Unihoist Ltd



Instruction Manual
for
Graduate 150
Scholar 175
Master 200

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KEY SYMBOLS:

The following symbols are used on the hoist:



ATTENTION, consult accompanying documents.



For indoor use only.



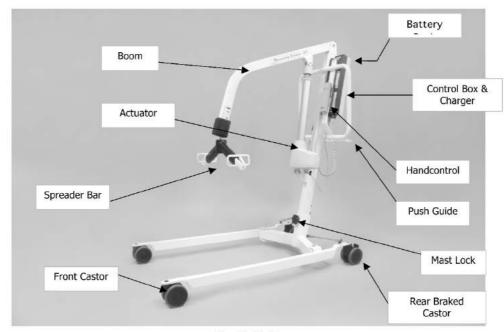
Class II - double insulated



Electric Shock Protection Type B



WEEE Regulations.



Electric Hoist



Unihoist Ltd Range - Graduate 150, Scholar 175 Master 200



The Unihoist Range of Mobile Lifts

The Unihoist range of mobile lifts are available in both hydraulic and electrical versions. This manual covers both versions.

A Unihoist will arrive partially dismantled. It has been fully assembled and load tested at the factory and is supplied with a certificate of testing.

Documents relating to the lift are supplied in a wallet packed with each lift. They should be kept for future reference.

Documents:

- · Test Certificate
- · User Manual

- · Dealer Guarantee Card
- · Customer Satisfaction Card

The TEST CERTIFICATE is an important document and is valid for six months. When the certificate has expired it can be renewed after a satisfactory thorough examination and test carried out by a competent person. Servicing and periodic testing can be carried out by your supplier.

The Unihoist Graduate 150, Scholar 175 and Master 200 are suitable for the following CATEGORIES of lift within the working parameters of the lifts specified in the TECHNICAL SPECIFICATIONS.

- Category A Wheelchair
- Category B Bed
- Category C Bath
- Category D Toilet/Shower
- · Category E Floor
- Category F 90° Rotation

The Unihoist range is suitable for patients in the SITTING, SITTING/RECUMBENT and RECUMBENT positions.

The Unihoist range carries the CE mark and complies with the following EC directives:

INTENDED USE

The University Graduate 150, Scholar 175 and Master 200 are for patient lifting. DO NOT use them, or allow them to be used, for any other purpose.

All patients lifted with these hoists should be assessed for suitability by trained, professional staff and be attended by a carer during use.

The University Graduate 150, Scholar 175 and Master 200 are used in conjunction with a range of slings, sized to suit patients of varying builds.

The hoist can be used for lifting from the floor, wheelchair, chairs, bed and toilet.

Whilst these hoists are capable of transporting patients from room to room, it is recommended other transportation methods are used in order to minimize the patient's time in the sling.

We do not supply or fit any Weigh Scales on our hoist.

The Master 200 should not be moved with the patient in the highest position.

Only use the hoist on a flat surface and never attempt a lift on a slope.

Medical Device Directive (93/42/EEC) EMC Directive (89/336/EEC)



Assembly and Commissioning Instructions

The packing carton contains:

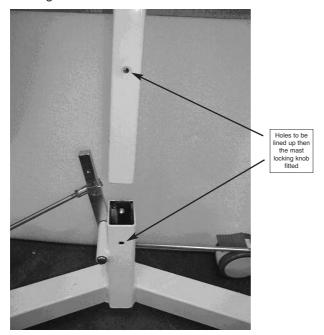
- · Wheeled base
- · Mast and boom assembly
- · Leg opening handle
- · Document Wallet
- Handcontrol (electric version only)
- Battery charger/control box (electric version only)
- Battery pack (electric version only)
- Charging cable (electric version only)
- 1. Remove all the parts from the carton and place on the floor, taking care to protect the finish from damage.

SAFETY NOTE: Some of the parts are heavy and will need to be lifted with care. Heavier assemblies may require two people to lift.

- 2. Apply the brakes on the rear castors of the base
- Fit the mast to the base. The mast fits into a rectangular hole in the top of the base.

SAFETY NOTE: Possible finger trap. Keep fingers away from the end of the mast when fitting to the base.

4. When the mast is fully engaged with the base, fit & fully tighten the mast locking knob.



Assembly and Commissioning Instructions contd.

- 5. Remove the screw from the leg opening lever located at the rear of the chassis. Fit the leg opening handle through the gate on the mast and push the open end over the leg opening lever. Retain the handle with the screw removed earlier from the leg opening lever.
- 6. Check the legs of the lift open and close satisfactorily.

Electric Hoists only

- 7. Check the RED emergency stop button located on the controller is in off (out) position.
- 8. Fit the handcontrol to the handcontrol socket located at the base of the power pack.

Important

The handcontrol plug is indexed and can only be fitted one way. Make sure the plug of the handcontrol is firmly pushed into the socket. **Do Not Force**

- 9. Fit the battery pack to the control box as illustrated on page 8, making sure that it clicks into position.
- 10. Plug the actuator jack plug into the actuator socket located at the base of the Control Box. The indicator label will identify the correct socket.
- 11. Push the up and down buttons on the hand control and confirm the boom rises and lowers. The lift is now ready for use.

Hydraulic models only

7. Close the hydraulic unit release valve by turning the knurled aluminium knob on the unit fully clockwise.

Note:

The release valve requires only minimal tightening to operate and should only be closed finger tight. **DO NOT** apply excessive force to the valve knob as this will result in damage to the valve.

- 8. Pump the handle of the hydraulic unit and confirm the ram raises the boom.
- Open the release valve fully anticlockwise and check the boom descends.
 An unloaded boom will not come down under its own weight, it will be necessary to apply some pressure to the boom before it will descend.

