

mackworth

## M180 Mobile Hoist

This document includes Fixed and Folding variants



## CONTENTS

1.0	Intended Use.....	3
1.1	Warning Notes .....	3
1.2	Operating Environment.....	3
2.0	Slings .....	4
2.1	Sling Attachment/Detachment .....	4
2.2	Compatible Slings.....	4
3.0	Detachable Parts.....	6
3.1	Attaching/detaching QRS (Quick Release System) Carry Bar .....	6
3.2	Attaching/detaching the Battery .....	7
4.0	Folding the Hoist .....	7
5.0	Technical Specification.....	8
5.1	Mackworth M180 Dimensions .....	8
5.2	Specifications.....	9
5.3	Electrical specifications .....	9
6.0	Environmental - Storage and Operating Conditions.....	10
6.1	Normal Operating Conditions .....	10
6.2	Shipping and Storage Conditions .....	10
7.0	Maintenance .....	10
8.0	Cleaning.....	11
8.1	General cleaning.....	11
8.2	Disinfecting (if necessary) .....	11

## Mackworth M180 Pre-Sales Information

For further information on the product and details summarised within this document please refer to the Mackworth M180 User Manual.

If you require larger print or videos – these are available on the Prism Website <http://prismmedical.co.uk>

### 1.0 Intended Use

For internal use only.



The Mobile Hoist is a lifting aid used by trained personnel. The Mobile Hoist makes it possible to transfer/lift mobility impaired clients with minimal strain or risk to the caregiver, while providing complete safety, dignity and comfort to the client.

The Mobile Hoist is one of two components that makes this possible. The other component, the sling, is a specially designed fabric accessory that attaches to the Hoist by means of a carry bar and straps, and holds the client during the lift/transfer.

Please refer to the user guides supplied with the sling and reference them while reviewing this manual.

The functions of raising and lowering the boom, are accomplished by pressing buttons on the hand control. The opening and closing of the legs on the Mobile Hoist are of manual operation.

### 1.1 Warning Notes



Your Mackworth M180 Mobile Hoist has been manufactured and tested to exceed BS EN 10535:2006. This does not mean that it can be used without care. ALL OPERATORS should have read the operating instructions and appreciate this warning section.

1. ALL Mobile Hoists are less stable on sloping surfaces. A 5-degree slope is the maximum permitted and then only with great care.
2. ALL Mobile Hoists are dangerous to the person being transferred when used recklessly or pushed at speed.

### 1.2 Operating Environment

The Mackworth M180 Mobile Hoist is intended for use within the professional health care facility environment as well as the home health care environment. The Hoist is not suitable for any other environment or special environments.

The Mobile Hoist is not intended to be used in environments where there are rapid changes in the environmental temperature and humidity during intended use.

## 2.0 Slings

The Mackworth M180 is designed to be used in combination with a Sling to perform its intended use. The sections below include the correct and safe manor of attaching/detaching the Slings as well as a list of approved slings for use.

### 2.1 Sling Attachment/Detachment

Sling loops should be attached as follows:

1. Put the required sling loop onto your finger and thumb and then using the same finger or thumb, pull back the spring locking mechanism on the correct hook on the correct side of the carry bar (Figure 1 and 2).
2. Slide the sling loop from your finger and thumb over the edge of the hook (Figure 3).
3. After positioning the loop below the locking mechanism (Figure 3) release the spring locking mechanism to secure the sling loop (Figure 4).



Figure 1



Figure 2



Figure 3



Figure 4

To remove the sling, simply reverse the process – pull back on the spring locking mechanism, lift the loop out of the hook and release the locking mechanism.



Figure 5



Figure 6



Figure 7

**The same process of attaching and detaching the Sling is relevant for the QRS (Quick Release System) Carry Bar.**

### 2.2 Compatible Slings

Below is a list of slings that are recommended and have been approved by Prism Medical UK for use in combination with the product.

We recommend the use of the Mackworth Healthcare or Care-Ability manufactured sling range (type 'B' applied part) to be utilised with the Mackworth M180 Mobile Hoist. It is at the user's discretion to use alternative supplied product. In utilising another manufacturer's sling, checks must first be made to ensure the sling is safe to use and meets the requirements of BS EN ISO 10535 before its use.

The slings with a safe working load of 180kg that can be used with the Mackworth M180 Mobile Hoist are shown in the table below, for full details on the various Sling sizes and material options. See the User Manual for the specific Sling Model.

