



Najo®

Backboard Series



Najo® Lite




Najo® RediWide®



Najo® RediHold®



Najo® Sports Board

Read this Manual and Retain  for Future Reference

FERNO®

Users' Manual

October 2021

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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 |

Disclaimer

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

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

Proprietary Notice

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

Limited Warranty Statement

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

Adverse Event Notice

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



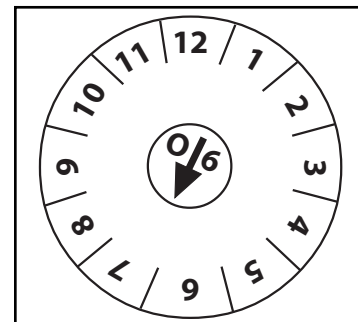
USERS' MANUALS

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

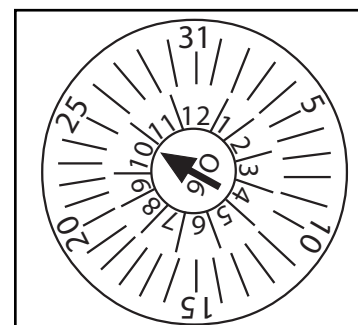
Date of Manufacture

Two date recording styles have been used.

The top image shows a wheel indicating the date by the year and month. In the example, the wheel indicates July, 2006.



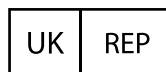
The bottom image shows a wheel indicating the year, month, and day. In the example, the wheel indicates October 25, 2006.



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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. Trained operators must maintain control of the backboard and direct all helpers. |
| Improper use can cause injury. Use the backboard only for the purpose 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 backboard. |
| Improper maintenance can cause injury. Maintain the backboard only as described in this manual. |
| Attaching improper items to the backboard can cause injury. Use only Ferno-approved items on the backboard. |
| Improper parts can cause injury. Use only Ferno parts on the backboard. |
| Modifying the backboard can cause injury and damage. Use the backboard only as designed by Ferno. |

1.2 Notice

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





| NOTICE |
|---------------|
| |

1.3 Bloodborne Disease Notice

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

1.4 Symbol Glossary

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

| Symbol | Definition |
|--|---|
|  | General warning of potential injury |
|  | Read the users' manual |
|  | Two trained operators required |
|  | Load Capacity (Safe Working Load in pounds, kilograms, stone) |

1.5 Compliance

The Najo® series backboards conform to the essential requirements listed in European EC Directive 93/42/EEC (June, 1993), and to EN 1865:1999 with minimal deformation.

2 - OPERATOR FOCUS


2.1 Operator Training

Operator using the backboard:

- must read and understand this manual.
- must have training on proper use of the backboard.
- must have a training on emergency-medical service and emergency patient-handling procedures.
- must have the physical ability to assist the patient.
- must practice with the backboard before using it with a patient.
- must keep training records. For a sample training record sheet, see "Training Record" on page 11.

⚠ WARNING

Untrained operators can cause injury or be injured. Trained operators must maintain control of the backboard and direct all helpers.



Load Capacity

For load capacity, see "Specifications" on page 5. Inspect the backboard if the load capacity has been exceeded. See "Inspecting the Backboard" on page 9.

2.2 Daily Operator Duty

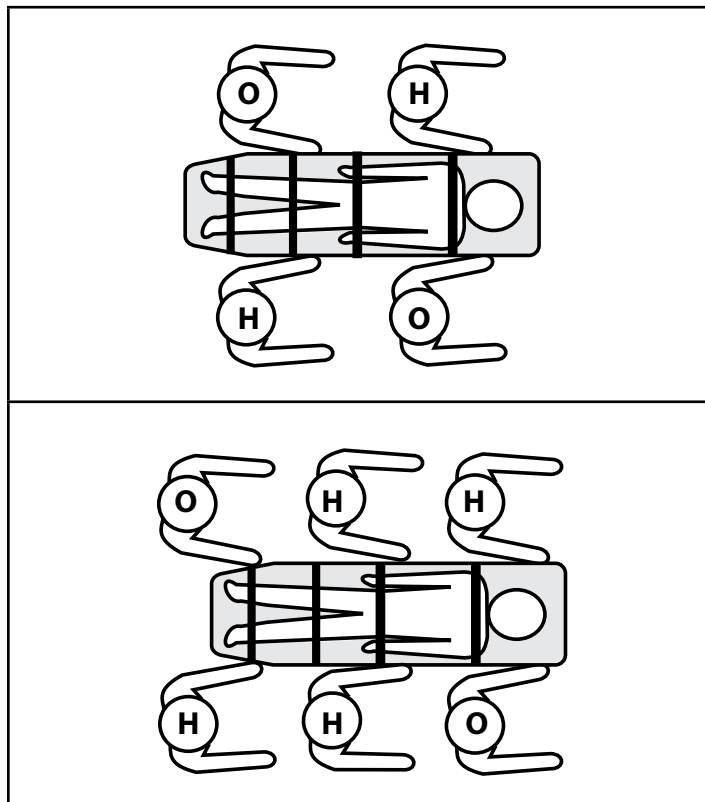
It is good practice for operators to check equipment at the start of each work shift. To check the backboard prior to use, follow the procedures described in this manual and visually inspect it for readiness. See "Inspecting the Backboard" on page 9.

