# **Wall Lift Instruction Guide**









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# 1. Safety Instructions

- ➡ Take care that the wall lift cannot be pushed out of the wall plate by any upward force applied to the wall lift or the actuator.
- ➤ Never move the lift by pulling or pushing the actuator.
- → Never extend or shorten when the boomarm is bearing weight.

Before using, always make certain:

- **▶** Users have received appropriate instructions and training
- The instruction guide has been carefully studied and fully understood
- The user is securely positioned so that no body parts can be injured
- **▶** Users are tested to establish suitability



- the Body Support is securely put into the hooks
- the thigh supports are securely fastened to the Body Support
- the Body Support is lowered to a correct angle above the user
- the curve around cups are correctly positioned around the thorax
- the user's arms are kept outside the Body Support
- the utility band is used when the user intends to bear weight on feet or, whenever there is a concern about an individual's security
- users with low muscle tone are tested to establish suitability

### **➡** When using with the Handi-Move Sling:

- the spreaderbar is securely hooked into the swivelhook
- the sidebars are securely hooked onto the spreaderbar
- the sling is securely fastened to the sidebars and cannot accidentally unhook
- the lower edge of the sling is positioned at the base of the spine
- the user's arms are kept inside the sling
- users with low muscle tone are lifted in a reclining position

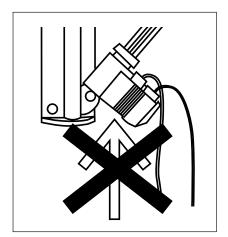
### **Batteries**

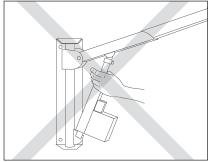
If not disposed of properly, batteries may explode, leak and cause personal injury.

- Do not place or store the battery under direct sunlight or near a heat source.
- Do not short the battery terminals.
- Do not incinerate.
- Flush with water if electrolyte (acid) comes in contact with skin or eyes.

Batteries must be recycled and disposed of in accordance with local regulations. When returning batteries, insulate their terminals with adhesive tape, as the residual electricity in used batteries may cause fire or an explosion.

Maximum Lifting Capacity: 320 LBS/ 145 kg







# 2. Scope of Application

The Wall Lift is an electromechanical lifting device. It is used to lift motor disabled and physically challenged individuals. This helps caregivers and nursing personnel reduce difficult and back straining lifting to an absolute minimum.

With a weight of only 27.55 lb /15 kg (without the wallplate), this portable device can be used in a variety of locations and easily moved from support to support (or wall to wall). And, with a telescoping boomarm, it can adapt to every room.

With a lifting capacity of 320 lbs / 145 kg it is suitable for use in private homes, clinics, nursing homes and other long and short term care facilities.

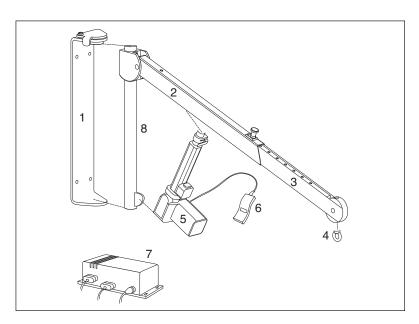
Two models are available.

- One model working on mains power with a pneumatic hand control, and
- One model with a 24 V transformer and an electrical hand control

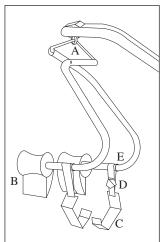


# 3. Product Information

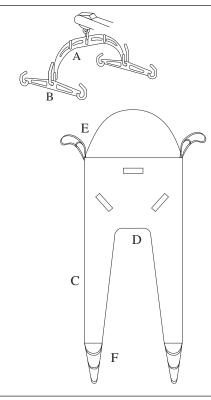
Throughout this manual the parts of your Wall Lift with Body Support or Sling will be referred to by name and are identified as follows



- 1. Wall Plate
- 2. Boomarm
- 3. Extension Piece
- 4. Swivelhook
- 5. Actuator
- 6. Handcontrol
- 7. 24V transformer including controls and emergency power facilities
- 8. Mast



- A. Hooks for Body Support
- B. Curve around cups
- C. Thigh support
- D. Thigh support band
- E. Blue ring



- A. Spreaderbar
- B. Sidebar
- C. Leg flap
- D. Lower edge of sling (aperture)
- E. Loops
- F. Leg loops



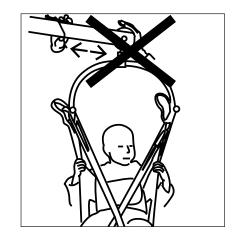
### Working range of Wall Lift

### Length of boomarm

Thanks to the telescoping boomarm, the **Wall Lift** can be used in almost all circumstances. When the arm is retracted, it can operate in small areas where space is limited. When the arm is fully extended, it can lift higher to reach over tub rims and up onto beds.

# WARNING

Never adapt the length of the boomarm while a person is being lifted or is hanging on the Wall Lift.



### **Ranges**

The **maximum range** (telescoping boomarm completely extended) and **minimum range** (telescoping boomarm completely retracted) are measured perpendicular from the wall.

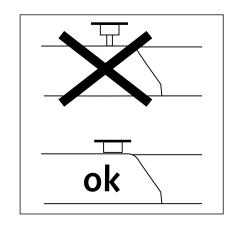
This length depends on the **height** of the boomarm.

The indicated lengths below are stated at level, highest and lowest positions of the boomarm as well as minimum and maximum extensions.

Distance from Wall	Level Position	Highest Position	Lowest Position
Maximum	51" / 130 cm	45.7" / 116 cm	48" / 122 cm
Minimum	37.4" / 95 cm	33.5" / 85 cm	35" / 89 cm

### WARNING

Always check if the adjustment pin is correctly inserted in a locked position in the equipment.





