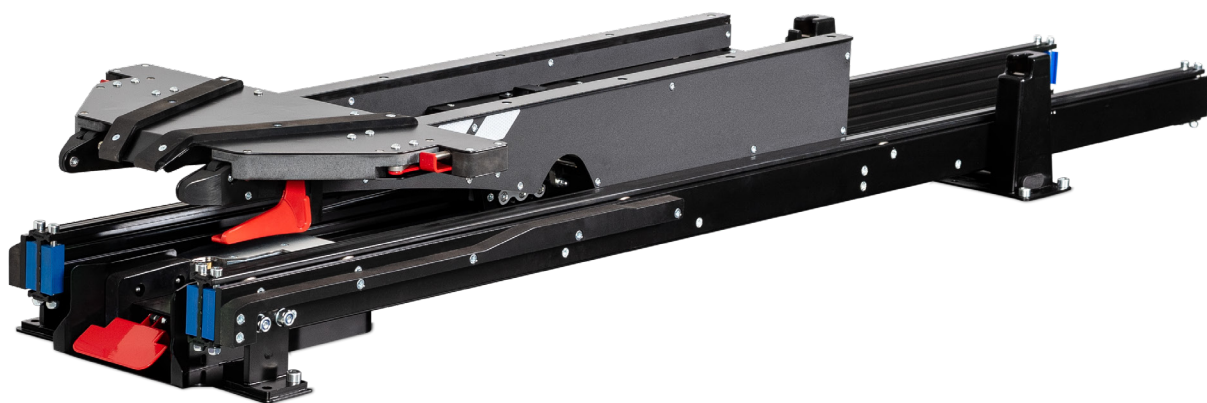





Viper

Loading System



Read this Manual and Retain
for Future Reference 

FERNO®

Installation Guidelines & Instructions for Use

July 2023, Rev 1

Ferno Customer Relations

For ordering assistance or general information:

CANADA AND THE U.S.A.

| | |
|-----------------------|--|
| Telephone (Toll-free) | 1.877.733.0911 |
| Telephone | 1.937.382.1451 |
| Fax (Toll-free) | 1.888.388.1349 |
| Fax | 1.937.382.1191 |
| Internet | www.ferno.com |

ALL OTHER LOCATIONS

For assistance or information, please contact your Ferno distributor. If you do not have a Ferno distributor, please contact Ferno Customer Relations:

Ferno-Washington, Inc., 70 Weil Way
Wilmington, Ohio 45177-9371, U.S.A.

| | |
|-----------|--|
| Telephone | Country Code +1.937.382.1451 |
| Fax | Country Code +1.937.382.6569 |
| Internet | www.ferno.com |

Disclaimer

This manual contains general instructions for the use, operation and care of this product. The instructions are not all-inclusive. Safe and proper use of this product is solely at the discretion of the user. Safety information is included as a service to the user. All other safety measures taken by the user should be within and under consideration of applicable regulations and local protocol. Training on the proper use of this product must be provided before using this product in an actual situation.

Retain this manual for future reference. Include it with the product in the event of transfer to new users. Additional free copies are available upon request from Customer Relations.

Proprietary Notice

The information disclosed in this manual is the property of Ferno-Washington, Inc., Wilmington, Ohio, USA. Ferno-Washington, Inc. reserves all intellectual property rights, proprietary design rights, manufacturing rights, reproduction use rights, and sales use rights thereto, and to any article disclosed therein except to the extent those rights are expressly granted to others or where not applicable to vendor proprietary parts.

Limited Warranty Statement

The products sold by Ferno are covered by a limited warranty, which is printed on all Ferno invoices. The complete terms and conditions of the limited warranty, and the limitations of liability and disclaimers, are also available upon request by calling Ferno at 1.800.733.3766 or 1.937.382.1451.

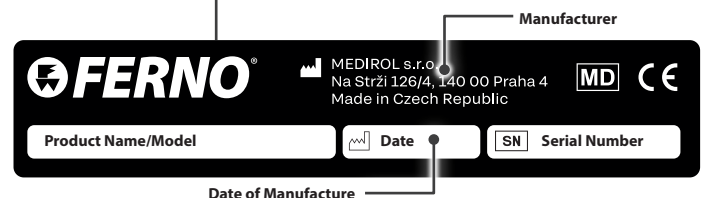
Adverse Event Notice

In the event of an adverse event or serious incident related to the use of this device, the end user/operator must report the incident to Ferno-Washington, Inc. at 70 Weil Way, Wilmington, Ohio 45177 USA, 1-877-733-0911, or via email at tscoordinator@ferno.com. If the incident occurred in the European Union, report it to Ferno's Authorized EU Representative and the competent authority of the Member State in which the end user is established.



USERS' MANUALS

To request additional free users' manuals, contact Ferno Customer Relations, your Ferno distributor, or www.ferno.com.



Unique Device Identification (UDI)

Ferno complies with the United States Food and Drug Administration's (FDA), MDA & CE Unique Device Identification (UDI) regulation to identify medical devices. The UDI label contains information in human- and machine-readable form, which includes the serial number, date of manufacture and Product name. The label is located on the stretcher frame as per the photo above



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1 - SAFETY INFORMATION

1.1 Warning

Warning safety alerts indicate a potentially hazardous situation that, if not avoided, could result in injury or death.



WARNING

Improper or inadequate installation can cause injury. The installer must test the loading system setup to meet or exceed all applicable guidelines before using the setup in an ambulance.

Improper installation can cause injury and damage. Install the loading system only as described in this manual.

Failure to use protective equipment can allow injury. Use protective equipment as needed for installation.

When installing the fixation to the floor, use only the installation elements specified by Ferno.

Do not interfere with the structure of the fixation in any way.

Untrained operators can cause injury or be injured. Permit only trained personnel to operate the loading system.

Improper use can cause injury. Use the loading system only for the purpose described in this manual.

An improper stretcher can cause injury. Use only a manufacturer-approved stretcher designed or properly modified for use with the loading system.

Incorrect voltage can cause damage and injury. Only a trained person or an authorized partner can change the voltage settings.

Improper operation can cause injury. Operate the stretcher only as described in this manual.

Improperly adjusted pin can cause damage and injury. Always make sure the pin is working properly before use.

An improper stretcher can cause injury. Use only a manufacturer-approved stretcher designed for use with the loading system.

Never leave any component of loading system in an unsecured position. There is a risk of serious injury. Always check that all components of the loading system are in a locked position.

Failure to load the stretcher within fit the loading height range during loading can cause injury or serious damage to the product. Operators must ensure the stretcher is locked and captured by the VIPER Loading System before retracting the legs.

Do not press the release button before the legs touch the ground and stop automatically. Failure to do so can cause injury or serious damage to the product.

Improper maintenance can cause injury. Maintain the loading system only as described in this manual.

Improper parts and service can cause injury. Use only Ferno parts and Ferno-approved service on the loading system.

Modifying the loading system can cause injury and damage. Use the loading system only as designed by Ferno.

1.2 Notice

Notices emphasize important, but not hazard-related information. Failure to follow Notices could result in product or property damage.











NOTICE

1.3 Blood borne Disease Notice

To reduce the risk of exposure to blood or other potentially infectious materials when using the stretcher, follow the disinfecting and cleaning instructions in this manual.

1.4 Symbol Glossary

The symbols defined here are used on the loading system and/or in this' manual. Ferno uses symbols recognized by the International Standards Organization (ISO), American National Standards Institute (ANSI) and the emergency medical services industry.

| Symbol | Definition |
|--|---|
|  | General warning of potential injury |
|  | Pinch point. Keep hands clear |
|  | No hands area. Do not remove finger guard |
|  | Read the users' manual |
|  | Two trained operators required |
|  | Lubricate |
|  | Do not lubricate |
|  | Lock |
|  | Unlock |
|  | Load Capacity/Safe Working Load |

1.5 Safety and Instruction Labels

Safety and instruction labels place important information from the users' manual on the stretcher. Read and follow label instructions. Replace worn or damaged labels immediately.

| Symbol | Definition |
|--------|------------------------|
| A | Loading caution, right |
| B | Loading caution, left |



A



B

1.6 Compliance

When properly installed and used with appropriate Ferno products, the stretcher meets or exceeds the following specifications and standards listed below. Standards and specifications are updated periodically. Current standards are available from these organizations.