Note:

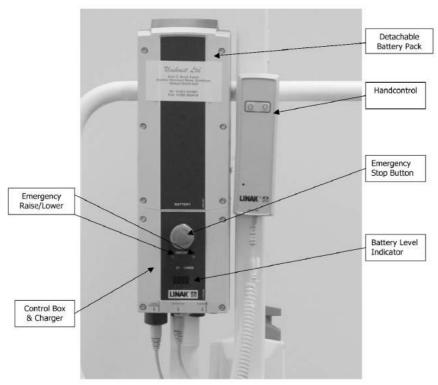
The release valve is fully open and encounters a positive end stop in less than two full turns of the knob. **DO NOT** force the valve past the end stop as this will result in damage to the valve.

10. Close the release valve. The lift is now ready for use.

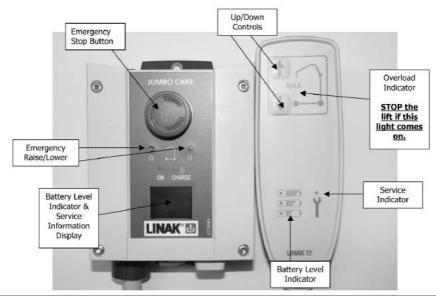
Please read and follow the safety precautions listed below. The operation and the use of the Unihoist patient lift is straightforward. These basic safety precautions will help make lifting operations easy and trouble free.

- ALWAYS carry out the risk assessment and plan your lifting operations before commencing.
- ALWAYS carry out the DAILY CHECK LIST before using the hoist.
- ALWAYS read this manual and familiarise yourself with the operating control
 and safety features of a hoist before lifting a patient.
- DO NOT use a sling unless it is recommended for use with the hoist.
- ALWAYS check the sling is suitable for the particular patient and is of the correct size and capacity.
- NEVER use a sling which is frayed or damaged.
- ALWAYS fit the sling according to the instructions in the user manual.
- ALWAYS check the safe working load of the hoist is suitable for the weight of the patient.
- ALWAYS carry out lifting according to the instructions in the user manual.
- NEVER disconnect or bypass a control or safety feature because is seems easier to operate the hoist.
- NEVER force an operating or safety control. Forcing will only strain or damage the hoist and may compromise safety.
- DO NOT lift a patient with the castor brakes on.
- DO NOT attempt to manoeuvre the hoist by pushing on the mast, boom or patient.
- ALWAYS manoeuvre the hoist with the handle provided. It is recommended
 that the hoist is pushed with the patient in front.
- ALWAYS lower the patient to the lowest comfortable position before transfers.
- **DO NOT** push a loaded hoist at speeds which exceed a slow walking pace.
- **DO NOT** push the hoist over uneven or rough ground, particularly if loaded.
- DO NOT attempt to push or pull a loaded hoist over a floor obstruction which the castors are unable to ride over easily.
- DO NOT bump the hoist down steps; loaded or unloaded, this will damage the castors.
- DO NOT attempt to negotiate a loaded hoist on a slope.
- ALWAYS apply the brakes when parking a hoist.
- NEVER use electric hoists in a shower.
- NEVER charge an electric hoist in a bathroom or shower room.
- YOUR hoist is for patient lifting. DO NOT use it, or allow it to be used, for any other purpose.
- ALWAYS ensure mast locking knob is in position before lifting a patient.
- ALWAYS use the hoist on a flat and level floor.
- FOLLOW a regular charging routine to prolong the life of the battery.

Control Box , Battery Pack and Hand control (Pre July 2012)



Control Box and Hand control (after July 2012)



- 1. Leg adjustment. The legs on a Unihoist lift can be opened for access around armchairs and wheelchairs etc. For transferring and negotiating narrow doorways and passages the legs should be in the closed position. The leg opening mechanism is located at the rear of the lift and leg adjustment is achieved by moving the leg opening handle to the left for open and the right for closed. It is easier to make the leg adjustment when the lift is moving.
- 2. Castors and Braking. The Unihoist lift is provided with 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 With the brakes released the lift will be able to move to the centre of gravity of the lift and prevent the client from swinging when completely lifted. Swinging can prove disconcerting and uncomfortable and may even cause injury.
- 3. Raising and lowering the boom. The boom is raised and lowered by a powerful electric actuator controlled by a simple handcontrol unit. The handcontrol has two buttons with directional arrows UP and DOWN. The actuator will stop automatically at the limit of travel in both directions. The handcontrol is plugged into a socket at the base of the Controller. The handcontrol can be hooked on the mast or boom when not in use.
- 4. **Emergency stop.** The large, red emergency stop button is located on the Control box and is activated by pressing in. This will cut all power to the Lift. It can be reset by twisting the button clockwise and releasing.
- 5. Emergency raise/descent. Emergency raise/descent buttons are provided. These are located underneath the emergency stop button. These can be activated by pushing with a ballpoint pen tip or similar. This will raise or lower the boom if the handcontrol fails. This function is to be used in an emergency only.

Caution should be exercised when using this control as there is no automatic cut-out of the actuator when the bottom stop is reached.

- 6. Emergency descent on actuator (2012 Models onwards). An emergency descent handwheel is located at the top of the actuator. By turning it clockwise, this will lower the boom if the handcontrol fails.
- 7. Batteries. The batteries are protected from deep discharge by a LOW VOLTAGE ALARM. This will sound when the batteries need recharging and the handcontrol is being operated. It will not sound independently of the handcontrol being operated. DO NOT IGNORE THIS WARNING ALARM. Complete the lifting operation and place the Lift on charge (see charging instructions).

Operating a Unihoist Lift contd.

8. Raising and lowering the boom (hydraulic models). The raising and lowering of the boom is achieved by a powerful hydraulic ram which is operated by two simple controls. The release valve, which is identified by an aluminium knurled knob, and the pump handle which is a long lever on the side of the hydraulic unit.

To raise the boom, ensure the release valve is closed. The valve is closed by gently turning the knurled knob fully clockwise. When closed, pump the handle with smooth even strokes for maximum effect. The handle strokes from an upright position through an arc of 90°. Leave the handle in the upright position when not in use. **DO NOT** force the handle beyond the upper or lower stops. The hydraulic unit can be rotated to allow the handle to be used from either side of the lift.

