

Product Description

The Sabina 200 sit-to-stand lift is especially designed for people who have difficulty in standing up on their own from a seated position.

Sabina 200 is intended for use with patients who are able to actively participate in the raising motion. When standing, they can be moved to a wheelchair or to a toilet; this gives them standing practice in connection with the transfer.

Liko has a wide range of sit-to-stand vests, giving different support depending on the patient's needs.

For patients with poor balance, we recommend Sabina SideSupport, which provides the patient with extra lateral stability during the raising motion, as well as in the standing position.

In this document, the person being lifted is referred to as the patient, and the person assisting is referred to as the caregiver.

△ is a warning triangle used for situations which require extra care and attention.

IMPORTANT!

Read the instruction guide for both the patient lift and lifting accessories before use. Lifting and transferring a person always involves a certain level of risk. It is important to completely understand the contents of the instruction guide. The equipment should be used only by trained personnel. Please contact your Liko/Hill-Rom representative in the event of any uncertainties or questions.

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△ NOTE!

This instruction guide contains important information for the user of the product. All who use the product should review and completely understand the contents of the instruction guide. Remember to keep the instruction guide in a place where it is always available to those using the product.

Safety Instructions

Before using, make sure that:

- the lift is assembled in accordance with the assembly instructions
- the lifting accessories are properly attached to the lift
- the batteries have been charged for at least 12 hours
- you have read the instruction guides for the lift and lifting accessories
- personnel using the lift are informed of the correct operation and use of the lift.

Before lifting, always make sure that:

- the lifting accessory are selected appropriately in terms of type, size, material and design with regard to the patient's needs
- the lifting accessories are not damaged
- the lifting accessory are correctly and safely applied to the patient in order to avoid bodily injury
- the lifting accessory is correctly applied to the sling bar
- the sling bar latches are intact; missing or damaged latches must always be replaced
- the sit-to-stand vest's straps are properly connected to the sling bar hooks when the vest's straps have been fully extended but before the patient is lifted from the underlying surface.
- as a caregiver assure that the patient not are at risk of falling forward or to any side during lifting.

△ After use, store the lift in forward direction towards a wall and out of reach of unauthorized

△ Never leave a patient unattended in Sabina 200!



Sabina 200 have been tested by an accredited testing institute and fulfil the requirements specified in the Medical Device Directive 93/42/EEC, for Class 1 products.

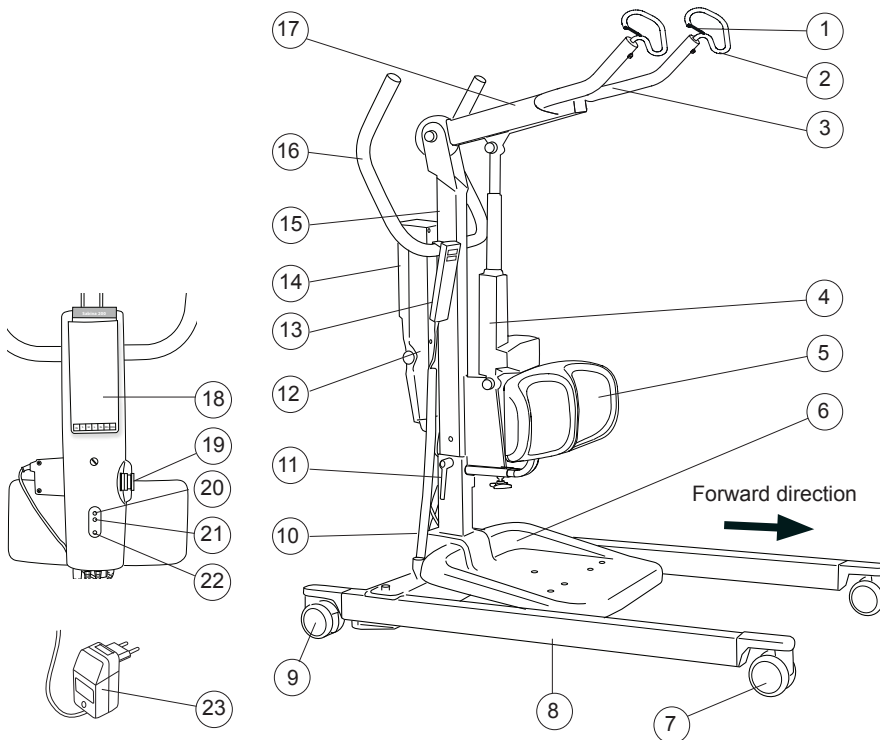
Viking S/Viking XS complies with the requirements in EN ISO 10535:2006, IEC 60601-1, IEC 60601-1-2, ANSI/AAMI ES60601-1, and CAN/CSA C22.2 no 60601-1.

