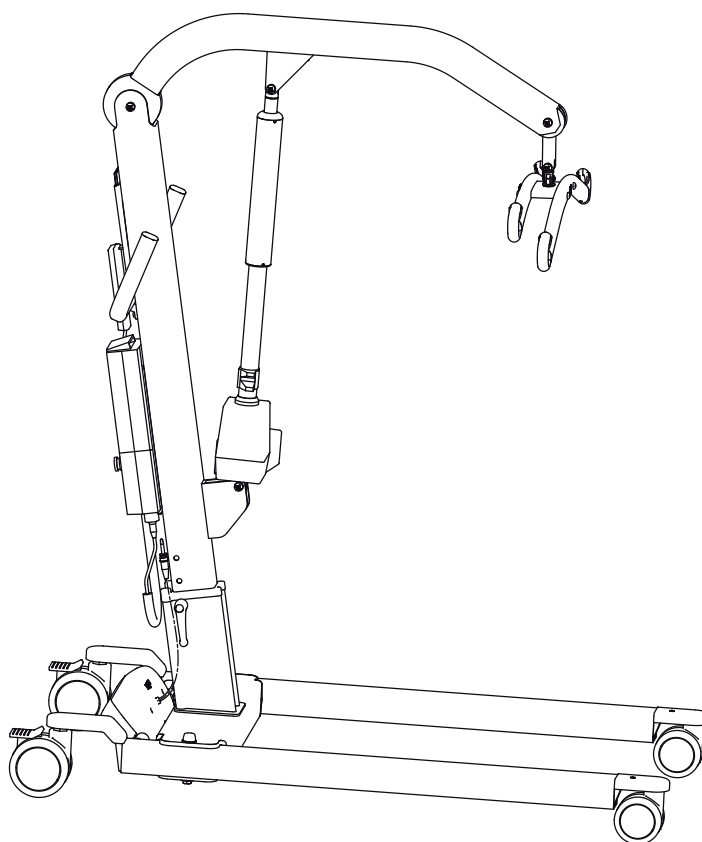


Instruction Guide

English
7EN135104-03
2008-02-14

Applies to the following models:

Viking XL Prod. No. 2040003



Product Description

Viking XL is a mobile lift that has been specially developed for lifting heavy patients.

With a 300 kg (660 lbs.) capacity, Viking XL is ideal for most normal lifting situations, even for lifting from the floor.

Viking XL is a fully electric mobile lift, i.e., both raising and lowering of the lift arm and width adjustment of the base are done with electric motors.

To ensure maximum safety for caregivers and patients, Viking XL is equipped with both mechanical and electrical emergency lowering.

For the caregiver, manoeuvring a mobile lift with a heavy patient can be a difficult task.

Avoid using Viking XL for transferring very heavy patients; instead, use a wheelchair/hygiene chair for transfers whenever possible. During the actual lifting situation, when the patient is suspended in the sling, it may be easier to move the empty wheelchair to the lift, instead of vice versa.

In each case, assess the situation to determine how many caregivers are needed to perform a safe and ergonomically correct lift and transfer.

When using the lift, an individually tested sling and other accessories are essential for good function and safety.

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

△ is a warning triangle used to warn of situations that demand extra care and attention.

IMPORTANT!

Carefully read these instructions and the instructions for the particular lifting accessory being used. Lifting and transferring a person always present a potential risk. It is essential to thoroughly understand the contents of this instruction guide. Only trained personnel should use the equipment. If you have questions, please contact Liko or your local Liko representative.

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⚠ NOTE!

This instruction guide contains information that is important for users of the product. A complete understanding of the contents of the instruction guide is essential, and only personnel who are well informed should use the equipment. Remember to keep the instruction guide readily accessible for users of the product.

Safety Instructions

Before using the lift, make certain that:

- the lift is assembled according to the instructions
- lifting accessories are correctly applied to the lift
- the batteries have been charged for at least 6 hours
- you have read and understood the instruction guides for the lift and lifting accessories
- personnel using the equipment have received appropriate instructions and training
- you have selected the correct type, size, material, and design of slings and accessories to safely meet the patient's needs.

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 no personal injury can occur
- the lifting accessory is correctly applied to the lifting equipment
- the sling's strap loops are correctly fastened to the slingbar hooks when the sling strap is extended, but before the patient is lifted from the underlying surface.

△ Never leave a patient unattended in a lifting situation!



Viking XL is tested by an accredited testing institute and complies with the requirements of directives for medical-technical Class I products (MDD 93/42/EEC).