<b>Mackworth Sling Range - Product Material and Code</b>
<b>Mackworth Oak</b>
<b>Mackworth Oak with head support</b>
<b>Mackworth Yew</b>
<b>Mackworth Yew with head support</b>
<b>Mackworth Hazel</b>
<b>Mackworth Hazel with head support</b>
<b>Mackworth Willow</b>
<b>Mackworth Willow with head support</b>
<b>Mackworth Beech</b>
<b>Mackworth Beech with head support</b>
<b>Mackworth Pine</b>
<b>Mackworth Pine with head support</b>

Table 1

<b>Care-Ability Sling Range - Product Material and Code</b>
<b>CA300 Universal</b>
<b>CA400 Universal Deluxe</b>
<b>CA500 Toilet Access</b>
<b>CA501 Toilet Access with crossover straps</b>
<b>CA502 Toilet Access with head support</b>
<b>CA503 Toilet Access with high back</b>
<b>CA503E Toilet Access with high back extensor</b>
<b>CA600 Hammock</b>
<b>CA700 Classic Hammock</b>
<b>CA701 Deluxe Hammock</b>
<b>CA701 Deluxe Hammock with head support</b>
<b>CA702 Comfort In Chair Hammock</b>
<b>CA702 Comfort In Chair Hammock with head support</b>
<b>CA703 Split Leg In Chair Hammock</b>

Table 2



Do not use a clip fit sling on a Carry Bar designed specifically for loop fitting slings.

## 3.0 Detachable Parts

Detachable parts that are included with the product consist of the Battery and the QRS (Quick Release System) Carry Bar. This is an optional accessory that is not included with the standard product.

Below are the instructions for attaching and detaching the QRS Carry Bar and the Battery.

### 3.1 Attaching/detaching QRS (Quick Release System) Carry Bar

If you have chosen to have QRS carry bar please follow the following section to attach and detach the carry bar from hoist. Attach the carry bar (type 'BF applied part) into the QRS Hook, located at the end of the boom, in the following way:

#### Attach

1. On the hook, move the locking mechanism into the hook by pressing down on the tab (Figure 8 and 9).
2. With the carry bar positioned sideways along the length of the bar, move the pin at the top of the carry bar into the hook (Figure 10).
3. Alternatively, with the carry bar positioned sideways, the pin at the top of the carry bar can gently push the locking mechanism out of the way as the pin is carefully moved into the hook.
4. Once the pin is in the hook, rotate the carry bar 90° down so the carry bar is hanging below the hook on the pin in the hook. Move the locking mechanism into place by pushing up on the tab, securing the carry bar on the hook and lifting tape. (Figure 11 and 12)

#### Detach

1. Press down on the locking mechanism as described in step 1 (Attach).
2. Rotate the Carry Bar to a sideways position and remove from the hook.



Figure 8



Figure 9

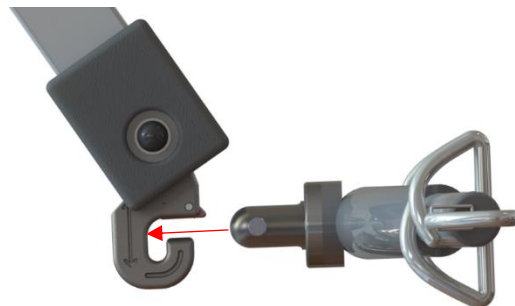


Figure 10

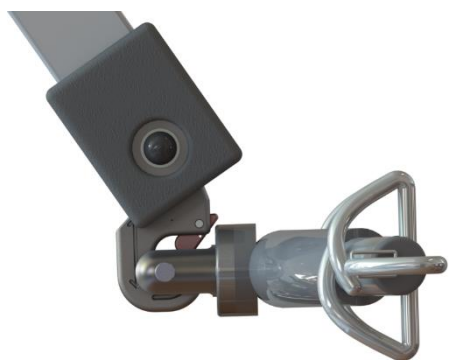


Figure 11



Figure 12



## 3.2 Attaching/detaching the Battery

The attachment and detachment of the Battery can be completed safely by following the following procedure:

### Attach

1. Grab Hold of the Battery from the top position as shown in figure 13 and place your fingers onto the latch.
2. Press the latch to release the Battery and lift the Battery from its fixing. (Figure 14)

