

Model 30-NM Non-Magnetic Cot




Users' Manual

May 2018

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Read this Manual and Retain
for Future Reference 

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:

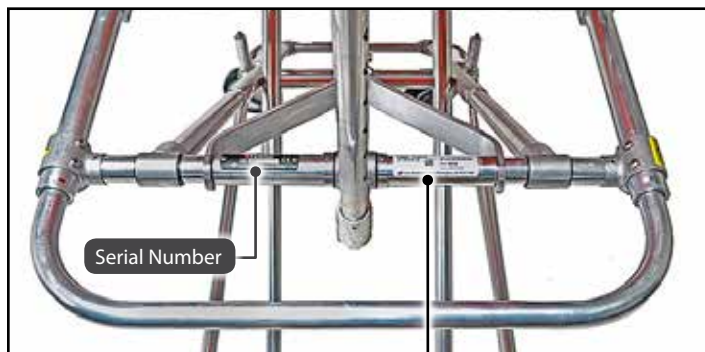
Ferno-Washington, Inc., 70 Weil Way
Wilmington, Ohio 45177-9371, U.S.A.

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.



FERNO Product Name/Model

Date of Manufacture

Serial Number

Ferno-Washington Inc. | Wilmington, Ohio 45177 USA | +1.937.382.1451

(01) Global Trade Item Number

(11) Date of Manufacture

(21) Serial Number

Manufacturer

GS1 Data Matrix

Disclaimer

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

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

Proprietary Notice

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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.

UNIQUE DEVICE IDENTIFICATION SYSTEM

Ferno complies with the United States Food and Drug Administration's (FDA) Unique Device Identification (UDI) regulation to identify medical devices. The UDI label contains information in human- and machine-readable form. Device information is online at the FDA's Global Unique Device Identification Database (GUDID). The public can search and download information at AccessGUDID at www.fda.gov.

The label is located on the crosstube under the backrest.



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



Ferno (UK) Limited
Stubs Beck Lane, Cleckheaton
West Yorkshire BD19 4TZ, United Kingdom
44 (0) 1274 851999

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1 - SAFETY INFORMATION

1.1 Warning

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

⚠ WARNING

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

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

Helpers can be injured. Show helpers where to grasp the cot to avoid pinch points.

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

Improper restraints can cause injury. Use proper restraints for the environment where the cot is being used.

- **Use only cam-buckle restraints in an MR environment.**
- **Use only metal-buckle restraints only in an ambulance.**

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.

Rolling the cot sideways can cause it to tip and injure the patient or operators. Roll the cot only with the loading end or control end first.

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

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.

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

1.2 Notice

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

NOTICE

1.3 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 cot, follow the disinfecting and cleaning instructions in this manual.

1.5 Symbol Glossary

The symbols defined below are used on the cot 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



Pinch Point: Keep Hands Clear



Read the Users' Manual



Operation Requires Two Trained Operators



Load Capacity
(Safe Working Load in pounds, kilograms, stone)



Product meets European Union Standards



Unlocked



Locked



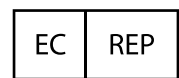
Do Not Lubricate



Lubricate



Manufacturer



Authorized Representative in the European Community



Magnetic-Resonance Conditional under the conditions listed in this manual

1.6 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.



Identification label



MR Conditional Label



Pinch Point Label (4)

1.7 MR Conditional Testing and Compliance

This Ferno® Model 30-NM cot has been tested and is listed as "MR Conditional."

A product that is Magnetic-Resonance Conditional (called MR Conditional in this manual and on product labeling) has been shown to pose no hazards in a specified MR environment under listed conditions.

LISTED CONDITIONS OF USE

The Ferno® Model 30-NM Cot has undergone testing and has been determined to be MR Conditional. In general, the cot is intended for use under the conditions listed here:

- Static magnetic field of 3-Tesla
- Spatial gradient magnetic field of 720-Gauss/cm or less
- Inside the MR environment (e.g., in the MR system room, close to the scanner)

The cot is not designed or designated for use directly inside the MR system (e.g., inside the bore of the scanner).

FERNO COMPLIANCE

Ferno adheres to the ASTM International classification and definitions found in the following document:

The American Society for Testing and Materials (ASTM) International, Designation: F2503-05: "Standard Practice for Marking Medical Devices and Other Items for Safety in the Magnetic Resonance Environments" [Published August, 2005]

Non-clinical magnetic field interaction testing has been conducted by an independent, third-party testing service.

ASTM Contact Information

ASTM International
100 Barr Harbor Drive, P.O. Box C700
West Conshohocken, PA 19428-2959, USA
Internet: <https://www.astm.org/>

2 - OPERATOR FOCUS

2.1 Operator Training

Operator using the cot:

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

Training Videos: Ferno cares about operator and patient safety. For training videos on the operation of the cot, visit our training website listed below, or scan the QR code on this page.

<https://www.youtube.com/user/fernoems>



WARNING

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

Tip

Training

Scan the QR Code below with an internet-connected device to visit the Ferno training site.