△ Under no circumstances must the lift be modified. If you have any questions, please contact Liko/Hill-Rom.

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

The lift must not be used in areas where flammable mixtures may occur, for example in areas where flammable goods are stored.

Definitions




1. Safety latches
2. Lifting hook
3. Sling bar
4. Motor for lift arm
5. Lower-leg support (adjustable)
6. Foot rest (removable)
7. Front wheel
8. Base
9. Rear wheel with brake
10. Motor for base-width adjustment
11. Locking handles
12. Cable for hand control
13. Hand control
14. Control unit with built-in battery
15. Lift mast
16. Manoeuvring handle
17. Lift arm
18. Holder for quick reference guide with colour code for sling sizes
19. Emergency stop
20. LED (yellow light) - charger connected
21. LED (green light) - lift activated
22. Emergency lowering (electrical)
23. External charger

Technical Data

Maximum load:	160 kg (350 lbs.)	Operating forces of controls:	Buttons on hand control: 4 N Button on display: 4 N
Material:	Powder-painted steel.	Electrical data:	24 V
Weight:	Total: 42 kg (93 lbs.) Heaviest removable part: 23 kg (50 lbs.)	Intermittent power:	Int. Op 10/90, active operation max 2 min. Only 10 % of a given length of time may be active, yet no more than 2 min.
Wheels:	Standard front: 75 mm (2.9 inch) twin wheel. Standard rear: 75 mm (2.9 inch) twin wheel.	Batteries:	2 x 12 V, 2.9 Ah. valve-regulated lead-acid gel-type batteries. New batteries are provided by your Liko representative.
Foot rest:	Removable.	Battery charger:	CH01. 100-240 VAC, 50-60 Hz, max. 500 mA.
Lower-leg support:	Adjustable height and depth. Removable.	Motor for base-width adjustment:	24 V, 5 A, permanent magnetic motor.
Turning diameter	1250 mm (49.2 inch)	Lift motor:	24 V, 9.2 A, permanent magnetic motor with mechanical safety mechanism.
Emergency lowering device:	Electrical.		
Lifting interval:	795 mm (31.3 inch.)		
Lifting speed (without load):	20 mm/sec (0.9 inch/sec)		
Sound level:	42 dB(A)		
Protection class:	IPX4		

 The device is intended for use indoors.

 Type B, in accordance with the electrical shock protection class.

 Class II equipment.

