

EZ-Glide®

Evacuation Chair
Models 59, 59T, 59T-LWH



Users' Manual

July 2018
Pub. No. 234-3298-07



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.



Serial Number _____

Location: Seat panel rear frame

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.

FERNO Product Name/Model

 Date of Manufacture		(01) Global Trade Item Number
 Serial Number		(11) Date of Manufacture
 Ferno-Washington Inc. Wilmington, Ohio 45177 USA +1.937.382.1451		(21) Serial Number

↑ Manufacturer
↑ GS1 Data Matrix

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 either on the product or the product packaging.



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, Stubbs Beck Lane
Cleckheaton, West Yorkshire, BD19 4TZ
+44 (0) 1274 851999



TABLE OF CONTENTS

Section	Page	Section	Page
Ferno Customer Relations _____	2	6 - Using the Chair _____	20
1 - Safety Information _____	4	6.1 Before Placing the Chair in Service _____	20
1.1 Warning _____	4	6.2 General Guidelines for Use _____	20
1.2 Important _____	4	6.3 Transferring the Patient _____	21
1.3 Tip _____	4	6.4 Rolling the Chair _____	21
1.4 Bloodborne Disease Notice _____	4	6.5 Transporting a Patient Down Stairs (Model 59) _____	22
1.5 Symbol Glossary _____	5	6.6 Transporting a Patient Down Stairs (Models 59T, 59T-LWH) _____	23
1.6 Safety and Instruction Labels: Model 59 _____	6	6.6 Transporting a Patient Up Stairs (All Models) _____	25
1.7 Safety and Instruction Labels: Model 59T, Model 59T-LWH _____	6	6.7 Pausing On the Stairs _____	26
2 - Operator Focus _____	7	7 - Maintenance _____	27
2.1 Operator Training _____	7	7.1 Maintenance Schedule _____	27
2.2 Terms _____	7	7.2 Disinfecting/Cleaning Restraints _____	27
2.3 Using Additional Help _____	8	7.3 Disinfecting/Cleaning the Chair _____	27
3 - About the Chair _____	9	7.4 Cleaning Tracks and Belts _____	27
3.1 Description _____	9	7.5 Inspecting the Chair _____	28
3.2 General Specifications _____	9	7.6 Lubricating the Chair _____	29
3.3 Components: Model 59 _____	10	7.7 Do Not Lubricate Track System _____	29
3.4 Components: Model 59T, Model 59T-LWH _____	11	7.8 Reconditioning the Track Belts _____	30
4 - Setup _____	12	7.9 Adjusting Track-Belt Tension _____	31
4.1 Attaching Patient Restraints _____	12	7.10 Removing and Attaching the ABS Panels _____	33
4.2 Restraint Configurations _____	12	8 - Accessories _____	34
4.3 Ankle Restraint _____	13	9 - Parts and Service _____	35
5 - Features _____	14	9.1 U.S.A. and Canada _____	35
5.1 Folding and Unfolding the Chair _____	14	9.2 Worldwide _____	35
5.2 Track System (Models 59T, 59T-LWH Only) _____	15	9.3 Parts List _____	35
5.3 Extending Lift Bar _____	16	9.4 Parts Diagrams _____	36
5.4 Telescoping Lift Handles _____	16	Training Record _____	37
5.5 Footrest _____	17	Maintenance Record _____	38
5.6 Wheel Locks _____	17	Notes _____	39
5.7 Rear Lift Handles Model 59T-LWH Only _____	18		
5.8 Rear Lift Handles Models 59, 59T (Optional) _____	19		

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 chair.
Improper use of the chair can cause injury. Use the chair only for the purpose described in this manual.
Improperly attaching restraints can allow seat and back panels to dislodge, resulting in injury. Restraints must capture panel AND chair frame.
Using the chair with the track system unlocked can cause injury. Verify that the track system is locked before transporting the patient.
Lubricating the track system can result in injury to the patient and/or operators. Never lubricate the tracks or belts.
Improper operation can cause injury. Operate the chair 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 chair and be injured. Use restraints to secure the patient on the chair.
Helpers can cause injury or be injured. Maintain control of the chair, operate the controls, and direct all helpers.
Improper maintenance can cause injury. Maintain the chair only as described in this manual.
Attaching improper items to the chair can cause injury. Use only Ferno-approved items on the chair.
Improper parts and service can cause injury. Use only Ferno parts and Ferno-approved service on the chair.
Modifying the chair can cause injury and damage. Use the chair 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 Tip

Tips provide recommendations for easier use of the product.

Tip

1.4 Bloodborne Disease Notice

To reduce the risk of exposure to bloodborne diseases such as HIV-1 and hepatitis when using the chair, follow the disinfecting and cleaning instructions in this manual.

1.5 Symbol Glossary

The symbols defined on this page are used on the chair and/or in this users' 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



Do Not Pressure Wash



Unlocked



Locked



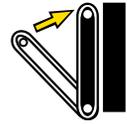
Do Not Lubricate



Lubricate



Open Track System



Close Track System



Read the Users' Manual



Operation Requires Two Trained Operators



Manufacturer



Authorized Representative in the European Community



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



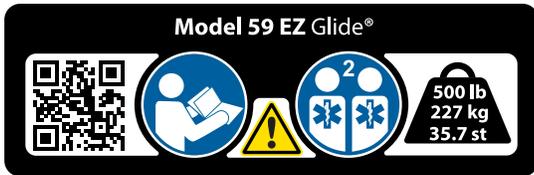
Product meets European Union Standards



QR Code (Access Online Content)

1.6 Safety and Instruction Labels: Model 59

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



Safe Use Guidelines



Instruction: Folding/Unfolding the Chair



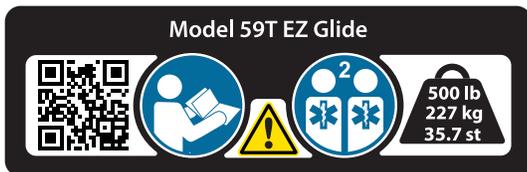
Ferno Products are Protected by Patents Worldwide



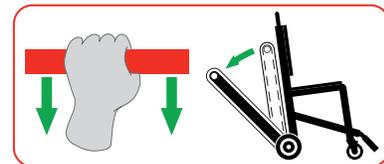
Safety Instruction: Attaching Restraints

1.7 Safety and Instruction Labels: Model 59T, Model 59T-LWH

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



Safe Use Guidelines



Instruction: Opening the Tracks



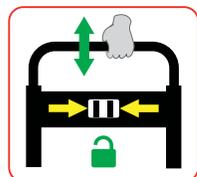
Instruction: Folding/Unfolding the Chair



Ferno Products are Protected by Patents Worldwide



Instruction:
Closing Tracks



Instruction:
Adjusting Lift Bar



Risk of Injury: Do Not
Lubricate Tracks



Safety Instruction: Attaching Restraints

2 - OPERATOR FOCUS

2.1 Operator Training

Operator using the chair:

- must read and understand this manual.
- must have training on proper use of the chair.
- 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 chair before using it with a patient.
- must keep training records. For a sample training record sheet, see “Training Record” on page 37.



WARNING

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

2.2 Terms

The following terms are used in this manual.

- **INTERACTIVE CONTENT:** For training videos and proper use of the chair, scan a QR code in this manual, click a link in an electronic version of this manual or visit our website at www.ferno.com.
- **LOAD:** The load is the overall weight of the patient plus equipment placed on (or attached to) the chair.
- **LOAD CAPACITY:** Load capacity is the amount of weight the chair is designed to hold. This includes the patient weight plus any accessories attached to the chair (IV poles, bags, etc.)
- **OPERATORS:** Trained operators are referred to as Head-end Operator and Foot-end Operator in this manual. Trained operators maintain control of the chair, operate the controls, and direct helpers.
- **SPOTTER:** If available, Ferno recommends the use of a spotter when moving the chair on stairs. The spotter stands behind the backward-facing operator and helps steady and guide the operator.

2.3 Using Additional Help

Operating the chair requires a minimum of two trained operators. Ferno recommends:

- Position a trained operator at each end of the chair;
- Operators and helpers should face each other when transporting a patient up or down stairs;
- A third trained person should serve as a spotter for the backward-facing operator.
- Follow all applicable local protocols for carrying chairs.

Trained operators maintain control of the chair and operate the controls. The designated lead operator should direct all helpers. The charts on this page show suggested placement for operators and helpers.