2.2 Operator Height and Strength

The operators must lift and hold the combined weight of the cot, patient and equipment into and out of the ambulance.

Use additional help as needed to lift the weight of the cot, patient and equipment. See "Using Additional Help" on page 7.

2.3 Daily Operator Duties

It is good practice for operators to check equipment at the start of each work shift. To check the cot prior to use, follow the procedures described in this manual:

- Unload the cot from the ambulance.
- Fold the cot to the floor or ground.
- Raise the cot to a suitable rolling height.
- Visually inspect the cot for readiness. See "Inspecting the Cot" on page 18.
- Rotate the cot in a circle to verify it rolls easily.
- Load the cot into ambulance and secure it in the fastening system.

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

2.4 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).

- Operators stand at the loading end and control end of the cot, maintain control of the cot, operate the controls, and direct all helpers.
- Side helpers may need to walk sideways under some circumstances. Follow local protocols.
- Ferno recommends that helpers work in pairs to help maintain cot balance.

Refer to the chart for suggested placement for operators and helpers.

WARNING

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

Helpers can be injured. Show helpers where to grasp the cot to avoid pinch points.

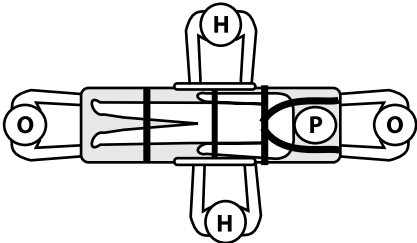
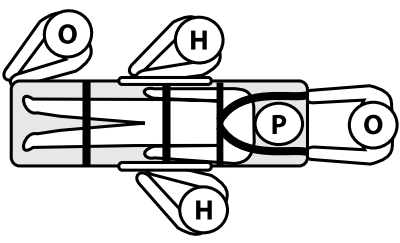
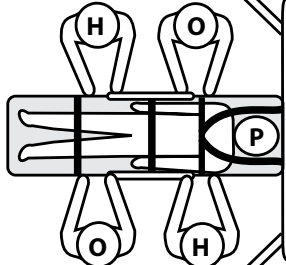
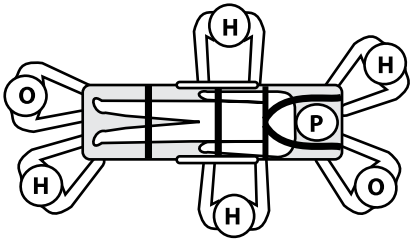
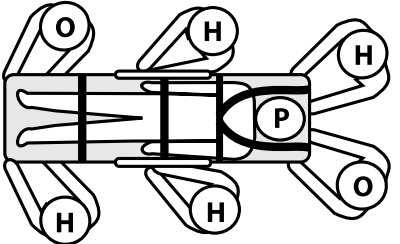
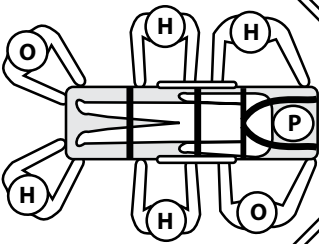
NOTICE

Trained operators position themselves at the loading end and control end of the cot and operate the controls. Show helpers where to stand and how to grasp the cot.

Load Capacity



Inspect the cot if the load capacity has been exceeded. See "Inspecting the Cot" on page 18.

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

Key: O = Operator H = Helper P = Patient

3 - ABOUT THE COT

3.1 Description

The Ferno® Model 30-NM Ambulance 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. A mattress, users' manual and set of three cam-buckle restraints suitable for use in an MR environment are included with purchase.

Restraints for use in an ambulance are available separately. See "Accessories" on page 21.

The cot is designed for use with the Ferno Model 175 series of cot fasteners. The ambulance patient compartment must have a level floor large enough for the folded cot, and a cot fastener installed (not supplied).

The cot has been shown to pose no hazards in a specified MR environment under listed conditions. See "MR Conditional Testing and Compliance" on page 5.



WARNING

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

FEATURES

- Set of 3 patient restraints
- Footrest
- Swing-down sidearms
- Telescoping handle
- Folding lead handle
- Adjustable backrest
- Wheel locks (4)

COMPLIANCE

The cot meets U.S.A. Federal Ambulance Specification KKK-A-1822 revision F (2007) as applicable, through Change Notice 7.

For information about Federal Ambulance Specification KKK-A-1822:

Office of Motor Vehicle Management,
General Services Administration,
2200 Crystal Drive, Suite 1006
Arlington, VA, 22202
Internet: www.gsa.gov/automotive

3.2 General Specifications

Specifications for the cot are shown in the tables at right. 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).

- Height measurements are from the ground to the patient surface, measured at the casting in the center of the bed surface.
- Weight is without mattress, patient restraints and optional features.
- All Ferno® mattresses for emergency medical service use are fully-sealed.