Measurements

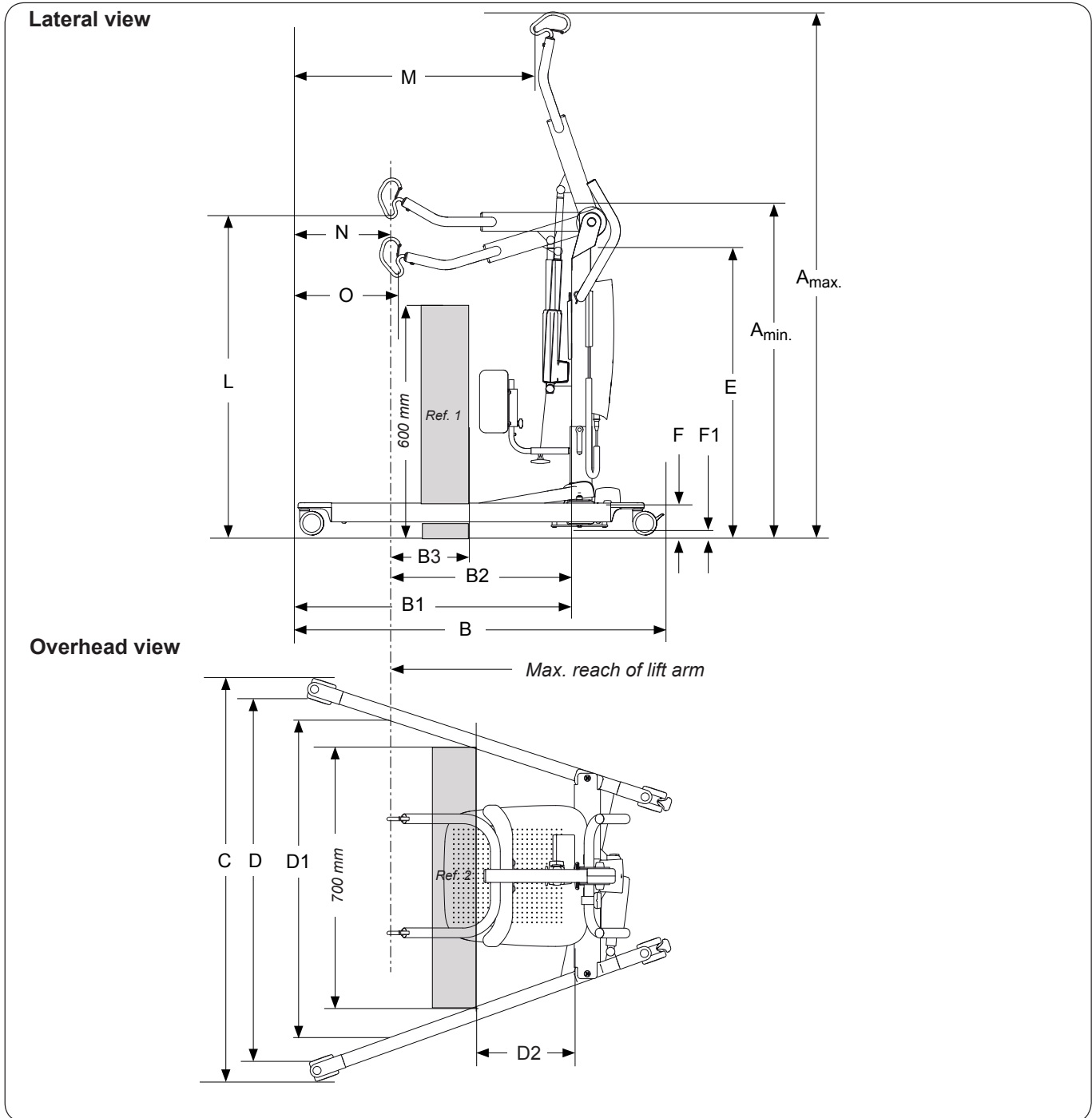


Table of measurements

Measurements in mm.

A _{max} *		A _{min} *		B	B1	B2	B3**	C		D		D1	D2**	E*		F	F1	L*		M	N	O
max	min	max	min					max	min	max	min			max	min			max	min			
1750	1650	1150	1050	1160	865	575	190	1120	680	1040	550	890	215	1010	910	105	25	1705	810	700	287	322

Measurements in inch.

A _{max} *		A _{min} *		B	B1	B2	B3**	C		D		D1	D2**	E*		F	F1	L*		M	N	O
max	min	max	min					max	min	max	min			max	min			max	min			
68.9	64.9	45.2	41.3	45.6	34	22.6	7.4	44	26.7	40.9	21.6	35	8.4	39.7	35.8	4.1	1	67	31.8	27.5	11.3	12.6

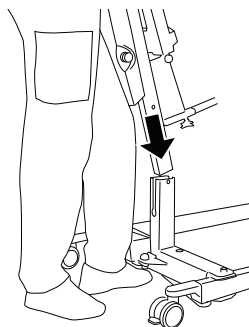
* Different measurements depending on the height-setting position, please see "Assembly", p. 5. Note! The measurements are based on the lift being equipped with standard sling bar and standard wheels. When changing to other lifting equipment or wheels, check that the lift still achieves desired lifting height.

** Reference measurement according to Standard EN ISO 10535:2006.

Assembly

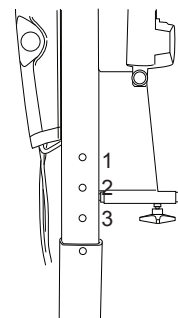
Before assembly, make sure you have the following parts:

- Lift mast with lift arm, control unit and sling bar with safety latches
- Base with locking handles
- Hand control with cable
- Foot rest and frame for the foot rest
- Battery charger and cable lid with screws (2 pcs)
- Lower-leg support
- Bag with plug for the charger, quick reference guide and instruction guide.