STANDARDS MET

- **IEC 60601-1-2:** Temperature and vibration testing
- **EN 1789 and EN 1865:** Vehicle, fastening system, and crash-test standards.

1.7 Installation Requirements

INSTALLER REQUIREMENTS

- To install the loading system, a skilled professional who is familiar with ambulance construction is required.
- Install the loading system to meet or exceed all applicable standards in your country. Each fastener and support structure must be able to withstand the forces associated with the appropriate national standards (see "Compliance" on page 5).
- Two people may be needed for some installation steps.

VEHICLE REQUIREMENTS

- Inspect the ambulance for anything that might interfere with the installation.
- The floor to which the mounting components are attached must have sufficient strength to hold the mounted fastening system and stretcher with patient (see "Mounting the Fixation to the Floor" on page 10). Consult the ambulance manufacturer for ambulance structural details and ambulance warranty information.
- Install a new loading system when remounting an ambulance box.
- If the ambulance is involved in a traffic accident, inspect it. See the "Inspecting" section of the loading system users' manual. Replace any damaged components. For additional information, refer to Ferno's Accident Policy. See "Ferno Customer Relations" on page 2.
- **Bumper step requirements:**
 - The depth of the bumper step or any other component of ambulance behind edge of loading system must not exceed 431 mm (17") (Figure 1). If the bumper step depth is higher, it must have the ability to fold.

WARNING

Improper or inadequate installation can cause injury. The installer must test the loading system setup to meet or exceed all applicable guidelines before using the setup in an ambulance.

Improper installation can cause injury and damage. Install the loading system only as described in this manual.

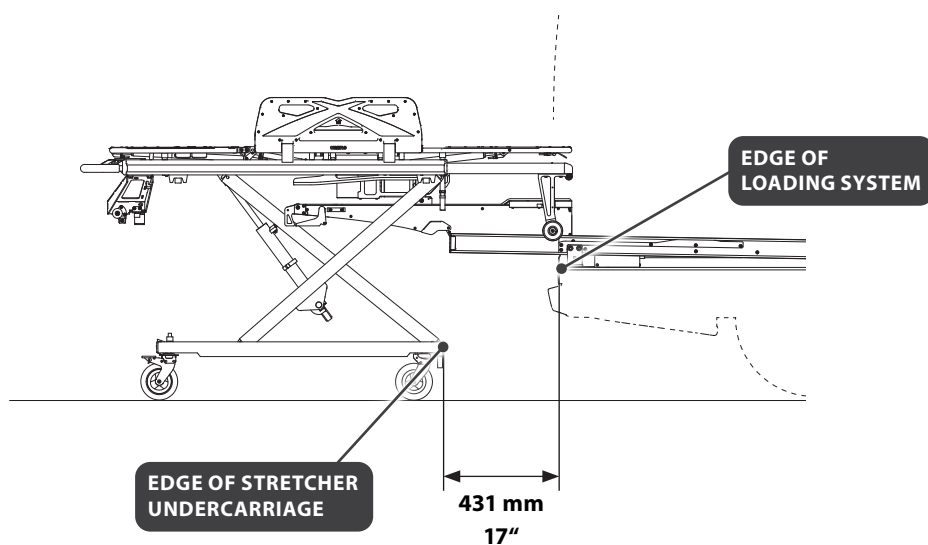
Failure to use protective equipment can allow injury. Use protective equipment as needed for installation.

NOTICE

Installation fasteners and support structure must be able to withstand the forces associated with the applicable standards within the country where the ambulance will be operated.

Inspect under the ambulance floor for anything (fuel tank, wiring, brake lines, fuel lines, oxygen lines or other items) that might interfere with the installation.

If the ambulance is involved in a traffic accident, inspect the loading system.



