



PacRac™ Model 274 Series

Instrument Platform



Read this Manual and Retain
for Future Reference



FERNO®

Instructions for Use

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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:

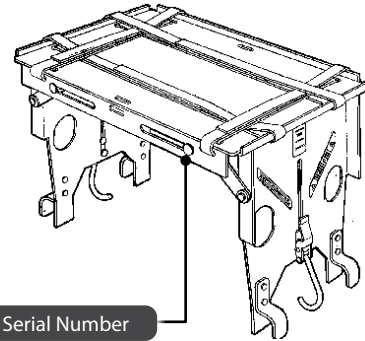
Ferno-Washington, Inc., 70 Weil Way
Wilmington, Ohio 45177-9371, U.S.A.

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



USERS' MANUALS

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

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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.



Ferno-Washington, Inc.
70 Weil Way
Wilmington, OH 45177-9371, U.S.A.
1.937.382.1451



FERNO S.r.l.
Via B. Zallone n.26
40066 Pieve di Cento (BO), Italy
+39 (051) 6860028



Ferno (UK) Ltd.
Ferno House, Stubbs Beck Lane, Cleckheaton,
West Yorkshire, BD19 4TZ, UK
+44 (0) 1274 851 999




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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 PacRac.

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

An improper cot can cause injury. Attach the PacRac only to a compatible Ferno cot.

Modifying the PacRac can cause injury and damage. Use the PacRac only as designed by Ferno. Do not alter the PacRac or force the side panels to fit the ambulance cot.

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

Improper attachment can interfere with patient treatment and cot operation. Take patient treatment and cot operation into account when using the PacRac.

An improperly secured PacRac may come off the cot and cause injury. Use the PacRac only when it is properly secured onto the cot.

Exceeding the load capacity may cause injury or damage. Observe the 75 lb/34 kg load limit when placing items on the PacRac.

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

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

1.2 Important

Important notices emphasize important usage or maintenance information. Failure to follow Important notices could result in damage to the product or property damage.

Important

1.3 Tip

Tips provide recommendations for easier use of the product.

Tip

1.4 Bloodborne Disease Notice

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

1.5 Symbol Glossary

The symbols defined at right are used on the PacRac 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.



General Warning of Potential Injury



Load Capacity
(Safe Working Load in pounds, kilograms)



Read the Users' Manual



Operation Requires
Two Trained Operators



Unlocked



Locked



Product meets
European Union Standards



Manufacturer



Authorized Representative in the
European Community

1.6 Safety and Instruction Labels

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

274 Series Pac Rac™ Instrument Platform

For Professional Use Only

- Use only as described in the Users' Manual provided with the Pac Rac.
- For additional free copies of the Users' Manual, visit our website at www.ferno.com or call 1.800.733.3766 or 1.937.382.1451.



WARNING

Improper use and maintenance can cause injury and damage. Use and maintain the Pac Rac only as described in the Users' Manual provided.

Ferno-Washington, Inc. Wilmington, Ohio U.S.A.

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2 - OPERATOR FOCUS

2.1 Operator Training

Operator using the PacRac:

- must read and understand this manual.
- must have training on proper use of the PacRac.
- must have a training on emergency-medical service and emergency patient-handling procedures.
- must practice with the PacRac before using it with a patient.
- must keep training records. For a sample training record sheet, see "Training Record" on page 14



WARNING

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

3 - ABOUT THE PACRAC

3.1 Description

The Ferno® Model 274 PacRac Instrument Platform (called the PacRac in this manual) is a cot-mounted device designed to support medical instruments (defibrillators, heart monitors, and other objects) used by Emergency Medical Service personnel while transporting a patient on an ambulance cot.

PacRac features include aluminum frame construction, flat-folding side panels for compact storage, cam-lock attachment, and straps to secure the instruments in place.

Two versions are available. Model 274 attaches to cots with round main frame tubes. Model 274-S attaches to the square main frame tubes of Ferno chair cots. See "Compatible Ferno Cots" on page 7.



WARNING

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

3.2 General Specifications

Specifications for the PacRac are shown in the table at right. Most general specifications are rounded. Metric conversions are calculated before rounding the Imperial measurement.

