

***Users' Manual***



**PROFlexX®**

**March 2006 GLO**

**Pub. No. 234-3346-00**

**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. It is recommended that training on the proper use of this product 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**

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**Additional Instructional Material Available for the cot:**

**Video 283-1234**

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## TABLE OF CONTENTS

Section	Page	Section	Page
<b>1 - Safety Information</b> .....	<b>5, 6</b>	6.5 Changing Positions: One Operator (Empty Cot Only) .....	21
1.1 Warning .....	5	6.6 Transferring the Patient to the Cot .....	21
1.2 Important .....	5	6.7 Rolling the Cot .....	22, 23
1.3 Bloodborne Disease Notice .....	5	6.8 Using Additional Help .....	24
1.4 Cot and Fastener Compatibility .....	6	<b>7 - Loading and Unloading the Cot</b> .....	<b>25-28</b>
1.5 Safety and Instruction Labels .....	6	7.1 Fastener Compatibility .....	25
<b>2 - Operator Skills and Training</b> .....	<b>7</b>	7.2 Preparing to Load the Cot .....	25
2.1 Skills .....	7	7.3 Loading Cot .....	26
2.2 Training .....	7	7.4 Unloading the Cot .....	27
2.3 Height and Strength Considerations .....	7	7.5 One Operator Loading/Unloading .....	28
<b>3 - About the Cot</b> .....	<b>8-10</b>	<b>8 - Bariatric Transport</b> .....	<b>29-31</b>
3.1 Cot Description .....	8	8.1 Bariatric Transport Definition .....	29
3.2 General Specifications .....	8	8.2 Bariatric Transport Guidelines .....	29
3.3 Components .....	9	8.3 Bariatric Transport: Transferring the Patient ...	30
3.4 Cot Positions .....	10	8.4 Bariatric Transport: Rolling the Cot .....	30
<b>4 - Setup/Installation</b> .....	<b>11-13</b>	8.5 Bariatric Transport: Loading the Cot .....	31
4.1 Restraints, Mattress, Accessories .....	11	8.6 Bariatric Transport: Unloading the Cot .....	31
4.2 Install the Safety Hook .....	11, 12	<b>9 - Maintenance</b> .....	<b>32-34</b>
4.3 Update Your Model 175 Fastener .....	13	9.1 Maintenance Schedule .....	32
<b>5 - Using the Features</b> .....	<b>14-17</b>	9.2 Disinfecting and Cleaning the Restraints .....	32
5.1 Patient Restraints .....	14	9.3 Disinfecting and Cleaning the Mattress .....	32
5.2 Mattress .....	14	9.4 Disinfecting the Cot .....	32
5.3 Backrest .....	14	9.5 Cleaning the Cot .....	33
5.4 Fastener Release Lever .....	15	9.6 Waxing the Cot (Optional) .....	33
5.5 Telescoping Side Lift Handles .....	15	9.7 Inspecting the Cot .....	33
5.6 Wheel Locks .....	15	9.8 Lubricating the Cot .....	34
5.7 Shock Frame .....	16	9.9 Adjusting the Amount of Travel of the Foot-End Control Handles .....	34
5.8 Sidearms: Swing-Down .....	16	<b>10 - Accessories and Related Products</b> .....	<b>35</b>
5.9 Sidearms: Universal (Optional) .....	16	<b>11 - Parts and Service</b> .....	<b>36, 37</b>
5.10 Drop Frame .....	17	11.1 Parts and Service - USA and Canada .....	36
5.11 Control Handles .....	17	11.2 Parts and Service - Outside USA and Canada ..	36
5.12 Lead Handle .....	17	11.3 Parts List .....	36
<b>6 - Using the Cot</b> .....	<b>18-24</b>	11.4 Parts Diagrams .....	37
6.1 Before Placing the Cot in Service .....	18	<b>12 - Limited Warranty</b> .....	<b>38</b>
6.2 General Guidelines for Use .....	18	<b>13 - Ferno Customer Relations</b> .....	<b>38</b>
6.3 Fully Engaging the Locking Mechanism .....	18	<b>Training Record</b> .....	<b>39</b>
6.4 Changing Cot Positions .....	19, 20	<b>Maintenance Record</b> .....	<b>39</b>

## Illustrations

Safety Labels .....	6	Figure 23 - Changing Cot Positions With One Operator .....	21
Height and Strength Considerations .....	7	Figure 24 - Securing the Patient .....	21
Components .....	9	Figure 25 - Rolling the Cot .....	23
Cot Positions .....	10	Figure 26 - Rolling the Cot as a Sled .....	23
Figure 1 - Safety Hook .....	11	Using Additional Help .....	24
Figure 2 - Engaging the Safety Hook .....	11	Figure 27 - Examples of Antler-and-Rail and Stat Trac Fasteners .....	25
Figure 3 - Safety Hook Placement .....	12	Figure 28 - Safety Bail Past Safety Hook .....	26
Figure 4 - Installing the Safety Hook .....	12	Figure 29 - Loading Post Past Safety Stop .....	26
Figure 5 - Old-Style and New-Style Mounting Blocks ...	13	Figure 30 - Lifting the Cot Level .....	26
Figure 6 - Updated Antler Shown After Rear Mounting Block and Turn-Knob Replaced .....	13	Figure 31 - Folding the Undercarriage .....	26
Figure 7 - Patient Restraints .....	14	Figure 32 - Unloading the Cot .....	27
Figure 8 - Attaching the Mattress .....	14	Figure 33 - Disengaging the Release Lever .....	27
Figure 9 - Using the Backrest .....	14	Figure 34 - Disengaging the Release Handle .....	27
Figure 10 - Using the Fastener Release Lever .....	15	Figure 35 - One Operator Loading .....	28
Figure 11 - Using the Side Lift Handles .....	15	Figure 36 - Checking the Undercarriage Lock .....	28
Figure 12 - Wheel Lock .....	15	Figure 37 - Lifting the Cot Level .....	28
Figure 13 - Lowering the Shock Frame .....	16	Figure 38 - Transferring a Bariatric Patient .....	30
Figure 14 - Lowering the Sidearm .....	16	Figure 39 - Securing a Bariatric Patient .....	30
Figure 15 - Lowering or Folding the Universal Sidearm .....	16	Figure 40 - Rolling the Cot With a Bariatric Patient .....	30
Figure 16 - Drop Frame Positions .....	17	Figure 41 - Loading With a Bariatric Patient .....	31
Figure 17 - Control Handles .....	17	Figure 42 - Unloading With a Bariatric Patient .....	31
Figure 18 - Using the Lead Handle .....	17	Figure 43 - Adjusting the Amount of Travel of the Foot-End Control Handles .....	34
Figure 19 - Upper Lifting Positions .....	19	Maintenance Table .....	32
Figure 20 - Lower Lifting Positions .....	19	Lubrication Diagram .....	34
Figure 21 - Changing Positions From the Side .....	19	Parts Diagrams .....	37
Figure 22 - Two-Stage Position Changes .....	20	Serial Number Location .....	38

# 1 - SAFETY INFORMATION

## 1.1 Warning

Warning notices indicate a potentially hazardous situation which, if not avoided, could result in injury or death.

### **⚠ WARNING**

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

**Improper use of the cot can cause injury. Use the cot only for the purpose described in this manual.**

**Failure to use the safety hook can cause injury. Install and use the safety hook as described in this manual.**

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

**An unattended patient can be injured. Stay with the patient at all times.**

**An unrestrained patient can fall off the cot and be injured. Use restraints to secure the patient on the cot.**

**False locking can cause injury. After changing positions, lift the cot until all the wheels are off the ground. This allows the lock to engage if it has not already done so.**

**Rolling the cot in a loading position can cause it to tip. Use a rolling position when rolling the cot.**

**Helpers can cause injury or be injured. Maintain control of the cot, operate the controls, and direct all helpers.**

**Improper bariatric transport can cause injury to the patient, operators and helpers. Follow local protocols and the instructions in this manual.**

**Heavy loads can cause injury. Use as many additional operators and helpers as needed to safely transport the patient.**

**Using a raised position for bariatric transport can cause injury and cot failure. Keep the cot folded when exceeding the standard load limit.**

### **⚠ WARNING**

**Improperly unloading a cot during a bariatric transport can cause injury. Station one operator or helper in the ambulance to release the cot from the safety hook or safety stop.**

**Improper maintenance can cause injury. Maintain the cot only as described in this manual.**

**Attaching improper items to the cot can cause injury. Use only Ferno-approved items on the cot.**

**Improper parts and service can cause injury. Use only Ferno parts and Ferno-approved service on the cot.**

**Modifying the cot can cause injury and damage. Use the cot only as designed by Ferno.**

## 1.2 Important

Important notices emphasize important usage or maintenance information.

### **Important**

Polypropylene webbing can be damaged by bleach or high temperatures. Disinfect and clean restraints only as directed in this manual.

## 1.3 Bloodborne Disease Notice

To reduce the risk of exposure to bloodborne diseases such as HIV-1 and hepatitis when using the cot, follow the disinfecting and cleaning instructions in this manual.

### 1.4 Cot and Fastener Compatibility

Combining different manufacturers' products into a "mixed-component" cot/cot fastener system can increase the user's risk of injury and damage. Ferno-Washington, Inc. strongly recommends that only Ferno-manufactured cots be used in Ferno-manufactured cot fasteners, and that only Ferno-manufactured cot fasteners be used for securing Ferno-manufactured cots in ambulances.

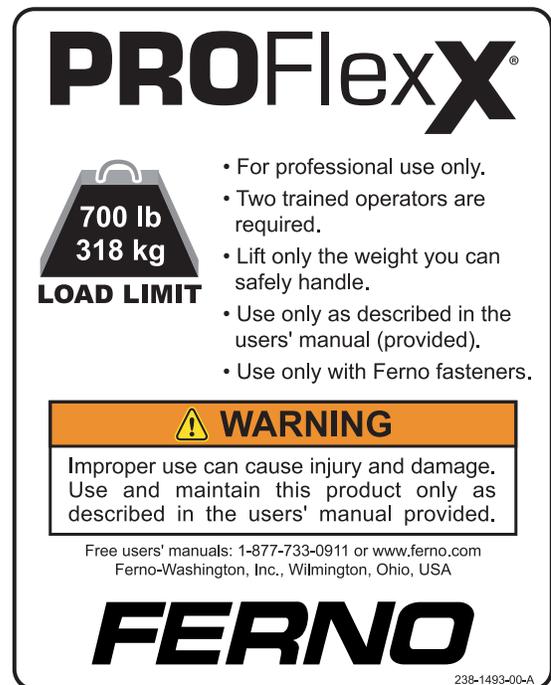
ANY COMBINATION OF A FERNO COT OR COT FASTENER WITH A NON-FERNO COT OR COT FASTENER IS MISUSE OF THE FERNO PRODUCT. Responsibility for the outcome of known, intentional misuse rests squarely on the misuser.

