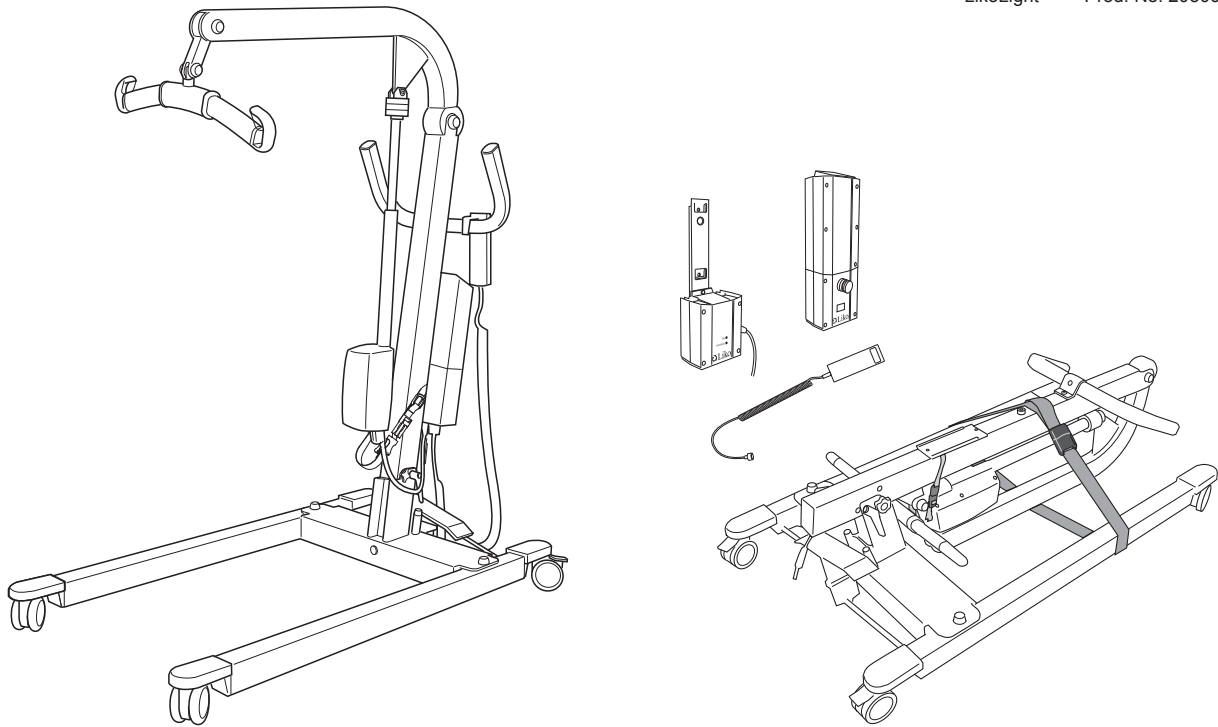


Instruction Guide

English
7EN145102-02
2012-05-31

Applies to the following model:
LikoLight Prod. No. 2030001



Product Description

LikoLight is a versatile mobile lift that is designed so that it can be quickly and easily folded up and stored when not in use.

LikoLight is intended for use in the most common lifting situations, e.g., for transfers between bed and wheelchair, to and from the toilet or bathtub, and for lifting to and from the floor. To facilitate this, LikoLight's features include electric raising and lowering as well as mechanical foot-operated-base-width adjustment.

LikoLight is a complete mobile lift that is light, foldable and portable.

An individually tested sling and other accessories are essential for proper function and safety in connection with use of the lift.

LikoLight is made of aluminium profiles and great care has been taken to eliminate excess weight. Total weight with batteries is 24 kg (53 lbs.). LikoLight can be disassembled in three pieces; top section, base and electrical unit. No part weighs more than 10 kg (22 lbs.).

Carrier bags are available for transporting and storing LikoLight.

In this document, the person being lifted is called the "patient" and the person helping is called the "caregiver".

△ "Caution!" triangles are used to warn of situations that demand extra care and attention.

IMPORTANT!

Carefully read instructions for the lift and lifting accessories before use. Lifting and transferring a person always presents a potential risk. A thorough understanding of the contents of this instruction guide is essential. Only trained personnel should use the equipment. If you have questions, please contact Liko/Hill-Rom or your local Liko/Hill-Rom representative.

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Safety instructions

Before using the lift, make certain that:

- the lift is assembled according to the instructions
- lifting equipment is properly mounted on the lift
- the batteries have been charged for at least 4 hours
- all manuals have been carefully studied and fully understood
- persons using the equipment have received appropriate instructions and training
- that in each individual lifting situation you have selected the correct type, size, material, and design of slings and accessories to safely meet the patient's need.

Before lifting, **always** make certain that:

- the lifting accessories are not damaged
- the lifting accessory is correctly and securely applied to the patient, so that there is no risk for injury
- the lifting accessory is correctly applied to the lifting equipment
- the sling strap loops are correctly attached to the hooks on the slingbar. This should be checked when beginning to lift the patient - when the sling straps are *taut*, but before the patient is lifted from the underlying surface.

△ Never leave a patient unattended in a lifting situation!