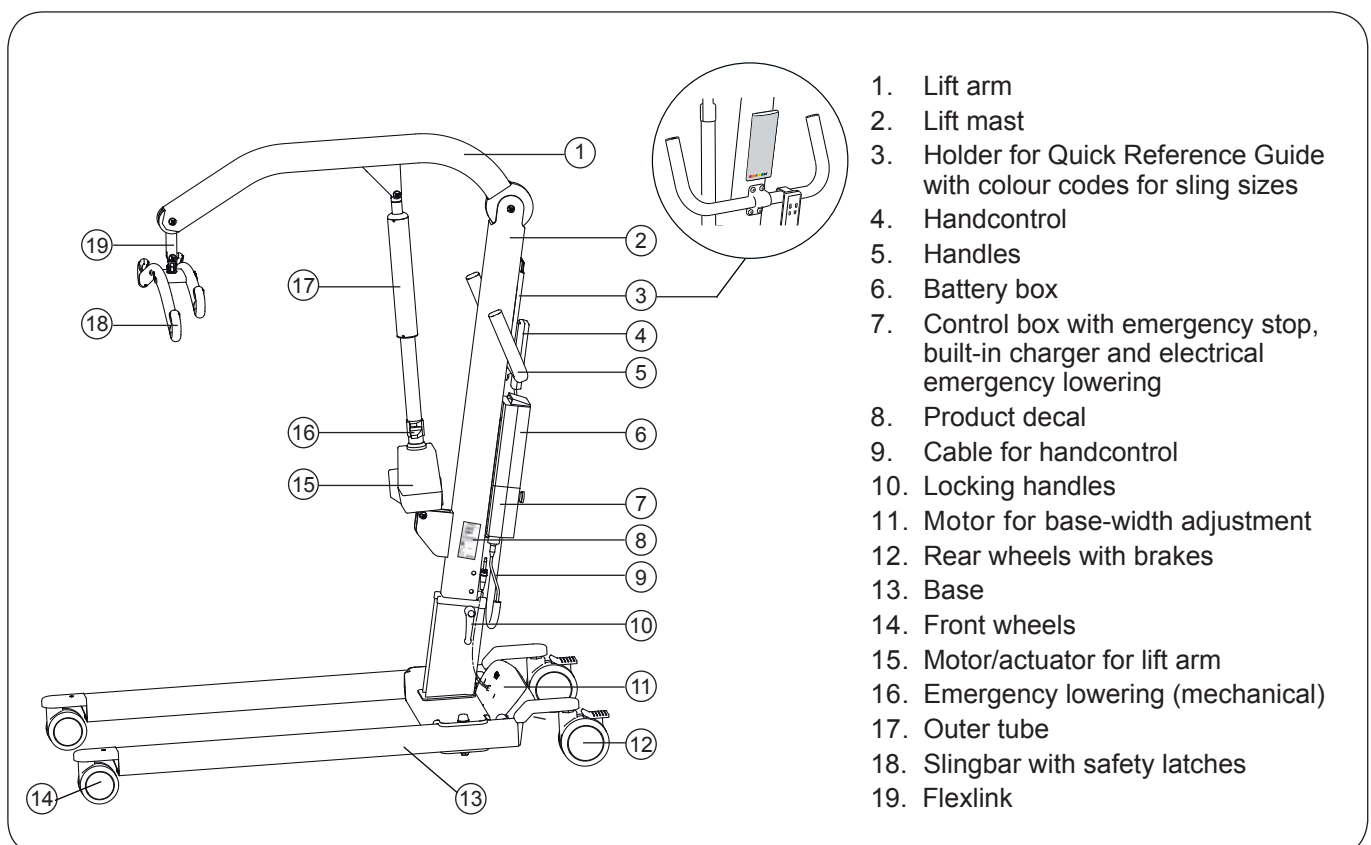
Viking XL complies with the requirements according to IEC 60601-1, IEC 60601-1-2, EN ISO 10535, UL-60601-1, and CAN/CSA C22.2 No.601.1.

Particular care must be taken when using strong sources of potential disturbance, such as diathermy, etc, so that cables are not positioned on or near the lift. If you have questions, please consult the responsible assistive-device technician or the supplier.

Equipment not suitable for use in the presence of flammable mixtures.

Max. load: 300 kg (660 lbs.)

Definitions



Technical Data

Lifting speed: 2.5 cm/s (0.98 inch./s) without load

Batteries: Two 12 V, 2.9 Ah, valve-regulated lead-acid gel-type batteries. New batteries are provided by the supplier.

Battery charger: Built-in charger, 100-240 VAC, 50-60 Hz, max 400 mA

Motor (mast): 24 V, 10.8 A, permanent magnetic motor with mechanical safety mechanism, safety nut and outer tube.

Motor (base): 24 V, 5.5 A, permanent magnetic motor.

Material: Aluminium


Emergency lowering: Mechanical and electrical


Wheels: Standard front: 100 mm (3.9 inch.) dual.
Standard rear: 125 mm (4.9 inch.) dual with brake.
Alt. front: 75 mm (3.0 inch.) dual.
Alt. rear: 100 mm (3.9 inch.) single wheel w. brake.

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.