### 1.5 Safety and Instruction Labels

Safety and instruction labels place important information from the users' manual on the cot. Read and follow label instructions.

Replace worn or damaged labels immediately. New labels are available from EMSAR (page 36) or from your distributor.

The following labels are affixed to the cot.



*PROFlexX Identification Label (Qty. 1)*



*Do Not Remove Hand Guard/Professional Use Only Label (Qty. 2)*

## 2 - OPERATOR SKILLS AND TRAINING

### 2.1 Skills

Operators using the cot need:

- a working knowledge of emergency patient-handling procedures.
- the ability to assist the patient.
- a complete understanding of the procedures described in this manual.

### 2.2 Training

Trainees need to:

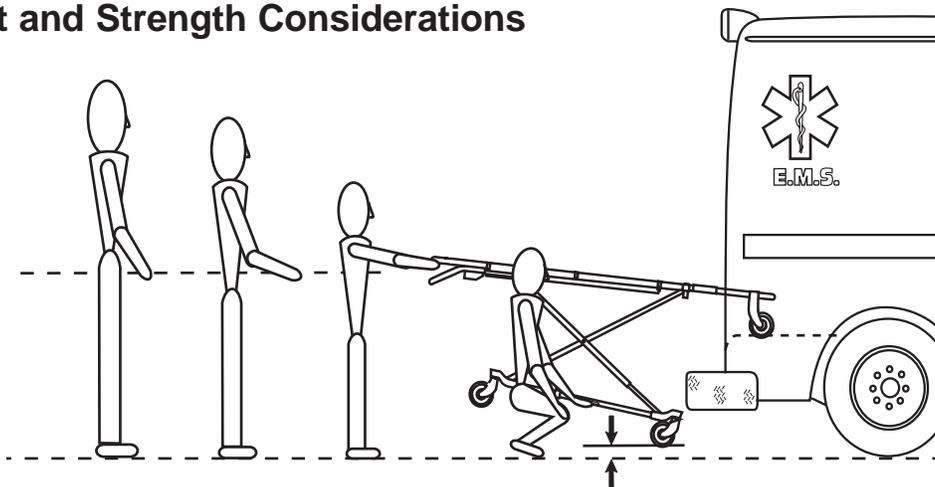
- follow a training program designed by their training officer.
- read this manual. For additional free users' manuals, contact your Ferno distributor or Ferno Customer Relations (page 38).

**⚠ WARNING**

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

- practice with the cot before using it in regular service.
- be tested on their understanding of the cot.
- record their training information. A sample training record sheet is provided on page 39.

### 2.3 Height and Strength Considerations



When unloading the cot, the foot-end operator must lift and hold the weight of the cot, patient, and equipment high enough for the wheels to remain off the ground until the undercarriage legs completely unfold and lock into place.

Supporting this weight requires greater strength from short operators than from tall operators because short operators must raise their arms higher in relation to their shoulders.

Be aware that if the ambulance is parked on an uneven surface, the foot-end operator (and any helpers) may need to lift the cot higher than normal to allow the legs to unfold completely and lock.

Bariatric transport requires special operating procedures. See *Bariatric Transport*, pages 29-31.

**Note:** Use additional help as needed to lift the weight of the cot, patient, and equipment (see *Using Additional Help*, page 24).

### 3 - ABOUT THE COT

#### 3.1 Cot Description

The Ferno® PROFlexX® Series cot (called the cot in this manual) is an emergency patient-handling device designed to transport a patient in a ground-based ambulance. The cot is for professional use by a minimum of two trained operators. It is designed for roll-in loading to help reduce the risk of back injury to medical service personnel.

The PROFlexX cot is designed for use with the Ferno® Model 175 series cot fasteners (not included). The cot is shipped with a safety hook, low-profile mounting block and short turn-knob. The PROFlexX-ST cot is designed for use with the Ferno® Stat Trac series cot fasteners (not included).

Cot features include:

- Clear anodized handling surfaces keep hands and clothing clean
- Choice of colors
- 8 Height positions
- Two loading positions for vehicle floors 28"-33"
- Pneumatic backrest
- Shock frame
- Swing-down sidearms OR Ferno® Universal sidearms that fold flat or swing down
- Lead handle at foot end
- Four 6-inch U-tread swivel transport wheels
- 2 Wheel locks
- 2 Telescoping side lift handles
- 5-Position head-end drop frame
- Set of restraints
- Locking mattress
- Head-end leg protectors
- Lower frame scuff strips

#### AMBULANCE INFORMATION

The ambulance bumper extension should not exceed 14 inches. The patient compartment should have a level floor large enough for the folded cot, and a Ferno® cot fastener installed (not included). See *Cot and Fastener Compatibility*, page 6.

The cot is for use with ambulances that meet the requirements of the Federal Ambulance Specification KKK-A-1822. For information:

Federal Supply Services, Specifications Section  
 Suite 8100  
 470 E. L'Enfant Plaza, SW  
 Washington, DC 20407

#### WARNING

**Improper use of the cot can cause injury. Use the cot only for the purpose described in this manual.**

#### 3.2 General Specifications

##### Height<sup>1</sup>

Bed Position 8 .....	39 in/98 cm
<b>Loading Position 2</b> .....	<b>31 in/79 cm</b>
Bed Position 7 .....	37 in/93 cm
<b>Loading Position 1</b> .....	<b>27 in/69 cm</b>
Bed Position 6 .....	34 in/87 cm
Bed Position 5 .....	31 in/79 cm
Bed Position 4 .....	28 in/71 cm
Bed Position 3 .....	24 in/62 cm
Bed Position 2 .....	20 in/51 cm
Bed Position 1 (folded) .....	14 in/35 cm

##### Length

Maximum .....	78 in/199 cm
Minimum .....	64 in/162 cm

**Width (Overall)** ..... 24 in/61 cm

**Weight<sup>2</sup>** ..... 92 lb/42 kg

**Weight (ST)<sup>2</sup>** ..... 100 lb/45 kg

**Strength to Weight Ratio<sup>3</sup>** ..... 7.6 SWR

**Strength to Weight Ratio<sup>3</sup> (ST)** ..... 7.0 SWR

**Load Limit** ..... 700 lb/317 kg

**Bariatric Load Limit<sup>4</sup>** ..... 1,100 lb/500 kg

General specifications are rounded to the nearest whole number. Metric conversions are calculated before rounding the Imperial measurements. For more information, contact Ferno Customer Relations (page 38) or your Ferno distributor.

Ferno reserves the right to change specifications without notice.

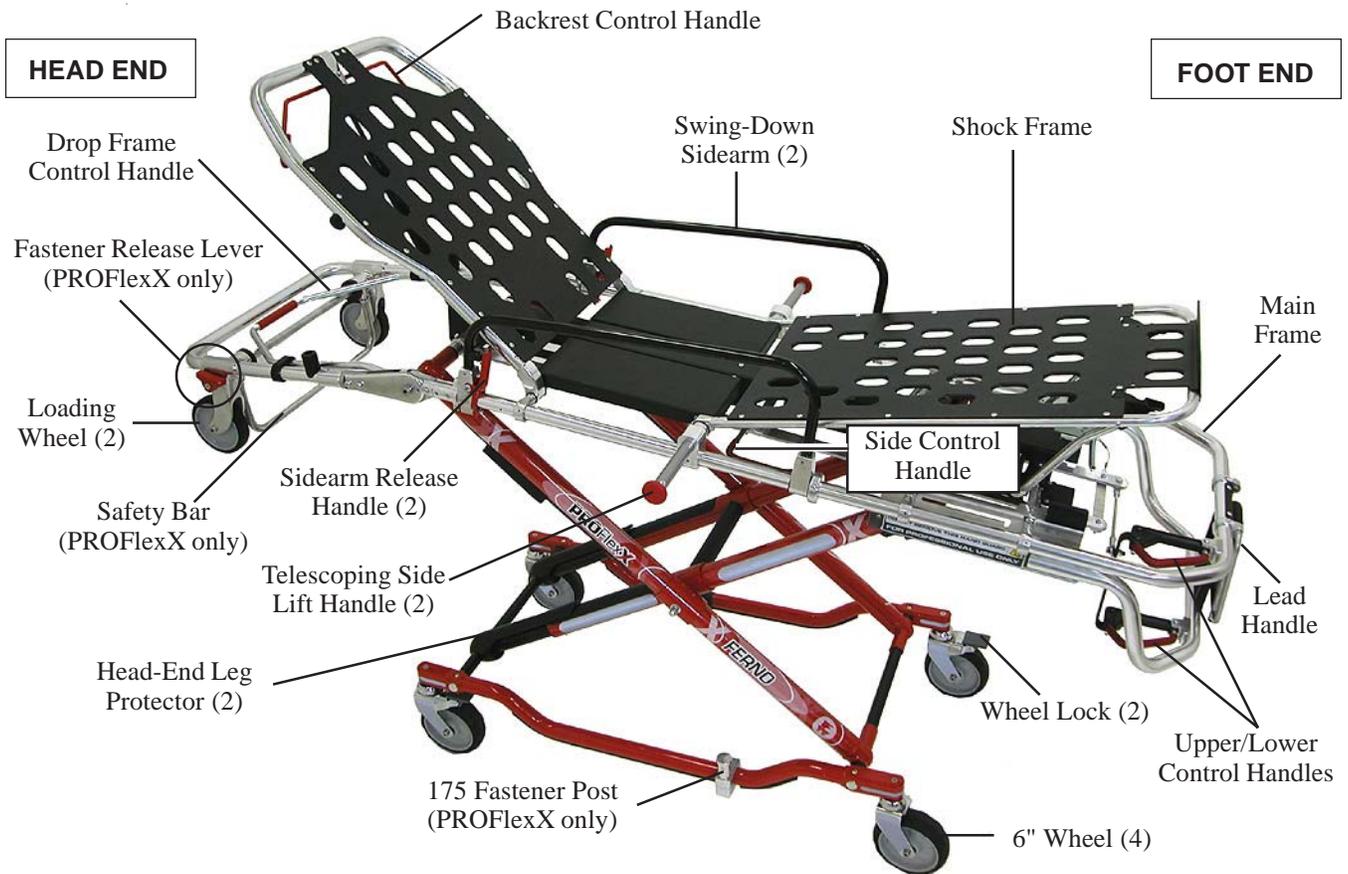
<sup>1</sup>Height measurements are as follows: Loading Position is the distance from the ground to the bottom of the loading wheel. Bed Position is the distance from the ground to the patient surface at the telescoping handle (See page 10).

<sup>2</sup>Weight is without mattress, restraints, and optional features.

<sup>3</sup>Strength to Weight Ratio is the load limit of the cot divided by the cot's weight.

<sup>4</sup>Bariatric transport requires special operating procedures. See pages 29-31.

