

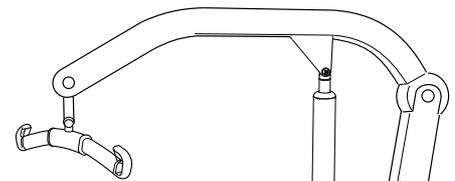
# Viking L

## Service Manual English

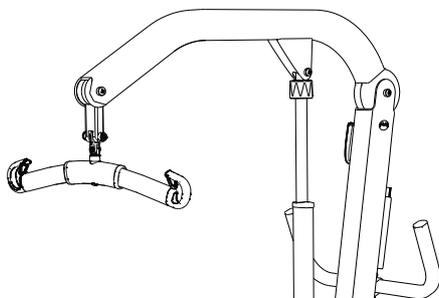
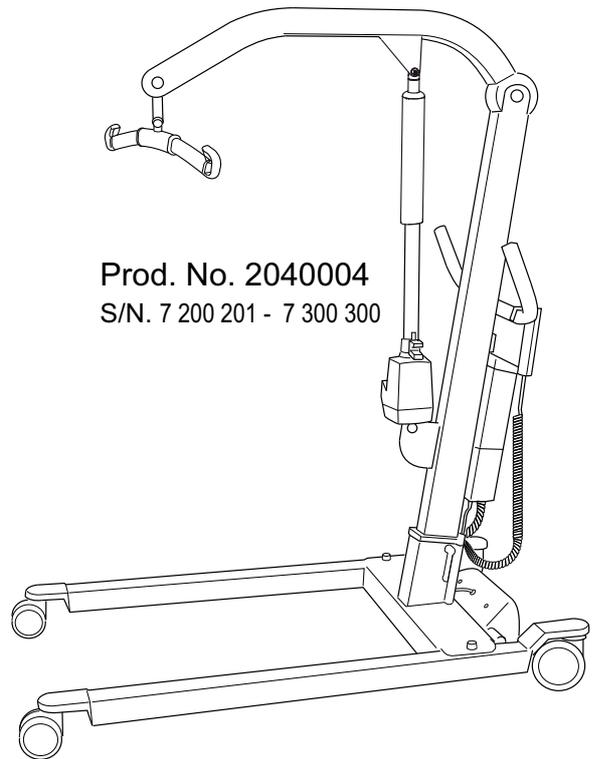
Prod. No. 2040004, 2040014

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2011-04-26

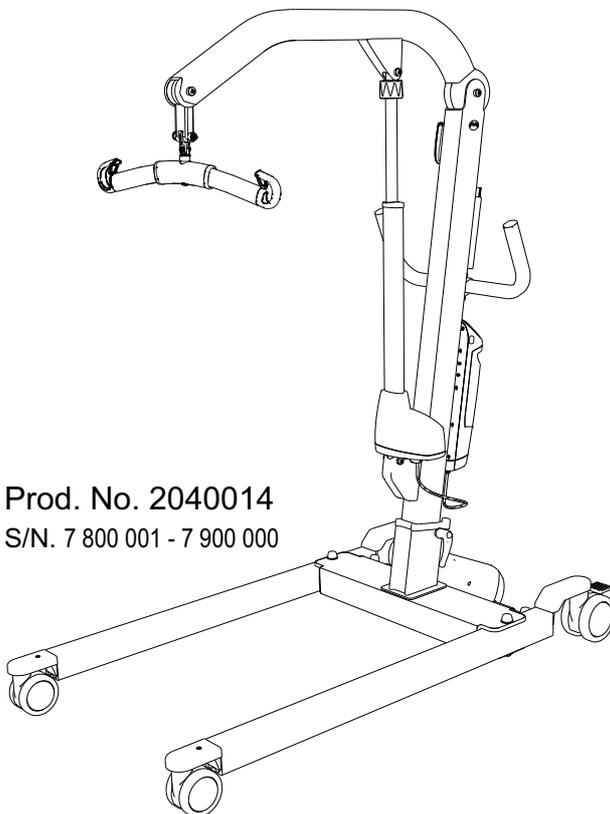
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Prod. No. 2040004  
S/N. 7 200 201 - 7 300 300



Prod. No. 2040014  
S/N. 7 800 001 - 7 900 000



Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom  
and using original Liko spare parts.

For information regarding Service and Maintenance education, contact your Liko/Hill-Rom representative.

For contact information please visit our website: **[www.liko.com](http://www.liko.com)**

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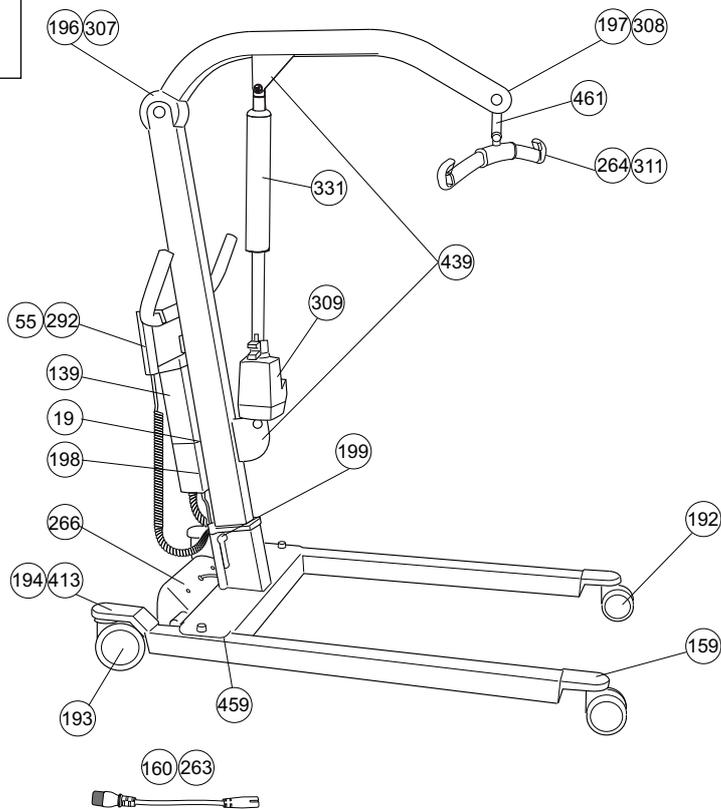
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# Spare Parts Position

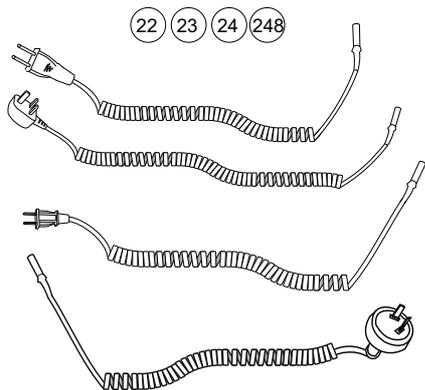
PROD. NO.	PRODUCT
2040004	Viking L
2040014	Viking L (with intelligent control box)

## Product No. 2040004

(S/N: 7 200 201 - 7 300 300)

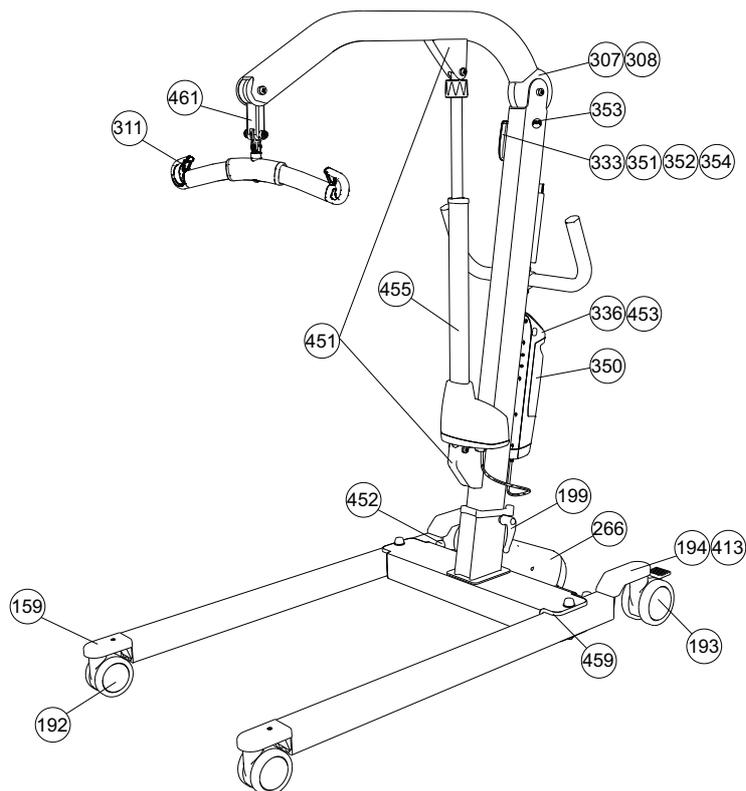
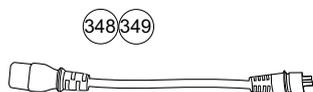
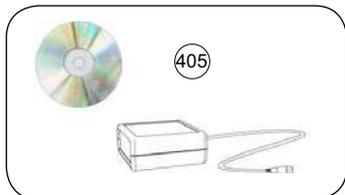


### Fits Viking L, all models:



## Product No. 2040014

(S/N: 7 800 001-7 900 000)



## Technical Data

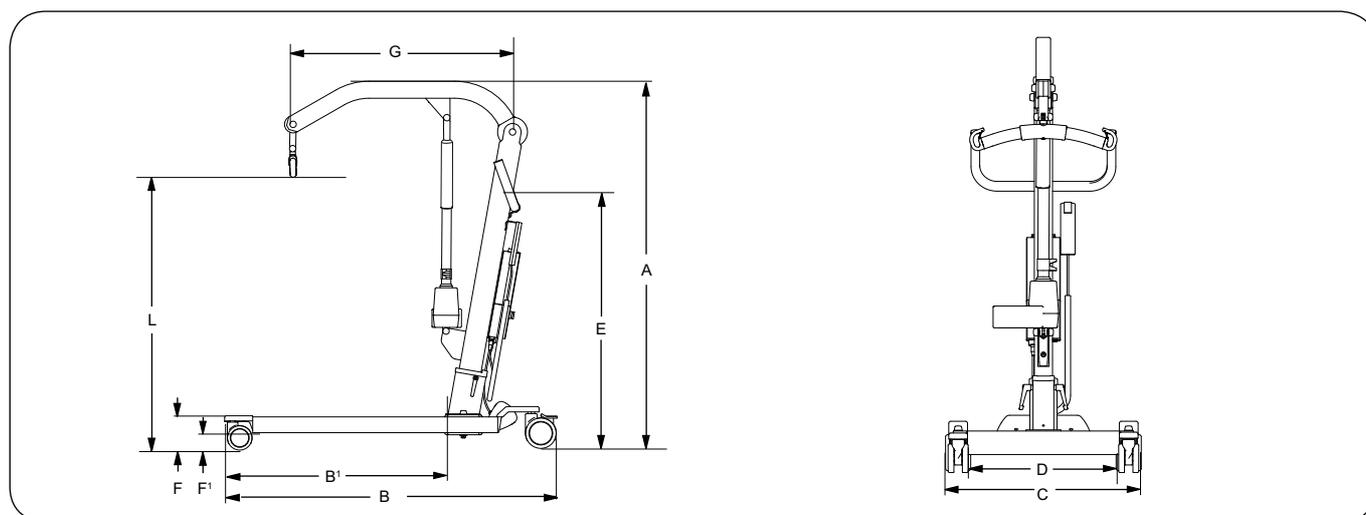
Prod. No. 2040004

<b>Lifting speed:</b>	3.5 cm/s (0.8 inch./s) without load
<b>Batteries:</b>	Two 12 V, 2.9 Ah, valve-regulated lead-acid gel-type batteries. New batteries are provided by the supplier.
<b>Battery</b>	Built-in charger, 100-240 V AC, max 400 mA
<b>Motor (mast):</b>	24 V, 10.8 A, permanent magnetic motor with mechanical safety mechanism, safety nut and outer tube.
<b>Motor (base):</b>	24 V, 5.5 A, permanent magnetic motor.
<b>Material:</b>	Aluminium
<b>Emergency lowering:</b>	Mechanical and electrical

<b>Wheels:</b>	Standard front: 100 mm dual. Standard rear: 125 mm dual w. brake. Alt. front: 75 mm dual. Alt. rear: 100 mm single w. brake.
<b>Intermittent operation:</b>	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.
<b>Degree of protection:</b>	IP 43

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

## Measurements



Maximum 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 L	100/125 *	250	1790	450	2000	1360	1350	900	660-960	550-950	1060	140	45	900	40	22	1420
Viking L	75/100	250	1780	440	1990	1350	1350	900	660-960	550-950	1050	120	35	900	40	22	1420

\* Standard for Viking L.

Maximum 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 L	3.9/4.9*	550	70	18	79	54	53	35	26-38	22-37	42	5.5	1.8	35	88	48	60
Viking L	3.0/3.9	550	70	18	79	54	53	35	26-38	22-37	42	4.7	1.4	35	88	48	60

\* Standard for Viking L.

# Technical Data

Prod. No. 2040014

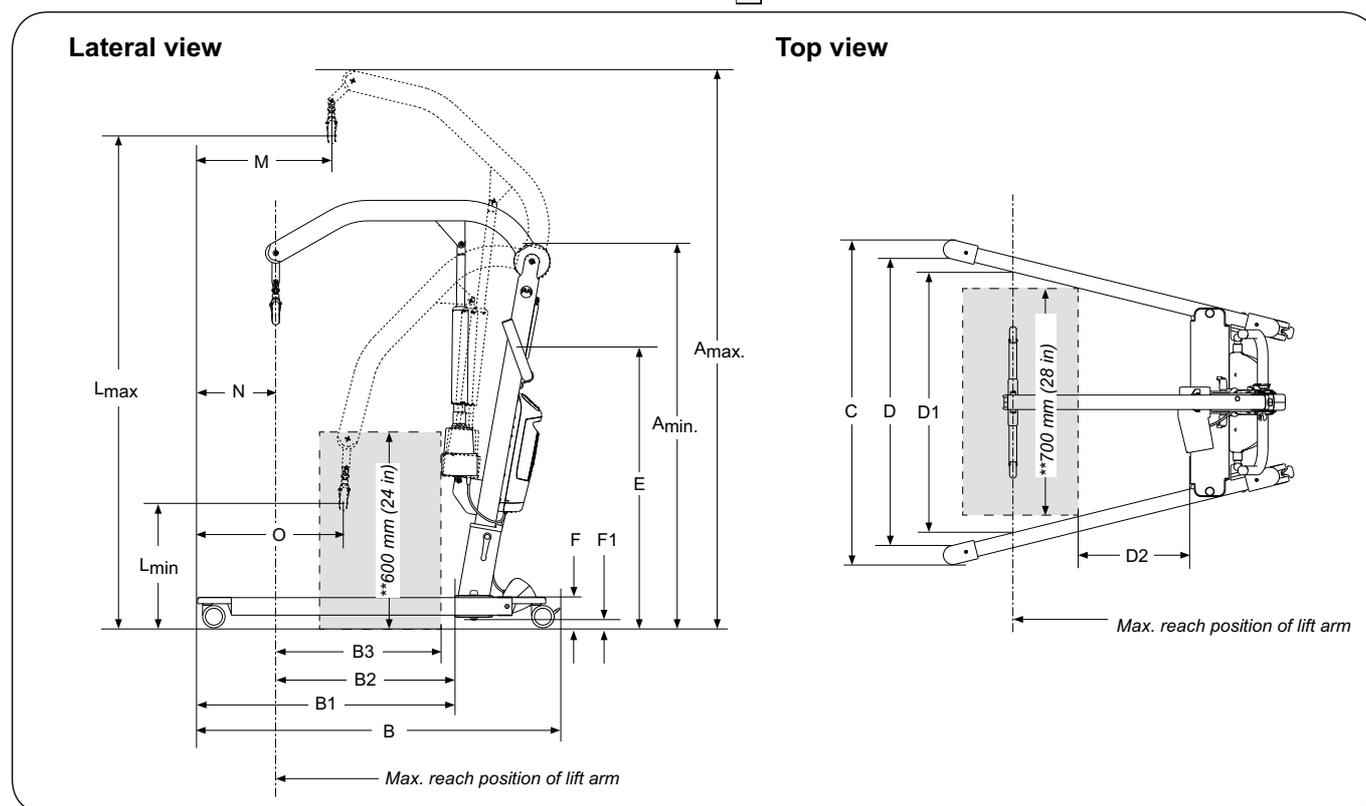
<b>Maximum load:</b>	250 kg (550 lbs)
<b>Material:</b>	Aluminium
<b>Weight:</b>	Total weight: 36.5 kg (80 lbs) Heaviest part: 20.5 kg (45 lbs)
<b>Wheels:</b>	Front: 100 mm (4 in) twin wheels. (Or 75 mm* (3 in) twin wheels). Rear: 125 mm (5 in) twin wheels. (Or 100 mm (4 in) single castors with brakes).
<b>Turning diameter:</b>	1460 mm (57.4 in)
<b>Emergency Lowering:</b>	Manual and electrical
<b>Lifting interval:</b>	1330 mm (52.4 in)
<b>Lifting Speed (no load):</b>	21 mm/s and 13 mm/s, respectively 0.8 in/s and 0.5 in/s,
<b>Sound Level:</b>	51 dB(A)
<b>Protection Class:</b>	Viking L: IP X4

<b>Operating Forces of Controls:</b>	HandControl: 4 N Operation Panel: 4 N
<b>HandControl IR</b>	Batteries: 2 AAA LR03 1.5 V. Reach: 2 m (80 in)
<b>Electrical Data:</b>	24 V
<b>Intermittent operation:</b>	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.
<b>Batteries:</b>	NiMH cells, 2.2 Ah. New batteries provided by the supplier.
<b>Battery Charger:</b>	CBL20001, built-in, 100-240 V AC, 50-60 Hz, max 600 mA.
<b>Lift Motor:</b>	Permanent magnet motor with mechanical safety mechanism 24 V, 6.4 A
<b>Motor for base-width adjustment:</b>	Permanent magnet motor 24 V, 6 A

 The device is intended for use indoors

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

 Class II equipment.