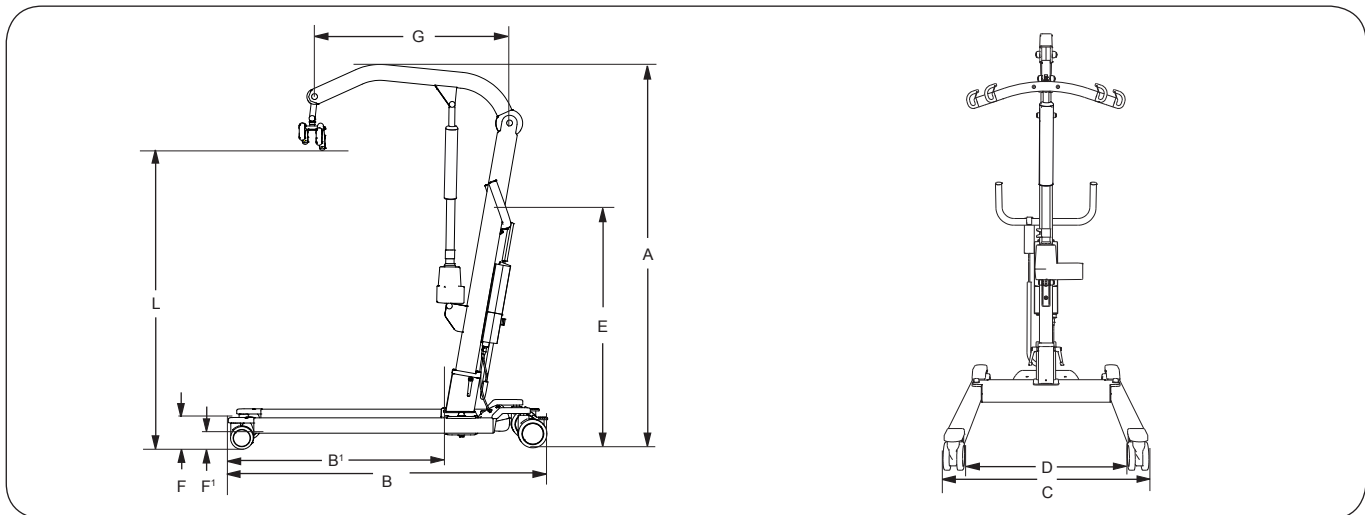
Degree of protection: IP 43

 Built for indoor operation.

 Type B according to the degree of protection against electric shock.

 Class II equipment.

Measurements



Max. load and Weight in kg. Measures in mm.

| Model | Wheel diameter | Max. load | L* Max | L* Min | A* Max | A* Min | B | B' | C | D | E* | F | F' | G | Weight tot | Weight part | Turning diameter |
|-----------|----------------|-----------|----------------------|-------------------|----------------------|----------------------|------|-----|----------|----------|----------------------|-----|----|-----|------------|-------------|------------------|
| Viking XL | 100/125** | 300 | 1870 1820 1770 | 660 610 560 | 2110 2060 2010 | 1610 1560 1510 | 1420 | 960 | 770-1160 | 640-1040 | 1140 1090 1040 | 140 | 45 | 900 | 42 | 23 | 1510 |
| Viking XL | 75/100 | 300 | 1860 1810 1760 | 650 600 550 | 2100 2050 2000 | 1600 1550 1500 | 1420 | 960 | 770-1160 | 640-1040 | 1130 1080 1030 | 120 | 35 | 900 | 42 | 23 | 1510 |

Max. load and Weight in lbs. Measures in inches.

| Model | Wheel diameter | Max. load | L* Max | L* Min | A* Max | A* Min | B | B' | C | D | E* | F | F' | G | Weight tot | Weight part | Turning diameter |
|-----------|----------------|-----------|----------------|----------------|----------------|----------------|----|----|-------|-------|----------------|-----|-----|----|------------|-------------|------------------|
| Viking XL | 3.9/4.9** | 660 | 74 72 70 | 26 24 22 | 83 81 79 | 63 61 59 | 56 | 38 | 30-46 | 35-41 | 45 43 41 | 5.5 | 1.8 | 35 | 93 | 51 | 60 |
| Viking XL | 3.0/3.9 | 660 | 73 71 69 | 26 24 22 | 83 81 79 | 63 61 59 | 56 | 38 | 30-46 | 35-41 | 44 43 41 | 4.7 | 1.4 | 35 | 93 | 51 | 60 |

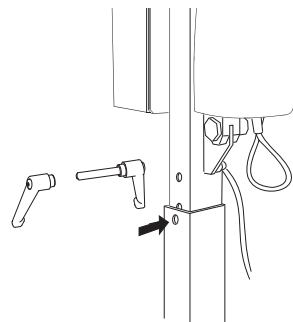
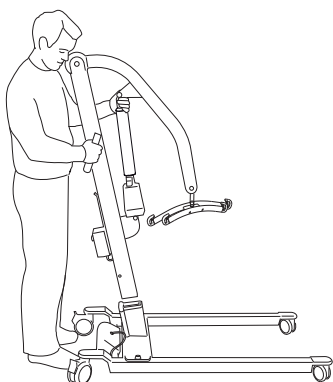
* These measures depend on which hole the mast is levelled and secured in. See assembly instructions page 5.