2.3 Using Additional Help

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

- Trained operators stand at the ends of the backboard, maintain control, and direct helpers on where to stand and how to grasp the backboard.
- Side helpers may need to walk sideways under some circumstances. Follow local protocols.
- Ferno recommends that helpers work in pairs to help maintain balance.

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



Key: O = Operator H = Helper

3 - ABOUT THE BACKBOARD

3.1 Description

Ferno® Najo® series backboards are emergency hand-carried stretchers designed to provide rigid support for a patient with suspected spine, hip, pelvis, or lower extremity injury.

The backboards are for professional use only, by a minimum of two trained operators. Use additional help for heavy loads (patient plus equipment).

All models are constructed of one-piece, high-density polyethylene with polyurethane foam interior. Najo backboards are X-ray translucent and impervious to body fluids, and have recessed edges to assist with restraint or head immobilizer strap placement. Options include steel speed-clip pins to allow use of speed-clip style restraints, and a choice of orange or yellow color (except Sports Board, available orange only).

Flotation specification is defined as the backboard's capacity to float with a patient of a particular buoyancy. The average person with deflated lungs has a buoyancy of 1.1, meaning the person is 1.1 times more dense than water. The buoyancy rate of 1.2 used in the table below is a calculation estimating a person having deflated lungs and wearing wet clothing.

Ferno reserves the right to change specifications without notice.



WARNING

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

3.2 Specifications

| Specification | Najo Lite | RediWide® | RediHold® | Sports Board |
|--|------------------|-----------------|-----------------|------------------|
| Length | 72" (183 cm) | 72" (183 cm) | 72" (183 cm) | 80" (203 cm) |
| Width | 16" (41 cm) | 18" (46 cm) | 16" (41 cm) | 20" (51 cm) |
| Thickness | 1-3/4" (4.5 cm) | 1-3/4" (4.5 cm) | 1-3/4" (4.5 cm) | 2-1/4" (6 cm) |
| Weight | 14.5 lb (6.6 kg) | 16 lb (7.2 kg) | 16 lb (7.2 kg) | 27 lb (12 kg) |
| Load Capacity | 450 lb (204 kg) | 600 lb (272 kg) | 600 lb (272 kg) | 1000 lb (454 kg) |
| Flotation (at 1.2 buoyancy) | 154 lb (69 kg) | 172 lb (78 kg) | 136 lb (62 kg) | 360 lb (163 kg) |
| Tapered Foot End | • | | • | |
| Quick Patient Positioning (No Designated Sides or Ends) | | • | | • |
| Angled Edges to Assist with Log-Rolling | • | • | • | |
| Recesses to Help Hold Restraints in Place | | • | • | |
| Central Slot for Individual Leg Immobilization | • | | | |

4 - USING THE BACKBOARD

4.1 Before Placing in Service

- Before use, personnel working with the backboard must read and understand this manual. Appropriate skills and training are also required. See “Operator Focus” on page 4.
- Inspect the backboard and confirm it is in good condition. See “Inspecting the Backboard” on page 9.
- Set up the backboard with restraints, following the instructions in the restraint users’ manual.

4.2 General Guidelines for Use

Medical advice is beyond the parameters of this manual. It is the operators’ responsibility to ensure safe practices for the patient and themselves.

A minimum of two trained operators is required. Operators must:

- Follow standard emergency patient-handling procedures when using the backboard.
- Communicate with one another and use coordinated movements when using the backboard.
- Work together and maintain control of the backboard at all times.
- Stay with the patient at all times.
- Always use patient restraints.
- Use additional trained helpers as needed. See “Using Additional Help” on page 4.
- Each backboard has slots for handholds, patient restraints, and head-immobilizer straps. Select, use, and apply restraints as determined by your local service’s protocols and government requirements.
- If speed-clip pins are installed, confirm the restraint speed clips are securely attached to the pins.
- Do not attach speed-clip pins or use the handholds as part of a technical rescue lifting system. Lift and carry the backboard only by hand, grasping the handholds. Place the backboard inside a basket for technical rescue.