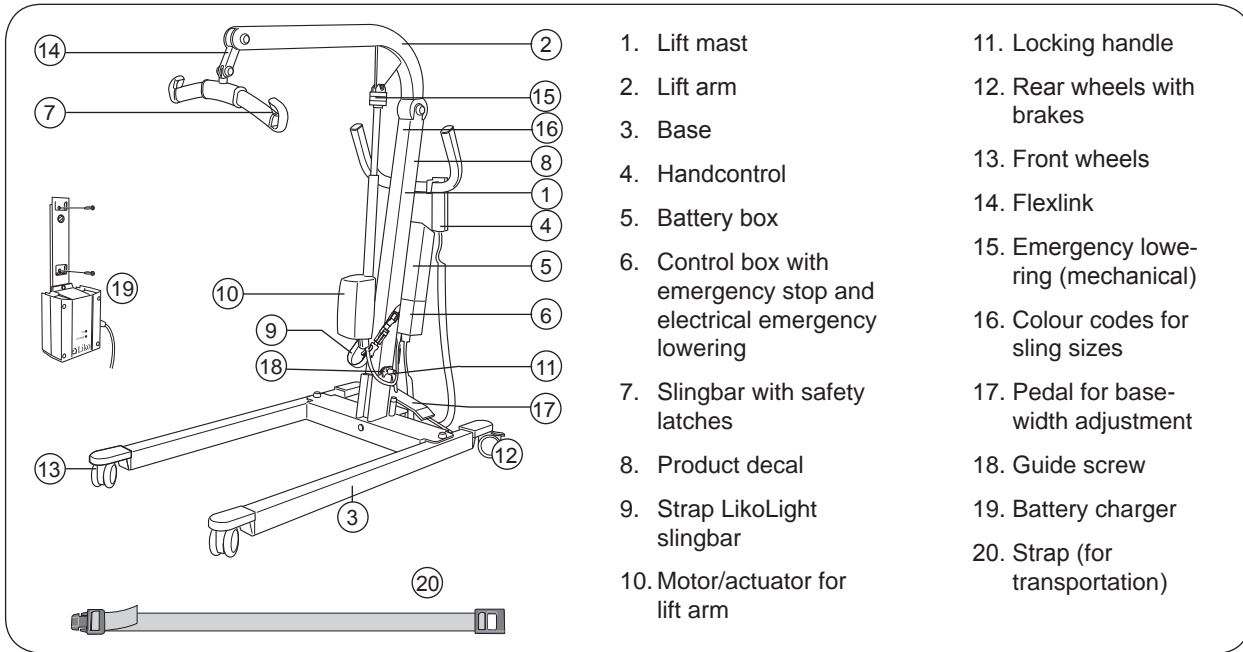
LikoLight has been tested by accredited testing institute.

LikoLight complies with the requirements of EN 60601-1, EN 60601-1-2, EN ISO 10535, UL-60601-1 and CAN/CSA C22.2 No.606.1.

Particular care must be taken when using equipment that constitutes a strong source of interference, such as diathermy equipment. Make sure that diathermy cables, etc., are not positioned on or near the lift. If you have questions, please consult the responsible assistive-device technician or the supplier.

Max. load: 140 kg (308 lbs.)

Definitions



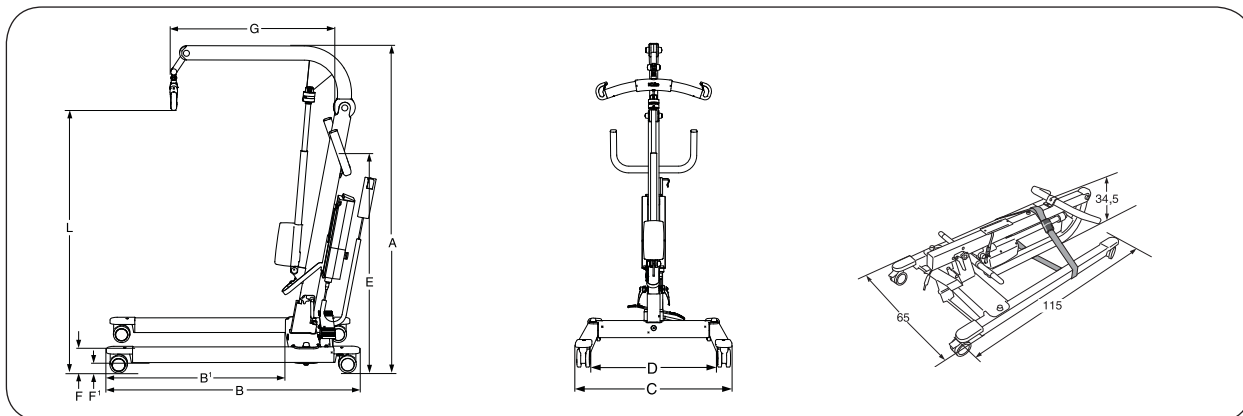
Technical data

Lifting speed: 3,8 cm/s without load
Batteries: 2 pcs. 12 V 2,9Ah valve-regulated lead-acid gel-type batteries. New batteries available from supplier.
Battery charger: Wall-mounted charger, 100-240 V, 50-60 Hz, 400 mA
Motor (mast): 24 V 6A, Fabr. Linak, permanent magnetic motor with mechanical safety mechanism and safety nut.
Wheels: Standard front: 75 mm twin
 Alt. front: 100 mm twin
 Standard rear: 75 mm twin, brake-equipped
 Alt. rear: 125 mm twin, brake-equipped
Weight: Base: 10 kg (22.1 lbs.)
 Lift mast: 9 kg (19.8 lbs.)
 Control unit incl. battery pack + handcontrol: 4 kg (8.8 lbs.)