### Detach

1. Place the Battery into the fixing location and push it forward into placement, the Battery will “click” into place.

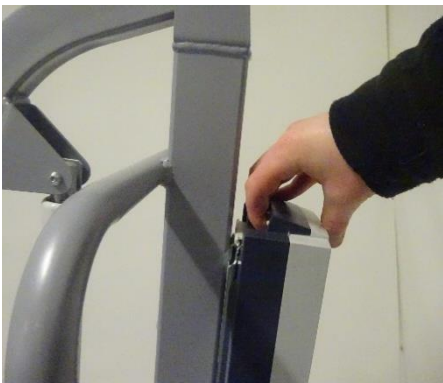


Figure 13

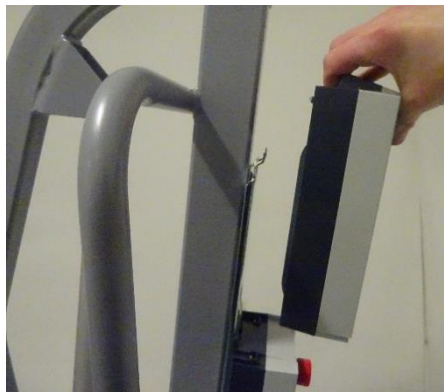


Figure 14

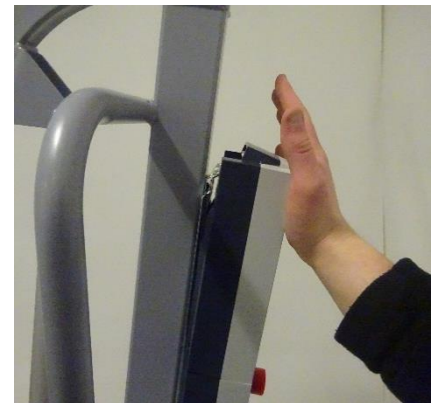


Figure 15

## 4.0 FOLDING THE HOIST

If you have obtained the Folding mast version of the Mackworth M180, the procedure below will instruct on how to safely and effectively fold the M180 Hoist. Follow the procedure below in reverse to unfold the Hoist when necessary.

1. Firstly, position the Carry Bar at its minimum height and use the strap to secure it to the Mast. (Figure 16)
2. Remove the Star Handle from the rear side of the Mast by rotating anti-clockwise. (Figure 17)
3. Raise the Mast vertically to remove the Mast from its fixing, it can now be pivoted forward to its folded position. (Figure 18)
4. Once the Mast is folded, place the Star Handle into the Mast to lock in place. (Figure 19)



Figure 16



Figure 17



Figure 18

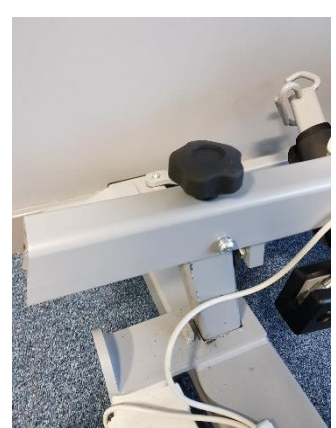


Figure 19

## 5.0 Technical Specification

### 5.1 Mackworth M180 Dimensions

All dimensions below are shown in millimetres.