To lower the boom, turn the release valve anticlockwise. The release valve is progressive, the more it is opened the faster the descent. This facility allows for a "hands free" descent. If the release valve is opened a fraction (a quarter turn) a very slow speed of descent will allow the carer to work "hands free" while assisting or comforting the patient.

REMEMBER to close the release valve before commencing lifting operations. The release valve only requires gentle pressure to open or close.

DO NOT apply excessive force to the release valve, either to open or close. It is not necessary and will only damage the valve.

Slings. The selected sling is attached to the spreader bar hooks, each sling
is supplied with instructions and they are reproduced in this manual. The
instructions should be followed carefully.

Two 12 vdc batteries are located in the power pack. They are charged through a figure of eight shaped socket in the base of the control unit. When charging is required the mains lead is plugged into a wall outlet and the socket in the base of the control box.

- Fit the mains power lead to the small figure of eight shaped 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**.

Note: The Emergency Stop button has to be out of the battery pack to charge.

Charging is automatic and will fully charge the batteries over a period of eight to twelve hours.

Note: Even if the batteries are left on charge for extended periods the charger will not allow the batteries to "overcharge".

4. To return the Lift to service, switch **OFF** the mains supply. Remove the small plug from the socket in the control box. The Lift is now ready for use

Please pay particular attention to the following points, they will help you avoid problems with discharged batteries.

- **KEEP** the batteries fully charged. Place the power pack on charge whenever it is not in use. If it is more convenient to do so, place on charge every night. The charger will not allow the batteries to "overcharge".
- NEVER run the batteries completely flat. As soon as the audible warning sounds, complete the lifting operation and place the batteries on charge.
- NEVER store the power pack for long periods without regular charging throughout the storage period.
- ALWAYS make sure the mains power to the charger is switched off before connecting or disconnecting the power pack.
- **NEVER** leave the power pack plugged in to the charger with the mains power off.
- ALWAYS check Battery Charger Indicator (LCD) screen.
- WARNING: Walking away with the hoist while the charger is still plugged into the mains could cause the cable and the charger to short out.
- NEVER dispose of the Battery Pack in a fire as this may cause an explosion. If in doubt contact Unihoist Limited.

Correct way to charge the battery



Maintenance Schedule for Unihoist Lifts

All Unihoist products are designed for minimum maintenance, however some safety checks and procedures are required. A schedule of **DAILY** checks and tasks are detailed below.

Daily checks and biannual service, inspection and test will ensure a Lift is kept in optimum safe working condition. A list of spare parts is available upon request. The **LOAD TEST** and **CERTIFICATION** should only be carried out by qualified, competent personnel or an authorised service dealer.

Daily Check List

Unihoist Ltd strongly recommend the following daily checks are carried out before using the lift.

- MAKE sure the Lift moves freely on it's castors.
- MAKE sure the legs open and close correctly.
- MAKE sure the mast is fully engaged and the locking knob is fully tightened.
- **MAKE** sure the spreader bar is free to rotate and swing. Check the spreader bar is firmly attached to the boom.
- EXAMINE the sling hooks on the spreader bar and side suspenders for excessive wear. If in doubt – do not use.
- OPERATE the handcontrol or hydraulic unit to confirm the boom raises and lowers satisfactorily.
- **ON** electric powered lifts check the operation of the emergency stop button.
- ON hydraulically operated lifts check for hydraulic fluid leakage. Any leakage should be reported to a service engineer immediately and the lift should not be used until it has been checked out.
- CONFIRM the Lift is not giving a low battery alarm when the handcontrol is operated. If the alarm sounds DO NOT use and place on charge immediately.
- **EXAMINE** slings for fraying or other damage. **DO NOT** use any sling with fraying or damage to the suspension straps or tears in the body of the sling.
- MAKE sure the User Manual is available.

Unihoist Ltd recommend a through inspection and test of the Unihoist mobile lifting accessories, slings etc. is carried out every six months. The examination and test should be conducted according to the recommendations and procedures below.

Unihoist Ltd recommend maintenance, inspection and certified testing is carried out by authorised service dealers only.

Note: These recommendations are in compliance with the requirements of 1998 No.2307 Health and Safety: The Lifting Operations and Lifting Equipment Regulations 1998. This is a UK regulation. Outside the UK please check your local requirements.

- SPREADER BAR: Check the spreader bar for freedom of rotation and swing.
 Check the wear on the central pivot and the nylon washer. Check for firm
 attachment to the boom. Inspect for excessive wear on the sling hooks and
 any side suspenders used in conjunction with the spreader bar.
- **BOOM:** Check the attachment of the boom to the mast. Make sure there is only minimal side movement of the boom and the boom is free to rotate on the boom bearing. Check the actuator or hydraulic unit mounting on the boom.
- MAST: Check the operation of the mast locking device. Make sure the mast fully engages into the socket. Check the bottom actuator or hydraulic unit mounting.
- **CONTROL BOX** (Electric only): Check the function of the Emergency Stop Button. Inspect the hand control socket for correct fitting. Inspect the charging socket for correct fitting. Check functioning of hand control.
- LEG ADJUSTMENT: Check the leg linkages are secure and the leg adjustment handle is located correctly in the leg adjustment gate. Operate the leg adjusting handle and confirm smooth opening and closing of the legs. Adjust linkages if necessary.
- LEG PIVOTS: Check the leg pivots are secure and the legs pivot freely. Any stiffness must be investigated. Strip out the leg pivots and lubricate with a light mineral based grease if in any doubt. Make sure there is no excessive play in the leg pivots.
- CASTORS: Check all castors for firm attachment to the legs. Check for free
 rotation of castor and the wheels. Remove any build up of threads, hair or fluff.
 Lubricate if necessary with a light mineral based grease. Check correct
 operation of the brakes.
- ACTUATOR (Electric only): The actuator should require no maintenance other than checking for correct operation and listening for unusual noise and that it is correctly secured.

Maintenance, Inspection and Test contd.