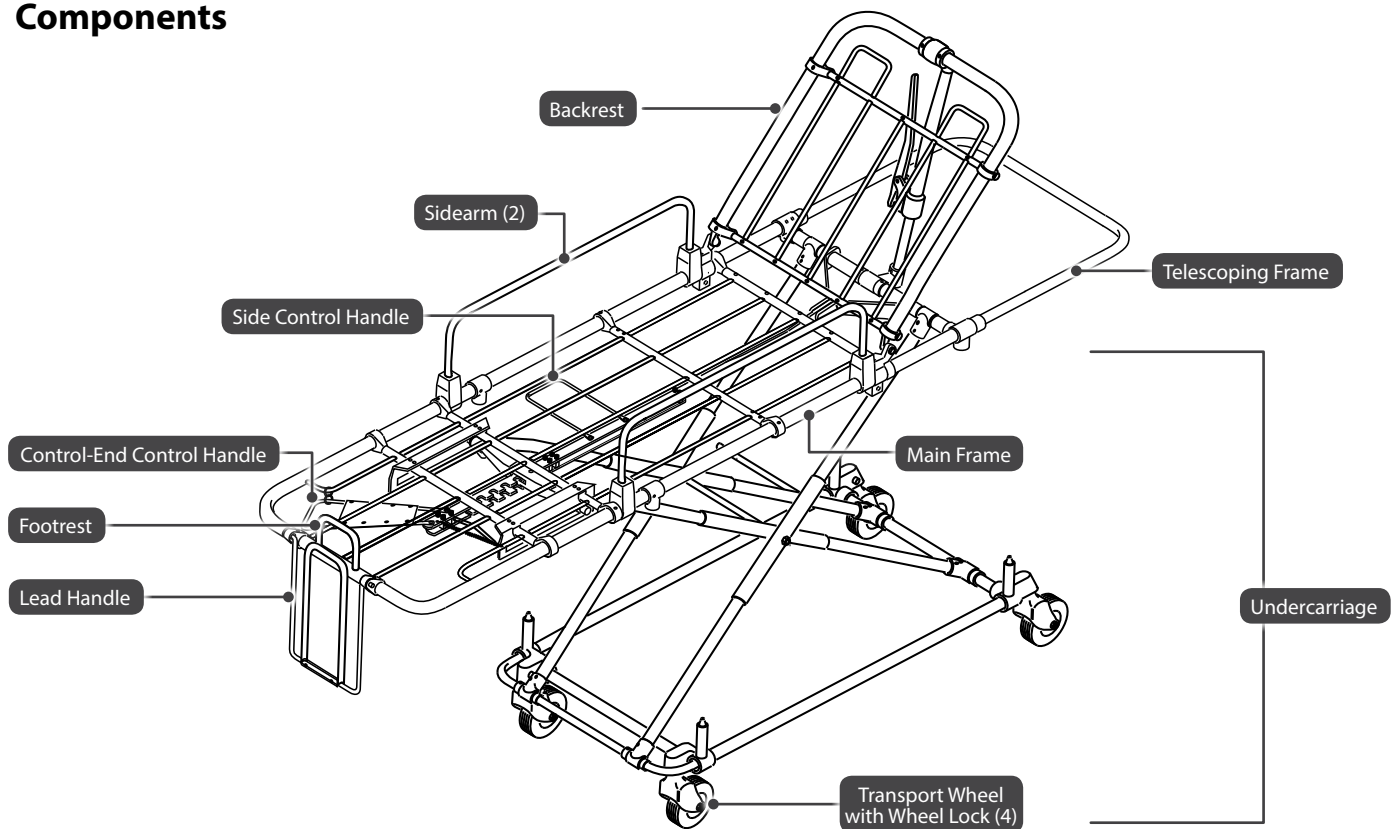
Load Capacity

Inspect the cot if the load capacity has been exceeded. See "Inspecting the Cot" on page 18.

Specifications	Imperial	Metric
Load Capacity	400 lb	181 kg
Load Capacity (UK)		28.5 st
Weight	54 lb	24.5 kg
Cot Construction	Tubular aluminum	
Wheel Bearings	Sealed/greaseless	

Dimensions	Imperial	Metric
Height		
Maximum	32-3/4 in	830 mm
Folded Height	12-1/2 in	320 mm
Width		
Overall	24 in	610 mm
Length		
Maximum	78 in	1980 mm
Minimum	63-3/8 in	1610 mm
Wheels (Diameter x Width)	5x1-1/2 in	127x38 mm

3.3 Components



4 - FEATURES

4.1 Patient Restraints

Use a complete set of three patient restraints to secure the patient on the cot. 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.

Different patient restraints must be used in different situations. Use only restraints designed for the current environment in which the cot will be used.

- Use only the cam-buckle restraints (provided) when the cot is in an MR environment. Metal-buckle or other styles of restraint may not be MR-compatible.
- Use only a primary restraint (such as a metal-buckle restraint) when transporting a patient in an ambulance. The cam-buckle restraints are not suitable for restraining a patient in an ambulance.

