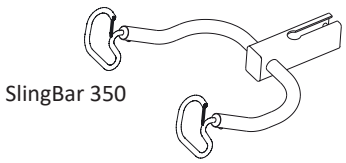
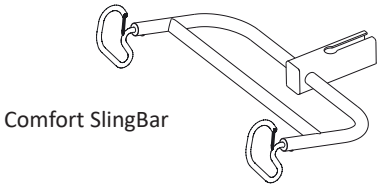
Sabina™ II

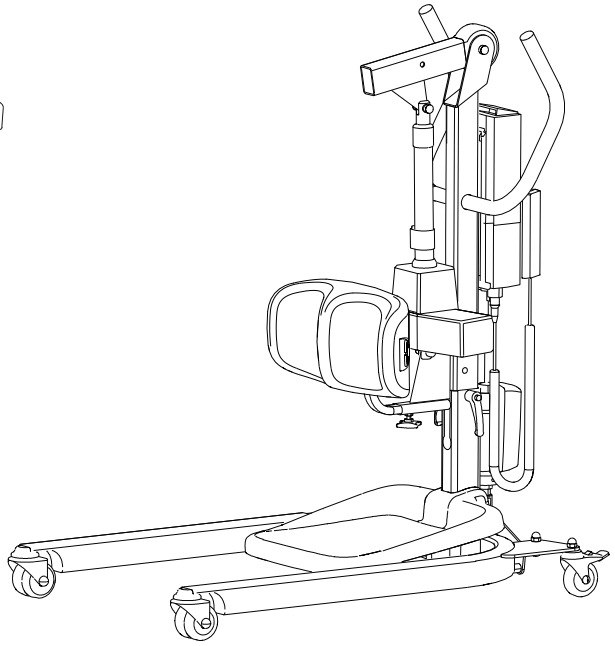
Sit-to-stand lift

Instructions for Use

Sabina II EE	Prod. No. 2020003
Slingbar 350	Prod. No. 2027002
Comfort Slingbar	Prod. No. 2027003
Sabina SeatStrap SlingBar	Prod. No. 2027006
Sabina II SeatStrap SlingBar	Prod. No. 2027007
Sabina II HeelSupport	Prod. No. 2027011
Calf Strap	Prod. No. 20290022







Product Description

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

Sabina sit-to-stand lift 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.

There are two different sling bar options for Sabina sit-to-stand lift, as well as many different sit-to-stand vests. The patient's overall mobility determines the choice of sling bar and sit-to-stand vest.

The Sabina sit-to-stand lift equipped with the Comfort SlingBar combined with the Liko ComfortVest provides an gentle lifting action without putting pressure under the arms. This combination is suitable for those who are especially sensitive to pressure under the arms, such as people who are paralyzed on one side.

Sabina sit-to-stand lift can also, to a limited extent, be used for passive lifting of a patient sitting in a sling.

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

IMPORTANT!
Lifting and transferring a patient always involves a certain level of risk. Read the instructions for use for both the patient lift and lifting accessories before use. It is important to completely understand the contents of the instructions for use. The equipment should only be used by trained personnel. Ensure that the lifting accessories are suitable for the lift used. Exercise care and caution during use. As a caregiver, you are always responsible for the patient's safety. You must be aware of the patient's ability to make it through the lifting situation. If something is unclear, contact the manufacturer or supplier.

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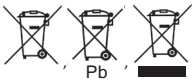
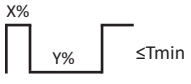
Table of Contents

Symbol Description

These symbols can be found in this document and/or on the product.

Symbol	Description
	For indoor use only.
	The product has extra protection against electric shock (Insulation Class II).
	Protection level against electric shock Type B.
	Warning; this situation requires extra care and attention.
	Read instructions for use before use.
	CE mark
IP N_1 N_2	Protection level against: ingress of solid objects (N1) and ingress of water (N2).
	Legal Manufacturer.
	Date of manufacture.
	Caution! consult instructions for use.
	Read instructions for use before use.
	Battery.
	All batteries in this product must be recycled separately. - Pb underneath the symbol indicate batteries containing lead - Single Black line underneath the symbol indicate this product have been placed on the market after 2005.
	UL Recognized Component Mark for Canada and the United States.
	EFUP, Environmental Friendly Usage Period (years).
	Environmentally-friendly product which can be recycled and reused.
	The Australian Safety/EMC.
	PSE Mark (Japan).
	Product Identifier.
	Serial Number.
	Medical Device.
	Recyclable.
	The safety and essential performance of medical electrical equipment.
	Proof of Product compliance to North American safety standards.
	Non-ionizing electromagnetic radiation.
	Duty cycle for non-continuous operation. The maximum active operation time X% of any given time unit, followed by a deactivation time, Y%. The active operation time shall not exceed the specified time in minutes, T.
	GS1 Data Matrix Barcode that may contain following information (01) Global Trade Item Number (11) Production Date (21) Serial Number

Safety Instructions

Intended use: The product is intended for use in following environments: Health care, Intensive care, Emergency ward, Rehabilitation, Habilitation environment. This product is not intended to be used by the patient alone. Lifting and transferring a patient shall always be performed with the assistance of at least one caregiver. This product is used as a means to perform the lift but is not in contact with the patient; therefore we do not go into the various patient conditions in this instruction for use. Contact your Hill-Rom representative for support and advice.

⚠ **Certain environments and conditions can limit the correct us of the mobile lifts, including:**
Thresholds, unlevel floor surfaces, various obstacles, and extra-thick carpets. These environments and conditions can cause the wheels of the mobile lift not to roll as intended, possible imbalance in the mobile lift, and increased exertion by the caregiver. If you are uncertain that your care environment fulfils the requirements for correct use of the mobile lift, please contact your Hill-Rom representative for further advice and assistance.

Before using the first time make sure that:
- the lift is assembled in accordance with the assembly instructions
- the lifting accessories are properly attached to the lift
- the battery has been charged for at least 6 hours
- you have read the instruction for use for the lift and lifting accessories
- personnel using the lift are trained of the correct operation and use of the lift.

Before lifting, always make sure that:
- the lifting accessories are not damaged
- the lifting accessory is selected appropriately in terms of type, size, material and design with regard to the patient's needs
- the lifting accessory is 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 with new ones;
- the sit-to-stand vest's/sling's straps are properly connected to the sling bar hooks when the 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 during a lifting situation!**

⚠ **Lifting a patient by using a sit-to-stand aid may cause injury to the patient if their balance and/or strength is not sufficient for the chosen activity/accessories.**

Sabina™ II EE sit-to-stand lift have been tested by accredited testing institutes.

⚠ **Under no circumstances must the lift be modified. Please contact Hill-Rom for more information.**

Use of the product adjecent to other equipment should be avoided because it could result in improper operation, if such use is neccessary, observe and verify that the other equipment is operating normally.

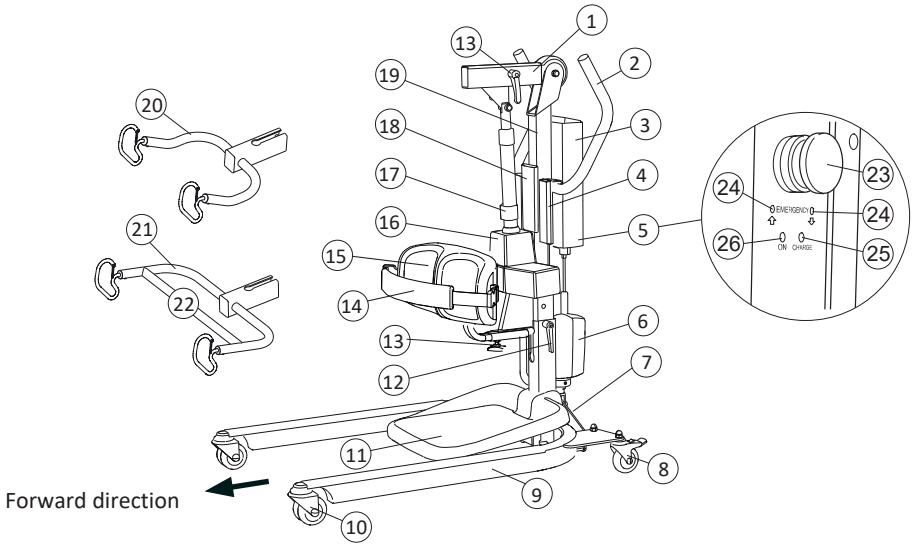
Electromagnetic disturbance, may affect the lifting performance of the product. Modification using other parts than original spare parts (cables etc.) may affect the electromagnetic compatibility of the product.