2 - INSTALLATION

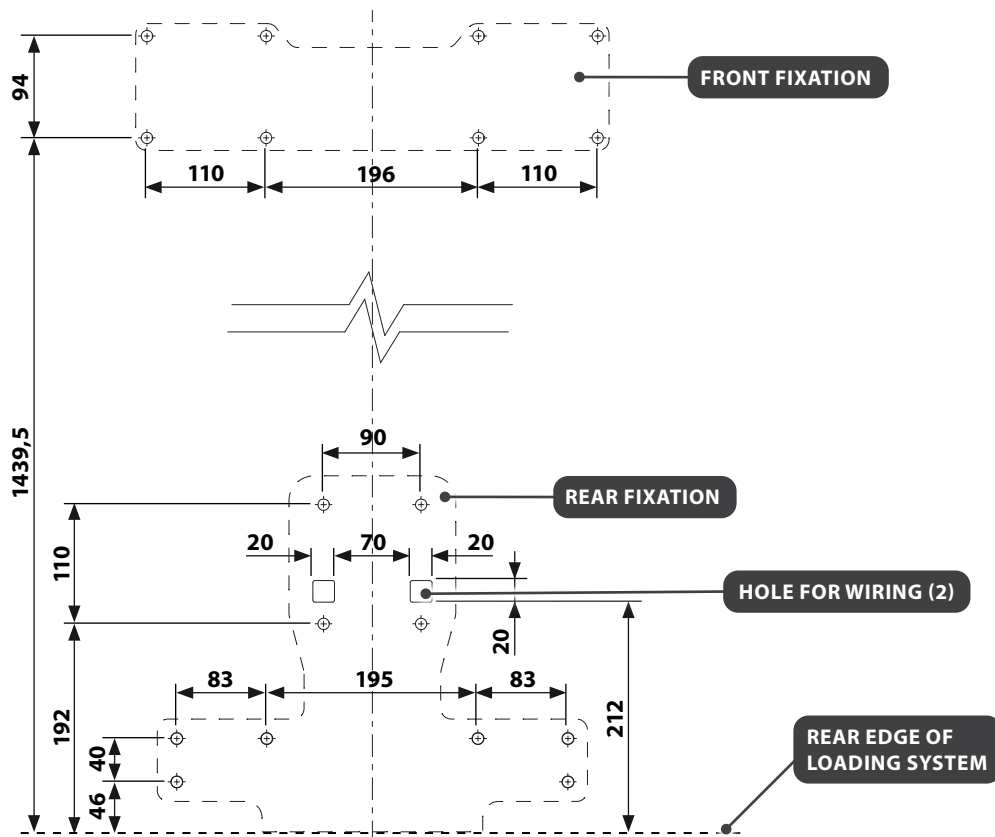
2.1 Preparation of Holes in the Floor

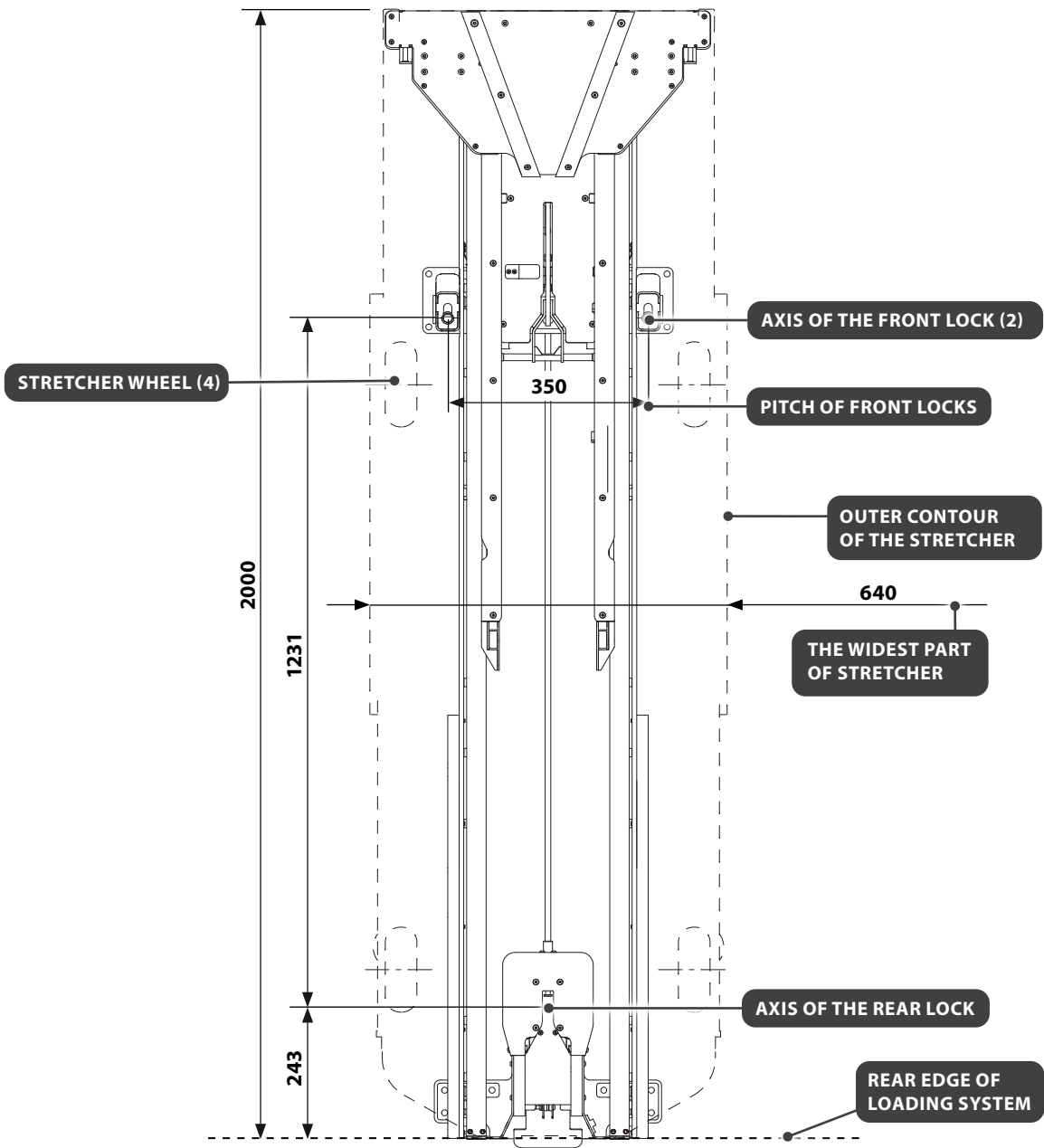
Tools Required:

| | |
|---------------------|---|
| Drill | 1 |
| Drill bit size 10.2 | 1 |
| Tape measure | 1 |

Prepare the holes in the ambulance floor according to the drilling plan (Figure 2). Pay attention to the correct location of the loading system relative to the edges of the optional stretcher table or ambulance floor (Figure 3).

For the wiring, prepare a hole in the place of one of the two square holes (Figure 2).





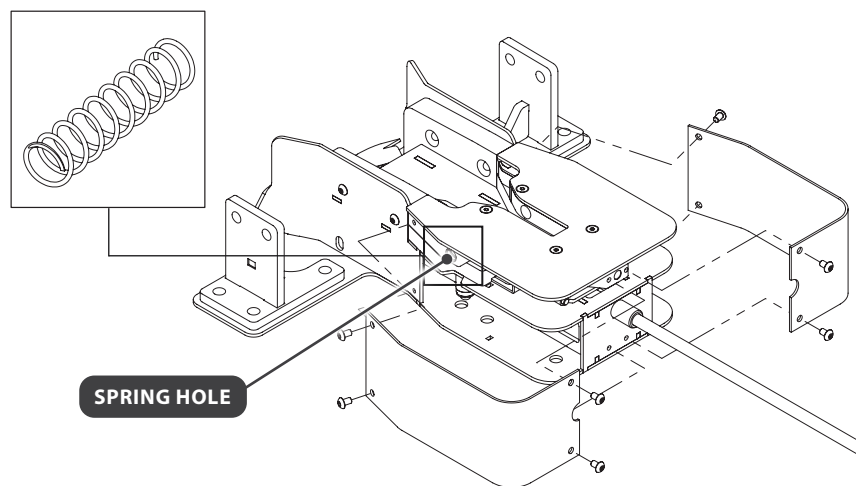
2.2 Removing the Rear Fixation Cover

Tools Required:

Hex wrench size 3

1

Loosen the eight screws from the side covers of rear fixation and slowly remove both covers (Figure 4). During this, the spring located in the hole on the side of the fixation will be released. Keep the spring in a safe place.



4

2.3 Mounting the Fixation to the Floor

Parts Needed:

| | |
|------------------------------------|--------------|
| Screw M10 (strength class of 10.9) | 18 |
| Loctite 242 (blue) thread locker | Small amount |

Tools Required:

| | |
|------------|---|
| Hex wrench | 1 |
|------------|---|

Use 18 x M10 screws to install the front and rear fixation (Figure 5). The length of screws may differ according to ambulance construction, but always use screws with a minimum strength class of 10.9. Secure the screw connections with thread glue.

The square holes on the bottom plate of the rear fixation are intended for the wiring.

Make sure that the loading system is installed in the reinforced part of the floor. Use steel reinforcement with a minimum thickness of 10 mm (Figure 6).



WARNING

When installing the fixation to the floor, use only the installation elements specified by Ferno.

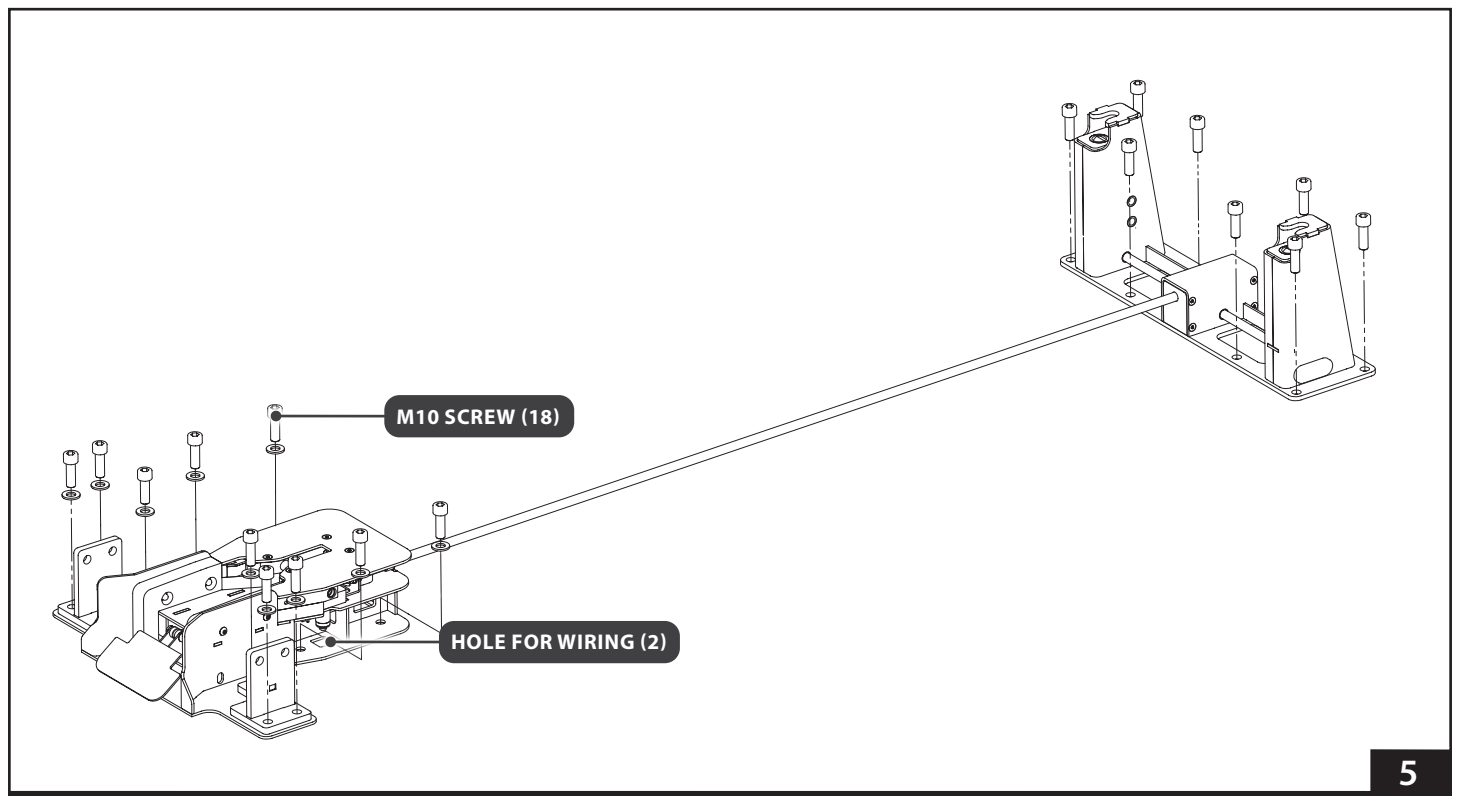
Do not interfere with the structure of the fixation in any way.