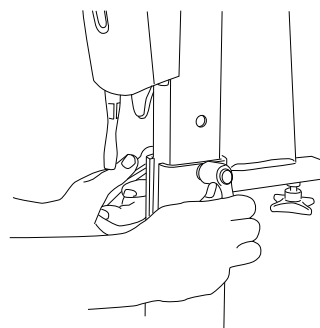
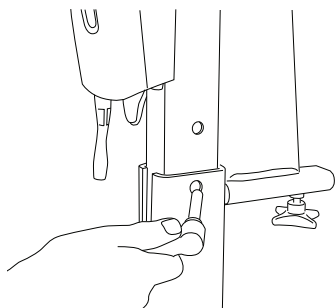
Individual adjustment of lifting height

Height of patient	Position
< 170 cm (67 inch.)	1
160-190 cm (63-74.8 inch.)	2
> 180 cm (70.9 inch.)	3



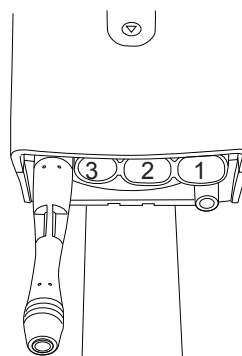
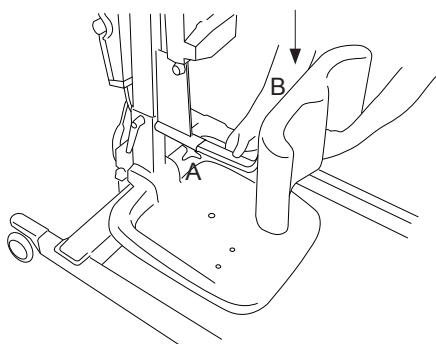
1. Lock the two rear wheels. Remove the locking handles on the lift mast. Then place the lift mast in the foot of the base.

2. When the lift mast is secured in the base, the lifting height may be adjusted to three different levels. Choose one of the three holes. The choice of setting depends on the height of the patient (see illustration above). The distance between the holes is 5 cm (2 inch.)



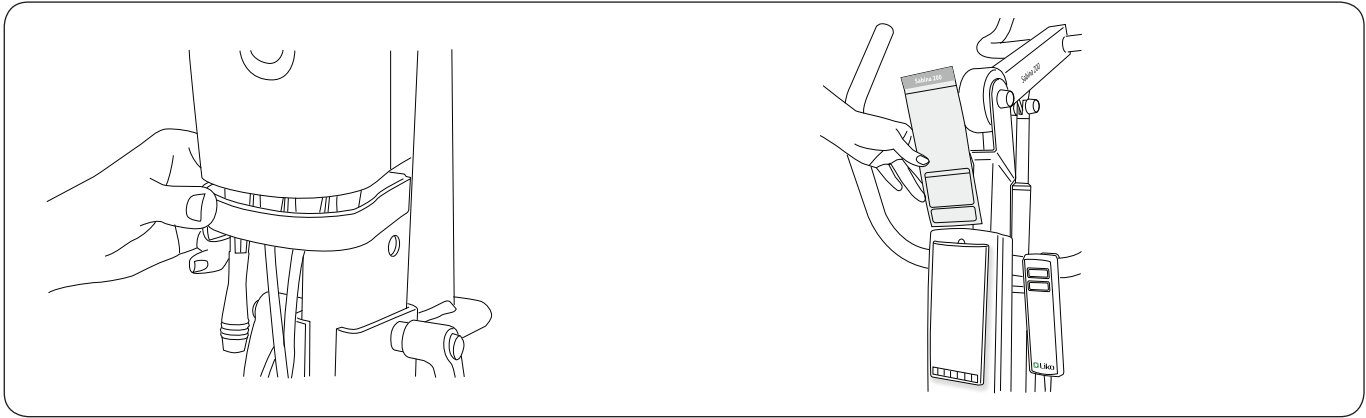
3. Use the included locking handles to secure the lift mast to the base.

