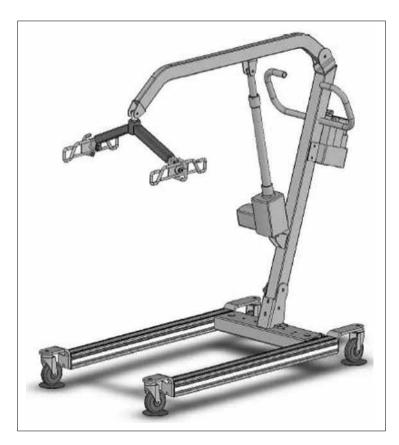


# LF1090 BARIATRIC PATIENT LIFT



# **USER MANUAL**

LF1090-INS-LAB-RevJ18

Read this manual before operating your Patient Lift.

Save this manual for future use.

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# 1 INTRODUCTION

Congratulations on your purchase of the Lumex LF1090 Bariatric Patient Lift. The following pages will provide you with important safety and operating instructions on the use of patient lifts, slings, and accessories, as well as maintenance and warranty information. Read this manual carefully before operating your patient lift and refer to it as often as needed. Consult your authorized distributor and/or healthcare professional with any questions or concerns regarding safe and effective techniques for operating your patient lift.

DO NOT attempt any transfer without prior approval of the patient's healthcare provider. With their assistance, select the sling that best serves the needs, abilities, comfort and safety of the person being lifted. It is important that you use correct slings adapted to the body shape and weight and ability of the patient and the specific type of transfer needed.

Upon receipt of the patient lift, and prior to each use, inspect it closely to ensure that nothing is damaged, there are no loose or broken parts, that all patient lift parts are in the proper place, etc. Immediately replace any worn or broken components. Your patient lift should receive maintenance on a regular schedule and should be inspected daily for proper operation. Contact GF Tech Support at 1.770.368.4700 with any maintenance concerns.

Before lifting anyone, thoroughly read the instructions in this manual. Ideally, observe a team of trained experts performing the lifting procedures. The operator should then practice the entire lifting procedure several times with proper supervision and with a capable individual acting as patient. It is extremely important to know how a patient will feel in the patient lift. We suggest that the operator try all the various lifting slings and equipment until the operator is confident with how the patient lift operates. The lifting procedures should be explained to the patient before the actual lifting. Remember that safety requires the constant attention of the lift occupant and the operator. Use extreme care and common sense when operating a patient lift.

This guide covers the use of the LF1090 Bariatric Patient Lift. Keep in mind that the basic safety procedures included in this manual are to be used as a guide only. You may find it necessary to develop your own unique methods for safely utilizing the patient lift. Again, consult your healthcare professionals for their recommendations and never hesitate to ask for their assistance.

Info: Before attempting to assemble the patient lift, refer to the section titled "ASSEMBLY INSTRUCTIONS" contained elsewhere in this manual. Contact GF Tech Support at 1.770.368.4700 or your GF authorized distributor if additional assistance is needed.

Info: In this manual, the person being lifted is referred to as the "patient" or "occupant" and the person operating the patient lift is called the "operator" or "attendant".

#### Intended use

The Lumex LF1090 Bariatric Patient Lift is intended to aid in the transfer of an individual who is unable to independently transfer between bed, chair, bathtub, wheelchair, and/or commode.

#### 2 SAFETY PRECAUTIONS

IMPORTANT: Before using patient lift, read and adhere to the following safety precautions and warnings. Failure to do so could result in serious personal injury or damage to your patient lift.

Always consult your healthcare professional to determine safe methods most suitable for your individual abilities. Protect yourself, your attendant and patient lift by having it serviced regularly. If you experience any malfunction, contact GF Tech Support at 1.770.368.4700 or your GF authorized distributor immediately, as a hazardous condition could result, causing personal injury or damage to your patient lift.

Periodic inspection, adjustment and replacement of worn parts are necessary to provide years of excellent service. Refer to *CARE AND MAINTENANCE* section of this manual.

Maintenance MUST be performed by qualified personnel ONLY.