- ENSURE all four castors are in contact with the floor when the hoist is moved.
- **EMERGENCY DOWN:** Check emergency down functions control box and actuator (on 2012 models).
- HYDRAULIC UNIT: The hydraulic unit should require no maintenance other than checking for correct operation and leakage of hydraulic fluid.
- **BATTERIES** (Electric only): The batteries are located in the power pack and should not require maintenance other than the regular charging as detailed in the charging instructions.
- CLEANING: Clean thoroughly with ordinary soap and water and any hard surface disinfectant if required after cleaning (you cannot disinfect unless the hoist is already clean). Harsh chemical cleaners or abrasives should be avoided as these may damage the surface finish of the hoist. Avoid wetting any of the electrical parts.
- LOAD TEST: The load test should be carried out in accordance with the manufacturers test procedures. It is strongly recommended the testing is carried out by an authorised service dealer.
- CERTIFICATION: An authorised service dealer will issue a test certificate
 after satisfactory completion of the load test. This certificate will be valid for
 six months.

Safe Working Load	Model	Gradu	ate 150	Scho	lar 175	Mast	ter 200
Maximum Overall Length 1120 1120 1310 1310 1435 1435 Minimum Overall Length 1065 1065 1220 1220 1375 1475 Maximum Overall Height 1835 1840 2025 2080 2135 2150 Minimum Overall Height 1200 1200 1310 1310 1428 1428 Spreader Bar Maximum 1615 1605 1795 1850 1891 1905 Height 1605 1795 1850 1891 1905 Height (usable) 483 530 628 530 395 Height at Maximum Reach 975 920 1070 1083 1200 1175 Reach at Minimum Height 380 380 400 498 550 360 Maximum Reach 530 530 595 617 720 700 Turning Radius 1120 1120 1310 1310 1435 1435 Legs Open – External Widt		Electric	Hydraulic	Electric	Hydraulic	Electric	Hydraulic
Minimum Overall Length 1065 1065 1220 1220 1375 1475 1475 Maximum Overall Height 1835 1840 2025 2080 2135 2150 2150 Minimum Overall Height 1200 1200 1310 1310 1428 14	Safe Working Load	150kg	150kg	175kg	175kg	200kg	200kg
Maximum Overall Height 1835 1840 2025 2080 2135 2150 Minimum Overall Height 1200 1200 1310 1310 1428 1428 Spreader Bar Maximum 1615 1605 1795 1850 1891 1905 Height 1615 1605 1795 1850 1891 1905 Height at Maximum 432 483 530 628 530 395 Height at Maximum Reach 975 920 1070 1083 1200 1175 Reach at Minimum Height 380 380 400 498 550 360 Maximum Reach 530 530 595 617 720 700 Turning Radius 1120 1120 1310 1310 1435 1435 Legs Open – External Width 1080 1080 1125 1125 1300 1300 Legs Close – External Width 935 935 980 980 1148 1148 </td <td>Maximum Overall Length</td> <td>1120</td> <td>1120</td> <td>1310</td> <td>1310</td> <td>1435</td> <td>1435</td>	Maximum Overall Length	1120	1120	1310	1310	1435	1435
Minimum Overall Height 1200 1200 1310 1310 1428 142	Minimum Overall Length	1065	1065	1220	1220	1375	1475
Spreader Bar Maximum Height Spreader Bar Minimum Height Spreader Bar Minimum Height (usable) Height (usable) Height (usable) Height (usable) Height (usable) Height at Maximum Reach 975 920 1070 1083 1200 1175 Reach at Maximum Height 225 240 245 210 450 435 Reach at Minimum Height 380 380 400 498 550 360 Maximum Reach 530 530 595 617 720 700 Turning Radius 1120 1120 1120 1310 1310 1435 1435 Legs Open – External Width 1080 1080 1125 1125 1300 1300 Legs Open – Internal Width 935 935 980 980 1148 1148 Legs Close – External Width 688 685 685 685 705 705 Legs Close – Internal Width 542 542 540 540 560 560 Overall Height of Legs 110 110 110 110 110 111 111 115 115 Ground Clearance 43 43 43 43 47 17 17 Front twin castors 100 100 100 100 100 100 100 100 100 Minimum Distance from Wall to CSP at Maximum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP	Maximum Overall Height	1835	1840	2025	2080	2135	2150
Height	Minimum Overall Height	1200	1200	1310	1310	1428	1428
Spreader Bar Minimum	Spreader Bar Maximum Height	1615	1605	1795	1850	1891	1905
Height at Maximum Reach 975 920 1070 1083 1200 1175	Spreader Bar Minimum	432	483	530	628	530	395
Reach at Minimum Height 380 380 400 498 550 360 Maximum Reach 530 530 595 617 720 700 Turning Radius 1120 1120 1310 1310 1435 1435 Legs Open – External Width 1080 1080 1125 1125 1300 1300 Legs Open – Internal Width 935 935 980 980 1148 1148 Legs Close – External Width 688 685 685 685 705 705 Legs Close – Internal Width 542 542 540 540 560 560 Overall Height of Legs 110 110 110 110 115 115 Ground Clearance 43 43 43 43 17 17 Front twin castors 100 100 100 100 100 100 100 Minimum Distance from Wall to CSP at Maximum Height (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Height (legs spread) Minimum Distance from Wall to CSP at Maximum Height (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) More Power Pack 3kg - 3	Height at Maximum Reach	975	920	1070	1083	1200	1175
Maximum Reach 530 530 595 617 720 700 Turning Radius 1120 1120 1310 1310 1435 1435 Legs Open – External Width 1080 1125 1125 1300 1300 Legs Open – Internal Width 935 935 980 980 1148 1148 Legs Close – External Width 688 685 685 685 705 705 Legs Close – Internal Width 542 542 540 540 560 560 Overall Height of Legs 110 110 110 110 115 115 Ground Clearance 43 43 43 43 17 17 Front twin castors 100 1	Reach at Maximum Height	225	240	245	210	450	435
Turning Radius 1120 1120 1310 1310 1435 1435 1435	Reach at Minimum Height	380	380	400	498	550	360
Legs Open – External Width 1080 1080 1125 1125 1300 1300 Legs Open – Internal Width 935 935 980 980 1148 1148 Legs Close – External Width 688 685 685 685 705 705 Legs Close – Internal Width 542 542 540 540 560 560 Overall Height of Legs 110 110 110 110 110 115 115 Ground Clearance 43 43 43 43 17 17 Front twin castors 100 100 100 100 100 100 100 Rear Braked Castors 100 100 100 100 100 100 100 Minimum Distance from Wall to CSP at Maximum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Minimum Distance from Wall to CSP at Minimum Distan	Maximum Reach	530	530	595	617	720	700
Legs Open - Internal Width 935 980 980 1148 1148 Legs Close - External Width 688 685 685 705 705 Legs Close - Internal Width 542 542 540 540 560 560 Overall Height of Legs 110 110 110 110 115 115 Ground Clearance 43 43 43 43 17 17 Front twin castors 100	Turning Radius	1120	1120	1310	1310	1435	1435
Legs Close – External Width 688 685 685 705 705 Legs Close – Internal Width 542 542 540 540 560 560 Overall Height of Legs 110 110 110 110 115 115 Ground Clearance 43 43 43 43 17 17 Front twin castors 100	Legs Open – External Width	1080	1080	1125	1125	1300	1300
Legs Close – Internal Width 542 542 540 560 560 Overall Height of Legs 110 110 110 110 115 115 Ground Clearance 43 43 43 43 17 17 Front twin castors 100 100 100 100 100 100 100 Rear Braked Castors 100 20 20 20	Legs Open – Internal Width	935	935	980	980	1148	1148
Overall Height of Legs 110 110 110 110 115 115 115	Legs Close – External Width	688	685	685	685	705	705
Ground Clearance	Legs Close – Internal Width	542	542	540	540	560	560
Front twin castors 100 100 100 100 100 100 100 100 100 10	Overall Height of Legs	110	110	110	110	115	115
Rear Braked Castors 100	Ground Clearance	43	43	43	43	17	17
Minimum Distance from Wall to CSP at Maximum Height (legs spread) 420 450 605 645 473 485 Minimum Distance from Wall to CSP at Maximum Reach (legs spread) 115 125 220 210 204 205 Minimum Distance from Wall to CSP at Minimum Height (legs spread) 275 293 405 340 432 570 Weights Weights 9 3kg - 3kg - 3kg - Base assembly (not incl. battery pack) 14kg 14kg 15kg 15kg 19kg 19kg Mast & Boom assembly (not incl. battery pack) 15.5kg 18kg 19kg 19.5kg 22kg 23kg	Front twin castors	100	100	100	100	100	100
to CSP at Maximum Height (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Maximum Reach (legs spread) Minimum Distance from Wall to CSP at Minimum Height (legs spread) Weights Power Pack 3kg -	Rear Braked Castors						
Minimum Distance from Wall to CSP at Maximum Reach (legs spread)	Minimum Distance from Wall to CSP at Maximum Height (legs spread)	420	450	605	645	473	485
Minimum Distance from Wall to CSP at Minimum Height (legs spread)	Minimum Distance from Wall to CSP at Maximum Reach	115	125	220	210	204	205
Weights Jake	Minimum Distance from Wall to CSP at Minimum Height (legs spread)	275	293	405	340	432	570
Base assembly (not incl. battery pack) 14kg 14kg 15kg 15kg 19kg 19kg Mast & Boom assembly (not incl. battery pack) 15.5kg 18kg 19kg 19.5kg 22kg 23kg	Weights						
battery pack) 14kg 14kg 15kg 15kg 19kg 19kg Mast & Boom assembly (not incl. battery pack) 15.5kg 18kg 19kg 19.5kg 22kg 23kg	Power Pack	3kg		3kg	-	3kg	2.6
incl. battery pack) 15.5kg 18kg 19kg 19.5kg 22kg 23kg	Base assembly (not incl. battery pack)	14kg	14kg	15kg	15kg	19kg	19kg
Total 32.5kg 37kg 44kg	Mast & Boom assembly (not incl. battery pack)	15.5kg	18kg	19kg	19.5kg	22kg	23kg
	Total	32.5kg		37kg		44kg	