WARNING

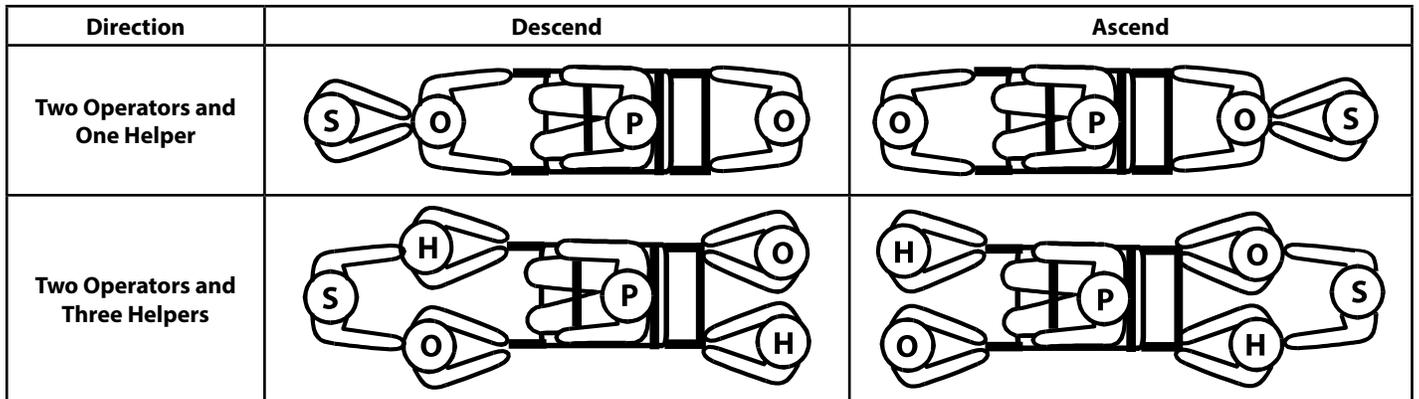
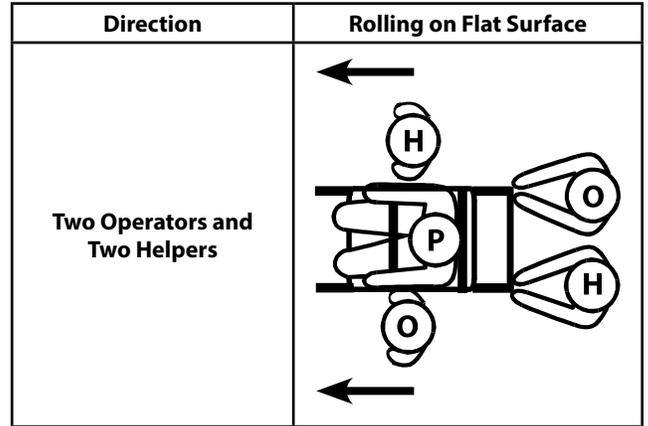
Helpers can cause injury. Maintain control of the chair, operate the controls, and direct all helpers.



Load Capacity

500 lb
227 kg
35.7 st

Inspect the chair if the Load Capacity has been exceeded. See "Inspecting the Chair" on page 28.



Key: O = Operator H = Helper S = Spotter P = Patient

3 - ABOUT THE CHAIR

3.1 Description

Note: In this manual, all chair models are referred to as “the chair” when features or operation is identical. When a feature or operation differs, the specific chair model name is used.

The chair is for professional use by a minimum of two trained operators. A third person to serve as a spotter may be required by local protocols. Additional help may be required when working with heavy patients.

The Ferno® Model 59 EZ-Glide® Evacuation Chair is an emergency patient-handling device designed to transport a seated patient up and down stairs and over flat surfaces. The chair does not feature tracks. Operators lift and carry the chair up or down stairs.

The Ferno® Model 59T or 59T-LWH EZ-Glide® Evacuation Chair are emergency patient-handling devices designed to transport a seated patient up and down stairs and over flat surfaces. The chair is designed with belted tracks that enable operators to “glide” the chair down stairs instead of carrying it.

The difference between models 59T and 59T-LWH is the weight of the chair (see table at right), and the use of the rear lift handles. Rear lift handles are available as an accessory to Model 59T. Model 59T-LWH is constructed with two-stage, locking rear lift handles as standard equipment.

POWERTraxx® conversion kits are available to provide a powered track system for Models 59T or 59T-LWH. To purchase accessories, see “Accessories” on page 34.

CHAIR FEATURES

- **(59T, 59T-LWH)** Belted track system for “gliding” chair down stairs
- Molded ABS seat and back panels
- Choice of color
- 5-position extending rear lift bar
- 5-position telescoping front lift handle (2)
- 6” rear locking wheel (2)
- 4” front swivel wheel (2)
- Folding footrest
- Ankle restraint
- Patient restraints (page 11)

3.2 General Specifications

Specifications for the chair are shown in the table 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. See “Ferno Customer Relations” on page 2

WARNING

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

Specification	Imperial	Metric
Load Capacity	500 lb	227 kg
Load Capacity (UK)	---	35.7 st
Weight* Model 59	26 lb	12 kg
Weight* Model 59T	37 lb	17 kg
Weight* Model 59T-LWH	40 lb	18 kg
Height		
Maximum	63.5	1613 mm
Minimum	37.5 in	953 mm
Width		
Overall	20.313 in	516 mm
Seat	16.5 in	419 mm
Depth (front to back)		
Model 59	27 in	690 mm
59T, 59T-LWH Tracks closed, Handles retracted	28.5 in	724 mm
59T, 59T-LWH Tracks Open, Handles extended	51 in	1295 mm
Folded		
Model 59 Length x width x depth	37.5 in x 20.313 in x 9 in	953 mm x 516 mm x 225 mm
59T, 59T-LWH Length x width x depth	37.5 in x 20.313 in x 10 in	953 mm x 516 mm x 250 mm
Wheels, Rear		
Diameter	6 in	152 mm
Width	1.25 in	32 mm
Wheels, Front		
Diameter	4 in	102 mm
Width	1.18 in	30 mm
Chair Construction	Rectangular aluminum	
Seat/Back Panels	ABS Plastic	
Wheel Bearings	Sealed/greaseless	

* Weight is without restraints or accessories



Load Capacity

Inspect the chair if the Load Capacity has been exceeded. See “Inspecting the Chair” on page 28.

3.3 Components: Model 59



3.4 Components: Model 59T, Model 59T-LWH



Restraint Options
(See "Accessories" on page 34)

4 - SETUP

4.1 Attaching Patient Restraints

Use patient restraints to help hold the patient on the chair. Each restraint must capture **both** the aluminum chair frame and the seat or back panel. Follow local protocols when attaching restraints.

USING TWO-PIECE RESTRAINTS

1. Feed a restraint strap loop through a slot in the seat or back panel.
2. Wrap the strap around the aluminum chair frame and feed the male or female buckle through the loop, then pull the strap tight against the frame and panel.
3. Repeat Steps 1-2 for the other half of the restraint.

USING ONE-PIECE RESTRAINTS

Note: *Two-piece restraints are recommended.*

1. To attach the seat-panel restraint, lay the restraint across the top of the seat panel and feed the male and female ends of the restraint down through the slots.
2. Wrap the restraint around the aluminum chair frame on each side of the chair, capturing both the panel **and** the frame (Figure 1).
3. Buckle the restraint and adjust the length.
4. Repeat Steps 1-3 to attach the back-panel restraint.

4.2 Restraint Configurations

Follow local protocols when configuring and using restraints. Two possible configurations are described below.

HORIZONTAL CONFIGURATION

Use one restraint for the chest and one restraint for the lap (Figure 2). Use additional restraints as needed.

1. Attach the chest straps through vertical slots in the back panel.
2. Attach the lap straps through the seat panel slots.

CRISS-CROSS CONFIGURATION

Use two restraints for the torso and a third restraint for the lap (Figure 2).

1. Attach one strap of a restraint through a horizontal slot on the back panel of the chair.
2. Attach the mating strap of the same restraint through the seat panel slot on the opposite side of the chair.
3. Repeat with the second restraint, attaching its straps to opposite sides of the chair.
4. Attach the lap restraint through the seat-panel slots.

WARNING

Improperly attaching restraints can allow seat and back panels to dislodge, resulting in injury. Restraints must capture panel AND chair frame.