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.

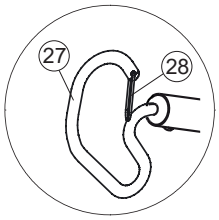
The lift should not be used in areas where flammable mixtures may occur, for example in areas where flammable goods are stored.

⚠ Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the lift, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Definitions



1. Lift arm
2. Handles
3. Battery
4. Hand control
5. Control box with emergency stop
6. Motor for base-width adjustment
7. Decal: shows risk of crushing against the floor
8. Rear wheels fitted with brake
9. Base
10. Front steering wheels
11. Foot rest (removable)
12. Locking handles
13. Wheel for lower leg support adjustment
14. Calf strap (accessory)
15. Lower leg support
16. Lift motor
17 Mechanical emergency lowering
18. Holder for quick reference guide with colourcode for sling sizes (accessory)
19. Lift mast
20. SlingBar 350 (Width: 350 mm / 13.8 inch)
21. Comfort SlingBar (Width: 600 mm / 23.6 inch)
22. Cross bar (only Comfort sling bar)
23. Emergency stop
24. Electrical emergency lowering/raising
25. Indicator lamp, charging (Charge = charging)
26. Indicator lamp, charging (ON = switched on)
27. Lifting hook
28. Latches



Technical Data

Maximum load:	Active lifting: 200 kg (440 lbs) Passive lifting: 150 kg (330 lbs)
Material:	Powder-painted steel.
Weight:	Total: 41 kg (90 lbs) Heaviest removable part: 23 kg (50 lbs)
Wheels:	Standard front: 75 mm (3 inch) twin wheel. Standard back: 75 mm (3 inch) individual wheel fitted with brake
Foot rest:	Removable.
Lower-leg support:	Adjustable in terms of height and depth. Removable.
Turning diameter:	1180 mm (46.5 inch.)
Emergency lowering device:	Mechanical and electrical.
Lifting interval:	SlingBar 350: 825 mm (32.5 inch.) Comfort SlingBar: 785 mm (30.9 inch.)
Lifting Speed (without load):	SlingBar 350: 54 mm/s (2.13 inch./s) Comfort SlingBar: 47 mm/s (2.1 inch./s)
Maximum noise output:	46 dB(A)
Protection class:	IP X4

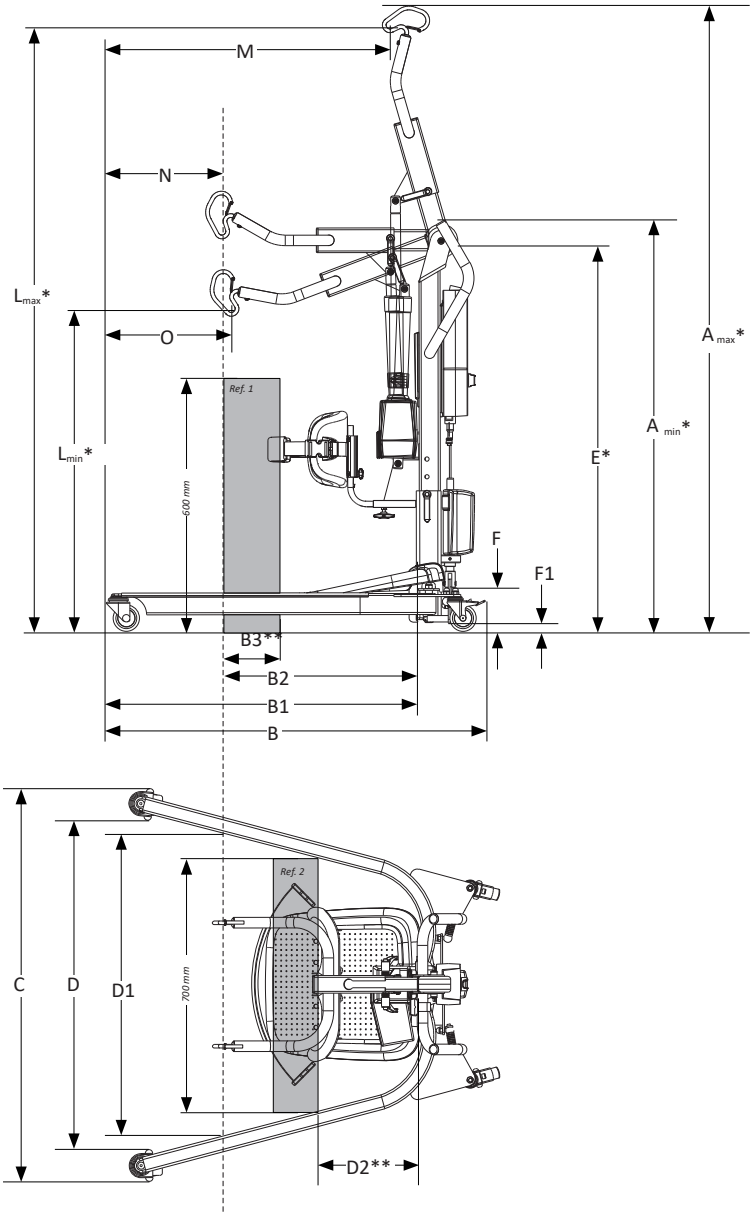
Operating forces of controls:	2.4 N
Intermittent operation:	Int. Op 10/90, active operation max 2 min. Only 10% of a given length of time may be active, yet no more than 2 min.
Batteries:	2 x 12 V 2.9 Ah. Valve-regulated lead-acid gel-type batteries.New batteries are provided by the supplier.
Battery charger:	Built-in charger for 100-240 VAC, 50-60 Hz, max 400 mA.
Lift motor:	24 V 9,2 A, permanent magnetic motor with mechanical safety mechanism.
Motor base:	24 V, 5 A, permanent magnetic motor.
Surrounding functional environment:	Temperature: +5°C to +40°C (41° F to 104°F), Humidity: 10% to 95% at 30°C non-condensing, Atmospheric pressure: 700HPa to 1060HPa, Altitude: max. 3000m.

The device is intended for use indoors.

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

Class II equipment.

Measurement



Measurements **(mm.)**

Sabina II EE	A_{min}*	A_{max}*	B	B1	B2	B3	C	D	D1	D2**	E*	F	F1	L_{max}*	L_{min}*	M	N	O
SlingBar 350	1050	1770	1060	870	590	190	690-1115	530-1005	915	210	900-1000	107	22	1725	800	790	280	310
Comfort SlingBar	1050	1750	1060	870	555	150	690-1115	530-1005	900	210	900-1000	107	22	1695	810	790	315	340

(inch.)

Sabina II EE	A_{min}*	A_{max}*	B	B1	B2	B3	C	D	D1	D2**	E*	F	F1	L_{max}*	L_{min}*	M	N	O
SlingBar 350	41.3	69.6	41.7	34.2	23.2	7.5	27.2-44.9	20.9-39.5	36.0	8.2	35.4-39.3	4.2	0.9	67.9	31.5	31.1	11.0	12.2
Comfort SlingBar	41.3	68.9	41.7	34.2	21.8	5.9	27.2-44.9	20.9-9.5	35.4	8.2	35.4-39.3	4.2	0.9	66.7	31.8	31.1	12.4	13.4

* Different measurements depending on the height-setting position, please see ”Assembly”, page 10. Note! The measurements are based on the lift being equipped with standard wheels. When changing wheels, check that the lift still achieves desired lifting height.