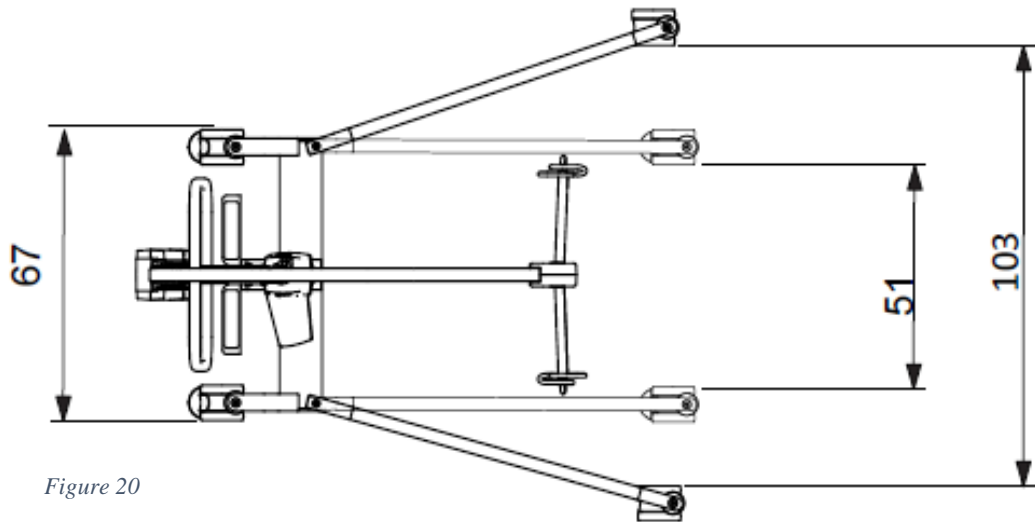


Figure 20

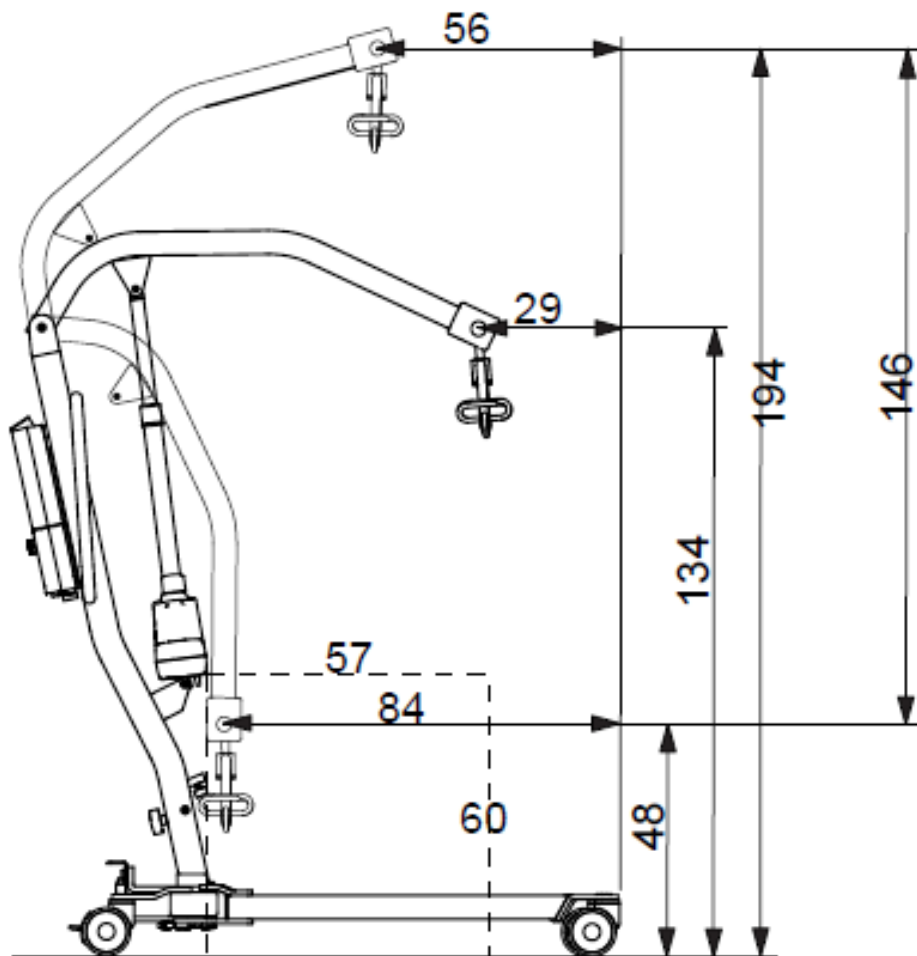


Figure 21



## 5.2 Specifications

Dimensions	
Turning Circle	1010mm
Length	1310mm
Overall Height	1940mm
Overall Width	680mm
Ground Clearance	25mm
Front and Rear Castors Size	100mm

Table 3

Weights:	
Safe Working Load (SWL)	180 kg
Full Product	39 kg
Base Assembly	18 kg
Mast & Boom Assembly	21 kg

Table 4

Operational Forces	
Moving Force (with 180 kg)	83 N
Moving Force (with 0 kg)	16 N
Operation of the Brake	35 N
Handset	4.5 N
E-Stop Button	12 N
Carry Bar Rotation (with 180kg)	18 N
Carry Bar Rotation (with 0 kg)	< 0.5 N
Manual Leg Lever (with 0kg)	80 N

Table 5

## 5.3 Electrical specifications

<b>Battery type:</b>	2 x 12-volt Rechargeable sealed lead acid.
<b>Battery capacity:</b>	24 V DC, 1 x 2.9 Ah
<b>Charger rated input:</b>	230VAC 50/60Hz
<b>Charger rated output:</b>	27.4/29.0 VDC @ 0.8A

### Electric Shock Protection

<b>Charger:</b>	Class II *Lift - internal power source
<b>Degree of shock protection:</b>	Type B *Lift - internal power source
<b>Duty cycle:</b>	10% Use – 90% Rest (90 seconds use - 810 seconds rest)
<b>IP rating, control box:</b>	IPX4
<b>IP rating, battery:</b>	IPX5
<b>IP rating, handset:</b>	IPX4

## 6.0 Environmental - Storage and Operating Conditions

The Mackworth M180 is intended for internal use within normal environmental conditions.