NOTICE

Restraint rules (also follow your local protocols):

- Use a minimum of two restraints.
- One restraint must be secured across the chair seat to help hold the patient on the chair.
- Each restraint or strap must capture the aluminum chair frame and the plastic panel.



4.3 Ankle Restraint

Use the ankle restraint to help keep the patient's feet on the footrest. Attach the two-piece ankle restraint to the front legs of the chair. To attach the restraint:

1. Unbuckle the restraint to separate the straps.
2. Wrap a strap around one front leg of the chair and thread the buckle through the loop, then pull the strap tight around the chair leg (Figure 3).
3. Attach the remaining strap to the opposite front leg.
4. Buckle the restraint and adjust the length (Figure 4).



5 - FEATURES

5.1 Folding and Unfolding the Chair

The red lock bar below the front edge of the seat disengages the lock for unfolding and folding the chair. Before seating a patient, verify that the chair is completely unfolded and the lock is engaged.

FOLDING THE CHAIR

1. Buckle the restraints and arrange the straps to prevent interference with folding the chair.
2. Roll the chair backward to reverse the swivel wheels (Figure 5).
3. Standing at the side of the chair, grasp the lift bar with one hand and the lock bar with the other hand.
4. Pull the lock bar forward or toward the front of the chair (Figure 6), **then** fold the seat toward the lift bar.

AS YOU FOLD THE SEAT: Tilt the chair forward (Figure 7) to keep the swivel wheels rotated outward. This prevents the wheels from holding the frame away from the seat and allows the lock to engage.

5. Press the seat against the back-panel frame until the lock engages (Figure 8).
6. Verify the lock has engaged by pulling the seat away from the lift bar without pulling the lock bar. The seat will not move if the lock is engaged.

Note: If the swivel wheels prevent the chair from locking in the folded position, hold the chair at a greater tilt to allow the swivel wheels to rotate away from the chair frame.

UNFOLDING THE CHAIR

1. Stand beside the chair and grasp the lift bar with one hand and the lock bar with the other hand.
2. Pull the lock bar forward (toward the front of the chair), then pull the seat away from the lift bar until the chair fully unfolds and the lock engages.
3. To verify the lock has engaged, hold the lift bar while pulling up on the chair frame at the front of the seat. The chair will not fold if the lock is engaged.

Tip

Folding and Unfolding the Chair

The chair lock must be disengaged before you begin folding or unfold the chair. Pull the lock bar forward, then fold or unfold the chair.

When folding the chair, tilt the seat forward so the swivel wheels rotate outward, away from the seat.



5.2 Track System (Models 59T, 59T-LWH Only)

The track system enables operators to glide the chair down stairs instead of lifting and carrying it.

GUIDELINES FOR USE

- Using the chair on stairs requires a minimum of two trained operators. Ferno recommends using a third person as a “spotter”. See “Transporting a Patient Down Stairs (Models 59T, 59T-LWH)” on page 23.
- Verify that the track system is fully open and locked before use.
- Never lubricate the belts. Lubrication can cause the belts to perform unpredictably, resulting in injury to the patient and/or operators.
- Moisture, water, snow, ice, or debris on or between the tracks and belts can cause irregular belt performance that results in sudden changes in the weight operators must support. Make sure the tracks and belts are clean and dry before using the chair on stairs.
- Moisture, water, snow, ice, or debris on the stairs can cause poor footing for operators. To avoid possible injury, clear the stairs or select an alternate route.

OPENING THE TRACK SYSTEM

1. Grasp the red release bar (Figure 9) and firmly pull the track system away from the chair until it locks in the open position.
2. Verify that track system has locked by trying to push the tracks closed. If the lock is fully engaged, the track system will not close.

CLOSING THE TRACK SYSTEM

With your hand, push the red closing handle down (Figure 10) until the track system closes completely.

⚠ WARNING

Using the chair with the track system unlocked can cause injury. Verify that the track system is locked before transporting the patient.

Lubricating the track system can result in injury to patient and/or operators. Never lubricate the tracks or belts.



5.3 Extending Lift Bar

The rear operator uses the lift bar to guide and steer the chair when rolling the chair and to control the chair on stairs.

The lift bar adjusts to five locked positions (Figure 11). Adjust the height according to operator preference and the task or situation at hand.

RASING AND LOWERING THE LIFT BAR

1. Pinch and hold the release tabs together with one hand to unlock the lift bar (Figure 12), then raise or lower the lift bar with the other hand.
2. When the lift bar is near the desired position, let go of the release tabs and raise or lower the lift bar until it locks into position.
3. Verify that the lift bar is locked by trying to raise or lower it without squeezing the release tabs. When the lock is engaged the lift bar will not move.

5.4 Telescoping Lift Handles

The telescoping lift handles adjust to five locked positions (Figure 11). Adjust the handles according to operator preference and the task at hand.

EXTENDING/RETRACTING THE LIFT HANDLES

1. Press the release button (Figure 13) and push or pull the handle near the desired stopping point.
2. Release the button and slide the handle a little forward or backward until it locks into position.
3. Lock both handles at the same position. Verify that both handles are locked by trying to push or pull them without pressing the release buttons. When the locks are engaged, the handles will not move.



5.5 Footrest

The footrest has two positions: raised for storage (Figure 14), and lowered for use (Figure 15).

To lower the footrest, swing it down until it stops.

To raise the footrest, swing it up until it stops.

GUIDELINES FOR USING THE FOOTREST

Use the footrest properly to ensure that it does not interfere with patient's or operators' feet.

- Before transferring the patient onto the chair, make sure the footrest is raised in the storage position. Seat the patient before lowering the footrest.
- When preparing to transfer the patient off the chair, unfasten the ankle restraint and raise the footrest into the storage position **before** unfastening the patient's torso and lap restraints. This will prevent the patient from attempting to stand before the footrest has been stored out of the way of his/her feet.
- Keep the footrest raised when it is not in use.

Footrest

Raise the footrest to the storage position before transferring the patient onto or off from the chair.

Tip



5.6 Wheel Locks

The rear chair wheels are fitted with wheel locks to help keep the chair from rolling during patient transfer.

Stay with the chair and maintain control of it at all times. Do not use the wheel locks as a substitute for operator control.

To engage a wheel lock, press down the rear end of the lock pedal (Figure 16).

To disengage a wheel lock, press down the forward end of the lock pedal.



5.7 Rear Lift Handles Model 59T-LWH Only

The Model 59T-LWH chair is constructed with two-stage locking handles affixed to the sides of the chair frame. Use the handles only as a pair. Do not lift the chair using only one handle.

To raise the handles for use: Raise each handle until it locks with an audible click.

To unlock and fold the handles:

To unlock and fold the handles, both locks must be disengaged.

1. Press and hold the red release lever to disengage the safety lock (Figure 17).
2. With the red release lever still pressed, grasp the center of the handle and lift the entire handle upward to unlock the secondary lock (Figure 18). Keep the handle parallel with the floor as you raise it.
3. Fold the handle and release the red release lever (Figure 19).

NOTICE

LIFT ONLY: Lift handles are designed for lifting and carrying the chair only. Use the handles to lift and carry the chair up stairs or over obstacles.

To tilt and roll the chair, use the lift bar. Do not press down on the locked handles in order to tilt or turn the chair.



5.8 Rear Lift Handles Models 59, 59T (Optional)

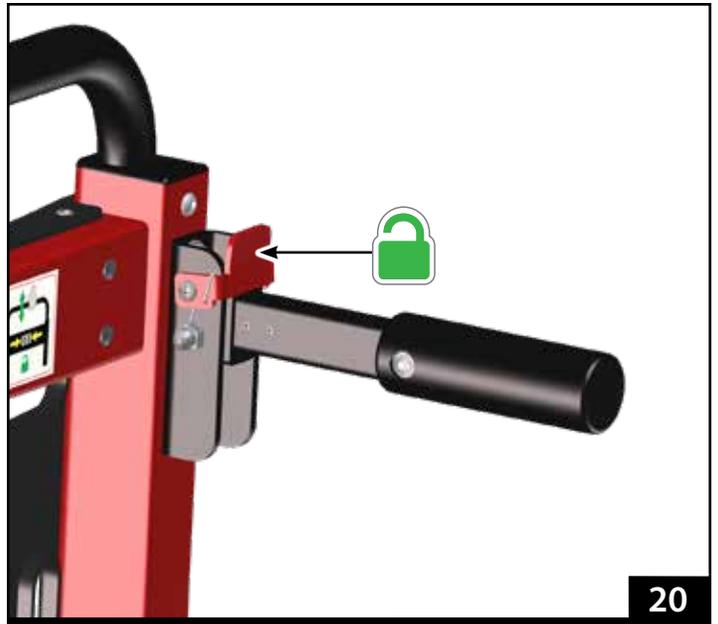
If the Model 59T chair was purchased with the optional locking rear lift handles, or if you installed a kit, use the handles as follows. To order handles, see "Accessories" on page 34.

