

# Mackworth

## Mobile Hoist User Guide



### **PRIOR TO USE**

Please ensure that these User Instructions and the General User Safety Guide are read prior to first use of any moving and handling practice. Prism Medical UK recommend that prior to using any hoist, a full risk assessment must be completed by a qualified professional, in order to determine that the correct hoist, sling, and transfer procedure are suitable for each individual.

- Ensure you are aware of the hoist manufacturer's fitting instructions. Please identify if the hoist requires a loop or clip fitting. If a clip fit sling is required, please refer to the enclosed clip instructions for use. (Do NOT use a clip fit sling on a loop designed spreader bar. Do NOT use a loop designed sling on a stud/clip designed spreader bar.) For all other sling information/clip & hoist size compatibility, please refer to pages 8 & 9 of the General User Safety Guide. To view our clip fitting video please visit: [www.mackworth-healthcare.com/training](http://www.mackworth-healthcare.com/training). For general guidance for how to fit a sling, please visit: [www.mackworth-healthcare/category/guides](http://www.mackworth-healthcare/category/guides).

Your contact :

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## WELCOME

Congratulations on your purchase.

Prism Medical UK are proud that you have purchased one of our high quality mobile hoist products. This product is uniquely designed and manufactured in Great Britain, where we have utilised and listened to the strengths and interaction of carers, therapists and end users alike during the new product development process.

## WARRANTY TERMS

1. Prism Medical UK warrants this products against any defects in manufacturing and assembly of mechanical and electronic components. This warranty is for devices used only in accordance with our terms of use.

This warranty, whose terms of use are defined below, is valid for the following:-

- \* **Steel Frame** - 36 months
- \* **Actuator** - 60 months.
- \* **All other components** - 12 months

2. The warranty entitles free replacement for defective parts only, exclusive of labour .

3. Prism Medical UK will bourne all return costs if the warranty claim is valid after a full investigation. Additional information may be required to support such a claim.

4. Out of warranty items - The return costs will be bourne by the customer and the repair will be priced and a purchase order will be required prior to the work commencing.

5. The warranty does not apply if the claims are consecutive to:-

- \* Accident, misuse or neglect of the unit by the end user / customer.
- \* Shipping performed without suitable packaging / protection.
- \* Alteration or transformation of the original design.
- \* The impact of external elements (Natural Disasters, Fire, Humidity, Floods Etc)
- \* Lack of routine maintenance / care inline with our daily checks / the information within this user guide.

## ILLUSTRATION OF KEY PARTS



## INTRODUCTION

The hoist will arrive to you in a robust box and is folded in position, please be careful when removing the hoist from the box. This is a two man lifting operation or you can carefully remove the front of the box and wheel the hoist out.

Please read the user guide in full before operating.

The hoist is fully assembled and load tested before it leaves our premises and is supplied with a certificate of testing on page 18.

This handbook should be kept safe for future reference.



The Test Certificate is important and is valid for 6 months only, when the certificate has expired it **must** be renewed, please refer to the LOLER regulations for further advice or contact your local service provider.



### INTENDED USE

**The hoist is a patient lifting medical device. Do NOT use it, or allow it to be used for any other purpose.**

**Only use the hoist on a flat surface and never attempt to hoist on a slope. Please ensure a risk assessment is carried out before prescribing a suitable sling.**

**Please refer to our General User Safety Advice for guidance and advise on selecting the most suitable sling for your patient/client.**

## HOIST ASSEMBLY INSTRUCTIONS

The **Assembled** Hoist Carton Contains:-

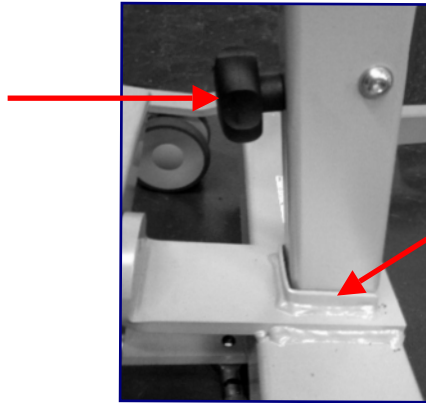
- Base fitted with 2 brake castors rear and 2 non-brake castors front
- Mast and boom assembly
- 2 Point spreader bar complete with cover, and new M10 Bolt and Nylon Lock Nut
- Mast locking hand wheel
- Hand set
- Battery Pack
- Control box
- Actuator
- Battery charging cable.

