Unihoist Ltd.

Student 150

Standing & Transport Aid

User Instruction Manual

Contents

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.

The Unihoist Student 150 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 Student 150 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 Student 150 is suitable for the following CATEGORIES of lift within the working parameters of the lifts specified in the TECHNICAL SPECIFICATIONS.

- Category A – Wheelchair
- Category B – Toilet/Shower Chair

The Unihoist 150 is suitable for patients in the SITTING and SITTING/RECUMBENT positions.

INTENDED USE

The University Student 150 is a patient standing aid. DO NOT use it, or allow it to be used for any other purpose.

It is important to ensure that a clinical assessment has been carried out to verify that the patient has sufficient upper body strength to enable him/her to stand and maintain a steady position on the equipment.

The assessment should be carried out by a qualified nurse or therapist and a carer should always be in attendance during use.

Only use the hoist on a flat and level floor and never attempt a lift on a slope

The standing sling is to be used for Standing/Transfer only DO NOT use this sling. for transporting patients.

The Transport sling can be used to move the patient a safe distance/area.

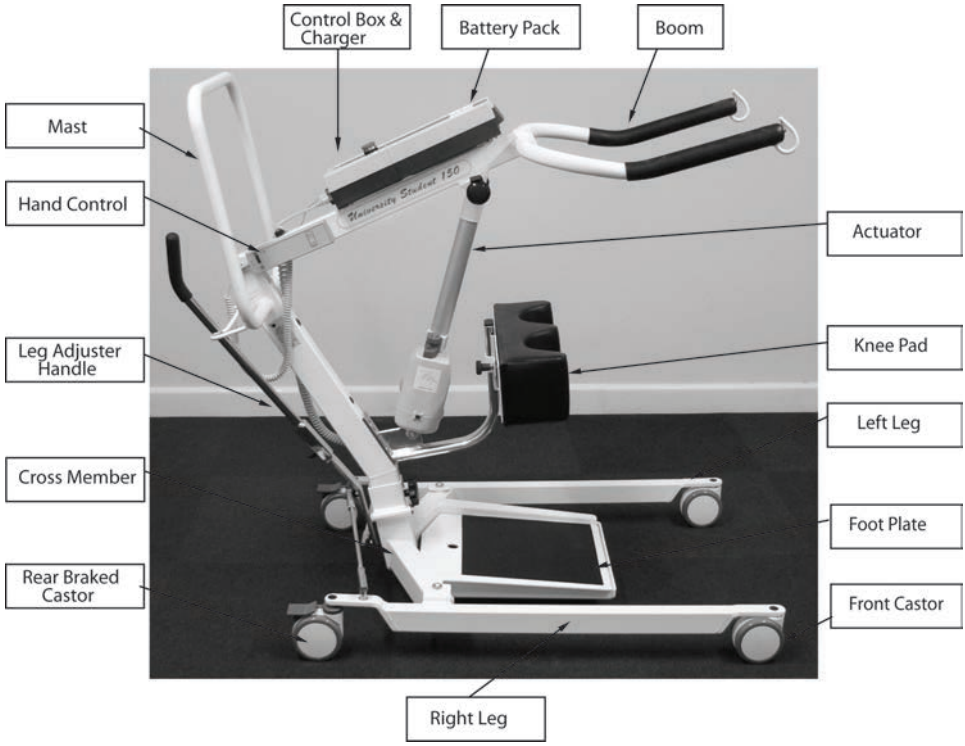
The Unihoist range carries the CE mark and complies with the following EC directives:

CE Mark

Medical Device Directive (93/42/EEC)
EMC Directive (89/336/EEC)
Low Voltage Directive (73/23/EEC)

CE Mark on this product demonstrates conformity with the Medical Devices Directive (93/42/EEC)

Illustration of Unihoist Student 150



The packing carton contains:

- Wheeled base & foot tray
- Mast and boom assembly
- Adjustable knee pad
- Leg opening handle
- Document Wallet
- Handcontrol
- Battery charger
- Battery pack

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.
3. 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, align the holes on the base and mast with the hole on the foot tray and fully tighten the mast locking knob.

SAFETY NOTE: Make sure the mast is fully engaged as indicated by the label on the side of the mast.

