.1 Skills and competences

Operators authorised to use the device must:

- · know the procedures for moving the patient;
- be aware of and comply with the conditions set out in the Safety information chapter of these instructions;
- · be able to assist the patient;
- know the patient safety regulations in force in the country of use;
- be able to carry out the checks required for the correct use of the device;
- be able to carry out cleaning, disinfection and planned inspections;
- have read and understood all the procedures described in these instructions;
- have attended a suitable training course on the correct use of the device;
- know the device, its features and all accessories used;
- fill in the training log provided in these instructions.

#### 3.2 Training

For proper training it is necessary to:

- read these instructions carefully (for additional copies, contact Ferno s.r.l. Customer Service);
- attend a training course for the safe and correct use of the device;
- practice with the locking device and its accessories before using it in real situations;
- carefully record the training sessions in the training log provided with these instructions.

#### WARNING

Record the training sessions performed in the log provided in these instructions in section "15.1 Recording the training sessions".

#### **WARNING**

The device must be used for professional purposes and only by trained and qualified operators, always following local health protocols.

## **WARNING**

Operators must be able to ensure the safety of both themselves and their patients while using the device. They must be able to determine the need of assistants required and to place them suitably to handle the patient according to the laws in force in the country of use.

#### 4 - DESCRIPTION AND INTENDED USE

#### **WARNING**

The device is designed for use exclusively with the stretchers indicated in section *Configurations*. No guarantee is given regarding the safety and adaptability of the device with stretchers other than those specified. For warranty conditions, please refer to chapter *Warranty*.

## **WARNING**

Using the device with non-certified Ferno stretchers may result in accidents, damage and/or injury.

#### ♠ WARNING

Comply with the configurations specified by the manufacturer and described in these instructions. Different configurations could cause accidents, damage and/or injury.

#### 4.1 General information

The Fastener locking system for stretchers (also referred to as the "device" in these instructions) is a system designed and built to safely lock stretchers onto the floor of ambulances.

When used as intended by the manufacturer, the device secures the stretcher and keeps it stable during transport, ensuring the safety of the patient and the medical personnel on board in case of collisions and accidents.

#### **WARNING**

Improper use of the device or use by untrained operators may cause damage and/or injury. Use the device as described in these instructions.

#### 4.2 Models

The device is available in different models, designed according to the configuration of the stretcher model to be used.

- SLAM-5026/MONDIAL
- SLAM 5026/MONDIAL 25-000125 25-000126
- SLAM 26
- 21-00048
- SLAM-5026/MONDIAL 21-00040
- 21-00049

#### 4.3 Configuration

The table and the following page show the different configurations for using the locking system.

Always follow the configurations indicated and do not use stretchers other than those specified by the manufacturer.

Ferno stretcher model	SLAM-5026/ MONDIAL locking system	SLAM 5026/ MONDIAL 25-000125 25-000126 locking system	SLAM 26 locking system	21-00048 locking system	SLAM-5026/ MONDIAL 21-00040 locking system	21-00049 locking system
26-S 26-B	-	-	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>
5126-EL-IT 5226-EL-IT Cortex	<b>/</b>	<b>/</b>	-	-	<b>/</b>	<b>/</b>
Mondial	-	<b>/</b>	-	-	-	<b>/</b>

# Description and intended use

Locking system model	Illustration	Stretcher models
SLAM-5026/MONDIAL		5126-EL-IT/5226-EL-IT Cortex Custom
SLAM 5026/MONDIAL 25-000125 (Stretcher adapter) 25-000126 (Floor adapter)		5126-EL-IT/5226-EL-IT Cortex Custom Mondial
21-00048		26-S
SLAM 26		26-B
SLAM-5026/MONDIAL 21-00040		26-S, 26-B 5126-EL-IT/5226-EL-IT Cortex and Custom
21-00049		26-S 26-B 5126-EL-IT/5226-EL-IT Cortex, Custom Mondial

#### 4.4 Number of operators

The device can be used by a single operator, but handling the stretcher may require the intervention of several operators.

## **WARNING**

Refer to the instructions for the stretcher in use for specifications on use and the number of operators required for operations.

#### 4.5 Environmental conditions

To ensure the integrity and functionality of the device, it must be stored in a place protected from humidity and sunlight.



#### 4.6 Incorrect use

The following paragraph lists actions that must NOT be performed as they could compromise the safety of the patient and the user, causing serious damage and accidents. The manufacturer is not liable for accidents or damage caused by failure to comply with these prohibitions.