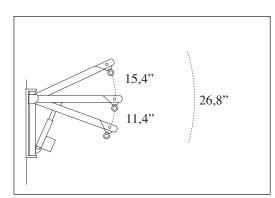
### **Lifting Range**

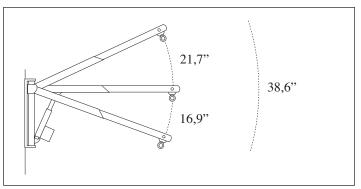
The stroke of the boomarm depends on the length of the boomarm. Because of the telescoping boomarm, and thus eight (8) different length possibilities, the stroke depends on the chosen length.

Hereunder you'll find the maximum stroke up and down when the boomarm is in its shortest and longest position. The measurements are taken from a level position of the boomarm and from the middle of the swivelhook.

Stroke of boomarm from level position		
	Up Position	Down Position
Shortest	15.4" / 39cm	11.4" / 29cm
Longest	21.7" / 55cm	16.9" / 43cm

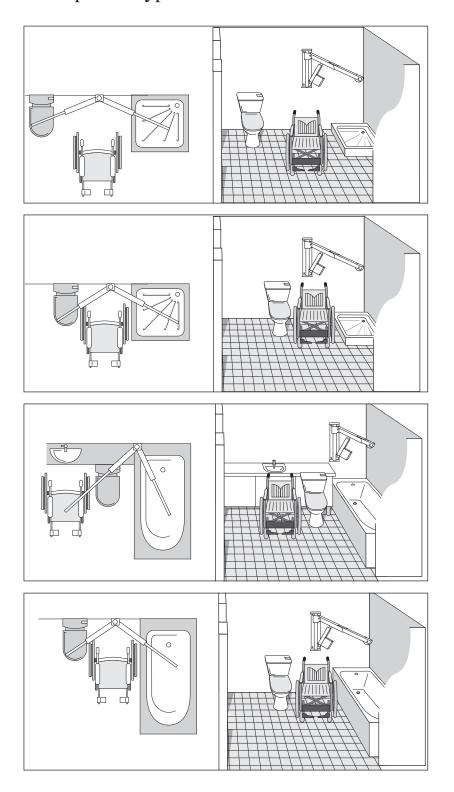
Total Lifting Range	
Shortest	26.8" / 68cm
Longest	38.6" / 98cm







# Examples of typical Wall Lift installations





# The safety mechanism

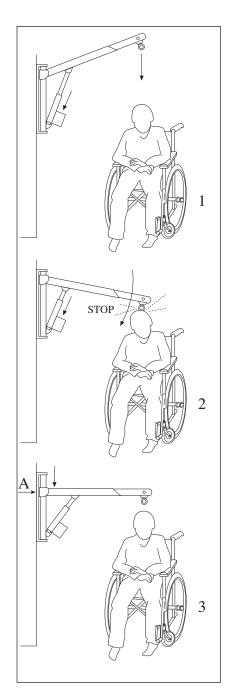
The motor of the Wall Lift is very strong and could damage anything that obstructs the downward movement. That is why our Handi-Move System has a safety device that will automatically work whenever the boomarm encounters an obstruction.

### Functioning of the safety mechanism

1) Boomarm is being lowered

2) Downward movement is being obstructed

3) Safety mechanism, sliding boomarm joint (A), automatically moves downward



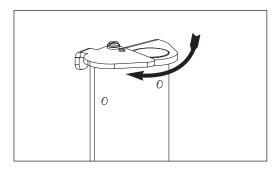


# 4. Installation Instructions

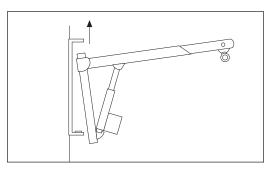
# Installing the Wall Plate

Wall plates may only be installed by a person that is familiar with the standard regulations of fastening technology. Only those plugs and anchors may be used, which are suitable in accordance with applicable safety rules, as well as for the corresponding surface and tension zone.

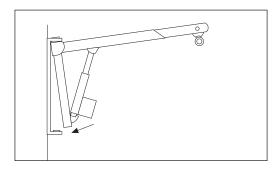
### Putting the Wall Lift into the Wall Plate



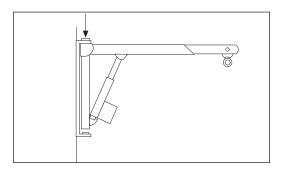
1) Open safety bar



2) Hold the lower end of the mast towards you while pushing the plastic covered top up and into the hole at the top of the wall plate.



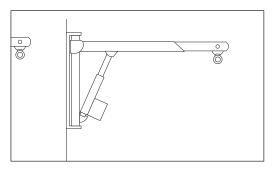
3) Put the mast straight so it lines up with the hole on the bottom of the wall plate.



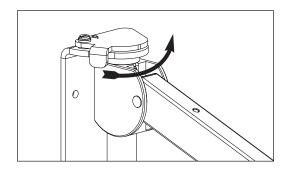
4) Lower the mast so the plastic covered bottom glides into the matching hole on the bottom of the wall plate.

### Wall Lift - Instruction Guide





4) Make sure the mast is firmly installed into the wall plate.



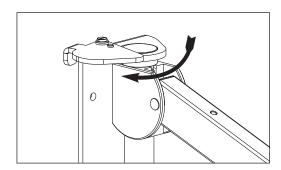
6) Close safety bar

### WARNING

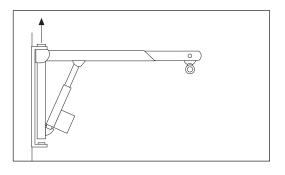
An incorrect installation can lead to a safety risk, as the wall lift could be lifted out of the wall plate.



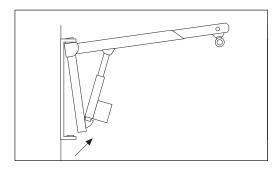
# Taking the Wall Lift out of the Wall Plate



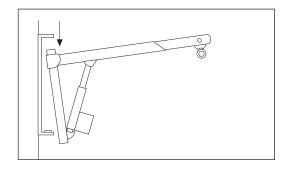
1) Open safety bar



2) Grip the mast and push the plastic covered top up above the hole at the top of the wall plate.



