



# Models 430, 430P, 439 Restraints

## Description

Ferno® Models 430 and 430P Series Restraints (“the restraint”) provide a variety of strapping options to help secure a patient on an ambulance cot, stretcher, or other piece of emergency-medical equipment (the “equipment”).

Model 430 Series are metal-buckle, primary-use restraints. Model 430P Series are plastic-buckle, secondary-use restraints. Select the restraint that matches the intended use.

### FERNO DEFINITIONS

- **Primary-Use Restraints** are suitable for securing a patient on compatible equipment during transport in a motor vehicle.
- **Secondary-Use Restraints** ARE NOT suitable for securing a patient during transport in a motor vehicle. They are for temporary use to secure a patient on a backboard, hand-carried stretcher, scoop stretcher, stair chair, or extrication device. Transfer the patient onto an ambulance cot or other device with primary restraints before transport in a motor vehicle.
- **Transport Restraint System** is defined by Ferno as a set of Primary-Use restraints used together to properly restrain a patient in an ambulance.

## Specifications

All restraints provide length-adjustment. Restraints are available with black or orange webbing, and in a variety of lengths. See the chart at right.

- **Model 430** are **primary-use restraints**. These restraints feature a metal buckle and tang and are made of 51 mm (2") nylon webbing
- **Model 430P** are **secondary-use restraints**. These restraints feature a plastic buckle and tang and are made of 51 mm (2") polypropylene webbing.
- **Model 439** is a set of three, 1-piece, 7' (2134 mm) Model 430 metal-buckle restraints in a vinyl carrying bag.

### Load Limit: Model 430 (Metal Buckle)

When properly attached and used in conjunction with additional restraints (not supplied) as specified in the equipment users’ manual, the restraint is capable of securing a patient weighing the maximum allowable load limit of the equipment. Do not exceed the load limit of the equipment.

### Load Limit: Model 430P (Plastic Buckle)

When properly attached and used in conjunction with additional restraints (not supplied) as specified in the equipment users’ manual, the restraint is capable of securing a patient until transfer to an ambulance cot or other device with primary restraints. Do not exceed the load limit of the equipment.



**⚠ WARNING**

**Improper use of the restraint can cause injury. Attach and use the restraint only as described in this manual.**

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

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

**Important**

Do not exceed the load limit of the equipment on which the restraint is used. Refer to the equipment users’ manual for the equipment load limit.

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

## General Guidelines for Use

- For placement on a patient, follow local protocols.
- Adjust restraints to safely secure the patient to the equipment without causing discomfort or impairing circulation.
- Keep restraints fastened when not in use to prevent interference with equipment operation.

### MODEL 430 (METAL BUCKLE)

- For transport in an ambulance, Ferno requires a Transport Restraint System composed of a Ferno harness plus one or two additional Ferno Model 430 primary, metal-buckle restraints. See the users' manual for the product on which the restraint system is used for specific requirements.
- The Model 430 Series is not approved by the United States Federal Aviation Administration for use in aircraft. Please contact Ferno Aviation at 1.770.521.1005 for FAA-approved patient restraints and shoulder harness assemblies.

### MODEL 430P (PLASTIC BUCKLE)

- Secondary-use restraints are not suitable for use in a motor vehicle.
- Secondary-use restraints are identified with a label (Figure 1).

## Before Use

- Personnel who will work with the restraint need to read this manual.
- Confirm that the restraint operates properly (See *Inspection Checklist*, page 4).

## Attaching the Restraint

Attach the restraint to the equipment at points that ensure strong anchorage and proper patient restraint. Verify restraint placement will not interfere with use of the equipment or accessories.

Attach one-piece restraints according to local protocols.

### ATTACHING TWO-PIECE RESTRAINTS

1. Unbuckle the restraint and separate the straps.
2. Wrap the loop end of a strap around the selected attachment point (Figure 2 or Figure 3).
  - Model 430 may be used on ambulance cots for transport in a motor vehicle. Do not attach to moveable areas of equipment such as a cot drop frame or backrest.
  - Do not attach Model 430P to equipment used in a motor vehicle.
3. Thread the male buckle/tang or female buckle/receiver through the loop (Figures 2-3) and pull the webbing through the loop until the loop is snug around the attachment point.
4. Repeat Steps 2 and 3 to attach the other strap to the selected attachment point on the opposite side of the equipment.
5. Attach additional restraints following steps 1-4.
6. Confirm that all straps are attached securely.

### REMOVING TWO-PIECE RESTRAINTS

To remove the restraint from the equipment, first unbuckle it. Then, feed the buckles backward through the loops and remove the restraint straps from the equipment.

## WARNING

Improper use of the restraint can cause injury. Use the restraint only as described in this manual.