- Use the handles only as a pair. Do not lift the chair using only one handle.
- To raise a handle, lift the handle until it locks with an audible click.
- To lower a handle, press the red release lever toward the chair to disengage the lock (Figure 20), then lower the handle.
- Keep the handles folded when not in use.

NOTICE

LIFT ONLY: Lift handles are designed for lifting and carrying the chair only. Use the handles to lift and carry the chair up stairs or over obstacles.

To tilt and roll the chair, use the lift bar. Do not press down on the locked handles in order to tilt or turn the chair.



6 - USING THE CHAIR

6.1 Before Placing the Chair in Service

Personnel who will work with the chair need to read this manual.

- Set up the chair, following the instructions in this manual. See “Setup” on page 12.
- Confirm that the chair operates properly. See “Inspecting the Chair” on page 28.

6.2 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.
- **Operators work together and maintain control of the chair at all times.**
- Follow standard emergency patient-handling procedures when operating the chair.
- Operators communicate with one another and use coordinated movements to operate the chair.
- Ferno recommends that a third trained person serve as a “spotter” while using the chair on stairs.
- Lift only the weight you can safely handle. Use additional help when working with heavy loads (patient and equipment). For placement of help, see “Using Additional Help” on page 8.
- Stay with the patient at all times.
- Always use patient restraints to secure the patient on the chair.
- Remove any water, ice, snow, or debris from the stairs before using the chair on them.
- Remove any water, ice, snow, or debris from the track and tread belts before using the chair on stairs.
- Verify that the track system is locked in the open position before using the chair on stairs.

WARNING

Helpers Improper operation can cause injury. Operate the chair 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 chair and be injured. Use restraints to secure the patient on the chair.

Lubricating the track system can result in injury to patient and/or operators. Never lubricate the track or belts.

NOTICE

LIFT ONLY: Lift handles are designed for lifting and carrying the chair only. Use the handles to lift and carry the chair up stairs or over obstacles.

To tilt and roll the chair, use the lift bar. Do not press down on the locked handles in order to tilt or turn the chair.

6.3 Transferring the Patient

Always assist the patient onto and off from the chair.

ASSISTING THE PATIENT ONTO THE CHAIR

1. Unfold the chair and verify that it is locked.
2. Engage the wheel locks.
3. Verify that the footrest is in the storage position.
4. Assist the patient onto the chair using accepted practices and following local protocols.
5. Fasten and adjust the torso and lap restraints.
6. Lower the footrest and place the patient's feet on it.
7. Fasten and adjust the ankle restraint (Figure 21).

ASSISTING THE PATIENT OFF FROM THE CHAIR

1. Engage the wheel locks.
2. Unfasten the ankle restraint and raise the footrest to the storage position.
3. Unfasten the torso and lap restraints.
4. Assist the patient off from the chair using accepted practices and following local protocols.

NOTICE

To tilt and roll the chair, use the lift bar. Do not use the rear lift handle (if present).



21



22

6.4 Rolling the Chair

GENERAL GUIDELINES

- Roll the chair on smooth, flat surfaces whenever possible (Figure 22).
- For patient comfort, pull the chair backward over low obstacles such as door sills.
- **Model 59:** Use the extending lift bar (or accessory rear lift handles) and telescoping foot-end handles to lift and carry the chair over curbs, high and low obstacles, and rough terrain.
- **Models 59T, 59T-LWH:** Close the track system and use the extending lift bar and telescoping foot-end handles to lift and carry the chair over curbs, high obstacles, and rough terrain. Use the track system to glide the chair down over curbs or single steps (Figure 23).

TO ROLL THE CHAIR

1. **Head-End Operator:** Release the wheel locks.
2. **Head-End Operator:** Adjust the lift bar to a comfortable height and grasp it to push and guide the chair on all four wheels (Figure 18), or tilt the chair back and roll it on its rear wheels.
3. **Foot-End Operator:** Assist the head-end operator as needed and attend the patient.



23

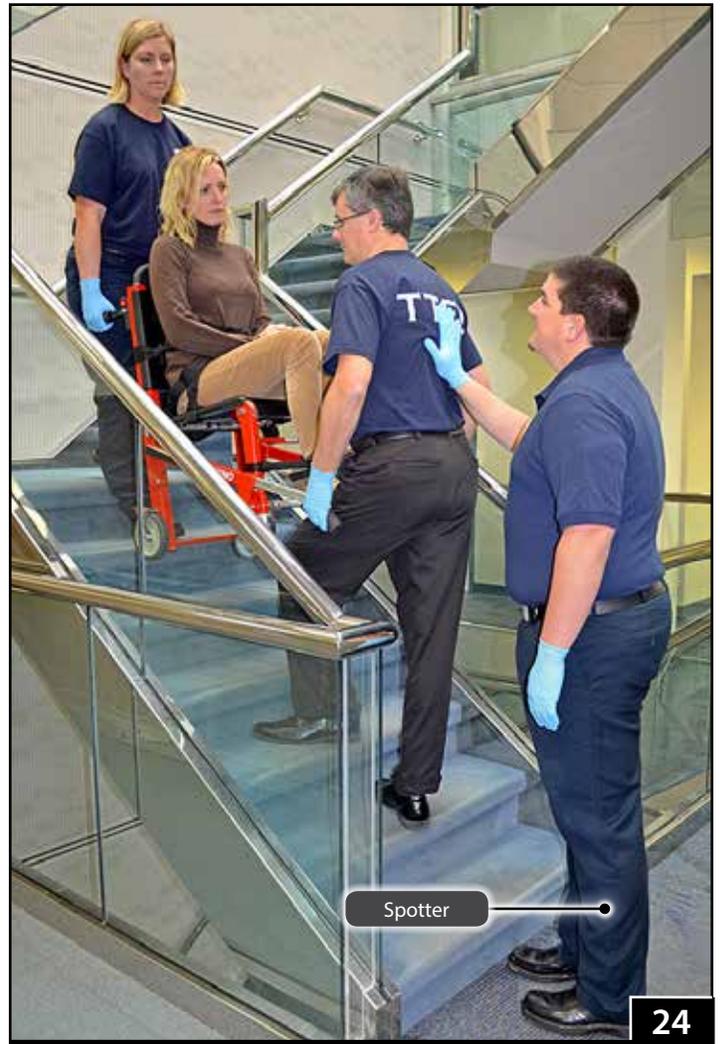
6.5 Transporting a Patient Down Stairs (Model 59)

GENERAL GUIDELINES

- Carrying the chair down stairs requires a minimum of two operators. Use additional help as needed. See “Using Additional Help” on page 8.
- Ferno recommends that the two operators face each other when transporting a patient down stairs and that a third person “spot” for the foot-end operator (Figure 24). However, the foot-end operator may face forward (with back to patient) if desired. Follow your local protocols for carrying chairs.
- Remove any water, ice, snow, or debris from the stairs before using the chair on them.
- Remove any water, ice, snow, or debris from the track system and belts before using the chair on stairs.
- If the operators tire or need to attend the patient while on stairs, see “Pausing On the Stairs” on page 26.

CARRYING THE CHAIR DOWN STAIRS

1. **Head-End Operator:** Roll the chair to the stairs and engage the wheel locks.
2. **Foot-End Operator:** Extend the foot-end lift handles to the desired stop point. Verify that both handles are locked and maintain your grasp.
3. **Spotter:** Stand below the foot-end operator with a hand on the operator’s back to help steady and guide him/her throughout the descent (Figure 24).
4. **Head-End Operator:** Raise the lift bar to the desired position and verify that it is locked. Or, use the rear lift handles, if your chair has rear lift handles.
5. **Head-End Operator:** Disengage the wheel locks and tilt the chair back.
6. **Operators and Spotter:** Operators work together to lift the chair and carry it down the stairs. The spotter keeps a hand on the foot-end operator’s back and provides verbal guidance (Figure 24).
7. **Operators:** At the bottom of the stairs, the operators set the chair on the floor and retract the lift handles.
8. **Head-End Operator:** Adjust the lift bar to a comfortable height before rolling the chair.