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

EMC Table

Guidance and manufacturer's declaration – electromagnetic emissions		
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment. "Essential performance according to the manufacturer: The product shall not move unintentionally while being submitted to disturbances."		
Emissions test	**Compliance**	**Electromagnetic environment - guidance**
RF emissions CISPR 11	Group 1	The lift uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The lift is suitable for use in all establishments including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Complies	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity			
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment. "Essential performance according to the manufacturer: The product shall not move unintentionally while being submitted to disturbances."			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	+/- 8 kV contact +/- 2 kV, +/- 4 kV, +/- 8 kV, +/- 15 kV air	+/- 8 kV contact +/- 2 kV, +/- 4 kV, +/- 8 kV, +/- 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient / Burst IEC 61000-4-4	+/- 2 kV for power supply lines +/- 1 kV for input/output lines	+/- 2 kV for power supply lines +/- 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	+/- 0.5 kV, +/- 1 kV Line to Line	+/- 0.5 kV, +/- 1 kV Line to Line	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % UT for 0,5 cycle at 0°, 45°, 90°,135°, 180°,225°, 270°, & 315° 0% UT; 1 cycle at 0° 70 % UT for 25 cycles 50Hz 0% UT; 250 cycle at 50Hz &	0 % UT for 0,5 cycle at 0°, 45°, 90°,135°, 180°,225°, 270°, & 315° 0% UT; 1 cycle at 0° 70 % UT for 25 cycles 50Hz 0% UT; 250 cycle at 50Hz &	Mains power quality should be that of a typical commercial or hospital environment. If the user of the [Equipment or System] requires continued operation during power mains interruptions, it is recommended that the [Equipment or System] be powered from an uninterruptible power supply or battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration – electromagnetic immunity			
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment. "Essential performance according to the manufacturer: The product shall not move unintentionally while being submitted to disturbances."			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Conducted RF IEC 61000-4-6	6 Vrms 150 kHz to 80 MHz	6 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the lift, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1{,}2\sqrt{P}$
Radiated RF IEC 61000-4-3	10 V/m 80MHz to 2,7GHz	10 V/m	$d = 1{,}2\sqrt{P}$ 80 MHz to 800 MHz $d = 2{,}3\sqrt{P}$ 800 MHz to 2,7 GHz where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, [a] should be less than the compliance level in each frequency range. [b] Interference may occur in the vicinity of equipment marked with the following symbol. 
NOTE 1 At 80MHz and 800MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflected from structures, objects and people.			
[a] Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the mobile lift is used exceeds the applicable RF compliance level above, the mobile lift should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the mobile lift. [b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 10 V/m.			

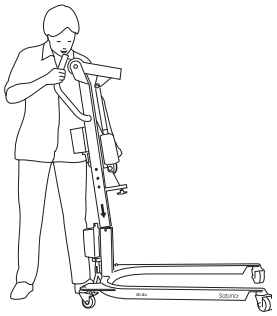
Guidance and manufacturer's declaration – electromagnetic immunity						
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment. "Essential performance according to the manufacturer: The product shall not move unintentionally while being submitted to disturbances."						
Test frequency (MHz)	**Band [a] (MHz)**	**Service [a]**	**Modulation [b]**	**Maximum power (W)**	**Distance (m)**	**IMMUNITY TEST Level (V/m)**
385	380 - 390	TETRA 400	Pulse modulation [B] 18 Hz	1.8	0.3	27
450	430 - 470	GMRS 460, FRS 460	FM[c] +/- 5 kHz deviation 1 kHz sine	2	0.3	28
710	704 - 787	LTE Band 13, 17	Pulse modulation [b] 217 Hz	0.2	0.3	9
745						
780						
810	800 - 960	GSM 800/900, TETRA 800, IDEN 820, CDMA 850, LTE Band 5	Pulse modulation [b] 18 Hz	2	0.3	28
870						
930						
1720	1700 - 1990	GSM 1800, CDMA 1900, GSM 1900, DECT, LTE Band 1, 3, 4, 25 UMTS	Pulse modulation [b] 217 Hz	2	0.3	28
1845						
1970						
2450	2400 - 2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450 LTE Band 7	Pulse modulation [b] 217 Hz	2	0.3	28
5240	5100 - 5800	WLAN 802.11 a/n	Pulse modulation [b] 217 Hz	0.2	0.3	9
5500						
5785						
NOTE If cecessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.						
a) For some services, only the uplink frequencies are included. b) The carrier shall be modulatted using a 50 % duty cycle square wave signal. c) As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.						

Assembly

Before assembly, make sure you have the following parts:

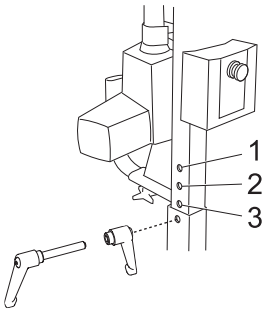
- Lift mast with lift arm, control box, lift motor
- Sling bar with safety latches and locking handles
- Hand control with cable
- Battery incl. holder for the charging cable
- Base incl. motor for base-width adjustment and locking handles
- Foot rest and frame for the foot rest
- Lower leg support
- Bag containing instruction for use, charger connector cable, and extension cord.

NOTE! The sling bar is supplied separately, either as SlingBar 350 or the Comfort SlingBar. We show the Sabina™ sit-to-stand lift with Comfort SlingBar in this description.



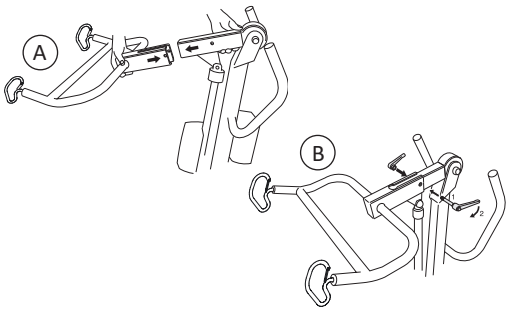
Individual adjustment of lifting height

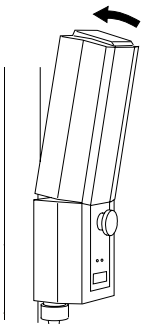
Height of patient	**Position**
< 170 cm / 67 inch.	1
160-190 cm / 63-74.8 inch.	2
> 180 cm / 70.9 inch.	3

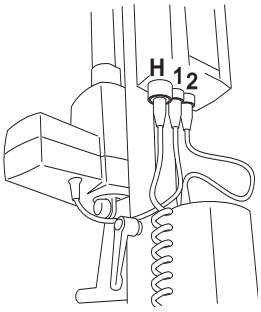


1. Remove the locking handle from the base. Place the lift mast in the foot of the base.

2. With the lift mast, the lifting height may be adjusted to three different levels. Choose one of the three holes depending on the height of the patient; the distance between holes is 5 cm/2 inch. (see illustration above). Secure the lift mast in the base with the included locking handle.



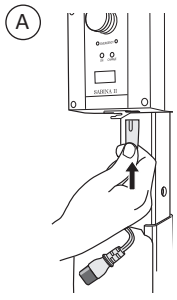


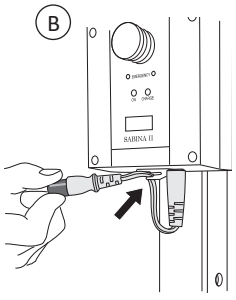


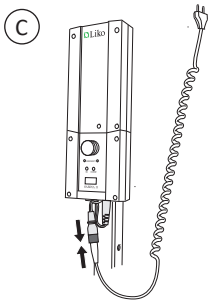
3. A) Remove the locking handle from the lift arm. Slide the sling bar onto the lift arm with the opening on the lifting hooks facing upward (see illustration).
   B) Attach the locking handle and tighten.

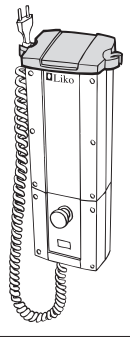
4. Place the battery in the control box. Make sure that the battery is secured (a click will be heard).

5. Connect the cables as follows:
   - 1. cable, lift motor.
   - 2. cable, motor for base-width adjustment.
   - H. cable, hand control.



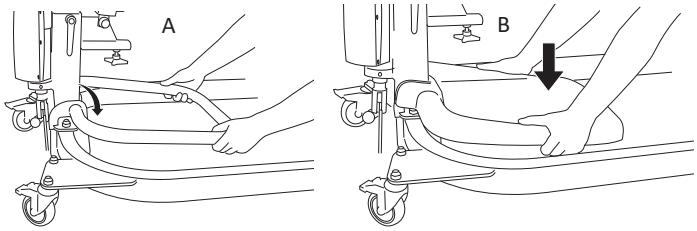


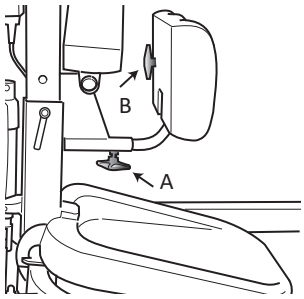




6. A) Connect the charger cable to the socket under the control box.
   B) Attach the connector cable to the strain relief system.
   C) Plug the charger cable into the connector cable.