### 3.3 Components



**PROFlexX-ST Unique Components**



**STANDARD  
LOAD LIMIT**



**BARIATRIC  
LOAD LIMIT\***

\* Follow bariatric transport procedures (pages 29-31) when working with loads in excess of the standard load limit. Inspect the cot if the Standard Load Limit has been exceeded (see *Inspecting the Cot*, page 33).

**INCLUDED WITH PURCHASE:**

- Users' manual (all models)
- Training video (all models)
- Set of three restraints (all models)
- Mattress (option of standard or pocket mattress)
- Safety hook (PROFlexX only)
- Model 175 update parts (PROFlexX only)

*To request additional free users' manuals or videos, contact Ferno Customer Relations (page 38).*

### 3.4 Cot Positions

**Loading Positions (Positions 7 and 8)** - Use these positions for loading and unloading the cot into the ambulance.



**Rolling Positions (Positions 5 and 6)** - Use these positions to roll the cot.



**Transfer Positions (Positions 2-4)** - Use these positions to transfer the patient.



**Folded Position (Position 1)** - Use this position to transfer the patient, roll during bariatric transport, or store the cot.



## 4 - SETUP/INSTALLATION

### 4.1 Restraints, Mattress, Accessories

Before placing the cot in service, assign appropriate personnel to install the mattress (see page 14), restraints, and any accessories shipped with the cot. Follow all instructions in the restraint and accessory packages. Keep the users' manuals with this manual for future reference. For additional, free manuals, contact Ferno Customer Relations (page 38).

### 4.2 Install the Safety Hook

**Note:** *If your service uses only the Stat Trac fastener, skip the rest of Section 4.*

If your ambulance service uses the Model 175 antler and rail fastener system, the safety hook provided (Figure 1) must be installed on the ambulance floor.

The safety hook catches the cot safety bar (Figure 2) to ensure that the cot remains secured inside the ambulance while the operators unlock the undercarriage during loading or unloading.

Installing the safety hook requires the skills of a mechanic familiar with ambulance construction.

Before installing the safety hook, consult the ambulance manufacturer about the location of wiring, oxygen or fuel lines, and other elements under the ambulance floor, and about the ambulance warranty.

#### HARDWARE REQUIRED (NOT SUPPLIED)

- 2 ..... ¼ in-20 socket-head cap screws\*
- 2 ..... flat washers
- 2 ..... lock washers
- 2 ..... ¼ in-20 nuts

\* The socket-head cap screws must be long enough to pass through the safety hook, patient compartment floor, both washers, and still have at least two full threads extending past the nut.

The hardware must be of at least SAE Grade 5 with UNC-2 thread (or equivalent).

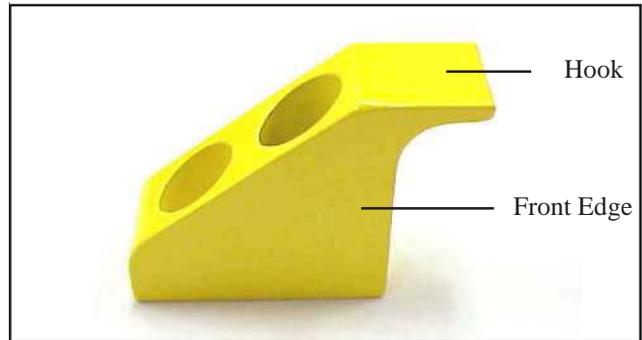


Figure 1 - Safety Hook

### ⚠ WARNING

**Failure to use the safety hook can cause injury. Install and use the safety hook as described in this manual.**

### Important

Before installing the safety hook, consult the ambulance manufacturer about possible interference with wiring and other elements under the ambulance floor, and about the ambulance warranty.

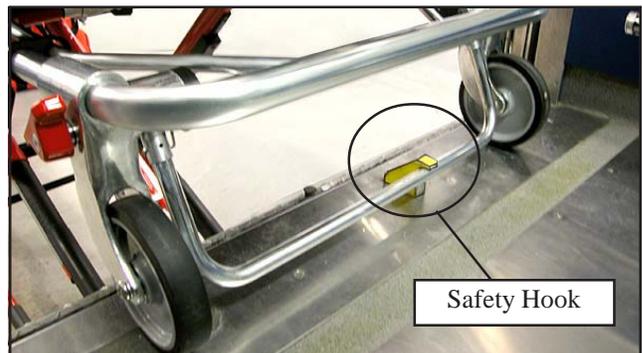


Figure 2 - Engaging the Safety Hook

**PROPER SAFETY HOOK PLACEMENT**

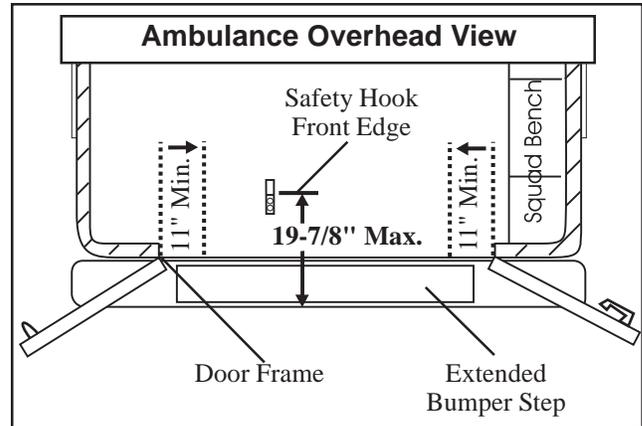
Position the safety hook as close to the rear of the ambulance as possible, within the limits below:

- ❑ The bumper or extended folding bumper must not exceed 14 in. (36 cm).
- ❑ Position the safety hook with the hook facing the front of the ambulance.
- ❑ Position the safety hook at least 11 in. (28 cm) from the door frame (Figure 3) so the cot's safety bar will engage the hook when the cot is loaded or unloaded.
- ❑ Position the safety hook no more than 19-7/8 in. (50.5 cm) from the front edge of the hook to the rear of the ambulance, **including** the bumper and folding bumper step in the extended (open) position.

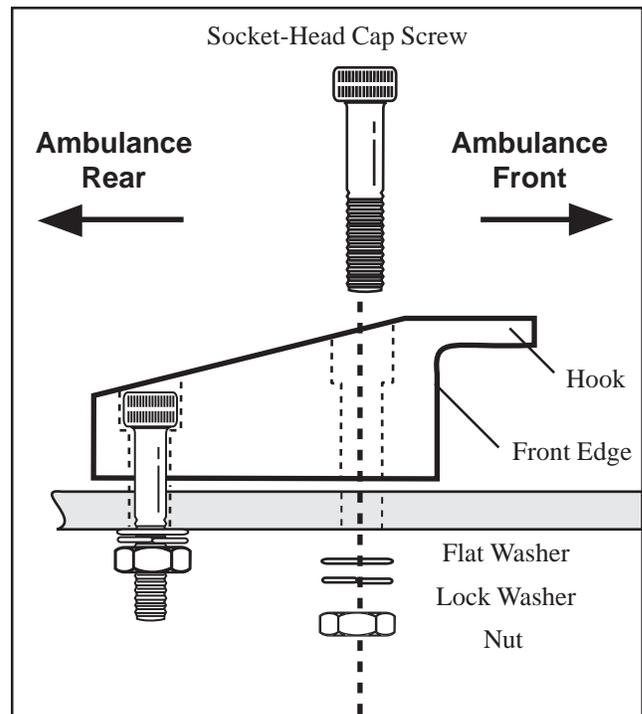
**Note:** If the safety hook is installed too far inside the ambulance, you will not be able to properly fold or unfold the cot when it is secured by the hook.

**INSTALLING THE SAFETY HOOK**

1. Mark the position of the safety hook on the floor.
2. Drill holes for the socket-head cap screws and attach the safety hook to the floor (Figure 4).
3. To test the hook, load and unload the cot.



**Figure 3 - Safety Hook Placement**



**Figure 4 - Installing the Safety Hook**

### 4.3 Update Your Model 175 Fastener

Model 175 fasteners with removable antler mounts and serial numbers lower than L-612245 must be updated to function properly with current Ferno cots. (The serial number is located on the rail portion of the fastener).

The cot is shipped with parts to update one fastener: one low-profile mounting block and one short turn knob. Contact Ferno Customer Relations (page 38) to order parts to update additional fasteners.

**Note:** Updated fasteners will still function with older Ferno<sup>®</sup> cots.

**Note:** Permanently-mounted cot fasteners do not require updating.

#### Update your fastener if:

- the antler is removable (attaches to the ambulance floor with a large turn knob) **AND**
- the antler is currently attached to the ambulance floor by an old-style rectangular mounting block (Figure 5) and knob.

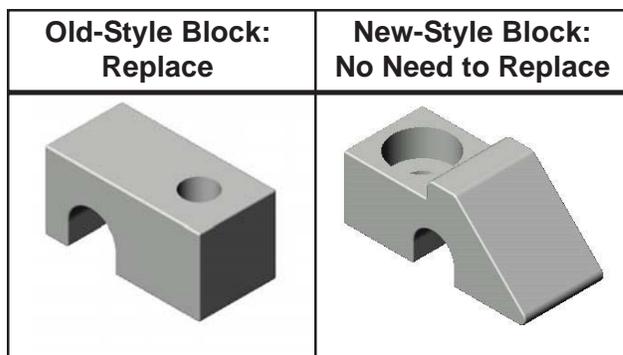
#### Do not update your fastener if:

- the antler is permanently mounted to the floor by a bolt **OR**
- your removable antler already uses the new-style low-profile mounting blocks (Figure 5)

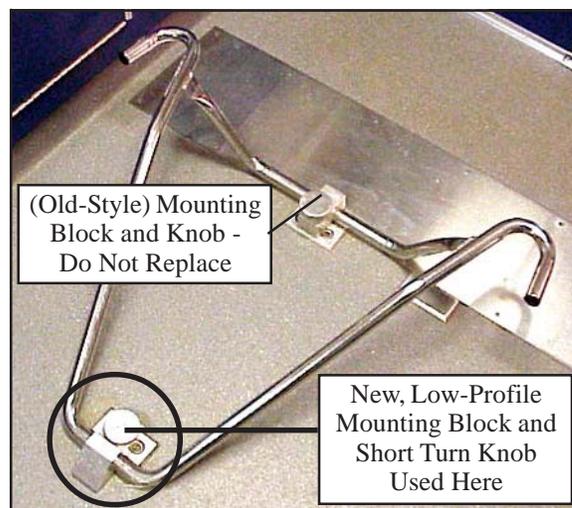
#### TO UPDATE YOUR FASTENER

The parts provided allow you to replace the block and turn knob at the rear of the antler. To update an existing fastener:

1. Remove the old-style rectangular antler mounting block and turn knob from the rear of the antler.
2. Position the new-style, low-profile mounting block (provided) with the sloped end facing toward the rear of the ambulance as shown in Figure 6. Secure the antler and new-style mounting block with the new, short turn knob provided.



