



MAKE EVERY DAY A LITTLE BIT EASIER

**User's Instruction Manual**

**Flex-Lift Mini®, Collapsible & Portable Person Lift with Electrical Hoisting**



## **USER'S INSTRUCTION MANUAL**

### **Flex-Lift Mini™ - Collapsible, Portable Person Lift with Electrical Lifting**

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Manufacturer:

Borringia A/S   Hejreskovvej 18 B-C   DK-3490 Kvistgård   Phone: +45 49 13 88 55

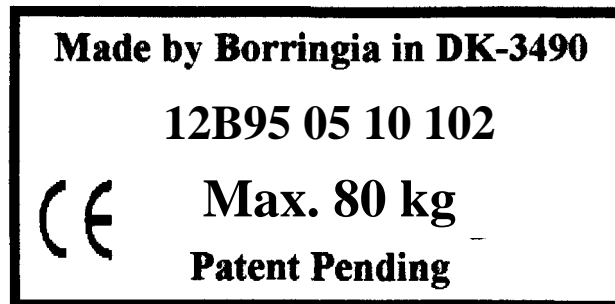
Importer / Dealer (Stamp):

Authorised Service (Stamp):

## **Marking:**

Your Flex-Lift Mini carries marking, according to the applicable technical standards. For your information each of the 3 labels on the Flex-Lift Mini are explained below:

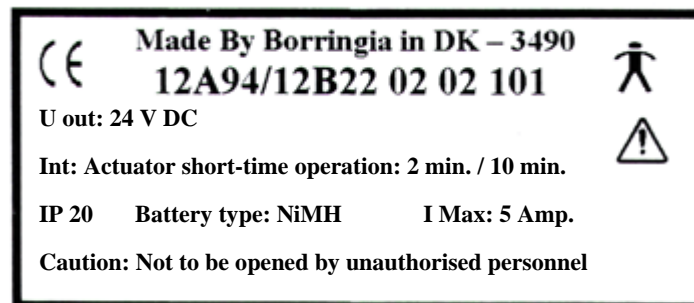
### **Marking, Production, Frame- & Batch number for the Flex-Lift Mini:**



#### **Explanation:**

12B95:	Identifies the product, i.e. a Flex-Lift Mini Person Hoist
05:	Identifies the year of production, i.e. 2005
10	Identifies the month of production, i.e. October
102	Identifies the specific frame number of this one unit
Max. 80 kg	Informs of the limit of the allowed weight of the user

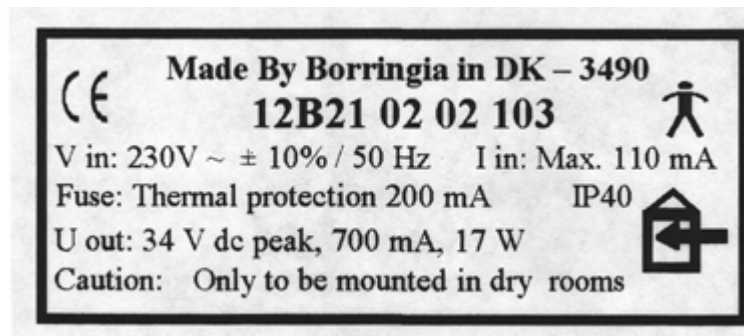
### **Marking, 12A94 & 12B22 Control-, Charge- & Battery Box w. Hand Control:**



#### **Explanation:**

12A94/12B22:	Identifies the product, i.e. a Borringia Control-, Charge- & Battery Box w. hand control
02:	Identifies the year of production, i.e. 2002
02:	Identifies the month of production, i.e. February
101:	Identifies the specific frame number of this one unit
U out: 24 V dc:	Output maximum 24 volt direct current
I Max: 5 Amp.:	Maximum Current 5 ampere
Int.: Actuator short-time operation: 2 min. / 10 min.:	Identifies the maximum utilisation frequency
IP20:	Protection level for dust & moisture
Battery type:	NiMH: Nickel-Metal Hydride Batteries

### Marking, 12B21, Borringia Charging Adaptor:



#### **Explanation:**

12B21:	Identifies the product, i.e a Borringia Charging Adaptor
02:	Identifies the year of production, i.e. 2002
02:	Identifies the month of production, i.e. February
103:	Identifies the specific frame number of this one unit
V in: 230V ~ ± 10% / 50 Hz:	Characterises acceptable power supplied
I in: Max. 110 mA:	Maximum power consumption
Fuse: Thermal protection 200 mA:	Point of overload cut-out
U out: 34 V dc peak, 700 mA, 17 W:	Maximum output from adaptor
IP40:	Protection level for dust & moisture
Caution: Only to be mounted in dry rooms:	Do not install in bathrooms or the like

### Marking, Transport Packaging:



#### **Explanation:**

Borringia:	The manufacturer
Flex-Lift Mini:	Brand name of the product
Foldable & Portable Person Hoist:	Product description
Frame- & Batch No.:	Identification of the specific product
Storage:	Information about how to store the product
Keep dry:	To be stored away from rain and water
25-90% Relative humidity:	Indication of safe humidity-level
0-50° Celcius:	Safe storage temperature
250-1200 hPa	Safe air pressure

## **Flex-Lift Mini™ - Collapsible, Portable Person Lift with Electrical Lifting**

Flex-Lift Mini Person Lift does everything a good person lift should do, both seen from the user's and from the carer's perspective. The lift is collapsible and can be dismantled into two main parts, which means that the lift does not take up much space, when it is not in use. Furthermore, the Flex-Lift Mini is easy to carry and to bring with you, either in the transport bags or secured with the special carrying straps. The lift fits easily into the boot of even small cars. All assembly and disassembly of the Flex-Lift Mini can be executed without the use of tools.

When collapsed, the two main parts each take up only approx. 113x30x30 cm (44"x12"x12"). The undercarriage of the Flex-Lift Mini can be folded, when the lift is not in use. With a width of only 22,5 cm (9") this makes the Flex-Lift Mini easy to store for example behind a door or up against the wall in the corridor. Furthermore, this feature also makes it possible to use the Flex-Lift Mini in not easily accessible rooms, i.e. bathrooms with narrow doors. When in its working position, the undercarriage has a width of 57,5 cm or 22,6" (external measurement), which enables the Flex-Lift Mini to pass narrow doors. The Flex-Lift Mini offers a lifting range of 116 cm (46") and can be used for lifting persons from the floor. This means that one single carer can handle all lifting situations by carrying the Flex-Lift Mini with him to the point of use, even in extreme cases like for instance a person having fallen over in the bathroom.

Lifting is electrical. Disassembled and packed either in the carrying bags or with the carrying straps applied, the Flex-Lift Mini is truly portable and can be brought anywhere both by the user and by the carer.

If you have any questions or suggestions for improvements, you are very welcome to contact Borringia Research & Development on phone +45 49 13 88 55 or by e-mail: [borringia@borringia.com](mailto:borringia@borringia.com)

Flex-Lift Mini™ is easily assembled without tools and simple to use. Nonetheless, we kindly ask you to read the instructions below before taking the Flex-Lift Mini into use:

**Assembly:** The Flex-Lift Mini is supplied in two main parts: A wheeled undercarriage, which is foldable and a lifting module made up of mast, lifting arm and yoke. The lifting module is fitted with actuator, battery pack and control electronics.

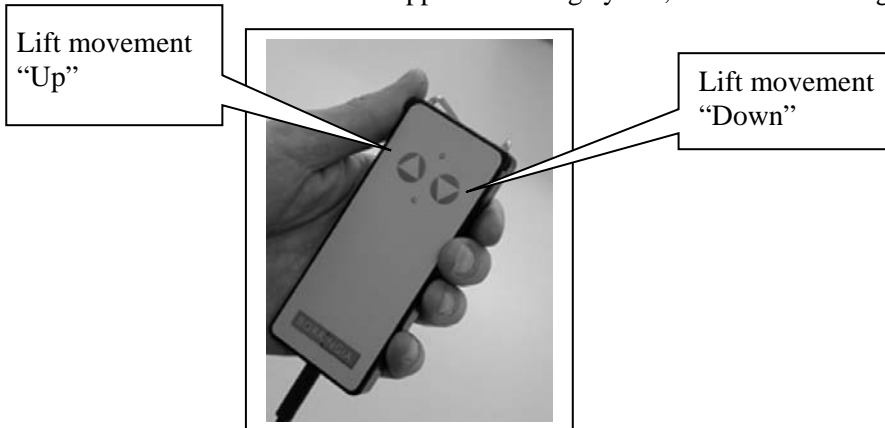
1. Remove the carrying straps from the undercarriage. Grap the cross bars and gently pull until the undercarriage has unfolded completely and the cross bars have clicked into the working position.