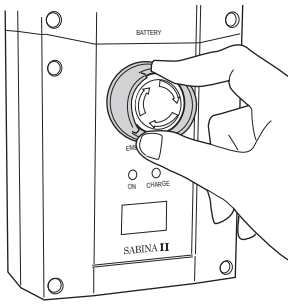
7. Install the holder for the charging cable: Hook it on the front edge of the battery and push down on the back until you hear a clicking sound.

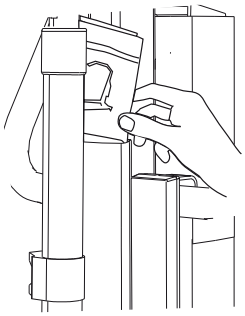


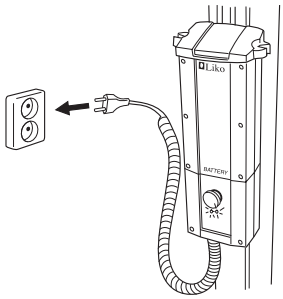


8. A) Put the frame for the foot rest over the lift mast's bracket to the base. Make sure the frame is securely in place.
   B) Push the footrest into the frame.

9. Install the lower leg support on the lift mast. Loosen wheel A in order to adjust the distance to the patient's lower legs. Loosen wheel B in order to adjust the height setting. After adjustment, lock wheels A and B.







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

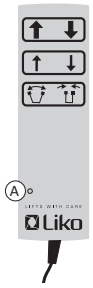
11. *If applicable:*
    Attach the holder for quick reference guide on the lift mast according to the assembly instruction. Place the quick reference guide in the holder.

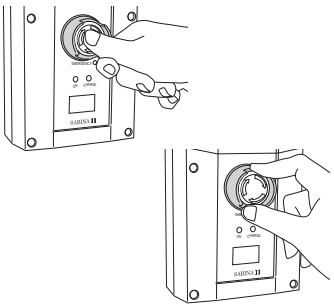
12. Before the first use, the lift's battery should be charged for at least 6 hours. For detailed instructions, see "Charging the Batteries", page 13.

After assembly, make sure that:

- the motion of the lift arm corresponds to the buttons on the hand control
- the emergency lowering device works (mechanically and electrically)
- the base-width adjustment works
- the wheel brakes are working
- the indicator lamps on the front of the control box illuminate during charging.

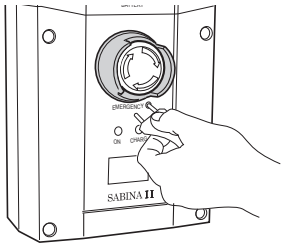
Operation

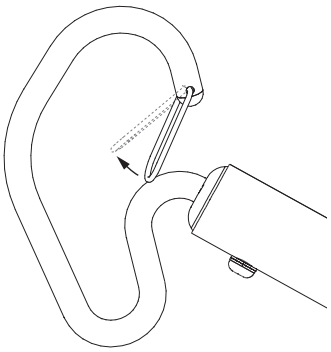


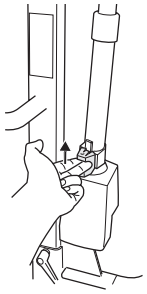


Hand control
Indicator lamp (A) - charge the battery of the lift!
The lifting motion is operated with the push buttons on the hand control. The direction in which the arrows are pointing applies when the hand control is held as shown in the picture. To raise or lower the lift arm, press ⬆ or ⬇. For lower lifting speed use the thinner arrows. The lifting motion stops as soon as the push button is released. For adjustment of the base width, press ⬅ or ➡.

Emergency stop
Activate: Press the red button on the control box.
Reset: Turn the button in the direction shown by the arrows until the button springs out.





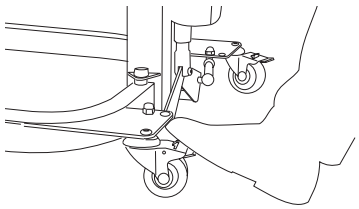


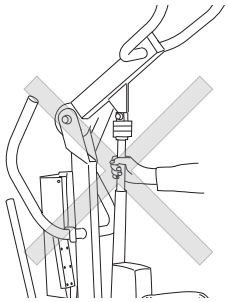
Electrical emergency lowering/raising
Use a narrow object to push the buttons inside the labelled holes on the control box.

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

Installation of latches
After installation, check that the latch locks and moves freely in the sling bar hook.

Mechanical emergency lowering
Pull the red emergency lowering control straight upwards. Mechanical emergency lowering only works when the lift arm is under load, i.e. when a patient is standing/sitting in the lift. The lowering motion is slightly delayed.





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, push on the raised button at the wheel. During passive/active lifting, the wheels should be unlocked so that the lift can be moved to the patient's centre of gravity.

⚠ **Never move the lift by pulling on the actuator!**

Charging the Batteries

Indications for charging the battery

In the event of low battery voltage, a signal from the control box will sound. At the same time, an indicator on the hand control will illuminate. When this happens, the battery must be charged as soon as possible. However, there is sufficient power for a few more lifts. There is a display on the control box indicating current battery capacity. When all fields are black, the battery is fully charged. When the symbol ( ) is displayed, the battery must be re-charged as soon as possible.

Battery charging and maintenance

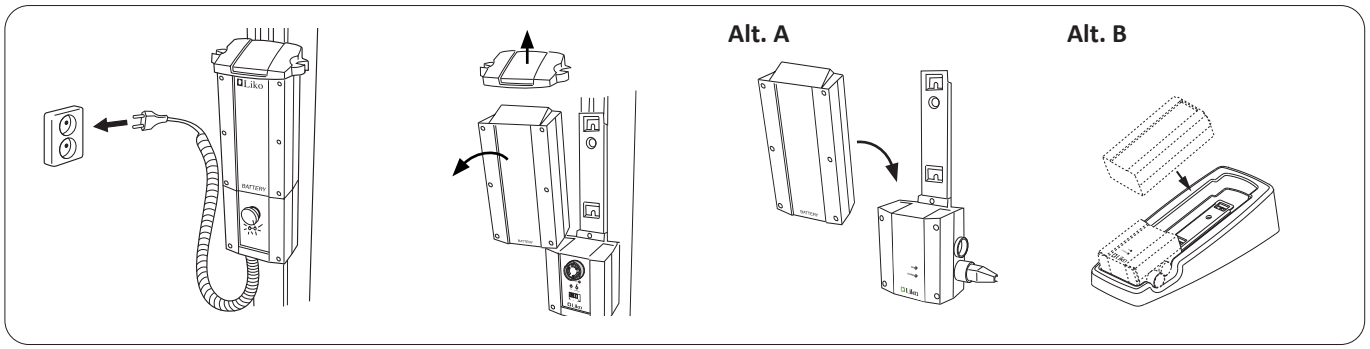
To get maximum life time, it is important to charge the battery regularly. We recommend charging after use of the lift or every night. Batteries are fully charged after approx. 6 hours. When the battery is fully charged, the charger is switched off automatically. If the lift is not used every day, we recommend connecting the lift to the charger, or pushing in the emergency stop after use, in order to turn off the current and save the battery. Ensure that the battery is fully charged before pushing the emergency stop.

NOTE! The lift cannot be charged with the emergency stop engaged.

NOTE! When charging, a yellow indicator lamp on the control box will illuminate. The yellow lamp turns off when the battery is fully charged. If the lamp has not turned off after 8 hours of charging, the battery probably needs to be replaced. Stop charging and replace the battery.

⚠ **Never charge batteries in a wet area.**

Charging



Built-in charger (standard.):

Connect the charger cable to a socket (100-240 V AC). Make sure that both indicator lamps on the charger are illuminated. The yellow lamp indicates that charging is taking place, while a green lamp indicates that power is being supplied to the charger. If the charger cable is beginning to stretch, it should be replaced in order to minimize the risk of the cable getting stuck and breaking.

Wall-mounted charger or table charger:

Detach the holder for the charger cable. Remove the battery from the control box by releasing the blocking bolt on top of the battery.

Alt. A. Place the battery on the wall-mounted charger. Plug the charger into a socket (100-240 V AC). Make sure that both indicator lamps on the charger are illuminated. The yellow lamp indicates that charging is taking place, while a green lamp indicates that power is being supplied to the charger.