5. The knee pad is adjustable and can be moved up/down, in/out to suit the client's needs. Adjust using the black knobs on the back and base of the knee pad as shown on the illustration (page 6).
6. 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. Line up the notch in the handle with the cross pin in the 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.
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.

Illustration of assembly of mast to base

Important

The hand control 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.**

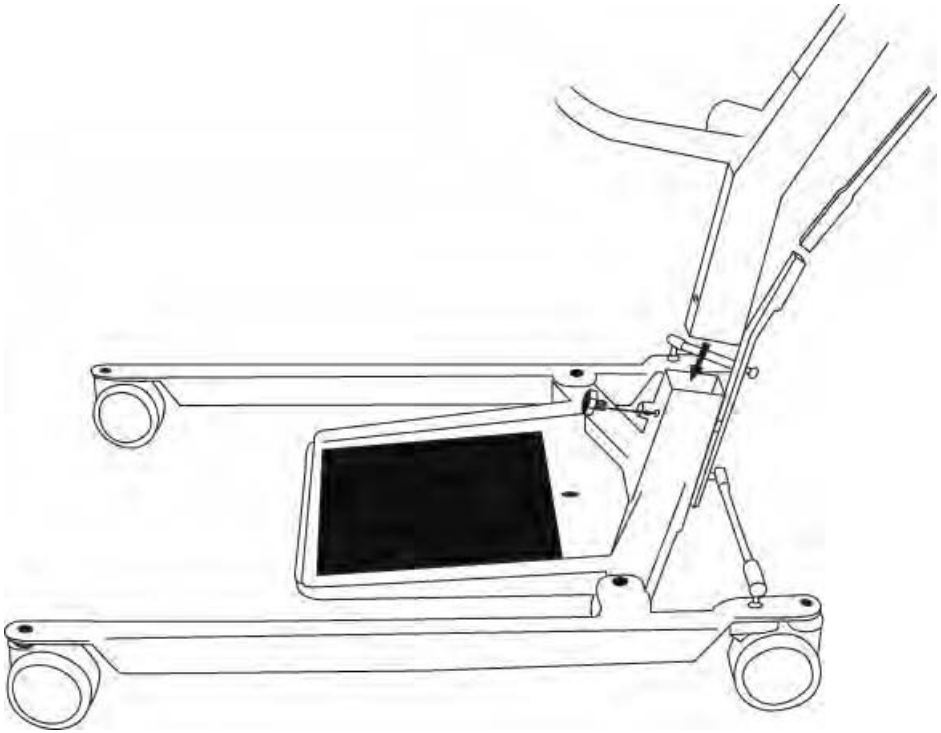
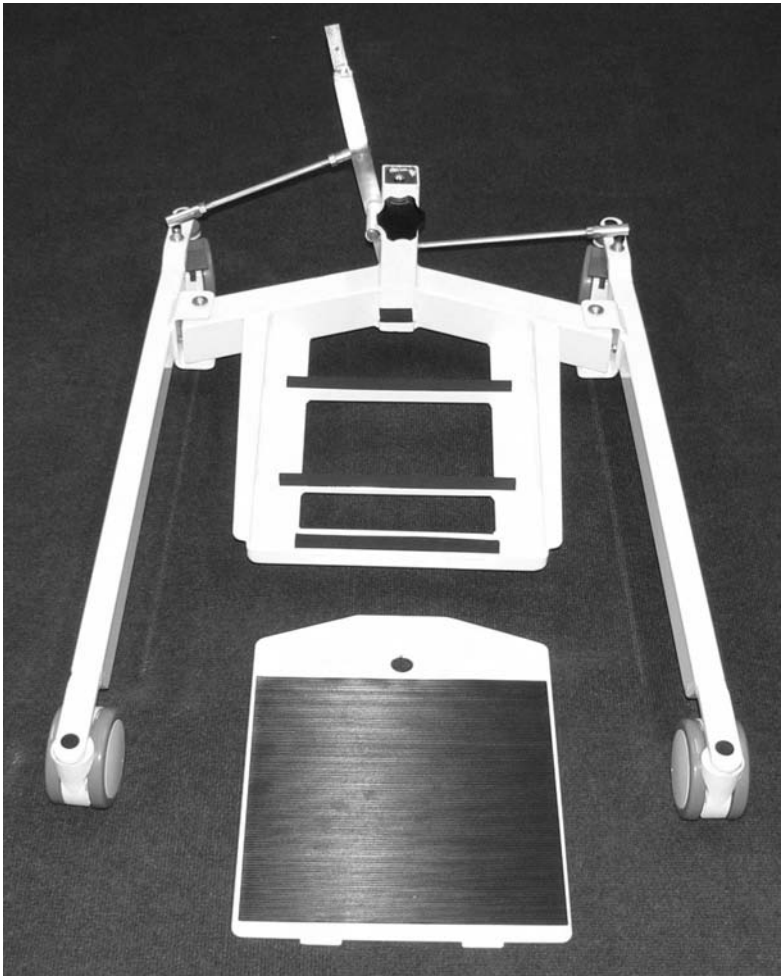