Material: Aluminium
Emergency lowering: Mechanical (patented) and electrical
Intermittent operation: Int. Op. 10/90, active operation max 2 min. Out of a time of 100, active must be less than 10, though not more than 2 min.
Degree of protection: IP 43

- Built for indoor operation.
- Type B, according to the degree of protection against electric shock.
- Class II equipment.

Measurements



LikoLight	Max. load	L		A		B	B'	C	D	E	F*	F'	G		Weight Tot.	Turning diameter
		Max	Min	Max	Min								Max	Min		
A:	140	156	26	176	118	115	81	65-108	51-96	97	11/14	3.2/4.8	72	50	23	127
B:	308	61.4	10.2	69.3	46.5	45.3	31.9	25.6-42.5	20-37.8	38.2	4.3/5.5	1.3/1.9	28.3	19.7	50.7	50

A: Max. load and weight in kg. Measurement in cm.

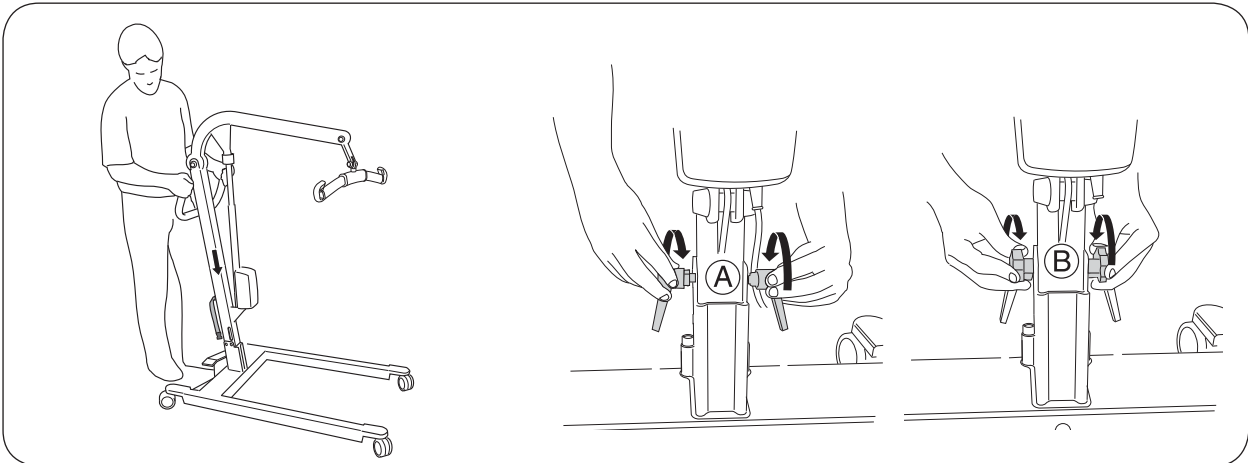
B: Max. load and weight in lbs. Measurement in inch.

* 11 cm (4.3 inches) is standard. 14 cm (5.5 inches) is valid when the front wheel diameter is 100 mm (3.94 inches).

Assembly instructions

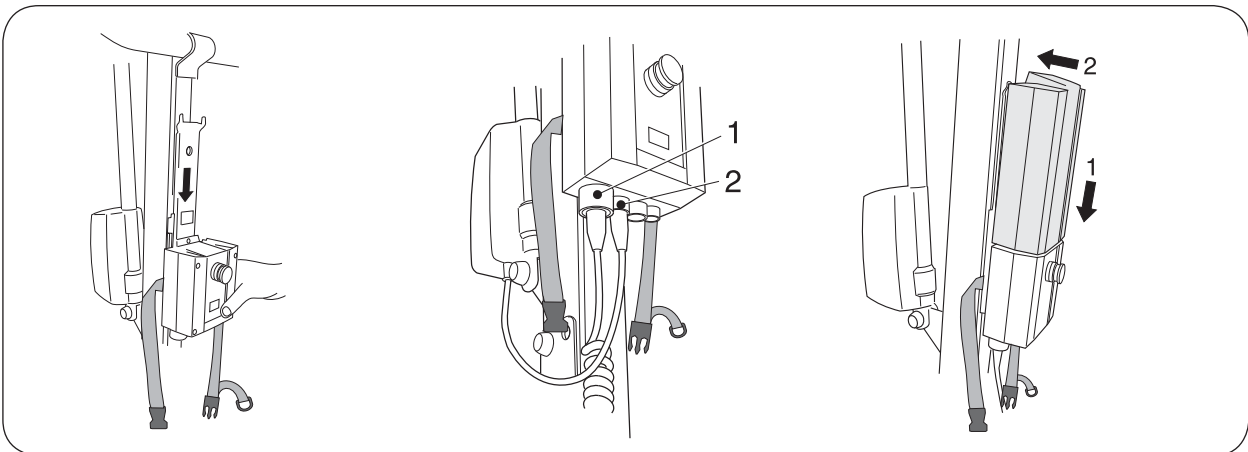
Before assembling, make sure you have the following parts:

- Lift mast with lift arm, motor for lift arm, Flexlink and Slingbar
- Base
- Handcontrol with cable
- Strap (for transportation)
- Charger
- Battery box
- Locking handle and guide screw
- Control box with mounting bracket
- Bag containing instruction guide, charger cable to wall-mounted charger and decal "Using the lift".