### Measures in mm

A <sub>max</sub>	A <sub>min</sub>	B	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub> **	C		D		D <sub>2</sub> **	E	F	F <sub>1</sub>	L <sub>max</sub>	L <sub>min</sub>	M	N	O
						max	min	max	min									
2030	1390	1360	900	630	560	1070	695	950	625	230	1060	165	43	1790	460	500	280	550

### Measures in inch.

A <sub>max</sub>	A <sub>min</sub>	B	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub> **	C		D		D <sub>2</sub> **	E	F	F <sub>1</sub>	L <sub>max</sub>	L <sub>min</sub>	M	N	O
						max	min	max	min									
80.0	54.7	53.5	35.4	24.8	22.0	42.1	27.4	37.4	24.6	9.1	41.7	6.5	1.7	70.5	18.1	19.7	11.0	21.7

Note: The measurements are based on the lift being equipped with standard sling bar and standard wheels. When changing to other lifting accessories, or other wheels, check that the lift still achieves desired lifting height.

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

## Trouble shooting

Prod. No. 2040004

**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 .
2. Check that the cables are correctly connected .
3. Check that the charger cable is not connected to the wall socket.
4. Check that the battery is charged .
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 .
2. Check to ensure that the wall socket is power-supplied.
3. Check to ensure that the charger cable is correctly connected.
4. Check that the contact plates of the battery box are not defective or broken off.
5. *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 .
2. Use the electrical emergency lowering (marked) to safely lower the patient .
3. Use the mechanical emergency lowering (marked) to safely lower the patient .
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.*

## Trouble shooting

Prod. No. 2040014

*The lift does not work up/down with the HandControl IR.*

*The base-width adjustment doesn't work (in/out) with the HandControl IR.*



1. Make sure that the emergency stop is not engaged.
2. If the lift has not been used for 24 hours, enable the system.
3. Check that the HandControl IR is enabled.
4. Check that the charger cable is not connected to an electric outlet.
5. HandControl IR indicates battery change.
6. If the lift works via the operation panel, change the HandControl IR.
7. If the lift motion is stopped during raising maximum load, and then won't raise, try to lower the lift and then raise again.
8. If the problem persists, please contact Liko/Hill-Rom.

*The lift does not work up/down with the operation panel.*

*The base-width adjustment doesn't work (in/out) with the operation panel.*



1. Make sure that the emergency stop is not engaged.
2. Make sure that the cables to the control box are connected correctly.
3. Check that the charger cable is not connected to an electric outlet.
4. Check the battery capacity.
5. Check that the battery's contact plates are not defective or broken.
6. If the problem persists, please contact Liko/Hill-Rom.

*The charger doesn't work.*



1. Make sure that the emergency stop is not engaged.
2. Check that the charging cable is correctly connected.
3. Make sure that the battery is properly attached.
4. Check that the battery's contact plates are not defective or broken.
5. If the problem persists, please contact Liko/Hill-Rom.

*The lift is stuck in the high position.*



1. Make sure that the emergency stop is not engaged.
2. Check the battery capacity.
3. HandControl IR indicates battery change.
4. Use the electrical emergency lowering device to lower the patient onto a firm surface.
5. Use the manual emergency lowering device to lower the patient onto a firm surface.
6. If the problem persists, please contact Liko/Hill-Rom.

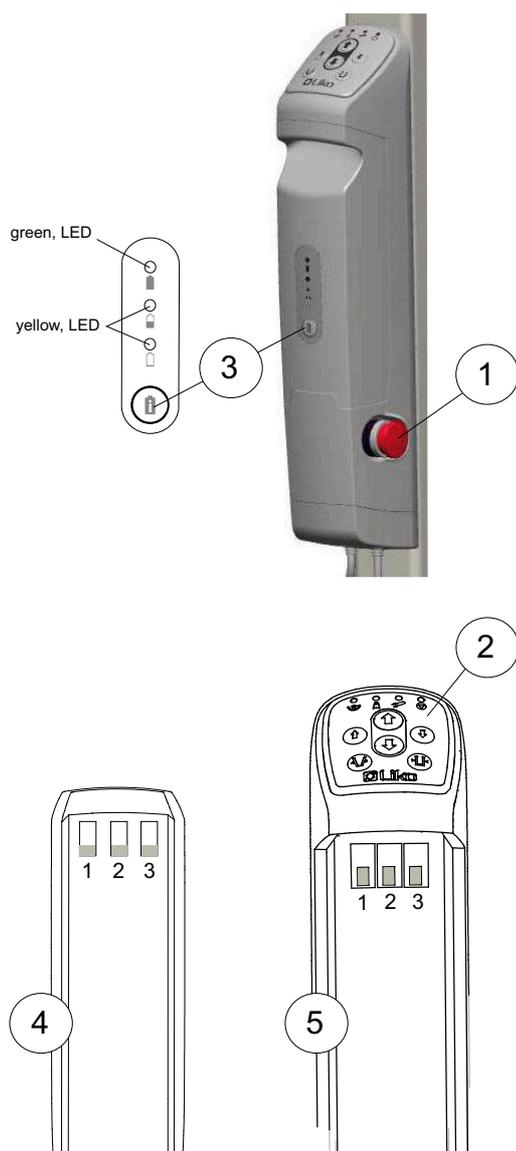
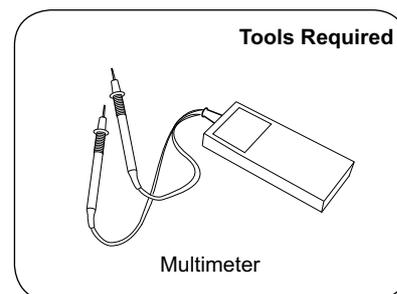
*If you hear unusual sounds.*



Contact Liko/Hill-Rom.

# Trouble Shooting for CBL20

**Note!** Begin with Simple trouble shooting from Service manual for the actual product. If problem remains continue as described below.



## Check point:

1. Make sure that:
  - the emergency stop ① is not activated.
  - the battery is assembled correctly.
  - the charging cable is not connected to mains.
2. Check operation panel function's for actuator and base motor
 

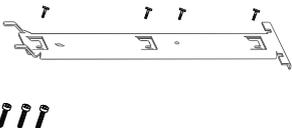
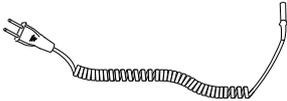
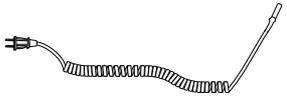
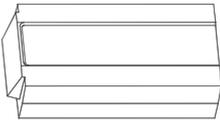
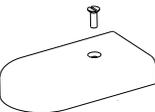
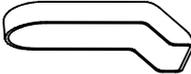
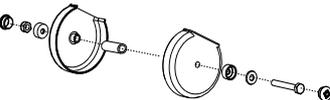
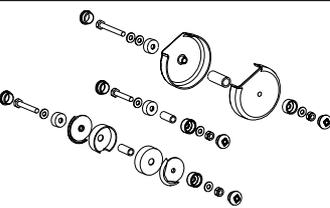
Push control buttons on operation panel ② at control box

  - If both actuator and base motor functions response, continue to step 5.
  - If no function, continue to step 3.
  - If only one of either the actuator or base motor function response: change position on actuator and base motor cables then check control function of operation panel, to see if fault is on output channels or the motors. If control box function is ok! Continue to step 5. If control box is faulty. **Replace the control box.**
3. Check battery capacity
  - 3a) Push in the battery capacity button ③:
    - If any of the three LED's on the battery start's the battery is OK, continue to step 4.
    - If not, continue to step 3b.
  - 3b) Measure battery voltage: release battery, ④ measure on contact 1 and 3:
    - If voltage over 0V the battery is ok! Continue to step 4.
4. Verify contact between control box and battery.
  - 4a) Remove the battery and wait for green LED to turn off.
  - 4b) Put back the battery and see if green LED start automatically.
    - If green LED starts, battery contact is ok!
    - If not, try to ensure that the battery's contact plates are not defective or broken and try to bend them out carefully, then repeat step 4.
    - If still no contact, continue to step 5.
5. Check charging function
  - 5a) Connect the charging cable to mains
    - If charging starts within 1 minute, charge and then continue to step 6.
    - If charging doesn't start, continue to step 5b.
  - 5b) Measure output voltage on the control box ⑤ on contact 1 and 3.
    - If voltage is 3-4V charging is OK! **Replace the battery**, continue to step 6.
    - If voltage is 0V when the charging cable is connected to mains the control box needs to be replaced! **Replace the control box.**
6. Charge the battery until green LED is flashing, on the battery.
  - Check that all function's on the control box is ok!
  - If not, **Replace control box.**

## Customers FAQ:

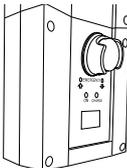
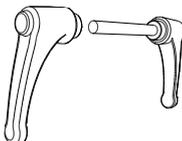
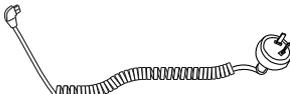
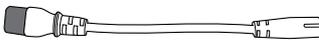
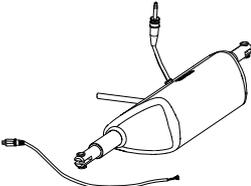
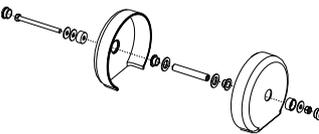
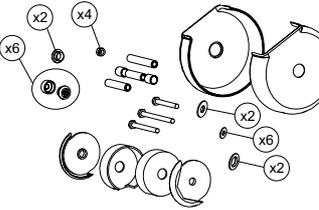
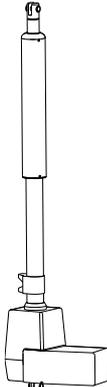
- **The liftarms up/down function or base width in/out function doesn't work?**
  - a) Change position on actuator and base motor cables.
  - b) Perform step 2 and see if fault is on output channel or motors.
- **The control panel function's on controlbox is ok, but the hand control has no function?**
  - a) Check to ensure that battery contact plates in the hand control are not defective or broken.
- **There's no charging function?**
  - a) Verify contact between control box and battery. Perform step 4.
  - b) Check charging function. Perform step 5.

## Spare Parts List

Viking L						
PROD. NO.	POS. NO.	NAME	UNIT		2040004	2040014
20090023	19	Attachment for Control Box	pce		X	
20090026	22	Cable for Charging, EU	pce		X	X
20090027	23	Cable for Charging, UK	pce		X	X
20090028	24	Cable for Charging, US	pce		X	X
20190017	55	Hand Control EE 4-Button	pce		X	
2006106	139	Extra Battery box, incl. Batteries	pce		X	
20390006	159	Front Fork Cover LL, Vi	pair		X	X
21090001	160	Extension Cable	pce		X	
20490003	192	Front Wheel 100 mm We recommend replacing both wheels, as there are two different versions that can vary in appearance. (dimension is the same)	pce		X	X
20490004	193	Rear Wheel 125 mm We recommend replacing both wheels, as there are two different versions that can vary in appearance. (dimension is the same)	pce		X	X
20490005	194	Rear Fork Cover	pair		X	X
20490007	196	Lift Arm Plastic Cover Vi To S/N 7200488.	set		X	
20490008	197	Overhead Beam Restoration set To S/N 7200488	set		X	

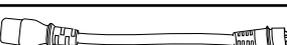
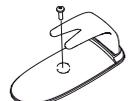
 There are two models of Viking L; Prod. No. 2040004 and 2040014. Which spare part that fits to each model, can be read in the columns to the right. (x=fits with this model)

## Spare Parts List

Viking L						
PROD. NO.	POS. NO.	NAME	UNIT		2040004	2040014
20490009	198	Control Box Viking XL	pce		x	
20490010	199	Locking Handle Viking XL (from S/N 7200431)	pair		x	x
20090050	248	Cable for Charging, AU/NZ	pce		x	x
21090011	263	Extension Cable US	pce		x	
31590011	264	Safety Latch Universal Sling bar	pair		x	
20490011	266	Base Motor Viking M, L	pce		x	x
20090058	292	Hook for Hand control 2, 4, 6	pce		x	
20490023	307	Lift arm plastic cover (Prod. No. 2040004, from S/N 7200795)	set		x	x
20490024	308	Overhead beam restoration set (Prod. No. 2040004, from S/N 7200795)	set		x	x
20490025	309	Actuator Viking L, XL	pce		x	

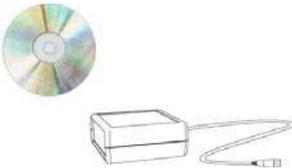
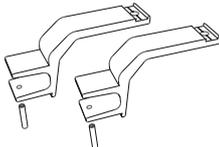
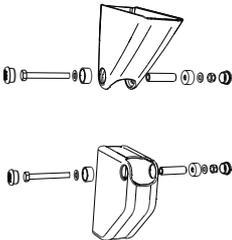
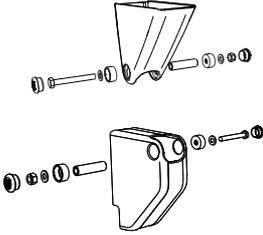
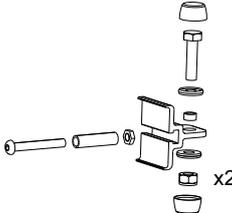
△ There are two models of Viking L; Prod. No. 2040004 and 2040014. Which spare part that fits to each model, can be read in the columns to the right. (x=fits with this model)

## Spare Parts List

Viking L						
PROD. NO.	POS. NO.	NAME	UNIT		2040004	2040014
31590014	311	Latch, composite (Fits Sling bar from S/N 1299511)	pair		x	x
20490030	331	Outer Tube	pce		x	
20490031	333	Wireless hand control HBL20	set			x
20490039	336	Control Unit CBL, by S/N <i>Can only be ordered if S/N (serial number) can be provided to Liko Customer Service. Will be programmed at Liko before delivery. 2 weeks delivery time from Liko.</i>	pce			x
21090018	348	Extension cable CBL20	pce			x
21090019	349	Extension cable CBL 20 US,	pce			x
2006107	350	Extra battery box	pce			x
21090020	351	Beltclip HBL20	pair			x
21090021	352	Clips with hook HBL20	pair			x
21090022	353	Charge cable hook , 10 pce	set			x

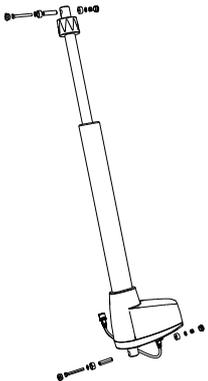
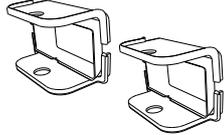
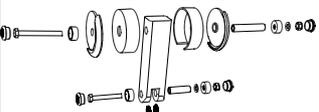
△ There are two models of Viking L; Prod. No. 2040004 and 2040014. Which spare part that fits to each model, can be read in the columns to the right. (x=fits with this model)

## Spare Parts List

Viking L						
PROD. NO.	POS. NO.	NAME	UNIT		2040004	2040014
21090023	354	Hand control hanger, 10 pce	set			x
21090024	405	Liko Service System <i>For programming the CBL with service information. Record and store information on how the lift is used. Reset the LDS service interval after completed service/ periodic inspection. Requires a laptop.</i>	set			x
21090016	406	LDS Service <i>Record and store information on how the lift is used. Reset the LDS service interval after completed inspection.</i>	pce			x
20490037	413	Rear Wheel fork	pair		x	x
20490040	439	Bracket Cover	set		x	
20490041	451	Bracket Cover II	set			x
20490042	452	Restoration set motor attachment	set			x

 There are two models of Viking L; Prod. No. 2040004 and 2040014. Which spare part that fits to each model, can be read in the columns to the right. (x=fits with this model)

## Spare Parts List

Viking L						
PROD. NO.	POS. NO.	NAME	UNIT		2040004	2040014
20490043	453	Control Unit CBL, Viking L <i>Before use; requires Software and, needs to be programmed with Liko Service System, Prod. No. 21090024</i>	pce			x
20490045	455	Actuator LA44 - 400	set			x
20490047	459	Leg Cover L&XL	set		x	x
20490049	461	Flexlink	set		x	x

 There are two models of Viking L; Prod. No. 2040004 and 2040014. Which spare part that fits to each model, can be read in the columns to the right. (Yes=fits with this model, No= does **not** fit with this model)

Assembly Instruction  
Monteringsanvisning

Prod. No. 20090023

3SE630238-05

2011-02-08

**Contains:**

Screw MRT-GF M5x16

**Qty:**

3

Screw MCL6S M5x8

4

Control box attachment

1

**Fits:**

Golvo 7000ES/7007ES, 7007 LowBase

Uno 100 EM/EE

Uno 102 EM/EE/ES

Sabina EM/EE

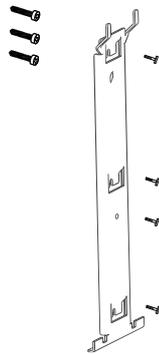
Sabina II EM/EE

Viking XL (Prod. No. 2040003)

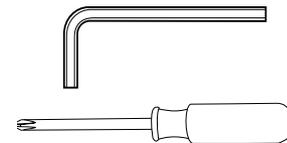
Viking L (Prod. No. 2040004)

Viking M (Prod. No. 2040005)

Liko M220 / M230



**Tools required:**



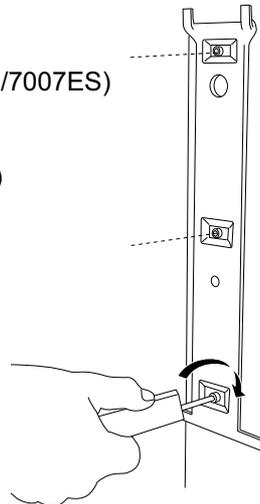
3 mm

T25

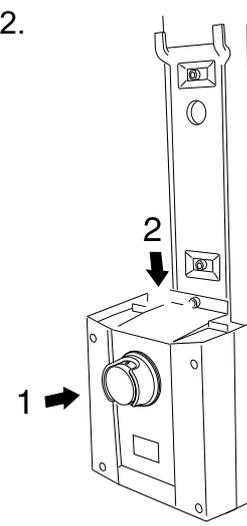
1.

 x 3 (Viking M, L, XL, Golvo 7000ES/7007ES)

 x 3 (Sabina, Uno, Liko M220/M230)

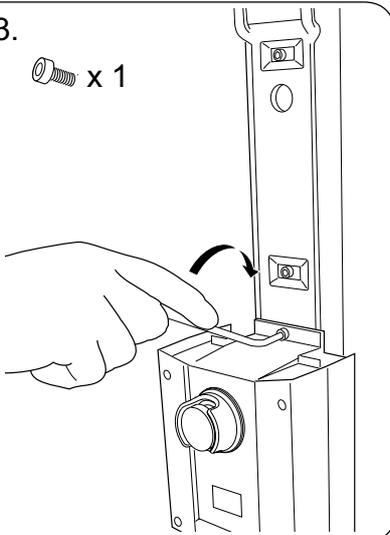


2.