**FERNO**

Secondary-Use Restraint

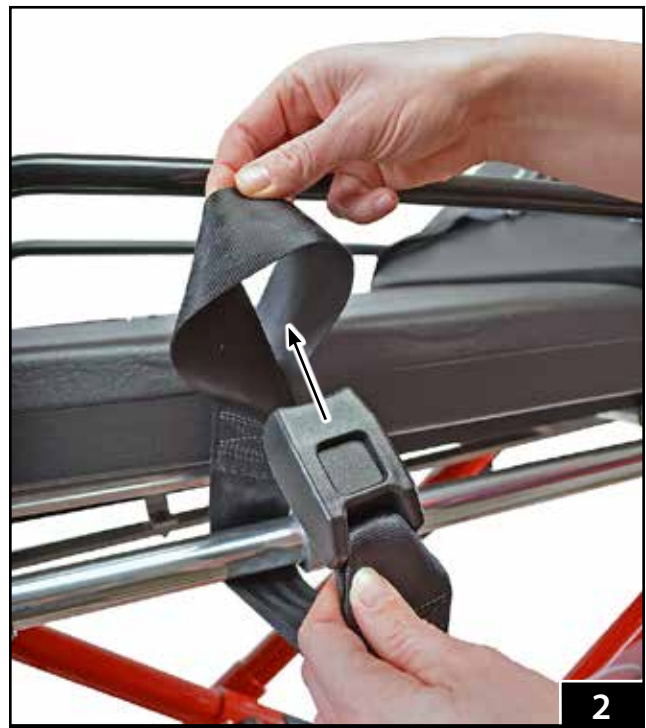
This restraint is not for use as a primary restraint in a motor vehicle, on cots or other equipment that requires primary restraints.



www.Ferno.com



1



2



3

## **WARNING**

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

## Buckling/Unbuckling

### MODEL 430 (METAL BUCKLE)

**To buckle the restraint,** insert the male buckle/tang into the female buckle/receiver until it locks into place (Figure 4). Always confirm that the buckle is securely fastened.

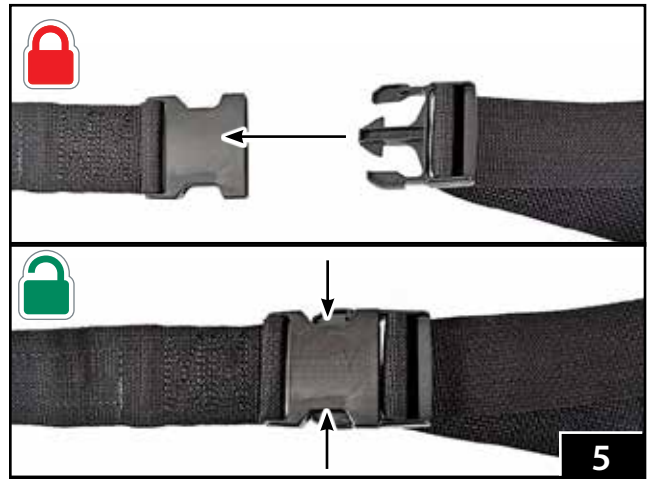
**To unbuckle the restraint (Model 430):** Press the release button in the center of the female buckle/receiver (Figure 4) and separate the straps.



### MODEL 430P (PLASTIC BUCKLE)

**To buckle the restraint,** insert the prongs of the male buckle/tang into the female buckle/receiver until it locks into place (Figure 5). Always confirm that the buckle is securely fastened.

**To unbuckle the restraint:** Squeeze the outer prongs of the male buckle/tang until they release the female buckle/receiver (Figure 5) and separate the straps.



## Adjusting the Restraint

### To lengthen a strap:

1. Unbuckle the restraint.
2. Grasp the male buckle/tang and turn it perpendicular to the webbing and pull outward, away from the strap attachment point until the strap is the desired length (Figure 6).

**To shorten a strap:** Grasp the hemmed tab and pull the webbing through the male buckle/tang until the strap is the desired length (Figure 7).



## Maintenance Schedule

The restraint requires regular maintenance. Set up and follow a maintenance schedule. Conduct maintenance as follows:

- **Inspecting:** Inspect the restraint as needed, following the Inspection Checklist below. At minimum, inspect monthly.
- **Disinfecting:** Disinfect the restraint after each use.
- **Cleaning:** Clean the restraint as needed.

## Inspection Checklist

- Are all components present?
- Is restraint webbing in good condition (no cuts/frayed edges)?
- Are the buckles free of visible damage?
- Do the buckles function smoothly and properly?
- Can strap length be adjusted smoothly and properly?

If inspection indicates damage or excessive wear, take the restraint out of service and destroy.

## Disinfecting

**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. **Do not immerse Model 430 metal buckles in liquid.**

## 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.

### MODEL 430P (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 restraint only as described in this manual.**

### Important

Metal buckles can be damaged by immersion in liquids or by washing-machine action. Disinfect and clean only as described in this manual.

### Important

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

## 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



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



FERNO S.r.l.  
via B. Zallone, 26  
40066 Pieve di Cento BO  
Italy (+39) 0516860028



Ferno (UK) Ltd.  
Ferno House, Stubs Beck Lane  
Cleckheaton, West Yorkshire, BD19 4TZ  
+44 (0) 1274 851999



## Limited Warranty Statement

The products sold by Ferno are covered by a limited warranty, which is printed on the invoice you received when you purchased the product. Please refer to the warranty terms as printed on your invoice. 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.