In order to fold the undercarriage, release the handle on the back of the Flex-Lift Mini whilst pushing the mast forwards. As off the point where the cross bars are perpendicular to the legs of the undercarriage, folding should be carried out by grabbing both legs behind the wheels and by gently pushing these towards one another. **DO NOT** use the cross bars for this operation as you may pinch your fingers between the cross bars and the legs of the undercarriage.

2. Remove the carrying straps from the lifting module and place the mast in the hole in the central box of the undercarriage and drive the mast all the way home. Lift the lifting arm until it clicks into position. In order to release the lifting arm again, lift the locking pawl whilst lowering the lifting arm
3. The Flex-Lift Mini is now ready for use.

**Lifting:** The lifting function is electrical. Power is supplied by a 24 volt battery (NiMh) with a capacity of 1,3 Ah, sufficient for 25-30 full lifting cycles when fully charged.

Pressing the corresponding button on the hand control activates lifting and lowering. As soon as the button is released, movement stops. During movement, the green lamp on the hand controls is activated. When the battery has reached a level where remaining power is sufficient for approx. 5 lifting cycles, the hand control give an acoustic warning signal.



**Malfunction:** In case of errors in the electrical system, the yellow lamp on the hand control will blink rapidly. Take the Lift out of use and contact an authorised Borringia dealer for service.

**Charging:** **NEVER** attempt to charge the battery with anything but the charger and the wall mounted charging station **supplied with the Flex-Lift Mini.**

**NEVER** charge the Flex-Lift Mini in humid surroundings, i.e. in bathrooms or the like

1. Insert hand control into the wall mounted charging station and charging will commence automatically (Mount charging station as described later) The charging cycle is automatically controlled. When the battery is fully charged, the system automatically changes to trickle charge mode. (During charging the yellow lamp on the hand control lights up. In trickle charge mode the yellow lamp blinks slowly, i.e. approx. 2 blinks per second).
2. We recommend that you **always leave the Flex-Lift Mini to charge when not in use.** If the battery has been depleted, a full charging takes approximately 4-5 hours. (Or overnight)

The charging adaptor was designed specifically for the Flex-Lift Mini. **NEVER** attempt charging other batteries with this system!

**Emergency Stop:**

In the – unlikely – event that movement continues after the buttons on the hand control have been released, all activity can be blocked by pushing the red emergency button situated on the control box either with the hand or the foot. The button is released again by turning it clockwise. **IMMEDIATELY** contact your dealer and **DO NOT** use the Lift again, before it has been inspected and repaired.



**Interference:** In unlikely case of the Flex-Lift Mini interfering with other electrical appliances, immediately take the Flex-Lift Mini out of use and request service.

<b>Safety:</b>	<p>Note the following instructions carefully:</p> <ul style="list-style-type: none"> <li>• Never leave person alone, when lifted</li> <li>• Make sure that the hands, legs and feet of the user are not squeezed by the sling, or between parts of the Flex-Lift Mini and other aid products (e.g. wheelchair, bed, commode chair or the like)</li> <li>• Never use the Flex-Lift Mini in humid surroundings like e.g. in the shower or for lifting into and out of bathtubs, swimming pools or the like</li> <li>• Only use the Flex-Lift Mini together with CE-marked slings or harnesses, approved for use with yokes for “2-point-suspension”</li> <li>• Never use the Flex-Lift Mini in hot surroundings, e.g. in saunas or in steam baths</li> </ul>
<b>Low Temperatures:</b>	All batteries lose performance when they are cold, i.e. at 0° Celsius (32° F) or colder. If you have left your Flex-Lift Mini in the boot of your car in cold weather, you may have to re-charge the batteries, before using the Flex-Lift Mini
<b>Temperature:</b>	Normal operational temperature should be 0° - 40° Celsius (32° - 104° F)
<b>Humidity:</b>	Normal operational humidity should be below 90% relative humidity.
<b>Service:</b>	As defined by law Flex-Lift Mini™ must undergo at least one service inspection annually by an authorized technician. Service agreements can be made with your dealer.
<b>Batteries:</b>	The batteries are an integrated part of the control-box and should only be changed by the manufacturer.
<b>Daily Inspection:</b>	<p>Before using the Flex-Lift Mini, always check the following points:</p> <ul style="list-style-type: none"> <li>• There should be no visual cracks, dents or deformation of any metal part on the Lift</li> <li>• All retaining rings should be in place</li> <li>• The actuator should not make jarring sounds when activated with load</li> <li>• Slings used with the Flex-Lift Mini must be for yokes with two-point fixation and must be CE-marked</li> </ul>
<b>Cleaning:</b>	Use water with standard detergents or dish washing liquid on a damp cloth. Dry with cloth. Never hose the Flex-Lift Mini down as the electronics and the actuator are vulnerable to moisture and will break down if exposed high humidity or water. Never use acids or organic solvents.
<b>Lubrication:</b>	Approx. once a month, apply a bit of Vaseline to the part of the mast, which goes into the centre box. This makes it easier to assemble & disassemble the Flex-Lift Mini.
<b>User Weight:</b>	Flex-Lift Mini™ is tested and approved for use by persons weighing a maximum of 80 kg (176 lbs.)
<b>Disposal:</b>	<p>When the Flex-Lift Mini is taken out of use, you should see to it that the Lift is disposed of in an environmentally friendly way. Follow the instructions below:</p> <p><u>Metal parts:</u> All metal parts are made of steel and can safely be recycled. The painting will not result in any toxic components as a result of recycling.</p> <p><u>Electronics:</u> The electronics including the batteries should be delivered to a recycling plant equipped to handle electronic waste safely. If in doubt as to whether such a facility is available, please return the electronic components to your dealer, who will then pass these on to the manufacturer for safe recycling.</p>

## Measurements & Weight:

### **Flex-Lift Mini, assembled:**

Height:	117 - 174 cm	(46-69")
Lifting range:	116 cm	(46")
Yoke, lowest position:	46 cm	(18")
Yoke, highest position:	162 cm	(64")
Yoke height at maximum reach:	110 cm	(43,3")
Maximum reach:	57 cm	(22,4")
Reach at minimum yoke height:	33 cm	(13")
Width, folded:	28 cm	(11")
Width, outside measurement	57,5 cm	(22,6")
Width, inside measurement	46 cm	(18")
Height of undercarriage:	11,5 cm	(4,5")
Clearance, undercarriage:	5,5 cm	(2,2")
Turning radius	140 cm	(55")
Total weight:	23,9 kg	(52,6 lbs.)
<b>Max user weight:</b>	<b>80 kg</b>	<b>(176 lbs.)</b>

Battery:	24 volt
Battery capacity:	25 – 30 lifting cycles
Charging:	Through hand control at External charging station
Charging time:	4-5 hours

### **Undercarriage:**

Length:	113 cm	(44,5")
Width, folded:	22,5 cm	(9")
Weight:	12,6 kg	(27,7 lbs.)
Measurements in bag:	128x32x34 cm	46"x12"x13"
Weight in bag:	16,8 kg	(37,0 lbs.)

### **Lifting Mast**

Length:	110 cm	(43")
Weight:	11,3 kg	(24,9 lbs.)
Measurements in bag:	128x32x34 cm	46"x12"x13"
Weight in bag:	15,5 kg	(34,1 lbs.)