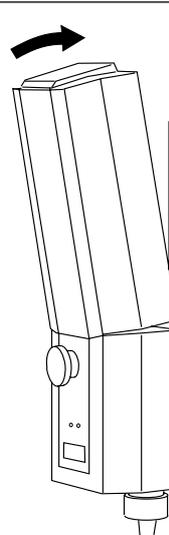


3.

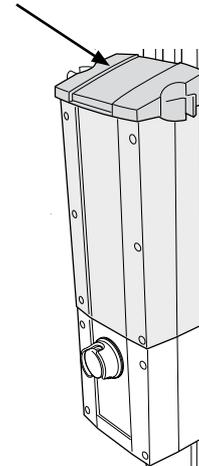
 x 1



4.



5. (Holder for the charging cable, is not standard on every lift model)



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

**Contains:** Charging cable  
**Qty:** 1

**Fits:**

Golvo 7000ES / 7007ES,  
Golvo 7007 LowBase  
Uno 100 EM/EE  
Uno 102 EM/EE/ES  
Sabina EM/EE  
Sabina II EM/EE  
Viking XL  
Viking L  
Viking M

Prod. No. 20090026 EU



20090027 UK



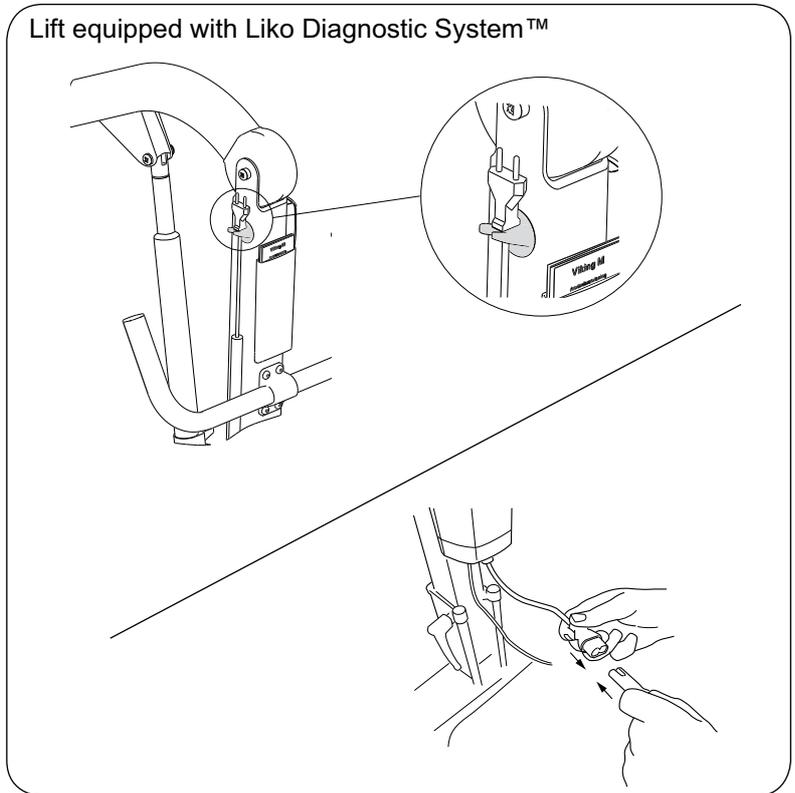
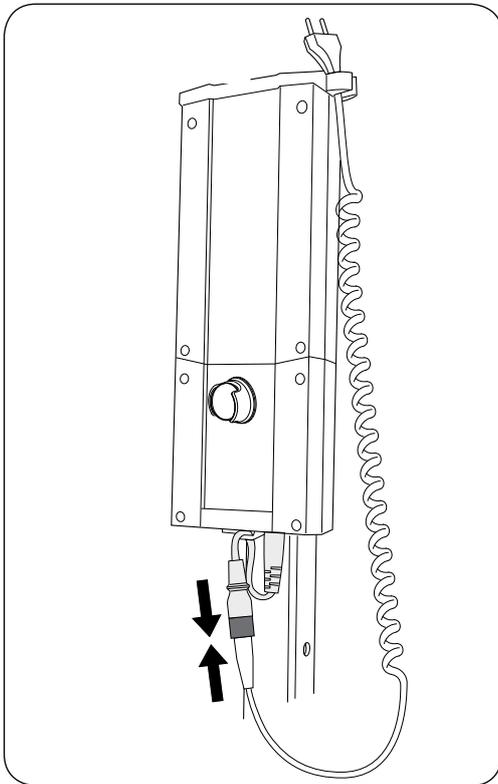
20090028 US



20090050 AU/NZ



3SE630237-05  
2011-03-03



**The lift cannot be used when the charger cable is plugged into an electrical outlet.**

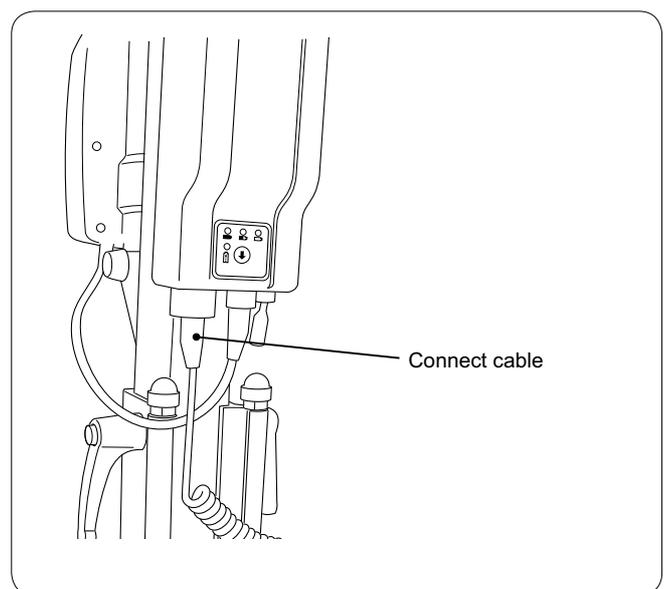
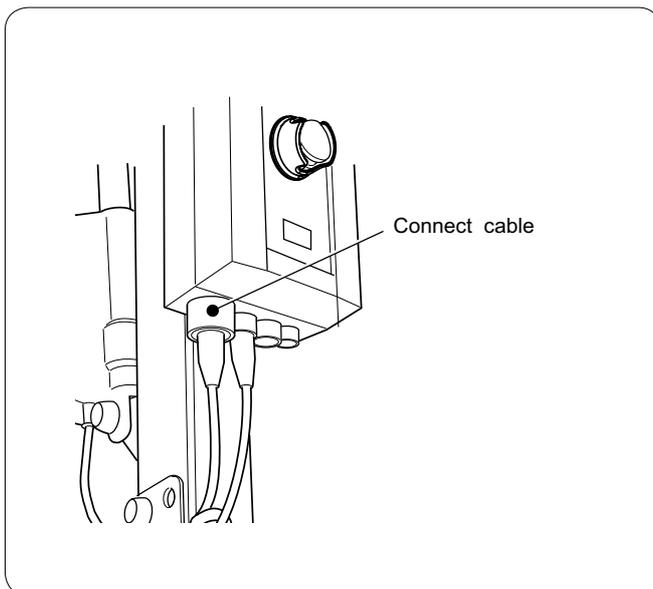
**△ NOTE**

- Never charge batteries in a wet area.
- The lift cannot be charged with the emergency stop engaged.
- When charging, a yellow indicator light on the control box will illuminate. The yellow light turns off when the battery is fully charged. If the light has not turned off after 8 hours of charging, the battery may need to be replaced. Stop charging and replace the battery.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

Assembly Instruction  
 Monteringsanvisning

Prod. No. 20190016, 20190017, 20090024

3SE630204-10  
2011-03-02
**Contains:**  
 Hand control EM, EE, ES

**Qty:**  
 1
**Fits:**
 Golvo 7000ES/7007ES, 7007 LowBase  
 Uno 100 EM/EE  
 Uno 102 EM/EE/ES  
 Sabina EM/EE  
 Sabina II EM/EE  
 LikoLight  
 Viking XL (Prod. No. 2040003)  
 Viking L (Prod. No. 2040004)  
 Viking M (Prod. No. 2040005)  
 Viking S  
 Viking XS


**NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

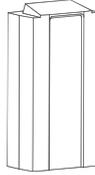
Assembly Instruction  
Monteringsanvisning

Prod. No. 2006106

3SE630224-06  
2011-02-18

**Contains:**  
Battery box

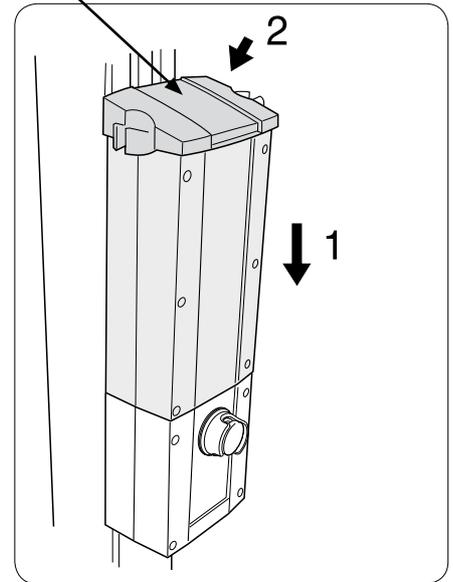
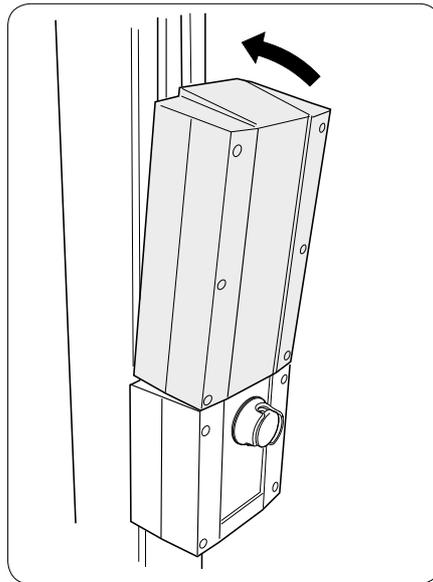
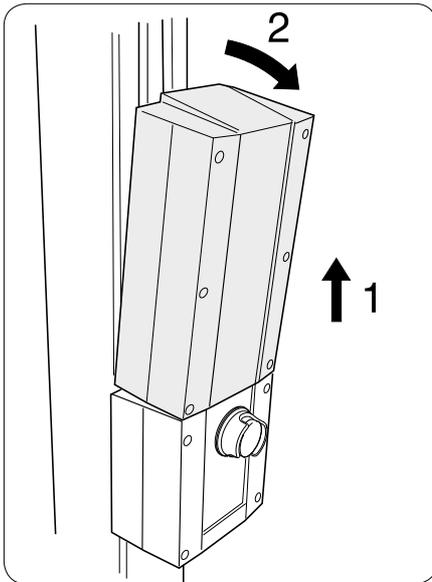
**Qty:**  
1



**Fits:**

Golvo 7000 ES/7007 ES (all models), 7007 Low Base  
Uno 100EM,EE,102EM,EE,ES  
Sabina  
LikoLight  
Viking XL / L / M (Prod. No. 2040005)  
Caroli  
Capella  
Liko M220 / M230

(Holder for the charging cable, is not standard on every lift model)



**NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.
- Old batteries are to be left at the nearest recycling station or given to personnel authorized by Liko.



**Assembly Instruction  
Monteringsanvisning**

Prod. No. 20390006

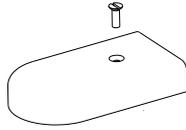
3SE380202-04  
2010-05-04

**Contains:**

Nylon screw M5x16 Nature  
Front fork cover grey light

**Qty:**

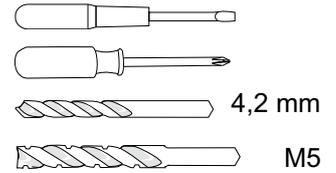
2  
2



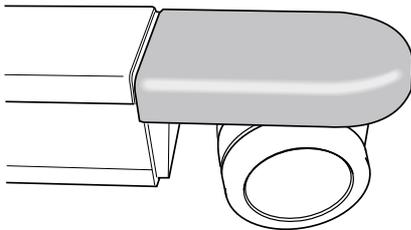
**Fits:**

Golvo 7000 ES from S/N 7024206  
Golvo 7007 ES from S/N 7729722  
Golvo 7000 ES Classic / 7007 ES Classic  
Golvo 8000 / 8008 (all models)  
LikoLight  
Viking XL  
Viking L  
Viking M  
Viking S  
Viking XS  
Roll On

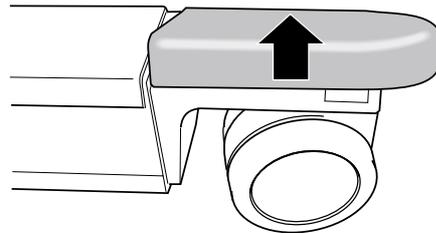
**Tools required:**



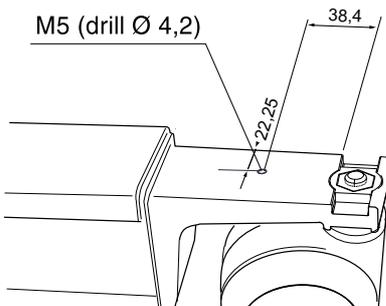
1.



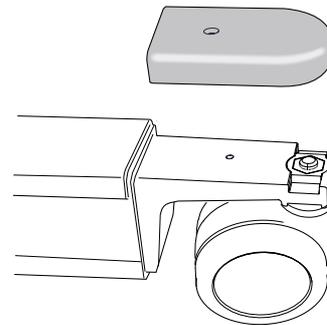
2.



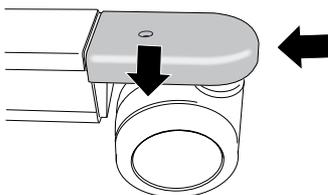
3. If not prepared with hole, drill [mm.]



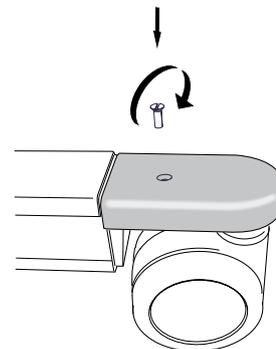
4.



5.



6.



**NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 21090001

 3SE630225-05  
 2011-03-02

**Contains:**

Extension cable EU

**Qty:**

1

**Fits:**

Golvo 7000ES/7007ES

Golvo 7007 LowBase

Uno 100 EM/EE

Uno 102 EM/EE/ES

Sabina EM/EE

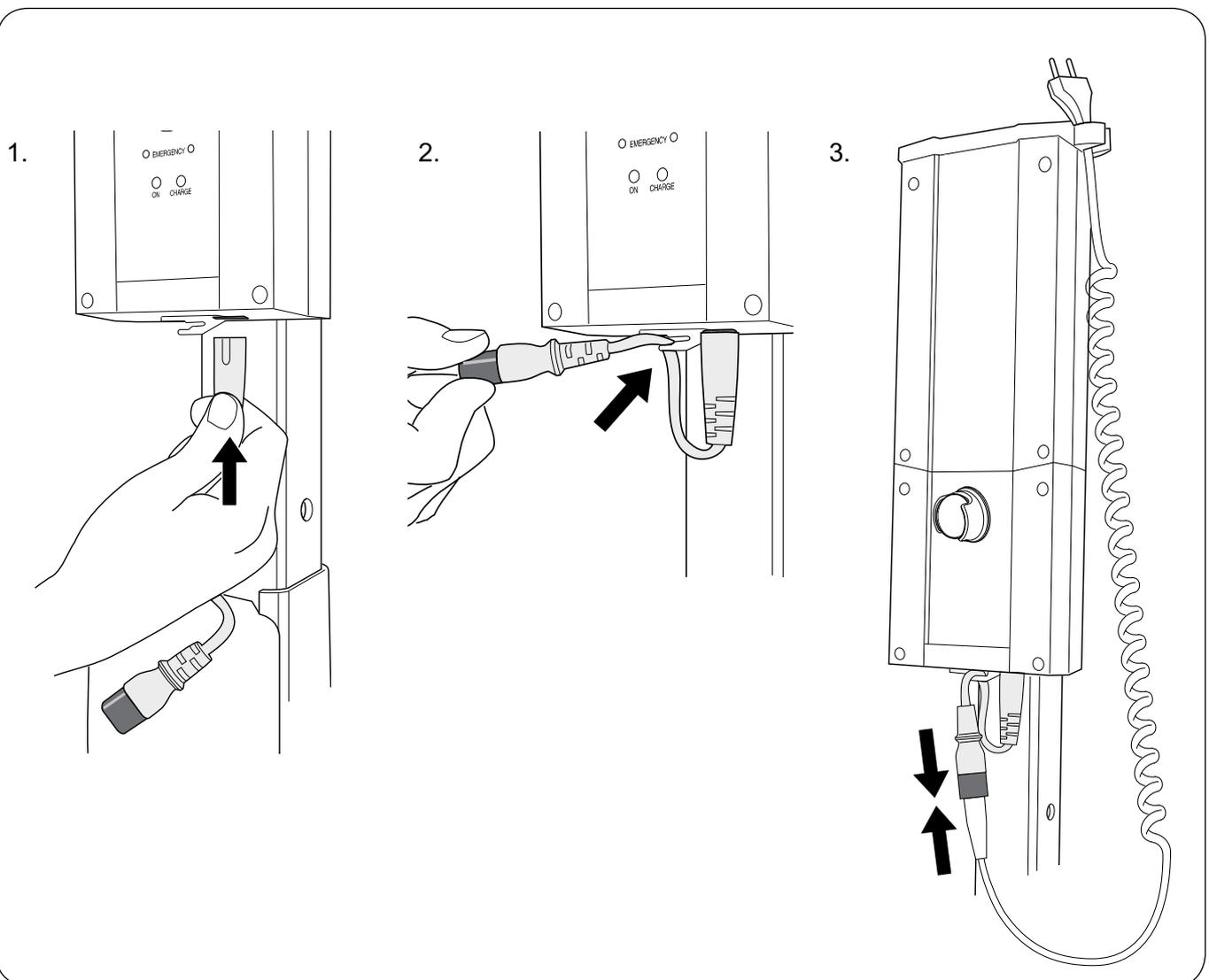
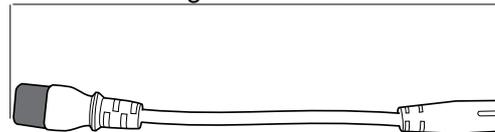
Sabina II EM/EE

Viking XL (Prod. No. 2040003)

Viking L (Prod. No. 2040004)

Viking M (Prod. No. 2040005)

Length 21 cm/ 8.5 inch


**NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

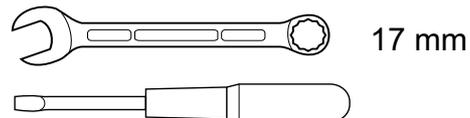
Prod. No. 20490003

3SE630293-04  
2011-03-02

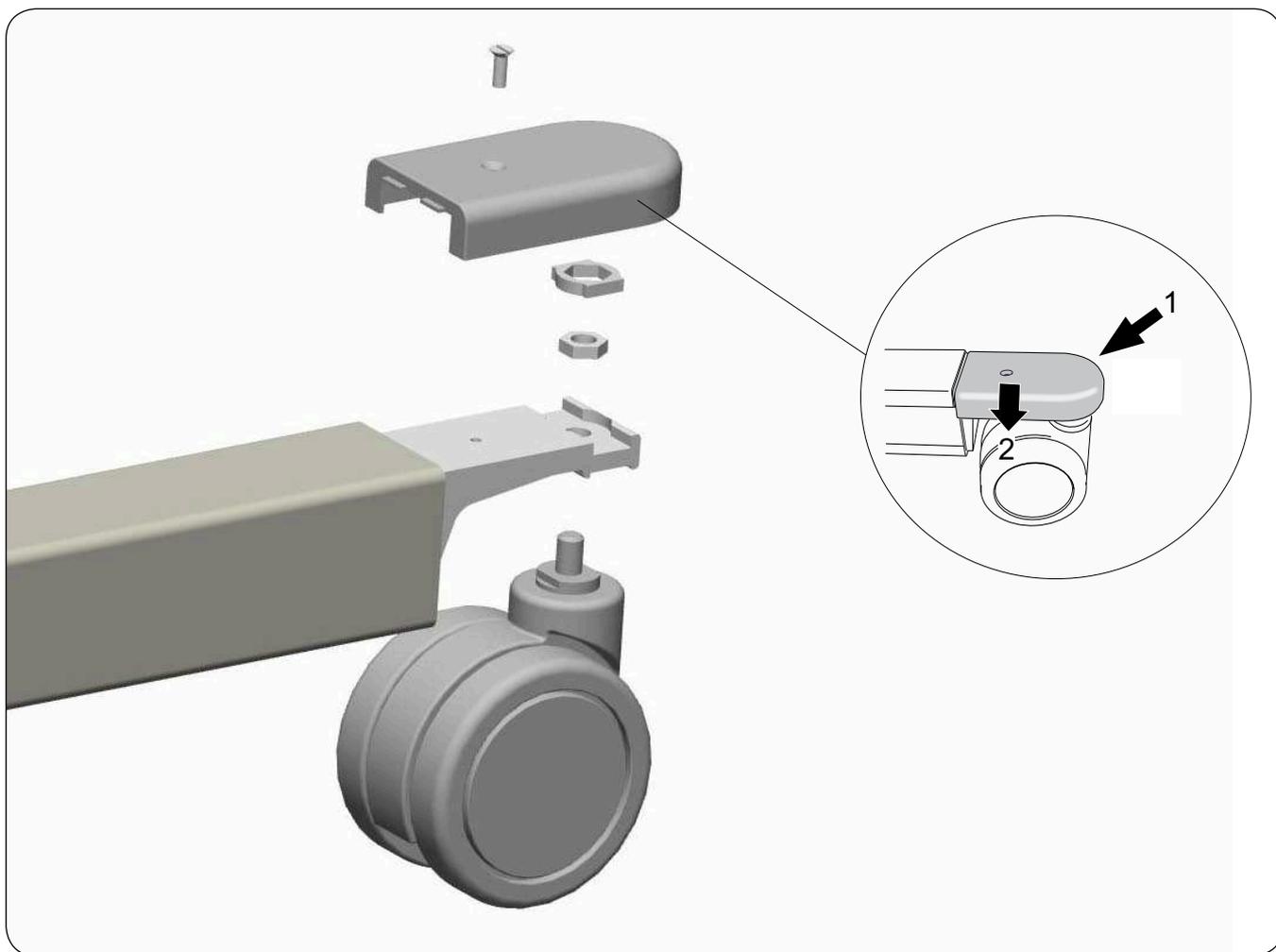
**Contains:** Front wheel Plasttech 100  
**Qty:** 1

**Fits:**  
Viking XL  
Viking L

Tools required:



We recommend replacing both wheels, since the lift can have two different versions that can vary in appearance. (dimension is the same)



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20490004

3SE630294-04  
2011-03-02

**Contains:**  
Rear wheel Plasttech 125

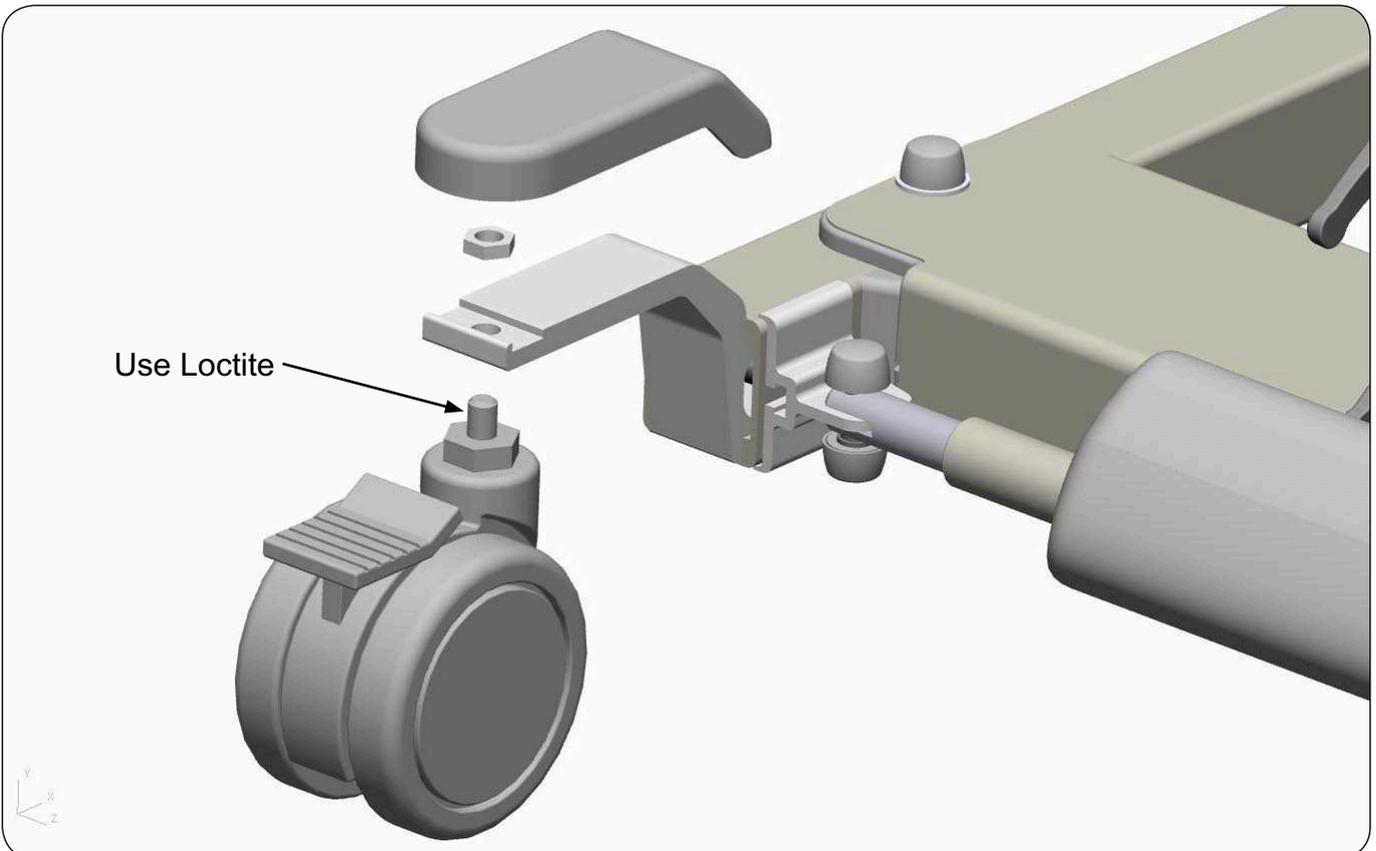
**Qty:**  
1

**Fits:**  
Viking XL  
Viking L

Tools required:



We recommend replacing both wheels, since the lift can have two different versions that can vary in appearance.  
(dimension is the same)



### **△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20490005

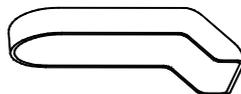
3SE630295-03  
2010-04-14

**Contains:**

Rear wheel cover, grey

**Qty:**

2



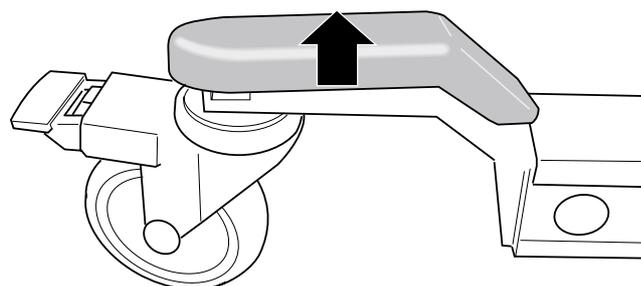
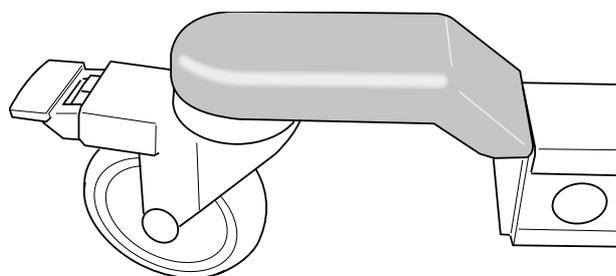
**Fits:**

Viking XL

Viking L

Viking M, Prod No. 2040005 (Up to S/N 7102063)

**Tools required:**



**NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction  
Monteringsanvisning**

Prod. No. 20490007

3SE630240-05  
2011-03-11

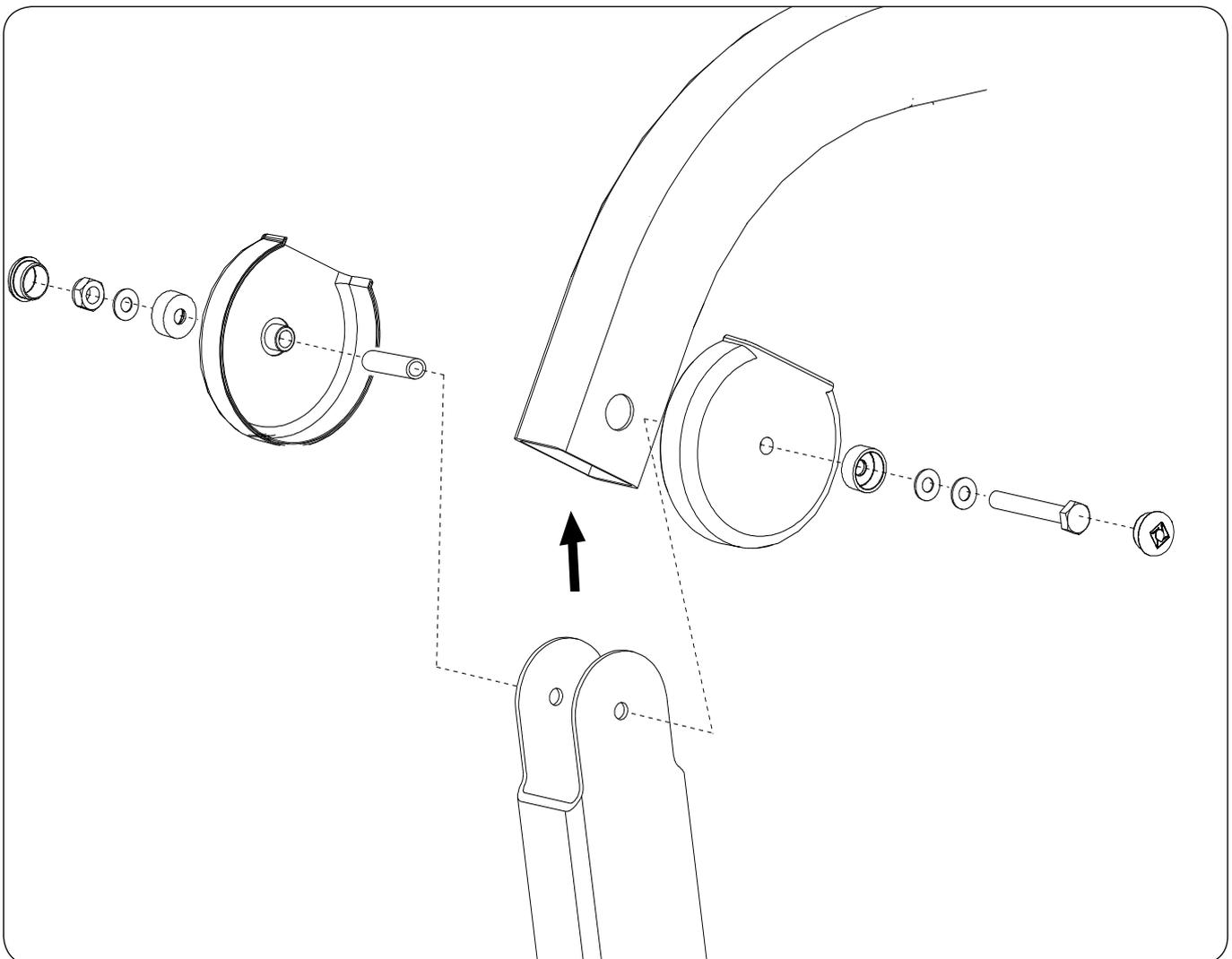
Contains:	Qty:
Plastic cover mast Viking	2
Cover hat Liko	2
Cover hat Liko bottom	2
Sleeve bearing Mob.62	1
Locking nut M6 Nyloc	1
Washer TBRB 6,4x12x3	3
Screw M6S M6x75	1