Alt. B. Place the battery on the charger in the table charger housing. Plug the charger into a socket (100-240 V AC). Make sure that both indicator lamps on the charger are illuminated. The yellow lamp indicates that charging is taking place, while a green lamp indicates that power is being supplied to the charger.

NOTE! The lift cannot be used when the charger cable is plugged into a socket.

Maximum Load

Different maximum loads may apply to different products on the assembled lift unit: lift, sling bar, sit-to-stand vest and any other accessories used. For the assembled lift unit, including accessories, the maximum load is always the lowest maximum load rating for any of the components.

Check the markings on the lift and lifting accessories, contact your Hill-Rom representative if you have any questions.

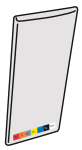
Recommended Lifting Accessories

⚠ **Using other lifting accessories than those recommended below may induce risk.**

Below is a description of recommended lifting accessories for Sabina™ II sit-to-stand lift. Study also the instruction for use for respective sit-to-stand vest/sling or lifting accessory for further guidance.

Contact your Hill-Rom representative for advice and information on Liko's product range.

Holder for Quick Reference Guide Prod. No. 2000100

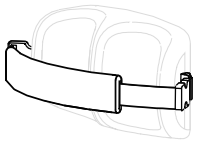


Quick Reference Guide Sabina II

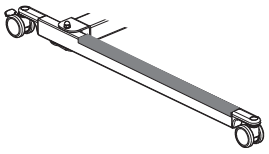
Swedish/Finnish	Prod. No. 2020100SVFI
Norwegian/Danish	Prod. No. 2020100NODK
English/Spanish	Prod. No. 2020100ENES
German/French	Prod. No. 2020100DEFR
French/Dutch	Prod. No. 2020100FRNL
Italian/Portuguese	Prod. No. 2020100ITPT

Calf Strap Prod. No.20290022

Calf strap may be used for those patients who need securing of a weak leg or need a prompt not to step off of the foot rest.



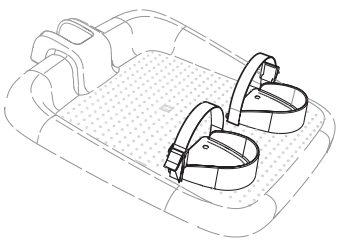
Leg Protector Prod. No. 20190029



Heel Support Sabina Prod. No.2027011

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

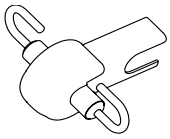
⚠ **Be aware of any decreased mobility and/or the risk of hyperextension of the knee joints when using Sabina Heel Support.**



SeatStrap SlingBar

Prod. No. 2027007: can be used with Sabina™ II sit-to-stand lift.

Prod. No. 2027006: can be used with earlier Sabina sit-to-stand lift models, but can also be used with Sabina II sit-to-stand lift.
Width: 19 cm (7.5 inch.)
Maximum load: 200 kg (440 lbs).

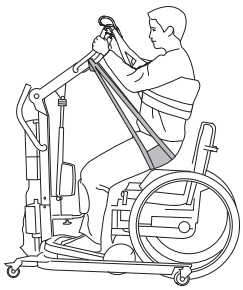


Prod. No. 2027007

Prod. No. 2027006

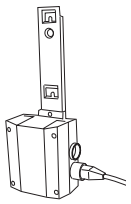
Sabina SeatStrap Prod. No. 3591115

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 patient 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.



Battery charger, wall-mounted Prod. No. 2004106

or for use with a table charger housing



Extra battery Prod. No. 2006106

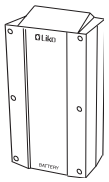
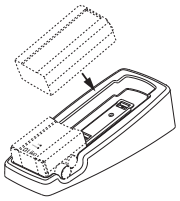


Table charger housing Prod. No. 2107103

excl. charger and battery

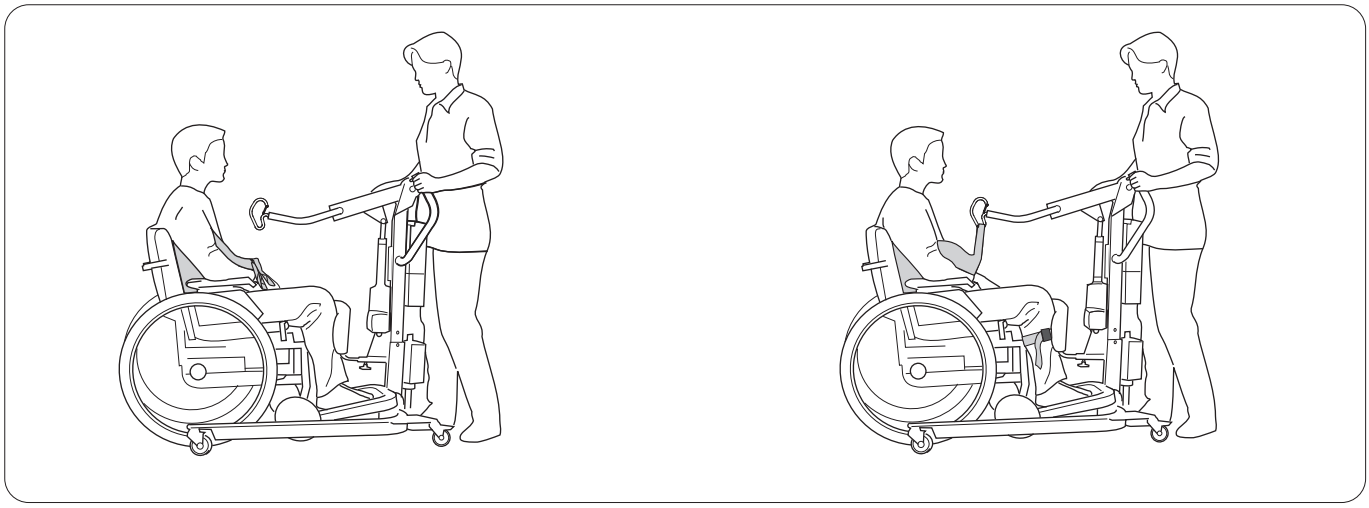


Using Sabina™ sit-to-stand lift to Assist Users into a Standing Position

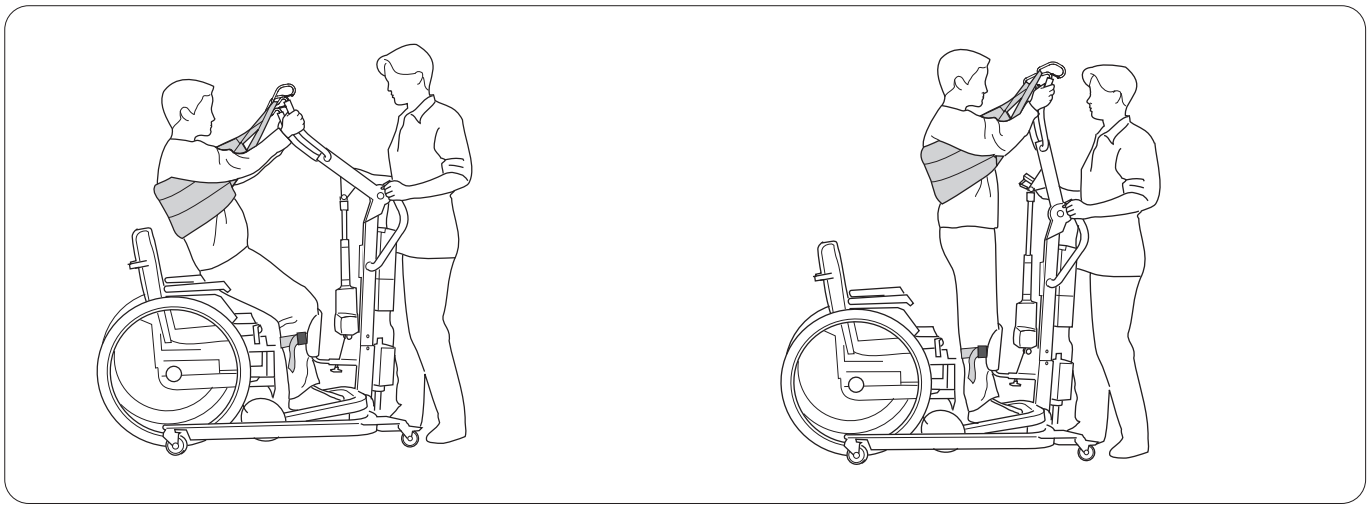
There are two different sling bar options available for Sabina sit-to-stand lift, as well as many different sit-to-stand vests. The patient's overall mobility determines which sling bar and sit-to-stand vest to use. Carefully read the instruction for use for the lifting accessories used. Before using Sabina sit-to-stand lift, it is important to make an individual setting of the lifting height, see page 10.