1. Lower the mast into the tube on the base, as shown in the picture.

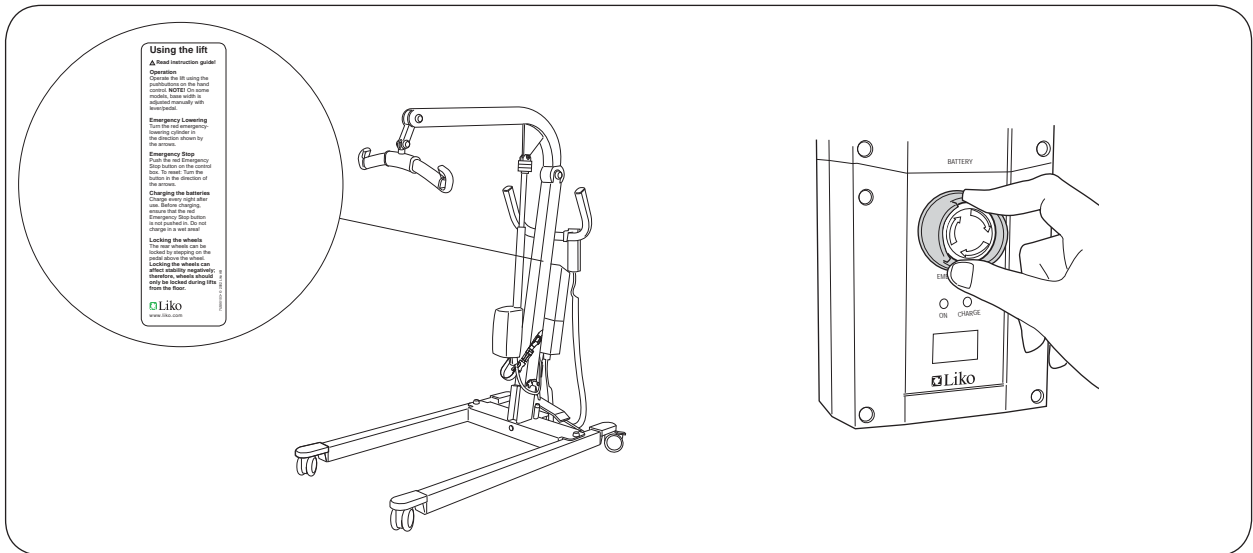
2. Place locking handle (A) in the smaller hole and tighten. Place guide screw (B) in the bigger hole and tighten.



3. Slide mounting bracket with control box down into slot. For disassembly and transport, remove control box by sliding bracket up and out.

4. Connect cables as in diagram above:
Outlet 1: Cable handcontrol
Outlet 2: Cable motor for lift arm

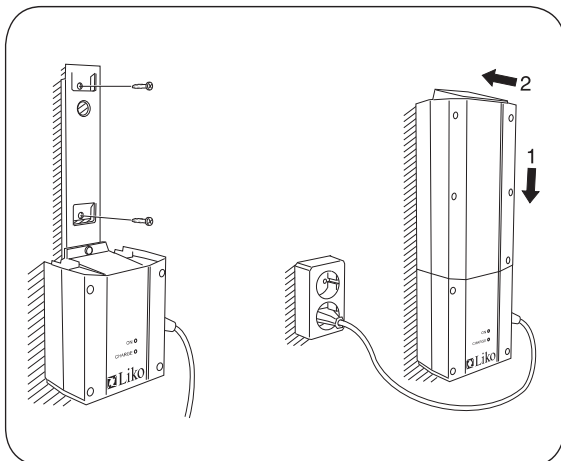
5. Place the removable battery box in the mounting bracket above the control box. Make sure that the battery box locks in place. You should hear a "click".



6. Affix the decal marked "Using the lift" on one side of the mast.

7. Set the emergency stop function by turning the button in the direction of the arrows, as shown in the illustration above.

Mounting the wall-mounted charger



After assembling, check to make sure that:

- the screws and locking nuts that hold the slingbar in place are properly fastened and tightened
- the lifting motion coincides with the indicators on the handcontrol (up/down)
- the emergency lowering device functions properly (mechanical and electrical)
- the wheel brakes function correctly
- the LED lamps on the charger light during charging.

User's guide

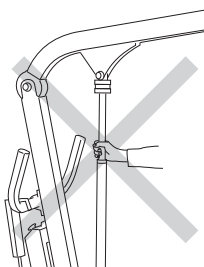
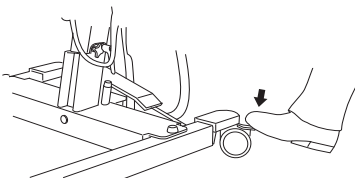
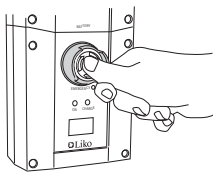
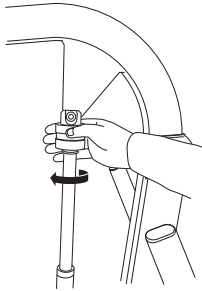
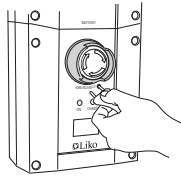
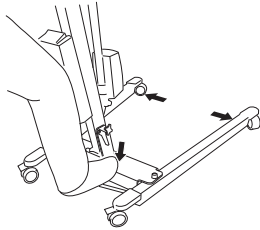
Operation

Operate LikoLight using the pushbuttons on the handcontrol.