** Standard for Viking XL.

Assembly

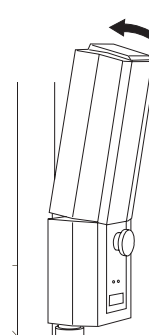
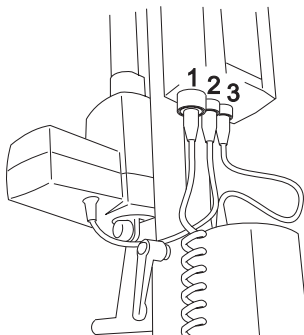
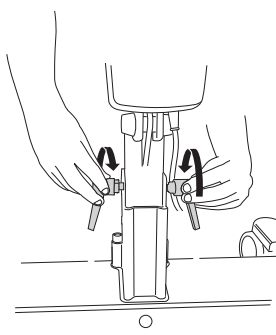
Before assembly, make sure you have the following:

- Lift mast with lift arm, motor for lift arm, slingbar with safety latches and control box
- Base with motor for width adjustment
- Handcontrol with cable
- Locking handles (1 pair)
- Battery box
- Bag containing Instruction Guide, cable for charging (with extension cable for charging) and the Quick Reference Guide.



1. Lock both rear wheels. Place the mast in the tube on the base.

2. The lifting height can be adjusted at three different levels. Select one of the three holes, as shown in the illustration above. The middle hole is recommended in most cases. The bottom hole on the mast is recommended when a greater lifting height is desired. The upper hole is recommended when a lower lifting height is desired. The distance between two holes is 50 mm (2 inch.).
See *Measurements*, page 4.