1. Carefully open the box (**SAFETY NOTICE** - Do not use a sharp knife / edge) remove all loose parts / excess packaging from the carton.
2. Carefully lift the hoist out of the carton (**SAFETY NOTICE** - 2 person lift recommended or remove the end of the carton and wheel the hoist out). Place the hoist on a flat surface and ensure the rear braked castors are locked.
3. Remove the black mast locking hand wheel from the top of the assembly, then carefully lift the mast upright ensuring the mast drops into position. (**SAFETY NOTICE** - Please ensure both hands are on the handles when lifting the mast into position, possible risk of finger trap).
4. Ensure all cables are routed correctly and are clear of the base / mast when lifting into position.

## HOIST ASSEMBLY INSTRUCTIONS continued

4. When the mast is fully engaged with the base, fit and fully tighten the mast locking hand wheel.  
(**SAFETY NOTICE** - Ensure this is tight and locked into position before using the hoist). Remove the strap and buckle retaining the spreader bar, the strap should be kept safe and should be used if the hoist is folded for transport.

Mast Locking  
Hand Wheel  
Must Be Secure  
Before Use



Ensure The Mast Is Fully  
Seated In Position Before  
Securing The Mast Locking  
Hand Wheel

5. The foot pedal will open and close the legs simply by activating one side with your foot.  
6. Ensure the emergency stop button (RED) on the control box is in the out position.



7. Confirm all cables are located and secure, **before operation the hoist ensure the strap & buckle is removed.** Press the up button on the handset and confirm the boom rises. Your hoist is now ready to use.

## HOIST SAFETY ADVICE

**Please ensure you read the following safety advice.** This will ensure lifting operations are made easy and trouble free.

- Always carry out the risk assessment and plan your lifting operations before commencing and moving & handling practice.
- Always carry out the daily check list before using the hoist.
- Always read the user manual and ensure you are familiar with the operating controls and safety features of the lift before lifting a patient.
- Always check the safe working load (SWL) of the hoist is suitable for the weight of the patient.
- Always carry out lifting in accordance with the instructions in the user manual.
- Never disconnect or bypass a control or safety feature on the hoist.
- Never force an operating or safety control, excess force could damage the feature.
- Always manoeuvre the hoist using the handles provided, these are designed to aid ease of transport.
- Do not push a load at excess speed.
- Do not push the hoist over rough or uneven ground.
- Do not push the hoist down steps.
- Do not attempt to lift a patient on a slope.
- Always apply the brakes when parking the hoist.
- Never use electric hoists in a shower.
- Never charge the lift in a damp environment, e.g. bathroom or shower room.
- Your lift is for patient lifting. Do not use it for any other purpose.
- Ensure you follow a regular battery charging routine to prolong the life of the battery.



## OPERATING THE HOIST

1. **Castors & Braking** - The hoist has two braked castors at the rear of the base. The brakes should only be applied when the lift is parked. The brakes should always be released when a lifting operation is taking place.
2. **Leg Opening & Closing** - The hoist legs can be opened for access into and around riser recliner chairs, wheelchairs etc. The legs should be closed when transferring and negotiating narrow doorways and confined spaces. You can operate the leg opening device by pressing down onto the pedal, this will activate the opening or closing mechanism.
3. **Emergency Stop Button** - The big red emergency stop button located on the front of the control box is activated by pressing the button in. **Note:- This will cut all power to the hoist. It can easily be reset by twisting the button clockwise and releasing.**
4. **Raising & Lowering The Boom** - The boom can be raised and lowered by the powerful 10,000n motor, this is activated by a hand set that has direction arrows indicating up and down movement. The hand set is plugged into the base of the control box. The actuator will stop at the end of each full stroke.
5. **Battery** - The battery is protected from full discharge by a low voltage alarm & illuminated LED (this can vary pending the model of control box used). This will sound or illuminate when the battery need recharging. Complete the lift and and place on charge. **Do not ignore this warning!** See charging a battery on page .

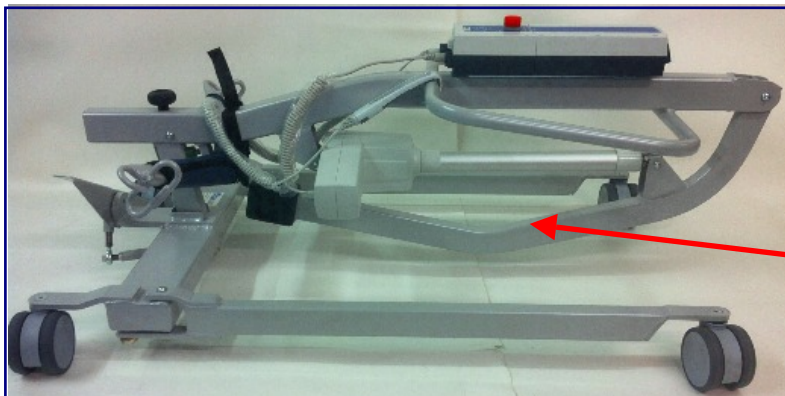
## FOLDING FOR TRANSPORTATION/STORAGE (Folding Mast Type Only)