**Fits:**

Viking XL (Prod. No. 2040003), to S/N 801999  
 Viking L (Prod. No. 2040004), to S/N 7200794  
 Viking M (Prod. No. 2040005), to S/N 7106200

Tools required:

2X  10 mm



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20490008

3SE630228-06  
2011-03-03

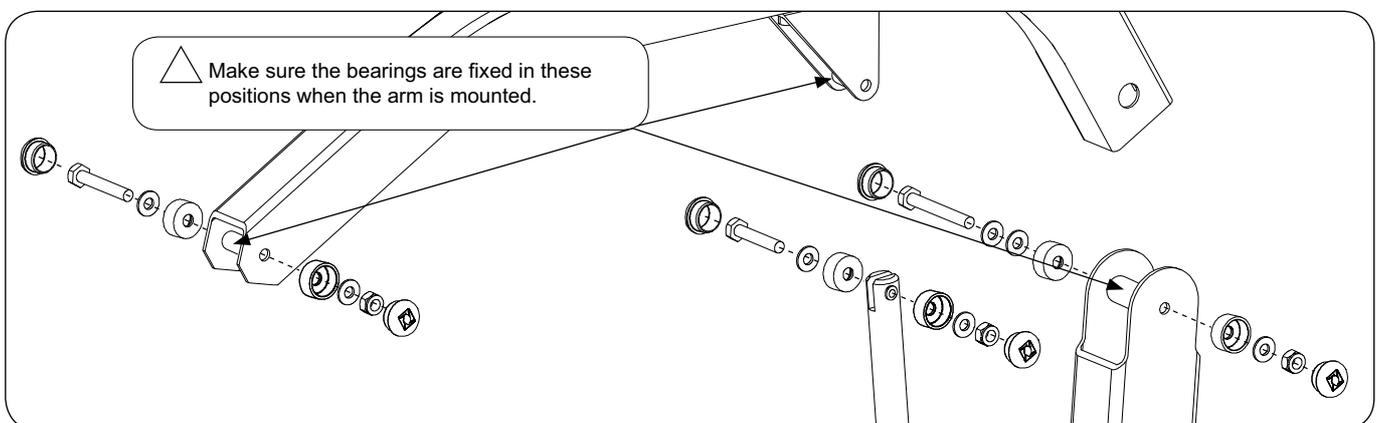
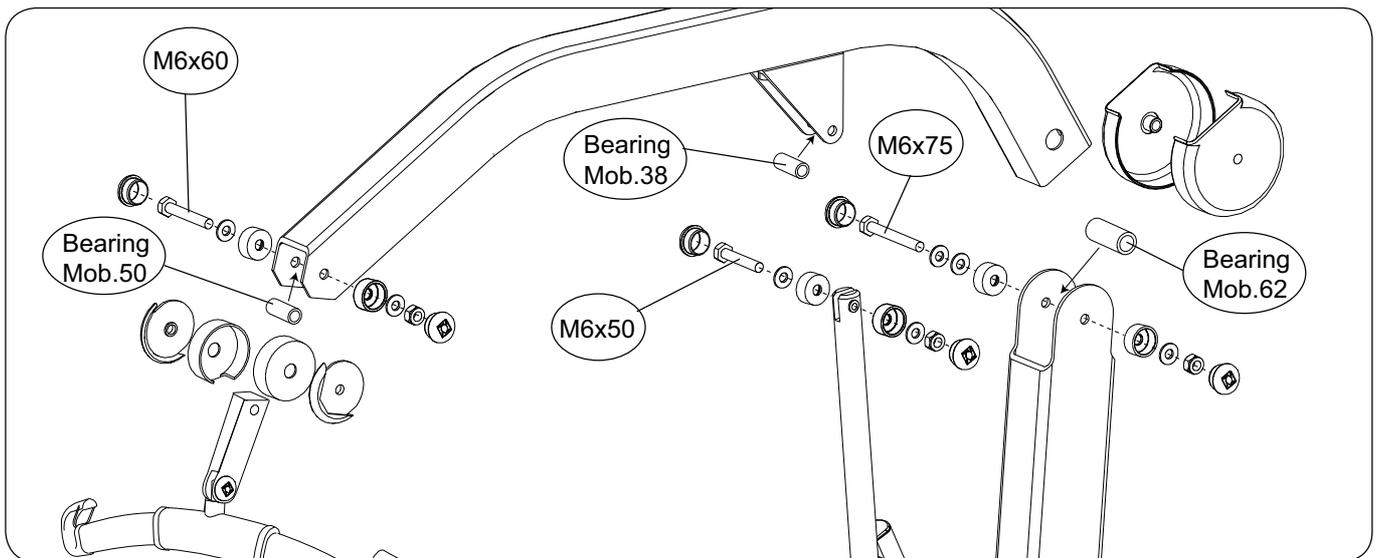
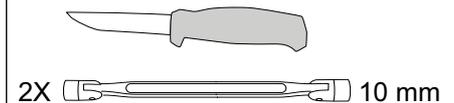
**Contains:**                      **Qty:**

Plastic cover mast Viking	2
Cap Y Viking	2
Cap I Viking	2
Cover hat Liko & bottom	6
Sleeve bearing Mob.38	1
Sleeve bearing Mob.50	1
Sleeve bearing Mob.62	1
Locking nut M6 Nyloc	3
Screw M6S M6x50	1
Screw M6S M6x60	1
Screw M6S M6x75	1
Washer PS 6x12x1	7

**Fits:**

Viking XL (Prod. No. 2040003), to S/N 801999  
 Viking L (Prod. No. 2040004), to S/N 7200794  
 Viking M (Prod. No. 2040005), to S/N 7106200

**Tools required:**



**NOTE**

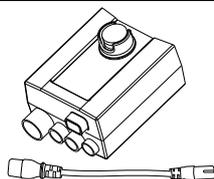
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20090022, 20190013  
20190014, 20290011  
20290024, 20390007  
20490009, 20490013

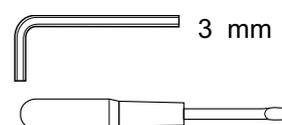
3SE630223-07  
2011-05-04

**Contains:** Qty:  
Control Box 1  
Extension cable 1

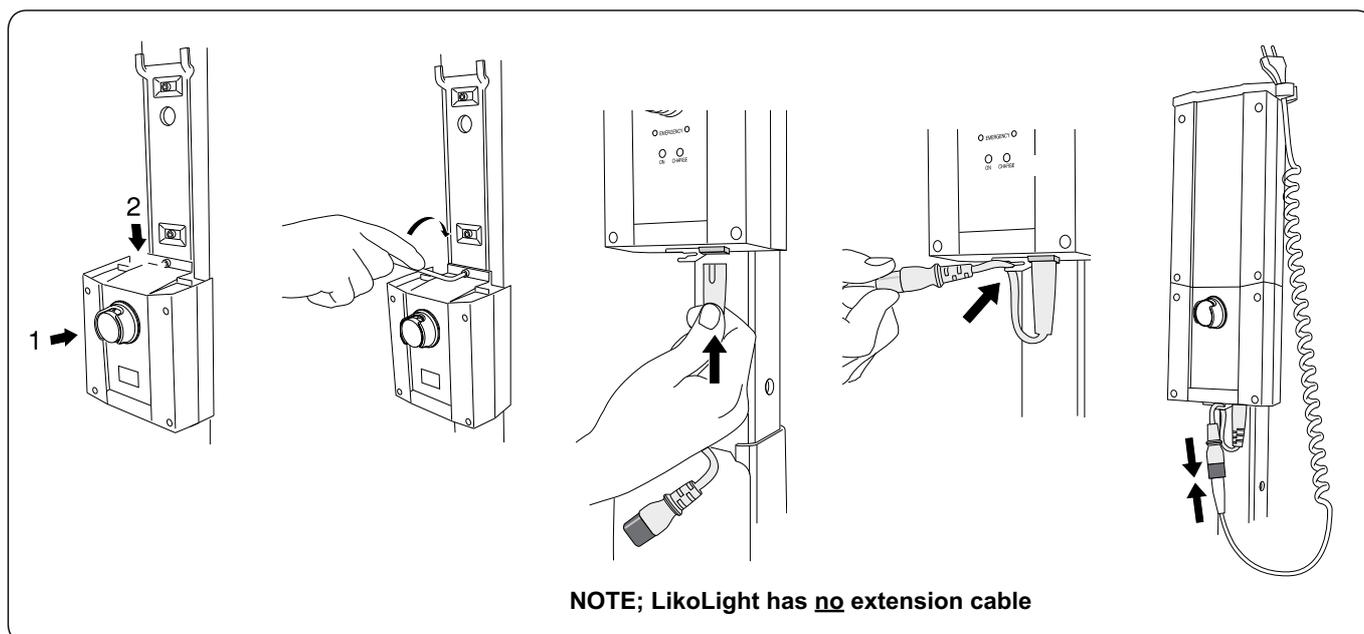
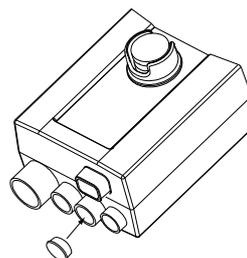


**Part No. Fits:**  
**20090022** Golvo 7000ES / 7007ES, 7007 LowBase  
**20190013** Uno 100 EM/EE, Uno 102 EM/EE  
**20190014** Uno 102 ES  
**20290011** Sabina EM/EE  
**20290024** Sabina II EM/EE  
**20390007** LikoLight (Spare part without extension cable)  
**20490009** Viking XL (Prod. No. 2040003), Viking L (Prod. No. 2040004)  
**20490013** Viking M (Prod. No. 2040005)

Tools required:



**△ NOTE:** Uno 100 EM, Uno 102 EM, Sabina EM, Sabina II EM  
Use plug from the replaced control box.



**△ NOTE**

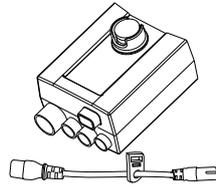
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20090022US, 20190013US  
20190014US, 20290011US  
20290024US, 20490009US  
20490013US

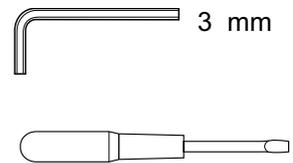
3SE640263-01  
2011-05-04

**Contains:**  
Control Box 1  
Extension cable, US 1

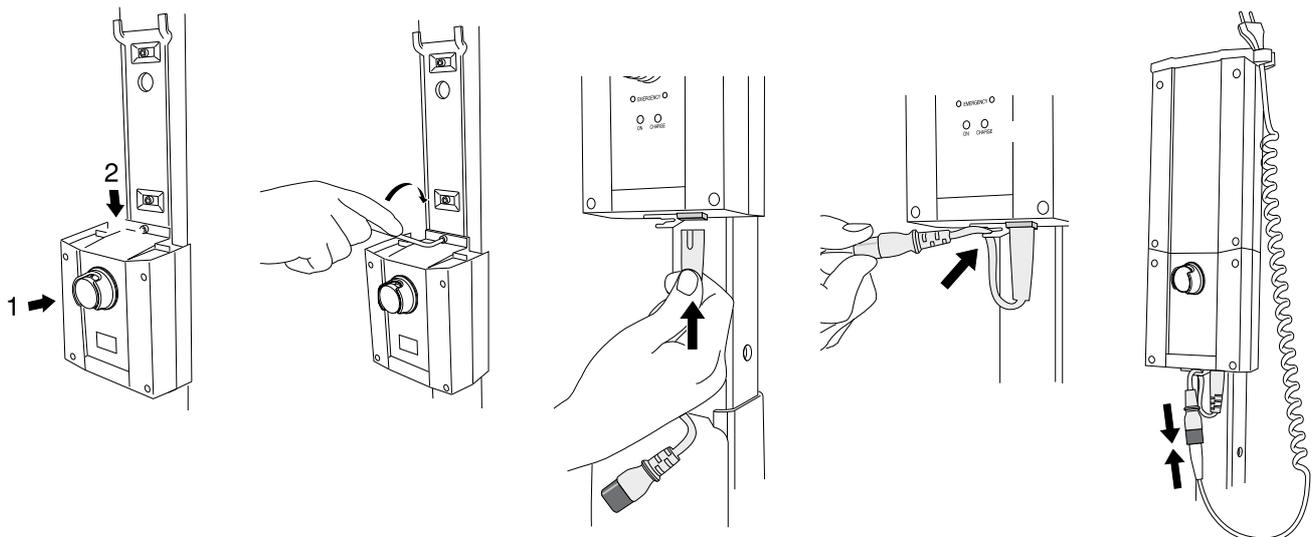
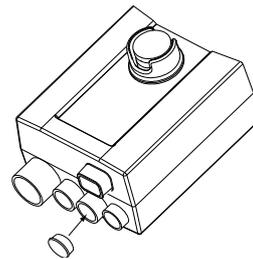


**Part No. Fits:**  
**20090022US** Golvo 7000ES / 7007ES, 7007 LowBase  
**20190013US** Uno 100 EM/EE, Uno 102 EM/EE  
**20190014US** Uno 102 ES  
**20290011US** Sabina EM/EE  
**20290024US** Sabina II EM/EE  
**20490009US** Viking XL (Prod. No. 2040003), Viking L (Prod. No. 2040004)  
**20490013US** Viking M (Prod. No. 2040005)

Tools required:



**△ NOTE:** Uno 100 EM, Uno 102 EM, Sabina EM, Sabina II EM  
Use plug from the replaced control box.



**NOTE;** LikoLight has no extension cable

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

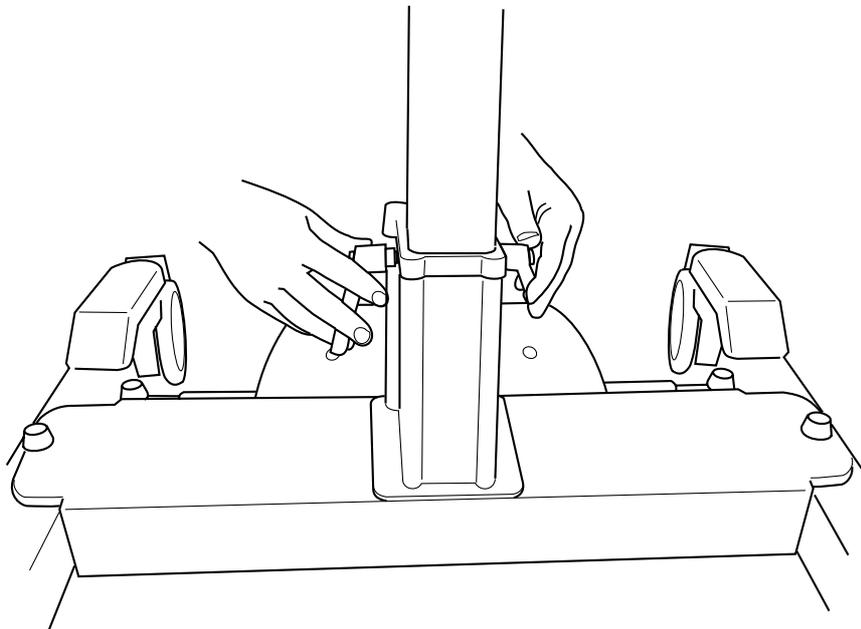
Prod. No. 20490010

3SE630244-03  
2009-06-26

Contains:	Qty:
Lever M10 grey	1
Lever M10x85 grey	1

**Fits:**  
Viking XL  
Viking L  
Viking M  
Viking XS

Tools required:



Place locking handle in lower hole and tighten.