NOTICE

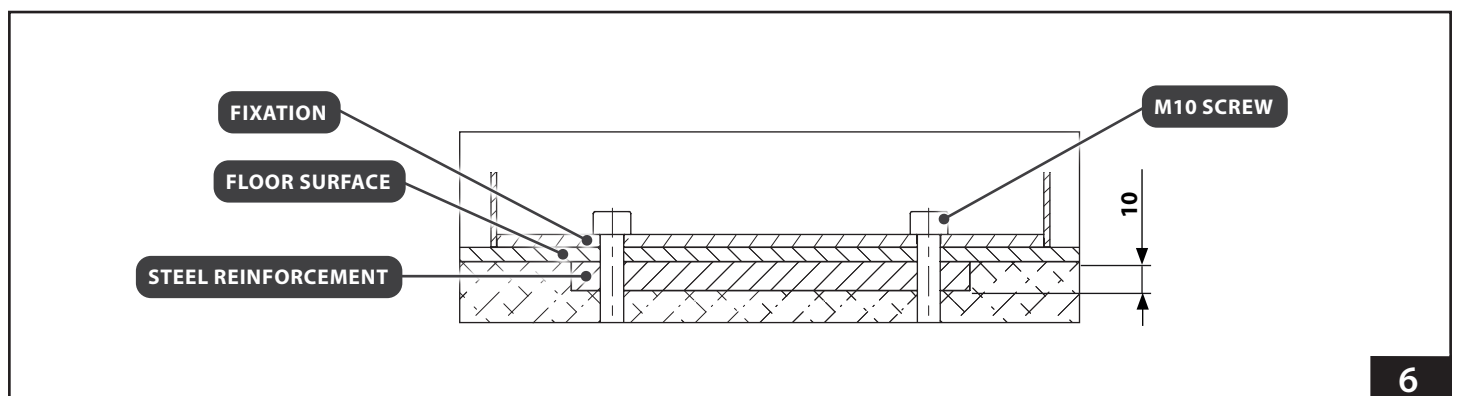
Fasteners for installing the fixation are not included in the delivery.

2.4 Covering

Reinstall the spring and both rear fixation covers to their original position. Use all the screws listed in step 2.2 (see page 9).



5



6

3 - OPERATOR FOCUS

3.1 Operator Training

Operator using the loading system:

- Must read and understand this manual.
- Must have training on proper use of the loading system.
- Must have a training on emergency-medical service and emergency patient-handling procedures.
- Must have the physical ability to assist the patient.
- Must practice with the loading system before using it with a patient.
- Must keep training records. For a sample training record sheet, see "Training Record" on page 22.



WARNING

Untrained operators can cause injury or be injured. Permit only trained personnel to operate the loading system.

3.2 Terms

The following terms are used in this manual.

- **LOADING SYSTEM:** The loading system is a generic term for a device that loads/unloads and secures a compatible ambulance stretcher or transport system inside an ambulance for ground-based transport.
- **INTEGRATED CHARGING SYSTEM (ICS):** The ICS is the system of cables and connections from the battery charger to the loading system. The ICS delivers charging power to the VIPER stretcher when the power to the charger is ON and the stretcher is secured in the loading system.
- **NOSE:** The nose is located at the end of the loading system nearest the rear ambulance doors (or furthest from the ambulance driver).

4 - OVERVIEW

4.1 Description

The **Ferno® VLS Loading System** is a device designed to load/unload and secure a manufacturer-approved ambulance stretcher into a ground-based ambulance. See “Compatible Ferno Products” below.

The loading system is for professional use only by trained Emergency Medical Service operators. See “Operator Focus” on page 11.

FEATURES

- **Easy to Clean:** The exterior is impact-resistant and easy to clean.
- **Automatic Charging with ICS:** The charging system is integrated into the fastening system and charges or maintains the charge in the VIPER battery whenever the VIPER stretcher is secured in the loading system.
- **Stretcher Power Lockout:** The VIPER power is disabled when it is secured in a powered ICS, ensuring it cannot be raised when in the loading fastener
- **Release Handle:** Single-press handle unlocks the stretcher for unloading.
- **Tested and Certified for European Standards Compliance:** See “compliance” on page 5.

4.2 Compatible Products

The loading system is compatible only with **Ferno® Viper stretcher** and **Ferno® Viper transporter**.



WARNING

Improper use can cause injury. Use the loading system only for the purpose described in this manual.

An improper stretcher can cause injury. Use only a manufacturer-approved stretcher designed or properly modified for use with the loading system.

Installation Overview

As a user, be aware of the following:

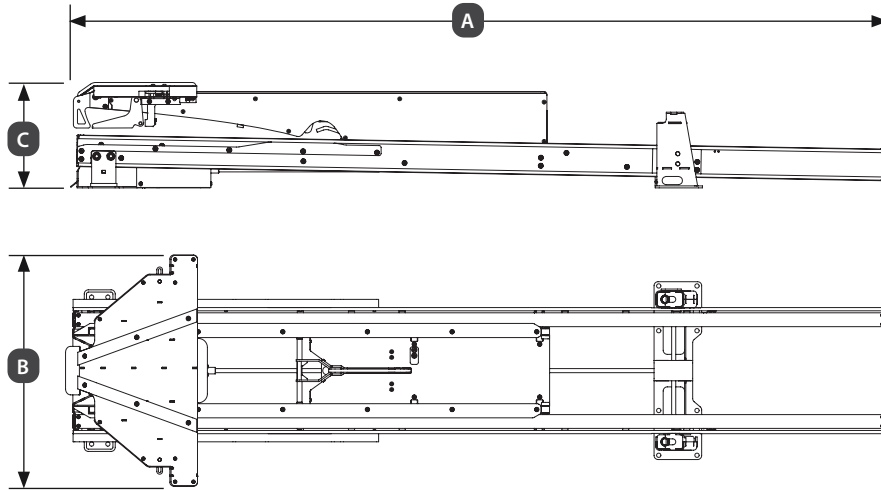
- The ambulance must comply with the standards of the country in which it is used. See “Compliance” on page 5 for a list of standards met by the loading system.
- Inspect under the ambulance for obstructions and for suitable support structure. Install support structure if needed.
- Inspect the loading system regularly to ensure it meets all required standards required by your local government. See “Inspecting the Loading System” on page 19.
- Install a new loading system when remounting an ambulance box. Removing and reinstalling an old loading system can weaken the loading system.
- If the ambulance is involved in a traffic accident, inspect it. See “Inspecting the Loading System” on page 19. Replace any damaged components.