It is not intended to be used in environments where there are rapid changes in the environmental temperature and humidity during use.

### 6.1 Normal Operating Conditions

+5°C to +40°C (41°F to 104°F) at a relative humidity between 15% to 90% RH, non-condensing but not requiring a water vapour pressure greater than 50hPa and atmospheric pressure between 700hPa to 1060hPa.

### 6.2 Shipping and Storage Conditions

-25°C to +5°C (-13°F to 41°F) with any humidity level.

+5°C to +35°C (41°F to 95°F) at a relative humidity up to 90%.

+35°C to 70°C (95°F to 158°F) non-condensing at a water vapour pressure up to 50hPa.

## 7.0 Maintenance



No service is to be carried out on the M180, while transferring a person to reduce the risk of injury. Service must be completed by a Prism Medical UK authorised Service Engineer. Do not attempt to service the product yourself, or warranty is void.

To ensure the safety and continued good function of your Hoist, routine service must be performed on your Mackworth M180 Mobile Hoist.

Service should be completed by a Prism Medical UK approved service engineer every 6 months to ensure the products required standard is maintained. The service history of the product should be documented each service in the Service Log at the back of this User Manual.



When the Mobile Hoist is serviced, the 6 month service checklist must be completed for the Mackworth M180.

Service Manual Document Number: 995568.

Spare Parts Manual Document Number 992568

The Service must be completed every 6 months after installation of the Hoist to comply with LOLER Regulations.

The Mackworth M180 Mobile Hoist has an expected Service Life of 10 Years.

Contact your local authorised Prism Medical UK dealer if you:

- Need more information.
- Have any questions about the use or service of your Mobile Hoist.
- Notice any change in the performance.
- Want to report an unexpected occurrence.
- Want to arrange a service.
- Need to ascertain necessary information for replacement parts and components.

Contact details of your local Prism Medical UK dealer are shown on the last page of this manual.

## 8.0 Cleaning

Please follow the cleaning guidelines below on cleaning and disinfecting the Hoist.

### 8.1 General cleaning



It is recommended to clean the Mackworth M180 and accessories before the use by a different patient, reducing the risk of cross-contamination.

The exterior of the Mackworth M180 can be cleaned using a damp soapy cloth for general cleaning duties. Please ensure the cloth is damp and not wet. Ensure the exterior of the device is dry after cleaning. Dry using a clean dry cloth.

### 8.2 Disinfecting (if necessary)

Should the Mobile Hoist require a more thorough clean, the use of the Actichlor™ disinfectant product (which is widely available in tablet form and used throughout the health care industry) is recommended.



Follow the manufacturer's safety instructions for the use of the cleaning product before use to ensure safe use for the operator and the patient.

Ensure the cloth is damp before the cleaning process.

Application is through a clean damp cloth applied to wipe the device down. Use in the following dilutions to ensure an effective clean:

- Actichlor™ dissolvable chlorine tablets provide a concentration of 1000 ppm of available chlorine (0.1%) per 1 tablet
- 1 tablet (1.7g formed tablet (x1)) will create a virucidal solution, diluted in 1 litre of water to provide effective means to clean a "dirty" device. This is also ideal for use after an outbreak of the Norovirus/winter vomiting and can be used as a precaution against C.Diff. It is effective against viruses, bacteria, spores, yeasts and moulds.
- The contact time against the outer components of the device should be for 5 minutes to prevent any virucidal infections without a degradation to the functionality of the device. 5 minutes is a recommended contact time. The device can withstand a longer contact period but the 5 minute recommendation as a minimum must be followed to provide an effective cleaning regime.
- Blood spills should be dealt with by an increased concentration of the solution – please refer to the instructions on the manufacturers product labelling.

**Manufacturer contact details:**

Prism Medical UK

**Address:** Unit 1 • Tir Llwyd Industrial Estate • St Asaph Avenue • Kinmel Bay • Conwy • LL18 5JZ

**Telephone Number:** 01924 840100

## Disclaimer

While every effort has been made to ensure the accuracy of information contained in this user manual, no liability can be accepted by Prism Medical UK for any errors or omissions.

Prism Medical UK operates a policy of continuous improvement. Specifications and other data are subject to change without notice.



mackworth

Unit 1 • Tir Llwyd Industrial Estate • St Asaph Avenue •  
Kinmel Bay • Conwy • LL18 5JZ



107775