Illustration of Removable Foot Plate

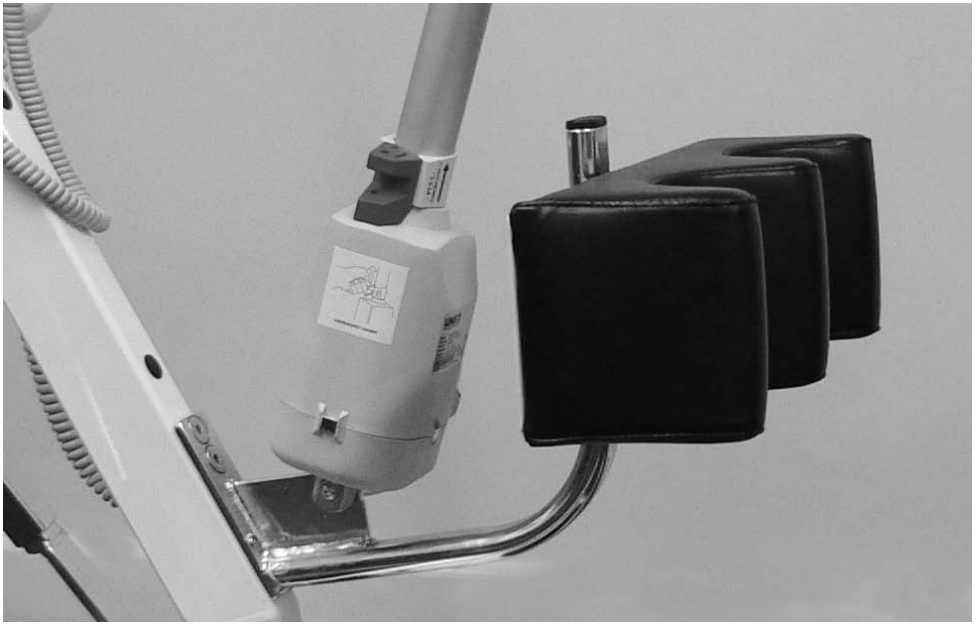
To remove the foot plate lift the plate from the hole provided.

To install it you line up the tabs with the holes on the front of the foot tray and place it on the rubber strips provided.