# Significance of safety statements

Note the following special statements, used throughout this manual, and their significance:

- ▲ NOTICE: Indicates a potential hazard situation or unsafe practice that, if not avoided, could result in product or property damage.

Info: Provides application recommendations or other useful information to ensure that you get the most from your product.

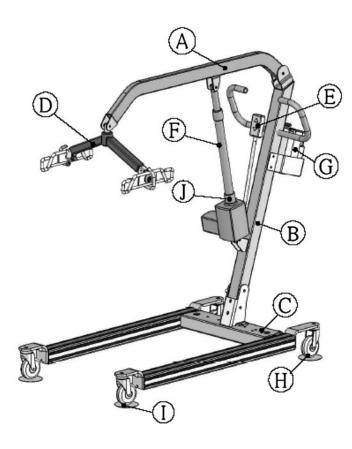
#### **WARNINGS**

- $\triangle$  WARNING: When transferring a patient, always keep the patient centered over the base.
- ⚠ WARNING: Do not lock the brakes or block the wheels when lifting. The casters must be FREE to roll to allow the patient lift to stabilize itself when the patient is initially lifted from a chair, bed, or any stationary object.

- **⚠ WARNING: Cancer and Reproductive Harm** <u>www.p65warnings.ca.gov</u>.

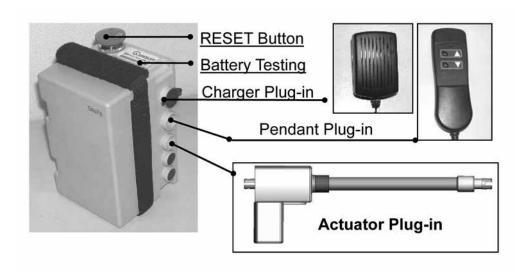
# 3 FEATURES

# **LIFT COMPONENTS**



- A. Boom
- B. Mast
- C. Base
- D. Spreader bar
- E. Pendant
- F. Actuator
- G. Control box
- H. Caster brake
- I. Front caster
- J. Emergency Lowering Device

# **CONTROL BOX COMPONENTS**



#### 4 HANDLING PROCEDURES

#### SHIPPING AND TRANSPORTATION INSTRUCTIONS

If the patient lift is to be reshipped by common carrier, it should be packed in the same carton in which it was received.

# Unpacking

- 1. Check for any obvious damage to the carton or its contents. If damage is evident, notify the carrier or your GF authorized distributor.
- 2. Remove all loose packing from the carton.
- 3. Carefully remove all the components from the carton.

Info: Unless the patient lift is to be used immediately, retain boxes, containers and packing material for use in storing until use of patient lift is required.

# Inspection

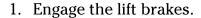
- 1. Examine the exterior of the patient lift for nicks, dents, scratches or other damage.
- 2. Inspect all components.

# **Storage**

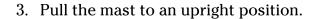
- 1. Store the repackaged patient lift in a dry area.
- 2. DO NOT place other objects on top of the repackaged patient lift.

# 5 ASSEMBLY INSTRUCTIONS

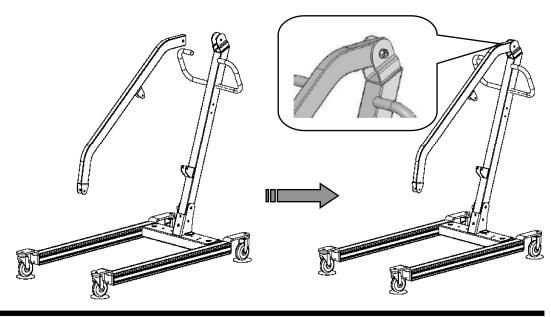
 $\triangle$  WARNING: The lift is heavy. To avoid personal injury, DO NOT attempt to assemble the lift without assistance.

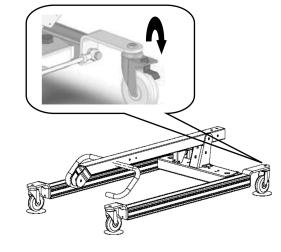


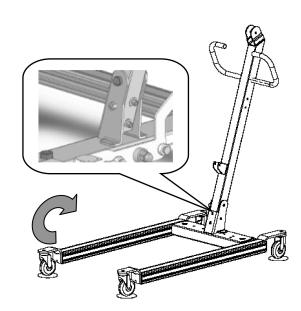
2. Remove the bolts from the bottom of the mast and base.