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

**Contains:** Charging cable  
**Qty:** 1

**Fits:**

Golvo 7000ES / 7007ES,  
Golvo 7007 LowBase  
Uno 100 EM/EE  
Uno 102 EM/EE/ES  
Sabina EM/EE  
Sabina II EM/EE  
Viking XL  
Viking L  
Viking M

Prod. No. 20090026 EU



20090027 UK



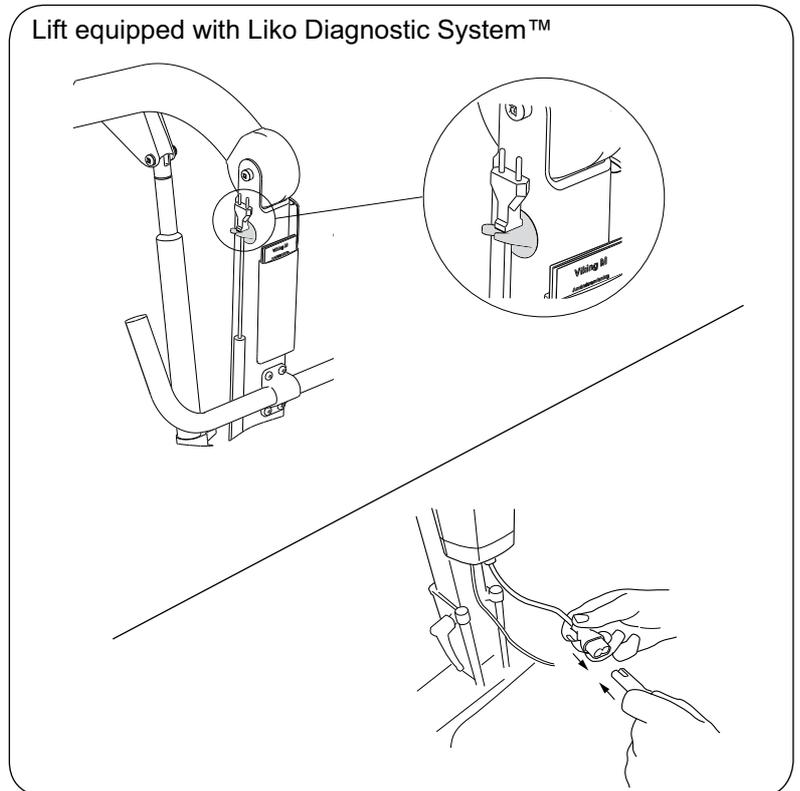
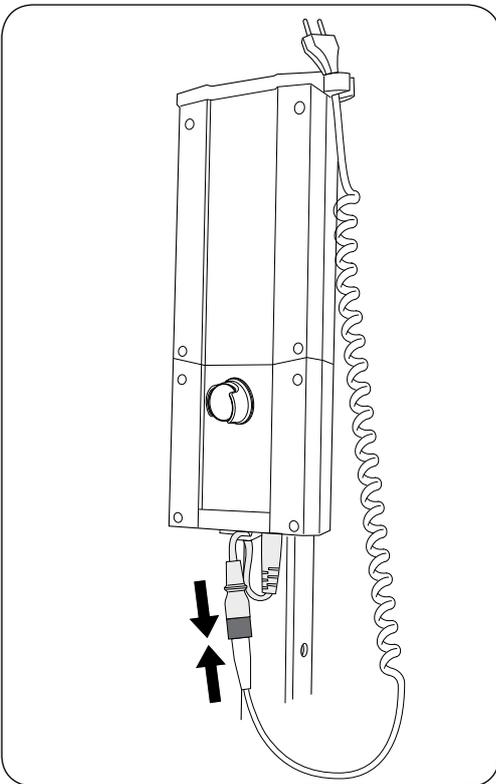
20090028 US



20090050 AU/NZ



3SE630237-05  
2011-03-03



**The lift cannot be used when the charger cable is plugged into an electrical outlet.**

**△ NOTE**

- Never charge batteries in a wet area.
- The lift cannot be charged with the emergency stop engaged.
- When charging, a yellow indicator light on the control box will illuminate. The yellow light turns off when the battery is fully charged. If the light has not turned off after 8 hours of charging, the battery may need to be replaced. Stop charging and replace the battery.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 21090011

3SE630218-05

2011-03-04

**Contains:**

Extension cable US

**Qty:**

1

**Fits:**

Golvo 7000ES/7007ES

Golvo 7007 LowBase

Uno 100 EM/EE

Uno 102 EM/EE/ES

Sabina EM/EE

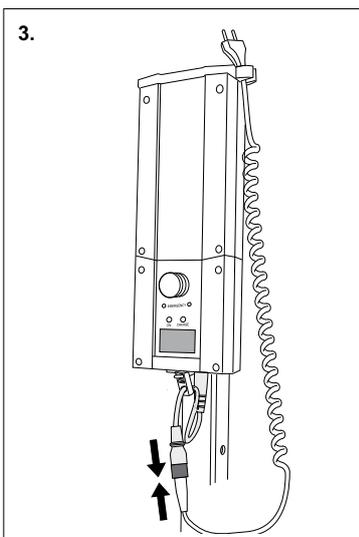
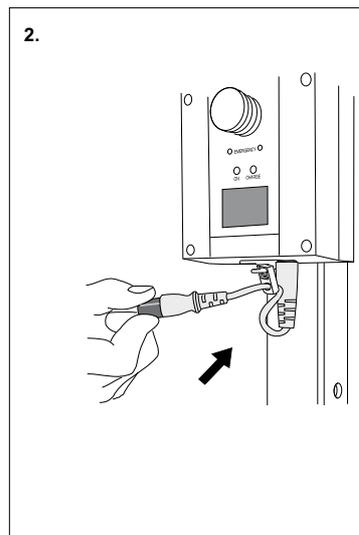
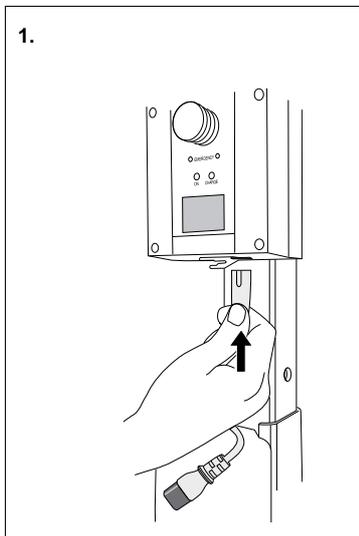
Sabina II EM/EE

Viking XL Prod. No. 2040003

Viking L Prod. No. 2040004

Viking M Prod. No. 2040005

Length 26.5 cm/ 10.5 inch



**△ NOTE**

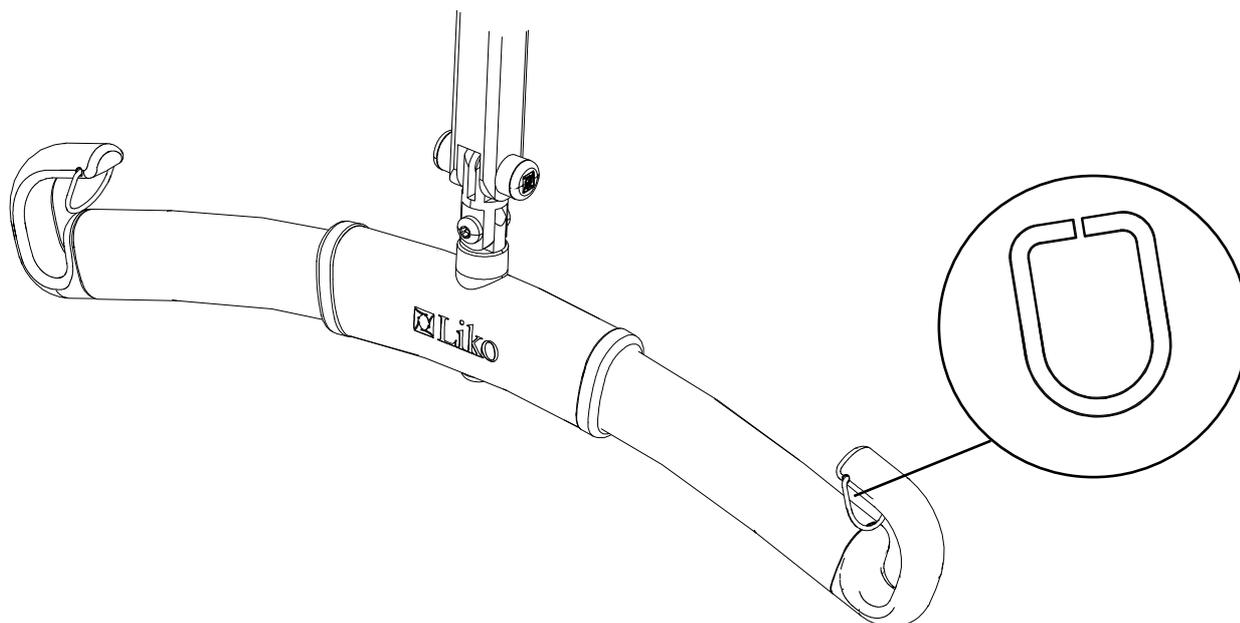
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

Prod. No. 31590011

3SE630229-03  
2009-12-01**Contains:**  
Safety latch**Qty:**  
2**Fits:**

3156074 Universal SlingBar 350  
3156075 Universal SlingBar 450  
3156076 Universal SlingBar 600  
3156077 Universal TwinBar 670  
3156079 Universal SideBars 450  
3156084 Universal SlingBar 350 with Quick-release Hook  
3156085 Universal SlingBar 450 with Quick-release Hook  
3156086 Universal SlingBar 600 with Quick-release Hook  
3156087 Universal TwinBar 670 with Quick-release Hook  
3156094 Universal SlingBar 350 R2R  
3156095 Universal SlingBar 450 R2R

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

Prod No. 20490011

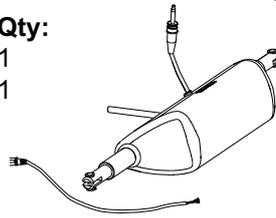
3SE630296-06  
2011-03-30

**Contains:**

Actuator LA30 Viking L,M complete  
Motor cable Viking M Mini Fit

**Qty:**

1  
1

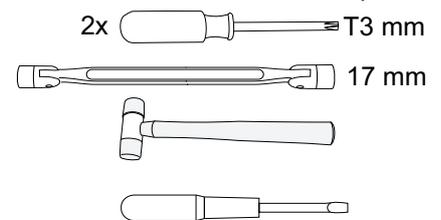


**Fits:**

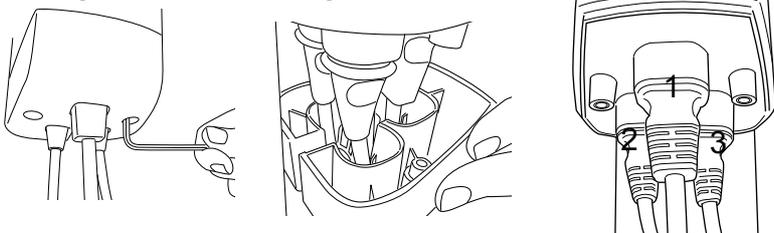
Viking M 2040005, from S/N 7107500\*  
Viking M 2040015  
Viking L 2040004, from S/N 7202000\*  
Viking L 2040014

\*Fits lower S/N together with spare part 20490028;  
Rest. set Motor attachment.

**Tools required:**

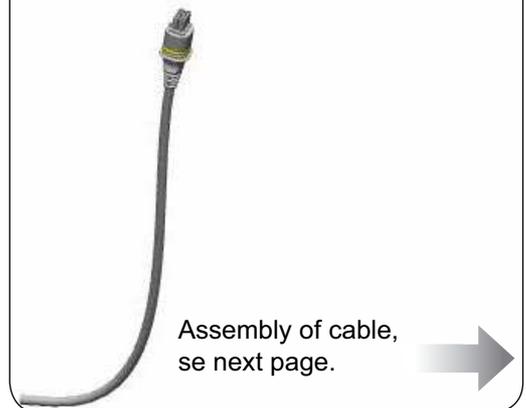


**Viking M 2040015 , Viking L 2040014:**

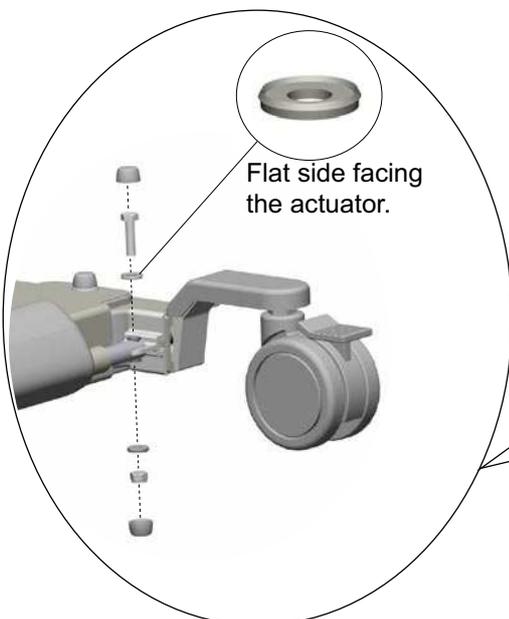


- Base motor cable; socket 3

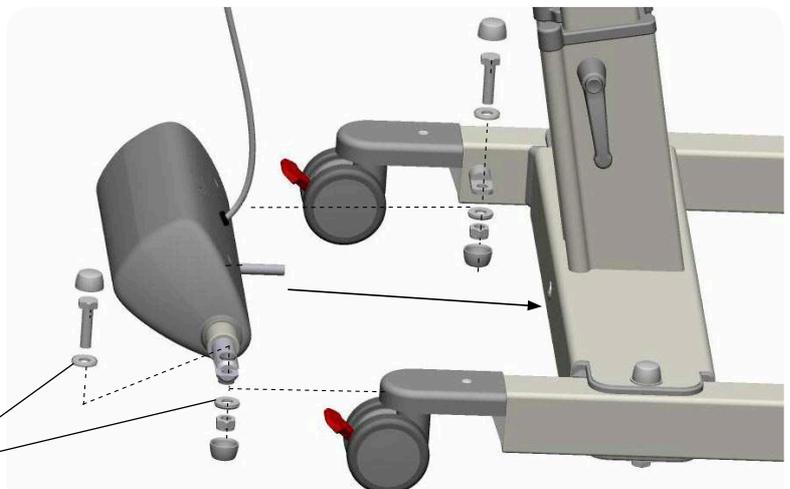
**Viking M 2040015, Viking L 2040014:**  
Assemble the enclosed motor cable.



Assembly of cable,  
se next page.

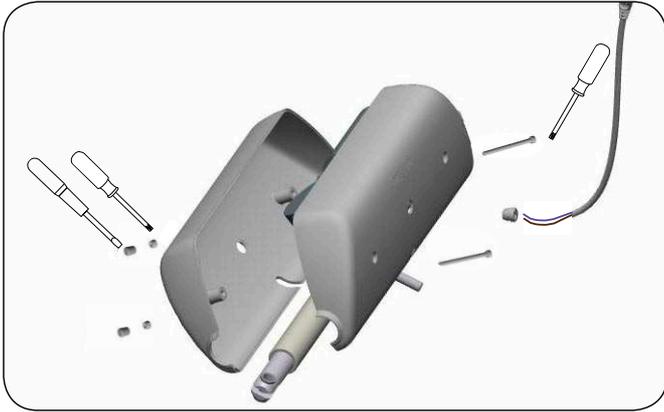


Flat side facing  
the actuator.



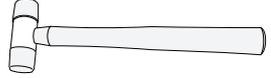
- Unfasten the base motor by removing the bolt connections.
- Change the Base motor by pushing the motor axle in to the middle beam hole.
- Finish the assembly by mounting the bolt connections, assemble the cable and attach the cable cover.

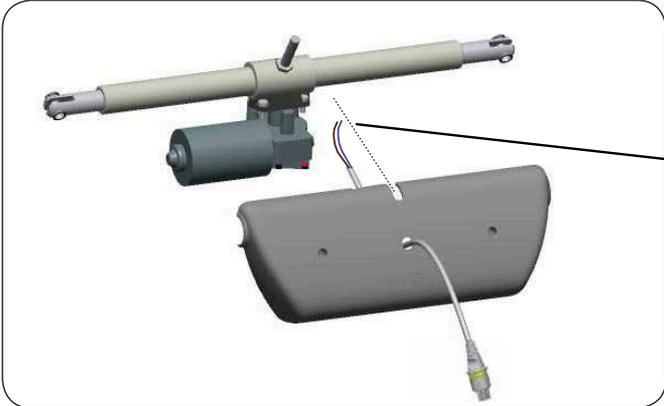
Viking M 2040015, Viking L 2040014: Assembly of cable



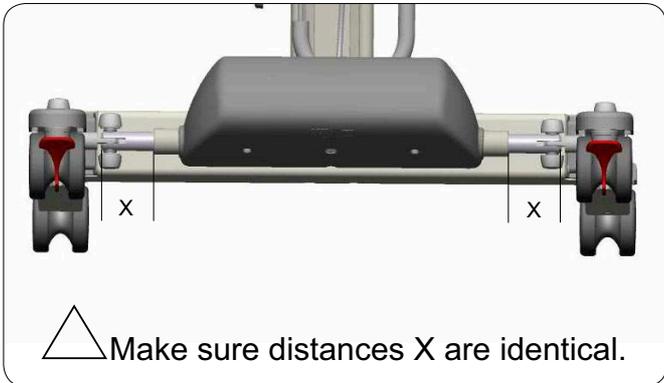
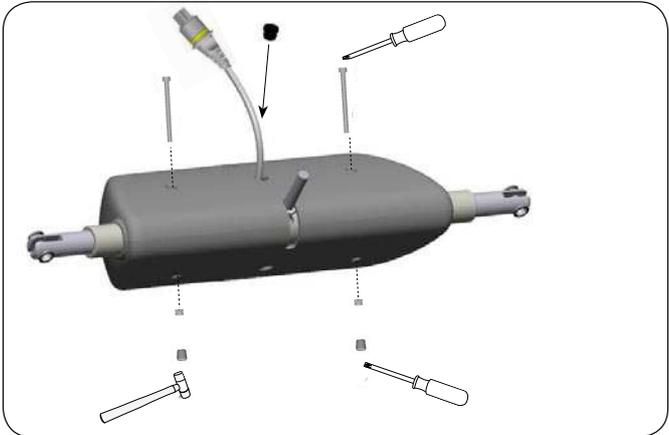
Tools required:

2x  T3 mm





**Cable connection:**



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

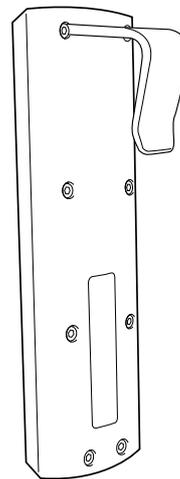
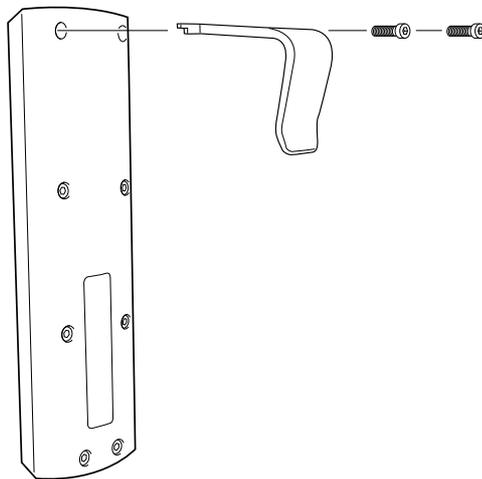
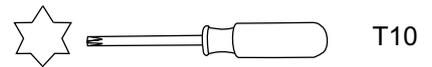
Prod. No. 20090058