4.2 General Specifications

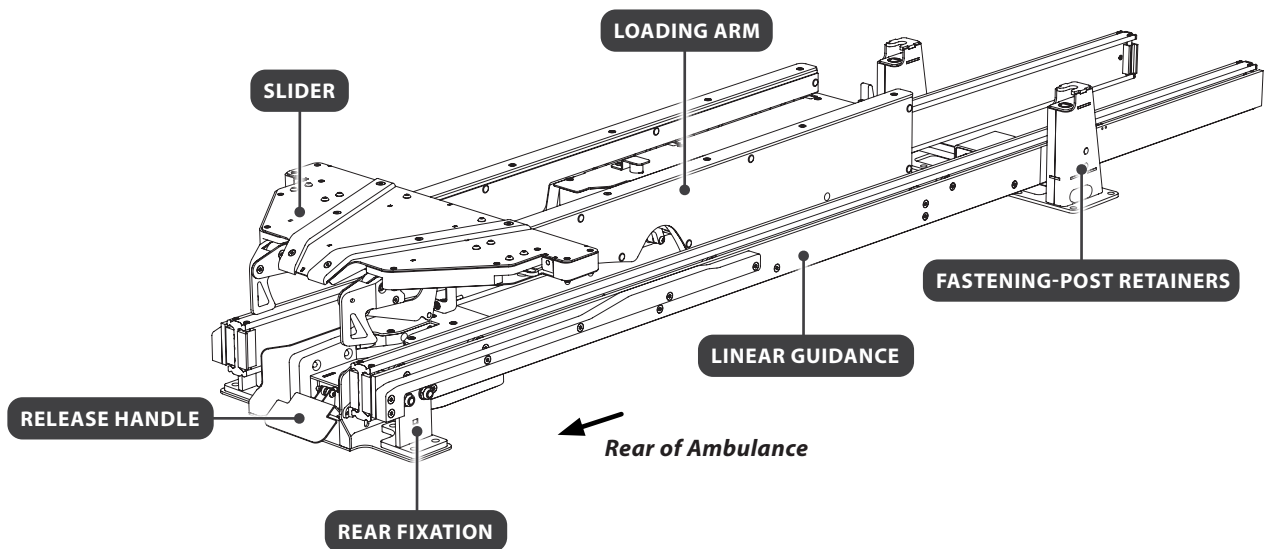
Specifications for the loading system are shown in the table at right. General specifications are rounded. Imperial conversions are calculated before rounding the Metric measurement.

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

| Dimensions | Metric | Imperial |
|-------------------|--------------------------|----------|
| (A) Length | 2000 mm | 79" |
| (B) Overall Width | 570 mm | 22" |
| (C) Height | 260 mm | 10" |
| Weight | 68.8 kg | 150 lbs |
| Construction | Aluminum, Steel, Plastic | |



4.2 Components



5 - FEATURES

5.1 Nose-End Features

RELEASE HANDLE

The red release handle is located on the nose of the loading system (Figure 7). Push the stretcher toward the front of the ambulance and then press the release handle to unlock the stretcher for unloading. See "Using the Loading System" on page 17.

FASTENING-POST LOCK

The fastening-post lock is located near the nose of the loading system (Figure 7). It captures the control-end post of the stretcher during the loading process and securely locks it in the loading system during vehicle transport. See "Using the Loading System" on page 17.

INTEGRATED CHARGING SYSTEM (ICS)

The Ferno Integrated Charging System (ICS) is located near the nose of the loading system (Figure 7). When a Ferno VIPER stretcher is locked in the loading system and the ICS is connected and powered, the ICS will:

- Disable powered operation of the stretcher
- Charge the stretcher battery

The ambulance ignition, inverter, and/or outlet switch may need to be turned ON to supply electrical power to the ICS.

The stretcher battery is charging if the indicator lights on the stretcher control panel are flashing green.

The following table shows values of voltage and current quantities during charging in ambulance. For charging, the voltage on the contact surfaces is decisive, which is usually lower than on the terminals of the vehicle battery.

| | |
|--------------------------------------|---------------|
| Permitted voltage range for charging | 9.0 V -15.0 V |
| Voltage to start charging | 13.7 V |
| Maximum charging current | 4 A |

When installing the fuse, use the protective fuse 7.5 A and place it as close as possible to AKU battery in ambulance.

The following table shows diameters of wires used in relation to the length of wiring installed in ambulance.

| | |
|------------------------|---------------------------|
| Conductor length < 5 m | Conductor diameter 2.5 mm |
| Conductor length > 5 m | Conductor diameter 4.0 mm |

If you are connecting to the vehicle network and the VIPER stretcher is in sleeping mode, the voltage must be higher than 13.7 V on the contact surfaces.

If you are connecting to the vehicle network and the VIPER stretcher is active, the voltage on the contact surfaces must be higher than 12.5 V. However, this limit is adjustable via the mobile service application. Only a trained person or an authorized partner can make the change.

5.2 Fastening-Post Retainers

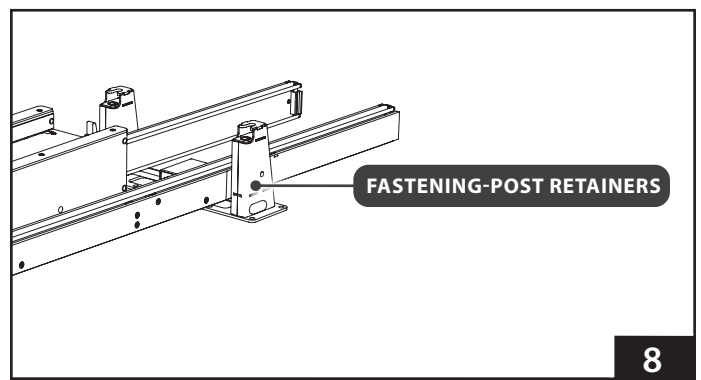
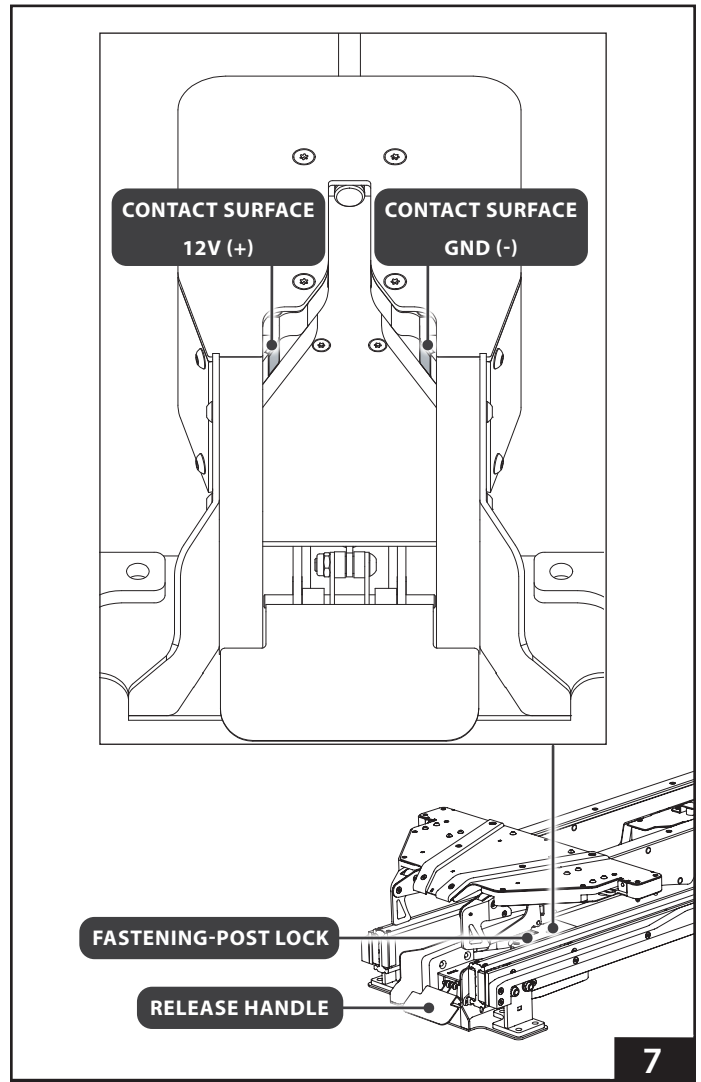
The fastening-post retainers are located near the center of the loading system (Figure 8).