3) Pull the lower part of the mast towards you.

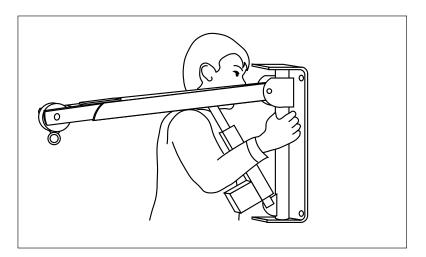


4) Lower and remove the Wall Lift altogether.



# Transport instructions

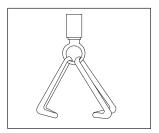
- 1. Remove the Body Support or Sling and move the boom into the shortest position.
- 2. Lower the boom to below shoulder height.
- 3. Disconect the electric cord and wind it.
- 4. Take the boom by the spindle stop and place it on your shoulder. Grasp the mast with the same hand at the indicated handgrip, below the yellow glide block.
- 5. Lift the wall lifter vertically for about 2 to 3 cm. This unlocks the lower mast end, which can then be slanted sideways (or to the front) over the flange of the wall plate. The mast is removed from the anchor by lowering the upper mast end.



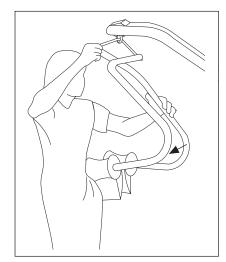


# When using the Handi-Move Body Support

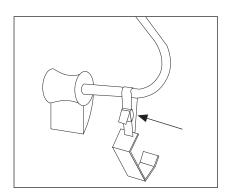
Put the hooks into the swivelhook



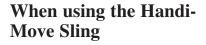
To put the Body Support into the hooks, press it with one arm against your body so that the chest support cups lock together. Then put the hooks in either tube.



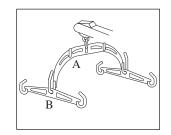
The thigh supports are attached to either arm of the Body Support with adjustable thigh supports bands. If you want to apply the thigh supports from the inside of the legs, you attach the thigh supports to the Body Support so that they are pointing **outward**.

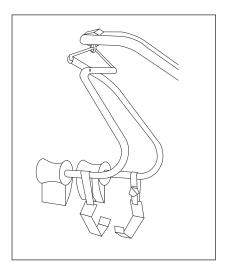


If you want to apply the thigh supports from the **outside** of the legs, you attach the thigh support to the Body Support so that they are pointing **inward.** 



Put the spreaderbar into the swivelhook and put the sidebars (B) on either side of the spreaderbar (A).



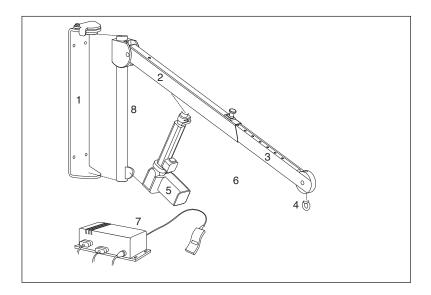




# 5. Operation

### Wall Lift with 24 V DC transformer

- → The Heavy Duty Wall Lift has unlimited cycle usage.
- ➤ To operate, first insert the actuator plug and handcontrol plug into the transformer (7).
- ➤ To go up or down, push the button on the Electric Handcontrol (6).
- The transformer also contains batteries to be used only in case of emergencies, i.e. when interruption of the current occurs.
- ➤ Normal use is through transformer when plugged into the 110V/220V outlet.
  - Using the wall lift frequently, only on batteries, will cause the batteries to go flat.
  - Basic principle is to have the wall lift plugged in constantly to the 110V/220V outlet. By doing so, the actuator is geared to work from 24V through its transformer.
  - Like the name indicates, the **heavy duty** wall-lift is designed for heavy duty work and this means that there is no limit in use. So every time you use the wall-lift **with the handcontrol** (through a transformer plugged into a 110V/220V outlet), the batteries are charged through its use, ie. by having it used 30 times a day, one is charging the batteries 30 times a day.
  - Since batteries have different life cycles, it is important to test the actuator on **battery power** only about **once a month** to have the best chance for them to work when needed. **Note**: We consider a test to be **up and down with weight one time**, while the transformer is unplugged from 110V/220V outlet.



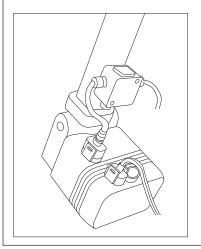
# WARNING

### **EMERGENCY STOP**

The emergency stop facility is located on the cylinder above the actuator.

Push this switch down in an emergency.

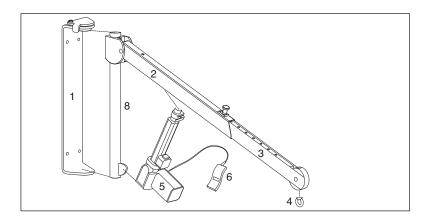
The power supply is interrupted and the lifting movement is stopped.





### Wall Lift directly on mains power

- ➡ The wall lifter that operates on mains power can carry out 6 consecutive lifting operations, after which the actuator pauses to cool off.
- ➤ To operate the Wall Lif, insert the plug of the actuator into 220V/60hz (230V/50 hz) outlet.
- To go up or down, push the up or down button on the Pneumatic Handcontrol (6).



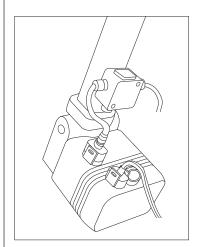
# WARNING

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Push this switch down in an emergency.