- 4. Reinstall the bolts in the holes at bottom of mast. Tighten the nuts.
- 5. Attach boom to top of mast.
- 6. Reinstall the bolts in the holes at bottom of mast. Tighten the nuts.



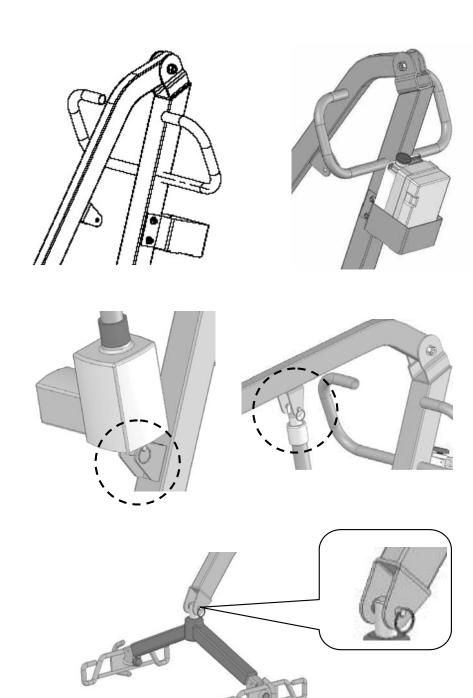


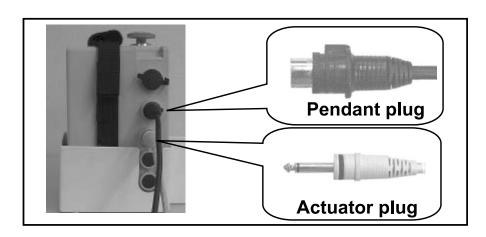


- 7. Attach the control box hanging bracket to the mast. Tighten the nuts.
- 8. Place the control box in the bracket.

- 9. Attach the actuator bottom to the mast bracket and insert retainer pin. Insert retaining ring through retainer pin hole to secure actuator base to mast bracket.
- 10. Attach the actuator top to the boom bracket and insert retainer pin. Insert retaining ring through retainer pin hole to secure actuator top to boom bracket.
- 11. Attach the spreader bar bracket to the boom and insert retainer pin. Insert retaining ring through retainer pin to secure spreader bar to boom.
- 12. Insert the actuator plug into the control box.
- 13. Insert the pendant plug into the control box.

Info: Before using the lift, charge the batteries for ten to twelve hours (see instructions on following page).





#### CHARGING THE BATTERIES

Charge the batteries after assembly.

- 1. Ensure the battery box power switch is ON (i.e., the red button is up).
- 2. Insert the charger plug into the battery box charging socket (the top slot).
- 3. Insert the other charger plug into the power supply.
- 4. All LED indicator lights should be ON during charging.
- 5. When one green LED indicator light illuminates, the batteries require approximately two to three hours to be fully charged.
- 6. When only the red LED indicator light illuminates, the batteries require approximately seven to nine hours to be fully charged.
- ▲ NOTICE: Do not charge the batteries for more than twelve hours.
- 7. Unplug the charger FIRST before using the lift.

Info: The lift will not operate while the batteries are charging.

The lift will not operate while the red reset button is down.

8. Replace the batteries when frequent charging is required.

# **Important Charging Information**

Push lift to an appropriate location and charge the batteries with the charger provided.

▲ NOTICE: Avoid unplugging the hand control and motor from the control box. Frequent plugging and unplugging of the hand control and motor to and from the control box may damage the control box.