The fastening-post retainers captures the loading-end post of the stretcher and helps to hold it in the loading system during vehicle transport.



WARNING

Incorrect voltage can cause damage and injury. Only a trained person or an authorized partner can change the voltage settings.

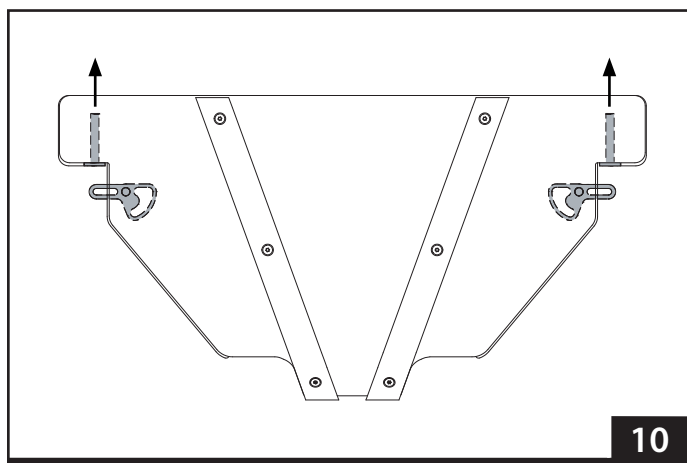
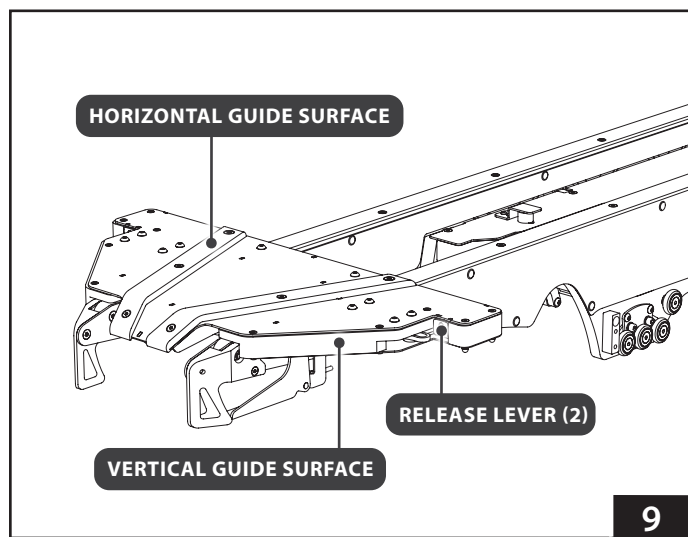


5.3 Slider

The slider helps to guide the stretcher onto the loading arms.

The slider includes red release levers and vertical and horizontal guide surfaces (Figure 9). Horizontal guide surfaces help to load the stretcher from lower positions. Vertical guide surfaces help to guide the stretcher to the release levers.

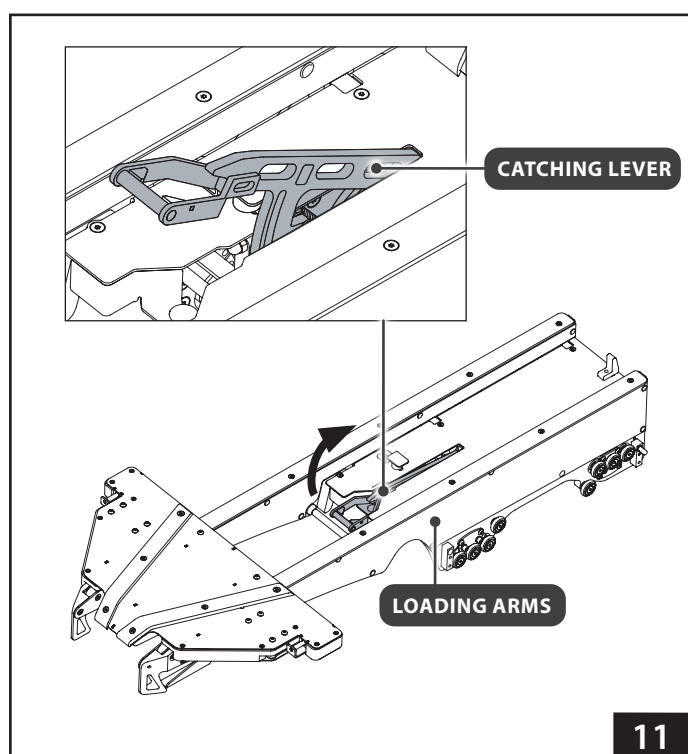
When stretcher touches both release levers simultaneously, the slider unlocks and moves along the loading arms (Figure 10), allowing the stretcher to be loaded.



5.4 Loading Arms

The Loading arms are designed to carry the weight of stretcher when loading into the ambulance.

When bringing the stretcher into the ambulance, the catching lever is released and raised up (Figure 11). It helps to load the stretcher safely from different angles.



6 - USING THE LOADING SYSTEM

6.1 Before Placing the Loading System in Service

- Before use, personnel who will work with the loading system must read and understand this manual. Appropriate skills and training are required. See "Operator Focus" on page 11.
- Make sure that the fixation mechanism is working properly. Check and, if necessary, adjust the height of the front pin of the VIPER stretcher so that its distance from the lower edge of the front fixation is as small as possible (Figure 12).
- Confirm that the loading system operates properly and the loading system is securely locked to the floor. See "Inspecting the Fastening System" on page 19.
- The loading system is for use with manufacturer-approved products only. See "Compatible Products" on page 12.



WARNING

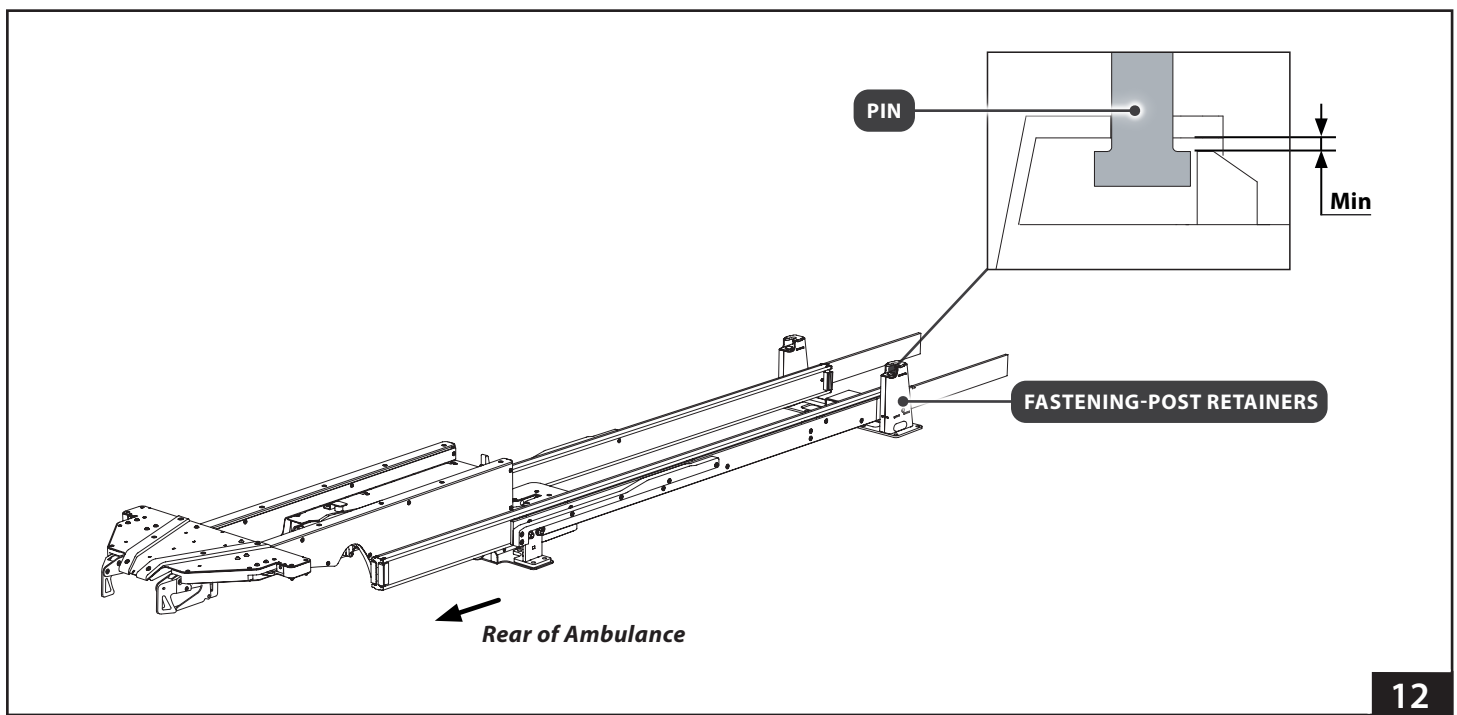
Improper operation can cause injury. Operate the stretcher only as described in this manual.