For raising and lowering the slingbar:

press  and  respectively.

Directional arrows on each button show the direction of movement (up/down). The lift stops when you release the buttons.



Base-width adjustment

Base-width adjustment is done manually with the foot pedal. Press the right side to widen the base and the left side to make it narrower.

Electrical Emergency Lowering

The lift arm can be lowered electrically by pressing the hole marked "down" on the electrical power unit with a narrow object.

△ The object used to press must not be sharp!

Mechanical Emergency Lowering

Turn the red emergency-lowering cylinder in the direction shown by the arrows.

Emergency stop

For emergency stop: Push the red Emergency Stop button on the control box.

To release/reset: Turn the button in the direction of the arrows.

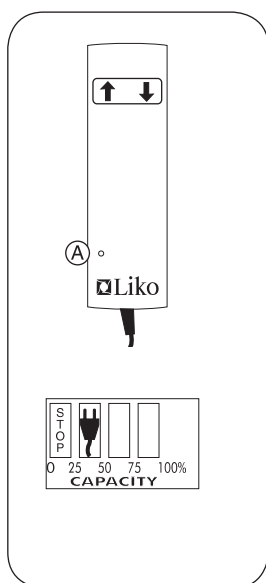
Locking the wheels

To lock wheels step on the small pedal on the back of the wheel. The wheel locks for rotation and lateral movement. In most lifting situations, the wheels need not be locked. We recommend that the wheels be locked only when there is a risk of personal injury in the event that the lift begins to roll, e.g., when lifting a patient from a horizontal position on the floor. To release wheel brake, press the pedal upwards.

△ Locked wheels during lifting increases the risk of the lift tilting over.

△ Never pull the lift by the actuator! This may result in damage to the lift and possible injury.

Charging the batteries



Battery capacity

If the battery needs charging a beep tone will sound and a lamp on the handcontrol (A) will light.

Charge the battery as soon as possible.

There is however enough power left in the battery for a few more lifts.

A display on the control box indicates battery charge level.

The battery is fully charged when all fields are black.

When the “plug” symbol appears, the battery must be charged.

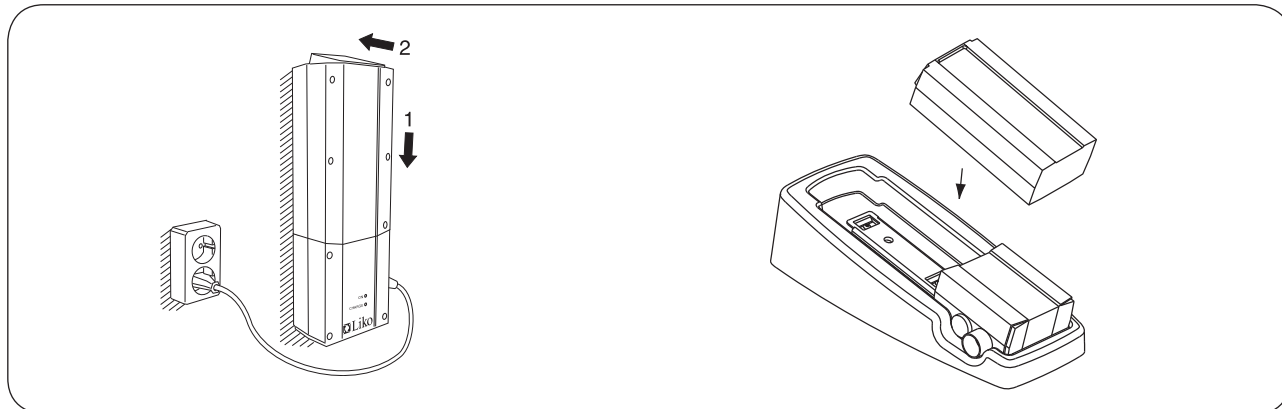
For maximum battery life, batteries must be charged regularly. We recommend charging every night after using the lift. The battery charges fully in 4 hours. The charger shuts off automatically once the battery is fully charged.

NOTE! A yellow indicator lamp on the control box lights constantly during charging. When the batteries are fully charged, the lamp shuts off. If the lamp

continues to light after 6 hours, the batteries probably need to be replaced. Discontinue charging and replace batteries.

Never charge batteries in a wet area!

If the lift is not in daily use, we recommend that the emergency stop be pressed in after the lift has been used. This breaks the current and conserves battery power.



Charging with wall-mounted charger:

Remove the battery box from the lift by raising the catch at the back of the battery box and lifting upwards.

Place the battery box on the wall-mounted charger, as shown in the illustration. Check that the charger is plugged into the wall socket and that the lamp on the front of the charger lights (indicates charging).

Charging with tabletop charger:

Remove the battery box from the lift by raising the catch at the back of the battery box and lifting upwards.

Place the battery box in the tabletop charger, as shown in the illustration.