4. Tighten the locking handles and then adjust them so they point downwards.



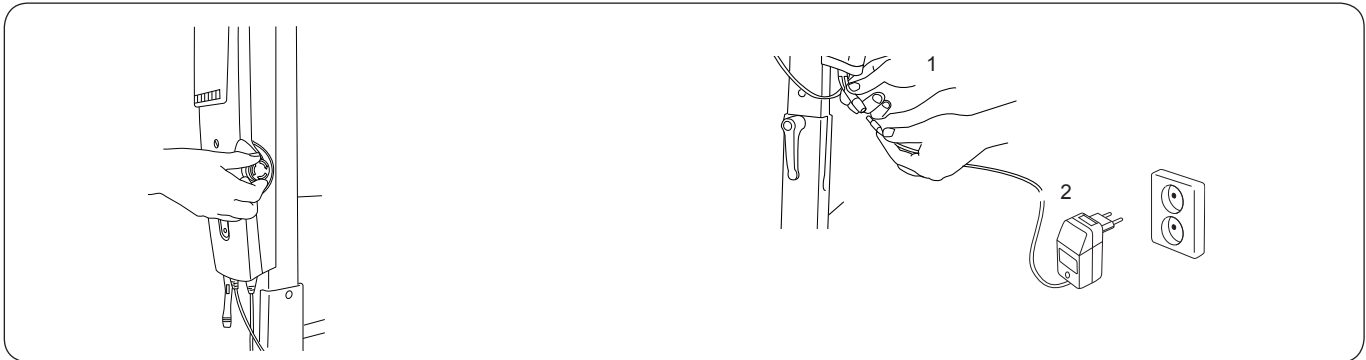
5. Mount the lower-leg support into the bracket. Wheel A is used to adjust the depth, i.e. the distance to the patient's lower leg. Wheel B is used to adjust the lower-leg support's height setting. Carefully tighten the wheels after adjustment.

6. Connect the cables as follows:
 - Cable from lift motor to socket 1
 - Cable from motor for base-width adjustment to socket 2
 - Cable from hand control to socket 3.



7. Thread the cables through the opening in the cable lid. Push the lid up and secure with a screw driver and the accompanying screws (2 pcs).

8. Place the quick reference guide in the holder on the lift mast.



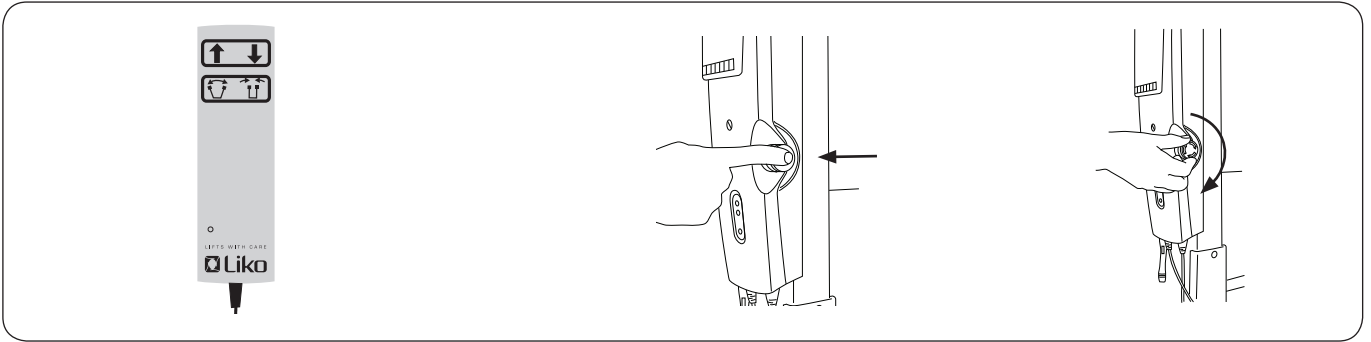
9. Release the emergency stop by turning the button in the direction indicated by the arrows on the button.

10. Charge the battery by plugging the charger cable into the connector cable. Then plug the charger cable into an electric outlet (100-240 V AC).
The battery is fully charged after approx. 12 hours.

After assembly, make sure that:



- the motion of the lift arm corresponds to the buttons on the hand control
- the electrical emergency lowering device works
- wheel brakes work properly
- the base-width adjustment works
- the lift charges.

Operation



Hand control

Sabina 200 is manoeuvred with the push buttons on the hand control.

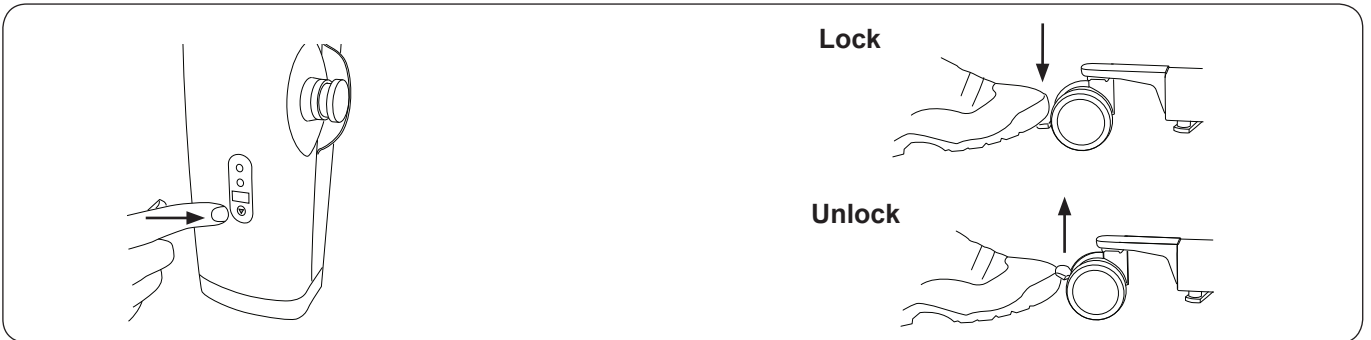
For raising and lowering the lift arm, push the button with the respective lift arrow. The direction in which the arrows are pointing applies when the hand control is held as shown in the picture. For base width widening and narrowing, push  and  respectively. The movement ceases as soon as the push buttons are released.