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

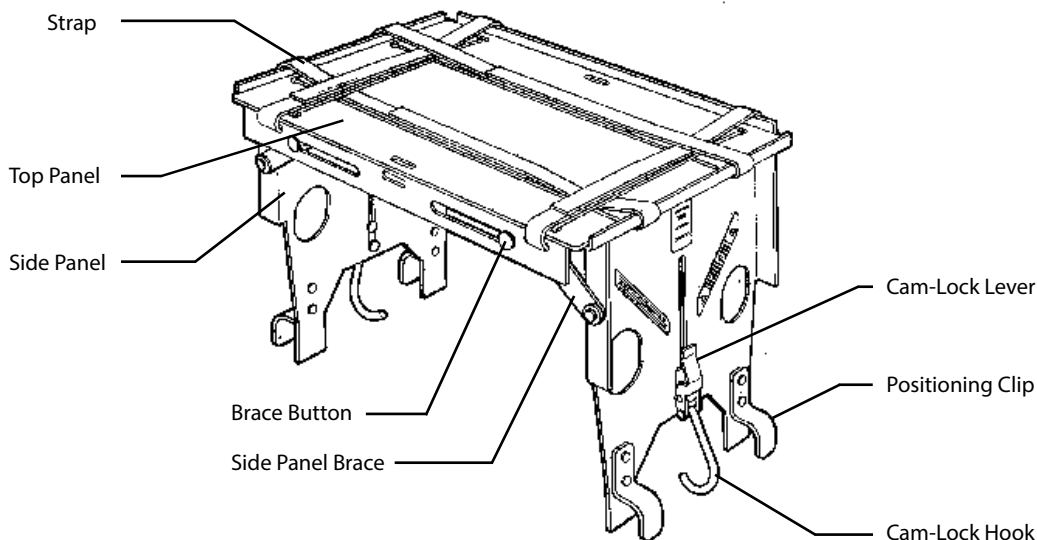
Specifications	Imperial	Metric
Load Capacity	75 lb	34 kg
Height (unfolded)	14.5 in	37 cm
Height (folded)	2.75 in	7 cm
Width	21.25 in	54 cm
Depth	13.5 in	34 cm
Weight	7.5 lb	3.4 kg



Load Capacity

Inspect the PacRac if the load capacity has been exceeded. See "Inspecting the PacRac" on page 11.

3.3 Components



3.4 Cot Requirements

The PacRac Model 274 is compatible with 1-3/32" (28 mm) diameter main frame tubes spaced 20-1/4" to 20-3/4" (514-527 mm) apart (center to center).

Model 274-S contains a pair of adapter tubes to allow the Pac Rac to be attached to the square tubes of a Ferno chair cot.

The PacRac provides clearance of 6"-7" (152-178 mm) for the patient's legs between the PacRac and the cot mattress.

Do not alter the PacRac or force the side panels to fit onto the cot. Product alteration or misfit can result in unpredictable operation and injury. Contact Ferno Customer Service if there is any question about fit. See "Ferno Customer Relations" on page 2.

COMPATIBLE FERNO COTS: MODEL 274

- Model 30 Series
- Model 29-M Series
- Model 35A Series
- Model 93ES and 93EX Series
- Model 35X PROFlexx® Series
- Model 93H PROFlexx® Series
- POWERFlexx+® Powered Cot Series

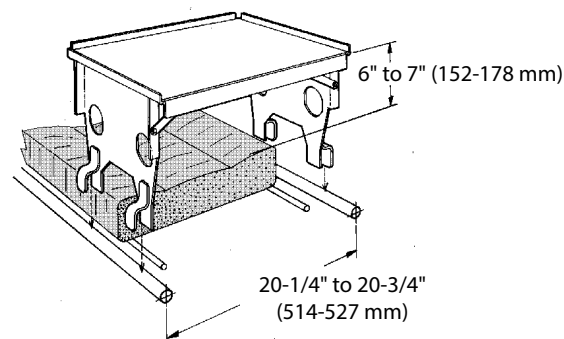
COMPATIBLE FERNO COTS: MODEL 274-S

- Model 28 Chair Cot Series
- Model 28-Z PROFlexx® Chair Cot Series

WARNING

An improper cot can cause injury. Attach the PacRac only to a compatible Ferno cot.

Modifying the PacRac can cause injury and damage. Use the PacRac only as designed by Ferno. Do not alter the PacRac or force the side panels to fit the ambulance cot.



4 - USING THE PACRAC

4.1 Before Placing the PacRac in Service

- Before use, personnel who will work with the PacRac must read and understand this manual. Appropriate skills and training are also required. See "Operator Skills and Training" on page 6
- Confirm that the PacRac operates properly. See "Inspecting the PacRac" on page 11.