Note: Reach = Centre of spreader bar to front of actuator.

Specifications are for reference only and may vary due to manufacturing tolerances

Electrical Specifications

• Batteries 2 x 12 volt Rechargeable sealed lead acid type

Battery Capacity
 2.9 Ampere hours

Charger Rated Input
Charger Rated Output
230Vac 50/60 Hz
27.4/29.0 VDC@0.8A

Electric Shock Protection

Charger...... Class II

LiftInternal Power Source

Degree of Shock Protection

Charger.....Type B Lift.....Type B

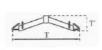
Duty Cycle 10% (6 minutes per hour).

Sound Levels

	Graduate	Scholar	Master
Loaded	58.4dBA	58.7dBA	58.7dBA
Unloaded	58.5dBA	58.5dBA	58.5dBA

Dimensions (mm)

Model	Graduate 150 Hyd	Graduate 150 Elec	Scholar 175 Hyd	Scholar 175 Elec	Master 200 Hyd	Master 200 Elec
Α	1187	1187	1307	1307	1422	1422
В	685	685	685	685	705	705
B'	540	540	540	540	560	560
B1	1080	1080	1125	1125	1300	1300
С	396	396	431	431	523	523
C1	180	180	254	254	286	286
C2	463	463	590	590	534	534
D	110	110	110	110	115	115
H2	1575	1575	1773	1773	1880	1880
H3	1835	1840	2025	2080	2135	2150
L	965	965	1125	1125	1207	1207
L'	255	255	367	367	420	420
T	582	582	582	582	582	582
T'	145	145	145	145	145	145







Slings for use with the Unihoist Ltd Mobile Hoist Range

Unihoist Ltd has designed a range of slings to be used with the Unihoist Ltd mobile hoist range:

- Easifit Sling
- · Easifit Deluxe Sling
- Toileting Sling
- · Deluxe Hammock Sling

Special requirement slings can be made to customers own specifications.