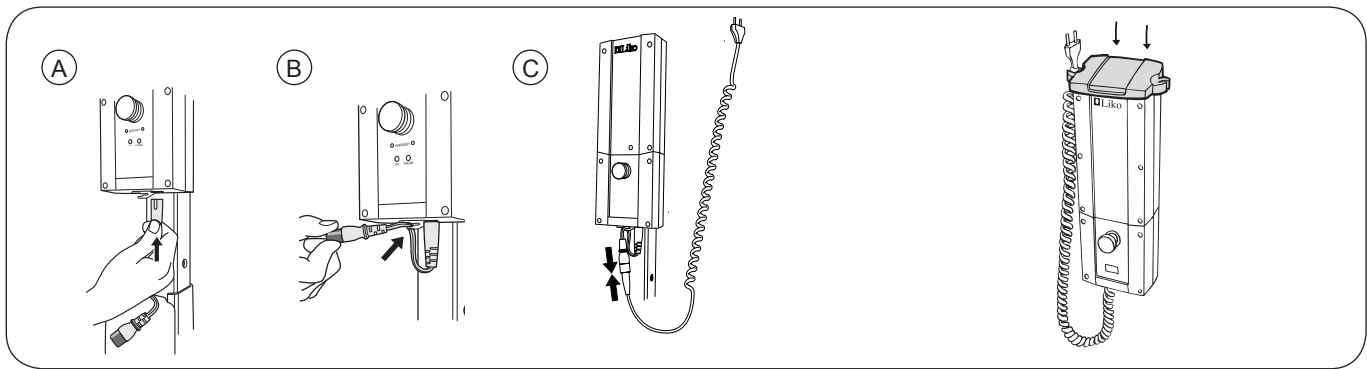


3. Secure the mast with the locking handles.

4. Connect the cables as follows:

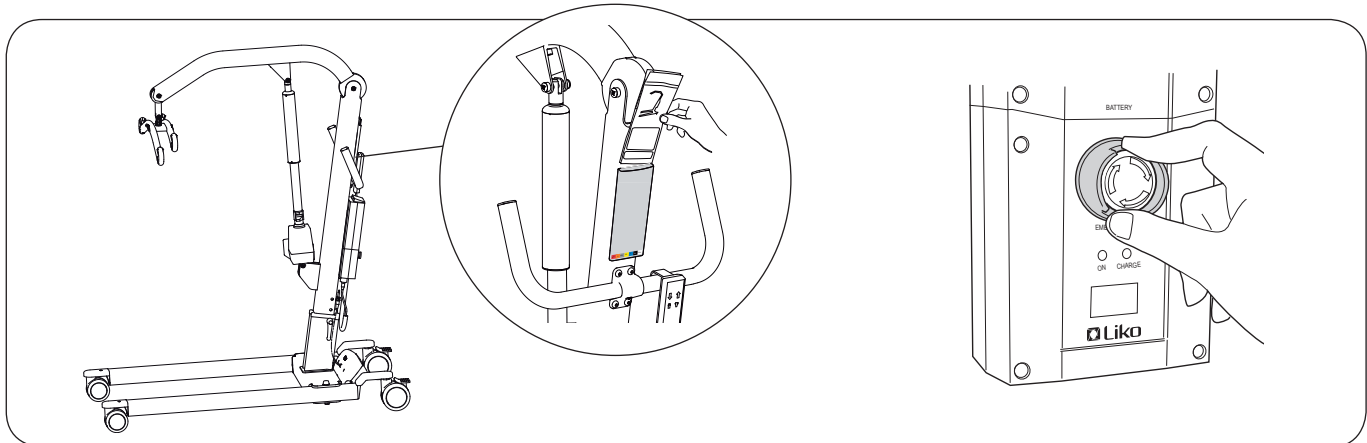
- Cable handcontrol to socket number 1
- Cable motor for lift arm to socket number 2
- Cable base motor to socket number 3.

5. Place the removable battery box into position on top of the control box. Check that the battery box is firmly locked (a 'click' will be heard).



6. A) Connect the extension cable for charging to the control box.
 B) Insert the extension cable for charging in the tension clip underneath the control box.
 C) Connect the charger cable to the extension cable.

7. Mount the holder for the charger cable: hook it on the outer edge of the battery box and press down until you hear a 'click'.



8. Place the Quick Reference Guide in the holder on the mast.

9. Reset the emergency stop by turning the button in the direction indicated by the arrows.

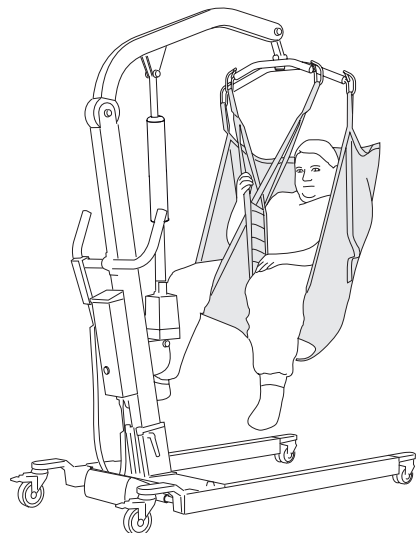
After assembly, check to ensure that:

- the lifting motion coincides with the indicators on the handcontrol
- emergency lowering (mechanical and electrical) functions properly
- wheel brakes work properly
- the width adjustment of the base coincides with the indicators on the handcontrol
- the indicator lamps on the front of the control box light when charging.

Use the Slingbar Properly!

Viking XL is accompanied by Universal Twinbar 670 (Prod. No. 3156077) for max. load 300 kg (660 lbs.). It is equipped with four suspension hooks, where the two wider hooks are intended for the sling's upper strap loops and the two narrower hooks are for the leg support loops.
 △ Load **MUST** be applied to all four hooks during lifting.

The wide slingbar provides generous space for the patient's upper body, even when the arms are held inside the sling. When an alternative slingbar is required, there are a number of straightslingbars available, with a max. load of 300 kg (660 lbs.), that can also be used with Viking XL.



Operation

Operation

Operate the lift using the pushbuttons on the handcontrol.

For raising and lowering, press either of the two upper push-buttons. Directional arrows show the direction of movement (up/down), when the handcontrol is held as illustrated. The lift stops when you release the buttons.

For base-width adjustment, press either of the two lower pushbuttons:

 Wider

 Narrower.

Emergency stop

To activate:

Push the red emergency stop button on the control box.

To reset:

Turn the button in the direction of the arrows.

Electrical emergency lowering

With a narrow object, press the hole marked "EMERGENCY" on the control box.

△ The object used to press must not be sharp, since this may cause damage on the control box!

Mechanical emergency lowering

Pull the red emergency lowering regulator straight upward. The mechanical emergency lowering device functions only when the lift arm is loaded, i.e., when the patient is in the lift.