Tip

Pausing On the Stairs

To pause during the descent, allow the rear wheels of the chair to rest on a step while both operators hold the chair in place. See “Pausing On the Stairs” on page 26. To continue down the stairs, tilt the chair back and lift and carry it.

Tip

The Landing Zone

Ferno recommends you visualize a “landing zone” of at the top or bottom of the stairway. The landing zone should provide enough clear, safe space for the chair to be set on all four wheels, away from the edge of the stairway.

6.6 Transporting a Patient Down Stairs (Models 59T, 59T-LWH)

GENERAL GUIDELINES

- Using the chair to move down stairs requires a minimum of two trained operators working together. Use additional help as needed to control the chair. See “Using Additional Help” on page 8.
- Ferno recommends that the two operators face each other when transporting a patient on stairs and that a third trained person “spot” for the foot-end operator (Figure 25). In some cases, the foot-end operator may be able to descend the stairs facing forward, with his back to the patient. Follow your local protocols for using chairs.
- Remove any water, ice, snow, or debris from the stairs before using the chair on them.
- Remove any water, ice, snow, or debris from the track system and belts before using the chair on stairs.
- Verify that the track system is locked in the open position before using the chair on stairs.
- If the operators tire or need to attend the patient while on stairs, see “Pausing On the Stairs” on page 26.

GLIDING THE CHAIR DOWN STAIRS

1. **Head-end Operator:** Roll the chair near the stairs and engage the wheel locks.
2. **Head-end Operator:** Open the track system (See “Track System” on page 15). Verify that it has locked.
3. **Head-End Operator:** Raise the lift bar to the desired position and verify that it is locked (Figure 25). Or, use the rear lift handles, if your chair has rear lift handles.
4. **Foot-end Operator:** Extend the foot-end lift handles to the desired positions and verify that all handles are locked (Figure 25).
5. **Spotter:** Stand below the foot-end operator with a hand on the operator’s back to help steady and guide him/her throughout the descent (Figure 25).

⚠ WARNING

Using the chair with the track system unlocked can cause injury. Verify that the track system is locked before transporting the patient.



Tip

Pausing On the Stairs

To pause during the descent, allow the rear wheels of the chair to rest on a step while both operators hold the chair in place. See “Pausing On the Stairs” on page 26. To continue down the stairs, tilt the chair back and lift and carry it.

Tip

The Landing Zone

Ferno recommends you visualize a “landing zone” of at the top or bottom of the stairway. The landing zone should provide enough clear, safe space for the chair to be set on all four wheels, away from the edge of the stairway.

Using the Chair

6. **Head-end Operator:** Disengage the wheel locks.
7. **Both Operators:** Together, tilt the chair back until the belts engage the floor (Figure 26).
8. **Both Operators:** Working together, guide the chair slowly forward and downward until the tracks engage two or three steps. This establishes the glide angle (Figure 27).
9. **Both Operators:** To maintain the glide angle as you descend, work together and:
 - o **Head-end Operator:** Apply slight downward pressure on the extended lift bar.
 - o **Foot-end Operator:** Apply slight upward pressure on the foot-end lift handles.
10. **Both Operators:** At the bottom of the stairway, tilt the chair onto all four wheels.
11. If the chair has reached the destination, prepare the chair for rolling by retracting the lift handles, rear lift handles, and/or lowering the lift bar to a comfortable height (Figure 28). Close the track system.
12. To continue the descent, adjust the lift handles and lift bar as needed to maneuver the chair to the next stairway.

Note: In a narrow stairway, you may need to retract the handles between each flight of stairs.



6.6 Transporting a Patient Up Stairs (All Models)

GENERAL GUIDELINES

- Carrying the chair up stairs requires a minimum of two operators. Use additional help as needed. See “Using Additional Help” on page 8.
- Ferno recommends that the two operators face each other when transporting a patient up stairs and that a third person “spot” for the head-end operator. Follow your local protocols for carrying chairs.
- If the operators tire or need to attend the patient while on stairs, see “Pausing On the Stairs” on page 26.

CARRYING THE CHAIR UP STAIRS

Note: If the chair is equipped with optional rear lift handles, the head-end operator may grasp those handles instead of the lift bar. Model 59T-LWH is shipped with rear lift handles as standard equipment.

1. **Both Operators:** Roll the chair to the bottom of the stairs and position it with the patient’s back to the stairs.
2. **Head-End Operator:** Raise the lift bar to the desired position and verify that it is locked. Or, use the rear lift handles, if your chair has rear lift handles.
3. **Head-End Operator:** If the chair has a track system, do not open the track system.
4. **Spotter:** Stand above the head-end operator with a hand on the operator’s back to help steady and guide him/her throughout the ascent (Figure 29).
5. **Foot-End Operator:** Extend the foot-end lift handles to the desired position and verify that both handles are locked.
6. **Both Operators and Spotter:** Working together, the operators grasp the lift bar and lift handles and carry the chair up the stairs. The spotter keeps a hand on the head-end operator’s back and provides verbal guidance (Figure 29).
7. **Both Operators:** At the top of the stairs, the head-end operator sets the rear wheels of the chair on the floor and rolls the chair backward until the front wheels are securely on the floor.
8. If the chair has reached the destination, prepare the chair for rolling by retracting all handles and/or lowering the lift bar to a comfortable height.
9. To continue the ascent, adjust the lift handles and lift bar as needed to maneuver the chair to the next stairway.

Note: In a narrow stairway, you may need to retract the handles between each flight of stairs.



The Landing Zone

Tip

Ferno recommends you visualize a “landing zone” of at the top or bottom of the stairway. The landing zone should provide enough clear, safe space for the chair to be set on all four wheels, away from the edge of the stairway.

Tracked Chairs

Tip

The EZ-Glide track system is designed to assist in descending stairs. To ascend stairs, lift and carry the chair. When carrying the chair, close the track system to keep it out of the way of the head-end operator.

6.7 Pausing On the Stairs

If the operators tire, or need to attend the patient during a transport up or down stairs, the operators communicate and work together to pause on the stairs (Figure 30).

PAUSING DURING A DESCENT

Both operators tilt the chair forward, off the tracks, to allow the rear wheels to rest on the step. Both operators hold the chair in place.

To resume a descent, both operators tilt the chair back to the glide angle and engage the belts on the steps. Then, continue down the stairs as instructed in this manual. See "Transporting a Patient Down Stairs (Model 59)" on page 22 or see "Transporting a Patient Down Stairs (Models 59T, 59T-LWH)" on page 23.

PAUSING DURING AN ASCENT

Both operators set the chair down on its rear wheels on a step. Both operators hold the chair in place (Figure 30).

To resume, lift and carry the chair as instructed in this manual. See "Transporting a Patient Up Stairs (All Models)" on page 25.



7 - MAINTENANCE

7.1 Maintenance Schedule

The chair requires regular maintenance. Set up and follow a maintenance schedule. The table at right represents minimum intervals for maintenance.

Keep maintenance records. A sample maintenance record sheet is provided on page 38.

When using maintenance products, follow the manufacturers' directions and read the manufacturers' material safety data sheets. You can purchase a recommended disinfectant from your Ferno distributor or Ferno Customer Relations (page 2).

Minimum Maintenance Intervals	Each Use	As Needed	Each Month
Disinfect the Chair (this page)	•		
Clean the Chair (this page)		•	
Clean Tracks and Belts (this page)		•	
Chair Inspection (page 28)		•	•
Track System Inspection (page 28)	•	•	
Lubricating the Chair (page 29)		•	
Adjust Belt Tension (page 31)		•	

7.2 Disinfecting/Cleaning Restraints

Ankle Restraint: Place buckled restraint in a mesh bag and launder in a washing machine using warm water, a disinfectant soap, and gentle agitation. Hang the restraint to dry. Do not put it in a dryer.

Chest and Lap Restraints: Disinfect and clean restraints as directed in the restraint users' manual provided. Additional, free users' manuals can be obtained from Ferno. See "Ferno Customer Relations" on page 2.

 **WARNING**

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

7.3 Disinfecting/Cleaning the Chair

To disinfect: Remove restraints and seat and back panels. Wipe all surfaces of the chair and panels with disinfectant. Follow the disinfectant manufacturer's directions for application method and contact time.