Check that the charger is plugged into the wall socket and that the lamp on the front of the charger lights (indicates charging).

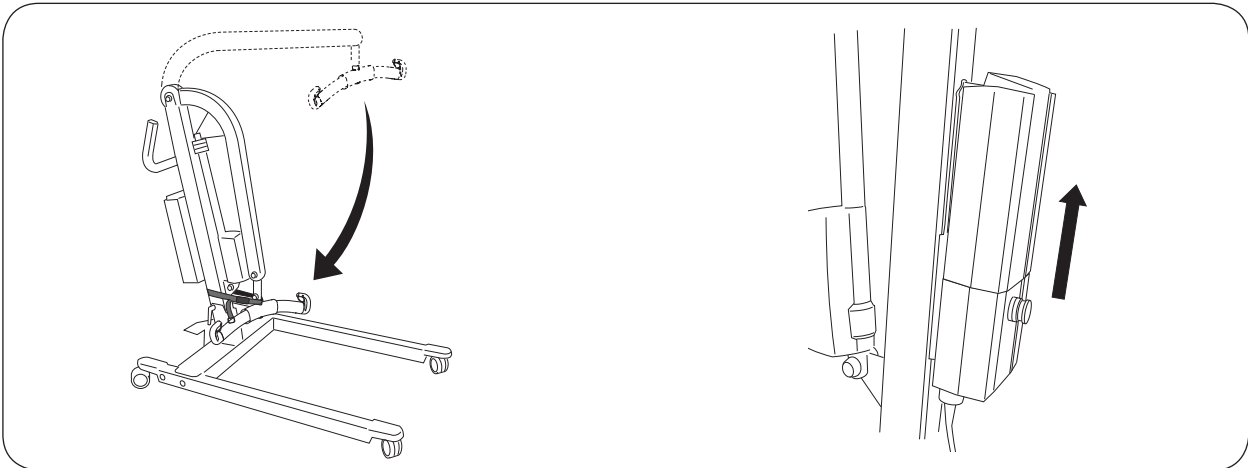


Old batteries are to be given to authorized Liko/Hill-Rom personnel, or left at the nearest recycling station.

Disassembly and transport

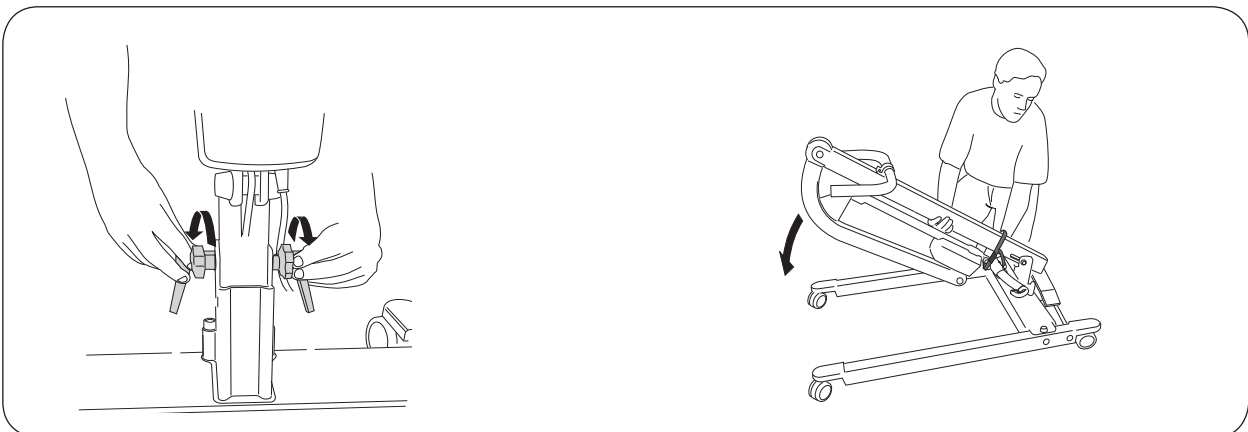
Alternative 1: Fold away without dismantling.

Recommended when the lift is transported without carrier bags.



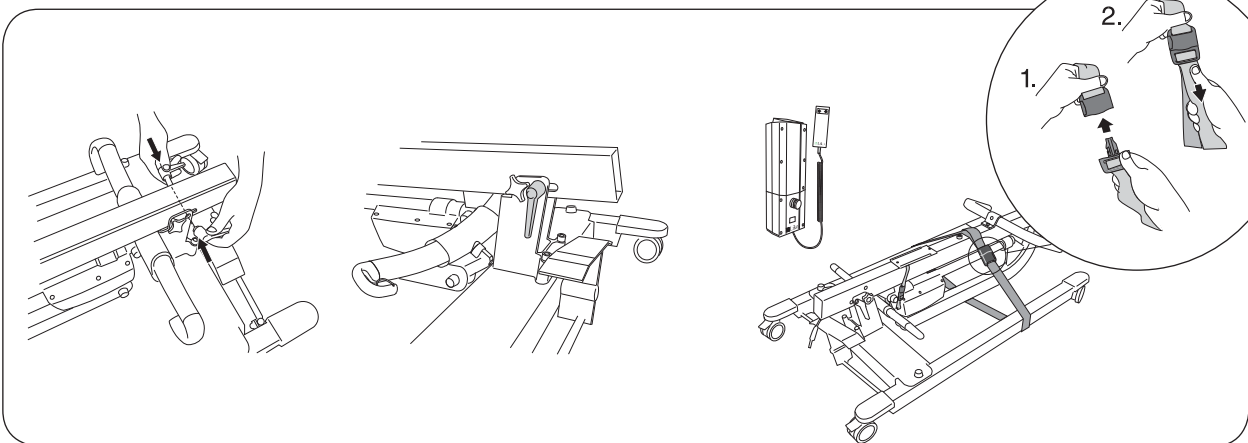
1. Lock the wheels by pressing on the pedal on the back of the rear wheels (see page 6). Lower the lift arm as far down as possible. Fasten the slingbar with the strap.