**Figure 5 - Old-Style and New-Style Mounting Blocks**

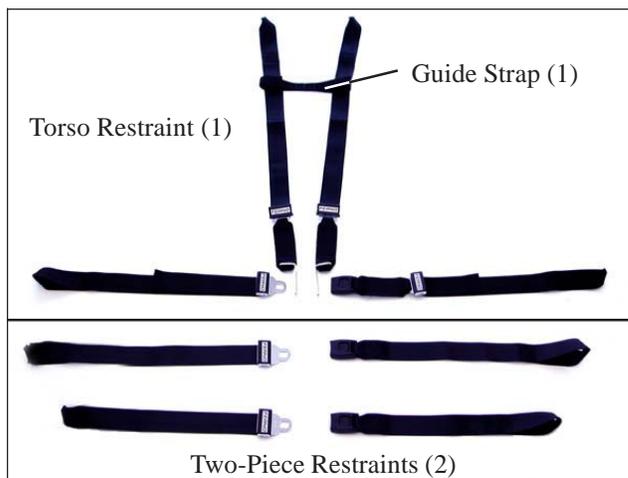


**Figure 6 - Updated Antler Shown After Rear Mounting Block & Turn-Knob Replaced**

## 5 - USING THE FEATURES

### 5.1 Patient Restraints

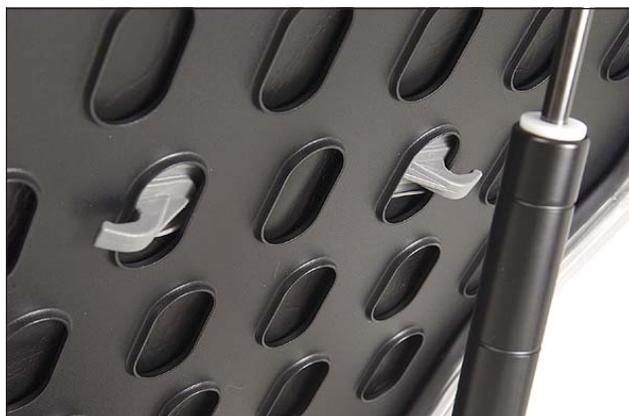
- Use a complete set of three patient restraints (supplied, Figure 7) to secure the patient.
- Adjust restraints to safely secure the patient without causing discomfort or impairing circulation.
- Keep restraints fastened when not in use to prevent them from interfering with cot operation.
- See the restraint users' manuals (supplied) for instructions on attaching, using, and maintaining the restraints.



**Figure 7 - Patient Restraints**

### 5.2 Mattress

- Use the five hooks on the bottom of the mattress to anchor the mattress to the cot.
- To attach, raise the backrest and shock frame as needed and feed the hooks through holes in the patient surface (Figure 8).
- To remove, slide one hand under the mattress and apply upward pressure while removing each hook from the patient surface with your other hand.



**Figure 8 - Attaching the Mattress**

### 5.3 Backrest

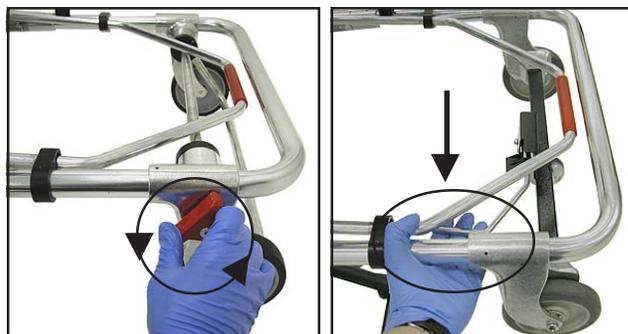
- Use the backrest to elevate the patient's torso for patient comfort and when medically necessary.
- **Before use:**
  - Loosen or unbuckle the torso restraint
  - Support the weight of the backrest and patient
- Press the red control handle toward the backrest (Figure 9). Raise or lower the backrest to the desired position. Release the control handle to lock.
- The gas spring is under pressure to ease raising and lowering. Control the upward movement of the backrest so it does not move too quickly.



**Figure 9 - Using the Backrest**

## 5.4 Fastener Release Controls

- The fastener release control lever or handle is located near the cot's loading wheels.
- To release the cot from the fastener:
  - **PROFlexX**: release the cot from the safety hook by turning the lever counter-clockwise (Figure 10).
  - **PROFlexX-ST**: release the cot from the safety stop by pulling the handle toward the patient left side of the cot (Figure 10).
- For complete unloading instructions, see *Unloading the Cot*, page 27.



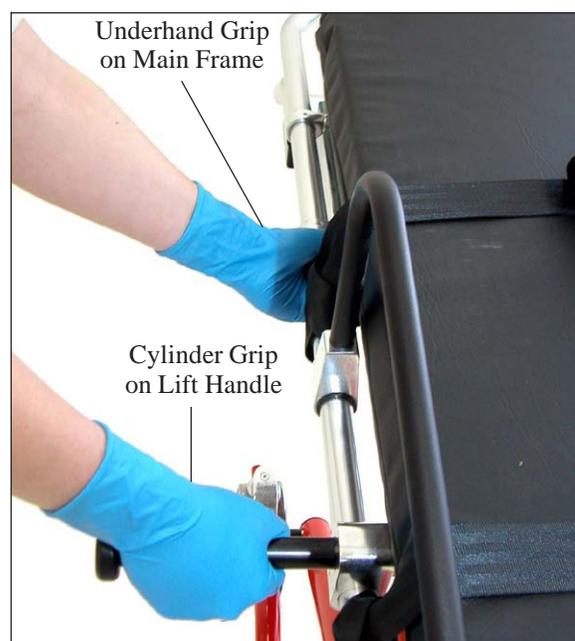
PROFlexX

PROFlexX-ST

**Figure 10 - Fastener Release Controls**

## 5.5 Telescoping Side Lift Handles

- Use the side lift handles as extra lifting or grasping points.
- Pull to extend the handle; push to retract.
- Use both handles when lifting the cot.
- Retract the handles when using the side control handle to raise or lower the cot.
- Figure 11 shows one option for hand placement for lifting the cot. Alternatively, grasp the lift handles with both hands.



**Figure 11 - Using the Side Lift Handles**

## 5.6 Wheel Locks

- Use the wheel locks to help keep the cot stationary during patient transfer and certain medical procedures.
- Wheel locks are **not** brakes. Stay with the cot and remain in control of it at all times.
- Wheel locks are located at opposite corners of the cot where they are accessible to the operator's right foot.
- When engaged, the wheel lock stops wheel rotation and caster swiveling.
- Press the lock lever to engage the lock; tap the top part of the lock lever to disengage (Figure 12).



**Figure 12 - Wheel Lock**

## 5.7 Shock Frame

- Use the shock frame to elevate the patient's legs.
- Unfasten or loosen the leg restraint before adjusting the position of the shock frame.
- **To raise:** stand at the foot end of the cot and use both hands to raise the shock frame until it locks in the raised position.
- **To lower:** lift the shock frame a little to support the weight, then press the shock frame control levers (Figure 13) and lower the shock frame.
- Fasten and adjust the leg restraint after completing the position change.



Figure 13 - Lowering the Shock Frame

## 5.8 Sidearms: Swing-Down

- Sidearms provide patient security and comfort. Keep sidearms raised except during patient transfer.
- The sidearms feature an intermediate stop that allows a patient's arm to be placed on the sidearm.
- **To lower:** squeeze the sidearm release handle (Figure 14) and lower the sidearm. To stop at the intermediate position, let go of the release handle before the sidearm reaches the 90° point.
- **To raise:** lift the sidearm until it locks. (You do not need to use the release handle).



Figure 14 - Lowering the Sidearm

### Important

Do not use the sidearms to lift the cot. Sidearms are not designed for lifting. Lift the cot only by grasping the main frame, or main frame and side lift handles.

## 5.9 Sidearms: Universal (Optional)

- Sidearms provide patient security and comfort. Keep sidearms raised except during patient transfer.
- Universal sidearms fold along the main frame (Figure 15) or swing down like a traditional sidearm.
- **To fold:** press release lever and fold the sidearm.
- **To lower:** press the release lever, pull the sidearm slightly toward the foot-end of the cot to free it from the lock, then swing the sidearm down.
- **To use the middle stop:** Press the release lever and begin folding **and** lowering the sidearm, then slide the sidearm toward the head-end of the cot to lock it before lowering to the 90° point.



Figure 15 - Lowering or Folding the Universal Sidearm

### Important

Sidearms are designed to support light objects. Do not place objects weighing more than 10 pounds (4.5 kg) on the sidearms.

## 5.10 Drop Frame

- The multipurpose drop frame adjusts to 5 positions (Figure 16). The positions allow the operators to:
  - load and unload the cot safely using the attached safety bar. [Position 0]
  - choose the best position for lifting [Positions +1, -1]
  - shorten the cot when space is limited [Positions +2, -2].
- Do not fold the cot with the drop frame in the [-1] or [-2] position. Use a higher position.
- Adjust the drop frame by squeezing the release bar, moving the drop frame to the new position and letting go of the release bar.
- Note: the drop frame is not locked when in the folded [-2] position.

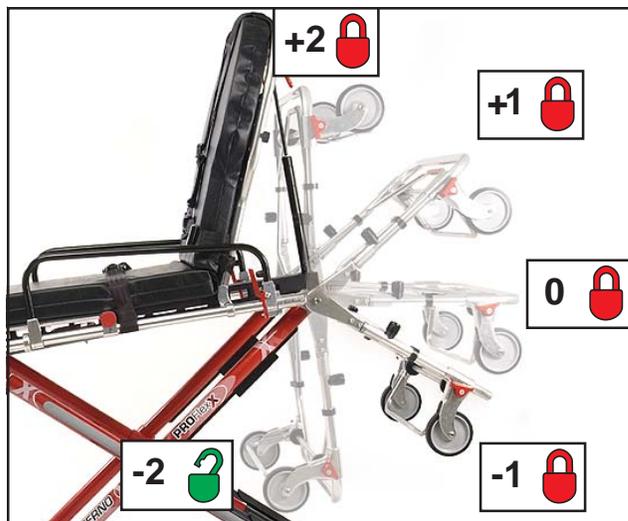


Figure 16 - Drop Frame Positions

## 5.11 Control Handles

- Use the undercarriage control handles to operate the locking mechanism that allows the cot to be raised and lowered.
- There are three control handles: upper, lower, and side (Figure 17). Operating any control handle will disengage the lock.
- Operators use the control handle that is best for the lifting situation. For example, the lower control handle gives a short operator better leverage for lifting.
- Lift the cot off its wheels both **before** and **after** using a control handle. This removes the weight from the locking mechanism and allows it engage fully.