To clean: Wash panels and all parts of the chair with warm water and a mild detergent. Rinse with clean water. Dry with a towel or allow to air-dry.

NOTICE

Disinfectants and cleaners containing bleach, phenolics, or iodines can cause damage. Use caution when disinfecting and cleaning with products containing these chemicals.

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

DO NOT PRESSURE WASH



Water under high pressure, or steam, can penetrate joints, flush away lubricant, and cause corrosion. Do not pressure wash the chair or PowerTraxx.

7.4 Cleaning Tracks and Belts

To ensure predictable belt performance, it is important to keep the track and belts free of oil, grease, dirt, and debris.

1. Hold the belts away from the track frame and remove any debris.
2. Clean both sides of the track frame, and both belts, with SD-20™ All-Purpose Cleaner and a clean cloth. Follow instructions on the container.
3. Dry track and belts thoroughly.

Note: To order SD-20™ Cleaner in North America, contact the Spartan Chemical Company, Maumee, Ohio, USA at 1.800.537.8990 or visit www.spartanchemical.com on the internet.

7.5 Inspecting the Chair

Have your service's equipment maintenance personnel inspect the chair at regular intervals. Conduct a visual inspection of the track system before use, and a thorough inspection of the track system after each use.

Follow the checklists on this page and work the chair through all its functions as described in this manual.

If inspection shows damage or excessive wear, remove the chair from service until repairs are made. See "Parts and Service" on page 35.

CHAIR INSPECTION

- Are all components present?
- Is the chair free of excessive wear?
- Are all screws, nuts, bolts, rivets, and roll pins securely in place?
- Do all moving parts operate smoothly and properly?
- Do all locks on the chair operate properly?
- Does the chair roll smoothly?
- Are the restraints properly installed?
- Is restraint webbing in good condition with no cuts or frayed edges?
- Are restraint buckles free of visible damage and do they operate properly?
- Do installed accessories operate properly without interfering with chair operation?

TRACK SYSTEM INSPECTION

- Are the tracks and belts free of lubricant, dirt and debris?
- Is there visible damage to the track or belts?
- Do the belts operate properly through the full range of motion, without becoming loose or off-track?
- Are the inner cords of the belts visible (indicating the need for replacement)?
- Are the belt-tensioning bolts and nuts tight?

7.6 Lubricating the Chair

Disinfect and clean the chair before applying lubricant.

There are two identical lubrication points on the chair. They are located where the brass bushing in the chair lock bar slot meets the stainless steel slide in the chair leg (Figure 31).

Lubricate each lubrication point with **one** drop of SAE 30-weight oil, then move the lock bar back and forth a few times to work the oil into the slide. Remove any excess lubricant with SD-20 Cleaner.

Note: To order SD-20™ Cleaner in North America, contact the Spartan Chemical Company, Maumee, Ohio, USA at 1.800.537.8990 or visit www.spartanchemical.com on the internet.



WARNING

Lubricating the track system can result in injury to patient and/or operators. Never lubricate the tracks or belts.

NOTICE

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.



7.7 Do Not Lubricate Track System

Never lubricate the tracks, belts, or any other part of the track system. Lubricants on the tracks or belts can cause the chair to perform unpredictably, resulting in injury to the patient and/or operators.

A label (Figure 32) instructing the user **not** to lubricate the track system is affixed to each track. If these labels become damaged or worn, replace them immediately. See "Parts and Service" on page 35.

If track or belts pick up oil or grease during use or while the chair is being serviced, clean the track and belts with SD-20 All-Purpose Cleaner before using the chair again. See "Cleaning Tracks and Belts" on page 27.



7.8 Reconditioning the Track Belts

Track belts need reconditioning when the inner surface becomes glassy or glazed. As this glazing occurs, the belts begin to move less freely over the steps and the belt teeth begin to skip, rather than roll, over the steps.

ITEMS REQUIRED FOR RECONDITIONING BELTS

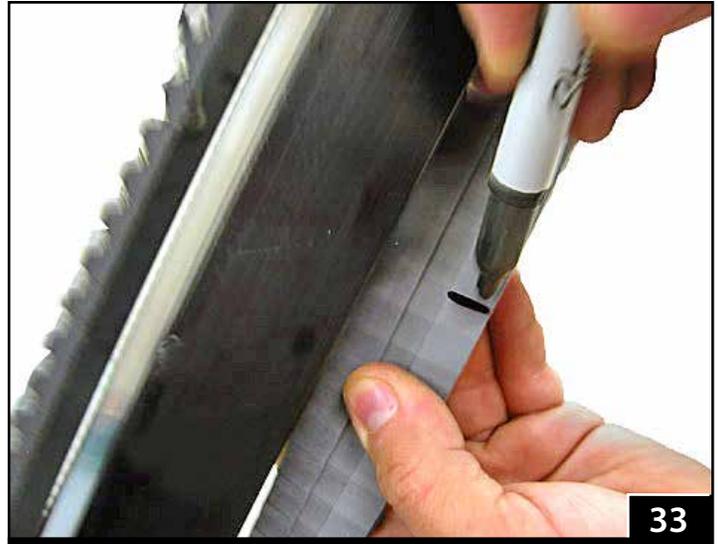
1 ea	Permanent marker
1 ea	50-80 grit sandpaper
1 ea	Wood block

To recondition the belts:

1. Place the chair on a workbench.
2. Engage the wheel locks.
3. Roll the belt away from the track and mark the inner surface with a permanent marker to identify the starting point for sanding (Figure 33).
4. Wrap the wood block with sandpaper and place the sanding block between belt and track. Move the block up and down to sand the inner surface of the belt (Figure 34).
5. Rotate the track belt as needed to access additional surface to sand.

Note: Take care and do not sand the surface of the track.

6. Repeat Steps 3-5 with the other belt.
7. Secure a simulated patient weight to the chair and glide the chair down a flight of stairs to test whether the belts roll over the steps properly.
8. If the belts do not perform properly, you may need to re-sand them, or they may need to be replaced. See "Parts and Service" on page 35.



7.9 Adjusting Track-Belt Tension

TOOLS NEEDED

2 ea	7/16-inch Wrench
1 ea	#4 Phillips Screwdriver
1 ea	Ruler or Measuring Tape

WHEN TO ADJUST BELT TENSION

Track belt tension needs to be adjusted when:

- a nut and bolt become loose
- a belt pulls away from the track more than 1-1/2 in. (38 mm) when measured. Refer to "Method 1" on page 32.
- a belt pulls away from the track more than 1 in. (25 mm) when measured. Refer to "Method 2" on page 32.

Adjusting Belt Tension

Adjusting the belt tension is a two-person operation.

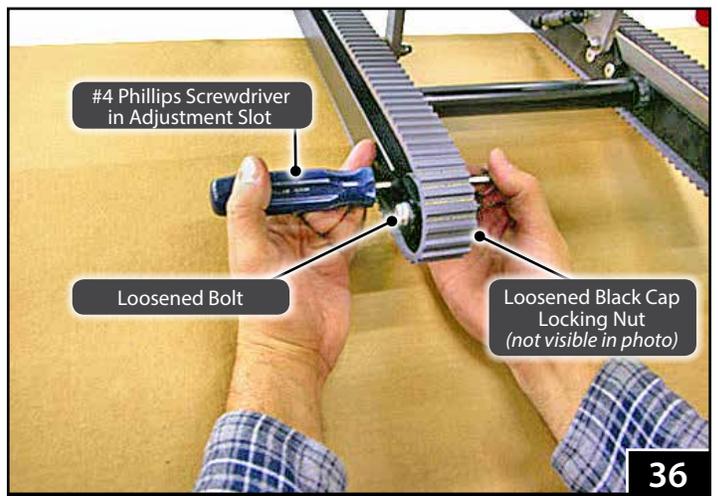
Tip

TENSION-ADJUSTMENT

1. Decide if you will use Method 1 or Method 2 to measure and adjust the track-belt tension.
2. **For Method 1:** Open the track system and lay the chair on its tracks on a workbench (Figure 35).
- For Method 2:** Stand the chair on its wheels on a workbench, then open the track system and engage both wheel locks.
3. Loosen the bolt and black cap locking nut located at the top end of the track (Figure 36).
4. Slide the #4 Phillips screwdriver into the adjustment slot (Figure 36).
5. While one person tensions the belt by using the #4 Phillips screwdriver to pull the belt roller toward the top of the track, the other person uses the two 7/16-inch wrenches to tighten the bolt and nut only enough to hold the tension (Figure 37).