ATTACHING AND REMOVING RESTRAINTS

1. Select attachment points on the cot main frame that provide solid anchorage and proper restraint of the patient. Verify restraints will not interfere with the operation of the cot or accessories.
2. Unbuckle a restraint.
3. Wrap the strap around the main frame, thread the buckle or receiver through the loop, then pull the loop tight.
4. Repeat Steps 1-3 with the remaining straps.

To remove restraints, unbuckle the restraint and slide the buckle or tang back through the loop.

USING CAM-LOCK RESTRAINTS

- **To fasten:** Open the cam lock and thread the restraint through the opening, then close the cam lock to hold the restraint in place (Figure 1).
- **To unfasten:** Open the cam lock and pull the restraint backward through the open lock (Figure 1).

WARNING

Improper restraints can cause injury. Use proper restraints for the environment where the cot is being used.

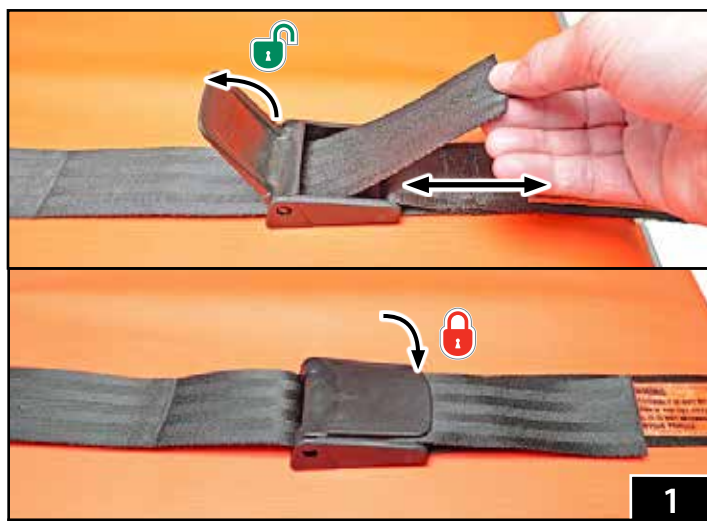
- Use only cam-buckle restraints in an MR environment.
- Use only metal-buckle restraints only in an ambulance.

NOTICE

Use cam-buckle restraints only in an MR environment.



Use metal-buckle restraints only in an ambulance.



4.2 Lift-First Control Handles

A "Lift-First" style control handle requires the operators to lift the weight of the cot, patient and accessories off the locking mechanism before pulling the control handle. When operated, the control handles disengage the locking mechanism and allow the cot to be raised or lowered.

Lift-First control handles are located on the patient-right side, at the control end and center of the cot (Figure 2).

Only trained operators use the control handles.

To adjust the cot height, the trained operators stand on opposite sides or ends of the cot. Communicate and lift the weight before operating a control handle.

Refer to "Changing Positions" on page 14 for complete instructions.



4.3 Swing-Down Sidearms

Sidearms help provide patient security and comfort. Keep sidearms raised except when transferring a patient onto or off from the cot.

To lower, pull the lock pin with one hand and lower the sidearm with your other hand (Figure 3).

To raise, swing the sidearm up until it locks.

NOTICE

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

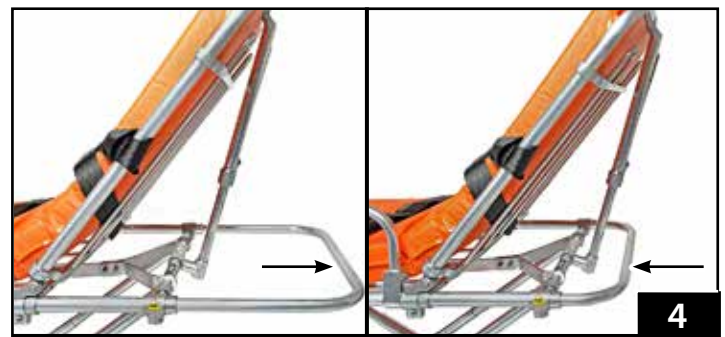


4.4 Telescoping Frame

The cot loading-end frame telescopes inward to shorten the overall length of the cot. This allows operators to maneuver the cot more easily in confined spaces such as a narrow hallway or elevator.

To shorten the cot, raise the backrest and push the frame toward the operator end. To extend, pull the frame away from the operator end (Figure 4).

Fully extend the frame before lowering the backrest.

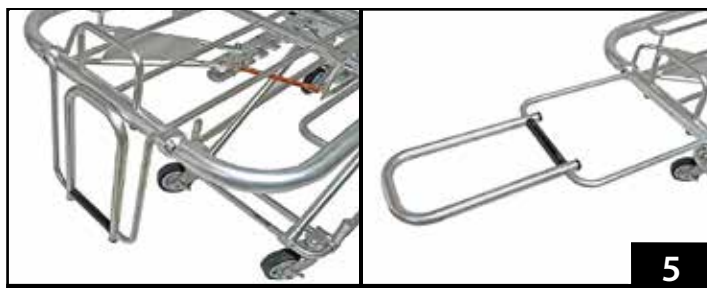


4.5 Lead Handle

The folding lead handle is located at the control end of the cot (Figure 5). It allows the control-end operator to pull the cot when it is in a rolling position.