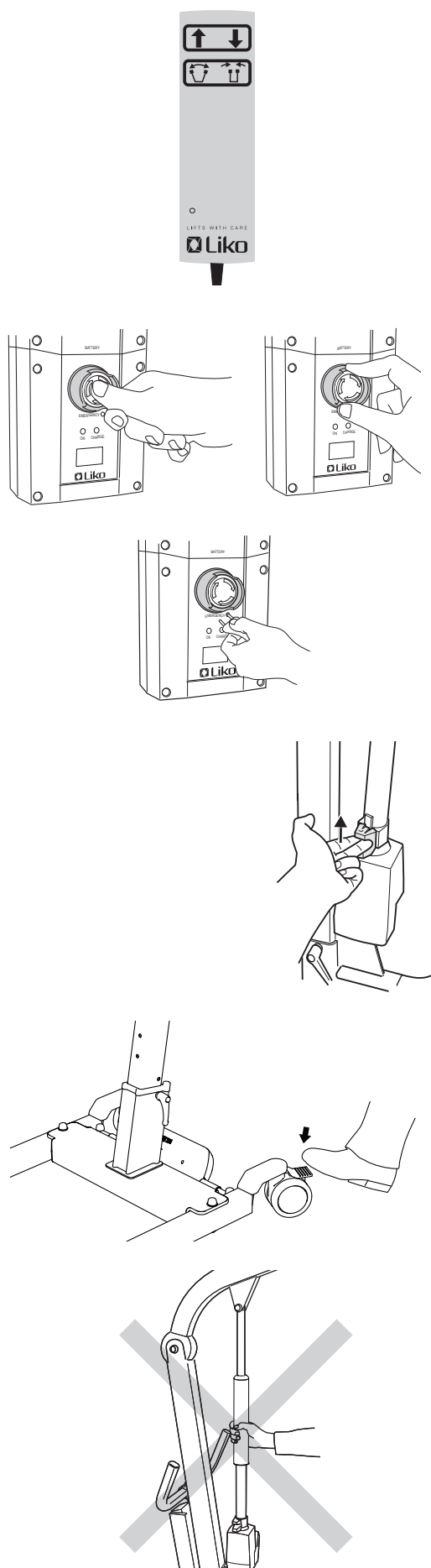
Locking the wheels

The rear wheels can be locked for rotation and lateral movement. To lock the wheels, press down the brake lever above the wheel with your foot. To release the wheels, press up the brake lever with your foot.

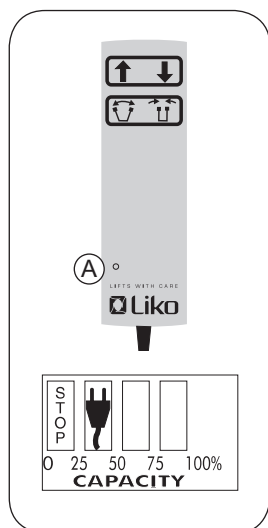
During lifting, wheels should remain unlocked so that the lift may shift to the patient's center of gravity. The wheels should however be locked if there is a risk of the lift moving into the patient, for example when lifting from the floor.

△ 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.

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

A display on the control box shows the current battery capacity. When all fields of the display are black, the battery is fully charged. When a fuse symbol appears (see illustration), the battery must be re-charged immediately.

For maximum battery life, batteries must be charged regularly. We recommend charging after use or each night.

Maximum charge is reached after about 6 hours. When the batteries are fully charged, the charger disconnects automatically.

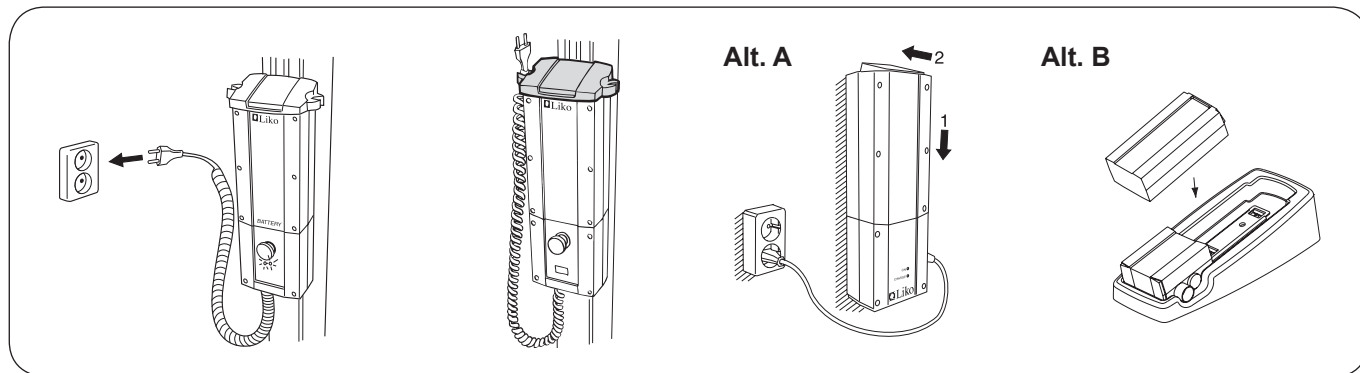
NOTE! A yellow indicator lamp on the control unit lights constantly during charging. When the batteries are fully charged, the yellow lamp shuts

off. If this lamp continues to light after 8 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. Make sure the lift is fully charged before pressing in the emergency stop.

Charging procedure



With built-in charger:

Plug the coiled cable into a wall socket (100-240 VAC~). Check that the yellow lamp on the control box lights (indicates charging).