#### **FORBIDDEN**

Do not use the device without first reading and understanding these instructions thoroughly and in their entirety.

Do not use the device if you are not authorised, qualified and trained in accordance with the specifications indicated in these instructions.

Use by minors, illiterate persons, persons with reduced physical and mental abilities, and persons under the influence of substances, drugs or beverages that may reduce reflexes is forbidden.

Exceeding the permitted load capacity is forbidden (for maximum load capacity, refer to the stretcher's instructions for use and maintenance).

The device must not be used in any way or for any purpose other than that intended by the manufacturer and indicated in these instructions.

The device must not be used with stretchers that are not certified by Ferno.

The device must not be used in combination with stretchers other than those specified in these instructions for use.

The device and its parts must not be modified or altered in any way or for any reason.

Do not use the device if any of its parts are damaged or worn.

Do not use the device if it shows any signs of malfunction or failure.

Do not use the device if the information labels are detached, damaged or illegible.

Do not use the device without carrying out the inspections specified by the manufacturer.

Do not use the device without cleaning and disinfecting it as specified by the manufacturer.

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# 5 - MAIN COMPONENTS OF THE DEVICE

**FOOT END HEAD END** Hook locking system Series 5026, Cortex and Custom Slam Multi Stretcher Fastener Series 26 Hook locking system Series 26 Ramp on floor flap for Mondial **Hook locking** Adapter system with Mondial Adapter Slam with Mondial

Adapter

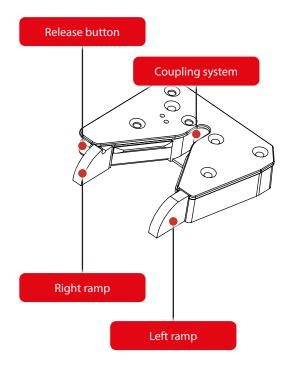
#### Main components of the device

#### Slam

The Slam device is equipped with a coupling system that allows the stretcher to be locked in place during transport in the ambulance, keeping it anchored to the floor in the event of collisions or accidents involving the emergency vehicle.

When pressed, the release button on the Slam allows the stretcher to be uncoupled from the device for unloading from the emergency vehicle.

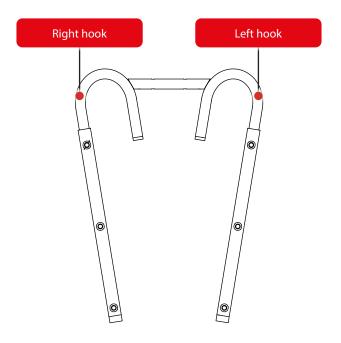




# Hook locking system Series 5026, Cortex and Custom

The 5026, Cortex and Custom series hook locking system allows the crossbar of the stretcher loading wheels to be locked in position between the hooks, so that the stretcher cannot become unhooked in the event of an impact or accident involving the emergency vehicle.





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#### **Multi STretcher Fastener**

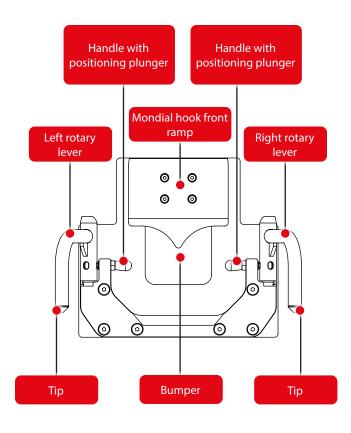
The Multi Stretcher Fastener system is equipped with two rotary levers that allow the crossbar of the stretcher wheels to be positioned and locked so that it cannot unhook in case of a collision or accident involving the emergency vehicle.

The two handles, connected to a positioning plunger, allow the rotary levers to be opened outwards to prepare the device for use or closed inwards when not in use.

When the levers are closed, they rest on a bumper that dampens the movements and vibrations caused by contact with the floor.

The "Mondial hook front ramp" facilitates the sliding of the Mondial stretcher.

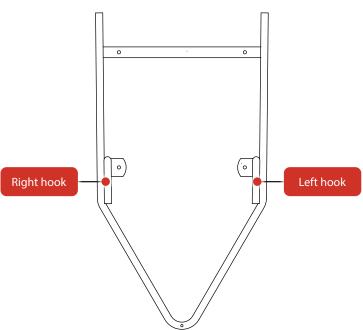




#### **Hook LOCKING SYSTEM series 26**

The hook system allows the crossbar of the stretcher loading wheels to be locked in position so that the stretcher cannot unhook in case of an impact or accident involving the ambulance.