When selecting a sling from the Unihoist Ltd range ensure that the type of sling chosen is suitable for the patient to be lifted. The guides in the following pages will help in making the correct selection.

Please Note

The patient's final position in the sling can be adjusted by using varying combinations of the loops.

Warning!

A risk assessment should be carried out by a qualified person to ensure that the correct size, type and shape of Sling is being used for the patient.

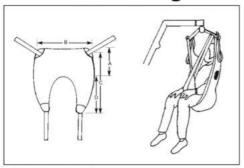
Warning!

Always check the correct sling is appropriate as identified in the risk assessment/care plan.

Warning!

Always check that all the Sling straps are securely attached to the spreader bar before starting the lift.

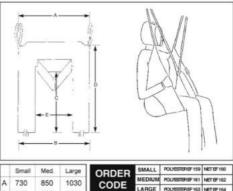
Easifit Sling



	Small	Med.	Large
Α	530	620	740
В	770	900	1240
С	1150	1230	1410
D	610	640	650

ORDER	SMALL	POLYESTER EF 150	NET EF 151
	MEDIUM	POLYESTERIEF 152	NET BF 153
CODE	LARGE	POLYESTEREF 154	NET EF 155

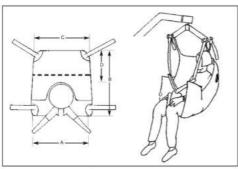
Trinity Toileting Sling



	Small	Med.	Large
Α	730	850	1030
В	770	900	1090
С	530	680	800
D	870	990	1180
Е	340	340	560

SMALL	POLYESTERIEF 159	NET EF 160
MEDIUM	POLYESTER EF 161	NET EF 162
LARGE	POLYESTEREF 163	NET EF 164

Easifit Deluxe

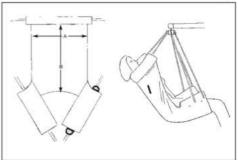


	Small	Med.	Large
Α	940	980	1090
В	880	950	1040
C	810	880	970
D	700	750	800

ORDER SMALL POLYESTEREF 195 NET EF 171

CODE MEDIUM POLYESTEREF 197 NET EF 172 CODE LARGE POLYESTEREF 158 NET EF 173

De Luxe Hammock Sling

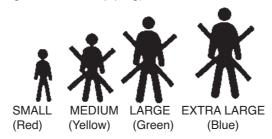


	Small	Med.	Large
Α	650	740	850
В	850	950	1050

ORDER	SMALL	POLYESTEREF 165	NET EF 166
CODE	MEDIUM	POLYESTEREF 167	NET EF 168
CODE	LARGE	POLYESTEREF 169	NET EF 170

Sizing - all slings

Each sling is marked with the following coded symbols, two or three of which will be crossed out. Your sling will be the size that is **not** crossed out. In the example shown below, the size of the sling is small. (On the actual label, the symbol will be blue and the sling will have red piping)



The straps on the sling are also colour coded. For example, a large sling will have green loops in the positions normally used for a large patient.

The following sizing chart is offered as a guide only and each patient should be assessed individually.

Small	70 – 126 lbs	32 – 57 kgs
Medium	126 - 196 lbs	57 – 89 kgs
Large	196 – 350 lbs	89 – 159 kgs
Extra Large	350 - 440 lbs	159 – 200 kgs

The maximum safe working load of the Easifit Sling is 210 kgs.

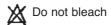
Important: All slings in the Unihoist Ltd range are rated at a safe working load of 210kgs. This is to ensure that any of these slings can be used with safety. It is important to take the safe working load of the lift as the maximum permissible load of any lifting operation.

Washing Instructions:

- Wash in a mild soap solution up to 71°C
- · Do not use biological detergents
- · Do not bleach
- · Dry in a warm room or in the open air
- · Do not place on convector heaters or steam pipes
- Do not dry in tumble dryers which exceed 120°C
- Please ensure that the velcro components on the Slings are stuck together before washing to ensure that the velcro does not rub against the sling material.

SYMBOLS

Do not exceed 71 degrees centigrade



The Easifit sling is a general purpose sling designed to suitable for most patients, but it **is unsuitable for lifting amputees.** Other patients must be assessed for suitability by a qualified person.

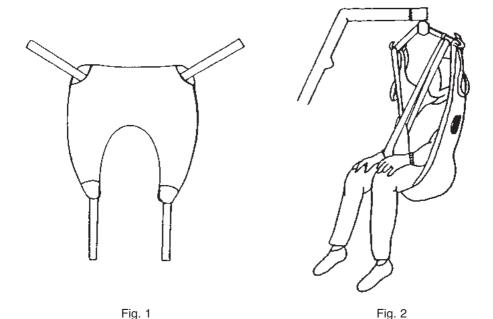
The Easifit sling is suitable for the following categories of lift:

- Category A Wheelchair
- · Category B Bed
- Category C Bath
- Category D Toilet/Shower chair
- Category E Floor

The Easifit sling can be used for patients in the SITTING, SITTING/RECLINING and RECUMBENT positions.

The Easifit sling has been designed to fit on the standard six hook spreader bar.

Unihoist Ltd recommend slings are checked regularly and before use for fraying and damage. **DO NOT** use any slings which are worn or damaged.



Sitting, Sitting/Reclining Position

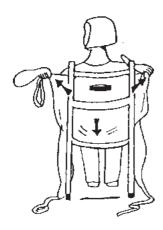


Fig. 3

Ensure that the handgrips and seams are on the outside of the sling. Slide the sling down the back of the client. The commode aperture should be at the base of the back. The sling should be square across the shoulders



Fig.4

Lift the patient's legs one by one and feed the leg straps under and between the legs.