Use the lead handle only when the cot is on a smooth, level surface. When rolling on an incline or rough terrain, both operators (and any helpers) grasp the cot main frame with both hands.

The handle folds for storage.



4.6 Backrest

The backrest has a level position and eight raised positions.

Lowest Position: To access the handle when the backrest is in the lowest position, lift the backrest until it locks in the first raised position. Then, follow the instructions below.

To raise or lower the backrest from any position other than the lowest position:

1. Unfasten or loosen the patient restraints.
2. Support the weight on the backrest. Squeeze the backrest control handle to unlock (Figure 6).
3. Raise or lower the backrest to the desired position. Release the backrest control handle.
4. Raise or lower the backrest until it locks into the new position.
5. Fasten and adjust patient restraints.



4.7 Wheel Lock

A wheel lock is fitted into all four transport wheels (Figure 7).

Wheel locks help keep the cot stationary during patient transfer and certain medical procedures. When engaged, the wheel lock stops wheel rotation.

To engage: Press the trailing end of the lock lever to engage the lock.

To disengage: Press the shank end of the lever to disengage the lock.

NOTICE

Wheel locks are not brakes. Engage the wheel locks only when the cot is stationary. Stay with the cot and maintain control of it at all times. Do not leave a patient unattended.



5 - USING THE COT

5.1 Before Placing the Cot in Service

- Before use, personnel who will work with the cot must read and understand this manual. Appropriate skills and training are also required. See “Operator Focus” on page 6.
- Confirm that the cot operates properly. See “Inspecting the Cot” on page 18.
- The ambulance must have a Ferno® fastening system installed.

5.2 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 approved emergency medical procedures and local protocols when operating the cot.
- **Operators work together and maintain control of the cot at all times.**
- Operators **must** communicate with one another and use coordinated movements to operate the cot.
- Operators **must** stay with the patient at all times.
- **Always** use patient restraints to secure the patient on 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” on page 7.
- When changing cot positions, verify that the undercarriage has locked into the new position.
- Read the fastening system users’ manual for instructions on using the fastening system.



WARNING

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 be injured. Use patient restraints to secure the patient on the cot.

Rolling the cot sideways can cause it to tip and injure the patient or operators. Roll the cot only with the loading end or control end first.

5.3 Changing Positions

- Changing cot positions with a patient on the cot requires a **minimum** of two trained operators who are communicating, working together, and maintaining control of the cot at all times.
- Operators stand at opposite ends (Figure 8) or sides of the cot (Figure 9) using an underhand grip (palms up) to grasp the main frame with both hands.
- Lift the weight of the cot off its transport wheels (and locking mechanism) before squeezing a control handle. See “Lift-First Control Handles” on page 11.
- Be prepared to control the normal downward movement of the cot that occurs when a control handle is squeezed.
- To ensure patient comfort, both operators control the movement of the cot until it locks into the new position.
- Verify that the undercarriage is locked into the new position before releasing your grasp on the frame.

RAISING OR LOWERING THE COT

1. **Control Operator:** Position your hand to use the control handle.
2. **Both Operators:** Lift the cot slightly to take the weight off the locking mechanism.
3. **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.
4. **Control Operator:** Release the control handle when the cot is near the desired height.
5. **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.
6. **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.

CHANGING POSITIONS WITH ONE OPERATOR

If local protocols allow, an empty cot (no patient), may be adjusted by one trained operator. Tip the cot onto its loading wheels, 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.

5.4 Transferring the Patient

To transfer a patient onto the cot:

1. Unfasten the patient restraints. 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.
3. Lower the sidearms and engage the wheel locks.
4. Transfer the patient onto the cot using approved emergency medical procedures and following your local protocols.
5. Raise the sidearms. Adjust the backrest as needed.
6. Fasten and adjust the patient restraints.
7. Release the wheel locks.
8. Before moving the cot or changing its position, make sure sheets and other articles or equipment will not interfere with cot operation.

NOTICE

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

Sheets or other articles that are placed, or find their way, beneath the patient surface can become caught in the locking mechanism and cause it to malfunction. Tuck sheets between the mattress and the patient surface. Keep other articles above the mattress.

Tip

Talk to the Patient

Communicate before making changes to the cot height, and during the loading and unloading procedures.



5.5 Rolling the Cot

GENERAL GUIDELINES

- Rolling the cot with a patient on the cot requires a **minimum** of two trained operators who are communicating, working together, and maintaining control of the cot at all times.
- Roll the cot on smooth, unobstructed surfaces whenever possible.
- To cross a low obstacle such as a door sill, lift the cot slightly to take the weight off the wheels so the wheels roll smoothly over the obstacle.
- Lift and carry the cot over a high obstacle such as a curb. **Do not** apply downward force on one end of the cot in order to raise the other end of the cot.
- Do not roll the cot sideways. Rolling a cot sideways can increase the chance for the cot to tip and injure the patient and/or operators.
- Use additional help as needed to safely control the weight of the patient and cot. See "Using Additional Help" on page 7.
- When rolling over rough terrain, the operators (and helpers) should grasp the cot with both hands.