WARNING

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 backboard.

NOTICE

Do not attach lifting devices such as ropes or bridles to the backboard handholds or pins. Always lift and carry the backboard by hand, grasping the handholds. In a technical-rescue situation, secure the backboard in a transport basket and attach lifting devices to the basket.

4.3 Using the Backboard

1. Follow local your local protocols and emergency patient-handling stabilization guidelines and procedures to move the patient onto the backboard (Figure 1).
2. Secure the patient on the backboard with restraints (Figure 2). Restraints are available separately. See “Parts” on page 10.
3. Confirm that restraints are properly configured and buckles are securely fastened.
4. If using restraints with speed clips, attach the clips securely to the pins.
5. Use additional trained helpers as needed to safely lift and carry the backboard and patient. See “Using Additional Help” on page 4.
6. If you place the patient and backboard on a cot for transport, secure the patient and backboard to the cot using the cot restraints.
7. If the load capacity is exceeded, inspect the backboard for damage. See “Specifications” on page 5 for load capacity and “Inspecting the Backboard” on page 9.



5 - MAINTENANCE

5.1 Maintenance Schedule

The backboard 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 11.

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

5.2 Service Life

Many factors affect a product's service life, including frequency of use (high-volume versus low-volume ambulance service); local environment (extreme temperature, high humidity, etc.); maintenance (adherence to the inspection and maintenance schedule); and other factors.

Follow the disinfecting, cleaning, and inspection procedures in this manual to ensure long life for the backboard.

5.3 Disinfecting and Cleaning Restraints

Remove the restraints from the backboard before cleaning and disinfecting. Follow the instructions in the restraint users' manual. Attach only clean, dry restraints to the backboard.

5.4 Disinfecting the Backboard

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

5.5 Cleaning the Backboard

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



WARNING

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

| Minimum Maintenance | Each Use or Daily | | |
|------------------------------|-------------------|---------|--|
| | As Needed | Monthly | |
| Daily Operator Duty (page 4) | • | | |
| Disinfecting (this page) | • | | |
| Cleaning (this page) | | • | |
| Inspecting (page 9) | | • | |

NOTICE

Disinfectants and cleaners containing phenolics or iodines can cause damage. Do not use products containing these chemicals. If bleach is used, rinse with plenty of clear water to remove bleach residue.

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

Restraint metal buckles, slide bars, and clips can be damaged by immersion in liquids or by washing-machine action. Disinfect and clean only as described in the restraint users' manual packaged with the restraints.

5.6 Inspecting the Backboard

Have your service's equipment maintenance personnel inspect the backboard regularly. Follow the checklist below.

- Is the backboard free of cracks, crevices, and punctures?
- If the backboard is fitted with speed clip pins (A), are all pins solidly installed and free of cracks or damage?
- 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?

If inspection shows damage or excessive wear other than for speed clip pins, remove the backboard from service and destroy to prevent accidental use. Speed clip pins are replaceable. See "Parts" on page 10.



6 - ACCESSORIES, PARTS

6.1 Accessories

Ferno offers accessories approved for use with the backboard. Follow all instructions in accessory users' manuals. Keep the instructions with this manual. Contact Ferno Customer Relations (page 2) or your Ferno distributor for product information.

6.2 Parts

In the United States and Canada, contact EMSAR, 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 |

| Part | Description | Qty |
|----------|-----------------|-----|
| 090-5802 | Speed Clip Pins | 18 |

WARNING

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

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

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

| Accessories | | |
|---|----------|----------|
| Model 445 Head Immobilizer | 031-3855 | |
| Model 455 HeadHugger Disposable Head Immobilizer (10 ea.) | 083-2092 | |
| Model 49 WizLoc Cervical Collar (3 ea.) | 082-2074 | |
| Model 770 Fastrap | 031-3916 | |
| 441 Traction Splints (Adult and Pediatric) | 082-2183 | |
| Model 430 (Metal Buckle) Restraint | | |
| 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 430P (Plastic Buckle) Restraint | | |
| Style | Black | Orange |
| 2 pc., 5' (1524 mm) | 031-3797 | 031-3917 |
| 2 pc., 7' (2134 mm) | 031-3801 | 031-3919 |
| 1 pc., 7' (2134 mm) | 031-3894 | 031-4011 |
| Model 439 (Metal Buckle) Restraints, Set of Three | | |
| Style | Black | Orange |
| 1 pc., 7' (2134 mm) | 031-3083 | 031-2660 |

Aviation

Military

Mortuary

EMS

Rescue