Raising a person with active lifting using Sabina sit-to-stand lift with SlingBar 350

For this sling bar, we recommend Liko SupportVest mod. 91 or Liko SafetyVest mod. 93. When using SlingBar 350, the patient has the arms outside the sling. SlingBar 350 in combination with SafetyVest mod. 93 gives the patient extra support in the standing-up situation. Below please find a description of the use of the SupportVest mod. 91. See the instruction for use for the respective sit-to-stand vest for more information.



1. Place the SupportVest around the patient according to the vest's instruction for use. Place Sabina sit-to-stand lift in front of the patient and 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.
2. Connect the vest's straps to the sling bar's hooks. *If applicable*: tighten the calf strap.

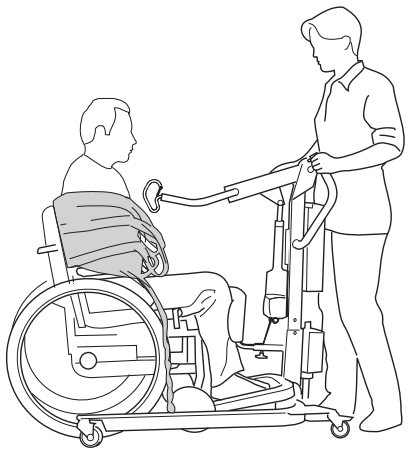


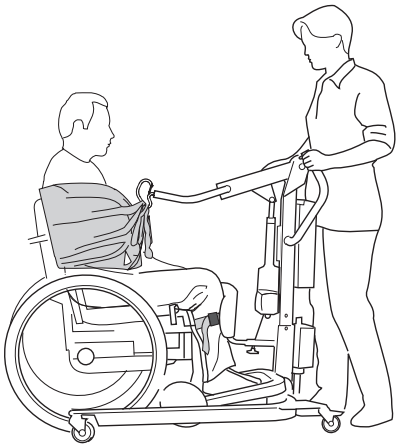
3. Raise the sling bar about 10–20 cm (4-8 in). The patient grabs the sling bar. Continue the lifting procedure. If the patient leans backwards, the raising will be made easier, preventing the vest from sliding up. The height to which the lift should proceed varies from person to person.

   ⚠ **Before the patient is lifted from the underlying surface, but after the straps have been fully extended, make sure the straps are properly connected to the sling bar.**
4. For a more upright position, continue the lifting motion to the uppermost position. The raising motion can be experienced as unpleasant for the person not used to it. Remember that Sabina II EE sit-to-stand lift has two different speeds. For maximum comfort, the lift mast should be affixed to the base in the best possible of the three fastening holes. See page 10.

Raising a person with active lifting using Sabina™ sit-to-stand lift with the Comfort SlingBar

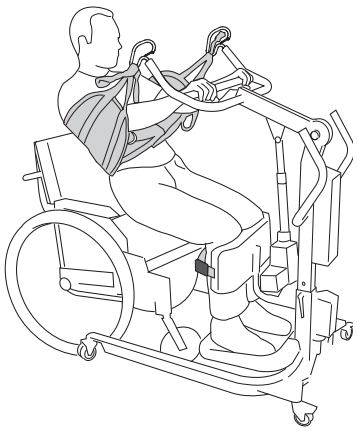
For this sling bar, we recommend Liko ComfortVest mod. 95. This combination is suitable for people who are especially sensitive to pressure under the arms, such as people who are paralyzed on one side. The ComfortVest is designed to lift behind the back and on the outside of the arms. The Comfort SlingBar can also, to a limited extent, be used with Liko SafetyVest mod. 93, especially for larger patients. Below is a description of how to use ComfortVest mod. 95. See the instruction for use for the respective sit-to-stand vest for more information.

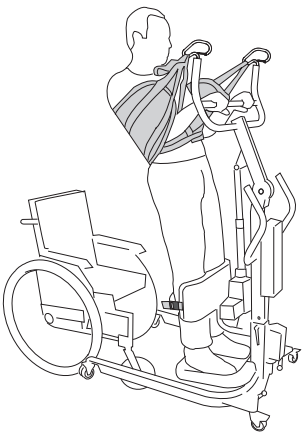




1. Place the ComfortVest around the patient according to the vest's instruction for use. Place Sabina sit-to-stand lift in front of the patient. Adjust the width of the base. Place the feet in the middle of the foot rest with the lower legs parallel to the lower-leg support. Adjust the height and depth of the lower-leg support as needed for comfortable support below the kneecap.

2. Connect the vest's straps to the sling bar's hooks. *If applicable*: tighten the calf strap.





3. Raise the sling bar about 10–20 cm (4-8 in). The patient grabs the sling bar. Continue the lifting procedure. If the patient leans backwards, 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 after the straps have been fully extended, make sure the straps are properly connected to the sling bar.**

4. For a more upright position, continue the lifting motion to the uppermost position. The raising motion can be experienced as unpleasant for the person not used to it. Remember that Sabina II EE sit-to-stand lift has two different speeds. For maximum comfort, the lift mast should be affixed to the base in the best possible of the three fastening holes. See page 10.

Problems while helping a patient get to his feet

The patient does not reach a sufficiently upright position - what is to be done?
Sometimes this is due to the patient's state of health or mobility: weakened musculature, lack of strength and/or diminished mobility in hip or knee joints. In order to get the best possible use out of Sabina™ sit-to-stand lift, there are some things to keep in mind:

1 Connect the vest's inner strap loop (B) to the sling bar hooks.

2 Raise the lift mast to achieve higher lifting height. See adjustment of lifting height, page 10.

3 Try a smaller vest size. A smaller vest means a shorter distance to the hooks and a more upright standing position.

The patient has a hard time participating in the first part of the raising motion - what is to be done?
Sabina SeatStrap is an accessory meant for patients who need extra help with raising the seat during the first part of the raising motion. For more information, see "Recommended Lifting Accessories," page 14-15, or read the instruction for use for Sabina SeatStrap.

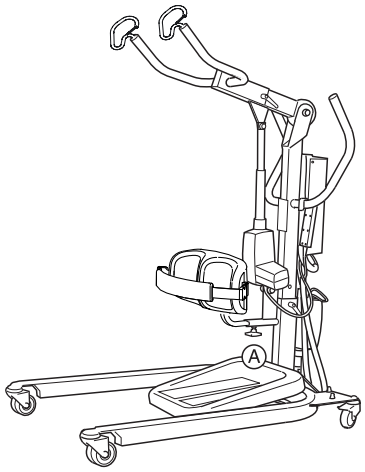
Using Sabina sit-to-stand lift in Passive Lifting Situations

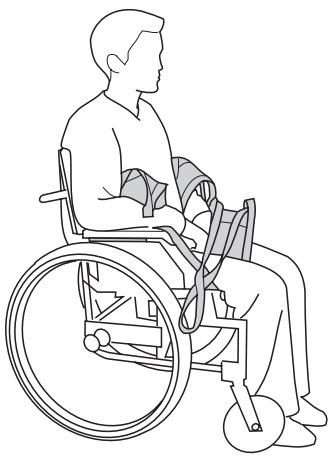
For passive lifting, we recommend a sling model that does not restrict the lifting height too much. Adjustment on a case-by-case basis is always important to functionality and security. The patient's overall mobility determines the choice of sling model and sling bar. Remember that the maximum load for passive lifting is reduced from 200 kg (440 lbs) to 150 kg (330 lbs); this is due to the fact that during passive lifting, the foot rest does not bear any of the load.

Sabina sit-to-stand lift with SlingBar 350 (bar width 350 mm)
For this sling bar, we recommend Liko HygieneSling mod. 41 and 45.

Sabina sit-to-stand lift with Comfort SlingBar (bar width 600 mm)
For this sling bar, we recommend Liko UniversalSling mod. 000. See the respective instruction for use for the sling model for more information or contact Hill-Rom for further guidance.