4.2 General Guidelines for Use

- The PacRac is for professional use only.
- Use the PacRac only as described in this manual.
- Medical advice is beyond the parameters of this manual.
- It is the users' responsibility to ensure safe practices for the patient and themselves.

4.3 Unfold the PacRac

1. Lay the PacRac face down on the cot mattress or another flat surface.
2. Unfold the side panels (Fig. A) until the side panel braces click and lock into place.
3. Gently push on each unfolded side panel to verify that the panel braces are locked.

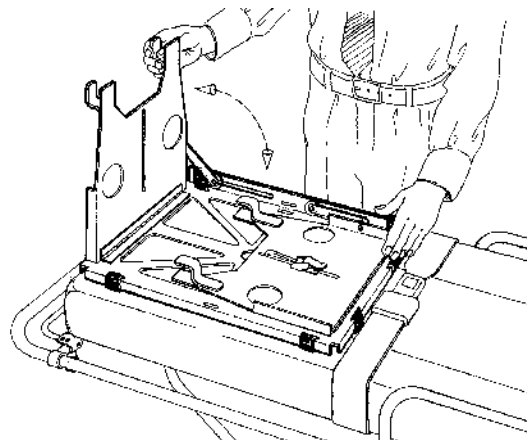


Figure A

4.4 Attach the PacRac to the Cot

MODEL 274

The PacRac attaches to the leg section of the cot (over the patient's legs) or to the midsection of the cot (over the patient's hips).

Decide the position to use, then turn the PacRac face up and guide the positioning clips onto the cot frame at this location.

When attaching the PacRac to the leg section of the cot (Fig. B), keep in mind the top panel does limit elevation of the patient's legs.

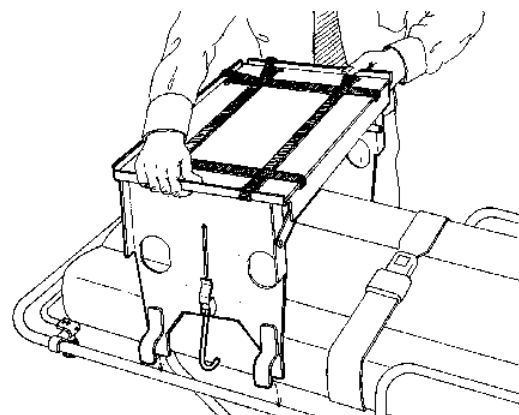


Figure B

WARNING

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

Improper attachment can interfere with patient treatment and cot operation. Take patient treatment and cot operation into account when using the PacRac.

An improperly secured PacRac may come off the cot and cause injury. Use the PacRac only when it is properly secured onto the cot.

Exceeding the load capacity may cause injury or damage. Observe the 75 lb/34 kg load limit when placing items on the PacRac.

To allow maximum elevation of the patient's legs, attach the PacRac to the midsection of the cot (Fig C). When attaching the PacRac to the midsection of the cot, be sure there is no interference with the use of patient restraints or operation of the cot sidearms.

Use the cam-lock hook on each side panel to secure the PacRac in place on the cot.

To use the cam-lock hook, open the cam-lock lever. Swing the cam-lock hook under the frame tube and close the cam-lock lever (Fig. D).

MODEL 274-S

To attach the PacRac to the chair cot square tube, first secure the PacRac to the round-tube adapter provided. Follow the instructions above to connect the hook to the round tube.

Position the Pac Rac on the chair cot at the desired location. Confirm the Pac Rac will not interfere with cot operation.

Using four screws provided, secure the adapter mount to the chair cot main frame.