For emergency stop:

Press the red button on the control unit.

Resetting the emergency stop:

Release the emergency stop by turning the button in the direction indicated by the arrows on the button.



Electrical emergency lowering

The lift arm is lowered electrically by keeping the  button on the control unit pressed in.

Locking the wheels

The rear wheels can be locked to prevent rotating and turning. To lock the wheels, push down the lock pedal with your foot. To unlock the wheels, lift up the lock pedal with your foot.

During raising, the wheels should be unlocked so that the lift can be moved to the patient's centre of gravity.

⚠ Locked wheels during raising can increase the risk of tipping.

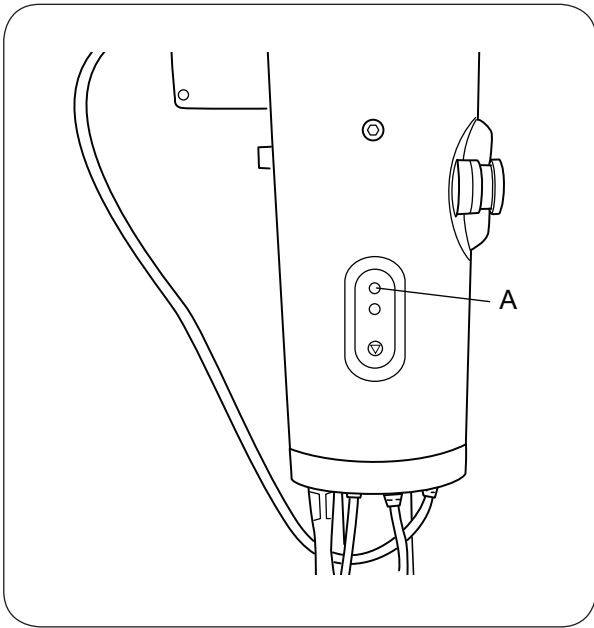


Installation of Latches

After installation, check that the latch locks and runs freely in the sling bar hook.

⚠ Never move the lift by pulling on the actuator!

Charging the Batteries



For maximum battery life, batteries must be charged regularly. We recommend charging the batteries after use of the lift or every night. If the lift is not used every day, we recommend pushing in the emergency stop after use, in order to turn off the current and save battery power. Ensure that the lift is fully charged before pushing the emergency stop.

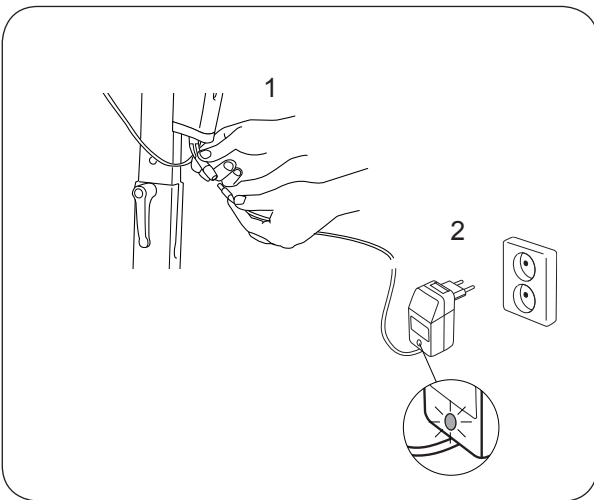
A yellow LED (A) on the control unit's display is lit while the charger is connected to a wall socket. Maximum charge is achieved after approx. 12 hours. When the batteries are fully charged, the charger automatically switches to trickle charging.

When the battery capacity is low (when approx. 2-10 lifting cycles remain), an acoustic signal is emitted. In this case, the lift should be charged as soon as possible.

Never charge batteries in a wet area.