#### **CHECKING BATTERY CAPACITY**

Info: To check remaining battery capacity, press the battery indicator (blue circle with battery symbol) while the lift is not in motion. Remaining battery capacity is indicated by LED indicator lights and explained in the following table.

| Red | Amber  | Green | Green | Green | Status                             |
|-----|--------|-------|-------|-------|------------------------------------|
| ON  | ON     | ON    | ON    | ON    | Fully charged                      |
| ON  | ON     | ON    | OFF   | OFF   | Needs charge                       |
| ON  | ON/OFF | OFF   | OFF   | OFF   | Charge immediately—DO NOT use lift |
| ON  | OFF    | OFF   | OFF   | OFF   | Bad batteries or bad connection    |

#### **ALARM BUZZERS**

The control box has an alarm buzzer that provides information on the status of the batteries and the lift. To stop the buzzer, push down the RED RESET button or press the battery indicator.

| Buzzer type                | Status   | Note                           |
|----------------------------|--|--------------------------------|
| 2 beeps per second         | Low battery (red/amber lights illuminate)                | Charge batteries immediately   |
| 3 beeps per second         | Low battery (red light illuminates)                      | Charge batteries immediately   |
| 6 beeps per second         | Very low battery (no lights illuminate)                  | Charge batteries immediately   |
| 3 beeps every other second | Bad battery (no lights illuminate)                       | Replace batteries immediately  |
| 3 long beeps               | Overloaded. Batteries are charged but lift does not lift | Maximum load capacity exceeded |

#### 6 OPERATING INSTRUCTIONS

Info: Instructional videos that review the application of several sling styles and lifting scenarios are available at <a href="https://www.grahamfield.com">www.grahamfield.com</a>.

Info: While transferring a patient, the patient lift legs can be in either open or closed position.

# **Preparation before lifting**

- 1. Turn on the power by turning the RED RESET BUTTON clockwise.
- 2. Press the hand pendant UP or DOWN button once.
- 3. After the battery indicator lights de-illuminate, push the hand pendant UP button and DOWN button to ensure the lift is operating correctly.
- 4. Position the lift base around or under the patient.
- 5. Widen the base.

#### LIFTING THE PATIENT

- **⚠ WARNING:** Use special care for those patients who cannot cooperate while being lifted.
- **⚠ WARNING: Ensure all bolts, hooks, and loops are securely fastened.**
- **⚠ WARNING: Use only Lumex slings with the Lumex LF1090 Bariatric Patient Lift.**

# Lifting the patient from a bed

- 1. Position patient face-up in center of bed. Roll patient onto their side facing away from you.
- 2. Fold sling lengthwise, outside out, and place it halfway under patient with lower edge just beneath knees and sling handle on the outside, facing away from patient. If the sling has a head support, ensure that it supports the patient's neck and head.
- 3. Roll patient onto their side facing you. Pull sling out beneath patient inside up, smooth it, and center patient on sling.
- 4. Pull the leg loops forward and under the thighs. Cross the loops, one through the other.
- 5. Roll the patient lift under the bed, locating the spreader bar over the patient. Be careful not to lower the spreader bar onto the patient. Center the spreader bar over the patient before lifting.

- 6. Hook the sling loops onto the spreader bar.
- 7. If the patient is in a hospital bed, raise the bed's head section to elevate the patient.
- 8. Use the hand pendant to carefully and slowly raise the patient. If possible, lower the bed. Reposition the patient as needed, using the handle on the back of the sling, to ensure a safe and comfortable sitting position as the patient is raised.
- 9. Raise the patient until the buttocks are just above the mattress. Lift the patient's legs and turn the patient to face the lifting column. Move the patient lift away from the bed. Ensure that the patient's arms and legs clear the patient lift, bed, or any other obstacles.

# Lowering the patient onto a bed

- 1. Raise the patient lift until the patient's buttocks are above the surface of the bed. Ensure that there are no obstacles underneath or around the bed. Move the patient lift under the bed. Ensure the patient does not hit any portion of the bed and that the patient's legs have cleared the bed.
- 2. Center the patient over the bed, and rotate the patient to face the foot section of the bed. Use the hand pendant to SLOWLY lower the patient onto the bed. Support the patient's head, if necessary, while being lowered. Remove the sling by reversing the procedures used when lifting patient from bed.