1. Lower the boom with the hand set until the spreader bar sits on the steel bracket. Attach the strap & buckle around the mast and spreader bar, this ensures the mast is secure and clear from the floor when folded.
2. Apply the rear brakes.
3. Unscrew / remove the mast locking hand wheel.
4. Carefully lift the mast slightly and push / fold it forward towards the base.
5. Replace / tighten the mast locking hand wheel.

Lower boom with the handset.



Place spreader bar onto the bracket and secure with the strap and buckle.



Secure rear brakes. Fold the mast and replace the hand wheel. Take care to not over tighten the hand wheel.

Ensure the boom is clear from the floor.

## LINAK® OPERATING SYSTEMS

### JUMBO CARE SYSTEM (Typical Illustration)



Linak® Battery Pack



Linak® Control Box



Linak® Actuator

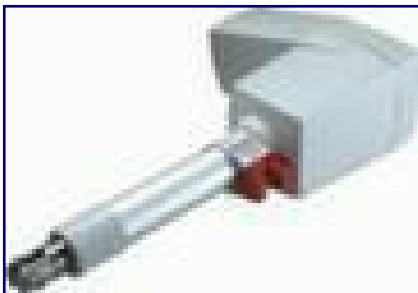


Linak® Handset

### HOME CARE SYSTEM (Typical Illustration)



Linak® Battery Pack  
& Control Box



Linak® Actuator



Home Care Battery Charger

## HOW TO CHARGE THE HOIST BATTERY

There are a number of batteries located in the power pack / battery housing. They are charged through a shaver type socket in the base of the control unit. When charging is required the 3 pin mains lead is plugged into a wall socket and the shaver type socket goes into the base of the control box.

1. Fit the mains power lead shaver type socket in the base of the control box.
2. Plug the charger mains plug into a suitable mains outlet and switch the mains supply on.  
**(The RED Emergency Stop button has to be out for the battery pack to charge)**
3. Charging the battery is automatic and will normally take eight to twelve hours to fully charge.  
**(You can not overcharge the batteries if left for long periods of time).**
4. To return the hoist to use, switch off the mains supply. Remove the shaver type plug from the socket at the base of the control box. The hoist is now ready for use.

**To avoid any problems with discharging batteries, the following points should be paid attention to:-**

- Keep the batteries fully charged.
- The batteries should never be allowed to run completely flat.
- The power pack should never be stored for long periods of time without a regular charge.
- Do not leave the power pack plugged into the charger with the mains power off.
- Regularly check the battery charger indicator, this will be on the control box or handset.

## DAILY MAINTENANCE CHECKS

### VISUAL CHECK LIST

These are recommended to be carried out before the hoist is used for any moving & handling practice.

1. CHECK that the legs open and close correctly.
2. CHECK that the hoist moves freely on its castors.
3. CHECK that the spreader bar is free to rotate and swing.
4. CHECK the spreader bar fixing/M10 bolt & nylon lock nut are secure.
5. CHECK that the sling hooks on the spreader bar are free from excessive wear.
6. CHECK the hand control lowers and raises the boom satisfactorily.
7. CHECK the operation of the emergency stop button.
8. CHECK that the hoist is charged to a satisfactory level of use.
9. CHECK that the locking Mast Hand Wheel is tightened and secured fully.



**IF IN DOUBT DO NOT USE**

## MAINTENANCE / SERVICING

These recommendations are in line with the Lifting Operations and Lifting Equipment Regulations (LOLER 1998). For further detailed information please visit: [www.hse.gov.uk/work-equipment-machinery/loles.htm](http://www.hse.gov.uk/work-equipment-machinery/loles.htm). This maintenance must be carried out by a competent person and is a UK regulation. The inspection must take place every 6 months. (Please check if outside of the UK for different specific test requirements). Please see page 15 for illustrations to help with Key Safety Checks.