The lift cannot be charged with the emergency stop engaged.

Charging procedure



With external charger:

1. Connect the charger cable to the charging outlet under the control unit.
2. Connect the charger to an electrical outlet (100-240 V AC).

When the charger is connected, a LED displays:

- a yellow light during ongoing charging
- a green light during trickle charging.

NOTE! The lift cannot be used when the charger cable is plugged into an electric outlet.



Sabina 200 comply with the Directive 2002/96/EC on waste electrical and electronic equipment. Old batteries are to be deposited at the nearest recycling facility in accordance with local regulations or given to personnel authorized by Liko/Hill-Rom.

Maximum Load

Different allowable maximum loads may apply to the different products in the assembled lift unit: lift, sling bar, sit-to-stand vest and any other accessories used. For the assembled lift unit, the maximum load is always the lowest maximum load rating for any of the components. For example, a Sabina 200 that is approved for 160 kg (350 lbs) can be equipped with a lifting accessory that is approved for 200 kg (440 lbs). In this case, the maximum load of 160 kg (350 lbs) applies to the assembled lift unit. Study the markings on the lift and lifting accessories or contact your Liko/Hill-Rom representative if you have any questions.

Recommended Lifting Accessories

△ Using other lifting accessories than those recommended can entail a risk.

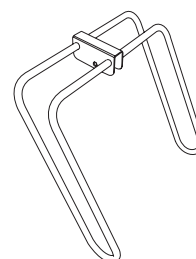
Below is a description of recommended lifting accessories for Sabina 200. Also, for further guidance, study the instruction guide for the sit-to-stand vest or the lifting accessory, respectively.

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

Sabina SideSupport

Sabina SideSupport is an accessory for patients with reduced lateral stability.

Prod. No. 2027101

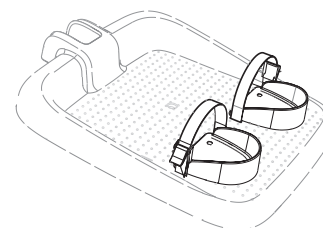


Sabina Heel Support

Heel supports are used if the patient's feet need to be fixed to the foot rest. Foot straps are included.

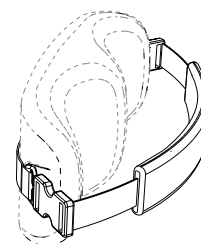
△ Be aware of any decreased mobility and/or the risk of hyperextension of the knee joints when using Sabina Heel Support.

Prod. No. 2027011



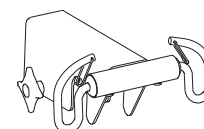
Calf strap

Prod. No. 20290022



SeatStrap SlingBar

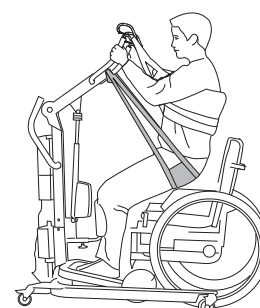
Prod. No. 2027006



Sabina SeatStrap

Prod. No. 3591115

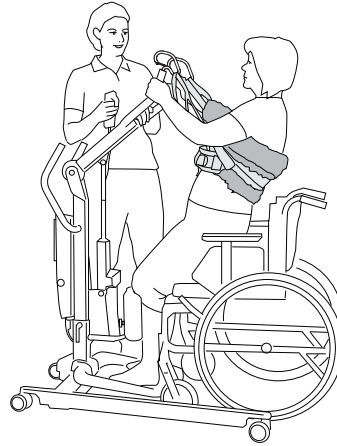
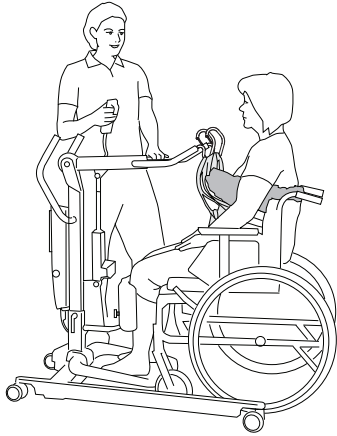
The SeatStrap is an accessory that facilitates the first part of the raising motion. The SeatStrap is connected to a SeatStrap SlingBar, which helps the user move the seat up when raising. In standing position, the SeatStrap can be easily disconnected so that it is not in the way when, e.g., going to the toilet.



Raising Operations

Before using Sabina 200, it is important to make a custom adjustment of the lifting height. See page 5.