ROLLING THE COT

- Securely fasten the patient restraints around the patient.
- Both Operators:** Place the cot in a rolling position.
- Both Operators:** Position yourselves at the sides (Figure 10) or ends of the cot, grasp the main frame with both hands, and roll the cot. Attend to and communicate with the patient.

Note:

- If rolling the cot on a smooth, flat surface, the control-end operator may unfold and use the lead handle and pull the cot.
- If permitted by local protocols, one operator may roll the cot if it is not carrying a patient.
- Grasp only the cot main frame, not the lead handle, when rolling on rough surfaces or uneven terrain.



WARNING

Rolling the cot sideways can cause it to tip and injure the patient or operators. Roll the cot only with the loading end or control end first.

NOTICE

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

To maintain cot balance while rolling the cot downhill loading-end first, the Assisting Operator must exert upward force on the loading-end frame.



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5.6 Loading the Cot Into an Ambulance

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

Use additional help as needed to lift and move the cot. See “Using Additional Help” on page 7.

1. **Both Operators:** Prepare to unload the cot by doing the following:
 - Raise the ambulance folding bumper, if present.
 - Roll the cot near the patient compartment door.
2. **Both Operators:** Stand at opposite sides or ends of the cot. Grasp the main frame with an underhand grasp.
3. **Control Operator:** Squeeze the control handle.
4. **Both Operators:** Fold the cot.
5. **Both Operators:** Move to the sides of the cot and grasp the undercarriage frame.
6. **Both Operators (and Helpers):** Lift the cot until the transport wheels are level with the patient compartment floor of the ambulance and roll the cot into the ambulance.
7. **Either Operator:** Secure the cot in an approved Ferno fastening system.



WARNING

Improper restraints can cause injury. Use proper restraints for the environment where the cot is being used.

- Use only cam-buckle restraints in an MR environment.
- Use only metal-buckle restraints only in an ambulance.

NOTICE

Use cam-buckle restraints only in an MR environment.



Use metal-buckle restraints only in an ambulance.



5.7 Unloading the Cot from an Ambulance

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

Note: The control handles are not used during this process.

1. **Both Operators:** Prepare to unload the cot by doing the following:
 - Raise the ambulance folding bumper, if present.
 - Release the cot from the fastening system.
2. **Both Operators (and Helpers):** Stand outside the ambulance and grasp the undercarriage frame.
3. **Both Operators (and Helpers):** Roll the cot out of the patient compartment, lift and carry it away from the ambulance, and set it on the ground.

5.8 Using the Cot in an MR Environment

The cot has been shown to pose no hazards in a specified MR environment under listed conditions. See “MR Conditional Testing and Compliance” on page 5.

The cot is designed for use in the MR environment (for example, in the MR system room, close to the scanner).

The cot is not designed or designated for use directly inside the MR system (e.g., inside the bore of the scanner).



MR Conditional

3-Tesla, 720-Gauss/cm

6 - MAINTENANCE

6.1 Maintenance Schedule

The cot requires regular maintenance. Set up and follow a maintenance schedule. The table at right represents minimum intervals for maintenance. Keep maintenance records. For a sample record sheet, see "Maintenance Record" on page 23.

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

6.2 Disinfecting and Cleaning the Patient Restraints

DISINFECTING

Do not immerse Model 430 metal buckles in liquid.

All Models: Apply disinfectant to all restraint surfaces, following the disinfectant manufacturer's instructions for application method and contact time. Wipe with a clean cloth.

CLEANING: MODEL 430 (METAL BUCKLE)

1. Remove the restraint from the equipment.
2. **Metal Buckle:** Spray the metal buckle with disinfectant, following the disinfectant manufacturer's instructions for application method and contact time. Wipe with a clean cloth. **Do not immerse in liquid.**
3. **Webbing:**
 - Add a disinfectant cleaner to warm water, following the disinfectant manufacturer's instructions.
 - Immerse webbing in the solution for the time directed by the disinfectant manufacturer. **Do not immerse the metal buckle.**
 - Repeatedly dip the webbing in clear water to rinse. **Do not immerse the metal buckle.**
4. Hang the restraint to air-dry.
5. Attach only dry restraints to the equipment.

CAM-BUCKLE RESTRAINTS (PLASTIC BUCKLE)

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



WARNING

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

Minimum Maintenance	Each Use	As Needed	Monthly
Disinfecting (pages 17-18)	•		
Cleaning (pages 17-18)		•	
Inspecting (page 18)		•	•
Lubricating (page 19)		•	

NOTICE

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

6.3 Disinfecting and Cleaning the Mattress

Replace the mattress if it is ripped, punctured or damaged.

1. Remove the mattress from the cot.
2. **To disinfect:** Apply disinfectant to the mattress, following the disinfectant manufacturer's instructions for application method and contact time.
3. **To clean:** Wash the mattress with warm, soapy water and a soft cloth. Rinse the mattress with clear water. Hang the mattress to dry, or dry it with a towel.