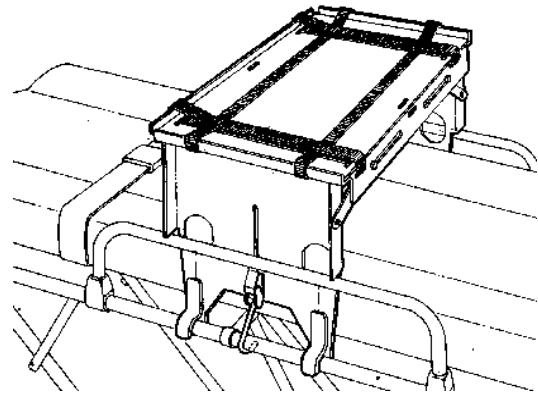


Figure C

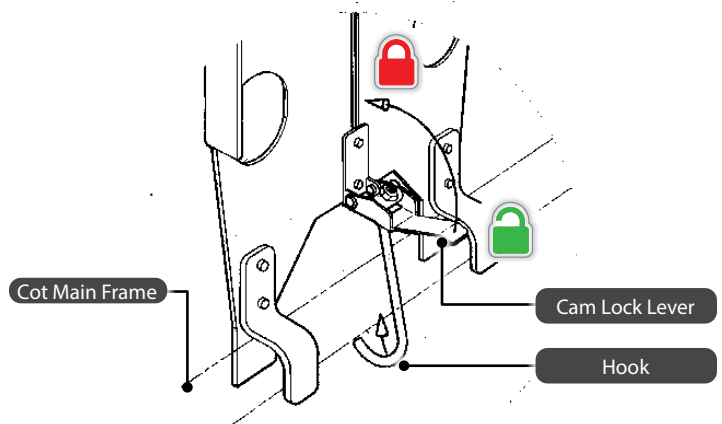


Figure D

4.5 Secure Instruments to the PacRac

The PacRac is designed to carry instruments such as defibrillator/monitors weighing up to 75 lbs/34 kg (Fig. E). Safely secure all items placed on the PacRac before transport.

It is the responsibility of the controlling Emergency Medical Service to devise the strapping methods for the particular instruments used by the operators.

Always confirm equipment is properly secured to the PacRac before transport in a vehicle.

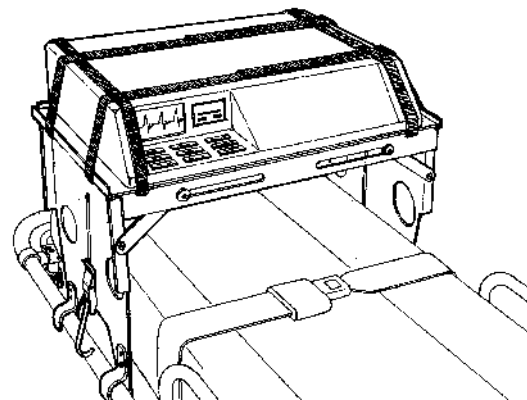


Figure E



Load Capacity

Inspect the PacRac if the load capacity has been exceeded. See "Inspecting the PacRac" on page 11.

4.6 Fold the PacRac for Storage

Unstrap and take all items off the PacRac. Unlock the cam-lock levers and remove the PacRac from the cot (See Fig. D on page 9). Place the PacRac face down on a flat surface such as the cot mattress.

Press the side panel brace out to pop the brace button out of its detent (Fig. F). While maintaining pressure on the brace, fold the side panel downward. Repeat the preceding steps to fold the other side panel.

The folded side panels overlap (Fig. G). Make sure the top side panel does not rest on the cam-lock hook of the bottom side panel. Slide the bottom panel cam-lock lever to allow the side panels to lie flat.

Before storing the PacRac, perform scheduled maintenance. See "Inspecting the PacRac" on page 11. Store the PacRac in a clean, dry place when not in use.

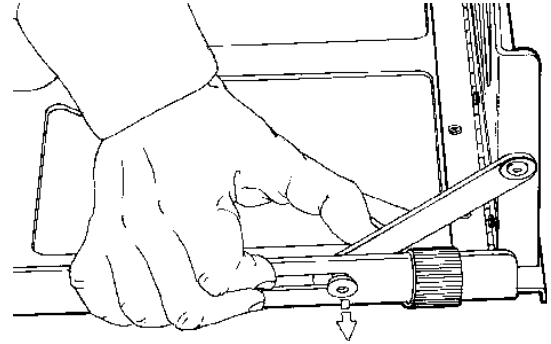


Figure F

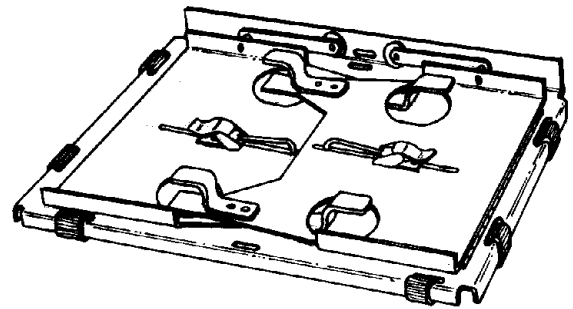


Figure G

5 - MAINTENANCE

5.1 Maintenance Schedule

The PacRac 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 15.