If the charger cable is stretched out it should be replaced to avoid the risk of the cable getting caught and tear.

With wallmounted charger or table charger housing:

Loosen the holder for the charger cable. Remove the battery box from the control box by loosening the locking device on top of the battery box.

Alt. A. Place the battery box on the wallmounted charger. Check that the charger is plugged into the wall socket and that the yellow lamp on the front of the charger lights (indicates charging).

Alt. B. Place the battery box on the charger in the table charger housing. Check that the charger is plugged into the wall socket and that the yellow lamp on the front of the charger lights (indicates charging). This alternative can be used if you do not want to mount the charger on the wall.

Note! The lift does not operate when the charger cable is plugged into a wall socket.



Old batteries are to be left at the nearest recycling station or given to personnel authorized by Liko.

Maximum Load

Different maximum allowable loads may apply to different products on the assembled lift system: lift, slingbar, sling and other accessories. For the total lift system, the lowest max. allowable load indicated for the respective products on the system always applies. For example: A Viking XL that is approved for 300 kg (660 lbs.) may be equipped with a lifting accessory that is approved for 200 kg (440 lbs.). In this case, the applicable max. load is 200 kg (440 lbs.) for the total lift system.

Study markings on the lift and lifting accessories or contact your Liko representative if you have any questions.

Recommended Accessories

Slingbars and accessories recommended for use with the Viking series of mobile lifts are described below.

Changing slingbars and adding extra accessories affects the maximum lifting height of the lift. Before changing slingbars and accessories, it is important to ensure that it will still be possible to achieve the desired lifting height for situations in which the lift will be used.

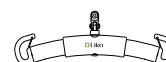
For choice of appropriate slings and other lifting accessories, see e.g., the brochure *"Lifting Accessories"*. For further guidance on choosing a sling, consult the instruction guide for the respective sling model. Here, you will find advice on suitable combinations of Liko slingbars and Liko slings.

Contact your Liko representative or visit www.liko.com for advice and information on Liko's product range.

Universal Slingbar 350

Max 300 kg / 660 lbs.

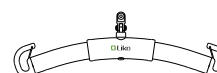
Prod. No. 3156074



Universal Slingbar 450

Max 300 kg / 660 lbs.

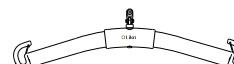
Prod. No. 3156075



Universal Slingbar 600

Max 300 kg / 660 lbs.

Prod. No. 3156076

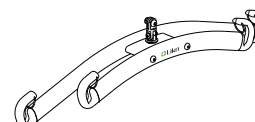


Universal Twinbar 670

(Standard for Viking XL)

Max 300 kg / 660 lbs.

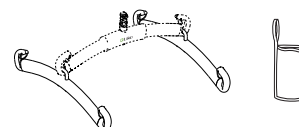
Prod. No. 3156077



Universal Side Bars 450 incl. storage bag

Max 300 kg / 660 lbs.

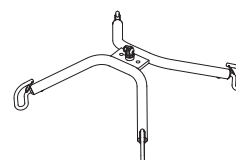
Prod. No. 3156079



Sling Cross-bar 450

Max 300 kg / 660 lbs.

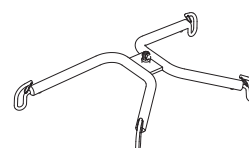
Prod. No. 3156021



Sling Cross-bar 670

Max 300 kg / 660 lbs.

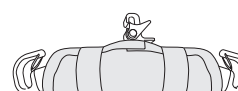
Prod. No. 3156018



Slingbar Cover Paddy 30

(fits Universal Slingbar 350, 450 and 600
and Slingbar Slim 350)

Prod. No. 3607001



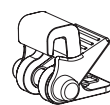
Quick-release Hook

Liko's Quick-release Hook system enables quick and easy exchange of lifting accessories on Liko's mobile and stationary lifts. Viking XL can be equipped with Q-link 13 for use with Quick-release Hook, which is mounted on the lifting accessory.

Quick-release Hook Universal fits Universal Slingbar 350, 450 and 600 (Prod. No. 3156074-3156076). Quick-release Hook TDM fits Sling Cross-bar 450 and 670 (Prod. No. 3156021 and 3156018) and Universal Twinbar 670 (Prod. No. 3156077).

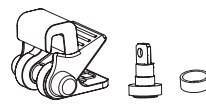
When a slingbar mounted with the Quick-release Hook system is used, the lifting height will be 33 mm shorter than with a permanently mounted slingbar.

See "Guide to Liko's Quick-release Hook System", which can be downloaded at www.liko.com, or contact Liko for more information on the advantages and use of the Quick-release Hook system.