#### **Floor Mondial Adapter**

The floor Mondial adapter is designed to adapt the device to Mondial stretchers.

The floor kit consists of different parts integrated into the Series 5026, Cortex and Custom hook locking system:

 Stop plate: allows the stretcher's fall-protection hook to rest without getting stuck on the crossbar connecting the two hooks:

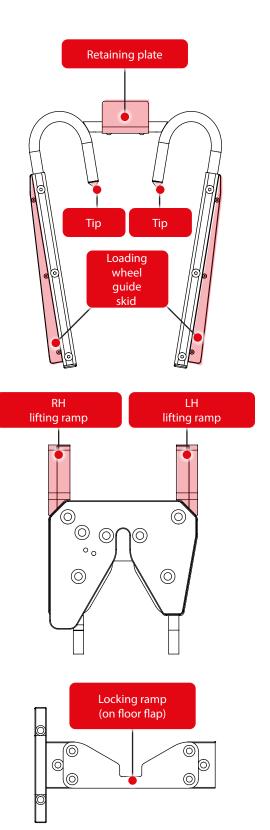


- Loading wheel guide skids: to guide the stretcher in a straight line inside the locking system during loading;
- Tips: allow the stretcher to slide inside the locking system so that the crossbar of the loading wheels does not get stuck during positioning;

In the Slam locking system:

• **Lifting ramps**: they facilitate the unloading of the stretcher by allowing its fall-protection system to lift up, preventing it from getting stuck against the Slam.

The floor Mondial Adapter configuration includes a locking ramp, a safety feature that prevents the stretcher from falling if it does not open correctly during unloading. Refer to chapter *Safety systems* for details.



#### 6 - SAFETY SYSTEMS

The device is equipped with a system that prevents stretchers from falling off the floor during unloading if the legs fail to open.

The safety system changes depending on the stretcher used and for which the locking device is designed. Check the table opposite to see which safety system is provided for the stretcher in use.

Depending on the stretcher model, the safety system can be:

- Locking ramp (fig. 1) if the legs of the Mondial stretcher do not open, the fall-protection hook installed on the device remains open and hooks onto the locking ramp. The ramp, installed on the floor flap, prevents the stretcher from falling.
- Slam side fall-protection system (fig. 2): if the legs of the stretcher do not open, the fall-protection hook installed on the stretcher remains open and hooks onto the side of the Slam, preventing the stretcher from falling.

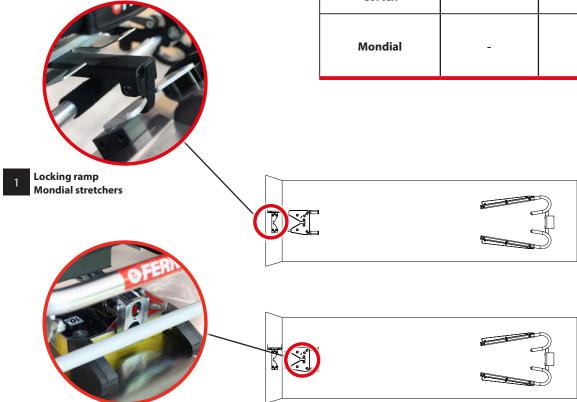
#### **WARNING**

Improper use of the device or use by untrained operators may cause damage and/or injury. Use the device as described in these instructions.

# **OFORBIDDEN**

It is forbidden to tamper with or remove the safety systems installed on the device.

Ferno stretcher model	Slam side fall- protection system	Locking ramp
26-S 26-B	-	-
5126-EL-IT 5226-EL-IT Cortex	<b>/</b>	-
Mondial	-	<b>/</b>



Slam side fall-protection system
5126-EL-IT, 5226-EL-IT and Cortex stretchers

# 7 - TECHNICAL SPECIFICATIONS

The manufacturer reserves the right to update the instructions without notice. For further details, please contact Ferno's Customer Service. Dimensions are rounded up to the nearest whole number.

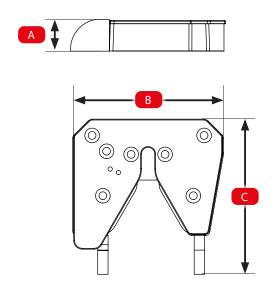
A tolerance of about 5 mm should be considered for the measures.