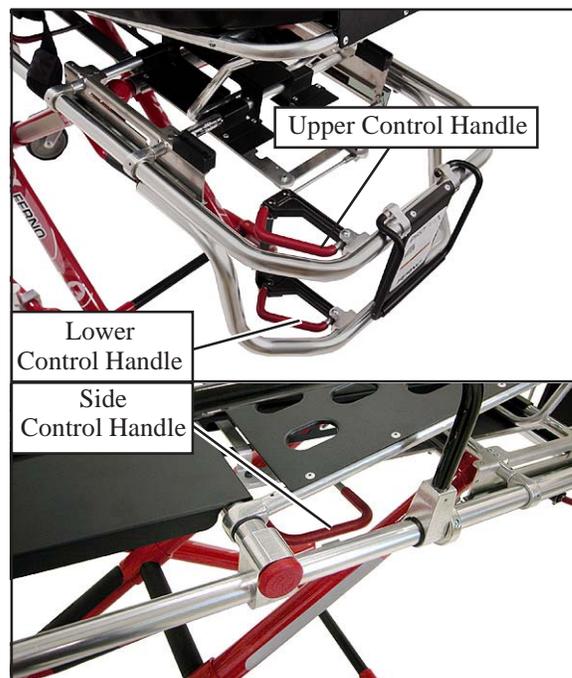


Figure 17 - Control Handles

## 5.12 Lead Handle

- Use the lead handle to pull the cot when it is in a rolling position. See *Cot Positions*, page 10. Unfold the lead handle for use (Figure 18).
- Fold the lead handle for storage. Do not allow it to hang unfolded.



Figure 18 - Using the Lead Handle

## 6 - USING THE COT

### 6.1 Before Placing the Cot in Service

- ❑ Personnel who will work with the cot must be trained. See *Operator Skills and Training*, page 7.
- ❑ Set up the cot. Attach the mattress and restraints. If you have a Model 175 cot fastener, install the safety hook, and, if needed, update your fastener. See *Setup and Installation*, pages 11-13.
- ❑ Confirm that cot operates properly. See *Inspecting the Cot*, page 33.

### 6.2 General Guidelines for Use

- Medical advice is beyond the parameters of this manual.
- It is the users' responsibility to ensure safe practices for the patient and themselves.
- A minimum of two trained operators is required.
- Follow standard emergency patient-handling procedures when operating the cot.
- Operators work together at all times.
- Operators communicate with one another and use coordinated movements to operate the cot.
- Lift only the weight you can safely handle. Use additional help when working with heavy loads (patient and equipment). For placement of helpers, see *Using Additional Help*, page 24.
- Stay with the patient at all times.
- Always use patient restraints to secure the patient on the cot.
- Keep the cot folded when the load exceeds the standard Load Limit (See *Bariatric Transport*, pages 29-31).

### 6.3 Fully Engaging the Locking Mechanism

False locking is a condition in which the locking mechanism does not fully engage when a control handle is released. This can occur after changing cot positions if the locking pin rests exactly on the tip of a ratchet bar tooth, and can allow the cot to lower to the next locking position when moved.

To ensure the locking mechanism fully engages after changing positions, lift the cot until all the wheels are off the ground. This allows the lock to fully engage if it has not already done so.

#### WARNING

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

#### WARNING

**An unattended patient can be injured. Stay with the patient at all times.**

#### WARNING

**An unrestrained patient can fall off the cot and be injured. Use restraints to secure the patient on the cot.**

#### WARNING

**False locking can cause injury. After changing positions, lift the cot until all the wheels are off the ground. This allows the lock to engage if it has not already done so.**

## 6.4 Changing Cot Positions

Changing cot positions with a patient on the cot requires a minimum of two trained operators **working together**.

### PREPARING TO RAISE OR LOWER THE COT

1. *Both Operators:* Stand at opposite ends or sides of the cot (Figures 19-21).
2. *Both Operators:* Select the lifting position that provides the best leverage (Figures 19-21). Use an underhand grip to grasp the cot main frame.
3. *Control Operator:* Position your hand to use the control handle.

### Important

Operators should expect and be prepared to control the normal downward movement of the cot which occurs when a control handle is squeezed.

### RAISING OR LOWERING THE COT

1. *Both Operators:* Lift the cot slightly to take the weight off the locking mechanism.
2. *Both Operators:* As the control operator squeezes and holds the control handle, both operators raise or lower the cot. If the control handle is difficult to squeeze, both operators lift the cot a little higher to free the locking mechanism.
3. *Control Operator:* Release the control handle when the cot is near the desired height.
4. *Both Operators:* Together, lift the cot until all four transport wheels are off the ground. This ensures the undercarriage lock engages if it has not already done so.
5. *Both Operators:* Set the cot onto the floor or ground. Do not release your grasp until you are sure the undercarriage is locked at the new position.



Figure 19 - Upper Lifting Positions



Figure 20 - Lower Lifting Positions



Figure 21 - Changing Positions from the Side

## Two-Stage Raising or Lowering

To maintain proper lifting techniques, the operators may choose to adjust the cot height in two stages (Figure 22). To do this:

1. Use one set of lifting positions to raise or lower the cot partway.
2. Stop at a comfortable position and verify that the undercarriage is locked.
3. Adjust your hands to new lifting positions:
  - *Assisting Operator:* Raise or lower the drop frame to a different locked position.
  - *Control Operator:* Move your hands from the main frame to the lower lift frame or vice-versa.
4. Raise or lower the cot to the desired finishing position.

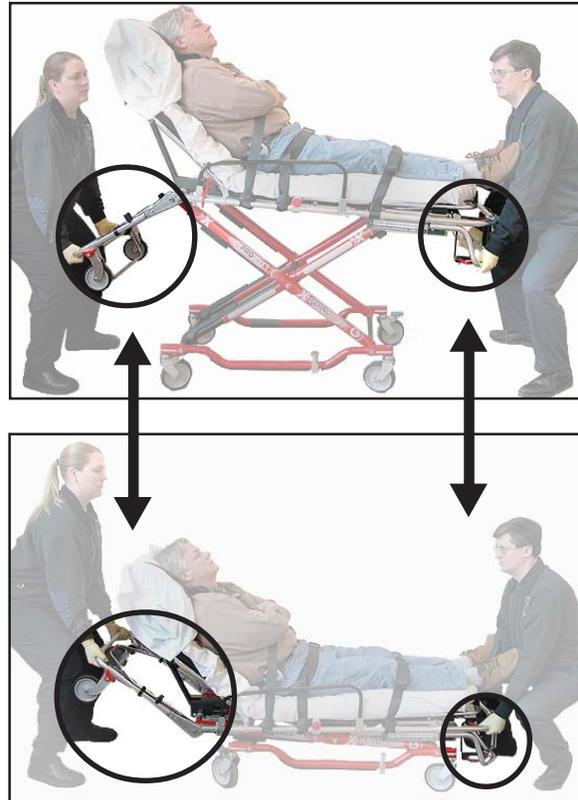


Figure 22 - Two-Stage Position Changes

### RECOVERING FROM IMPROPERLY FOLDING THE COT

If you attempt to fold the cot with the drop frame locked in the lower lifting position, the drop frame mechanism will bind and cause the cot to not sit level.

If this occurs, **do not** release the drop frame hinges; you could jar the patient and/or damage the mechanism.

To recover, both operators raise the cot into a higher position. Adjust the drop frame to the extended position and then fold the cot.

### Important

Do not fold the cot with the drop frame locked in the lower lifting position. Lower the cot to a rolling position, raise the drop frame to the level position or higher, then continue folding the cot.

## 6.5 Changing Positions: One Operator (Empty Cot Only)

When the cot is empty (no patient), one operator can change the cot position.

Tip the empty cot onto its loading wheels (Figure 23), operate the control handle and raise or lower the cot to the desired position. Then, let go of the control handle and return the cot to its transport wheels.



**Figure 23 - Changing Cot Positions  
With One Operator**

## 6.6 Transferring the Patient to the Cot

To transfer a patient onto the cot:

1. Unfasten the restraints and arrange the straps so they will not interfere with transferring the patient onto the cot.
2. Place the cot beside the patient and adjust it to the patient's level (Figure 24).
3. Lower or fold the sidearms and retract the side lift handles.
4. Transfer the patient onto the cot using approved EMS procedures and your local protocols.
5. Raise the sidearms. Adjust the backrest and shock frame as needed.
6. Fasten and adjust the patient restraints (Figure 24).
7. Before moving the cot or changing its position, make sure sheets and other articles will not interfere with cot operation.

### Important

Sheets or other articles that are placed, or find their way, beneath the metal bed of the cot can become caught in the ratchet mechanism and cause it to malfunction. Take care to tuck sheets between the mattress and the metal bed of the cot. Keep other articles above the mattress.



**Figure 24 - Securing the Patient**

## 6.7 Rolling the Cot

### GENERAL GUIDELINES

- Rolling the cot requires a minimum of two trained operators **working together**.
- Rolling the cot in the loading position can cause the cot to tip. Always use a rolling position to roll the cot. See *Cot Positions*, page 10.
- Roll the cot on smooth, unobstructed surfaces whenever possible.
- To cross a low obstacle, lift the cot slightly to take the weight off the wheels so the wheels roll smoothly over the obstacle.
- Avoid high obstacles whenever possible. Lift and carry the cot over a high obstacle when the obstacle cannot be avoided.
- When rolling over rough terrain, the operators (and helpers) should grasp the cot with both hands. Side helpers can place both hands on the main frame or lifting handles, or place one hand on each.
- Use additional help as needed to safely control the load (see *Using Additional Help*, page 24).
- When using additional help, trained operators stand at the head and foot ends of the cot and work the controls. Helpers can extend the side lifting handles or grasp the main frame, and assist the trained operators.
- Side helpers may need to walk sideways under some circumstances. Follow local protocols.
- If the load exceeds the cot's standard load limit, see *Bariatric Transport*, pages 29-31.

### Important

Roll the cot downhill foot-end first. If it is not medically appropriate to do this, roll the cot head-end first, but do the following:

To maintain cot balance while rolling it downhill head-end first, the assisting operator must exert upward force on the main frame.

### WARNING

**Rolling the cot in a loading position can cause it to tip. Use a rolling position when rolling the cot.**

### Important

Trained operators position themselves at the head and foot ends of the cot and operate the controls. Show helpers where to stand and how to grasp the cot.

**ROLLING THE COT**

1. Securely fasten the restraints around the patient.
2. *Both Operators:* Place the cot in a rolling position. See *Cot Positions*, page 10.
3. *Control Operator:* Position yourself at foot end of cot, grasp the main frame, and pull the cot forward. Or, if rolling the cot on a smooth, flat surface, unfold the lead handle and pull the transporter (Figure 25).
4. *Assisting Operator:* Position yourself at either the head-end of the cot (grasping the drop frame) or at the side of cot near the patient's torso (grasping the main frame, Figure 25). Attend the patient and assist in rolling and steering the cot.