35



36



37

6. There are two methods for checking belt tension. You can use whichever method you prefer, but do not use the chair position from one method with the measurement range from the other method.

Use Method 1 (below, left) if the chair is laying on its tracks on a workbench. Use Method 2 (below, right) if the chair is standing on its wheels.

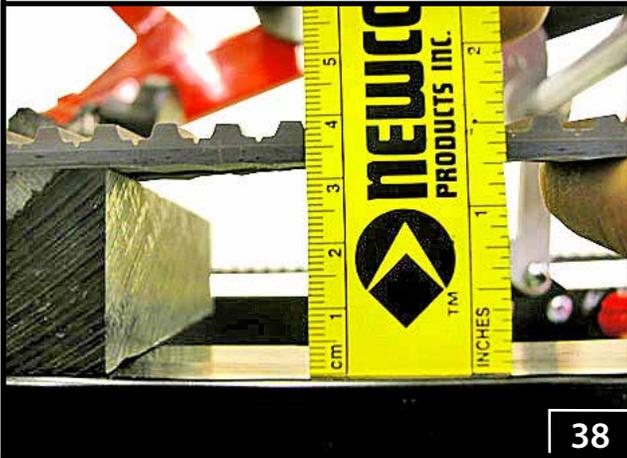
7. It may be necessary to repeat the tensioning and measuring one or more times to achieve the correct belt tension.
8. When the belt tension is correct, finish tightening the bolt and nut to maintain the tension.
9. Repeat Steps 3-7 to adjust the tension of the other track belt.

Method 1

CHAIR MUST BE LAYING ON ITS TRACKS ON A WORKBENCH

Grasp the belt at the track midpoint and pull the belt away from the track to remove any slack, then measure the distance between the exposed surface of the track and the inner surface of the belt. Take the measurement at the track midpoint.

The belt is correctly tensioned when the measurement from the exposed surface of the track to the inner surface of the belt is 1-1/4 in. to 1-1/2 in. (31.75 mm to 38 mm), as shown (Figure 38).



Method 2

CHAIR MUST BE STANDING ON ITS WHEELS

Grasp the belt at the track midpoint and pull the belt away from the track to remove any slack, then measure the distance between the exposed surface of the track and the inner surface of the belt. Take the measurement at the track midpoint.

The belt is correctly tensioned when the measurement from the exposed surface of the track to the inner surface of the belt is 3/4 in. to 1 in. (19 mm to 25 mm) as shown (Figure 39).



7.10 Removing and Attaching the ABS Panels

The molded ABS seat and back panels snap on and off the chair frame.

BACK PANEL

To remove the back panel: Gently pull downward on the flange near one bottom corner and pull the corner of the panel away from the chair (Figure 40). Repeat at the opposite corner. Then slide the panel up off the two keepers at the top of the frame.

To attach the back panel: Orient the panel with the horizontal restraint slots uppermost. Slide the two holes in the panel top flange down over the keepers on the chair frame (Figure 41), then press both lower corners of the panel against the sides of the frame until they snap into place over the keepers.

SEAT PANEL

To remove the seat panel: Pull upward on the panel flange at each front corner to pop the panel free of the seat frame (Figure 42) then lift the panel off the chair.

To attach the seat panel: Align the panel with the chair frame and press down to snap the panel onto the frame.



40



41



42

8 - ACCESSORIES

Ferno offers a full line of emergency medical service accessories. Selected items approved for use with the chair are listed here.

Always follow the instructions packed with accessories. Keep the instructions with this manual. Be aware of any special considerations (loading heights, door widths, etc.) when using accessories.

For product information, contact Ferno. See "Ferno Customer Relations" on page 2



WARNING

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

POWERTRAXX™ CONVERSION KITS

PowerTraxx™ conversion kits provide a powered track system for the Model 59T series chair. Select the kit for your local electrical service.

Description	Part #
120 VAC POWERTraxx®	083-2195
240 VAC POWERTraxx®	083-2196

EZ-GLIDE CHAIR ACCESSORIES

Description	Part #
IV Bag Holder Complete	082-1976
IV Bag Holder Replacement Strap	082-1972
Headrest, Folding	083-2430
Head Strap Replacement	082-1970
EZ-Glide® Oxygen Cylinder Holder	082-1977
Oxygen Cylinder Replacement Straps	031-3661
Locking Rear Lift Handles (Pair, standard, for Model 59T)	082-1975
Locking Rear Lift Handles (Pair, for Model 59T-LWH)	082-7053
Vinyl Storage Cover	031-4023

WALL MOUNTS

Description	Part #
Secure Mount Storage Brackets (with spring release)	082-2072
SecureLock+™ Storage Brackets (Suitable for use in an Ambulance)	60-0251-006
EZ-Glide Wall Bracket (Hook Secures Top of Chair Only)	082-2073
Metal Storage Cabinet	050-6534

RESTRAINTS

Model 59T Ankle Restraint		082-1973
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
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

9 - PARTS AND SERVICE

9.1 U.S.A. and Canada

In the United States and Canada, to order parts or for professional chair 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

9.2 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.

9.3 Parts List

Ref. #	Description	Part #
1	ABS backrest panel	190-1489
2	Track-close push handle	190-1500
3	ABS seat panel	190-1490
4	Seat bumper, pair w/hardware (n/v)	190-1501
5	Inner telescoping handle assy. (right-side or left-side)	090-5837
6	Telescoping handle, grip only	190-1495
7	4" Front caster, complete	190-1494
8	Rear brake assy, right	090-5841
9	6" Rear wheel w/hardware	190-1493
10	Ankle restraint	082-1973
11	Track lower roller w/hardware	190-1498
12	Rear brake assy, left (n/v)	090-5843
13	Track belt only	190-1496
14	Track upper roller w/hardware	190-1497
15	Lift bar lock assy	190-1492
16	Lift bar handle, complete	190-1491
17	Gas spring assy	190-1499
18	Label sheet and logo (n/s)	190-1502
19	Telescoping handle assembly	See chart at right
20	Seat frame assembly (n/s)	090-5840
21	59T Track frame weldment	090-5842
22	59T Track release linkage	090-5844

(n/s) = not shown

WARNING

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

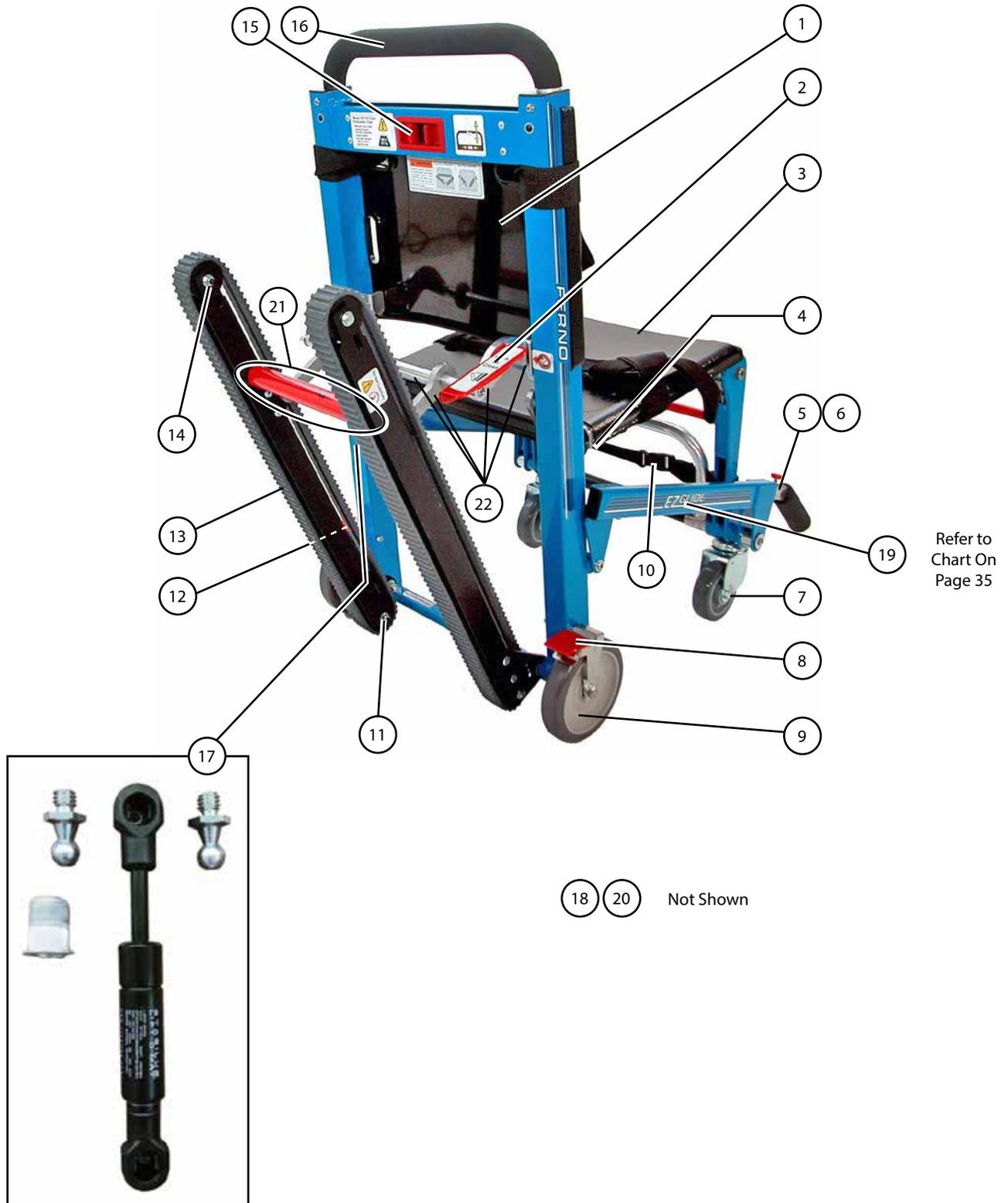
Modifying the chair can cause injury and damage. Use the chair only as designed by Ferno.