9. Plug the actuator jack plug into the (left socket) actuator socket located at the base of the power pack.

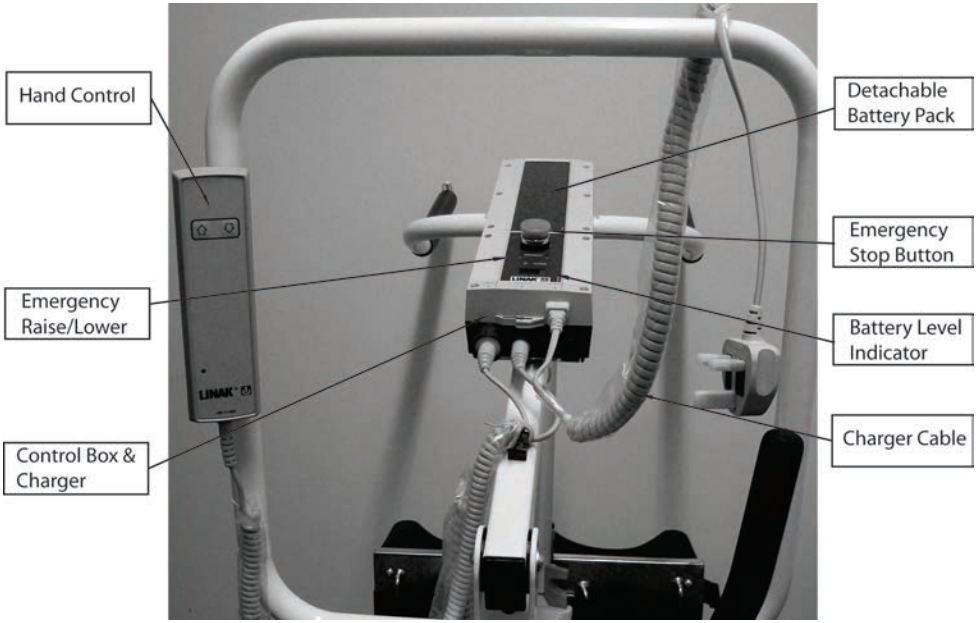
10. Push the up and down buttons on the handcontrol and confirm the boom rises and lowers. The lift is now ready for use.



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** plan your lifting operations before commencing.
- **ALWAYS** carry out the DAILY CHECK LIST before using the lift.
- **ALWAYS** familiarise yourself with the operating control and safety features of a lift before lifting a patient.
- **DO NOT** use a sling unless it is recommended for use with the lift.
- **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 lift 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 lift.
- **NEVER** force an operating or safety control. Forcing will only strain or damage the lift and may compromise safety.
- **DO NOT** lift a patient with the castor brakes on.
- **DO NOT** attempt to manoeuvre the lift by pushing on the mast, boom or patient.
- **ALWAYS** manoeuvre the lift with the handle provided.
- **ALWAYS** lower the patient to the lowest comfortable position before transfers.
- **DO NOT** push a loaded lift at speeds which exceed a slow walking pace.
- **DO NOT** push the lift over uneven or rough ground, particularly if loaded.
- **DO NOT** attempt to push or pull a loaded lift over a floor obstruction which the castors are unable to ride over easily.
- **DO NOT** bump the lift down steps, loaded or unloaded, this will damage the castors.
- **ALWAYS** use the handles on the hoist to manoeuvre the hoist and it is recommended that the hoist is pushed with the patient in front.
- **ALWAYS** apply the brakes when parking a lift.
- **NEVER** use electric lifts in a shower.
- **NEVER** charge an electric lift in a bathroom or shower room.
- **ALWAYS** ensure mast locking knob is in position before lifting a patient.
- **FOLLOW** a regular charging routine to prolong the life of the battery.

Illustration of the Unihoist Student 150 Rear Controls



1. **Leg adjustment.** The legs on a Student 150 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 Student 150 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 Controller 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.

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

Use only UNIHOIST LTD slings, Standing and Transport range.

Warning!
Only use the charger supplied with the hoist or one supplied from Unihoist to charge the battery.

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.

1. 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.**
3. 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 whle 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 □re as this may cause an explosio. If in doubt contact Unihoist Limited.


ON
CHARGE
STOP
0 25 50 75 100%
CAPACITY
LINAK®
J1CB-008

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 quali□ed, 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 its castors.
- **MAKE** sure the legs open and close correctly.
- **OPERATE** the handcontrol or hydraulic unit to con□rm the boom raises and lowers satisfactorily.
- **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.
- **CONFIRM** the correct operation of the emergency stop button.
- **MAKE** sure the mast is fully engaged and the locking knob is fully tightened.
- **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 thorough inspection and test of the Student 150 and 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.