**ROLLING THE COT AS A SLED**

The cot's long lead handle and multi-position drop frame allow the cot to be rolled as a sled. This is the preferred way to roll the cot when the load exceeds the cot's standard load limit. See *Bariatric Transport*, pages 29-31. To roll the cot as a sled:

1. Fold the cot and raise the backrest.
2. *Assisting Operator:* Place the drop frame in one of the high positions [+1] or [+2]. Grasp the drop frame with both hands and help steer and push the cot (Figure 26).
3. *Control Operator:* Extend the lead handle and pull the cot (Figure 26).



**Figure 25 - Rolling the Cot**



**Figure 26 - Rolling the Cot as a Sled**

### 6.8 Using Additional Help

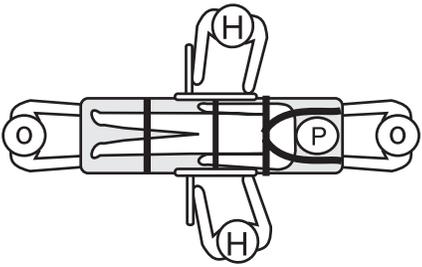
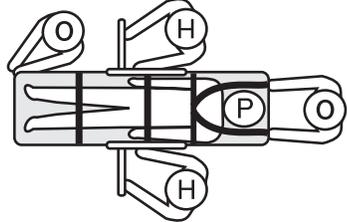
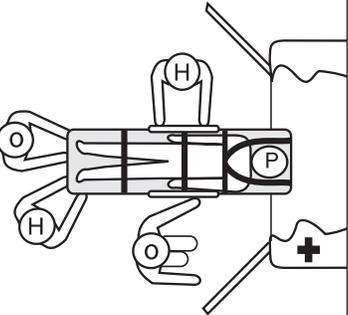
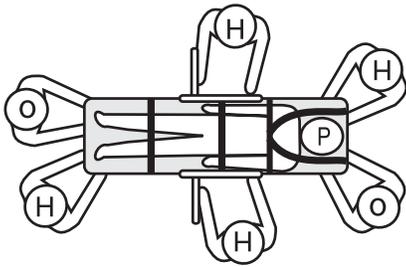
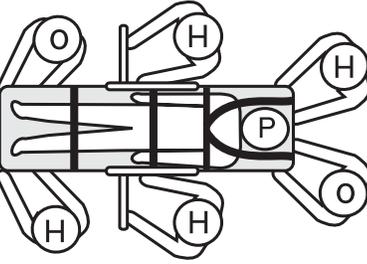
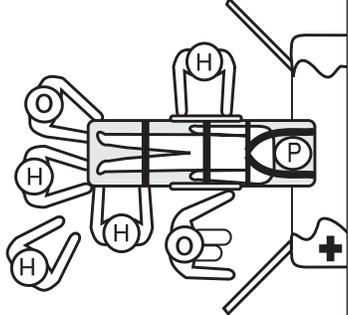
Operating the cot requires a minimum of two trained operators. They may need additional help when working with heavy loads (patient plus equipment).

The chart below shows suggested placement for operators and helpers.

**Note:** Side helpers may need to walk sideways under some circumstances. Follow your local protocols.

Operators should do the following:

- Position themselves at the head and foot ends of the cot
- Maintain control of the cot at all times
- Operate the controls
- Direct all helpers

Helpers	Changing Levels	Rolling	Loading/Unloading
Two Operators + Two Helpers			
Two Operators + Four Helpers			

Key: O = Operator H = Helper P = Patient

#### ! WARNING

Helpers can cause injury or be injured. Maintain control of the cot, operate the controls, and direct all helpers.



**STANDARD  
LOAD LIMIT**



**BARIATRIC  
LOAD LIMIT\***

#### Important

Trained operators position themselves at the head and foot ends of the cot and operate the controls. Show helpers where to stand and how to grasp the cot.

\* Follow bariatric transport procedures (pages 29-31) when working with loads in excess of the standard load limit. Inspect the cot if the Standard Load Limit has been exceeded (see *Inspecting the Cot*, page 33).

## 7 - LOADING AND UNLOADING THE COT

### 7.1 Fastener Compatibility

Read the cot fastener users' manual for instructions on using the fastener. Also see *Cot and Fastener Compatibility*, page 6.

#### ANTLER-AND-RAIL FASTENER

The PROFlexX cot is compatible with all versions of the Ferno® Model 175 antler and rail cot fasteners (Figure 27). The cot fastener must be configured for use with the Ferno® Model 35 Series - see the fastener installation manual for details.

Using the Model 175 cot fastener requires the installation of the safety hook. Cot fasteners with removable antlers may also need to be updated. The safety hook and parts to update a fastener are included with the cot (See *Setup and Installation*, pages 11-13).

#### STAT TRAC FASTENER

The PROFlexX-ST cot is compatible with all versions of the Ferno® Model 185 Stat Trac fastener (Figure 27). The center of the fastener must be a **minimum of 17" (43 cm)** from the ambulance wall. If the fastener was installed closer than this minimum distance, it must be re-installed further from the wall to provide room for the cot wheels to swivel during loading and unloading.

#### Important

Loose items and debris on the patient compartment floor can interfere with the operation of the cot with the fastener. Keep the patient compartment floor clear.

### 7.2 Preparing to Load the Cot

1. Raise the ambulance folding bumper, if present.
2. Place the cot in a loading position (See *Cot Positions*, page 10).
3. Place the drop frame in the extended position.
4. Roll the cot to the patient compartment door.

**Note:** Use additional help as needed when working with heavy loads (patient and equipment). See *Using Additional Help*, page 24.



**Figure 27 - Examples of Antler-and-Rail and Stat Trac Fasteners**

#### Important

Stat Trac fasteners installed before June 1, 2000 required only 16 inches of clearance from the ambulance wall to the center of the Stat Trac.

The 6-inch wheels on the PROFlexX require the fastener to be positioned at least 17 inches (43 cm) from the wall to allow room for the wheels to swivel as the cot is removed.

**If you installed a Stat Trac at the old minimum, you must reposition your Stat Trac to at least the new 17-inch minimum.**

Contact Ferno Customer Relations (page 38) for a revised Stat Trac installation manual.

#### Important

If the ambulance is parked on an uneven surface, the operators (and any helpers) may need to lift the cot higher than normal to allow the undercarriage to lock.

### 7.3 Loading the Cot

Loading the cot with a patient on it requires a minimum of two trained operators **working together**.

1. Roll the cot forward until both loading wheels are on the patient compartment floor and either:
  - the safety bail passes the safety hook (Figure 28) OR
  - the head-end loading post passes the safety stop on the Stat Trac (Figure 29)
2. *Control Operator*: Lift the foot end of the cot until it is level with the ambulance floor (Figure 30).
3. *Control Operator*: Squeeze and hold the undercarriage control handle and tell the *Assisting Operator* to lift the undercarriage.
4. *Assisting Operator*: Grasp the undercarriage grip (Figure 30). When the *Control Operator* communicates that he/she is ready, lift the undercarriage all the way up and hold it in the folded position (Figure 31).



**Figure 28 - Safety Bail Past Safety Hook**



**Figure 29 - Loading Post Past Safety Stop**

5. *Control Operator*: Let go of the undercarriage control handle to lock the undercarriage in the folded position. Push the cot into the ambulance.
6. *Assisting Operator*: Assist the *Control Operator* as necessary. Release your grip on the undercarriage after all of the cot's wheels are inside the ambulance.
7. Secure the cot in the cot fastener.



**Figure 30 - Lifting the Cot Level**



**Figure 31 - Folding the Undercarriage**

## 7.4 Unloading the Cot

Unloading the cot with a patient on it requires a minimum of two trained operators **working together**.

1. Raise the folding bumper, if present.
2. Release the cot from the cot fastener.
3. *Control Operator:* Grasp the main frame or lift frame at the foot end of the cot and squeeze the undercarriage control handle.
4. *Control Operator:* Keeping the foot end raised and level with the ambulance floor, pull the cot slowly from the ambulance (Figure 32) until the cot is stopped by either the safety hook or the safety stop.

*Assisting Operator:* As the cot is pulled from the ambulance, grasp the undercarriage hand grip (Figure 32) and lower the undercarriage to the ground.

5. *Control Operator:* Let go of the control handle.

### Important

Verify that the undercarriage is locked before operating the fastener release lever or release handle. An unlocked undercarriage will allow the cot to fold.

6. *Control Operator:* Lift the cot until all four transport wheels are off the ground to make sure the undercarriage has unfolded completely and is locked. Set the cot on the ground.
7. *Assisting Operator:* Use the fastener release lever or handle to disengage the cot from the fastener (Figure 33 or Figure 34).
8. *Both Operators:* Roll the cot completely out of the ambulance. As the cot is rolled away from the safety hook or safety stop, the Assisting Operator lets go of the release lever or handle.
9. *Both Operators:* Place the cot in a rolling position (See *Cot Positions*, page 10).



Figure 32 - Unloading the Cot



Figure 33 - Disengaging the Release Lever



Figure 34 - Disengaging the Release Handle

## 7.5 One Operator Loading/Unloading An Empty Cot

If local protocols permit, an empty Model 175-compatible cot may be loaded into and unloaded from the ambulance by one trained operator.

Do not load or unload a Stat Trac-compatible cot with one operator as this can damage the cot and/or the fastener. Always use two operators to load and unload the PROFlexX-ST cot.

### ONE OPERATOR LOADING

1. Raise the ambulance folding bumper, if present.
2. Place the cot in a loading position and roll the cot into the ambulance until both loading wheels are on the patient compartment floor and the safety bar passes the safety hook.
3. Lift the cot until the wheels are off the ground, squeeze and hold the undercarriage control handle, and lower the foot end of the transporter to the ground (Figure 35).
4. Let go of the control handle to allow the undercarriage to lock.
5. Grasp the undercarriage frame with one hand and pull upward on the undercarriage to make sure the cot has locked in the folded position (Figure 36).
6. Lift the foot end of the cot until it is level with the patient compartment floor (Figure 37). Push the cot into the ambulance.
7. Secure the cot in the cot fastener.

### ONE OPERATOR UNLOADING

1. Raise the ambulance folding bumper and release the cot from the cot fastener.
2. Begin pulling the cot from the ambulance but do not operate the control handle. Continue pulling until the safety hook catches the safety bar.
3. Lower the cot foot end to the ground.
4. Squeeze the undercarriage control handle and raise the foot end until the cot wheels are off the ground and the undercarriage unfolds completely and locks.
5. Let go of the control handle and set the cot on the ground.
6. Disengage the safety bar from the safety hook.

### Important

Do not load or unload a Stat Trac-compatible cot with one operator as this can damage the cot or fastener.