2. Remove the cable for motor for lift arm (see page 4). Remove the battery box and control box from the mast. If there is no risk of damaging the electronics during transport the battery box and control box can be left on the lift.



3. Remove the locking handle.

4. Pull the mast up somewhat and fold the lift so that the mast is parallel with the base.

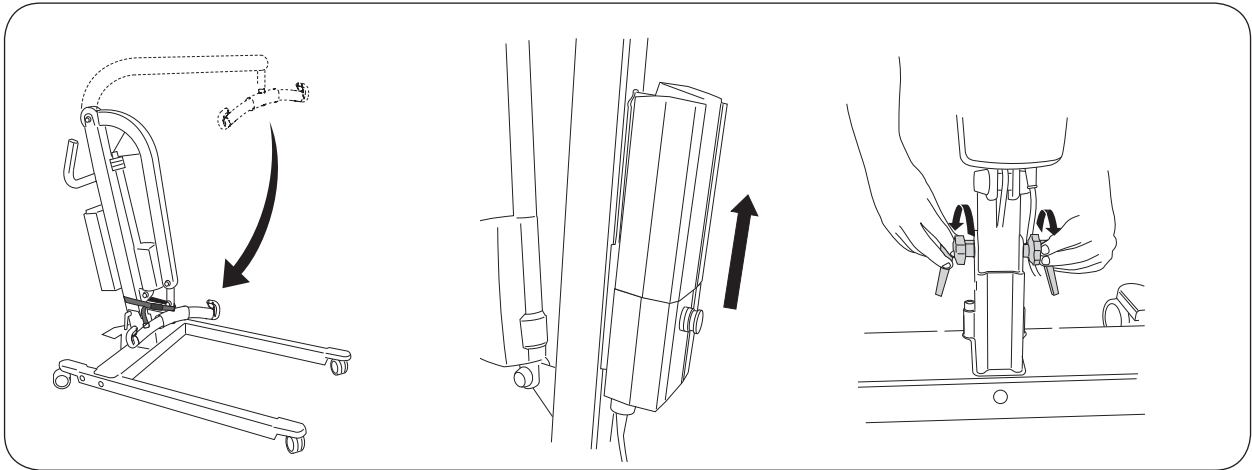


5. Pull the mast back far enough to allow the locking handle to be mounted through the mast. Secure the mast in this position with the locking handle (rear hole).

6. Secure strap around the lift and transport it in one piece (electronics separately).

Alternative 2: Disassembly

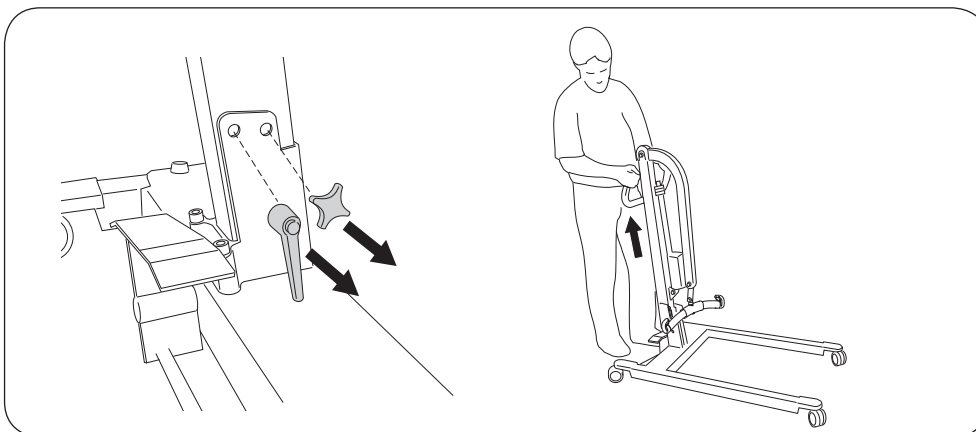
Recommended when the lift is transported with carrier bags.



1. Lock the wheels by pressing on the pedal on the back of the rear wheels (see page 6). Lower the lift arm as far down as possible. Fasten the slingbar with the strap.

2. Remove the cable for motor for lift arm (see page 4). Remove the battery box and control box (incl. handcontrol) from the mast.

3. Loosen the locking handle and guide screw.



4. Remove the locking handle and guide screw.

5. Remove the mast from the base and transport the lift in pieces.

Slings and accessories

Liko's product range includes many different slings, and other accessories such as weigh scales and bags. Many of these can be used together with LikoLight to meet the requirements of most difficult lifting situations. For particularly high lifting situations, models of Liko's Universal Sling (Prod. No. 3505115 Medium and Prod. No. 3505116 Large) have been specially developed to provide for extra lifting height.