NOTICE

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 Cot" on page 19.

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

6.4 Disinfecting the Cot

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

6.5 Cleaning the Cot

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

6.6 Waxing the Cot

While it is not necessary to wax this cot, waxing the aluminum main frame or 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.

6.7 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. See "Parts and Service" on page 20.

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 roll smoothly?
- Are the wheels free of excessive wear?
- Do the wheel locks engage properly and stop wheel rotation?
- Are the patient restraints properly installed?
- Is patient-restraint webbing in good condition with no cuts or frayed edges?
- Are patient-restraint buckles free of visible damage and do they operate properly?
- Is the ambulance properly prepared for the cot with an approved Ferno fastening system installed?
- Do installed accessories operate properly without interfering with cot operation?




6.8 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 "do not lubricate" symbol.

LUBRICATION POINTS

1	Lead Handle	WRL-191S or E-Z-1
2	Upper ratchet bar (top and bottom)	WRL-191S or E-Z-1
3	Sidearm lock pins	WRL-191S or E-Z-1
4	Telescoping frame*	WRL-191S or E-Z-1
5	Backrest hinge	WRL-191S or E-Z-1
6	Sliding lower frame	WRL-191S or E-Z-1
7	Ratchet bar slide (bottom slide surface)	WRL-191S or E-Z-1
8	Ratchet bar yoke (on head-end crosstube)	WRL-191S or E-Z-1

LUBRICATION-FREE ITEMS

	Transport wheels (sealed bearings)	Do not lubricate
	Legs (legs are fixed in place)	Do not lubricate
	Leg T-castings (lubricant-free bushings)	Do not lubricate

LUBRICATING THE TELESCOPING FRAME

1. Extend the frame.
2. Place cloth or similar over the grips of a pair of vice grips or similar gripping tool.
3. Use the vice grips to unthread the threaded collar (see location 5 in the image below). Repeat on the opposite side of the cot.

Note: The threaded collar is trapped on the assembly and is not removed.

4. Extend the frame further to expose the brass ring.
5. Apply lubricant to the brass ring on each side of the cot.
6. Reassemble.

NOTICE

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.

Tip

Applying Lubricant

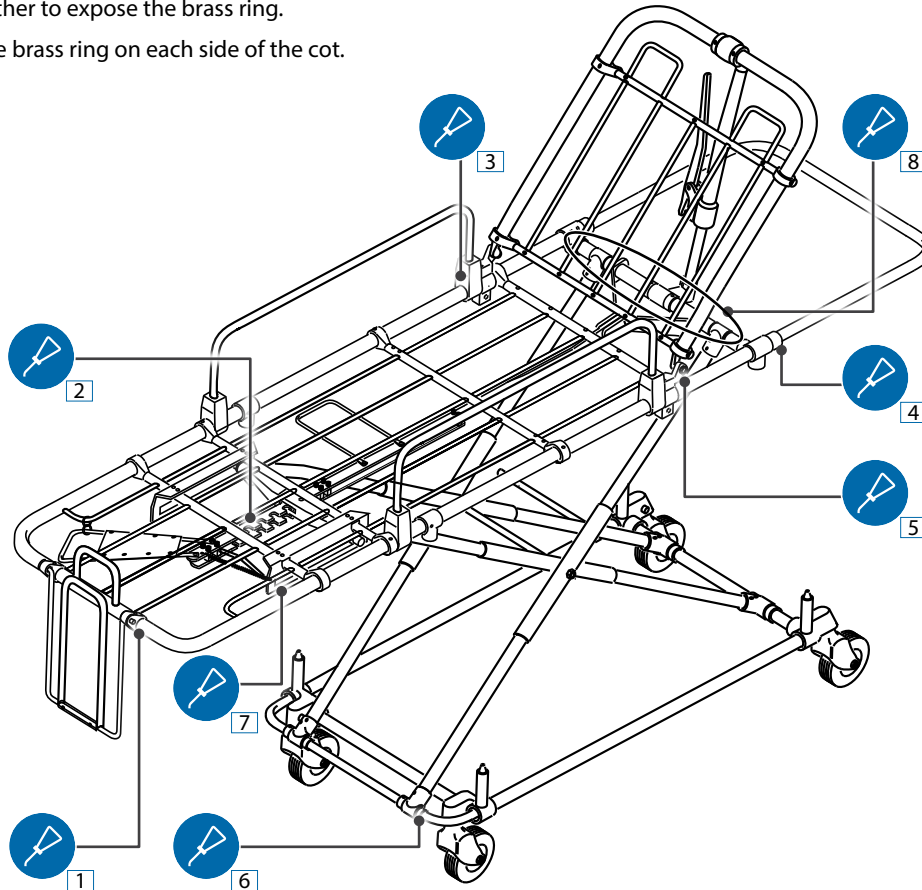
Use a small amount of lubricant (one or two drops). Lubricate identical points on each side of the cot. After applying lubricant, wipe off any excess.