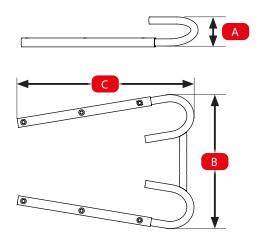
#### Slam

FEATURES			
Weight	3.75 lbs	1.7 Kg	
Max. height (A)	1.4 in	35.6 mm	
Width (B)	6.9 in	175 mm	
Depth (C)	7 in	180 mm	
Material	Aluminium, steel and plastic		

#### **Hook LOCKING SYSTEM**

HOOK LOCKING SYSTEM 5026			
Weight	0.99 lbs	2.2 Kg	
Max. height (A)	3.3 in	84 mm	
Width (B)	14.8 in	375 mm	
Depth (C)	19.5 in	496 mm	
Material	Aluminium, steel and plastic		



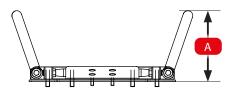


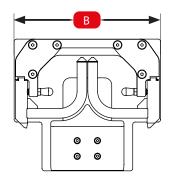
## **Multi Stretcher Fastener**

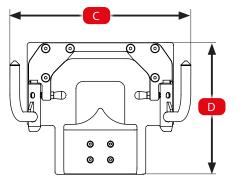
FEATURES		
Weight	1.90 lbs	4.2 Kg
Max. height (A)	5.5 in	140 mm
Width (B) with closed rotary levers	11.6 in	295 mm
Width (C) with open rotary levers	14.6 in	371 mm
Depth (D)	10.6 in	269 mm
Material	Aluminium, steel and plastic	

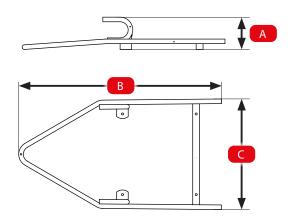
#### **Hook LOCKING SYSTEM 5026**

HOOK LOCKING SYSTEM 5026		
Weight	5.7 lbs	2.6 Kg
Max. height (A)	5.5 in	140 mm
Width (B)	34.6 in	880 mm
Depth (C)	18.9 in	480 mm
Material	Aluminium, steel and plastic	







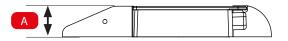


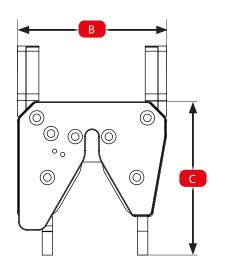
# Technical specifications

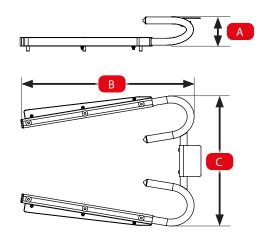
## **Mondial ADAPTER**

SLAM WITH MONDIAL ADAPTER		
Max. height (A)	1.4 in	36 mm
Width (B)	6.9 in	175 mm
Depth (C)	9.7 in	246 mm
Material	Aluminium, steel and plastic	

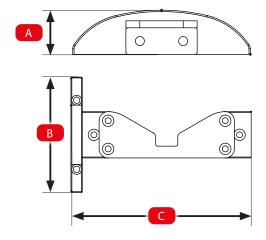
5026 HOOK LOCKING SYSTEM WITH MONDIAL ADAPTER		
Max. height (A)	3.3 in	84 mm
Width (B)	14.8 in	375 mm
Depth (C)	20.5 in	520 mm
Material	Aluminium, steel and plastic	







LOCKING RAMP (ON FLOOR FLAP)		
Max. height (A)	1.2 in	32 mm
Width (B)	5 in	127 mm
Depth (C)	7.9 in	200 mm
Material	Aluminium, steel and plastic	



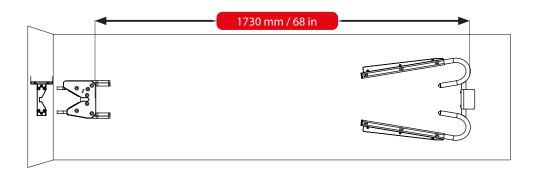
#### **Distance between locking elements**