# Lifting the patient from the floor

- 1. Position the patient lift behind the patient, placing a pillow over the base to protect and support the patient's head and neck. Place the patient's head carefully on the pillow. Position the patient lift with the spreader bar centered over the patient.
- 2. Lower the spreader bar. Attach the sling to the spreader bar hooks.
- 3. Lift the patient up above the floor. Position the patient in the sling by pulling the handle on the back of the sling.
- 4. Turn the patient to face the lifting column. Remove pillow from base and place the patient's feet on the base, straddling the column for extra stability.

# Lowering the patient to the floor

- 1. Place a pillow on the base to protect the patient's head and neck (this is unnecessary when using a sling with a head support).
- 2. Reverse the above procedures to lower.

# Transferring the patient from a chair to a wheelchair or commode chair

- 1. Fold the sling.
- 2. While maintaining support, gently lean the patient forward. Place the folded sling behind the patient's back and push it down until it touches the seat of the chair.
- 3. Use the loops to pull the leg sections of the sling forward and beneath the patient's thighs. Then cross the loops, one through the other.
- 4. Move the patient lift around to the front of the chair.
- 5. Hook all sling loops onto the spreader bar.
- 6. Carefully raise the patient.
- 7. The second attendant should now move the wheelchair into position.
- 8. Engage the wheelchair wheel locks to prevent movement.
- 9. Position the patient over the wheelchair with their back against the back of the wheelchair.
- 10. SLOWLY lower the patient into the wheelchair.
- 11. With one attendant behind the wheelchair and the other operating the lift, the attendant behind the chair should pull back on the handle or sides of the sling to place the patient into the back of the chair. This will maintain a good center of balance and prevent the chair from tipping forward.

# Removing the sling

Gently pull the leg sections to the side, out from under the patient's thighs. Standing by the patient's side, lean the patient forward while supporting the patient with one hand. Pull the sling up from behind the patient's back and position the patient in the chair.

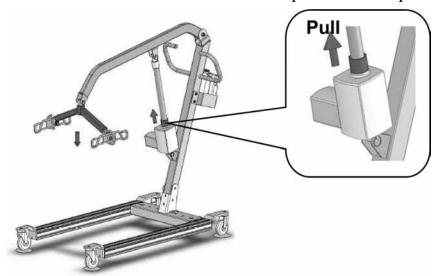
Info: If possible, the patient should be encouraged to take an active part in removing the sling. The patient can lean forward, lift their thighs, and help in removing the leg sections.

# Transferring the patient from a bed to a wheelchair or commode chair

- 1. For smooth, easy lifting, have the wheelchair or commode chair in ready position with wheel locks in locked position.
- 2. With patient face-up in center of bed, roll patient onto their side away from attendant.
- 3. Place sling, folded lengthwise, halfway under patient with lower edge just beneath knees.
- 4. Roll patient to side toward attendant, pull sling to smooth it, and center patient on sling.
- 5. Pull the leg loops forward and under the thighs.
- 6. Cross the loops, one through the other.
- 7. With base of lift under bed, use the hand pendant to carefully lower spreader bar.
- 8. Attach sling to spreader bar.
- 9. Use the hand pendant to slowly lift patient, maintaining patient's position facing attendant, until patient's feet swing easily off the bed.
- 10. Position patient above wheelchair or commode chair. Lock lift brakes.
- MARNING: Before transfer, ensure wheelchair or commode chair wheel locks are in locked position. Wheelchair wheel locks must be in LOCKED POSITION before lowering the patient into the wheelchair, or unexpected wheelchair movement could result, which may result in serious injury to both the patient and the attendants.
- 11. Use the hand pendant to SLOWLY lower patient. During descent, assist patient in attaining correct sitting posture.
- 12. When patient is seated, push down on boom to slacken sling loops. Patient can remain seated on sling.
- 13. For commode chair use, adjust clothing before moving lift to straddle commode chair. Keep sling loops taut and ensure that patient is in a comfortable position.

#### **EMERGENCY RELEASE**

In case of lift failure while using the Lumex LF1090 Bariatric Patient Lift, follow the procedures below to safely lower the user. The Emergency Lowering Device is located at the bottom of the actuator shaft. It is intended for use if the actuator fails to operate while a patient is suspended.