- **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 mounting.
- **MAST:** Check the operation of the mast locking device. Make sure the mast fully engages into the socket. Check the bottom actuator mounting.
- CONTROL & **POWER PACK** : Check the fit and function of all plugs and sockets. Confirm the emergency stop cuts all power to the lift. Check for corrosion on the battery pack contacts. Check power pack latching. Confirm emergency raise/lowering is working.
- **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.
- **LEG PIVOTS:** Check the leg pivots are secure and the legs pivot freely. 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. Check the correct operation of the brakes. Ensure all four castors are in contact with the floor when Hoist is moved.
- **ACTUATOR** : Check emergency lowering is operational. The actuator should require no maintenance other than checking for correct operation and listening for unusual noise and that is correctly secured.
- **CLEANING** : Clean with ordinary soap and water and/or any hard surface disinfectant. Harsh chemical cleaners or abrasives should be avoided as these may damage the surface finish of the lift. 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 Woking Load ..... 150kgs.
Maximum Overall Length..... 1140mm
Minimum Overall Length..... 1060mm
Maximum Overall Height..... 1696mm
Minimum Overall Height..... 1221mm
Spreader Bar Max. Height..... 1640mm
Spreader Bar Min. Height..... 1010mm
Height at Max. Reach..... 1090mm
Reach at Max. Height..... N/A
Reach at Min. Height..... 335mm
Maximum Reach..... 335mm
Turning Radius..... 1080mm

- Legs Open – External Width..... 1190mm
- Internal Width..... 1080mm
- Legs Closed – External Width..... 670mm
- Internal Width..... 552mm

Overall Height of Legs 112mm
Ground Clearance 43mm
Front Twin Castors 100mm
Rear Braked Castors 100mm
Weights:

- Mast & Boom Assembly 19.5kgs
- Base Assembly 24kgs

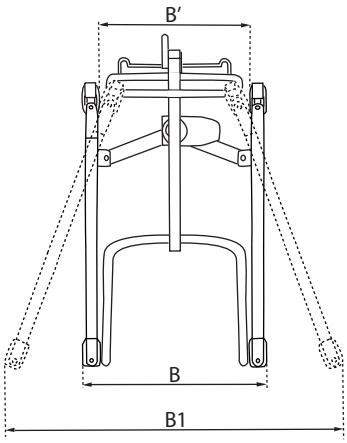
Electrical Specifications

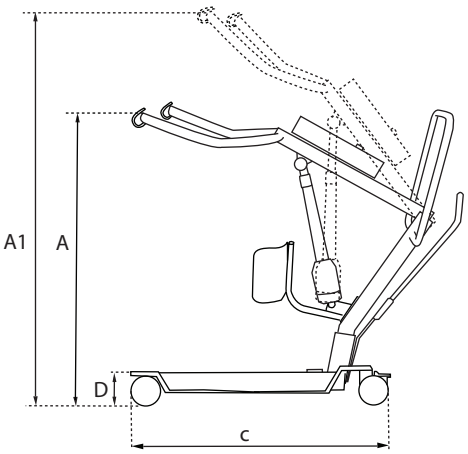
- Batteries 2 x 12 volt Rechargeable sealed lead acid type
- Battery Capacity 2.9 Ampere Hours
- Charger Rated Input 230Vac 50/60 Hz
- Charger Rated Output 27.4/29.0 vdc. 0.8A

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

SOUND

	Student 150
Loaded with safe working load	
Unloaded	





DIMENSIONS (MM)

Model	Student 150
A	1020
A1	1640
B	682
B'	490
B1	1068
C	965
D	110

Warning!
The patients final position in the sling can be adjusted by using varying combinations of the loops.

Warning!
A risk assessment shall 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 boom before starting the lift.

Unihoist Ltd. has designed a range of slings available in polyester and mesh (net) material to be used with the Student 150.
Do not use slings other than those listed below:

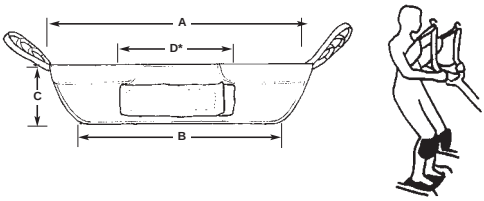
- Unihoist Standing Sling
- Unihoist Transport Sling

Special requirement slings can be made to customer specification, consult your dealer for details.

When selecting a sling from the Unihoist range be sure to assess the suitability of the type of sling for the patient to be lifted. The following guides will assist in the correct selection.

- **DO NOT** use any other manufacturer's sling with the Unihoist Lift.
- **DO NOT** use a Unihoist sling with any other manufacturer's lift.