## Optional Equipment:

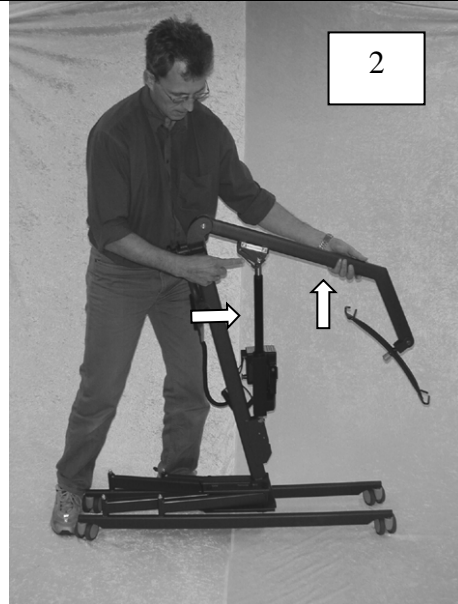
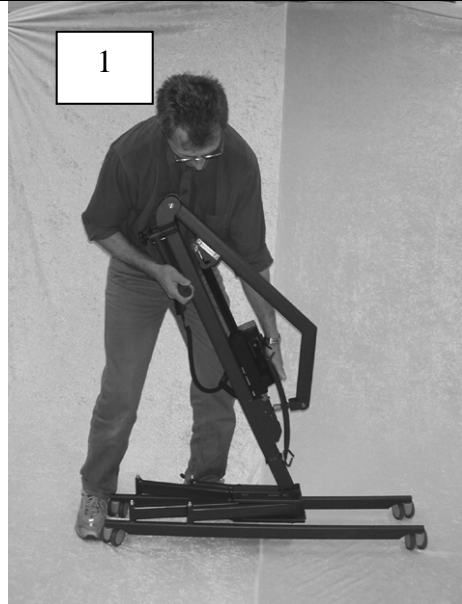
- Full-body sling
- Carrying bags with shoulder straps
- Extra battery pack

**Warranty:** Two years warranty on failure in metal construction. Warranty does not cover damage as a result of faulty use of the lift. Casters, actuator, electronics & battery-pack, which are subject to normal wear, are warranted for one year; failure as a result of misuse is not covered by the warranty.

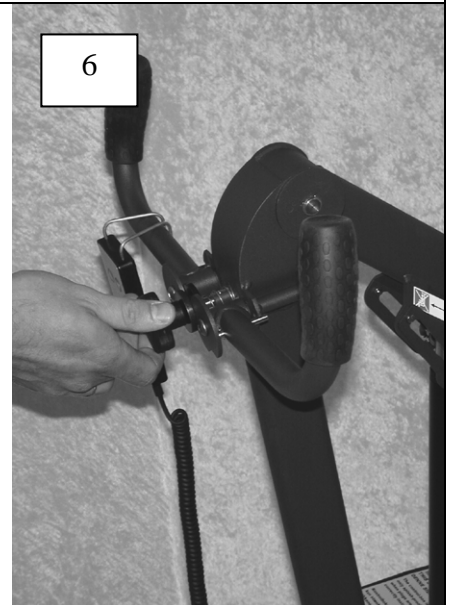
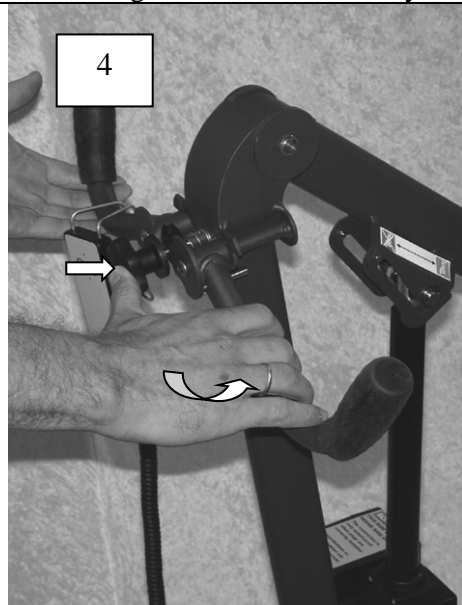


## Assembly of the Flex-Lift Mini:

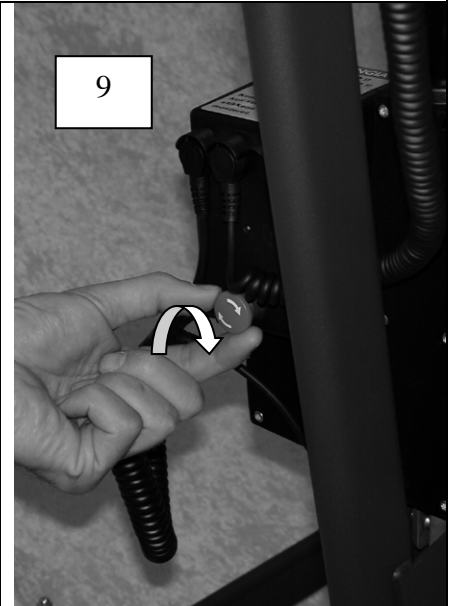
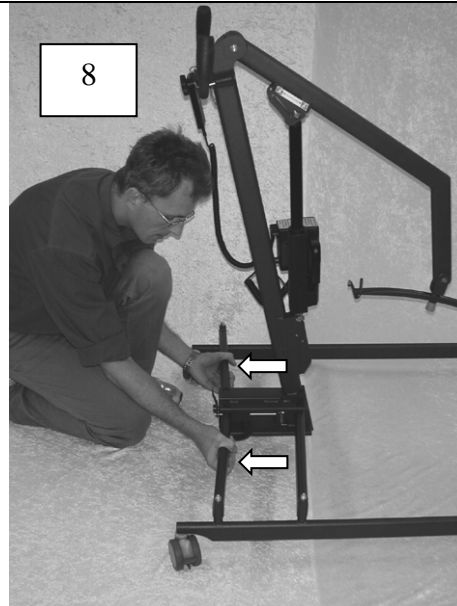
1. Insert the mast into the centre box of the undercarriage and drive it all the way home (downwards).
2. Lift the hoisting arm and move the actuator outwards until it clicks into holding slots.
3. Loosen the screw holding the handles in position.



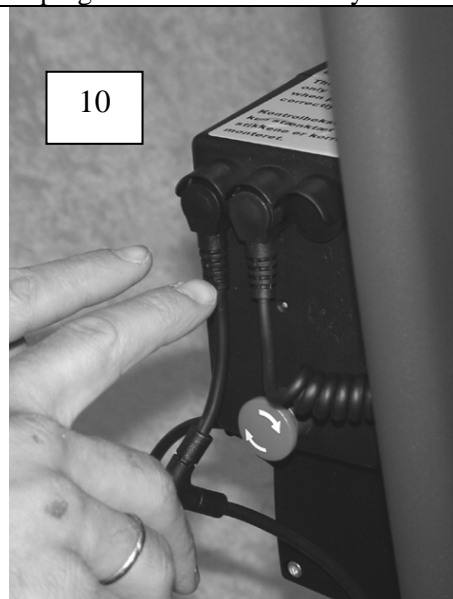
4. Push the screw inwards while moving both handles upwards.
5. Let go of the screw and move the handles upwards until they click into operating position.
6. Tighten the screw securely.



7. Pull outwards on both legs. **N.B. MIND HANDS AND FINGERS!!!**
8. Pull the cross bars backwards until the undercarriage clicks into operating position.
9. Check that the Emergency Button is released: Turn the button clockwise and release.