The quick release is available with a manual activation where a finger grip is mounted on the actuator. When pulling the finger grip the declutching is activated. Pull up the red emergency tab approximately one half inch using normal force. The actuator will then lower itself safely down. The lowering device will not lower unless weight is being applied.

Contact your dealer immediately if standard troubleshooting techniques do not correct the failure. Do not attempt to lift patients until all failure issues have been safely resolved.

Info: The emergency lowering device is intended for use during lift failure. This device will allow lowering of patients only. Contact GF Tech Support at 1.770.368.4700 or your GF authorized distributor immediately in case of failure.

#### 7 CARE AND MAINTENANCE

Proper care and maintenance are essential to keeping your Lumex LF1090 Bariatric Patient Lift in a safe operating condition. In addition to inspecting the unit before each use, periodic maintenance checks should be done.

When you believe a component or part is not functioning properly, immediately contact GF Tech Support at 1.770.368.4700, as a potentially hazardous condition could exist.

#### **BEFORE EACH USE**

Before each use of the patient lift, ensure that:

- All nuts and bolts are tight
- The base can be easily widened
- All lift parts are in place
- All casters turn freely
- Caster brakes can be engaged
- All necessary items (i.e. slings, wheelchairs, etc.) are accessible and ready for use
- Check battery capacity

# AT LEAST ONCE A MONTH

The lift should be thoroughly inspected by a person qualified to recognize any signs of wear, and looseness of bolts or parts. Replace any worn parts immediately.

# **LUBRICATION**

When the lift is serviced, and every month thereafter, place a drop of lubricant (White Lithium Grease is recommended) on the following points:

- Top of mast
- Spreader hinge
- Caster axles

#### **CLEANING**

Regular cleaning is recommended every three months; clean the lift more often as needed. A soft cloth, dampened with water and a mild NON-ABRASIVE detergent (household cleaner, soapy water, or hospital grade disinfectant) is all that is needed to clean your patient lift. Automobile wax or furniture polish will help maintain the finish over a long period of time.

▲ NOTICE: DO NOT wash patient lift under water pressure or steam clean.

#### **CARE OF SLINGS**

Lumex slings are washable at 120°F or less. If there is a removable plastic insert in the head support, remove insert before washing. Air dry.

▲ NOTICE: DO NOT bleach slings!

#### **MAINTENANCE SCHEDULE**

Info: Only qualified persons should service and repair your Lumex LF1090 Bariatric Patient Lift. Regular maintenance of your patient lift is necessary to ensure continuing proper and safe operation. Read and observe the following recommended maintenance schedule:

| Item  | Inspect   | Inspect / A | djust             |
|---|-----------|-------------|-------------------|
|   | initially | monthly     | every 3<br>months |
| Boom & spreader bar   |           |             |                   |
| Check connections between 1) boom and spreader bar and 2) boom and mast for improper connection, looseness, or wear | Х         | X           |                   |
| Inspect boom for bending or deflection  | Х         | X           |                   |
| Mast  |           |             |                   |
| Inspect mast for bending or deflection  | Х         | X           |                   |
| Inspect steering bar for damage or loose hardware   | Х         | Х           |                   |
| Base and foot pedal   |           |             |                   |
| Ensure all hardware is tight  | Х         | Х           |                   |
| Ensure casters and axle bolts are tight   | Х         | X           |                   |
| Inspect rubber parts of casters for deflection  | Х         |             | Х                 |
| Apply White Lithium Grease to caster ball bearings if needed  |           |             | Х                 |
| Actuator and control box  |           |             |                   |
| Ensure control box is firmly affixed to the mast  | Х         | Х           |                   |
| Ensure pins that connect actuator to boom and mast are firmly affixed   | Х         | X           |                   |
| Ensure cable that connects actuator and control box is firmly affixed   | Х         | Х           |                   |
| Ensure battery indicator has at least 2 green LEDs illuminated before use   | Х         | Х           |                   |
| Sling and sling hardware  |           |             | _                 |
| Check sling for wear; discard if worn   | Х         | Х           |                   |
| Ensure sling hardware is in good condition before each use  | Х         | Х           |                   |