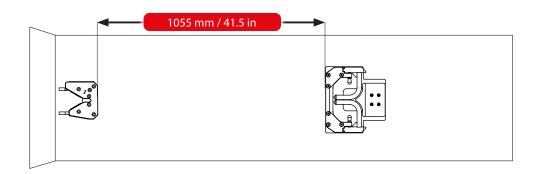
#### **IMPORTANT**

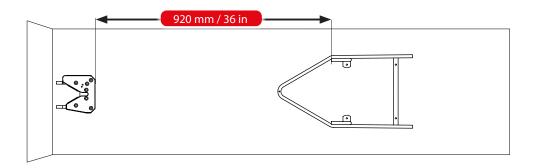
The measurements provided in the following paragraph are indicative. During assembly, the installer must check that the elements making up the device are positioned at the correct distance from each other to ensure that the stretcher is securely locked and can be loaded and unloaded correctly onto/from the floor.

## **WARNING**

Before using the device with a patient, carry out the stretcher positioning tests indicated in these instructions. If the device does not function efficiently and you encounter problems with locking, contact the installer and do not use the device.







#### 8 - INSTALLATION

The device must only be installed by qualified personnel authorised by the manufacturer.

The installer must refer to the assembly instructions provided by the manufacturer, which contain the steps to be followed for the correct and safe installation of the device.

#### **IMPORTANT**

Malfunctions or breakage of the locking system caused by incorrect installation are not covered by warranty.

#### **WARNING**

The device must only be installed by qualified personnel with full knowledge of ambulance construction.

## **WARNING**

The device must only be installed on ambulances approved in accordance with European regulations.

## **WARNING**

The device must only be installed on an ambulance floor that complies with the specific regulations of the country of use.

#### **WARNING**

Follow the device assembly instructions provided by the manufacturer carefully.

The manufacturer shall not be held liable for any civil or criminal liability in the event of accidents, damage or injury to persons and/or property resulting from incorrect installation procedures.

## **WARNING**

After installing the device, before using it with a patient, it is mandatory to perform the preliminary checks indicated in these instructions for use.

## **WARNING**

In case of defects or malfunctions of the device components, do not use the device and contact the manufacturer.

## **WARNING**

If installation errors are detected, do not use the device and contact the installer.

#### 9 - USE

#### **WARNING**



Read these instructions carefully and in full before use.

#### **WARNING**

Carefully carry out the required checks before using the device.

Record the results of the checks in the log provided in these instructions in section "15.2 Recording the preventive checks".

## **WARNING**

If anomalies and malfunctions are detected during the checks, do not use the device and contact Ferno Technical Service or the installer.

## **WARNING**

Failure to use the device correctly may compromise the safety of the patient and the personnel on board the ambulance.

#### 9.1 Checks before use

After installation, before using the device with a patient, perform loading and unloading tests on the stretcher with and without ballast, checking that the installation has been carried out correctly and that the device is intact, correctly positioned and safely configured according to the stretcher model used.

In particular, check that:

- the stretcher can be loaded and unloaded smoothly without obstruction (fig. 3);
- during loading, the pin at the rear of the stretcher correctly engages the Slam coupling mechanism, producing a "clack" sound (fig. 4);
- during loading, the crossbar of the stretcher loading wheels locks into place at the hook lock or in the Multi Stretcher Fastener system (fig. 5);
- When the Slam release button is pressed (fig. 6), the release mechanism opens correctly (fig. 7).

Before use, repeat the above steps several times to ensure correct operation.

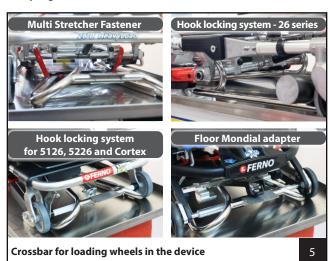
Record the results of the checks in the log referred to in section "15.2 Recording the preventive checks" of these instructions.

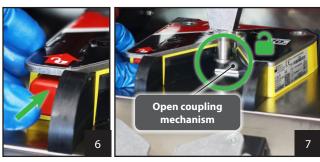


Loading and unloading the stretcher onto/from the floor



Coupling mechanism on Slam





Slam release button

**Uncoupling mechanism on Slam** 

## **WARNING**

Improper use of the device may cause damage and/ or injury. Use the device for the purposes and in the manner prescribed.

#### **WARNING**

Before using the device with the Multi Stretcher Fastener model, ensure that the piston pin is correctly positioned in the opening hole of the rotary levers. If the pin is not correctly engaged, the rotary lever could move and compromise the functionality of the device, causing accidents, damage and/or injury.