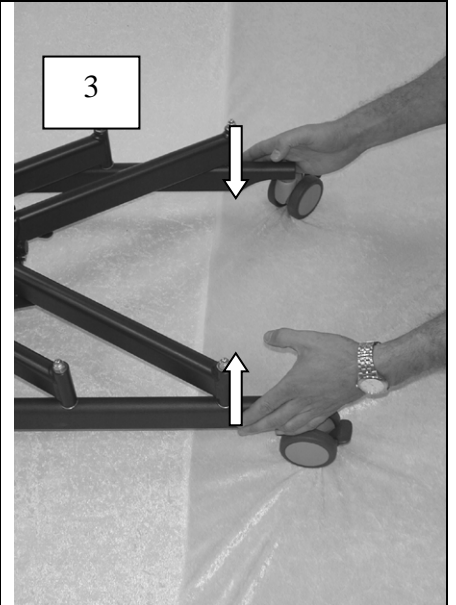
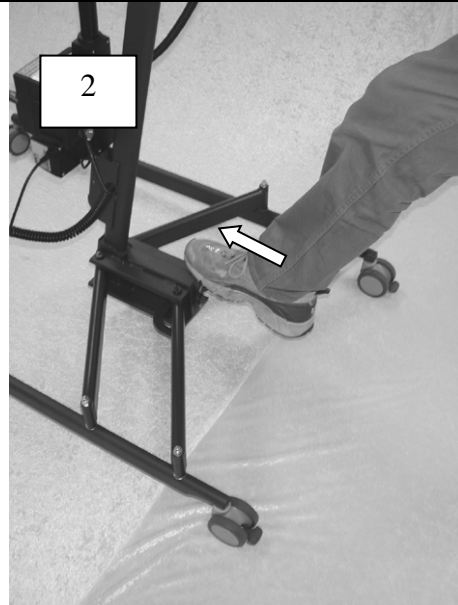
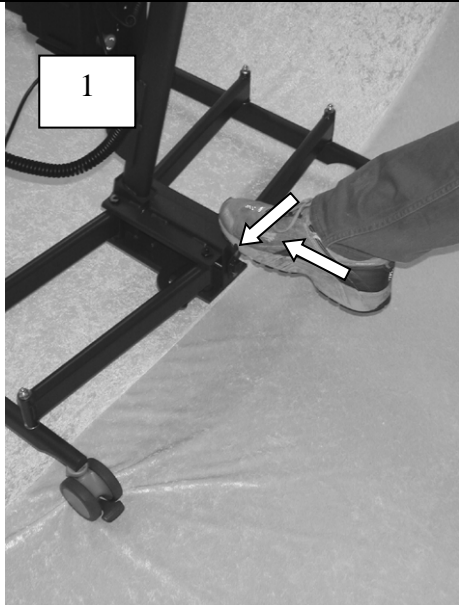


10. If necessary, insert the plug of the actuator & the security electronics into the left socket on the control box (Socket No. 1). Make sure that the plugs are driven all the way home.



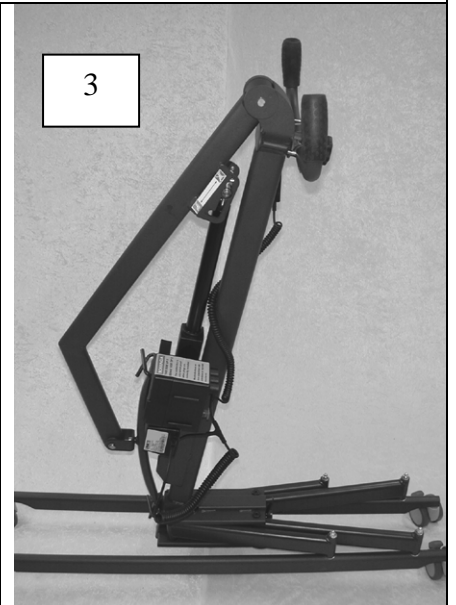
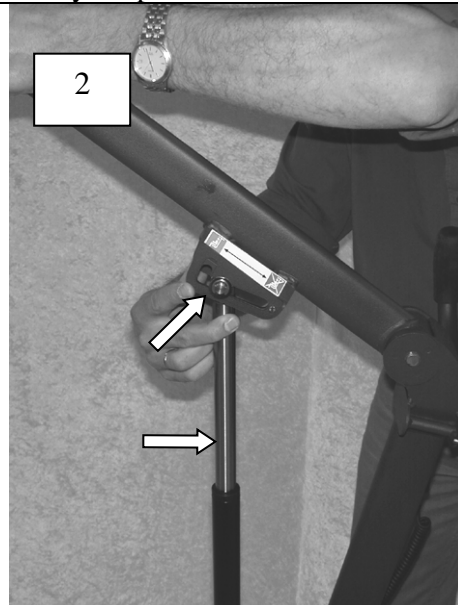
## Folding the Undercarriage of the Flex-Lift Mini:

1. Lock the brakes on both rear wheels. With your right foot push the green release handle to the left whilst simultaneously pushing the central box forwards.
2. Release the brakes on both rear wheels
3. Push inwards on both legs. **N.B. MIND HANDS AND FINGERS!!!**



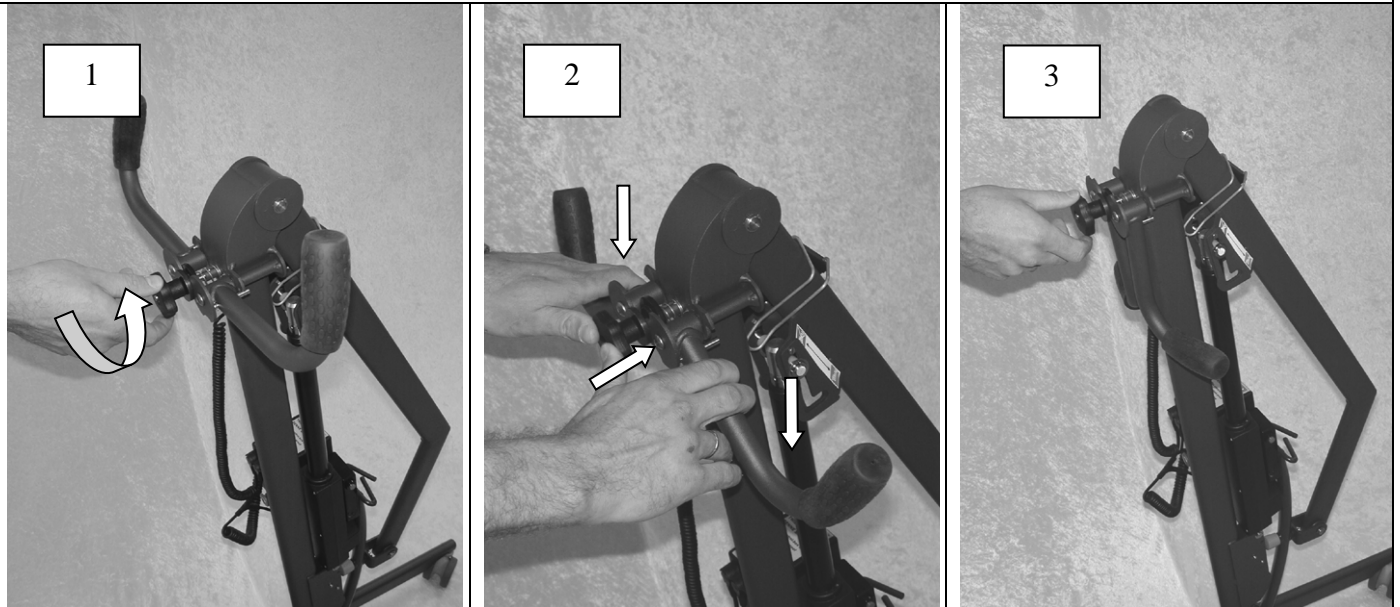
## Folding the Hoisting Arm of the Flex-Lift Mini:

1. Use the hand control to electrically drive the actuator into the lowest position. Then Lift the hoisting arm to the top position
2. Lift both security flaps towards the hoisting arm and gently pull the actuator towards the mast.
3. Lower the hoisting arm and place the yoke parallel to the mast.