Fig. 5

Cross over the leg straps and attach the longest loops to the front hooks on the spreader bar

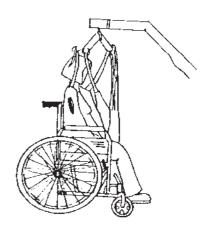


Fig. 6

Raise the hoist and attach the shortest loops on the shoulder straps to the hooks on the spreader bar. The hoist may move towards the client as the operation is undertaken

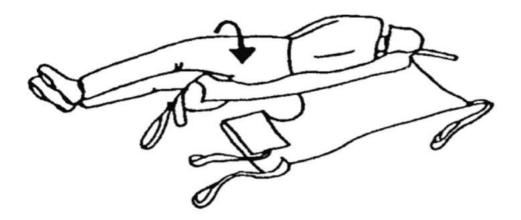


Fig.7
"Log roll" the patient onto the sling. The commode aperture should be at the base of the spine.

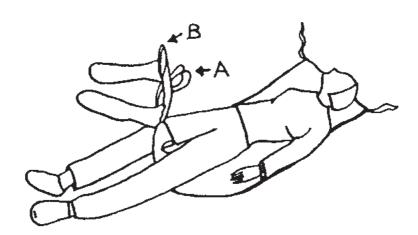


Fig.8

Cross the leg straps between the legs and proceed to attach the sling as from the seated position. Use the shortest shoulder strap possible.

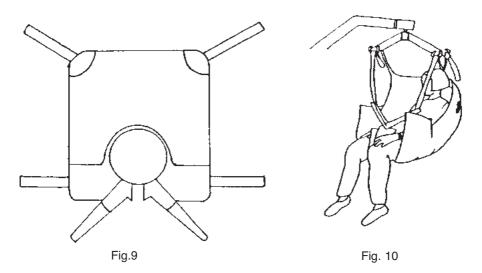
Proceed to attach the sling to the spreader bar in the same way as for the sitting position.

The Easifit Deluxe sling is a development of the Easifit sling. It provides a more comfortable and supportive lift. It is also available with head support and can be fleece lined for additional comfort. This sling is suitable for the lifting of some amputees but patients must be assessed individually by a qualified person to determine whether this sling is suitable for their use.

The Easifit Deluxe sling is suitable for the following categories of lift:

- Category A Wheelchair
- · Category B Bed
- · Category C Bath
- Category D Toilet/Shower chair
- Category E Floor

The Easifit Deluxe sling can be used for patients in the SITTING, SITTING/ RECLINING and RECUMBENT positions.



The Easifit Deluxe sling has been designed for use with the six hook spreader bar.

Unihoist Ltd recommend slings are checked regularly and before use for fraying and damage. DO NOT use any slings which are worn or damaged.

Sitting, sitting/reclining Position

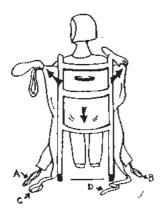


Fig. 11

Ensure that the handgrips and seams are on the outside of the sling. Slide the sling down the back of the patient. The commode aperture should be at the base of the back. The sling should be square across the shoulders.

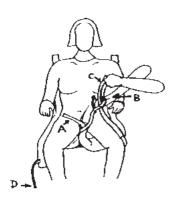


Fig. 13
Pass strap C through strap B. Repeat for the other leg passing strap D through strap A

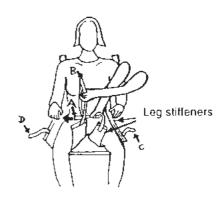


Fig.12

Bring the longest leg piece forward so that it is parallel with the long leg bone of the thigh. Ensuring that the leg piece is not twisted, take the shortest leg piece stiffener under and up between the legs. Repeat this process with the other leg.

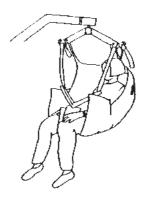


Fig. 14

Check the sling is smooth under the client and confirm the position is comfortable. Move the hoist into position and attach the leg straps to the spreader bar by the coloured loops. This maintains the patient in an upright sitting position. The hoist may move towards the patient as you do this. When re-seating the patient, the handgrips may ensure a good position.

Alternative sitting, sitting/reclining

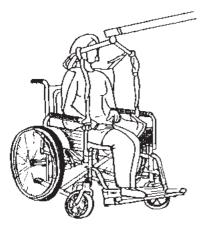


Fig. 15

For closed leg position, straps may be crossed under both legs and attached as illustrated. Ensure leg straps C and D are passed through straps A and B and attached to the spreader bar. This can provide additional comfort and can be used for some amputees.



Fig.16

The longer the length of the shoulder straps, the more reclined the client will be. Cross strap A through strap B

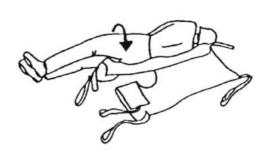


Fig. 17

"Log-roll" the client onto the sling, making sure that the commode aperture is at the base of the back.

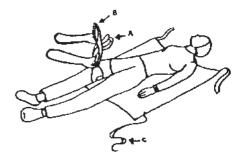


Fig. 18

Cross leg strap A and B under and between the legs and feed A through B. Feed C and D through the long loops on A and B. Then attach the sling to the spreader bar in the same way as the sitting position.

Washing and sizing instructions are as the Sizing - All Slings page.

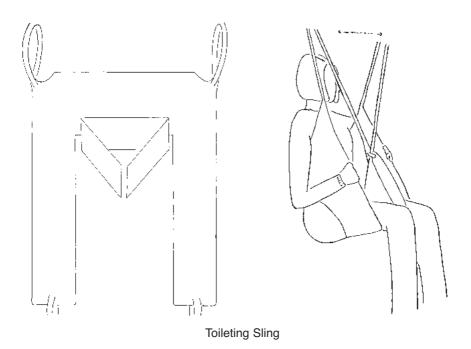
Instruction guide for the Toileting Sling

The toileting sling has been designed specifically to facilitate toileting. It is an easy way to fit sling, padded for comfort, and allows access to and the removal of clothing. It is not a general purpose sling and will only suit approximately 25% of clients. The clients must be able to support themselves in the sling. This sling is unsuitable for lifting amputees. Other clients must be assessed for suitability by a qualified person.