**Figure 35 - One Operator Loading**



**Figure 36 - Checking the Undercarriage Lock**



**Figure 37 - Lifting the Cot Level**

## 8 - BARIATRIC TRANSPORT

### 8.1 Bariatric Transport Definition

The standard load limit of the cot is 700 pounds (318 kg). This is the load limit for all normal cot functions including raising and lowering, loading and unloading an ambulance, and rolling.

The cot can be used with loads up to 1,100 pounds (500 kg) when special techniques are used.

Bariatrics is the branch of medicine dealing with extreme obesity. In this manual, the term “bariatric transport” refers to using the cot when the weight of the **patient plus accessories and equipment** exceeds the cot’s rated load limit of 700 pounds (318 kg).

#### OPTIONAL EQUIPMENT

The Large Body Surface (LBS) accessory (not supplied) is a useful option that provides a larger bed surface and restraint extenders for transporting an extremely obese patient.

**Note:** *The LBS requires a center-mounted cot fastener.*

The PROFlexX is certified compliant with the ramp-and winch-loading system manufactured by TranSafe Systems™. See *Accessories and Related Products*, page 35 for details.

The PROFlexX-ST Stat Trac cot is not compatible with the TranSafe System.

### 8.2 Bariatric Transport Guidelines

When undertaking a bariatric transport:

- Follow your local protocols for bariatric transport.
- Use as many additional operators and helpers as needed to safely transport the patient. Refer to *Using Additional Help*, page 24 for recommended placement of additional helpers.
- Follow the instructions in this section.
- Keep the cot in the folded position when the load exceeds 700 pounds (318 kg).
- Properly restrain the patient as instructed in this manual, the restraint users’s manuals, and the LBS user’s manual. Use additional restraints and/or restraint extenders approved by Ferno. See *Accessories and Related Products*, page 35, to order restraints or extenders.

### ! WARNING

**Improper bariatric transport can cause injury to the patient, operators and helpers. Follow local protocols and the instructions in this manual.**



**STANDARD  
LOAD LIMIT**



**BARIATRIC  
LOAD LIMIT\***

\* Follow bariatric transport procedures when working with loads in excess of the standard load limit. Inspect the cot if the Standard Load Limit has been exceeded (see *Inspecting the Cot*, page 33).

### ! WARNING

**Heavy loads can cause injury. Use as many additional operators and helpers as needed to safely transport the patient.**

#### Important

Exceeding the Standard Load Limit can cause damage. Immediately inspect the cot and restraints for damage if the load limit has been exceeded.

### 8.3 Bariatric Transport: Transferring the Patient

If the load (patient plus accessories and equipment) will exceed 700 pounds (318 kg), follow the instructions in *Transferring the Patient To the Cot*, page 21, with the following changes:

- If using the LBS accessory (optional, not supplied) attach it to the cot before moving the patient. See the LBS users' manual for instructions.
- Place the cot in the folded position (See *Cot Positions*, page 10).
- Transfer the patient onto the cot (Figure 38). Ferno recommends using the Manta Rescue Aid (optional, not supplied) to aid in moving the patient. The Manta is included with the LBS or is available separately (see *Accessories and Related Products*, page 35).
- Attach additional Ferno-approved items (restraint extenders, additional restraints, or longer restraints) as needed to properly secure the patient (Figure 39).

### 8.4 Bariatric Transport: Rolling the Cot

Roll the cot in the folded position when the load exceeds the Standard Load Limit. If the patient's size and medical condition permit, raise the backrest and the drop frame and use the drop frame to help push and steer the cot (Figure 40). Follow your local protocols.

Do not place the cot in a raised position. Rolling the cot in a raised position when the standard load limit is exceeded can lead to:

- Injury to the patient and/or operators and helpers
- Cot damage and/or failure.

## ⚠ WARNING

Using a raised position for bariatric transport can cause injury and cot failure. Keep the cot folded when exceeding the standard load limit.



**Figure 38 - Transferring a Bariatric Patient**



**Figure 39 - Securing a Bariatric Patient**



**Figure 40 - Rolling the Cot  
With a Bariatric Patient**

## 8.5 Bariatric Transport: Loading the Cot

To load the cot into the ambulance during a bariatric transport, **do not** use the cot control handles or the safety hook.

1. Roll the cot as close as possible to the ambulance while keeping it in the folded position.
2. Use as many additional operators and helpers as needed to safely pick up the cot and place it in the ambulance.

Do not activate any control handles - leave the cot locked in the folded position as you pick it up and place it in the ambulance (Figure 41).

**Note:** *If using the Stat Trac fastener, you must load the cot loading posts into the Stat Trac. Place one person in the ambulance to watch and verbally direct the operators and helpers to guide the cot into the fastener.*

3. Secure the cot in the fastener.

## 8.6 Bariatric Transport: Unloading the Cot

Do not use the cot control handles when unloading the cot with a bariatric patient.

1. Station one operator or helper inside the ambulance to release the cot from the safety hook (or Stat Trac safety stop) when needed.
2. *Outside Operators/Helpers:* Release the cot from the cot fastener.
3. *Outside Operators/Helpers:* Roll the cot slowly out of the ambulance, allowing the operators and helpers to grasp the main frame (or LBS frame).
4. *Inside Operator:* When the safety hook (or Stat Trac Safety Stop) catches the cot, use the release lever or release handle to release the cot.
5. *Outside Operators/Helpers:* Together, lift the cot out of the ambulance (Figure 42) and set it on the ground.
6. *Outside Operators/Helpers:* Roll the cot on the ground as shown in *Bariatric Transport: Rolling the Cot*, page 30.



**Figure 41 - Loading With a Bariatric Patient**

### ⚠ WARNING

**Improperly unloading a cot during a bariatric transport can cause injury. Station one operator or helper in the ambulance to release the cot from the safety hook or safety stop.**



**Figure 42 - Unloading With a Bariatric Patient**

## 9 - MAINTENANCE

### 9.1 Maintenance Schedule

The cot requires regular maintenance. Set up and follow a maintenance schedule. Keep records. A sample maintenance record sheet is provided on page 39.

The table at right represents minimum intervals for maintenance.

When using maintenance products, follow the manufacturers' directions and read the manufacturers' material safety data sheets. You can purchase a recommended disinfectant from your Ferno distributor or Ferno Customer Relations (page 38).

### 9.2 Disinfecting and Cleaning the Restraints

Remove the restraints from the cot. Disinfect and clean only as directed in the restraint users' manuals provided with the restraints. Additional, free users' manuals can be ordered from Ferno Customer Relations (page 38).

### 9.3 Disinfecting and Cleaning the Mattress

1. Remove the mattress from the cot.
2. Wipe the mattress with disinfectant, following the disinfectant manufacturer's instructions.
3. Wash the mattress with warm, soapy water and a soft cloth.
4. Rinse the mattress with clear water.
5. Hang to dry or dry with a towel.

### 9.4 Disinfecting the Cot

Wipe all surfaces with disinfectant. Follow the disinfectant manufacturer's instructions. Ferno recommends you inspect the cot for damage as you disinfect it.

### WARNING

**Improper maintenance can cause injury. Maintain the cot only as described in this manual.**

Minimum Maintenance Intervals	Each Use	As Needed	Each Month
Disinfecting (this page)	●		
Cleaning (pages 32-33)		●	
Waxing (page 33)		●	
Inspecting (page 33)		●	●
Lubricating (page 34)		●	

### Important

Disinfectants and cleaners containing bleach, phenolics, or iodines can cause damage. Disinfect and clean only with products that do not contain these chemicals.

## 9.5 Cleaning the Cot

1. Remove the restraints, mattress and any accessories.
2. Hand clean all surfaces of the cot with warm water and a mild detergent.
3. Use a brush with stiff bristles to remove stains. Do not use a metal wire brush.
4. Rinse with warm, clear water. Dry the cot with a towel or allow it to air-dry.

## 9.6 Waxing the Cot (Optional)

While it is not necessary to wax this cot, waxing the aluminum main frame or the painted legs will not damage them, and will help maintain the cot's appearance.

Disinfect and clean the cot before applying wax. Use an automotive wax as directed by the wax manufacturer.

## 9.7 Inspecting the Cot

Have your service's equipment maintenance personnel inspect the cot regularly. Follow the checklist at right and operate the cot through all its functions as described in this manual.

If inspection shows damage or excessive wear, remove the cot from service until repair is made.

### Important

Water under high pressure, or steam, penetrates joints, flushes away lubricant, and causes corrosion. Use caution when cleaning moving parts such as joints and hinges.

### Important

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

### INSPECTION CHECKLIST

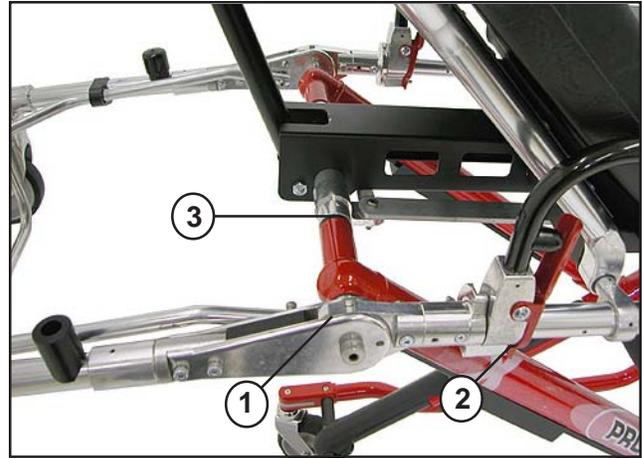
- Are all components present?
- Is the cot free of excessive wear?
- Are all screws, nuts, bolts, rivets, and roll pins securely in place?
- Do all moving parts operate smoothly and properly?
- Does the cot lock properly into each position?
- Does the cot load and unload properly?
- PROFlexX only:** Does the safety hook engage the safety bar?
- Does the cot roll smoothly?
- Do the wheels have some tread?
- Are the restraints properly installed?
- Is restraint webbing in good condition with no cuts or frayed edges?
- Are restraint buckles free of visible damage and do they operate properly?
- Do installed accessories operate properly without interfering with cot operation?
- Is the ambulance properly prepared for the cot?  
Approved cot fastener and safety hook installed?

## 9.8 Lubricating the Cot

Disinfect and clean the cot before applying lubricant. Use the lubricants designated below to lubricate the cot. Do not lubricate points marked with the  symbol.

### Important

Lubricating parts that should not be lubricated allows dirt and foreign particles to collect on those parts, resulting in damage. Lubricate **only** the numbered reference points shown.



### LUBRICATION POINTS

Use a small amount of lubricant. Lubricate identical points on each side of the cot.