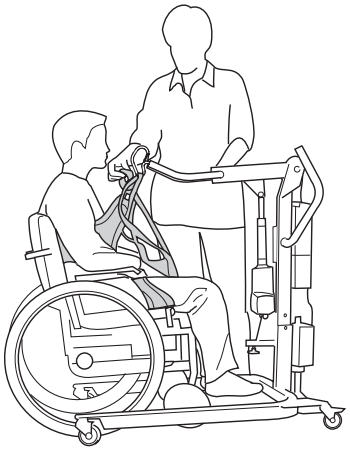
Passive lifting using Sabina sit-to-stand lift with SlingBar 350

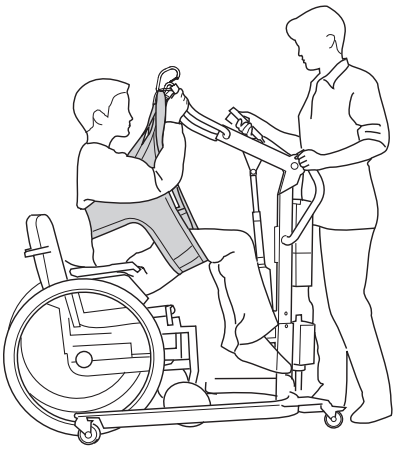




1. Disassemble the lower leg support: Unscrew screw A. Pull out the lower leg support. Remove the foot rest: Grab the front edge of the frame. Fold it up and lift it off the base.

2. Apply suitable sling according to the sling's instruction for use. Above Liko HygieneSling mod. 40 is applied.





3. Advance the lift. Connect the sling's suspension loops to the sling bar's hooks. The height setting of the lift mast may have to be adjusted, see page 10.
   ⚠ **Before the patient is lifted from the underlying surface, but after the sling's straps have been fully extended, make sure the straps are properly connected to the sling bar.**

4. Raise the sling bar to the lowest height necessary to perform the transfer.
   ⚠ **Make sure that the lifting motion is not so high that the patient gets too close to the lift mast!**

⚠ **NOTE!**
Lifting seated persons with Sabina™ sit-to-stand lift cannot replace lifting procedures for sitting persons using traditional mobile lifts, e.g. using Viking™ mobile lift, Uno™ mobile lift, Golvo™ mobile lift. The function is intended as a temporary solution when the patient cannot manage an active raising motion using Sabina sit-to-stand lift. If the need for passive lifting persists, we recommend that you switch to one of the lifts mentioned above.

Simple Troubleshooting

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

1. Check that the emergency stop has not been engaged.
2. Make sure that the cables to the control box are connected correctly.
3. Make sure that the charging cable is not connected to a socket.
4. Check the battery voltage.
5. Check that the battery's contact plates are not defective or broken.
6. *If the lift still does not work properly, please contact Hill-Rom.*

The charger doesn't work.

1. Check that the emergency stop has not been engaged.
2. Check that the battery's contact plates are not defective or broken.
3. *If the lift still does not work properly, please contact Hill-Rom.*

The lift is stuck in a high position.

1. Check that the emergency stop has not been engaged.
2. Use the selected electrical emergency lowering device to lower the patient onto a firm surface.
3. Use the selected mechanical emergency lowering device to lower the patient onto a firm surface.
4. Check the battery voltage.
5. *If the problem remains, please contact Hill-Rom.*

If you hear unusual sounds.

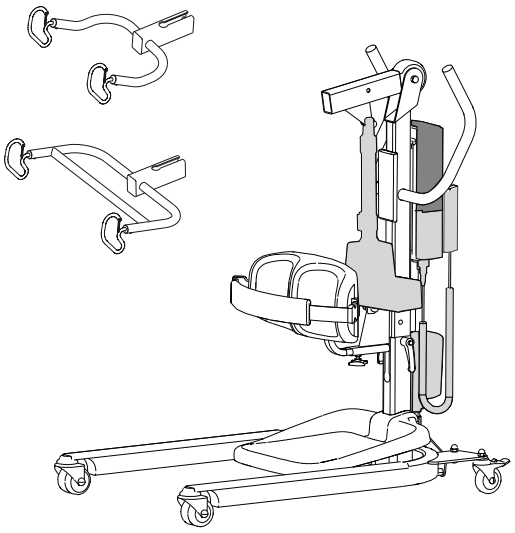
Contact Hill-Rom.

Recycling Instructions

Lead battery (Pb)

Waste of Electrical and Electronic Equipment (WEEE).

Metals



Sabina™ II EE sit-to-stand lift comply with the Directive WEEE ll 2012/19/EU 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 Hill-Rom.

Hillrom evaluates and provides guidance to its users on the safe handling and disposal of its devices to aid in the prevention of injury, including, but not limited to: cuts, punctures of the skin, abrasions, and any required cleaning and disinfection of the medical device after use and prior to its disposal. Customers should adhere to all federal, state, regional, and/or local laws and regulations as it pertains to the safe disposal of medical devices and accessories.

If in doubt, the user of the device shall first contact Hillrom Technical Support for guidance on safe disposal protocols.

Cleaning and Disinfection

These instructions do not replace the facility's own cleaning and disinfection policies.

⚠ Warnings:
To help prevent injury and/or equipment damage, obey these warnings:

- Warning—The potential for electrical shock exists with electrical equipment. Failure to follow facility protocol could cause death or serious injury.
- Warning—Do not reuse wiping material for multiple steps or on multiple products.
- Warning—Harmful cleaning solutions may cause skin rash and/or irritation upon contact. Follow the manufacturer's instructions found on the product label and Safety Data Sheet (SDS).
- Warning—Lift and move items correctly. Do not twist, and seek assistance when necessary.
- Warning—Fluid spills on to the lift electronics could cause a hazard. If this happens do not put the lift back into service until it is completely dry, tested, and found to be safe to operate.

⚠ Cautions:
To help prevent equipment damage, obey these cautions:

- Caution—Do not steam clean or power wash the lift. Pressure and excessive moisture can damage the protective surfaces of the lift and its electrical components.
- Caution—Do not use harsh cleansers/detergents, heavy duty grease removers, solvents such as toluene, xylene, or acetone, and do not use scouring pads (you may use a soft bristle brush).
- Caution—Fully extend the lift strap prior to the cleaning and disinfection process.

Safety Recommendations
- Wear protective equipment according to manufacturer's instruction and per facility protocol throughout the cleaning operations, such as: gloves, eye protection, apron, face mask and shoe covers.
- Unplug mains (AC power source) before cleaning and disinfection.
- Never clean the lift by pouring water on it, steam cleaning it, or by using a high-pressure jet.
- Refer to the recommendations made by the cleaning and disinfecting product manufacturer.

Process Recommendations:
For proper cleaning and disinfection, staff members should be trained.
The trainer should carefully read the instructions and follow them when the trainee is being trained.
The trainee should:
- Be given time to read the instructions and to ask any questions.
- Clean and disinfect the product while the trainer supervises. During, and/or after this process, the trainer should correct the trainee about any differences from the instructions for use.

The trainer should supervise the trainee until the trainee can clean and disinfect the lift as instructed.
Hill-Rom recommends to clean and disinfect the lift between patient use and regularly during extended patient stays.

Some fluids used in the hospital environment, such as iodophor and zinc oxide creams, can cause permanent stains.
Remove temporary stains by wiping vigorously with a lightly-dampened wiping cloth.

Cleaning and Disinfection Overview:

Cleaning and disinfection are distinctly different processes. **Cleaning** is the physical removal of visible and non-visible soil and contaminants. **Disinfection** is intended to kill microorganisms.
When you perform the detailed cleaning steps, please note the following:
- A microfiber cloth is recommended as the wiping cloth.
- A soft bristle brush is recommended as a cleaning tool for the small holes in the Q-Link II.
- Always replace the wiping cloth when visibly soiled.
- Always replace the wiping cloth between steps (spot clean, clean, and disinfect)
- Always use Personal Protective Equipment (PPE) such as gloves, eye proection, apron, face mask, and shoe covers, as recommended by the facility protocol and manufacturers instructions

Cleaning and Disinfection Equipment:

- Protective equipment (such as: gloves, eye protection, apron, face mask and shoe covers) as recommended by the facility protocol and manufacturers instructions
- Disposable microfiber cloths recommended
- Soft bristle brush
- Warm water
- To find Cleaning / Disinfectants compatible or not compatible for use on Liko® products, follow the "Application of commonly used Cleaning / Disinfectants on Liko products" in this document.

