

## Description

The Ferno® 35X-NM PROFlexx® Cot (called the “cot” in this manual) is a dual-purpose emergency patient-handling device.

- The cot is for professional use by a minimum of two trained operators. It is designed for use with the Ferno® Model 175 Series Fastening System (not included).
- The cot is rated MR Conditional at 3-Tesla or less. This means it can be used in magnetic-resonance environments of 3-Tesla or less, under the Listed Conditions of Use as listed in this manual (See MR Conditional Testing and Compliance, page 2). Cam-buckle restraints (provided) must be used.
- The cot can be adapted for use to transport a patient in a ground-based ambulance. Primary restraints that are rated for use in a motor vehicle (not provided, available separately) must be used. The cot is designed for roll-in loading to help reduce the risk of back injury to medical service personnel.
- **U.S.A. Notice:** The cot is for use with ambulances that meet the requirements of the “Star of Life” certification via Federal Ambulance Specification KKK-A-1822. For information, contact:

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



Model 35X-NM PROFlexx®

### **WARNING**

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

## Purpose of This Manual

This manual (Ferno document 234-3494) is a supplement to the 35X PROFlexx® Series Users’ Manual. The specific features of the 35X-NM cot are described in this document.

Where features are the same, refer to the 35X Series Users’ Manual (Ferno document 234-3346). Additional, free users’ manuals are available from Ferno. See “Ferno Customer Relations” on page 8.

## 35X-NM Features

- Rated MR Conditional at 3-Tesla or less
- Manual backrest with seven raised positions
- Wheel locks (2)
- Plastic-buckle, cam-lock restraints (3)

## Parts Supplied

3 ea Cam-lock restraint (plastic buckle)

The supplied cam-lock restraints **MUST** be used when the cot is in an MR (magnetic-resonance) environment. Primary restraints (such as those with metal buckles; not supplied) **MUST** be used when the cot will be used in an ambulance. See “Patient Restraints” on page 3.



## MR Conditional Symbol

The symbol at right is used on the cot and in this users' manual. Ferno uses symbols recognized by the International Standards Organization (ISO), American National Standards Institute (ANSI), the American Society for Testing and materials (ASTM), and the emergency medical services industry.



**Model 35X-NM Cot is  
Magnetic-Resonance Conditional**

## MR Conditional Safety Label

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 Ferno. See "Ferno Customer Relations" on page 8.



**Magnetic-Resonance Rating Label (Qty. 1)  
See below for Listed Conditions of Use**

## MR Conditional Testing and Compliance

### TESTING

The Model 35X-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 of use.

### LISTED CONDITIONS OF USE

The Model 35X-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 or less
- 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).**

### COMPLIANCE

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

### NOTICE

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



**MR Conditional Label Affixed to Cot**

### ASTM Contact Information

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

## WARNING

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

## NOTICE

Different styles of patient restraints are required in different situations.

When the cot will be used in an MR environment, use only the plastic, cam-buckle restraints provided. Metal-buckle or other styles of restraint may not be suitable for use in the MR environment.

When the cot will be used in an ambulance, use only primary restraints rated for use in a vehicle. Cam-buckle restraints are not suitable for restraining a patient in a vehicle.

## Patient Restraints

### SAFETY INFORMATION

The cam buckles on the three restraints provided with the cot are made from plastic and are suitable for use in an MR environment but are not intended to be placed inside the bore of the MR scanner. **NEVER** use metal-buckle restraints in an MR environment.

Primary restraints (rated for use in motor vehicles; not provided) must be used when the cot is in an ambulance. **NEVER** use the cam-buckle restraints to secure a patient for transport in an ambulance. To order restraints, contact Ferno. See "Ferno Customer Relations" on page 8.

### GENERAL GUIDELINES FOR USE

- Always 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.

### ATTACHING CAM-BUCKLE (PLASTIC) RESTRAINTS

1. Select attachment points for the cam-buckle restraints, ensuring solid anchorage for the straps and proper restraint of the patient (Figure 1). Verify that restraints will not interfere with use of the cot or accessories.
2. Unbuckle a restraint.
3. Slide the looped end of a strap around the selected attachment point and thread the buckle or loose end of the strap through the loop (Figure 2). Pull the loop tight around the attachment point.
4. Repeat Steps 1-3 with the remaining five straps.
5. Fasten the restraints.