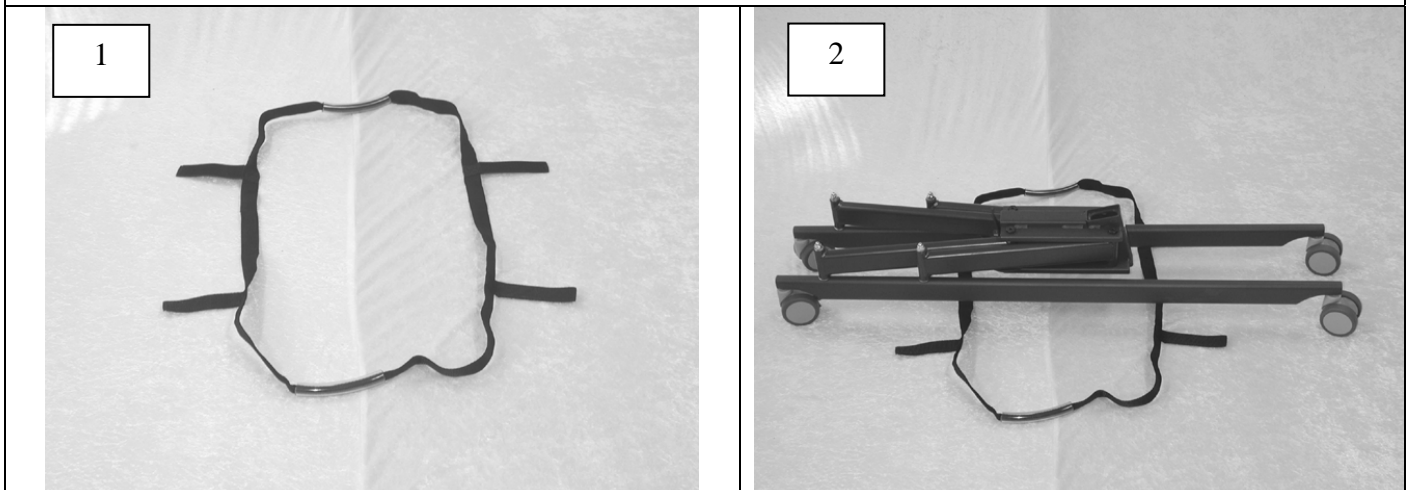


## Folding the Handles on the Flex-Lift Mini:

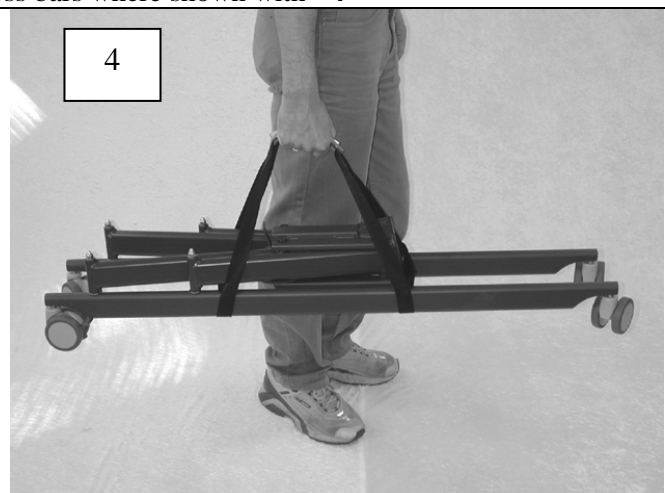
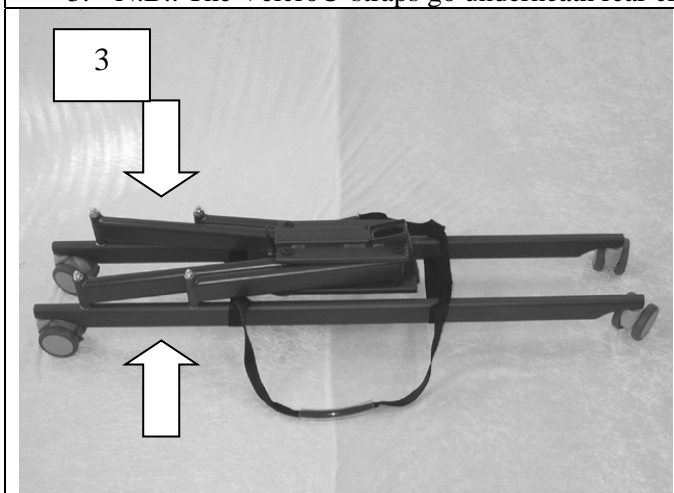
1. Loosen the security screw.
2. Push the security screw towards the mast while folding handles downwards.
3. Let go of security screw. Fold the handles downwards until they click into position. Then tighten the security screw.



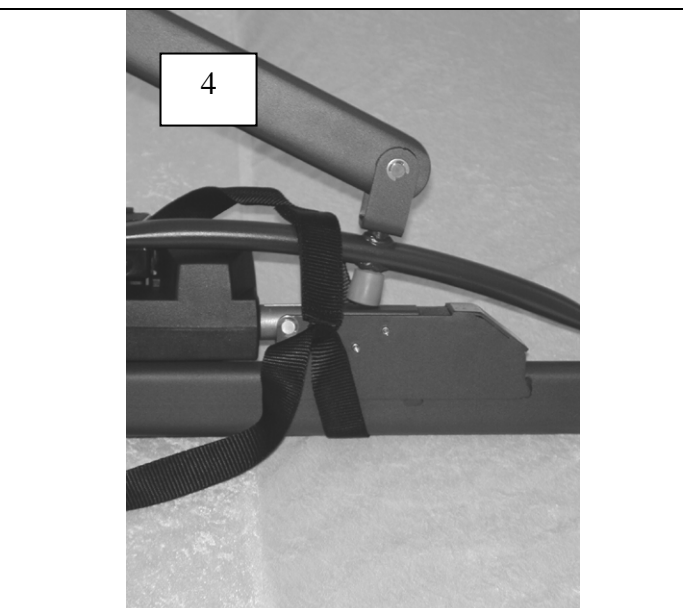
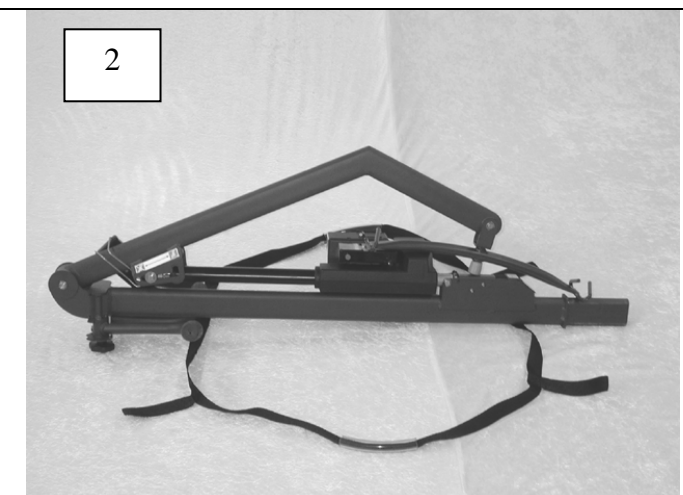
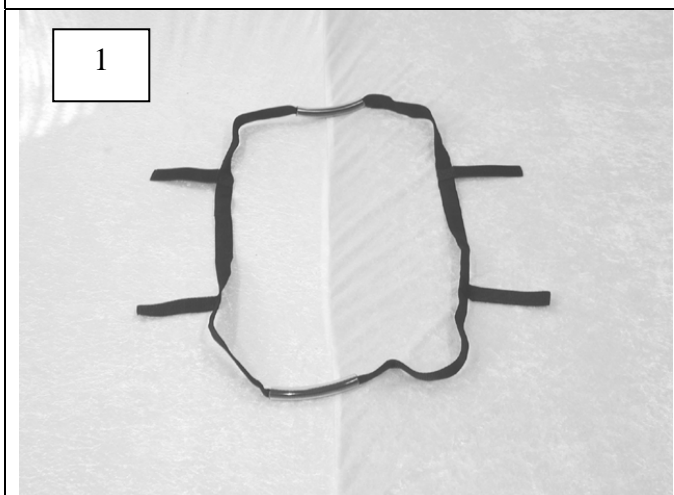
## Applying the Carrying Strap to the Undercarriage of Flex-Lift Mini:



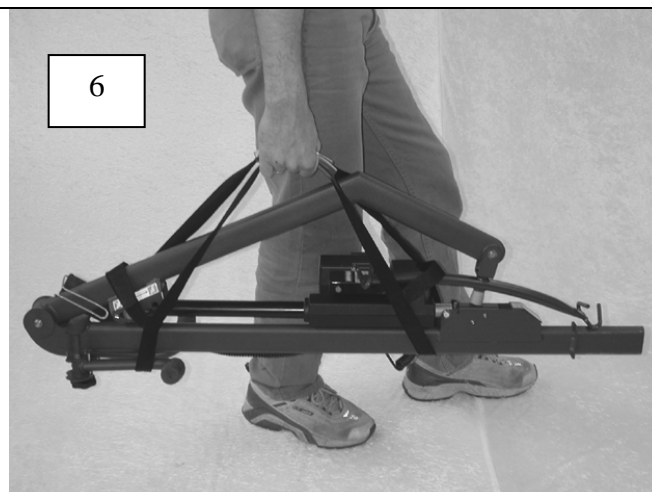
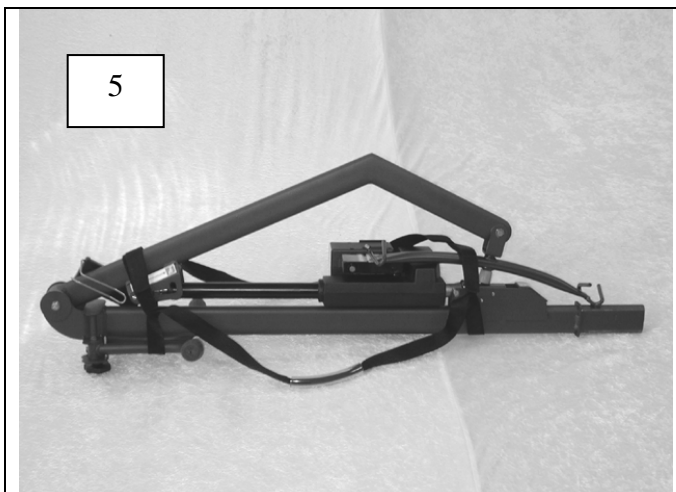
3. N.B.: The Velcro®-straps go underneath rear cross bars where shown with “→”