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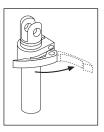




### Emergency down

Both models are furnished with a **mechanical emergency down** facility. A person that has been lifted can be safely lowered at any moment, by rotating the emergency down device. It is located underneath the cylinder head, there where the extension arm is connected to the lifter. The **clamping lever** of the emergency-down device must first be **loosened**, after which you can follow the instructions below.

It is very important that the clamping lever is re-fastened after use!



Loosen the red clamping lever on the cylinder, as shown in the illustration.



Turn the extension rod in a clockwise direction (as seen from above). The arm will be lowered. The amount of force that must be applied by your hand is dependent on the load.



Close the clamping lever when the lowest position is attained.

### **IMPORTANT**

- The emergency-down facility may only be used in emergencies, or for checking its functionality.
- → The emergency-down mechanism may not be lubricated with oil, grease or any other lubricant, as the mechanism will thereafter work too smoothly, leading to potentially dangerous situations!
- → Only propylene alcohol may be used for cleaning and disinfecting the emergency-down mechanism. Other cleaning agents can lead to a malfunction of the emergency-down mechanism. Please take up contact with a manufacturer, if you would like to use other cleaning agents.
- → After the emergency-down mechanism has been used, you must first check that the red clamping lever is securely fastened, before continuing with normal operations of the lifter.

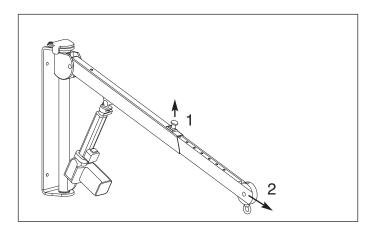


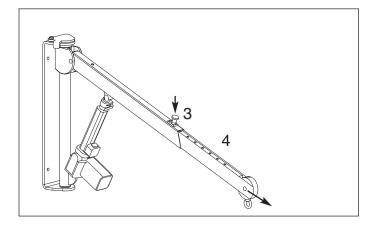
### The extension mechanism

The Wall Lift is designed to fit into tight spaces. It can be extended to eight (8) different lengths. This makes it possible for it to adapt to almost every room.

### **Extending The Boom Arm**

- a) Pull the adjustment pin (1)
- b) Extend the telescoping boom arm to its desired length. (2)
- c) Release the adjustment pin (3)
- d) Pull further until you hear a click. This
  means the adjustment pin has locked
  itself in one of the eight positions. (4)





# WARNING

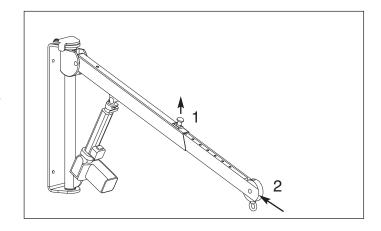
Always make sure the Handi-Move Representative positions the boomarm at the desired length. If the Wall Lift is used in different rooms and has to be adapted, always adapt the length of the boomarm BEFORE lifting the person. BEFORE lifting the person, make sure you hear the CLICK indicating that the adjustment pin has locked itself, or try to extend the boom arm without pressing the mechanism.

Never adapt the length of the boomarm while a person is being lifted or is hanging on the Wall Lift.

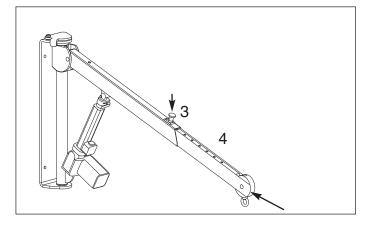


### **Shortening the boomarm**

- a) Pull the adjustment pin (1)
- b) Push the telescoping arm back to its desired length. (2)



- c) Release the adjustment pin (3)
- d) Push the telescoping arm until you hear a click. This means the adjustment pin has locked itself in one of the eight positions. (4)



# WARNING

Always make sure the Handi-Move Representative positions the boomarm at the desired length. If the Wall Lift is used in different rooms and has to be adapted, always adapt the length of the boomarm BEFORE lifting the person. BEFORE lifting the person, make sure you hear the CLICK indicating that the adjustment pin has locked itself, or try to extend the boom arm without pressing the mechanism.

Never adapt the length of the boomarm while a person is being lifted or is hanging on the Wall Lift.

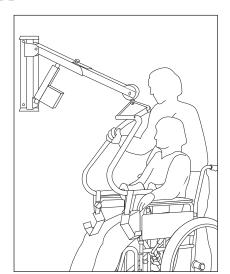


# 6. Handling and manipulation during use

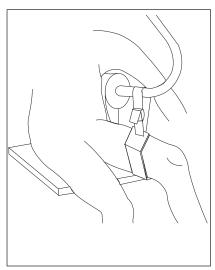
# 6.1 Wall Lift used with Handi-Move Body Support

### To lift user from a sitting position

- ➤ Manoeuver the Wall Lift.
- With the "DOWN" switch on the handcontrol, lower the Body Support to a correct angle above the user until there is a space of ±2 cm between the bottom of the curve around cups and the user's thighs.
- ➤ Fit the curve around cups to the thorax at a point several inches below the armpits. If possible, do so by standing behind the user with your arms under his/her armpits. Be sure to place the curve around cups correctly around the thorax.

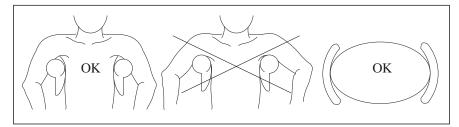


- Raise the user's legs one at a time and position the thigh support either high up the thigh, behind the blue rings, or at approximately the midway point.
- The positioning of the thigh supports can alter the user's weight distribution and therefore his/her comfort.
- Positioning the thigh support higher along the thigh will reduce the weight held by the chest supports and lower along the thigh towards the knees will increase the weight held by the curve around cups. Try various positions until the user is at his/her most comfortable position.
- → Adjust the thigh support bands so that the legs are lifted at the same time as the trunk. The final positioning of the bands and the thigh supports will have a considerable effect on the comfort of the user.