## **WARNING**

If the rotary levers are not opened and closed with caution, there is a risk of crushing your fingers. Wear appropriate protective gloves and perform the manoeuvres carefully.

# 9.2 Multi Stretcher Fastener configuration

Set the Multi Stretcher Fastener system to the open position before use.

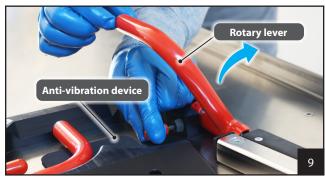
To configure it, proceed as follows:

- 1 Grasp the red handle and pull it to release the piston pin from the locking hole (fig. 8);
- 2 Continuing to pull the handle, lift the rotary lever from the anti-vibration device, opening it outwards (fig. 9);
- 3 Release the plunger handle so that the pin is positioned in the locking hole (fig. 10);
- 4 Repeat the same steps to open the second rotary lever (fig. 11).

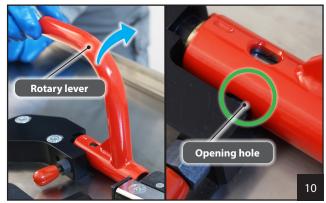
To return the Multi Stretcher Fastener system to the closed configuration (when changing stretchers or when the system is not in use), perform the above operations in reverse order, ensuring that both rotary levers are resting on the anti-vibration device and lock the plunger of both levers in the locking hole.



Release of plunger from the closing hole



Lifting the rotary lever



**Rotary lever opening** 

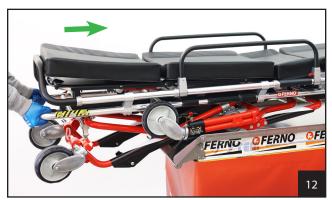


**Rotary levers opened correctly** 

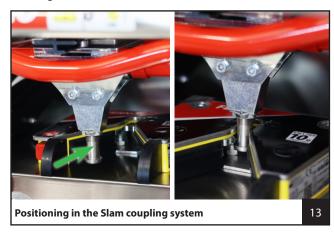
#### 9.3 Loading the stretcher

To lock the stretcher onto the device before transport in an ambulance, proceed as follows:

- 1 Load the stretcher by sliding it onto the floor (fig. 12).
- 2 Position the stretcher's hook in the Slam's coupling system (fig. 13).
- 3 When the locking system closes and emits a "clack", the stretcher is correctly attached (fig. 14).



Loading the stretcher onto the floor





Mechanism in locked position

#### 9.4 Unloading the stretcher

To release the stretcher from the device in order to unload it from the ambulance floor, proceed as follows:

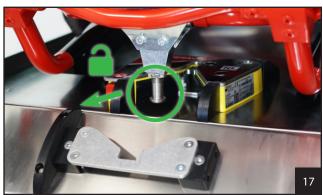
- 1 Press the red release button located on the Slam (fig. 15).
- 2 Keep the release button pressed while pulling the stretcher out. Do this by placing one hand with the palm facing upwards on the stretcher handle (*fig.* 16).
- 3 When opening the hook of the device (*fig. 17*), the release button can be released. The stretcher is correctly disengaged and can be unloaded from the floor.



Press the release button



Releasing the stretcher



Mechanism in release position

#### **10 - MAINTENANCE**

# **10.1 Periodic and preventive** maintenance

The locking system is a medical device requiring regular maintenance, hence it is necessary to comply with the following schedule:

**Periodic maintenance**: the stretcher has to be subjected to a yearly maintenance operation by Ferno qualified technicians.

**Preventive checks**: preventive maintenance operations are to be carried out by the user, as specified in the table below.

Preventive check intervals	After each use	Whenever necessary	Every month
Disinfection	<b>/</b>	<b>/</b>	-
Cleaning	-	<b>/</b>	<b>✓</b>
Visual check	<b>/</b>	<b>/</b>	<b>/</b>

If the device undergoes particularly heavy use, the locking system should be checked at more frequent intervals. If there are signs of wear and damage, discontinue use of the device and immediately contact Ferno's Technical Support Service.

## 10.2 Cleaning

After each use, it is important to keep all the components in good conditions and to remove all traces of dirt, debris and body fluids.