1. **CERTIFICATION**: An authorised / competent service company or person will issue a test certificate after satisfactory completion of the LOLER inspection. The certificate will be valid for 6 months.
2. **CLEANING**: Clean thoroughly with warm soapy water. Harsh cleaning liquids, chemicals or abrasives should not be used as these may damage the surface finish of the hoist. Do not allow any of the electrical components to get wet.
3. **BATTERIES**: The batteries are located in the Battery Pack and should not require maintenance other than the regular charging as detailed in the charging instructions.
4. **EMERGENCY DOWN**: Check the emergency down functionality.
5. **ACTUATOR**: The actuator should require no maintenance other than checking for correct operation, listening for unusual noise and checking for any damage.
6. **CASTORS**: Check the rear brake on the castor. Check all castor fixing points. Check that the castor runs free and rotates easily. Remove any build up of hair, fluff, dust etc. Lubricate if necessary with a very light mineral based grease.
7. **LEG PIVOT POINTS / UNDER-CARRIAGE**: Operate the foot pedal and ensure a smooth opening and closing of the legs. Check the steel leg linkages are secure. Adjust the steel linkages if necessary to align the legs. Check all the screws in the under-carriage are secure, if loose secure with Loctite®.
8. **BATTERY PACK**: Check the functionality of the emergency stop button. Inspect all male and female sockets for correct fitting. Inspect the hand control functionality.
9. **MAST**: Ensure the mast fully engages into the base housing. Check the operation of the mast locking hand wheel. Check the actuator mounting brackets for excessive wear.

## MAINTENANCE / SERVICING continued

10. **BOOM:** Check the attachment of the boom to the mast, ensure all fixing points are secure and free from wear. Check the boom can rotate freely and there is no excess movement of the boom in both directions.
11. **SPREADER BAR:** Check the spreader bar rotates and swings freely. Check the central pivot M10 bolt and nylon lock nut for excessive wear. Check the fixing point for excessive wear and inspect the sling hooks for any damage, sharp edges and excessive wear.

### Illustrations for Key Check Points

**Check 4 & 5**



Emergency Lowering / Down

**Check 7** Centre pivot point screw secure with thread lock x 1



Track rods screws secure with thread lock & tighten nuts x 4 positions

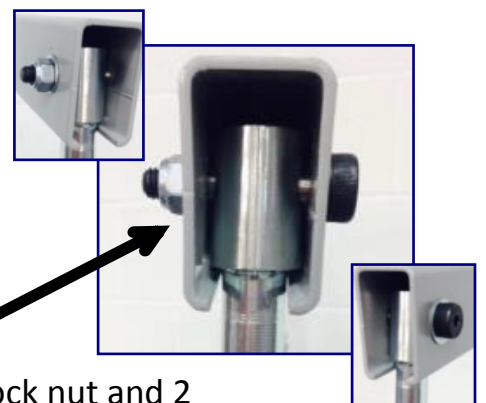
**Check 11** Ensure hooks are not damaged and the M10 bolt is secure



Hooks free from wear or damage



Ensure the M10 bolt, nylon lock nut and 2 washers are in position and secure





## **GENERIC SPARE PARTS LISTING**

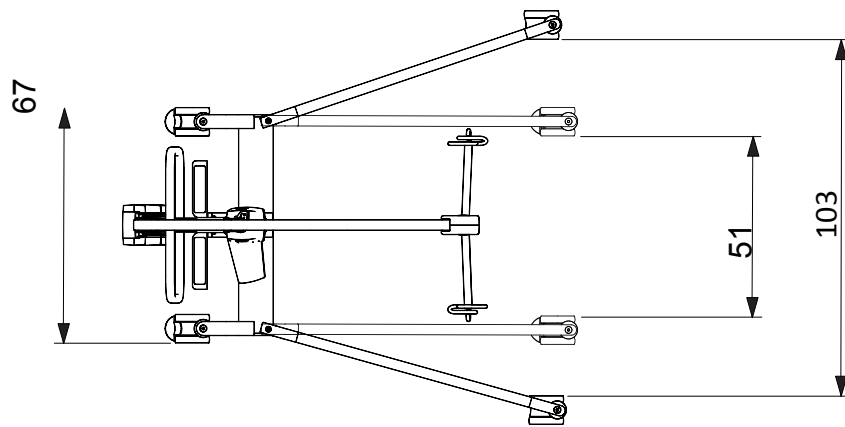
**(Detailed Spares Listing Available on Request)**