Quick-release Hook Universal

Prod. No. 3156508



Quick-release Hook TDM

Prod. No. 3156502



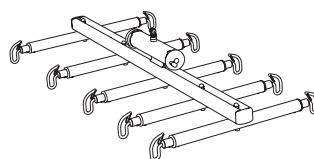
Q-link 13

Prod. No. 3156509

Horizontal stretchers for Viking

Liko FlexoStretch can be used together with Viking XL for horizontal lifts. Max. load 300 kg (660 lbs.).

Several horizontal stretchers with a max. load of 200 kg (440 lbs.) are included in Liko's assortment of lifting accessories.



Liko FlexoStretch

Prod. No. 3156057

Bag for Slingbars

Prod. No. 2001025

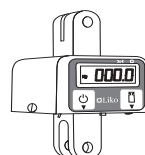


Scale for Viking

In need of weighing persons in combination with Viking XL we recommend LikoScale 350 (requires Adapter 12 mm).

LikoScale 350 is certified according to the european directive NAWI 90/384 (Non Automatic Weighing Instruments).

Contact Liko for more information.



LikoScale 350

Prod. No. 3156228



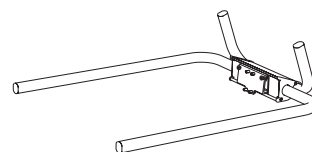
Adapter 12 mm

Prod. No. 2016504

Viking Armrest XL, L

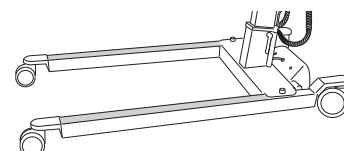
Prod. No. 2047010

Fits Viking XL when it is mounted in its highest position. In need of an armrest when the lift is mounted in one of the two lower positions, a shorter and more narrow armrest (Prod. No. 2047011) is available as an alternative.



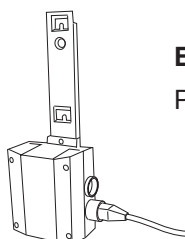
Leg Protector Viking XL

Prod. No. 2046013



Battery charger, for wallmounting

or for use with the table charger housing
Prod. No. 2004106



Extra battery

Prod. No. 2006106

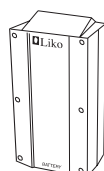
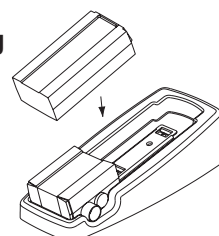


Table charger housing excl. charger and battery

Prod. No. 2107103



Simple Troubleshooting

**The lift does not work up/down.
Width adjustment does not
work in/out.**



1. Check that the emergency stop button is not pushed in (p. 7).
2. Check that the cables are correctly connected (p. 5).
3. Check that the charger cable is not connected to the wall socket.
4. Check that the battery is charged (p. 8).
5. Check that the contact plates of the battery are not defective or broken off.
6. *If the lift still does not work satisfactorily, contact Liko.*

**Battery charging does not
work.**



1. Check that the emergency stop button is not pushed in (p. 7).
2. Check that the contact plates of the battery box are not defective or broken off.
3. *If the lift still does not work satisfactorily, contact Liko.*

**The lift stops in the elevated
position.**



1. Check that the emergency stop button is not pushed in (p. 7).
2. Use the electrical emergency lowering to safely lower the patient (p. 7).
3. Use the mechanical emergency lowering (marked) to safely lower the patient (p. 7).
4. Check that the battery is charged.
5. *If the lift still does not work satisfactorily, contact Liko.*

If you hear unusual sounds.



Contact Liko.

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 patient lift and check for external damage or wear.
- Check that all screws and lock nuts on the slingbar are tight.
- Check that the safety 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 a moist cloth, using common surface cleaners or disinfectants and check to ensure that the wheels are free of dirt and hair. **NOTE! Do not use cleaning agents that contain phenol or chlorine, since these can damage aluminium and polyamide material.**

△ The lift should not be exposed to running water.

Transportation and storage

During transportation, or when the patient lift is not to be used for some time, the emergency stop button should be pushed in. The environment where the patient lift is transported and stored should have a temperature between 10 °C and 40 °C and a humidity between 30 % and 75 %. The air pressure should be between 700 and 1060 hPa.

Inspection

The lift must be thoroughly inspected at least once per year. Pay particular attention to parts that show wear, for example, joints, bolts, etc. Service must be carried out according to Liko service manual and by authorized personnel.

△ IMPORTANT!

Repairs and maintenance may only be carried out by personnel authorized by Liko using original Liko spare parts.

Service agreements

Liko invites you to sign a service agreement for regular maintenance and testing of your Liko product. Contact your local Liko representative for more information.

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

Recycling

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

Made in Sweden

Liko is quality certified according to ISO 9001 and its equivalence for the medical device industry, ISO 13485. Liko is also certified according to environmental standard ISO 14001.



www.liko.com

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Sweden
info@liko.se

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Phone: 508-553-3993, 1-888-545-6671
Fax: 508-528-6642
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Stonehouse, Gloucester
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