#### 8 TROUBLESHOOTING

The following list of encountered problems and their solutions will assist you in determining what may be causing your Lumex lift not to function as designed. If you have a problem occurring which is not listed below, consult GF Tech Support at 1.770.368.4700 for further information. Do not attempt to repair components or parts on your lift, as this may invalidate your warranty or cause further problems that may result in patient injury. Stop using your lift immediately if it is not functioning correctly or any warning beeps are heard.

| SYMPTOM   | POSSIBLE CAUSE & SOLUTION  |  |  |
|---|--|--|--|
| I need to recharge my batteries   | Replace the two internal batteries as they are at the end of their life cycle                      |  |  |
| often or they fail to hold a charge when I charge them                  | Batteries should be changed every 18-24 months depending on usage                                  |  |  |
| When I plug my charger into the   | Check to make sure the red reset button is in the up position                                      |  |  |
| control box I see no lights on the battery indicator                    | Check to make sure the charger is firmly in the control box and plugged into a wall socket         |  |  |
|   | Replace the charger as it is at the end of its life cycle  |  |  |
|   | If the charger is transmitting current, then you need to replace the control box PCB               |  |  |
| My actuator makes a clicking sound when I attempt to use my lift        | Check to make sure the actuator plug is pushed into the control box so the O-ring is not visible   |  |  |
|   | The actuator needs to be replaced as it is at the end of its life cycle                            |  |  |
|   | The control box PCB may be malfunctioning  |  |  |
| The actuator will either go up or                                       | Replace the hand control as it is at the end of its life cycle                                     |  |  |
| down but not both   | The control box PCB may be malfunctioning  |  |  |
| There is a grinding sound inside the actuator when lifting              | Replace the actuator as the internal gears are stripped  |  |  |
| The actuator stops and starts while lifting or lowering                 | Replace the batteries as they are at the end of their life cycle                                   |  |  |
| My lift will not operate even though it shows the batteries are charged | Disconnect the charger from the control box as the lift will not work when the charger is attached |  |  |
|   | Check to make sure the hand control is properly inserted to control box                            |  |  |
|   | Check to make sure the actuator is properly connected to the control box                           |  |  |
|   | The hand control needs to be replaced as it is at the end of its life cycle                        |  |  |
| My lift will not operate and battery                                    | Check to make sure the red re-set button is in the up position                                     |  |  |
| indicator has no lights illuminated                                     | The internal batteries may not be connected together properly with the connection wires            |  |  |
|   | Batteries will no longer hold a charge and must be replaced  |  |  |
|   | The control box PCB is damaged and must be replaced  |  |  |
| When lifting I hear 3 long beeps  | You are attempting to lift someone heavier than the safe working load                              |  |  |
| from the control box  | Stop the lift and lower safely to bed or chair immediately   |  |  |
| When lifting I hear short beeping                                       | Charge the batteries   |  |  |
| sounds from the control box   | Replace the batteries if they fail to hold a charge  |  |  |
|   |  |  |  |

# 9 SPECIFICATIONS

Info: All dimensions are given in inches unless otherwise specified.

| Base width                          | Open: 40.5"                               |  |  |
|-------------------------------------|---|--|--|
|                                     | Closed: 26.4"                             |  |  |
| Base height clearance               | 5"  |  |  |
| Base length                         | 50.8"                                     |  |  |
| Lifting height range                | Minimum: 27.5"                            |  |  |
| Info: As measured from sling hooks. | Maximum: 72"                              |  |  |
|                                     | Range: 44.5"                              |  |  |
| Mast height                         | 50"                                       |  |  |
| Maximum weight capacity             | 600 lb (272 kg), EVENLY DISTRIBUTED       |  |  |
| Caster size                         | 3" diameter, both locking and non-locking |  |  |
| Lifting mechanism                   | 24 DC actuator                            |  |  |
| Battery charger                     | AC 110V / 220V to DC 24V 1 amp            |  |  |