<b>Order Code</b>	<b>Description</b>
H1 - Battery	Linak® Battery Pack for Hoist
H1 - Battery Fixing Bracket	Linak® Bracket for Battery & Control Box
H1 - Castor Front	Front Castor Low Height
H1 - Castor Braked Rear	Rear Braked Castor Low Height
H1 - Control Box	Linak® Control Box
H1 - Base Frame	Base Frame for Hoist C/W Foot Pedal
H1 - Leg (Left or Right)	Leg for Hoist
H1 - Handset	Linak® Handset
H1 - Mains cable UK	Linak® 3 pin mains cable UK
H1 - Mast Retaining Strap	Mast Retaining Strap & Buckle
H1 - Mast Hand Wheel	M8 Hand Wheel for Securing the Mast
H1 - Boom	Boom Only for Hoist
H1 - Mast	Mast Upright with Handle - Only for Hoist
H1 - Actuator	Linak® Actuator LA34
H1 - PU End Cap	PU End Cap for Hoist
H1 - Spreader Bar Cover	PU Cover for Spreader Bar
H1 - Spreader Bar	Powder Coated Spreader Bar
H1 - Spreader Bar M10 Bolt & Nylon Lock Nut	M10 Bolt & Nylon Lock Nut for Spreader Bar



## TECHNICAL SPECIFICATIONS

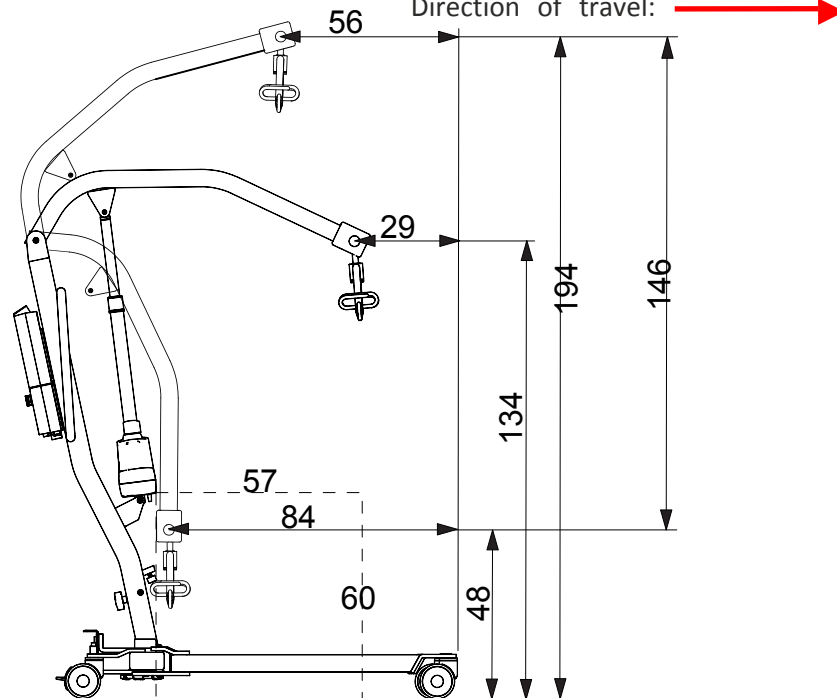
### Hoist Dimensions in Centimetres



Total Weight: 39kgs

Actuator Thrust: 10,000n

Direction of travel: →



## **TECHNICAL SPECIFICATIONS**

### **Electrical Specifications:-**

- Batteries 2 x 12 volt rechargeable sealed lead acid.
- Battery Capacity 2.9 Ampere / hours
- Charger Rated Input 230Vac 50/60Hz
- Charger Rated Output 27.4 / 29.0 VDC@0.8A

### **Electric Shock Protection:-**

- Charger - Class II..... Lift - Internal Power Source
- Degree of Shock Protection - Type B.....Lift - Internal Power Source
- Duty Cycle 10% (6 minutes per hour)

### **Sound Levels:-**

- Loaded Up41.7dBA / Down 40.9dBA
- Unloaded Up38.5 dBA / Down 38.5dBA

### **Expected Product Lifetime:-**

- 10 yrs pending usage and compliance to maintenance, servicing and LOLER inspections.

## CERTIFICATE OF TEST & INSPECTION

Make & Model..... Serial No.....

Safe Working Load.....kgs

This is to certify that the hoist has been inspected and tested to the relevant requirements of:  
**BS EN 10535:2006** 'Hoists for the transfer of disabled persons' and has passed the inspection and tests required by the standard.

Signed.....

Date.....

Name.....

Position.....



## CONTACT DETAILS

For further information on our full range of patient slings and hoists please visit [www.mackworth-healthcare.com](http://www.mackworth-healthcare.com). For information on hoist and sling compatibility, please refer to our General User Safety Guide. To view our clip fitting video please visit: [www.mackworth-healthcare.com/training](http://www.mackworth-healthcare.com/training). For general guidance for how to fit a sling, please visit: [www.mackworth-healthcare/category/guides](http://www.mackworth-healthcare/category/guides).

Alternatively, for any further help, information or advice please contact us at:

## PRISM MEDICAL UK

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