- Wash all parts of the device with a cloth or sponge soaked in detergent solution (to remove any stains, use a hard, nonmetallic bristle brush or a mild solvent, taking care not to remove or damage the labels).
- Use a washcloth to rinse and dry the treated surfaces.
- Ensure that all parts are completely dry before using the device.

#### 10.3 Disinfection

After cleaning, disinfect the device:

- apply a non-abrasive disinfectant solution to the surfaces using a cloth or sponge (use brushes to reach less accessible parts).
- · Leave for 10-20 minutes.
- · Dry with a cloth.
- Ensure that all parts are completely dry before using the device.

#### **IMPORTANT**

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.

#### ♠ WARNING

Improper maintenance may cause serious accidents and/or damage. Perform maintenance as described in these instructions.

#### **WARNING**

Disinfectants and detergents containing phenols (if above the threshold of 2500 ppm), chlorine (bleach) and/or iodine-based solutions can cause damage. Do not use products containing these chemicals.

#### **WARNING**

During disinfection/cleaning, use gloves and the appropriate PPE according to the risk assessment guide.

## **WARNING**

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

## **WARNING**

If signs of wear and/or damage to the device are found during disinfection and cleaning, contact the manufacturer and discontinue use.

## FORBIDDEN

Do not immerse the device directly in disinfectant.

## 🔀 FORBIDDEN

Do not wash with high pressure water.

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#### 10.4 Visual inspection

The device must be visually inspected before and after use and must be cleaned and disinfected after each use.

The device should be inspected regularly by maintenance personnel.

Perform the following checks, ensuring that:

- · the device has been cleaned and disinfected;
- · all components are present;
- · all screws, nuts and bolts are correctly and securely in place;
- the Slam release button is functioning properly.
- · the locking system engages on the stretcher correctly;
- the device is intact and has no worn or damaged parts;
- · the labels on the device are intact and legible;
- the fall-protection system works properly;
- the loading and unloading of the stretcher are smooth and safe.

#### **WARNING**

Record the results of the inspection in the log provided in these instructions in section "15.3 Recording the inspections".

## ♠ WARNING

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

## **WARNING**

When not in use, the device must be stored in a dry, indoor environment and inspected at least once a month.

#### 11 - SPARE PARTS

#### **IMPORTANT**

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.

#### **IMPORTANT**

Damaged parts of the device must only be replaced by authorised Ferno personnel. If these parts are replaced or repaired by non-authorised Ferno personnel, any warranty from the parent company will be invalidated.

Repairs, maintenance and replacement of damaged parts are carried out directly by Ferno personnel; therefore, the manufacturer does not supply spare parts.

Contact Ferno Technical Support to request repairs and do not carry out any operations or replacements on the device and its components.



It is forbidden to replace or make any type of modification to the parts of the device.

# **O** FORBIDDEN

It is forbidden to use the device if any components are damaged or worn or if any malfunctions are detected.

# **O** FORBIDDEN

It is forbidden to carry out or have carried out any type of repair/replacement or modification to the device by personnel not authorised by Ferno.

## 12 - DISPOSAL

Before disposing of the device and its parts, clean and disinfect the product as indicated in the *Maintenance* section of these instructions.

Recycle or dispose of the components in accordance with the protocols and regulations in force in the country of use.

# **WARNING**

Dispose of the device parts in accordance with the protocols and regulations in force in the country of use.

# **O** FORBIDDEN

Do not dispose of the components in municipal waste.

# **O** FORBIDDEN

Do not dispose of waste in the environment.

#### 13 - WARRANTY

#### 13.1 Warranty terms and 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.

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

The warranty does not cover consumables or parts subject to wear and tear due to normal use of the product, all parts typically subjected to sliding or rolling friction (bearings, brushes, shoes, tracks, etc.), parts potentially exposed to oxidation or corrosion (copper or metal alloy contacts, mechanical equipment).

On new devices, the surface finishes (gelcoat/resin, paint, powder paint, decals, tape, inscriptions, 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), Italy or at the Customer's premises if suitable arrangements with Ferno s.r.l.'s Customer Service 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 department 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 these instructions for use provided with the product. Misuse and negligence invalidate this warranty.