Standing Sling



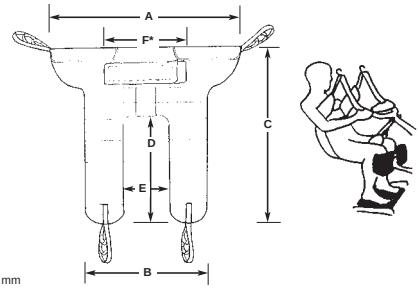
In mm

	Med	Large
A	1040	1100
B	750	800
C	280	280
D*	1270	1360

* Extended full length

Order Code	Medium	Polyester EF180
	Large	Polyester EF181

Transport Sling



In mm

	Med	Large
A	1190	1200
B	635	730
C	950	1140
D	500	545
E	295	370
F*	1250	1360

* Extended full length

Order Code	Medium	Polyester EF182
	Large	Polyester EF183

The Standing sling is an easy fit roll sling, suitable for standing and supporting. It is not a general purpose sling and patients must be assessed for suitability by a qualified person.

The Transport sling is an easy fit general purpose sling giving full support to patients. It cannot be used for double amputees, other patients must be assessed for suitability by a qualified person.

The Student 150 slings are used for the following categories of lift:

- **Category A – Wheelchair**
- **Category B – Toilet/Shower Chair**

The Standing and Transport slings are suitable for persons in the **SITTING** position only.

Illustrations of Slings
The Standing and Transport slings have been designed for use with the Unihoist Student 150 and should not be used with any other lift. Additional slings are available to suit individual needs. You are advised to always seek the advice of an authorised dealer before purchasing. Unihoist Ltd will be pleased to advise your nearest authorised dealer who will be able to handle all purchasing, training and after sale servicing.

- **DO NOT** use any other manufacturer's sling with the Unihoist Lift.
- **DO NOT** use a Unihoist sling with any other manufacturer's lift.

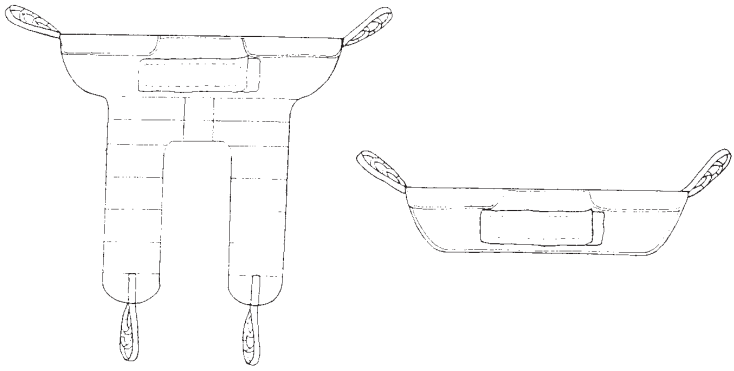


Fig.1

Place sling down behind patient's back between base of shoulder blades and bottom of rib cage. Attach Velcro straps around the front of the client. This strap need not be tight. It is there to hold the sling in position whilst attaching the sling to the Student. It may be left off altogether if preferred. Ensure that the client's arms are outside of the sling.

Fig.2

Position Student so that the client's feet fit in the foot tray and knees rest against the knee pad. Initially attach the longer loops of the sling to the white hooks at the end of the Student hand grips. The client's hands should be placed on the hand grips (once the client is used to the lift the shorter loops may be used to achieve a more upright position). Then push UP button on handcontrol to raise the client to a standing position.

NOTE: This sling is not a general purpose sling and will not be suitable for some clients.

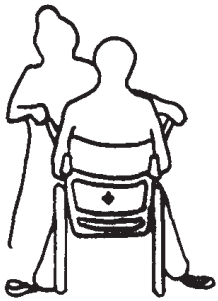


Fig.3

Feed the sling down the back of the client leaving the top of the commode aperture at the base of the spine. Check the roll part of the sling is square across the client's back.

Fig.4

Attach the Velcro strap around the chest of the client. This strap need not be tight. It is there to hold the sling in position whilst attaching the loops to the Student. It may be let off altogether if preferred. Ensure client's arms are outside of the sling.