- |   |                    |       |   |
|---|--------------------|-------|---|
| 1 | Drop frame hinge   | ..... | WRL-191-S, EZ-1 or white lithium grease |
| 2 | Sidearm lock pins  | ..... | SAE 30-weight oil (1-2 drops)           |
| 3 | Ratchet bar mounts | ..... | WRL-191-S or EZ-1 (1-2 drops)           |

### LUBRICATION-FREE ITEMS

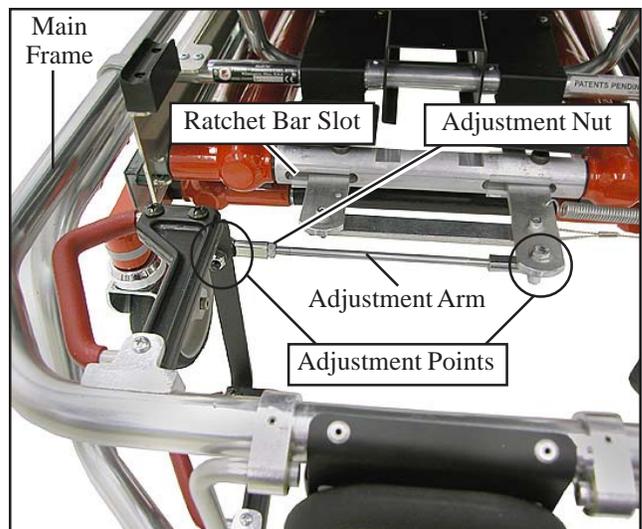
- |   |                                    |       |                  |
|---|------------------------------------|-------|------------------|
|    | Loading wheel bearings             | ..... | Do not lubricate |
|   | Backrest hinges                    | ..... | Do not lubricate |
|  | Side lift handles                  | ..... | Do not lubricate |
|  | Telescoping legs                   | ..... | Do not lubricate |
|  | Transport wheels (sealed bearings) | ..... | Do not lubricate |

## 9.9 Adjusting the Amount of Travel of the Foot-End Control Handles

The amount of travel, or “throw,” of the foot-end control handles can be adjusted. Two 7/16" wrenches are required for this adjustment.

1. Fold the cot and raise the shock frame.
2. Use the two wrenches to loosen and remove the nuts, washers, and bolt from one end of the control handle adjustment arm. Loosen the nuts and bolt at the other end and loosen the adjustment nut.
3. Rotate the adjustment arm to affect the distance the handles must move to activate the undercarriage lock. **Note:** Adjust the arm evenly at each end so that there will be plenty of threads of engagement at each end of the adjustment arm.
4. Reattach/tighten all bolts, washers, and nuts.

**Recommendation:** Adjust the handles so that when pulled, the control handle just touches the cot main frame and the ratchet bar is about 1/8" from touching the inside of the slot (Figure 43).



**Figure 43 - Adjusting the Amount of Travel of the Foot-End Control Handles**

## 10 - ACCESSORIES AND RELATED PRODUCTS

Ferno offers a full line of accessories (fasteners, IV poles, immobilizers, blankets, etc.) approved for use with the cot.

Always follow the instructions packed with accessories. Keep the instructions with this manual. Be aware of any special considerations (loading heights, door heights, etc.) when using accessories.

Contact Ferno Customer Relations (page 38) or your Ferno distributor for product information.

<b>Description</b>	<b>Part Number</b>
274 Pac Rac® equipment tray .....	081-9960
430 Restraint (2 pc., 7' black) .....	031-3911
430 Restraint (2 pc., 5' black) .....	031-3892
417-1 Shoulder harness (black) .....	031-3915
Restraint guide strap (only) .....	031-3945
Model 513-13 cot-mounted IV pole .....	008-7172
PROFlexx locking mattress .....	031-3920
PROFlexX locking mattress w/pocket .....	031-4028
PROFlexx oxygen cylinder holder .....	081-9958
PROFlexx Sof-Net (drop frame storage) .....	081-9874
PROFlexx high position lockout kit .....	082-1927
PROFlexx sidearm cover (1 ea) .....	082-1953
Ratchet bar cover kit .....	082-1950
Large Body Surface (LBS) .....	081-9991
LBS foldable mattress .....	031-4025
LBS IV pole .....	008-7173
Model 132 Manta Rescue Aid (burgundy) .....	038-2969
1' restraint extender (1 ea) .....	031-3942
2' restraint extender (1 ea) .....	031-3659
3' restraint extender, adjustable (1 ea) .....	031-3670
Transfer board .....	010-7992
Touch-up paint is available in the following colors:	
Rescue red .....	081-9972
Day-glo green .....	081-9973
Safety orange .....	081-9974
Electric blue .....	081-9975
Dove gray .....	081-9976
Black .....	081-9977

SaniZene® Hard Surface Cleaner/Disinfectant  
 4 ea., 1 gallon ..... 078-9214

### **WARNING**

**Attaching improper items to the cot can cause injury. Use only Ferno-approved items on the cot.**

#### ***The TranSafe Ambulance Cot Loading System™ is Available From:***

**TranSafe Systems  
 103 E. Ames Court  
 Plainview, NY, 11803 USA**

Telephone (Toll Free) ..... 1.800.425.9881  
 Telephone ..... 1.631.242.2428  
 Fax ..... 1.631.242.2441  
 Internet ..... [www.transafesystems.com](http://www.transafesystems.com)

*Note: TranSafe Systems is a trademark of MEDPRO.*

## 11 - PARTS AND SERVICE

### 11.1 Parts and Service - U.S.A. and Canada

In the United States and Canada, to order parts or for professional cot repair, contact EMSAR® - the only agent authorized by Ferno to manage, service, and repair Ferno products. EMSAR factory-trained technicians use Ferno-approved parts and repair procedures. EMSAR has a franchise location serving you. For details, phone, fax, or visit EMSAR's web site.

**1.800.73.EMSAR (Phone)**  
**1.937.383.1051 (Fax)**  
**www.EMSAR.com (Internet)**



**⚠ WARNING**

**Improper parts and service can cause injury. Use only Ferno parts and Ferno-approved service on the cot.**

### 11.2 Parts and Service - Outside U.S.A. and Canada

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

**⚠ WARNING**

**Modifying the cot can cause injury and damage. Use the cot only as designed by Ferno.**

### 11.3 Parts List

No.	Part	Description	Qty
1	190-1357	Gas-assist release handle	1
2	190-1590	Backrest panel w/rivets	1
3	190-1251	Seat panel w/rivets	1
4	190-1246	Shock panel w/rivets	1
5	190-1365	Shock frame thumb rel. w/hardware	2
6	090-5326	Ratchet bar spring	2
7	190-1591	End panel w/rivets	1
8	190-1605	Lead handle w/E-clips	1
9	190-1592	Foot-end release handle w/hardware	1
10	190-1594	Release handle adjustment linkage	1
11	190-1610	Shock frame guide w/hardware	2
12	190-1607	Slide cover w/hardware	2
13	190-1596	Tech label sheet	1
14	190-1598	Foot-end clearance block w/hardware	2
15	190-1600	Wheel fork with lock (no wheel)	1
16	190-1602	Caster assembly with lock	1
17	190-1601	Wheel fork (no lock, no wheel)	1
18	190-1603	Caster assembly no lock	1
19	190-1589	Lower corner push-caps (set of 4)	1
20	190-1608	Lower frame scuff strip (set)	1

No.	Part	Description	Qty
21	190-1240	Fastener post, split	1
22	190-1597	PROFlexX logos and clear labels (set)	1
23	190-1604	X-frame axle w/cover, hardware	1
24	190-1599	High-reflectivity labels (set)	1
25	090-5795	Replacement leg guard (1 only)	1
26	190-1595	Head-end clearance block w/hardware	2
27	190-1593	Side release handle w/hardware	1
28	190-1606	Sidearm barrel nut w/screw	2
29	190-1253	Drop frame bumper w/hardware	2
30	190-1243	5" Load wheel w/bushing, hardware	1
31	190-1343	Safety bail release handle w/hardware	1
32	190-1013	Backrest bumper	2
33	190-1588	Gas-assist cylinder w/hardware	1
34	090-5465	Safety bail torsion spring	2
35	190-1609	Non-telescoping leg scuff strip	2
36	190-1254	Ratchet bar limit cable	1
37	190-1144	6" Wheel w/bearings and hardware	1
38	190-1258	Oxygen bottle mount bracket kit	1
39	090-5015	2.5" Safety stop block	1
40	090-0264	Model 175 low-profile mounting block	1
n/s	090-0268	Model 175 short antler knob	1

11.4 Parts Diagrams



## 12 - LIMITED WARRANTY

### Limited Warranty Summary

Ferno products are warranted to be free from defects in material and workmanship for a period of one year, except:

- External finishes (gelcoat, paint, powdercoat, decals, etc.) are warranted for 90 days.
- Soft goods (webbing, vinyl, fabric, foam, etc.) are warranted for 90 days.
- Fiberglass AquaCiser tanks are warranted against leakage for 5 years.
- Stainless hydrotherapy tanks are warranted against tank shell leakage and corrosion for 5 years.
- Mortuary products (except hydraulic parts and soft goods) are warranted for 2 years.
- Ambulance cots and ambulance transporters (except external finish and soft goods) are warranted for 2 years.
- EZ Glide™ Chairs are warranted for 2 years.
- EMS bags (replaceable bottom excluded) and backboards are warranted for lifetime replacement. (Damage caused by accident, abuse, misuse or improper care will be repaired at a reasonable charge for which you will be informed prior to the repair work being done.)
- Integrated Charging System (ICS) is warranted for 2 years

Ferno repairs are warranted for 90 days from the date of repair.

This limited warranty applies only when the product is used as described in the instructions provided. The warranty period begins when the product is shipped from Ferno or when you receive it if you have proof of delivery. Shipping charges are not covered by this limited warranty. Ferno is not liable for shipping damages or damages sustained through using the product.

Non-Ferno products sold by Ferno retain the product manufacturer’s original warranties. Ferno offers no warranties of any kind additional to those of the product manufacturer, nor does Ferno assume any liability for products manufactured by others.

### Limited Warranty Obligation

If a product is proven defective, Ferno will repair or replace it, or, at our option, refund the item’s purchase price. In no event is Ferno liable for more than the selling price of the product. The purchaser accepts these terms in lieu of all damages.

*This is a summary of the limited warranty. The actual terms and conditions of the limited warranty, and the limitations of liability and disclaimers, are available upon request by calling 800-733-3766 or 937-382-1451.*

## 13 - FERNO CUSTOMER RELATIONS

Customer service and product support are important aspects of each Ferno product.

Please have the serial number of your Ferno cot available when calling Ferno Customer Relations, and include it in all written communications. For assistance:

Telephone (Toll-free)..... 1.877.733.0911  
 Telephone ..... 1.937.382.1451  
 Fax (Toll-free) ..... 1.888.388.1349  
 Fax ..... 1.937.382.6569  
 Internet..... www.ferno.com

Serial Number \_\_\_\_\_