Now, check to see that the curve around cups are nicely located around the thorax. They should not be up under the armpits or forward or backward of the armline.



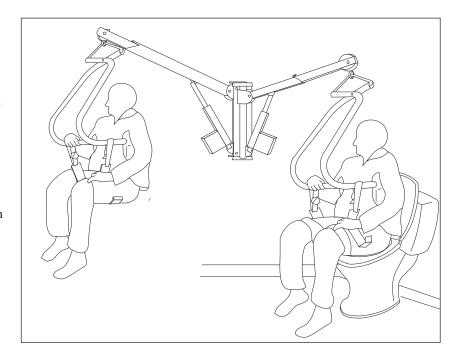
- → The user's arms must remain outside the Body Support at all times.
- Using the "UP" switch, raise the Body Support a little and re-check the locations of the curve around cups and thigh supports: both legs and body should be lifting together. Confirm the user's comfort. Continue to lift until the user is just suspended, again checking on the user's comfort.
- Raise the Wall Lift until the desired height, then maneuver the Wall Lift above the spot where you want to lower the person by rotating the boomarm
- ➡ The arm of the Wall Lift is directly above the user's head, so lower with care. Lower sufficiently in order to remove the thigh supports. Let the thigh supports hang gently against the user's legs. With the user secure and comfortable, ease the curve around cups away and rotate the Wall Lift out of the way.



# Wheelchair to Toilet Operation.

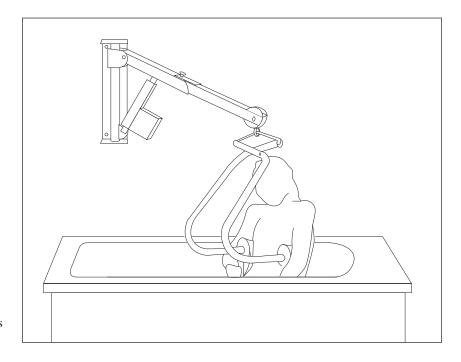
Trousers can be lowered while the user is over the toilet. While lowering the user, gently push against the knees to obtain correct positioning over the toilet.

For additional lateral stability and support, while the user is on the toilet, leave the boomarm elevated enough to keep tension on the body support and curvearound cups.



# Wheelchair to Bathtub Operation.

Bathing can be achieved by lifting the undressed user in the normal manner and by gently maneuvering to the side of the bath. Then raise the user just above the edge of the bath and gently lift and swing the user's legs into the tub. For additional lateral stability and support, while the user is in the bathtub, leave the boomarm elevated enough to keep tension on the body support and curve-around cups. Remove the thigh supports to give free access for washing.

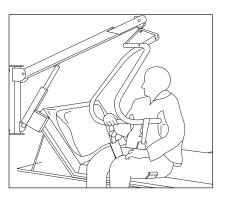




### Wheelchair to Bed Operation.

Lift the user in the normal manner.

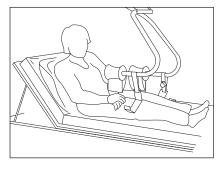
Then raise the user just above the bed level, rotate the boomarm over the bed and gently lift and swing the user's legs onto the bed. Lower the user until a comfortable sitting position is achieved and remove the thigh supports. Now lower the user, using pillows as additional support, to a lying position.



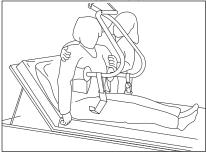


### To lift a user from a lying position.

Position the Wall Lift and with the "DOWN" switch, lower the Body Support just above the user's pelvis. It will be necessary to initially sit the user up and to support their back with pillows. If possible, do so by raising the head of the bed.



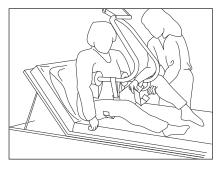
Now place your hand on the user's back and gently push him/her forwards and into the curve-around cups.



Using the "UP" switch, raise the boomarm just enough to hold the user safely in a sitting position on the bed. Now attach the thigh supports to the inside of the user's thighs.

Raise the boomarm a little higher and check on the user's comfort. Now lift the user.

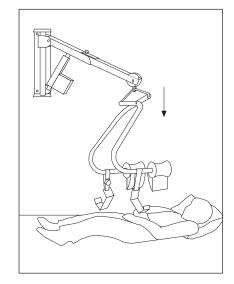
There's no need to raise the user high over the bed. Simply swing the legs over the side of the bed and smoothly rotate the boomarm to the new location.





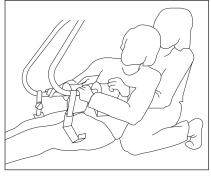
### To lift a user from the floor.

Lay the user fully on his/her back. Lower the Body Support and position the curve-around cups just above the user's pelvis.

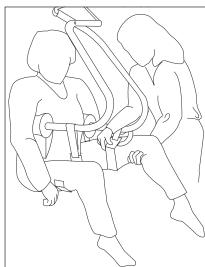


Take the "UP" and "DOWN" control in your hand and kneel behind the user. Put his/her head in your lap and use your knees and thighs to raise the user to a sitting position. With your arms under the user's armpits, take the curve-around cups and pull them back and around the user's thorax.

Put some tension on the Body Support with the "UP" switch so that the user is in a secure grip.



Now apply the thigh supports and adjust. Smoothly transfer the user to a chair.





### Accessories for the Body Support.

### Muscular Dystrophy Thigh Supports - Article #2350

MD-thigh supports are used to prevent people with flaccid muscle tone from gliding out of the Body Support. Frequently used for muscular dystrophy patients. These thigh supports can also be used for certain amputee's.

Also available in Pediatric - Article #2360

### Slipproof Muscular Dystrophy Thigh Supports - Article #2355

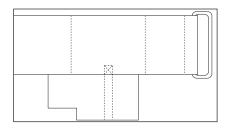
This version will additionally avoid sliding. This version does not come with the velcro band.