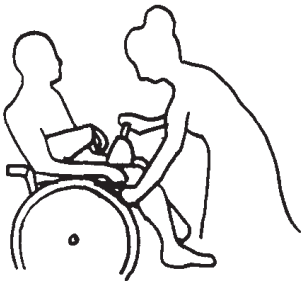


Fig.5

Raise the cleint's leg and feed the leg strap under and up between the legs. Ensure the sling is not twisted or creased under the thigh. Repeat the procedure for the other leg. Attach the loops on the top part of the sling to the white hooks at the end of the hand grips.

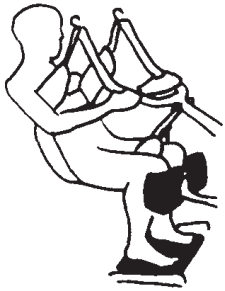


Fig.6

Without crossing the loops on the leg straps, attach to left and right black knobs on the lifting fork. You would normally use the middle of the three loops. The client is now ready to be raised from the seat. Once clear of the seat, the client will be more comfortable if lowered back in the sitting position.

The Standing and Transport slings are obtainable in three sizes, Small, Medium and Large.

Sized slings are marked with the following colour coded piping, Small (Red), Medium (Yellow) and Large (Green). Your sling will be the uncrossed size i.e. in the example given Small.

SMALL (Red) MEDIUM (Yellow) LARGE (Green)

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

SAFE WORKING LOAD OF THE STANDING SLING – 150kgs.

SAFE WORKING LOAD OF THE TRANSPORT SLING – 150kgs.

IMPORTANT NOTE: It is important to take the safe working load of the hoist as the maximum permissible load of any lifting operation. The Standing and Transport slings are designed for use with the Unihoist Ltd Student 150 standing aid.

Washing Instructions:

- Wash in a mild soap solution up to 71˚C(160F) for not less than 3 minutes
- **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 Sling are stuck together before washing to ensure that the velcro does not rub against the sling material.

SYMBOLS

Do not exceed 71 degrees centigrade

Do not bleach

Troubleshooting Guide

Symptom	Possible Cause	Remedy
Nothing happens when the handset buttons are pressed	1. Emergency stop button pressed in. 2. Handset not plugged in 3. Actuator not plugged in 4. Bad contact on handset 5. Battery fuse blown 6. Charger connected 7. Battery not seated on control box	1. Reset emergency stop switch 2. Plug in correctly 3. Plug in correctly 4. Change handset 5. Call Service Engineer 6. Unplug charger 7. Reseat battery and check latch is engaged
Hoist lacks lifting power	1. Battery low 2. Actuator failing 3. Control box failing	1. Charge battery 2. Call Service Engineer 3. Call Service Engineer
Actuator stops intermittently during raising	1. Load too heavy 2. Battery low 3. Actuator overheating 4. Actuator failing 5. Control box failing	1. Check Safe Working Load of hoist 2. Charge battery 3. Call Service Engineer 4. Call Service Engineer 5. Call Service Engineer
Actuator noisy	1. New actuator – grease unevenly distributed (not run in) 2. Old actuator – unit failing	1. Cycle actuator on no load and on light load 2. Call Service Engineer
Actuator runs but does not lift	Gears damaged	Call Service Engineer
Actuator only runs in one direction	1. Control box failure 2. Handset switch failure 3. Handset lead, plug or socket damaged	1. Call Service Engineer 2. Replace handset 3. Replace Handset
Battery will not charge Battery will not charge – continued	1. Mains lead unplugged 2. Mains socket not switched on 3. Mains lead damaged 4. Mains fuse blown 5. Battery fuse blown 6. Battery not seated on control box correctly 7. Battery discharged below minimum level 8. Battery charger failed	1. Plug in mains plug 2. Switch power on 3. Replace mains lead 4. Replace fuse (once only) 5. Call Service Engineer 6. Reseat battery and check latch is engaged 7. Call Service Engineer 8. 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.

Unihoist Ltd. has a long established network of reputable distributors and dealers who are available to handle all your purchasing, warranty, repair and maintenance enquiries.

Included with each lift is a prepaid Customer Satisfaction Card. Please take the time to fill it in and return 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 problems arise.

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

REMEMBER: Contact your distributor for purchases, warranty, repairs, servicing and certified **maintenance.**

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

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