### USING CAM-BUCKLE (PLASTIC) RESTRAINTS

- **To fasten a cam-buckle restraint:** Open the cam lock and thread the strap through the opening (Figure 3), then close the cam lock to hold the restraint in place (Figure 4).
- **To unfasten a cam-buckle restraint:** Open the cam lock and pull the restraint backward through the open lock.

### USING METAL-BUCKLE RESTRAINTS

Refer to the users' manual for the restraints and/or the Model 35X cot for proper attachment points, use and care.



Figure 1 - Example of Restraint Placement



Figure 2 - Attaching a Cam-Buckle Restraint



Figures 3 and 4 - Fastening a Cam-Buckle Restraint

## Manual Backrest

**Purpose:** The manual backrest allows the patient's torso to be elevated for comfort or for medical necessity. The backrest has a flat position and seven raised positions.

### Before Use:

- Loosen or unbuckle the torso restraint.
- Support the weight of the backrest and patient.

### Use:

- To raise the backrest from the flat position to the first raised position, grasp the backrest frame and lift. When the backrest has locked into position, release your grasp on the backrest frame.
- To raise or lower the backrest from any other position, use one hand to support and raise/lower the backrest while you squeeze and hold the adjustment lever with the other hand (Figure 5). At the desired height, release the adjustment lever and raise or lower the backrest to verify that it has locked into the new position.

**After Use:** Buckle and/or adjust the torso restraint.

## WARNING

An unlocked backrest can cause injury. Support the backrest frame until the backrest locks into position.



Figure 5 - Using the Backrest

## Sidearms

**Purpose:** Sidearms provide patient security and comfort. Keep the sidearms raised except when transferring a patient to or from the cot. The sidearms feature an intermediate stop that allows a patient's arm to be placed on the sidearm for treatment, starting of intravenous (IV) fluids, etc.

### Use:

- To lower, pull the release pin (Figure 6) and swing the sidearm down. To stop at the intermediate position, let go of the release pin before the sidearm reaches the 90° point.
- To fully lower the sidearm, continue holding the release pin until the sidearm has passed the 90° point.
- To raise, lift the sidearm until it locks. You do not need to use the release pin.

## 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.



Figure 6 - Lowering a Sidearm

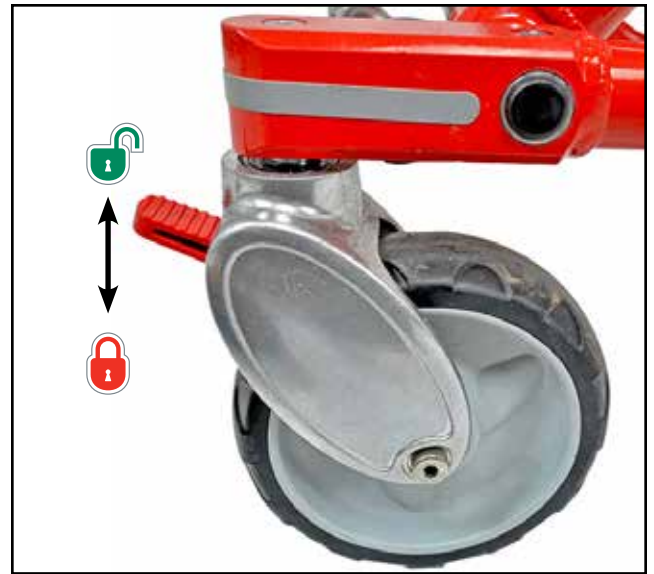
## Wheel Locks

**Purpose:** The wheel locks help keep the cot stationary during patient transfer and certain medical procedures. When engaged, the wheel locks stop wheel rotation.

**Location:** Two transport wheels at opposite corners of the cot are fitted with wheel locks.

**Use:**

- Press the lock lever down to engage (Figure 7). Lift the lock lever up with your toe to disengage.
- 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 the cot or patient unattended.