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

5.2 Disinfecting and Cleaning the Straps

1. Remove the straps from the PacRac.
2. Place the straps inside a mesh bag (not provided) and place it in a washing machine, or hand wash the straps.
3. Launder the straps in warm water, using a disinfectant soap and gentle agitation. **Do not use bleach.**
4. Remove the straps from the mesh bag and hang to air dry. Do not put the restraint in a dryer.
5. Attach only dry straps to the PacRac.

5.3 Disinfecting the PacRac

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

5.4 Cleaning the PacRac

1. Remove the straps and any accessories.
2. Hand clean all surfaces of the PacRac with warm water and a mild detergent.
3. Rinse with warm, clear water. Dry the PacRac with a towel or allow it to air-dry.

5.5 Inspecting the PacRac

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

If inspection shows damage or excessive wear, remove the PacRac from service until repair is made. See "Parts and Service" on page 13.



WARNING

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

Minimum Maintenance	Each Use	As Needed	Monthly
Disinfecting (this page)	•		
Cleaning (this page)		•	
Inspecting (this page)		•	
Lubricating (page 12)		•	

Important

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

Water under high pressure, or steam, can penetrate joints, flush away lubricant, and cause corrosion. Use caution when cleaning moving parts such as joints and hinges, and reapply lubricant if needed. See "Lubricating the PacRac" on page 12.

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

Inspection Checklist

- Are all components present?
- Is the PacRac free of excessive wear?
- Are all screws, nuts, bolts, and hinges securely in place?
- Does the PacRac fit on the cot properly?
- Do all moving parts operate smoothly and properly?
- Do the side panels fold and unfold properly?
- Do the side panel braces lock properly into position?
- Do the cam-lock levers and cam-lock hooks engage and lock properly?
- Are the straps properly installed?
- Is strap webbing in good condition with no cuts or frayed edges?
- Do the straps hold the instruments securely?

5.6 Lubricating the PacRac

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

LUBRICATION POINTS

- | | |
|-----------------|---------------------------------------|
| 1. Hinge | WRL-191S, E-Z-1, white lithium grease |
| 2. Pivot Points | SAE 30-weight oil (1-2 drops) |

Apply a coating of light oil to the hinges and pivot points. Fold and unfold the PacRac to work lubricant into place. Should improper operation, damage, or missing parts be noted, take the PacRac out of service for repair.

Important

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

Tip

Applying Lubricant

Use a small amount of lubricant (one or two drops). Lubricate identical points on each side of the PacRac. After applying lubricant, wipe off any excess.

6 - PARTS AND SERVICE

6.1 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

6.2 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.

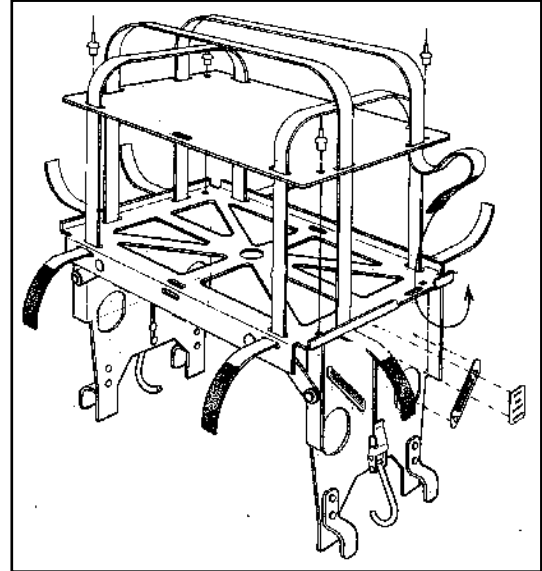
6.3 Parts List

Part	Description	Qty
090-4615	Strap set standard (4 straps total) (2 ea. 46"/1168 mm; 2 ea. 64"/1626 mm)	1 set
090-4710	Strap, long (64"/1626 mm)	2 ea
090-4616	Plastic top w/rivets	1 ea
090-5108	U-hook w/hardware	1 ea
190-1341	End brace latch, w/hardware	1 ea

WARNING

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

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



TRAINING RECORD

[illegible]

MAINTENANCE RECORD

[illegible]

Aviation

Military

Mortuary

EMS

Rescue