Do Not Lubricate



Lubricate



7 - PARTS AND SERVICE

7.1 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



WARNING

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

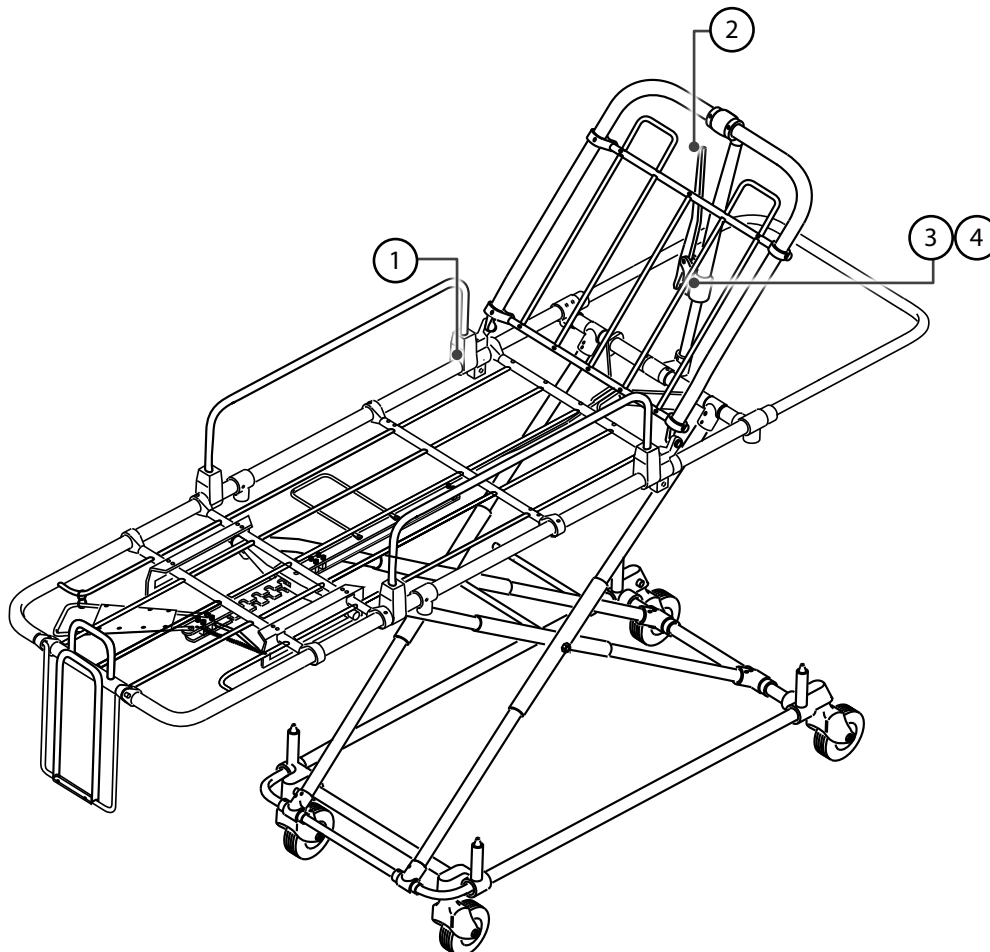
Modifying the cot can cause injury and damage. Use the cot only as designed by Ferno.

7.2 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.

PARTS LIST

No.	Part	Description	Qty
1	190-1079	Sidearm pin, stainless, w/spring, knob	1
2	190-1355	Backrest adjustment lever w/hardware	1
3	090-3077	Backrest adjustment assembly lock pin w/hardware	1
4	090-2948	Backrest adjustment assembly "V" spring	1



8 - ACCESSORIES

Ferno offers a full line of accessories approved for use with the cot. Follow all instructions in accessory users' manuals. Keep the instructions with this manual.

When using accessories, be aware of any special considerations such as doorway heights and widths, or other factors which may be affected by the addition of the accessory/accessories to the cot.

Contact Ferno Customer Relations (page 2) or your Ferno distributor for product information.

Description	Part Number
Mattress, Model 360, flat, orange	031-3691
Mattress, Model 360, flat, burgundy	031-3692
Mattress, Model 460, bolster, orange	031-2720
Mattress, Model 460, bolster, burgundy	031-3063
513-10 Non-magnetic IV pole	008-7156



WARNING

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

Non-Magnetic Cam Buckle Restraint, Set of Three

Style	Black	Orange
1 pc., 60"	039-0285	Not Available

Model 430 Metal Buckle Restraint (1)

Style	Black	Orange
2 pc., 5' (1524 mm)	031-3892	031-3891
2 pc., 7' (2134 mm)	031-3911	031-3912
2 pc., 9' (2743 mm)	031-3305	031-4013
1 pc., 7' (2134 mm)	031-3910	031-3887
1 pc., 9' (2743 mm)	031-3899	031-3889

Model 439 (Metal Buckle) Restraints, Set of Three

Style	Black	Orange
1 pc., 7' (2134 mm)	031-3083	031-2660

TRAINING RECORD

[illegible]

MAINTENANCE RECORD

[illegible]