Improperly adjusted pin can cause damage and injury. Always make sure the pin is working properly before use.

An improper stretcher can cause injury. Use only a manufacturer-approved stretcher designed for use with the loading system.

6.2 General Guidelines for Use

- Medical advice is beyond the scope of this manual.
- It is the users' responsibility to ensure safe practices for the patient and themselves.



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6.3 Using the Loading System

WITHOUT STRETCHER

Pulling the loading system out of ambulance:

1. Hold the slider with both hands.
2. Squeeze the red control handle to unlock the sliding loading arm (Figure 13), pull the loading arms out from the ambulance past the first lock out point (linear guide fully extended) and continue to pull out fully until it will not move out any further (loading arm now also fully extended on the liner guide).
3. At this point release the control handle and then slightly move the loading arm in and out to ensure it is fully locked in place. Ensure that the loading system is in the correct position with the loading arms fully extended and the linear guide fully extended. (Figure 14).

Putting the loading system back into ambulance:

4. Hold the slider with both hands.
5. Squeeze control handle to unlock loading arm (Figure 13), push loading arms fully in the ambulance until the slider is in line with the end of the loading frame (Figure 13)
6. Release the control handle and try to slightly pull the slider towards you back out of the ambulance to check it is indeed securely locked in place and check it is in correct position (Figure 15).

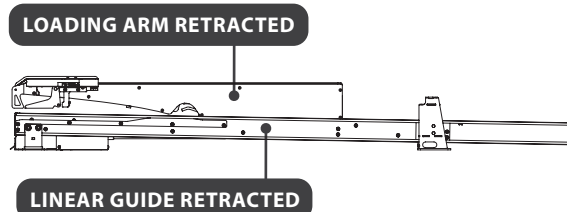
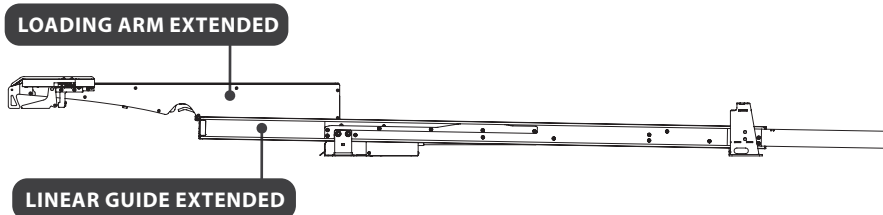
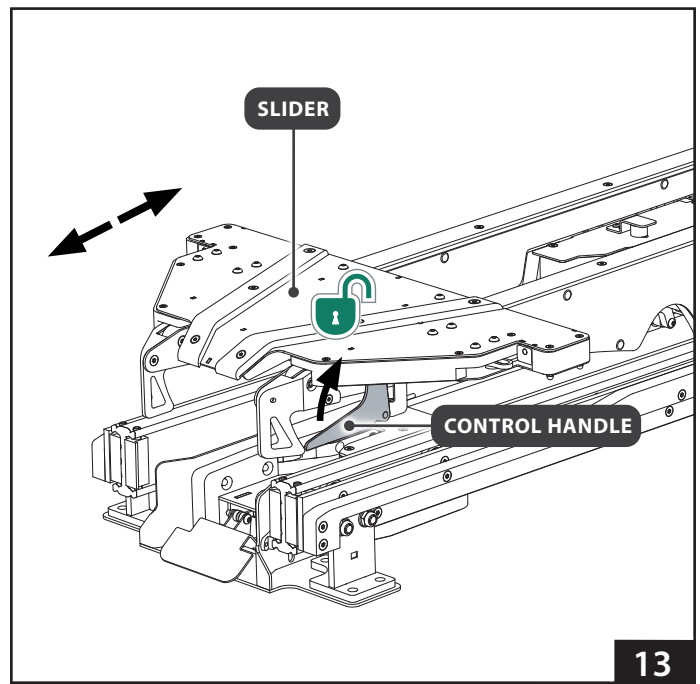


WARNING

Never leave any component of loading system in an unsecured position. There is a risk of serious injury. Always check that all components of the loading system are in a locked position.

NOTICE

During pulling out, the loading arm first moves in the grooves of the linear guide. Subsequently, the loading arm is magnetically connected to the linear guide rails, and this entire system moves outwards from the vehicle.






LOADING THE STRETCHER

Note: Refer to the stretcher user manual for specific loading and unloading instructions. For additional manuals, contact Ferno. See "Ferno Customer Relations" on page 2.

Loading the stretcher into an ambulance with a patient on it requires a minimum of two trained operators who are communicating, working together, and maintaining control of the stretcher at all times.

1. Trained Operators:

- Raise the ambulance folding bumper, if one is present.
- Fully extend the loading arm of VIPER Loading System and verify that it is locked in position.
- **Ensure that the telescoping frame at head-end of the stretcher is fully extended**
- Align the stretcher with, and keep it parallel to, the arms of VIPER Loading System during loading.

2. Control-End Operator: Press and hold  button to raise the stretcher to the pre-set loading height. **The stretcher height must be in range of yellow indicator markers at the head-end of the stretcher** (Figure 16). If not, press  or  to adjust accordingly.



3. Operators/Trained Helpers: Roll the stretcher towards the ambulance and the extended loading arm, aligning the stretcher approximately in line with the loading arm head. Keep pushing the stretcher over the loading arm until the loading arm starts moving into the vehicle and continue until it will move no more and the stretcher has locked into the VIPER Loading System (Figure 17). Confirm the stretcher is secure by pulling it slightly outwards from the ambulance.

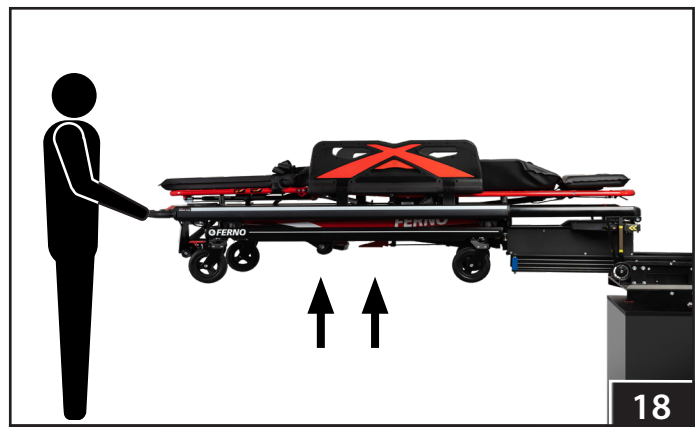
4. Loading-End Operator: Confirm the stretcher has been locked and captured by the VIPER Loading System.

5. Control-End Operator: Press  and keep held to completely retract/raise the stretcher legs (Figure 18)

6. Both Operators/Trained Helpers: When stretcher legs have fully retracted/raised, the loading arm of VIPER Loading System is automatically unlocked such that it can then be moved fully into the vehicle. Push the stretcher into the ambulance until stretcher locks in fastening system.