Also available in Slipproof Pediatric - Article #2342

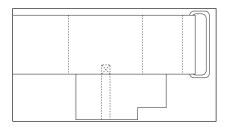
People with low muscle tone show the tendency to slide. To prevent this sliding, MD-thigh supports, or slipproof thigh supports or the security-band can be used.

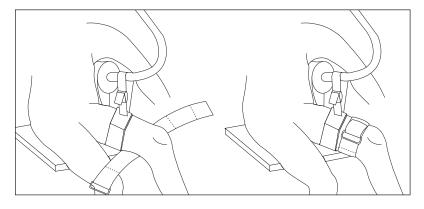
- ➤ To slip the velcro band over the MD-thigh supports, place the thigh supports in the correct position: with the longer end pointing forwards.
- Slip the velcro band over the thigh support with the longer stretch of velcro material downwards so that the metal buckle ring will hang on the inside of the
- ► Fasten the velcro band to the thigh support by pulling the small strap all the way over and under the thigh support to fasten it to the velcro material on the bottom side of the velcro band.
- → The MD-thigh supports should be placed high up the thigh with the longer end pointing towards the hollow of the knee. The MD-thigh supports may be placed either from the inside or from the outside of the legs.
- ► Pull the band through the metal buckle ring and close it tightly around the thigh above the knee.

When placed inside of the legs



When placed outside of the legs





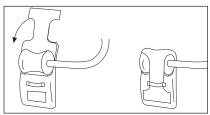
# WARNING

In case of extremely low muscle tone, the Body Support will lose its grip and the user will slide through, even when the security band and the MDthigh supports are used. Therefore, always make sure your representative tests the patients to establish suitability.



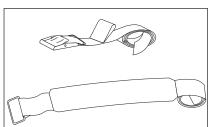
### Cushions for Curve-Around Cups - Article #1068

The cushions for curve-around cups are put over the curve-around cups. Used in case the patient feels uncomfortable with the grip of the Body Support. The cushions can help to alleviate the feeling of pressure.



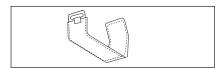
### Security Band - Article #1065 Small - Article # 1069 Large

The security Band is strapped around the curve-around cups of the Body Support or around the arms of the Body Support. It is used to give the Body Support a tighter grip when necessary. It should ALWAYS be used for AMBULATION.



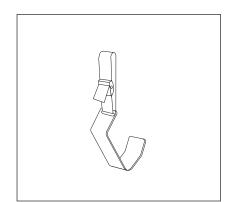
### Covers for Thigh Supports - Article #1067

Covers for thigh supports are pulled over the thigh supports. Used for people who feel uncomfortable on the bare thigh supports.



### Standard Thigh Supports (grey )- Article #1091 Slipproof Thigh Supports (black) - Article #1080

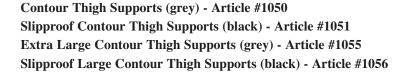
These thigh supports are used as standard on the Body Support. Slipproof thigh supports are used to alleviate sliding of the user.



Also available in Pediatric & Extra Large.

Pediatric Thigh Supports - Article #1090
Pediatric Slipproof Thigh Supports - Article #1082
Extra Large Thigh Supports - Article #1081
Extra Large Slipproof Thigh Supports - Article #1083

The slipproof version will additionally avoid sliding.



The contour thigh supports give a better support because of the contoured shape. Because of this shape, the patient remains in a more seated position. The sliding of the patient is reduced.



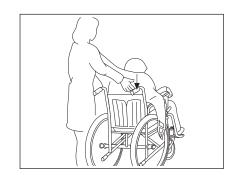




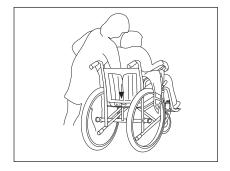
### 6.2 Wall Lift used with the Standard Quickfit Sling

### To lift a user from a sitting position.

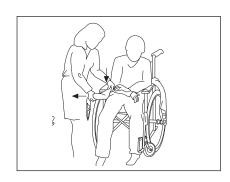
➤ Position the sling behind the user's back. Make sure the handle at the back is facing away from the user. Place your hand flat against the sling above the sling's lower edge. (Aperture)



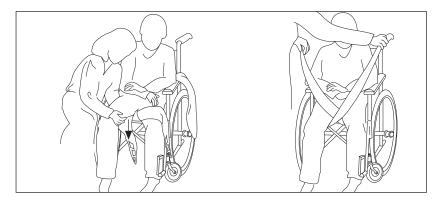
■ Using the flat of your hand, slide the sling downward until the lower edge is even with the coccyx (tailbone). In most cases you do not need to lean the user forward.



- ➤ Position the leg flaps against the outer side of the thighs. Place your hand between the user and the sling and slide the leg flap down the chair seat.
- ➤ Simultaneously, pull the leg flap with your other hand.



- ➤ Draw the thigh flaps under each thigh. Make sure that the fabric is
  - flat and reaches completely around the thigh.
- ➡ With the "DOWN" switch on the handcontrol, lower the spreaderbar with the sidebars so that the slings back and leg loops can be attached to the appropriate hooks.
- Cross the leg flaps and hook them to the front hooks.

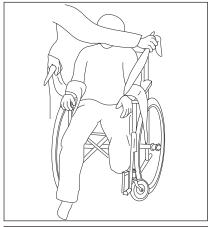




### Alternative ways to connect the leg flaps.

### Alternative 1:

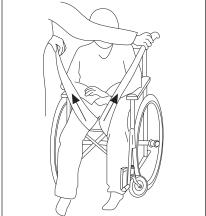
Slide each leg flap underneath both thighs. This method may be appropriate for amputees.