3SE630210-05  
2010-05-11

**Contains:** Hook for Hand control 2,4,6  
**Qty:** 1

**Fits:**  
20090024 HandControl ES 6-button  
20190016 HandControl EE 4-button  
20190017 HandControl EM 2 button

Tools required:



### △ NOTE

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20490023

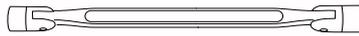
3SE630250-06  
2011-03-03

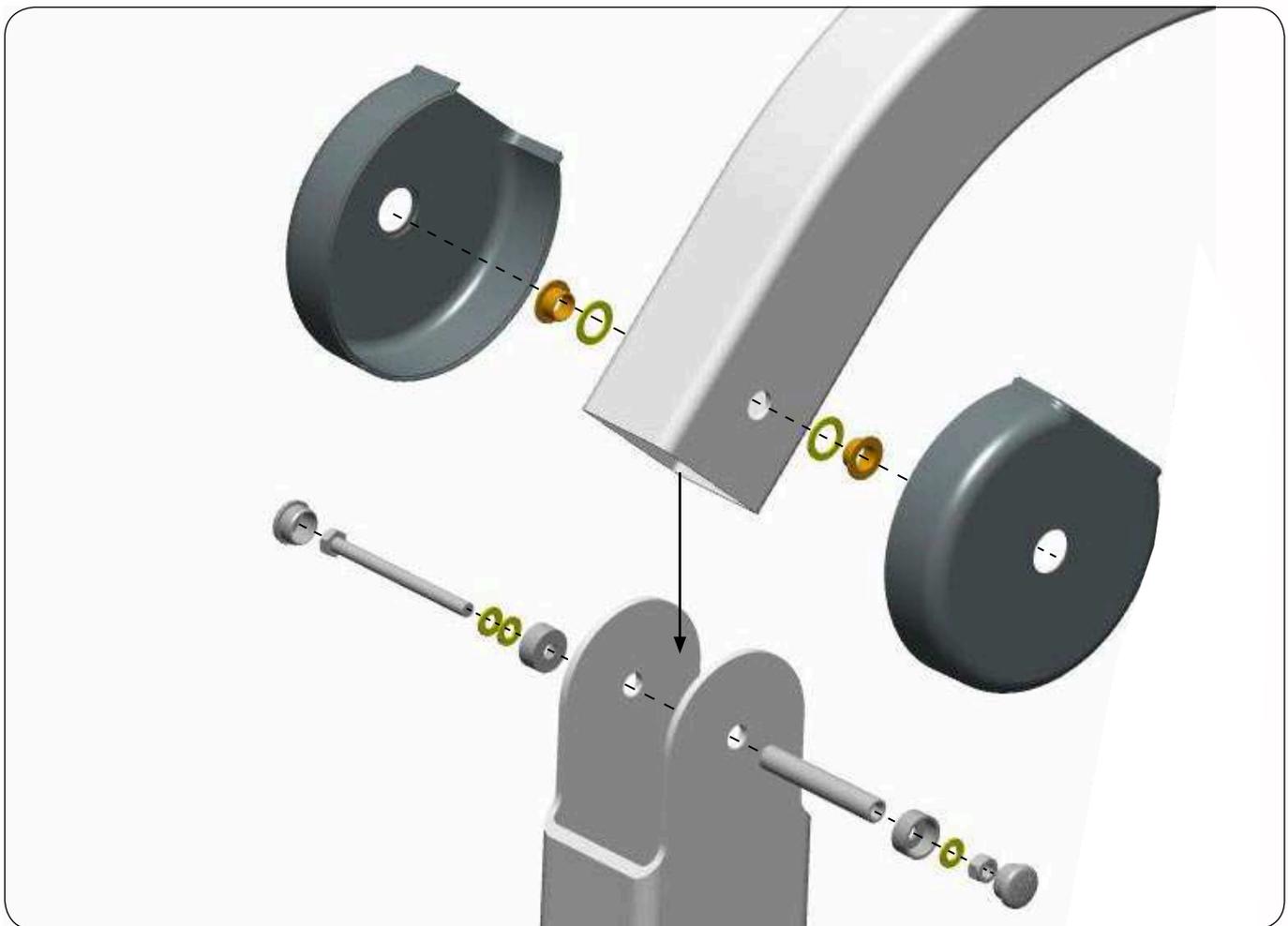
Contains:	Qty:
Cover hat Liko	2
Cover hat Liko bottom	2
Sleeve bearing Mob.62	1
Plastic cover mast Vi XS	2
Locking nut M6 Nyloc	1
Distance washer PS 12x18x1	2
Screw M6S M6x75	1
Washer PS 6x12x1	3
Flanged washer	2

### Fits:

Viking XL Prod. No. 2040003 from S/N 802000  
 Viking XL Prod. No. 2040013  
 Viking L Prod. No. 2040004 from S/N 7200795  
 Viking L Prod. No. 2040014  
 Viking M Prod. No. 2040005 from S/N 7106201  
 Viking M Prod. No. 2040015  
 Viking XS

Tools required:

2x  10 mm



### △ NOTE

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

Prod. No. 20490024

3SE630251-07

2011-03-03

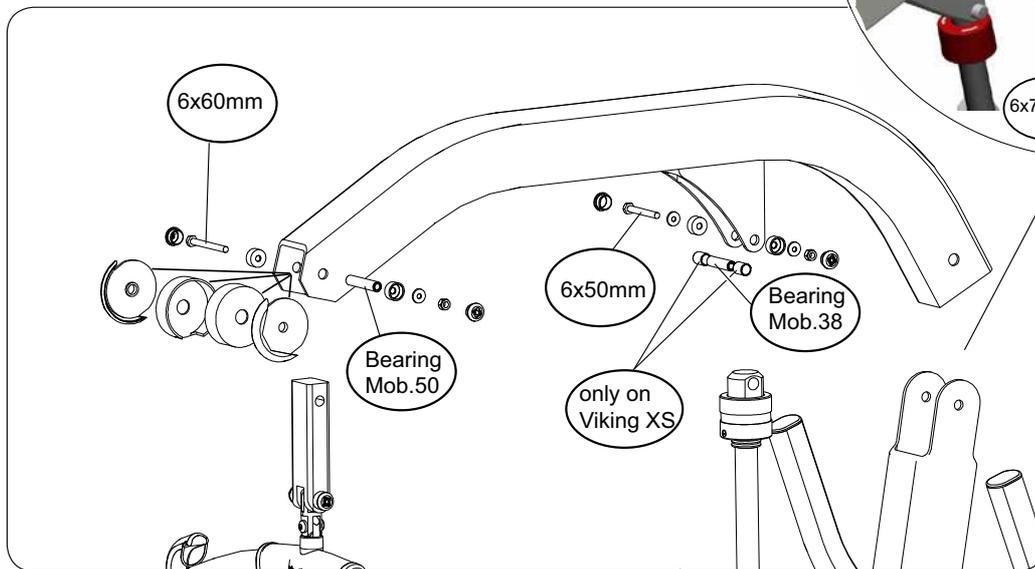
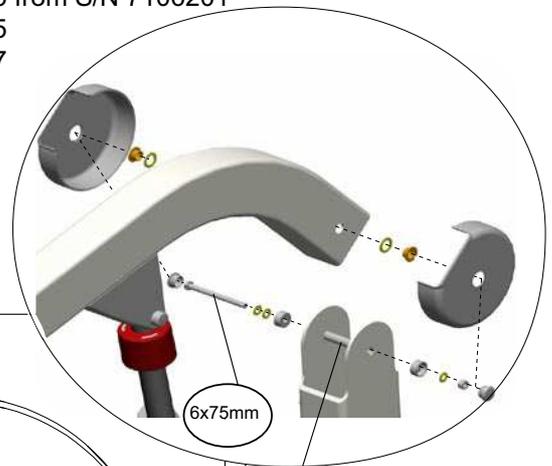
Contains:	Qty:
Cap Y Viking	2
Cap I Viking	2
Cover hat Liko	6
Cover hat Liko bottom	6
Sleeve bearing Mob.38	1
Sleeve bearing Mob.50	1
Sleeve bearing Mob.62	1
Plastic cover mast Vi XS	2
Nylon bearing 10/12x15	2
Locking nut M6 Nyloc	3
Distance washer PS 12x18x1	2
Screw M6S M6x50	1
Screw M6S M6x60	1
Screw M6S M6x75	1
Washer PS 6x12x1	6
Flanged washer	2

**Fits:**

- Viking XL Prod. No. 2040003 from S/N 802000
- Viking XL Prod. No. 2040013
- Viking L Prod. No. 2040004 from S/N 7200795
- Viking L Prod. No. 2040014
- Viking M Prod. No. 2040005 from S/N 7106201
- Viking M Prod. No. 2040015
- Viking XS Prod. No. 2040007

Tools required:

2x  10 mm



△ Make sure the bearing is fixed in this position when the arm is mounted.



Viking XS



Viking M



Viking L



Viking XL

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

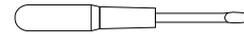
Prod. No. 20490025

 3SE640241-06  
 2011-03-03

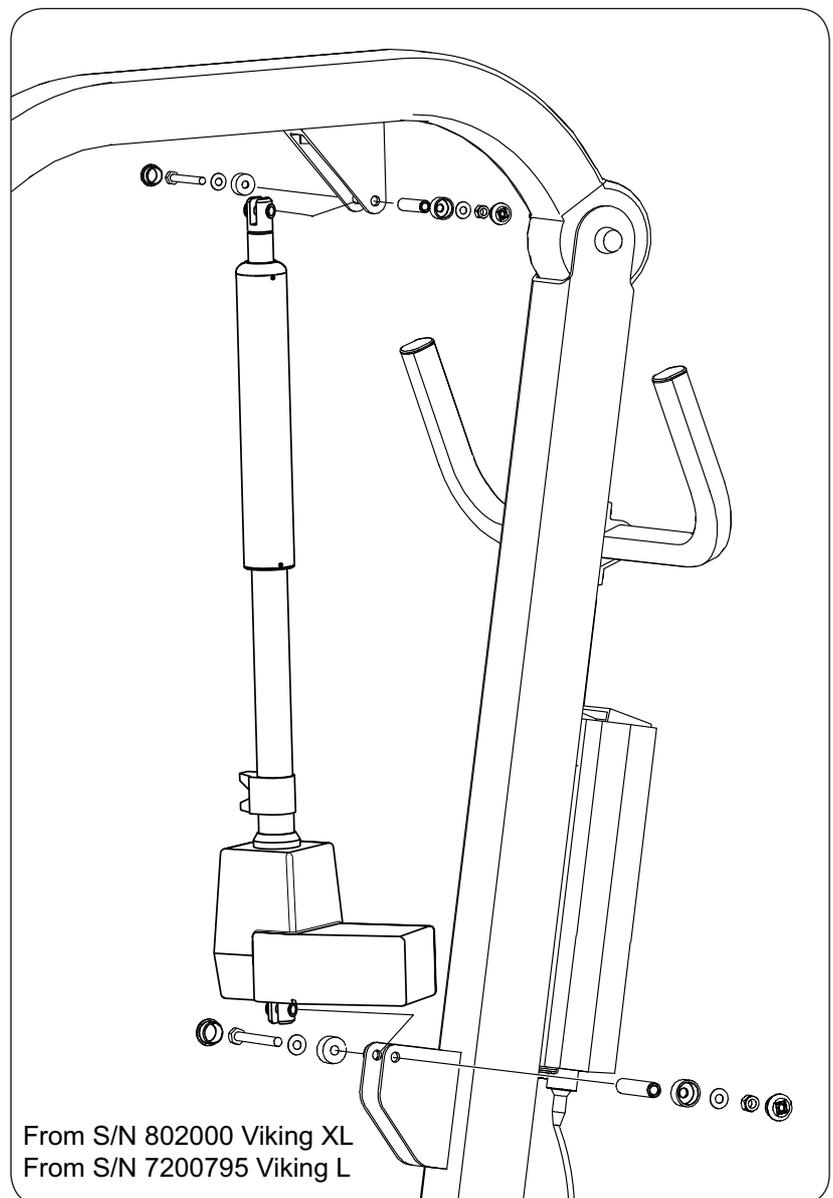
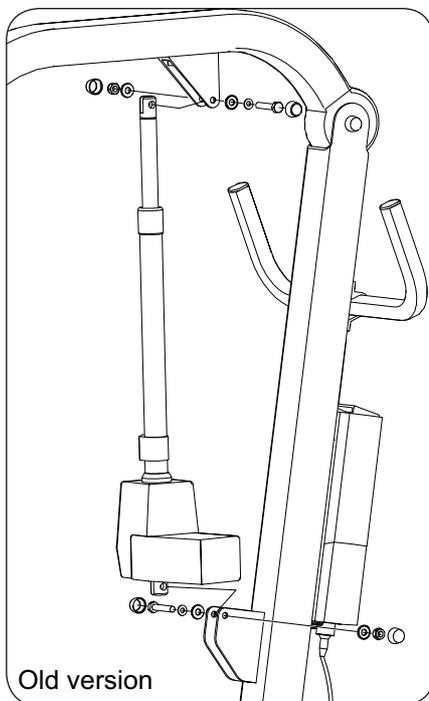
Contains:	Qty:
Outer Tube	1
Locking nut M10 Nyloc	2
Locking nut M6 Nyloc	2
Actuator Viking XL	1

**Fits:**

 Viking XL Prod. No. 2040003  
 Viking L Prod. No. 2040004

**Tools required:**

 2X  10mm

or

 2X  17 mm

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

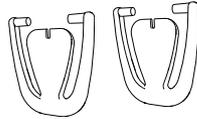
**Assembly Instruction  
Monteringsanvisning**

Prod. No. 31590014

3SE640242-05  
2011-02-22

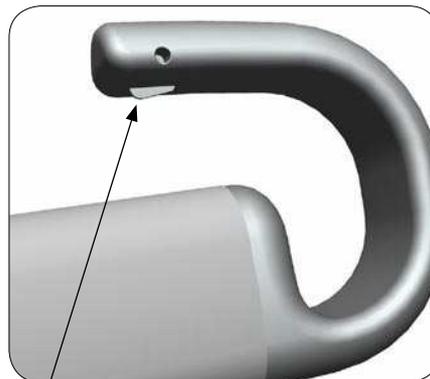
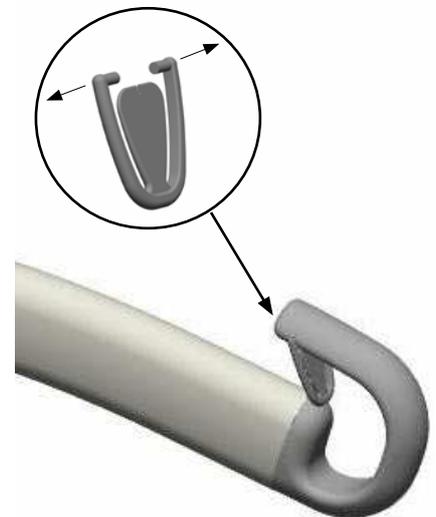
**Contains:**  
Latch composite

**Qty:**  
2



**Fits:**

		<b>From S/N:</b>
3156074	Universal SlingBar 350	1299511
3156075	Universal SlingBar 450	1299511
3156076	Universal SlingBar 600	1299511
3156077	Universal TwinBar 670	1299511
3156079	Universal SideBars 450	1299511
3156084	Universal SlingBar 350 with Quick-release Hook	1299511
3156085	Universal SlingBar 450 with Quick-release Hook	1299511
3156086	Universal SlingBar 600 with Quick-release Hook	1299511
3156087	Universal TwinBar 670 with Quick-release Hook	1299511
3156094	Universal SlingBar 350 R2R	1299511
3156095	Universal SlingBar 450 R2R	1299511
20590006	SlingBar Liko 450	1700101



The Latch can only be used on composite hooks equipped with a locator.