7. Either Operator: Confirm the stretcher is secure in the fastening system. The loading arm red release handle must be in horizontal position (Figure 19). If the VIPER Loading System is equipped with connected ICS, confirm the ICS is charging the battery by checking the indicator lights on the control panel.

Button Lockout: Do not try to press  or  button while the stretcher is inside the ambulance.



WARNING


Failure to load the stretcher within the loading height range during loading can cause injury or serious damage to the product. Operators must ensure the stretcher is locked and captured by the VIPER Loading System before retracting the legs.

NOTICE

If the ambulance is parked on an uneven surface, the operators may need to extend the legs higher than normal loading height to allow the stretcher to lock into the VIPER Loading System.

UNLOADING THE STRETCHER

Unloading the stretcher from an ambulance with a patient on it requires a minimum of two trained operators who are communicating, working together, and maintaining control of the stretcher at all times.

1. **Loading-end Operator:** Raise the ambulance folding bumper, if present.
2. **Control-end Operator:** Push the red release handle (Figure 22) on the VIPER Loading System.
3. **Both Operators/Trained Helpers:** Hold the stretcher with both hands. Roll the stretcher out of the ambulance until it stops and will move no more and the mechanical spring slightly holds the stretcher in the unloading position (Figure 21). The spring does not provide sufficient protection against reverse movement. Always hold the stretcher firmly in the unloading position.
4. **Control-end Operator:** Press and hold  button. The legs will extend and automatically stop once they have touched the ground and lifted the stretcher slightly.
5. **Control-end Operator:** Press the release button on the stretcher to disengage it from the VIPER Loading System (Figure 20).
6. **Both Operators/Trained Helpers:** Roll the stretcher completely out of the VIPER Loading System. Keep the stretcher parallel with the extended arm of VIPER Loading System during rolling.
7. **Control-End Operator:** Adjust the stretcher height before rolling.

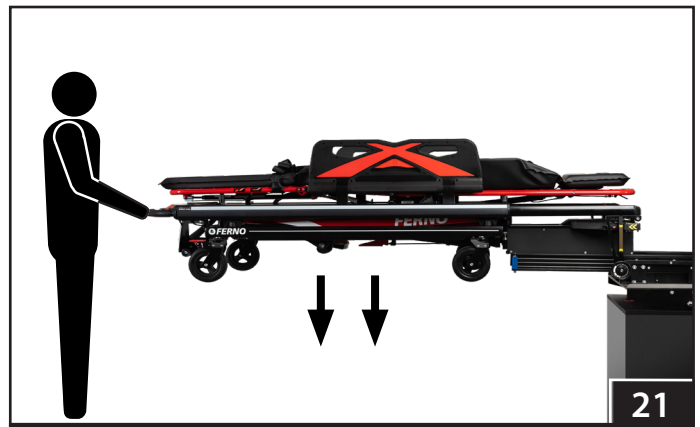
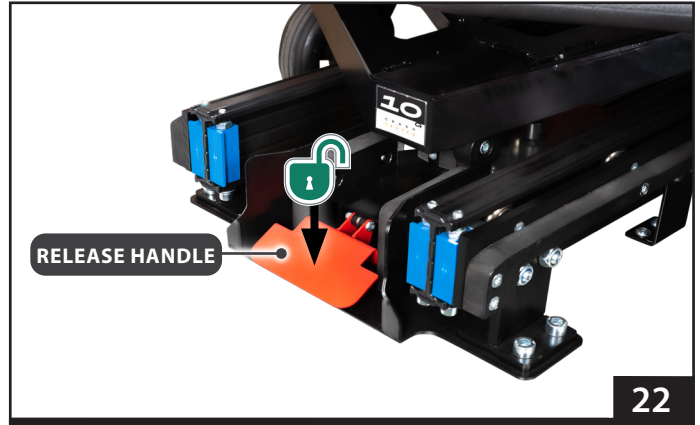


WARNING

Do not press the release button before the legs touch the ground and stop automatically. Failure to do so can cause injury or serious damage to the product.

NOTICE

If the ambulance is parked on an uneven surface, the operators (and any helpers) may need to extend or retract the legs to move the stretcher from the normal loading height to allow the stretcher to roll into the ambulance.



7 - MAINTENANCE

7.1 Maintenance Schedule

The loading system requires regular maintenance. Set up and follow a maintenance schedule. The table at right represents minimum intervals for maintenance.

Keep maintenance records. For a sample record sheet, see "Maintenance Record" on page 23.

When using maintenance products, follow the manufacturers' directions and read the manufacturers' material safety data sheets.

7.2 Disinfecting the Loading System

Wipe all surfaces with disinfectant. Follow the disinfectant manufacturer's instructions for application method and contact time. Ferno recommends you inspect the loading system for damage as you disinfect.

7.3 Cleaning the Loading System

1. Hand clean all surfaces of the loading system with warm water and a mild detergent.
2. Rinse with warm, clear water. Dry the loading system with a towel or allow it to air-dry.

7.4 Inspecting the Loading System

Have your service's equipment maintenance personnel inspect the loading system regularly.

Follow the checklist at right and operate the loading system through all its functions as described in this manual.

If inspection shows damage or excessive wear, remove the loading system from service until repair is made. See "Parts and Service, Accessories" on page 20.



WARNING

Improper maintenance can cause injury. Maintain the loading system only as described in this manual.

| Minimum Maintenance | Each Use | As Needed | Monthly |
|--------------------------|----------|-----------|---------|
| Disinfecting (this page) | • | | |
| Cleaning (this page) | | • | |
| Inspecting (this page) | | • | • |

NOTICE

Disinfectants and cleaners containing bleach, phenolics, or iodines can cause damage. Do not use products containing these chemicals.

Using abrasive cleaning compounds or applicators can cause damage. Do not use abrasive materials to clean the loading system.

Make sure all connections are tight, but **do not overtighten the hardware**. Overtightening, especially with powered tools, can cause the nut and bolt beneath the ambulance floor to pull through the backing plate.

If inspection indicates the components are pulling through the backing plate, take the loading system out of service immediately and install a new loading system with new backing plates.

Inspection Checklist

- Are all components present?
- Is the loading system free of excessive wear?
- Are all parts in good condition (no cracks, corrosion, or damage)?
- Do all moving parts operate smoothly and properly?
- Does the stretcher load and unload properly?
- Does the stretcher lock properly into the loading system?
- If the electrical power is on, does the VIPER charge when locked into the fastener?
- Monitor the ambulance floor, including beneath the ambulance, and check the integrity of the loading system. Is the system worn? Has exposure to the environment caused noticeable damage?
- Is all hardware tight? (Reminder: Do not overtighten the hardware.)

8 - PARTS AND SERVICE

8.1 U.S.A. and Canada

In the United States and Canada, to order parts or for professional repair, contact EMSAR® – the only agent authorized by Ferno to manage, service, and repair Ferno products.

| | |
|-----------------------|-----------------|
| Telephone (Toll-Free) | 1.800.73.EMSAR |
| Telephone | 1.937.383.1052 |
| Fax | +1.937.383.1051 |
| Internet | www.EMSAR.com |

8.2 Worldwide

To order Ferno parts, and for professional repair, contact your Ferno distributor. Your distributor is the only agent authorized by Ferno to manage, service, and repair Ferno products.

8.3 Accessories

Ferno offers a full line of accessories approved for use with the loading system. Always follow the instructions packed with accessories. Keep the instructions with this manual.

Ferno also offers a full line of emergency products for the EMS professional. Contact Ferno or your Ferno distributor for product information. See "Ferno Customer Relations" on page 2.



WARNING

Improper parts and service can cause injury. Use only Ferno parts and Ferno-approved service on the loading system.

Modifying the loading system can cause injury and damage. Use the loading system only as designed by Ferno.

TRAINING RECORD

[illegible]

MAINTENANCE RECORD

[illegible]

| | |
|----------|--|
| Aviation | |
| Military | |
| Mortuary | |
| EMS | |
| Rescue | |