Applying the Carrying Strap to the Mast of Flex-Lift Mini:

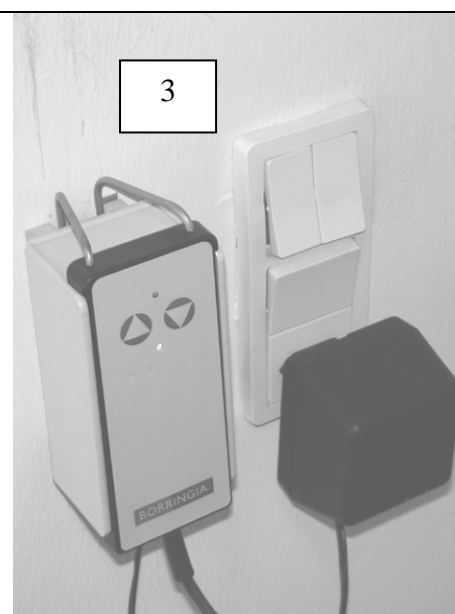
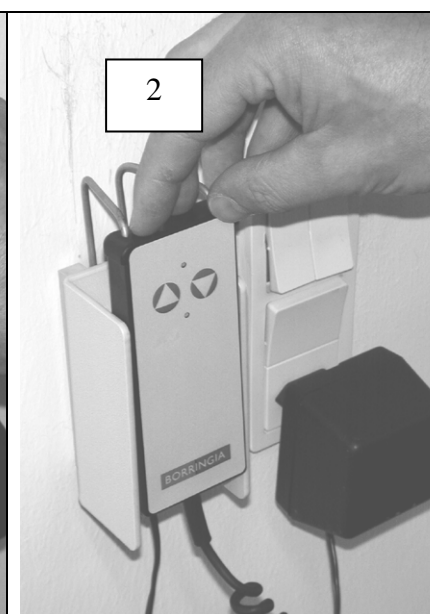
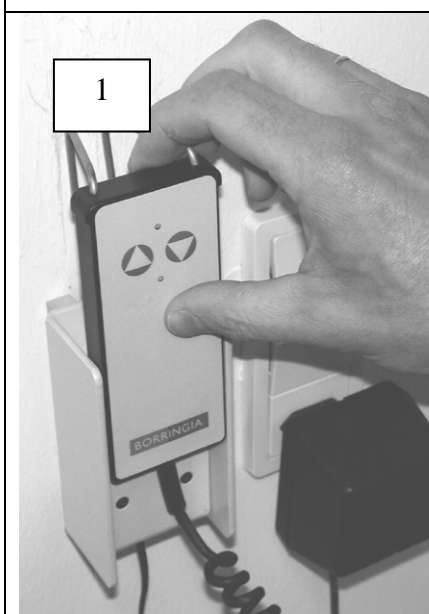






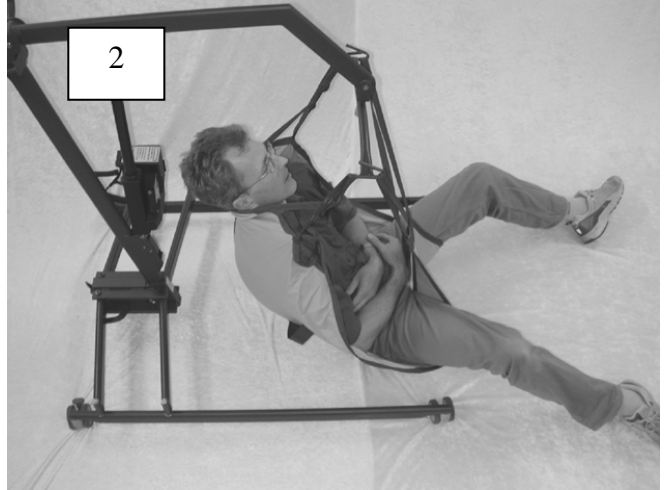
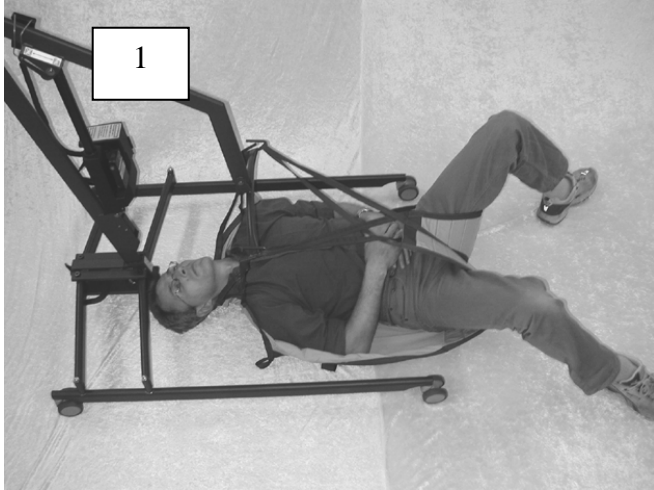
## Charging:

1. Once the hand control has been inserted into the wall charger, a permanently lit yellow light indicates that charging is ongoing. Preferably you should leave the Flex-Lift Mini to charge for a period of 4-5 hours or overnight.
2. A yellow light blinking slowly (approx. 2 blink per second) indicates that “trickle charging” is ongoing. This means that the software is “topping-up” in order charge the batteries to their absolute maximum.
3. A yellow light blinking quickly indicates either electronic default or that the software has not had time to run a full security check. Remove the hand control from the wall charger and wait approx. 20 seconds or until the yellow light is no longer blinking. Then insert the hand control again. After a few seconds the yellow light should be either permanently lit (charging mode) or blinking slowly (trickle charging mode). If fast blinking persists, contact an authorized dealer for service inspection.
4. **N.B: If the batteries are cold, the capacity is reduced significantly and you should give them time to reach ambient temperature before charging.**



## Hoisting from the Floor with the Flex-Lift Mini:

1. Apply the sling to the patient by rolling the patient onto the side, placing sling on the floor and then rolling the patient back onto his back. Drive the Flex-Lift Mini into position so that the **patient's head is closest to the mast** of the Flex-Lift Mini. Place the carrying straps of the sling into the hooks on the yoke. **Remember to cross the leg-straps** so that the leg-strap carrying the patient's left leg is hooked onto the hooks on the right hand side of the yoke and vice-versa.
2. Begin hoisting by pushing the appropriate button on the hand control. **Always** make sure that the patient is comfortable, make sure that his head is well supported by the sling and that the arms and the legs are not exposed to pressure from the sling.