Prepare the Unit for Cleaning and Disinfecting:

⚠ **Unplug mains (AC power source) before cleaning and disinfection.**

Step 1: Cleaning

1. Unplug the mains (AC power source) before cleaning and disinfection.

2. As necessary, first remove visible soil from the lift with a cloth moistened with warm water and a neutral, approved cleaner/disinfectant. See "Application of commonly used Cleaning / Disinfectants on Liko products." Do not use a cloth that is dripping wet.

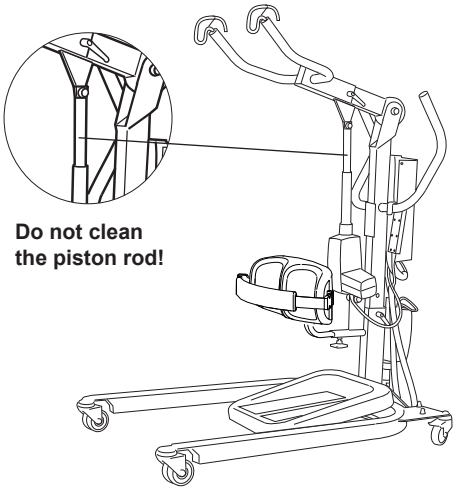
- A soft bristle brush may be used for hard-to-clean areas to remove stains and resistant dirt and to loosen hardened soil.
- Use as many wiping cloths as needed to remove the soil. Replace cloth when soiled.

3. Wipe down the entire lift starting from the top down. Give special attention to seams, cracks and other areas where soil may accumulate. In particular, pay special attention to the following areas:

NOTE! Do not clean the piston rod!

4. Pay special attention to the following areas:

- Sling bar (different designs)
  - Handles
  - Mechanical emergency lowering (different designs)
  - Hand control
  - Emergency stop
  - Lower-leg support
  - Foot rest
  - Locking handles
  - Wheels



Cleaner/Disinfection:

NOTE:

It is important to remove all visible soil from all areas before continuing to remove non-visible soil.

With a new wiping cloth soaked in an approved cleaner/disinfectant, use firm pressure to wipe all surfaces of the lift. Use a new or clean wiping cloth as often as necessary. Make sure the following items are cleaned:

- Hand Control
- Sling (refer to the specific sling Instruction for use and 7EN160884 Care and Maintenance of Liko Slings
- Lift
- Slingbar
- Power cord
- Scale (if applicable)

Damaged items should be replaced!

Step 2: Disinfection:

1. For the use of suitable disinfectants see "Application of commonly used Cleaning / Disinfectants on Liko products" in this document.
2. Follow the manufacturer's instructions.
3. Make sure all surfaces r**emain wet with the cleaner/disinfectant** for the **specified contact time**. Rewet surfaces with a new wiping cloth as necessary and per the manufacturer's instructions.

NOTE:

If bleach is used with another cleaner/disinfectant, use a new or clean cloth/wipe soaked in tap water to remove any disinfectant residue prior to and after the bleach application.

⚠ **The lift may not be cleaned with CSI or equivalent.**

⚠ **The hand control may not be cleaned with Viraguard or equivalent.**

⚠ **The control box may not be cleaned with Anioxy Spray or equivalent.**

⚠ **The foot rest may not be cleaned with Terralin Protect, Virex II or equivalent.**

⚠ **The leg support on Sabina II, S/N up to 460899 may only be cleaned with warm water and a facility approved neutral detergent.**

⚠ **The leg support on Sabina II S/N from 460900 may be cleaned with the recommended disinfectants.**

Application of commonly used Cleaning / Disinfectants on Liko products

Chemical class	Active ingredient	pH	Cleaners / Disinfectant *)	Manufacturer *)	May not be used on the following items:
Quaternary ammonium chloride	Didecyl dimethyl ammonium chloride = 8.704% Alkyl dimethyl benzyl ammonium chloride = 8.19%	9.0 – 10.0 in use	Virex II (256)	Johnson/Diversey	**Foot rest for Sabina™ and Roll-On™**
Quaternary ammonium chloride	Alkyl dimethyl benzyl ammonium chloride = 13.238% Alkyl dimethyl ethylbenzyl ammonium chloride = 13.238%	9.5 in use	HB Quat 25L	3M	
Accelerated Hydrogen Peroxide	Hydrogen Peroxide 0.1 -1.5% BenzylAlcohol: 1-5% Hydrogen Peroxide 0.1 -1.5% BenzylAlcohol: 1-5%	3	Oxivir Tb	Johnson/Diversey	**The lift straps for Golvo™ and ceiling lifts**
Phenolic	Ortho-Phenylphenol = 3.40% Ortho-Benzyl-para-Chlorophenol = 3.03	3.1 +/- 0.4 in use	Wexcide	Wexford Labs	
Bleach	Sodium hypochlorite	12.2	Dispatch	Caltech	**The lift straps for Golvo™ and ceiling lifts**
Alcohol	Isopropyl alcohol = 70%	5.0 – 7.0	Viraguard	Veridien	**Hand controls for all lifts**
Quaternary ammonium	n-Alkyl dimethyl benzyl ammonium chlorides = 0.105% n-Alkyl dimethyl ethylbenzyl ammonium chlorides = 0.105%	11.5 - 12.5	CSI	Central Solutions Inc.	**Viking™, Liko M220™, Liko M230™, Uno™, Sabina™, Golvo™, LikoLight™, Roll-On™, Likorall™, Multirall™**
Benzyl-C12-18-alkyldimethylammonium, chlorides	Benzyl-C12-18-alkyldimethylammonium, chlorides (22 %) 2-Phenoxyethanol (20 %) Tridecylpolyethylenglycolether (15 %) Propan-2-ol (8 %)	approx 8.6 in use	Terralin Protect	Shülke	**Foot rest for Sabina™ and Roll-On™**
Organic peroxide (type E, solid)	Magnesium monoperoxyphtalate hexahydrate (50-100%) Anionic surfactant (5-10%) Nonionic surfactant (1-5%)	5.3 in use	Dismozon Pur	Bode	**The lift straps for Golvo™ and ceiling lifts**
Ethanol	Hydrogen peroxyde (2.5-10 %) Lauryldimethylamine oxid (0-2.5 %) Ethanol (2.5-10 %)	7	Anioxy-Spray WS	Anios	**Control box for all mobile lifts**
Troclosene sodium	Adipic acid 10-30% Amorphous silica < 1% Sodium Toluene sulphonate 5-10 % Troclosene sodium 10-30 %	4-6 in use	Chlor-Clean	Guest Medical Ltd	**The lift straps for Golvo™ and ceiling lifts**

***) Or equivalent**

Inspection and Maintenance

For trouble-free use, certain details should be checked before each use.

- Inspect the lift and check to make sure that there is no external damage.
- Check the functionality of the locking handles.
- Check the functionality of the latches.
- Check the raising, lowering and the base-width adjustment.
- Check to make sure that the emergency lowering (both electrical and mechanical) works.
- Charge the batteries each day the lift is used and make sure the charger works.

When necessary, clean the lift with a moist cloth and check that the wheels are free from dirt. Find more detailed information regarding cleaning and disinfection of your Liko product in chapter; *Cleaning and Disinfection*.

⚠ **The lift should not be exposed to running water.**

Service

Sabina™ sit-to-stand lift should be periodically inspected at least once a year. Service are not allowed with patient in lift.

⚠ **Periodic inspection, repair and maintenance should be performed only in accordance with the Liko Service Manual and by personnel authorized by Hill-Rom and using original Liko spare parts.**

Service Agreement

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

Expected Life Time

The product has an expected life time of 10 years when correctly handled, serviced and periodically inspected 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 stops should be engaged.
The environment where the lift is transported and stored should have a temperature of -10 – +50 °C (14–122 °F) and a relative humidity of 20 to 90 %. The Atmospheric pressure should be 700–1060 hPa.

Product Changes

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

Design and Quality by Liko in Sweden

The management system for both manufacturing and development of the product is certified in accordance with ISO9001 and its equivalent for the medical device industry, ISO13485. The management system is also certified in accordance with the environmental standard ISO14001.

Notice to Users and/or Patients in EU

Any serious incident that has occurred in relation to the device, should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

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