For Sabina 200 there are three different sit-to-stand vests to choose between: Liko SupportVest Mod. 91 and Liko SafetyVests Mod. 93 and 94. Below is a description on how SupportVest Mod. 91 is used. See the instruction guide for the respective sit-to-stand vest for further information.



1. Place Sabina 200 in front of the patient.

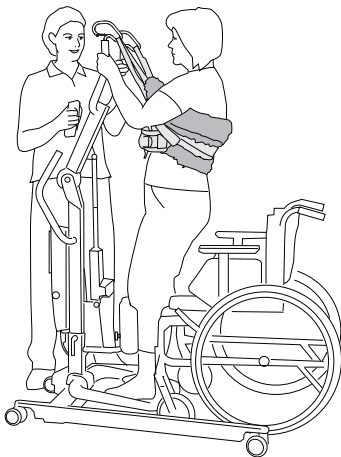
Adjust the width of the base. Place the feet in the middle of the foot rest with the lower legs parallel to the lower-leg support. Adjust the height and depth of the lower-leg support as needed for comfortable support below the kneecap.

Place the sit-to-stand vest around the patient in accordance with the instruction guide for the vest. Connect the straps of the sit-to-stand vest's to the sling bar hooks.

2. Raise the sling bar about 10–20 cm (3.9-7.9 inch.)

The patient grabs the sling bar. Continue the lifting procedure. If the patient leans backwards during raising, the raising will be made easier, preventing the vest from sliding up. The height to which the lift should proceed varies from person to person.

△ Before the patient is lifted from the underlying surface, but when the straps have been fully extended, make sure the straps are properly connected to the sling bar.



3. For a more upright position, continue the lifting motion to the uppermost position. For maximum comfort, the lift mast should be affixed to the base in the best possible of the three fastening holes. See page 5.

△ When lowering the lift arm, the patient must follow the lifting motion downwards. This is facilitated if the patient leans backwards.

Simple Troubleshooting

The lift does not work up/down.
Base-width adjustment does not work
(in/out).



1. Make sure that the emergency stop is not engaged (page 7).
2. Make sure that the control unit cables are connected correctly (page 5).
3. Make sure that the charging cable is not connected to an electric outlet.
4. Check the battery voltage (page 8).
5. *If the problem persists, please contact Liko/Hill-Rom.*

The charger doesn't work.



1. Make sure that the emergency stop is not engaged (page 7).
2. Check that the electric outlet is powered.
3. Check that the charging cable is correctly connected (page 8).
4. *If the problem persists, please contact Liko/Hill-Rom.*

The lift stops in the high position.



1. Make sure that the emergency stop is not engaged (page 7).
2. Use the selected electrical emergency lowering to lower the patient onto a firm surface (page 7).
3. Check the battery voltage (page 8).
4. *If the problem persists, please contact Liko/Hill-Rom.*

If you hear unusual sounds.



Contact Liko/Hill-Rom.

Inspection and Maintenance

Care and maintenance

For trouble-free use, certain details should be checked each day the lift is used:

- Inspect the lift and check to make sure that there is no external damage.
- Check the sling bar attachment.
- Check the functionality of the latches.
- Check raising, lowering and base-width adjustment.
- Check to make sure that the emergency lowering functions.
- Charge the batteries each day the lift is used and make sure the charger works.

When necessary, clean the lift with a moist cloth, using common surface cleaners or disinfectants and check that the wheels are free from 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.

Service

Sabina 200 should be inspected at least once a year.

△ Periodic inspection, 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 agreement

Liko offers the opportunity to enter into service contracts for the maintenance and regular inspection of your Liko product.

Expected Lifetime

The product has an expected lifetime of 10 years during correct use and with maintenance and periodic inspection carried out in accordance with Liko's instructions.

Transport and storage

During transportation, or when the lift is not to be used for a long time, the emergency stop should be engaged. The environment where the lift is transported and stored should have a temperature of 10 to 40 °C (50–104 °F) and a relative humidity of 30 to 75 % (86–167 °F). The air pressure should be 700–1060 hPa.

Recycling

For instructions on how to recycle your Liko product, please visit our website: www.liko.com.

Product changes

Liko's products undergo continuous development, which is why we reserve the right to make product changes without prior notice. Contact your Liko/Hill-Rom representative for advice and information about product upgrades.

Design and Quality by Liko in Sweden

Liko is quality certified in accordance with ISO 9001 and its equivalent for the medical device industry, ISO 13485. Liko is also certified in accordance with environmental standard ISO 14001.



A  Company

www.liko.com

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