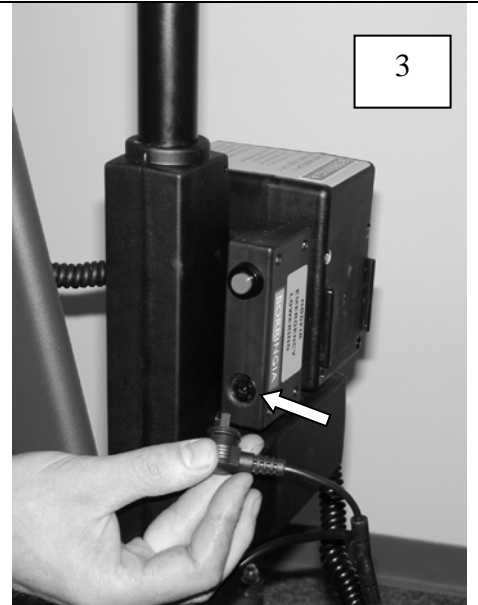
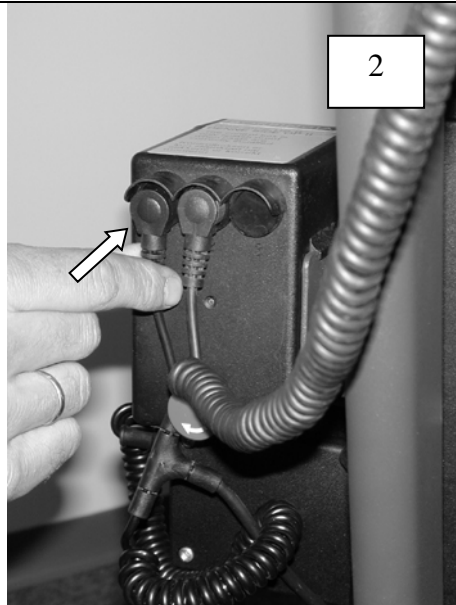


3. When the patient has been hoisted, turn him by pulling on the straps on the back of the sling so that he faces in the desired direction.
4. The patient can now be lowered into e.g. a wheelchair.



## Emergency Lowering with the Flex-Lift Mini:

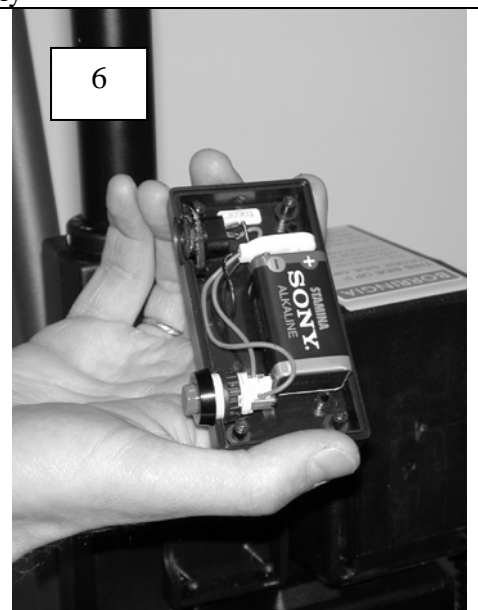
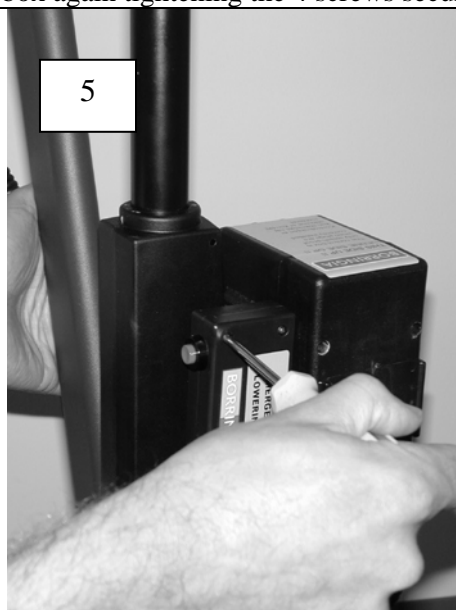
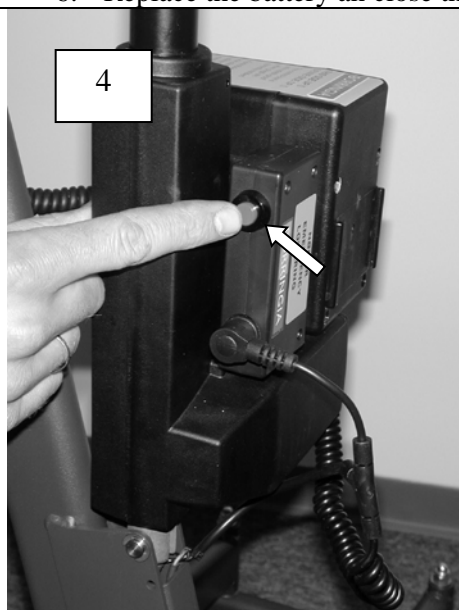
1. In the highly unlikely event of electrical failure after the patient has been hoisted, the Flex-Lift Mini is equipped with a separate electrical “Emergency Lowering Box”.
2. In order to use the Emergency Lowering, remove the cable of the actuator from the control box (The plug is inserted in socket No. 1)
3. Insert the cable of the actuator in the socket on the side of the “Emergency Lowering Box” (as shown in Pic. 3)



4. Push the red button on the side of the “Emergency Lowering Box” and lowering takes place.

**N.B.: Contact an authorised dealer for service inspection before using the Flex-Lift Mini again.**

5. The “Emergency Lowering Box” is powered by a 9 Volt battery. The battery should be replaced once a year and/or after use of the emergency lowering function. Loosen the 4 screws on the “Emergency Lowering Box” with a Philips screw driver.
6. Replace the battery and close the box again tightening the 4 screws securely





## Montering af væg-ladestation

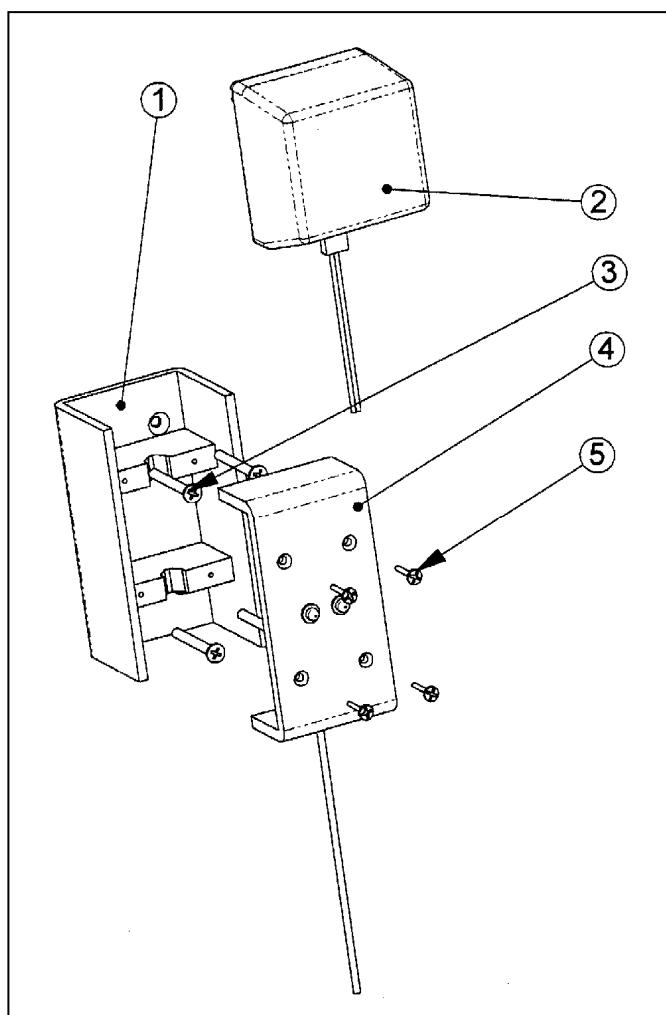
### **MONTER VÆGLADESTATIONEN I ET TØRT LOKALE, ALDRIG I BADEVÆRELSET**

1. Fjern dækslet (4) ved at løsne de fire skruer (5).
2. Monter bagkappen af ladestationen (1) på væggen ved hjælp af de medfølgende vægskruer (3). Såfremt der skal bores for i væggen, er det lettest at holde bagkappen op på væggen og markere med en skrue i hvert af de fire huller.
3. Skru dækslet (4) på bagkappen, sådan at stikket til lader peger ned imod gulvet.
4. Laderen (2) sættes i stikkontakten.
5. Stikkontakten tændes og væg-ladestationen er nu klar til brug.
6. **Håndbetjeningen sættes i ladestationen med krogen øverst.**