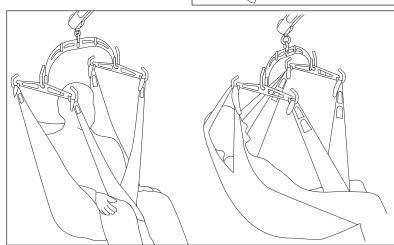
### Alternative 2:

Do Not cross the leg flaps.

This method is appropriate in case of toileting or for users with injury to the genital region.



- → Hook the back loops to the back hooks.
- → A person can be lifted in a sitting or in a reclining position: adjustment is made by increasing the sling loop lengths.
- ➤ For a **sitting** position the back loops have to be **shorter** than the legloops.
- ► For a **reclining** position the back loops have to be **longer** than the leg loops.



### WARNING

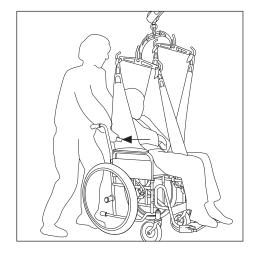
Users with low muscle tone have to be lifted in the reclining position to prevent sliding downwards.



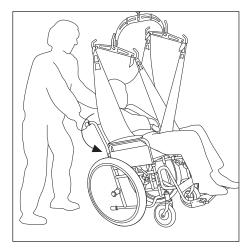
### **Chair Transfer**

Grasp the handle at the back of the sling and pull the user into the correct position.

Position the user as close to the chairback as possible. It is also helpful if someone pushes on the user's knees.

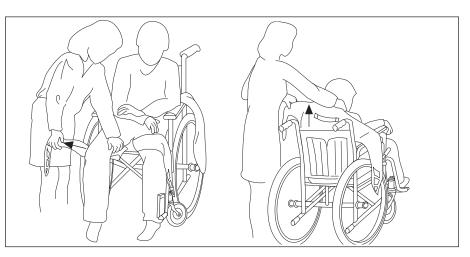


This diagram illustrates how tipping the wheelchair slightly back, makes it easier to position the user.



Remove the leg flaps. Users find it most comfortable if you draw the leg flaps outward as shown in the diagram.

The sling is easily removed without leaning the user forward.





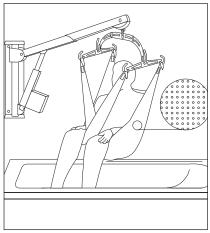
### **Toilet transfer**

- → It is necessary to undo the user's trousers before lifting him/her onto the toilet.
- ► Lower the user onto the toilet and fold back the sling.



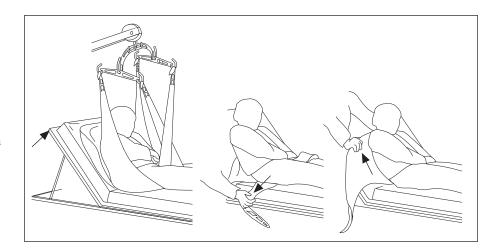
### **Bathtub Transfer**

- ➡ Bathing can be achieved by lifting the undressed user in the normal manner and by gently pushing the Wall Lift to the side or the back of the bathtub. Raise him/her over the rim of the tub.
- → A net fabric is appropriate in bath situations. The mesh openings let the water run through, which enables soap and water to penetrate to the skin.



### **Bed Transfer**

Position the user over the bed. Raise the backrest. Remove the leg flaps by pulling them from underneath the user's thighs. The sling can be removed without leaning the user forward.





### To lift a user from a lying position.

Raise the backrest. Place the sling against the bed with the straps facing away from the user.

Slide the sling behind the user until the sling's lower edge (aperture) reaches the coccyx (tailbone).

Slide the leg flaps underneath the thighs. Make sure that the fabric is flat and reaches completely around the thighs. The legloops may then be attached to the spreader bar and/or side bars as described above.

### Alternative for positioning the sling:

Turn the user on his/her side. Roll up the sling halfway and position the lower edge even with the user's coccyx. Turn the user on his/her other side and pull the sling into position.

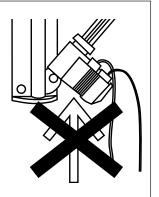
Attach the loops to the sidebars and lift the user. Never lift the user higher than is needed for transfer.

Turn the user on his/her side, roll the sling halfway and position it against the user. The lower edge of the sling should be even with the coccyx. Turn the user to the other side and unroll the sling.

Position the leg flaps (make certain that the material is flat against the user's legs and is not wrinkled or twisted), connect the loops and lift. After lifting, you may wish to rotate the user to create a better transfer position.

### WARNING

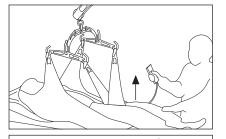
An item of height adjustable equipment, such as the high-low bed with back- and leg adjustment facilities, can exert an upward pressure on the bottom of the actuating drive, which may loosen it in the wall plate (also see section 4.2). This can lead to dangerous situations, with possible bodily injuries as a consequence.



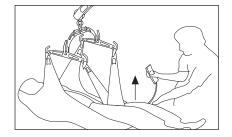














# 7. Maintenance

Due to the nature of the product, an annual service is necessary.

### Wall Lift

Always start maintenance by pulling out the plug of actuator or transformer.

### Cleaning

Clean with ordinary soap and a damp cloth. Harsh chemicals, abrasive cleaners and excessive water should not be used. Avoid wetting any electrical component.

### **Body Support**

Keep the Body Support clean with a damp soft cloth. Check the thigh support bands every three months for strength and signs of wear.

### Sling

Washable at 75° Celsius/167° Fahrenheit with mild soap solution. DO NOT TREAT WITH CHLORIDE (BLEACH). DO NOT BOIL. Dry at maximum temperature of 30° Celsius/86° Fahrenheit. DO NOT place on convector heaters or steam pipes. Check the sling every three months for signs of wear with particular attention to the sling loops.

### Warning labels

Inspect all precautionary labels on the equipment. Replace all labels that are difficult to read.

### Nuts and bolts

Check if all nuts and bolts remain well fixed.