The toileting sling is suitable for the following categories of lift:

- · Category A Wheelchair
- Category D Toilet/Shower chair

The toileting sling can be used for clients in the SITTING position only.



The toileting sling has been designed for use with the six hook spreader bar.

Unihoist Ltd recommend slings are checked regularly and before use for fraying and damage. **DO NOT** use any slings which are worn or damaged.

Sitting position



Fig.19

Place the sling down the back to a position just beneath the shoulder blades and above the belt line.



Fig.21

Cross over the leg straps and attach the longest loops to the front hooks on the spreader bar. Raise the lift and attach the shoulder loops to the rear hooks (a more upright position can be achieved on the shortest loop). The lift may move towards the patient when you do this.

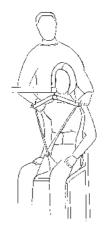


Fig.20

Raise the clients leg and feed the leg strap under and up between the legs. Make sure the sling is not twisted or creased under the thigh. Repeat the procedure for the other leg.



Fig.22

Raise the lift to the required height. When re-seating the client light pressure on the thigh will ensure a good posture.

Washing and sizing instructions are as the Sizing - All Slings page.

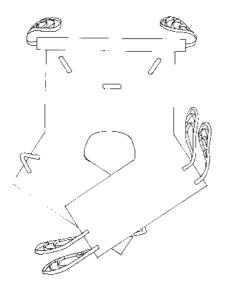
User Guide for the Deluxe Hammock Sling

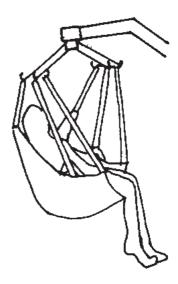
The Deluxe Hammock sling has been designed for amputees but it is also suitable for other clients who have to remain in the sling for an extended period, such as for bed making or bathing. It is available with or without a commode aperture. A head support attachment is also available. The sling can be fleece lined for additional comfort.

The Deluxe Hammock sling is suitable for the lifting of amputees, but clients must be individually assessed for suitability by a qualified person.

The Deluxe Hammock sling is suitable for the following catergories of lift:

- Category B Bed
- · Category E Floor





The Deluxe Hammock sling has been designed for use with the six hook spreader bar.

Unihoist Ltd recommend slings are checked regularly and before use for fraying and damage. **DO NOT** use any slings which are worn or damaged.

Sitting Position



Fig.23

Ensure the hand grips are on the outside, away from the client. Place the sling down the back so that the sling is square at the shoulders.



Fig.24

Raise the clients leg and feed the 1st leg piece with the "A" straps under the leg. Do the same with the other leg, feeding the 2nd piece with the "B" straps under the 1st leg piece.



Fig.25

Feed the back "B" strap through the "A" strap on both sides of the sling. Move the hoist into position and attach the four leg straps to the spreader bar. Raise the hoist and attach the shoulder straps.

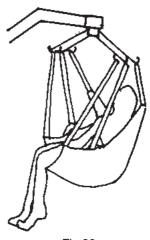


Fig.26

All six hooks on the spreader bar should now have a strap attached. Raise the hoist to the required height.

Please note: the longer the shoulder strap is, the more reclined the client will be.

Washing and sizing instructions are as the Sizing - All Slings page.

Trouble Shooting Guide

Symptom	Possible Cause	Remedy
Nothing happens when the handset buttons are pressed	Emergency stop button pressed in. Handset not plugged in Actuator not plugged in Bad contact on handset Battery fuse blown Charger connected Battery not seated on control box	Reset emergency stop switch Plug in correctly Plug in correctly Change handset Call Service Engineer Unplug charger Reseat battery and check latch is engaged
Hoist lacks lifting power	Battery low Actuator failing Control box failing	Charge battery Call Service Engineer Call Service Engineer
Actuator stops intermittently during raising	Load too heavy Battery low Actuator overheating Actuator failing Control box failing	Check Safe Working Load of hoist Charge battery Call Service Engineer Call Service Engineer Call Service Engineer Call Service Engineer
Actuator noisy	New actuator – grease unevenly distributed (not run in) Old actuator – unit failing	Cycle actuator on no load and on light load Call Service Engineer
Actuator runs but does not lift	Gears damaged	Call Service Engineer
Actuator only runs in one direction	Control box failure Handset switch failure Handset lead, plug or socket damaged	Call Service Engineer Replace handset Replace Handset
Battery will not charge	Mains lead unplugged Mains socket not switched on Mains lead damaged Mains fuse blown Battery fuse blown Battery not seated on control box correctly Battery discharged below minimum level Battery charger failed	Plug in mains plug Switch power on Replace mains lead Replace fuse (once only) Call Service Engineer Reseat battery and check latch is engaged Call Service Engineer Call Service Engineer

Disposal of Waste Electrical and Electronic Equipment

The WEEE Regulations (Waste and Electronic Equipment Regulations 2006) have been introduced to control how waste electrical and electronic equipment is disposed of.

The regulations aim to promote reuse, recycling and recovery.

Servicing, Repairs, Inspections and Testing

Unihoist Ltd has an established network of reputable distributors and dealers who will be pleased to handle all your purchasing, warranty, repair and maintenance enquiries.

Included with each lift is a Customer Satisfaction card. Please take the time to fill it in and return it to Unihoist Ltd. Our products are guaranteed for a period of twelve months from the date of manufacture or twelve months from the date of purchase if commissioned by an authorised dealer. We recommend that all of our products are commissioned by your dealer and are supported by them for future servicing.

The dealer or distributor operates the warranty programme, so it is important to keep a record of their name, address and telephone number so they can be contacted should any problem arise.

If you are in doubt where your lift was purchased, Unihoist Ltd can trace the supplier if you quote the serial number of your lift.

Remember: Contact your distributor for purchases, warranty, repairs, servicing and annual certified maintenance.

When servicing a hoist only authorised Unihoist Ltd. parts should be used.





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