Recommended slingbars for LikoLight are listed below. Different max. loads apply to different products in the composed lift unit: lift, slingbar, sling and other accessories that might be used. For the composed lift unit, it is the lowest max. load stated on the products that applies to the entire lift unit. For example: A LikoLight that is approved for 140 kg (308 lbs.) can be equipped with a slingbar that is approved for 300 kg (660 lbs.). In this case the maximum load for the entire lift unit will be 140 kg (308 lbs.). Study the marking of the lift and the accessory or contact your Liko representative.

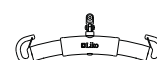
To select the appropriate slings and lifting accessories please see our brochure "*Lifting accessories*". For further guidance in selecting the appropriate accessories, study the instruction guide for each sling model. Contact your Liko/Hill-Rom representative or visit www.liko.com for advice and information about Liko's products.

Recommended slingbars for LikoLight

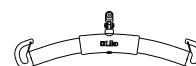
Slingbar Mini 220 Prod. No. 3156005
Max 205 kg / 450 lbs.



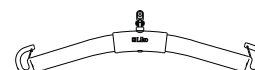
Universal Slingbar 350 Prod. No. 3156074
Max 300 kg / 660 lbs.



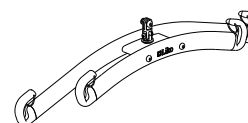
Universal Slingbar 450 Prod. No. 3156075
Max 300 kg / 660 lbs.



Universal Slingbar 600 Prod. No. 3156076
Max 300 kg / 660 lbs.

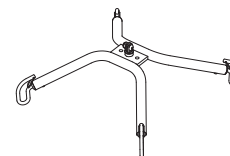


Universal Twinbar 670 Prod. No. 3156077
Max 300 kg / 660 lbs.

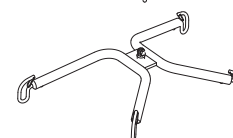


The following slingbars can only be used to a limited extent:

Sling Cross-bar 450 Prod. No. 3156021
Max 300 kg / 660 lbs.



Sling Cross-bar 670 Prod. No. 3156018
Max 300 kg / 660 lbs.

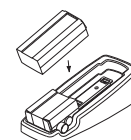


Accessories for LikoLight

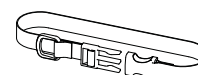
Lever for base width adjustment Prod. No. 2037010
Lever for widening or narrowing base.
Mounted in existing base-adjustment pedal.



Tabletop charger stand Prod. No. 2107103
A tabletop stand for the charger when you do not wish to mount the charger on the wall.
Excl. charger and battery.



Strap LikoLight slingbar Prod. No. 2037015



Slingbar cover Paddy 30 Prod. No. 3607001
(fits Universal Slingbars 350, 450 and 600 and Slingbar Slim 350)



Bags for LikoLight

Contact Liko/Hill-Rom for more information

Simple troubleshooting

The lift does not work (up/down)



1. Check that the emergency stop button is not pushed in.
2. Check that the cables to the hand-control and lift motor are connected correctly.
3. Check the battery charge level (see display on control box).
4. Check that the battery contact plate is not defective or broken off.
5. *If the lift still does not work satisfactorily, contact Liko/Hill-Rom.*

Battery charging does not work



1. Check that the charger is plugged into the wall socket.
2. Check that the battery contact plate is not defective or broken off.
3. *If the charger still does not work satisfactorily, contact Liko/Hill-Rom.*

The lift stops in the elevated position



1. Check that the emergency stop button is not pushed in.
2. Use the emergency lowering device (marked). See page 6.
3. Check that the battery is charged.
4. *If the lift still does not work satisfactorily contact Liko/Hill-Rom.*

If you hear unusual sounds



Contact Liko/Hill-Rom.

Care and Maintenance

For safe and trouble-free operation, a few routine procedures should be performed every day the lift is used.

- Visually inspect the lift and check for external damage or wear.
- Check that screws and lock nuts on the slingbar are tight.
- Check that the latches on the slingbar work properly.
- Check the handcontrol and the lift and width movements.
- Check the emergency lowering function (both electrical and mechanical).
- Charge the battery every day the lift is used, and check charger function.

When necessary, clean the lift with warm water or ethanol and check to ensure that the wheels are free of dirt and hair. **NOTE! Do not use chemicals containing phenol or chlorine, since this may damage aluminium and polyamide materials.**

Service

LikoLight must be inspected at least once per year, with particular attention to parts that are subject to wear.

△ Repairs and maintenance may only be carried out in accordance with Liko service manuals, by authorized Liko service personnel and using original Liko spare parts.

Service agreements

Liko invites you to sign a service agreement for regular maintenance and inspection of your Liko product.

Transportation and storage

During transportation, or when the lift is not to be used for some time, the Emergency Stop button should be pushed in. Store the lift at a temperature exceeding freezing point and at normal relative humidity (no more than 60%).

Product changes

Liko's products are constantly being updated and refined. Liko reserves the right to change aspects of the products without prior notice. Contact your Liko/Hill-Rom representative for updated information and advice.

Recycling

For instructions on how your Liko product should be recycled, please visit our website www.liko.com.

Design and Quality by Liko in Sweden

Liko is quality certified according to ISO 9001 and environment certified according to ISO 14001.



A  Company

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