The lock nuts may be opened and closed 5 times after which they have to be replaced.

### Work loading test

Every inspection should include a working load test of one lifting cycle with the maximum load.

(On request we can send you a more detailed list)



### Control of the system

Carry out a general visual inspection of the equipment to determine any anomalies. The following points must be given special attention during this inspection:

- → The bolts with which the wall plate is attached to the wall.
- → The bolts with which the actuator is attached.
- → The covering caps of the hinge pins and the cylinder spindle must be firmly attached.
- The plastic caps of the mast must be firmly attached.
- ➤ No rust may be detected anywhere on the system.
- The lifter may not be bent or damaged in any way.

### **Control of functionality**

- The wall lifter can be a freely lifted from the wall plate.
- The wall lifter can freely rotate in a stable manner in the wall plate.
- ➡ The extension arm can be easily extended and drawn in. The spring mechanism is easily operated and one can clearly hear when it is locked in place.
- ➤ Inspect the safety mechanism that inhibits the extension of the arm: Push on the spring mechanism and attempt to pull out the arm completely. It may not be possible to pull out the arm completely.
- → Check that the swivel hook turns and swivels smoothly.
- → Carry out a complete lifting cycle. Check that nothing is jammed.
- ➡ Check the safety mechanism of the arm: When the arm is moved upwards, the yellow hinge button on the mast must slide downwards.
- ► Check the functioning of the emergency-down mechanism of the lifter: For instance, lift a weight of 50 kg and follow the instructions of the "emergency-down" procedure (see item 3. Product Information).
- → Carry out a load test: Lift 145 kg with a fully extended arm and over the entire lifting range.



# 8. Trouble Shooting

### Wall Lift

If the motor fails to operate, check the following:

- → The plug of the actuator or transformer is plugged into a 120v/60hz outlet.
- **→** The handcontrol.
- **→** The external connections.

### **Body Support**

In the event of a curve-around cup needing replacement, the curve-around cup is fixed to the arm with glue (Locktite) and rivetted. Drill out the rivet and twist the clasp off. The glue seal has to be sheared and this will require some effort.

The tube should be cleaned and prepared for the replacement curve-around cup. They are right and left handed, so use the appropriate side. The curve-around cups must be fixed to the arm in the correct angle. To check this, push both arms of the body support together, so that the bottom of the cups meet while the outside angle of each cup measures 75°.

Glue tube and refit new curve-around cup, finally rivetting it into place. Seal with silicone.



# 9. Obtaining Spare Parts and annual service

To order spare parts and annual service, contact your local Handi-Move deale		
Address of a Handi-Move dealer in your neighbourhood:		

Handi-Move nv
Ten Beukenboom 13
B-9400 Ninove (Belgium)
Tel. + 32 54 31 97 10
Fax + 32 54 32 58 27
E-mail info@handimove.com



# 10. Warranty

The equipment is sold under an exclusive 2 year warranty from date of sale.

The manufacturer will repair or replace any products, or parts thereof, which have been returned to our factory or which have been inspected on site by an authorised factory representative, within the specified warranty period, and which after examination shall disclose that the product is defective. Batteries are excluded.

This warranty does not apply if the equipment has been subject to misuse, neglect, accidents, incorrect wiring (not our own), improper installation, or put to use in violation of instructions furnished by us or repaired or altered by other than the factory or its authorized representative, without our prior written consent.

We reserve the right to modify or change the equipment in whole or in part, at any time prior to delivery in order to include refinements deemed appropriate by the Company but without incurring any liability to modify or change any equipment previously delivered, or to supply new equipment in accordance with earlier specifications.

Loss or damage must be reported within 14 days after receipt of equipment. Visible loss of or damage to cartons must be noted at time of delivery on bill of lading or delivery receipt.

This warranty is expressly in lieu of all other warranties expressed or implied. We neither assume, nor authorise any other person to assume for us, any other liability in connection with the sale or use of this equipment. In no event shall we be liable for consequential or special damages. We make no warranty whatsoever in respect to accessories or parts not supplied by us.



# 11. Technical Specifications

### **General:**

Max lifting capacity: 145 kg / 320 lbs Speed: 1,1 - 2 m/min

Continuous duty: 10% = 1 min / 9 min

Protection: IP 66
Emergency down: Mechanical

### **Types:**

2420 / 2421 (UK) Actuator 24 V DC

With controls and emergency power facilities

Mains power 230 V AC / 50 Hz

2422 (USA) Actuator 24 V DC

With controls and emergency power facilities

Mains power 110 V AC / 60 Hz

2430 / 2431 (UK) Actuator on mains power

Mains power 230 V AC / 50 Hz

2432 (USA) Actuator on mains power

Mains power 110 V AC / 60 Hz



# 12. List of Spare Parts

# Wall-to-Wall™ lift directly on mains power Art 2430

art. 2222 0000 Pneumatic Handcontrol

art. 2430 0100 Actuator art. 2410 0000 Wall Plate

# Wall-to-Wall<sup>TM</sup> lift with 24 V DC transformer Art 2420

art. 2420 0100 Actuator

art. 2231 0100 Transformer (220V/24V) art. 2230 0300 Electric Handcontrol

art. 2410 0000 Wall Plate

art. 2230 0400 Battery / per piece (Back-up battery)



# Certificate of Conformity Handi MOVE INTERNATIONAL

Produkt		)
Produit	Soulève personne Mural 2250 ED / 2280 ED / 2270 ED / 2290 ED	)
Product	Wall lift 2250 ED / 2280 ED / 2270 ED / 2290 ED	)
Produkt		)

Ref.

	Wall lift with control box	Wall lift
110 V	2422	2432
220 V	2420 / 2421	2430 / 2431

Konform richtlijn 93/42/EEC (14/06/1993)

Conforme la directive (Class I Medical Devices)

In conformity with

Gemäss Richtlinie

**Voor NV Handi-move** 

P.Pintelon 21/05/2003

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