## Mounting the Charger

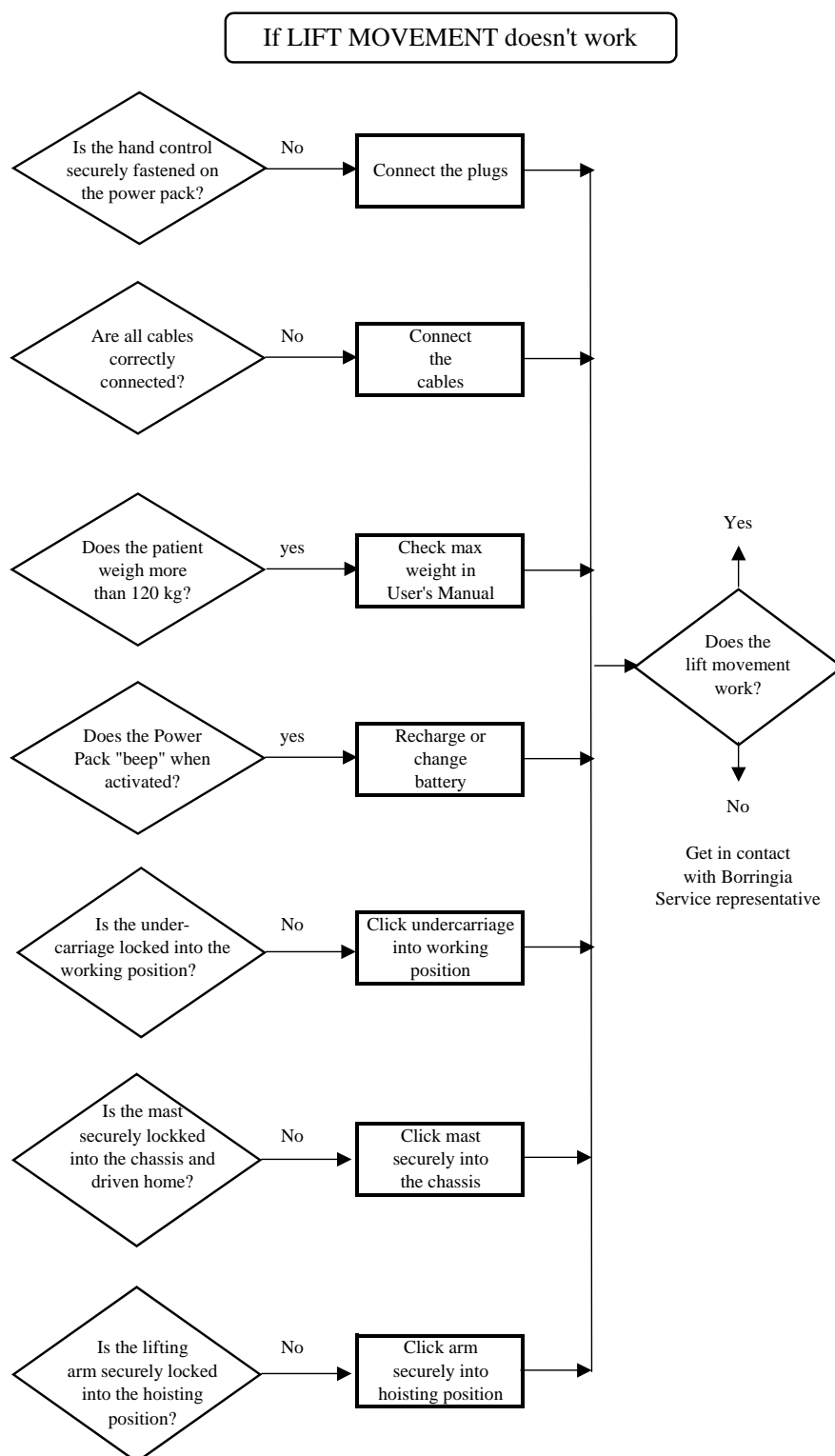
### **ALWAYS MOUNT THE WALL CHARGER IN A DRY ROOM, NEVER IN THE BATHROOM**

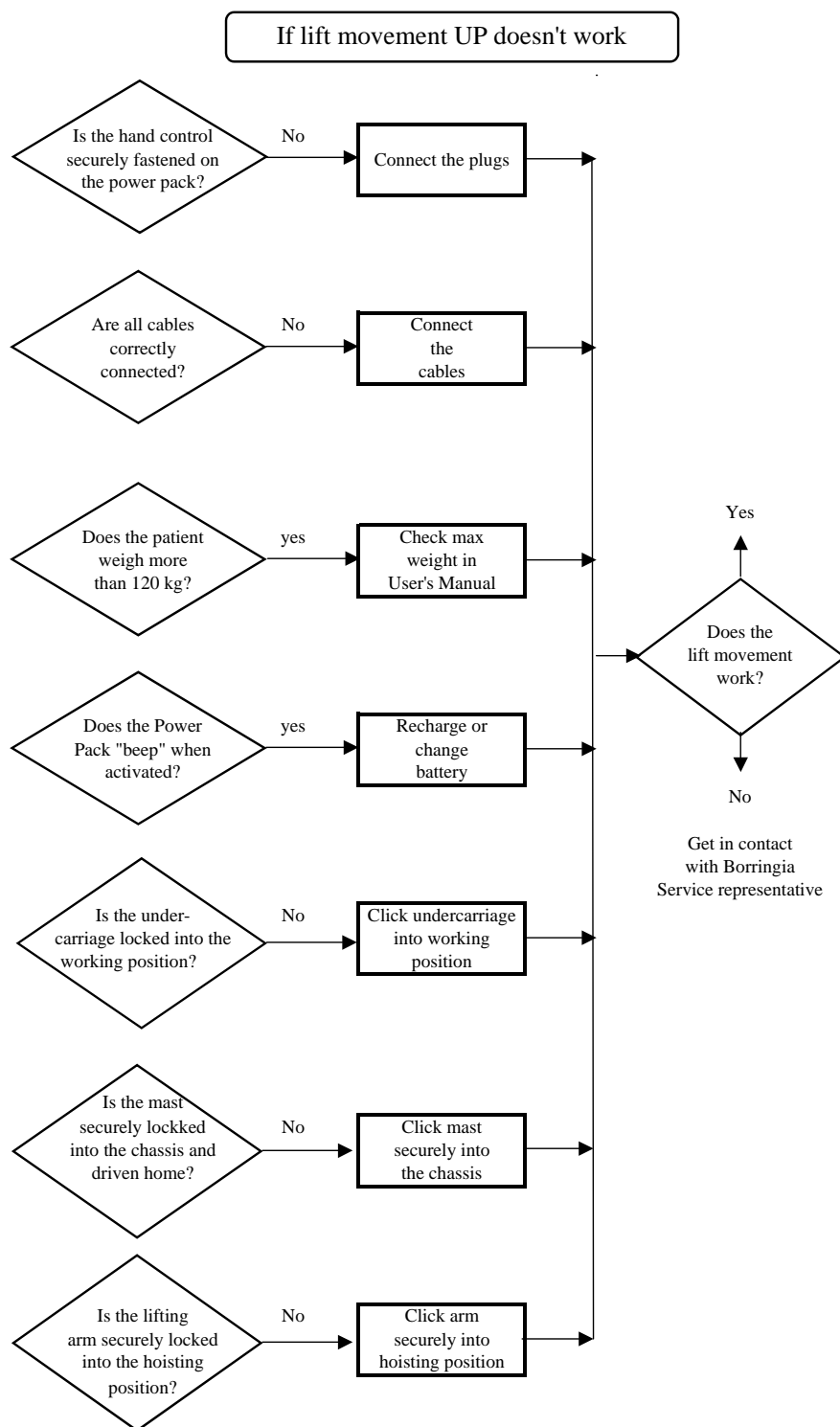
1. Remove the cover (4) by loosening the screws (5).
2. Mount the cabinet of the charger (1) on the wall using the screws supplied (3). If drilling is needed, the easiest way is to hold the cabinet against the wall and mark with a screw in each of the four holes in the cabinet.
3. Mount the cover on the cabinet in such a way that the plug on the cover faces downwards.
4. Put the charger (2) into the socket.
5. Turn on the power and the charging station is ready for use.
6. **Place the hand control in the charger with the hook going behind the top of the cabinet.**



## Trouble Shooting, Flex-Lift Person Hoist

**Note:** Always deactivate the emergency stop button. If it is activated, the battery power is disconnected and the lifting function does not work!





If lift movement DOWN doesn't work