Telescoping Handle Assemblies (complete)

Color	Patient Side	Part #
Red	Left	190-1619
Red	Right	190-1688
Orange	Left	190-1687
Orange	Right	190-1620
Green	Left	190-1621
Green	Right	190-1692
Platinum/Silver	Left	190-1622
Platinum/Silver	Right	190-1689
Blue	Left	190-1618
Blue	Right	190-1686
White	Left	190-1691
White	Right	190-1690

Note: Please specify the RIGHT-side or LEFT-side assembly and color when ordering a telescoping handle assembly. "Right" or "Left" is as viewed by a patient sitting on the chair.

9.4 Parts Diagrams



9 - PARTS AND SERVICE

9.1 U.S.A. and Canada

In the United States and Canada, to order parts or for professional chair 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

9.2 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.

9.3 Parts List

Ref. #	Description	Part #
1	ABS backrest panel	190-1489
2	Track-close push handle	190-1500
3	ABS seat panel	190-1490
4	Seat bumper, pair w/hardware (n/v)	190-1501
5	Inner telescoping handle assy. (right-side or left-side)	090-5837
6	Telescoping handle, grip only	190-1495
7	4" Front caster, complete	190-1494
8	Rear brake assy, right	090-5841
9	6" Rear wheel w/hardware	190-1493
10	Ankle restraint	082-1973
11	Track lower roller w/hardware	190-1498
12	Rear brake assy, left (n/v)	090-5843
13	Track belt only	190-1496
14	Track upper roller w/hardware	190-1497
15	Lift bar lock assy	190-1492
16	Lift bar handle, complete	190-1491
17	Gas spring assy	190-1499
18	Label sheet and logo (n/s)	190-1502
19	Telescoping handle assembly	See chart at right
20	Seat frame assembly (n/s)	090-5840
21	59T Track frame weldment	090-5842
22	59T Track release linkage	090-5844

(n/s) = not shown

WARNING

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

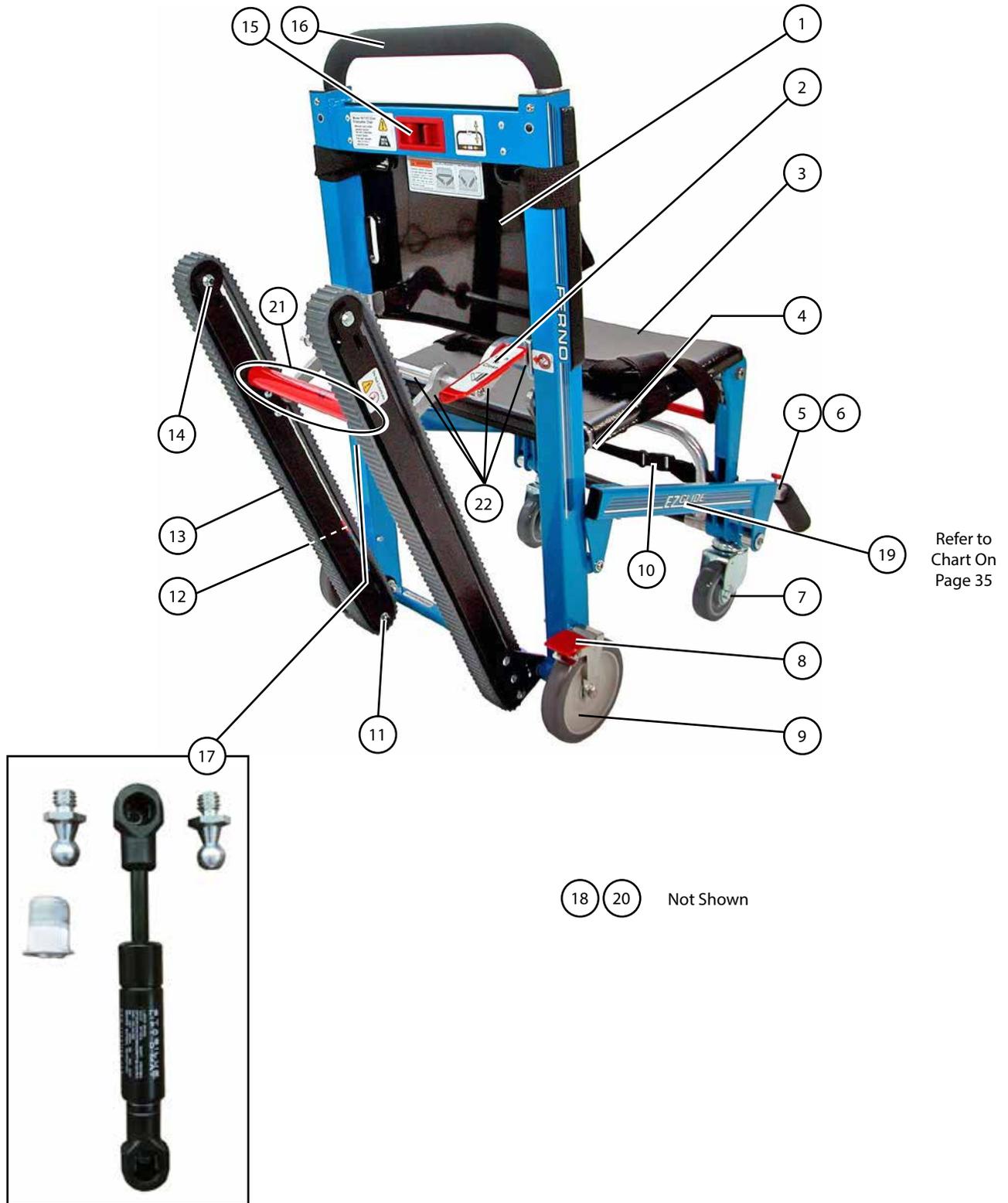
Modifying the chair can cause injury and damage. Use the chair only as designed by Ferno.

Telescoping Handle Assemblies (complete)

Color	Patient Side	Part #
Red	Left	190-1619
Red	Right	190-1688
Orange	Left	190-1687
Orange	Right	190-1620
Green	Left	190-1621
Green	Right	190-1692
Platinum/Silver	Left	190-1622
Platinum/Silver	Right	190-1689
Blue	Left	190-1618
Blue	Right	190-1686
White	Left	190-1691
White	Right	190-1690

Note: Please specify the RIGHT-side or LEFT-side assembly and color when ordering a telescoping handle assembly. "Right" or "Left" is as viewed by a patient sitting on the chair.

9.4 Parts Diagrams



NOTES