**Figure 7 - Wheel Lock**

## Using the Cot

- Before transferring the patient to the cot, confirm the style of restraint on the cot is correct for the cot's use. See "Patient Restraints" on page 3.
- Use only the plastic, cam-buckle restraints (provided) when the cot will be used in an MR environment.
- Use only primary restraints (such as metal-buckle restraints) when the cot will be used in an ambulance.

### NOTICE

Different styles of patient restraints are required in different situations.

When the cot will be used in an MR environment, use only the plastic, cam-buckle restraints provided. Metal-buckle or other styles of restraint may not be suitable for use in the MR environment.

When the cot will be used in an ambulance, use only primary restraints rated for use in a vehicle. Cam-buckle restraints are not suitable for restraining a patient in a vehicle.

## Maintenance Schedule

The cot requires regular maintenance. Set up and follow a maintenance schedule according to the Maintenance section of the 35X Series Users' Manual.

Keep maintenance records.

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

## Disinfecting and Cleaning Restraints

Remove the restraints from the cot before disinfecting or cleaning them.

### CAM-BUCKLE RESTRAINTS

**Disinfecting:** Apply disinfectant to the cam-buckle restraint buckles and webbing, following the disinfectant manufacturer's directions for application method and contact time.

**Cleaning:** Place the cam-buckle restraints in a mesh bag (not supplied) and machine wash in warm water with a mild detergent. Hang the restraints to dry. Do not place the restraints in a dryer.

### METAL-BUCKLE OR OTHER RESTRAINTS

Disinfect and clean only as directed in the restraint users' manuals provided with the restraints. For manuals, contact Ferno. See "Ferno Customer Relations" on page 8.

## WARNING

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

## NOTICE

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

## 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.





### 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.

### LUBRICATION POINTS

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

### LUBRICATION-FREE ITEMS

- |  |                  |
|--|------------------|
|  Backrest tubing                | Do not lubricate |
|  Wheels (transport and loading) | Do not lubricate |
|  Center leg crosstube           | Do not lubricate |
|  Backrest hinge                 | Do not lubricate |
|  Telescoping side handles       | Do not lubricate |
|  Telescoping legs               | Do not lubricate |
|  Shock frame hinge              | Do not lubricate |
|  Control handle mechanisms      | Do not lubricate |

### 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



## Repairs: U.S.A. and Canada

EMSAR® is the only organization authorized by Ferno to manage, service, and repair Ferno products.



Telephone (Toll-free)	1.800.73.EMSAR
Telephone (Worldwide)	1.937.383.1052
Fax (Worldwide)	1.937.383.1051
Internet	www.EMSAR.com

## Repairs: Worldwide

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.


## Parts

### RESTRAINTS FOR USE IN MR ENVIRONMENT

Description	Part Number
Cam-buckle restraints (set of 3)	039-0285

### RESTRAINTS FOR USE IN MOTOR VEHICLES (PRIMARY RESTRAINTS)

Description	Part Number
417-1 Harness restraint (maroon)	031-3896
417-1 Harness restraint (orange)	031-3914
417-1 Harness restraint (black)	031-3915
430 Restraint, 2-piece, 5 ft. (1.5 m) maroon	031-3890
430 Restraint, 2-piece, 5 ft. (1.5 m) orange	031-3891
430 Restraint, 2-piece, 5 ft. (1.5 m) black	031-3892
430 Restraint, 2-piece, 7 ft. (2.1 m) maroon	031-3913
430 Restraint, 2-piece, 7 ft. (2.1 m) orange	031-3912
430 Restraint, 2-piece, 7 ft. (2.1 m) black	031-3911



**USERS' MANUALS**

To request additional free users' manuals, contact Ferno Customer Relations, your Ferno distributor, or visit [www.ferno.com](http://www.ferno.com).

## 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.

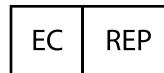
Telephone	+1.937.382.1451
Fax	+1.937.382.6569
Internet	www.ferno.com

## 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.



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