The warranty is valid from the day the product is shipped from Ferno s.r.l., and the shipping costs are not covered by this warranty. Ferno s.r.l. is not liable for damages incurred 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 warranty periods 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 operating instructions,
- failure to carry out or incorrect checks before use (see section *Checks before use*);
- misuse,
- inappropriate use or handling,
- any modification or replacement of device parts by personnel not authorised by Ferno;

- damage during transport due to improper packaging of items returned by the user,
- failure to perform periodic maintenance or preventive checks (see definitions in section *Maintenance*),

In cases not covered by the warranty, Ferno will not cover the transport costs for sending or returning the product.

#### 13.2 Limitation of liability

If a product is found to be defective, Ferno s.r.l. will repair, replace it, or refund the purchase price. Under no circumstances can Ferno s.r.l. be held liable for more than the selling 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 saleability or 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 not authorised by Ferno.
- if the product is not used in compliance with the instructions, and/or used for purposes other than those for which it was designed;
- further to the conditions indicated in section "Warranty Terms and 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 for use and the intended purpose of the product.

## 13.3 Warranty claims

Contact Ferno's Customer Service immediately if you receive a product that is suspected to be defective. An agent 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.

## 13.4 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 shall not release the buyer from the obligation to collect and pay for other products in the order, unless otherwise agreed with the seller.

#### Warranty

# 13.5 Return authorisation

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

Products returned for business reasons, or for reasons not relating to nonconformity, will be accepted only after verification of their condition by Ferno s.r.l.'s qualified personnel.

#### 14 - TECHNICAL SUPPORT

#### **14.1 Technical Support Service**

For technical support concerning our products, contact the Ferno Technical Support Service.

Telephone (toll-free for Italy)	800 501 711
Phone	0039 0516860028
Fax	(+39) 0516861508
Website	www.ferno.it

For information on the use of the device, and to schedule training courses on its correct use, contact the Ferno's Customer Service.

## **WARNING**

Non-original spare parts and inadequate repairs may cause damage and/or injury. In case of malfunction, damage or maintenance requirements, contact Ferno Technical Support.

#### **WARNING**

Unauthorised modification of device could cause serious damage, injury and / or unforeseeable operating problems. Do not modify or alter the device in any way.

# 15 - RECORDS

## **IMPORTANT**

Make a copy of the following pages and keep several copies for subsequent completion

15.1 Recording the training sessions			
Date	Instructor Name	Training Type	Serial no.
		1	

## Records

	15.2 Recording the preventive checks (before use)			
Date	Type of inspection	Outcome		Notes
		YES (positive)	NO (negative)	
	Are the loading and unloading of the stretcher smooth and safe?			
	Does the pin at the rear of the stretcher correctly engage the Slam coupling mechanism, producing a "clack" sound?			
	During loading, does the crossbar of the stretcher loading wheels lock into place at the hook lock or in the Multi Stretcher Fastener system?			
	When the Slam release button is pressed (fig. 6), does the release mechanism open correctly?			
	Other			

# Records

15.3 Inspection recording				
Date	Type of inspection	Outcome		Notes
		YES (positive)	NO (negative)	
	HAS THE device been cleaned and disinfected?			
	Are all the components present?			
	Are all screws, nuts and bolts correctly and securely in place)			
	Does the Slam release button work properly?			
	Does the locking system engage on the stretcher correctly?			
	Does the device have any worn or damaged parts?			
	Are the labels on the device intact and legible?			
	Does the fall-protection system work properly?			
	Are the loading and unloading of the stretcher smooth and safe?			

Inspection recording				
Date	Type of inspection	Outcome		Notes
		YES (positive)	NO (negative)	
	HAS THE device been cleaned and disinfected?			
	Are all the components present?			
	Are all screws, nuts and bolts correctly and securely in place)			
	Does the Slam release button work properly?			
	Does the locking system engage on the stretcher correctly?			
	Does the device have any worn or damaged parts?			
	Are the labels on the device intact and legible?			
	Does the fall-protection system work properly?			
	Are the loading and unloading of the stretcher smooth and safe?			



#### Ferno s.r.l. Via Benedetto Zallone 26 40066 - Pieve di Cento (BO) - ITALY

Website	www.ferno.it
E-mail	info.it@ferno.com
Fax	0039 0516861508
Phone	0039 0516860028
Telephone (toll-free for Italy)	800 501 711

#### Ferno s.r.l., Pieve di Cento, Subsidiary of Savosa Via Tesserete, 67 6942 - Savosa - SWITZERLAND

Telephone	+41 (0) 412596000
E-mail	info.ch@ferno.com
Internet	www.ferno-schweiz.ch