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

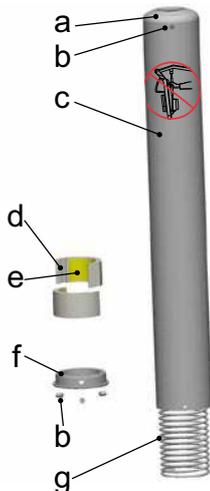
Assembly Instruction  
Monteringsanvisning

Prod. No. 20490030

3SE640260-05  
2011-03-03

Contains:	Qty:
a Top cover	1
b Screw P6SS M4x5	6
c Tube	1
d Snap bushing	2
e Two sided adhesive	2
f Bushing	1
g Compression spring	1

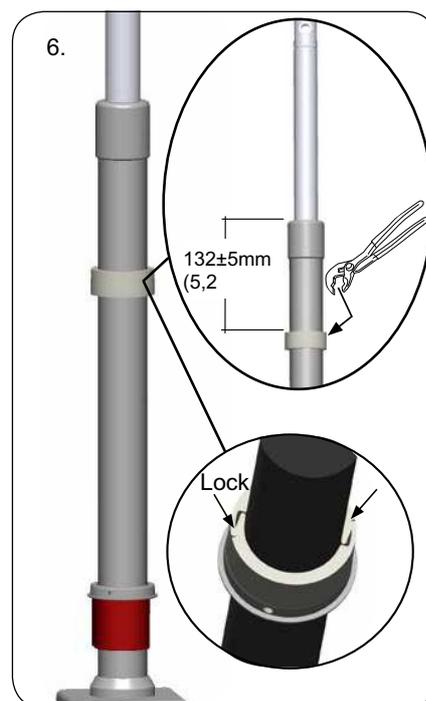
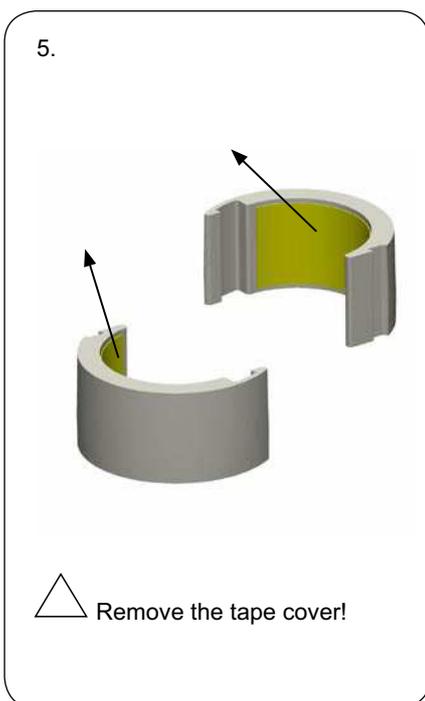
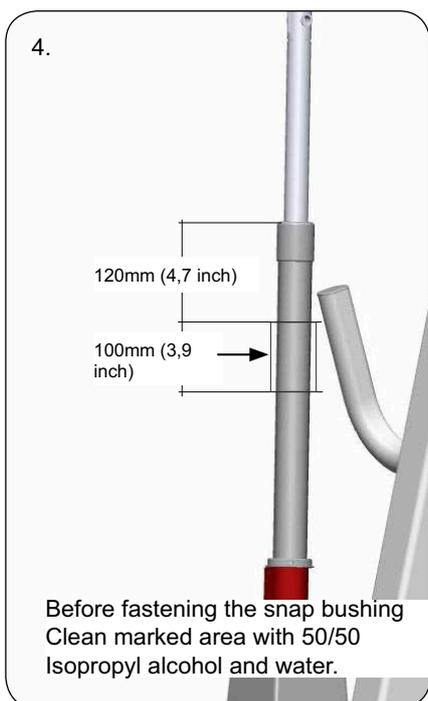
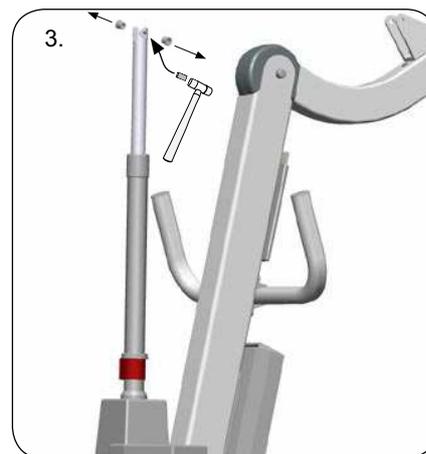
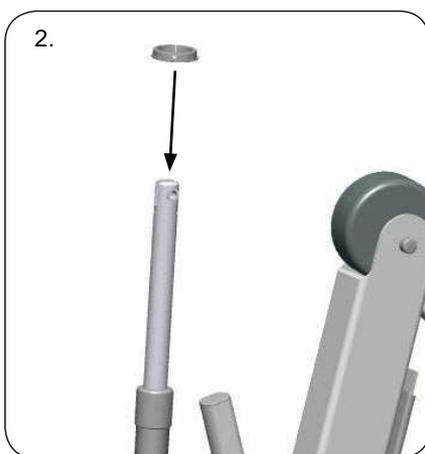
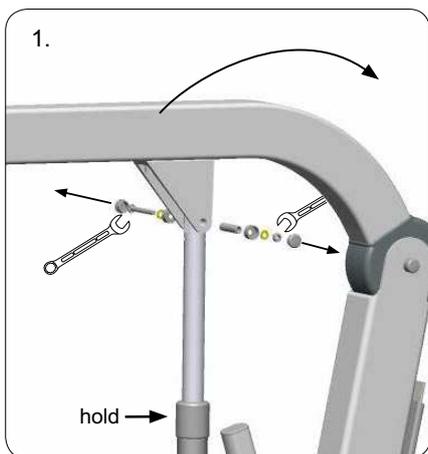
**Fits:**  
 Viking M  
 Viking L Prod. No. 2040004  
 Viking XL Prod. No. 2040003

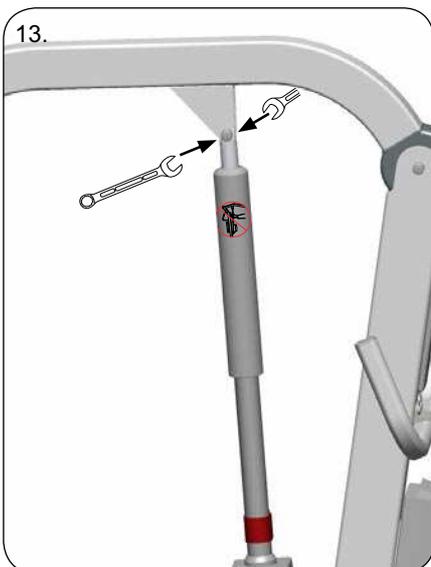
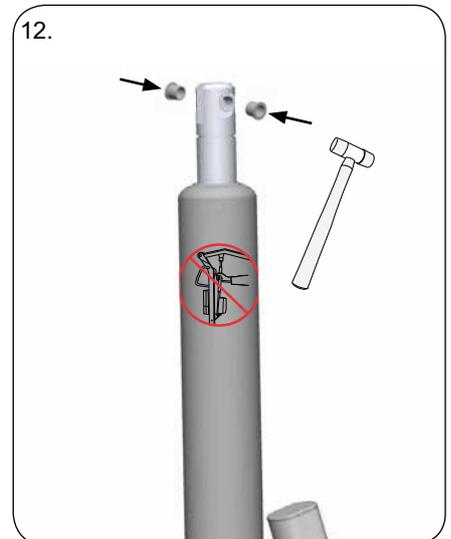
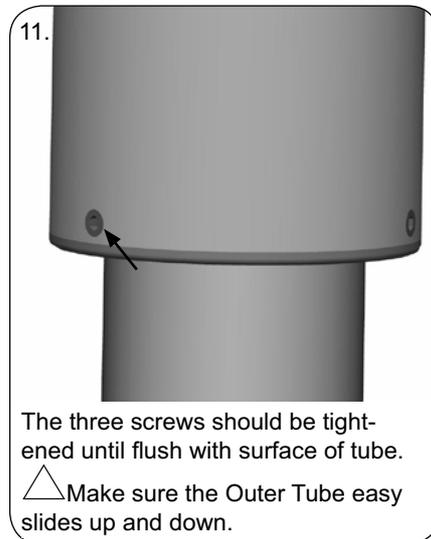
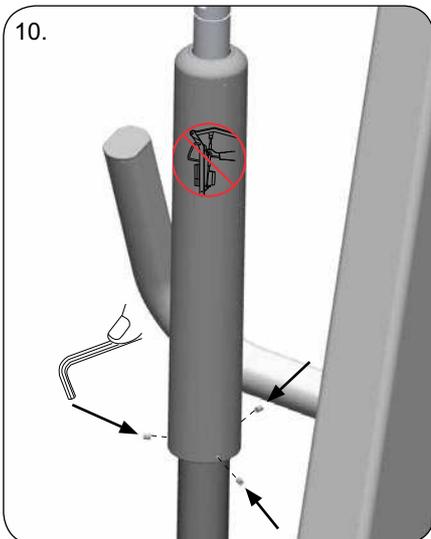
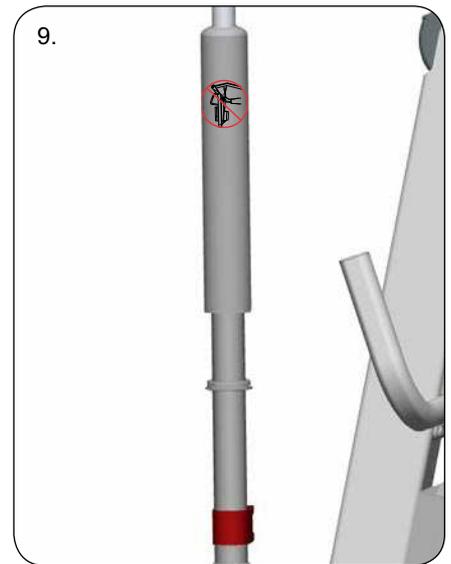
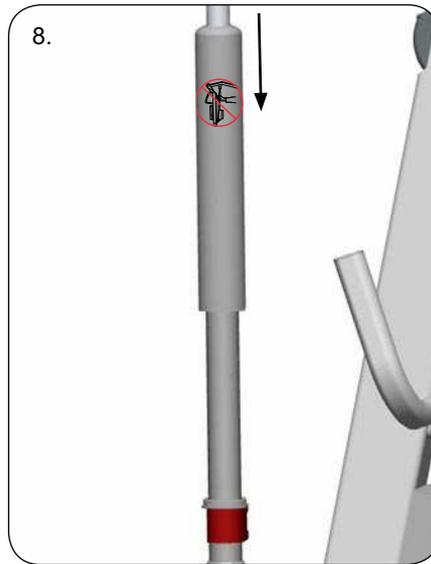
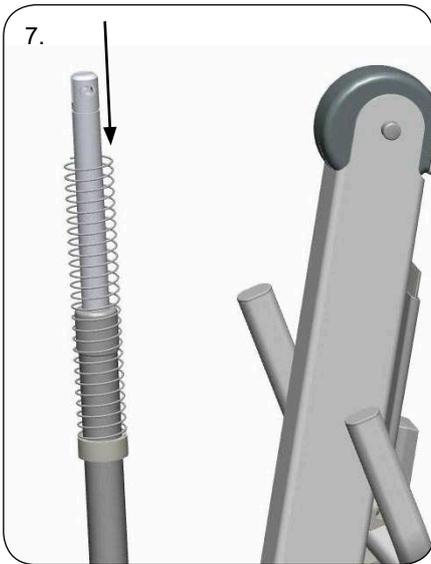


**Tools required:**

- 2x 10 mm wrench
- 10 mm hammer
- 2 mm hex key

Isopropyl alcohol and water + rag




**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

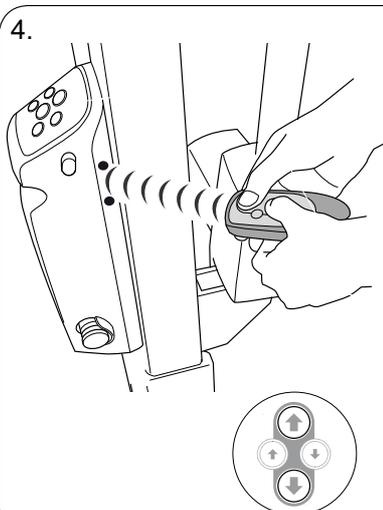
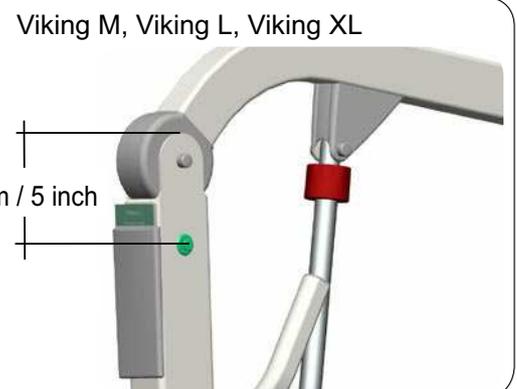
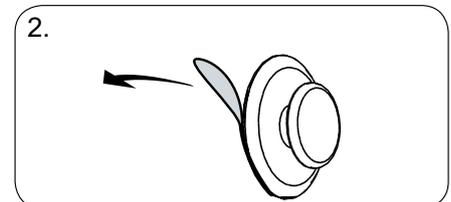
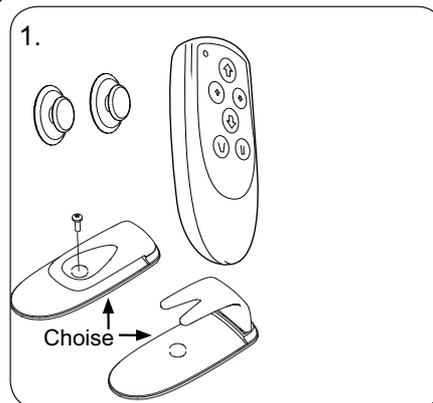
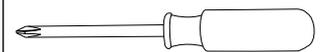
Prod. No. 20490031

3SE640298-04  
2011-03-03

Contains:	Qty:
Handcontrol HBL20	1
Clips with hook HBL20	1
Charge Cable Hook	2

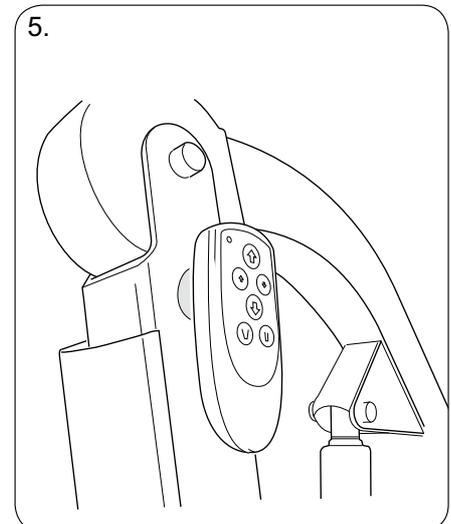
**Fits:**  
Golvo 8000 / 8008  
Viking M Prod. No. 2040015  
Viking L Prod. No. 2040014  
Viking XL Prod. No. 2040013

Tools required:



**A.** To activate IR control: Hold the hand control IR about 20 cm / 8 inch. from the control unit's IR receiver and press the large UP and DOWN buttons on the hand control simultaneously for about 2 seconds. A signal is heard when the function is activated. The lift is now ready to use with Handcontrol IR.

**B.** Check to determine if other lifts in the room are affected by your hand control. If other lifts are affected by your hand control: Use the large UP and DOWN buttons on the operation panel of the lift that is to be used. Press both buttons simultaneously until a signal sounds. The lift has now been assigned a unique communication code. Now, activate IR control according to procedure A, above.



**NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

**Assembly Instruction  
Monteringsanvisning**

Prod. No. 20490039

3SE650270-02  
2011-03-11

Contains:	Qty:
Control Unit CBL20	1 (pre-configured)
Cable cover	1
Screw cable cover	2
Allen Key 2,5 mm	1



**Fits:**

- Viking XL Prod. No. 2040013
- Viking L Prod. No. 2040014
- Viking M Prod. No. 2040015
- Golvo 8000/8008 (all models)

Tools required:

- 2,5 mm
- 3 mm
- 4 mm

**1.** **Before use!**  
Make sure the S/N on the label on Control Unit CBL is the same as on the lift.

**2.**

**3.**

**4.**

**5.**

**6. Viking:**

**Golvo:**

## Assembly Instruction Monteringsanvisning

Prod. No. 21090018 Extension cable CBL20  
21090019 Extension cable CBL20, US

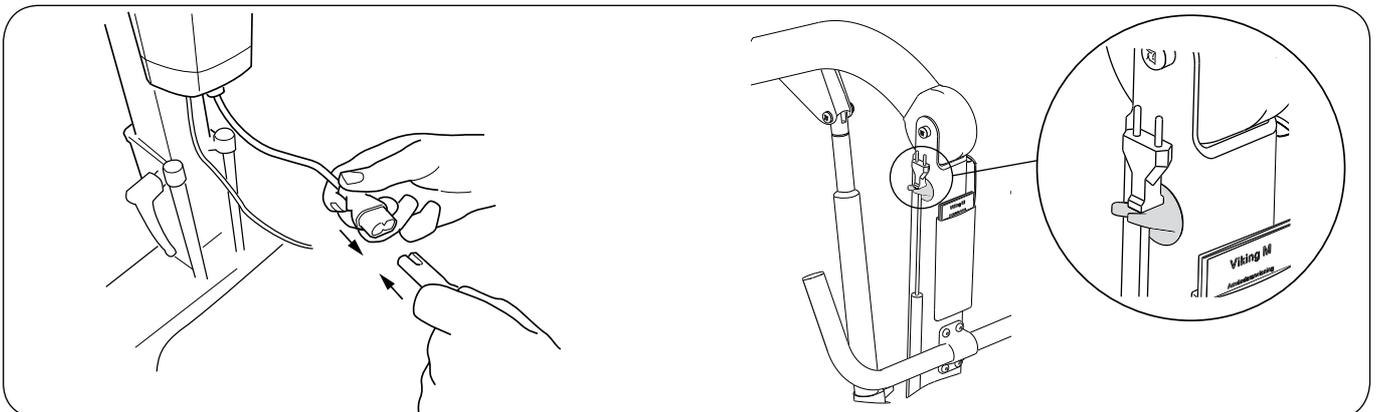
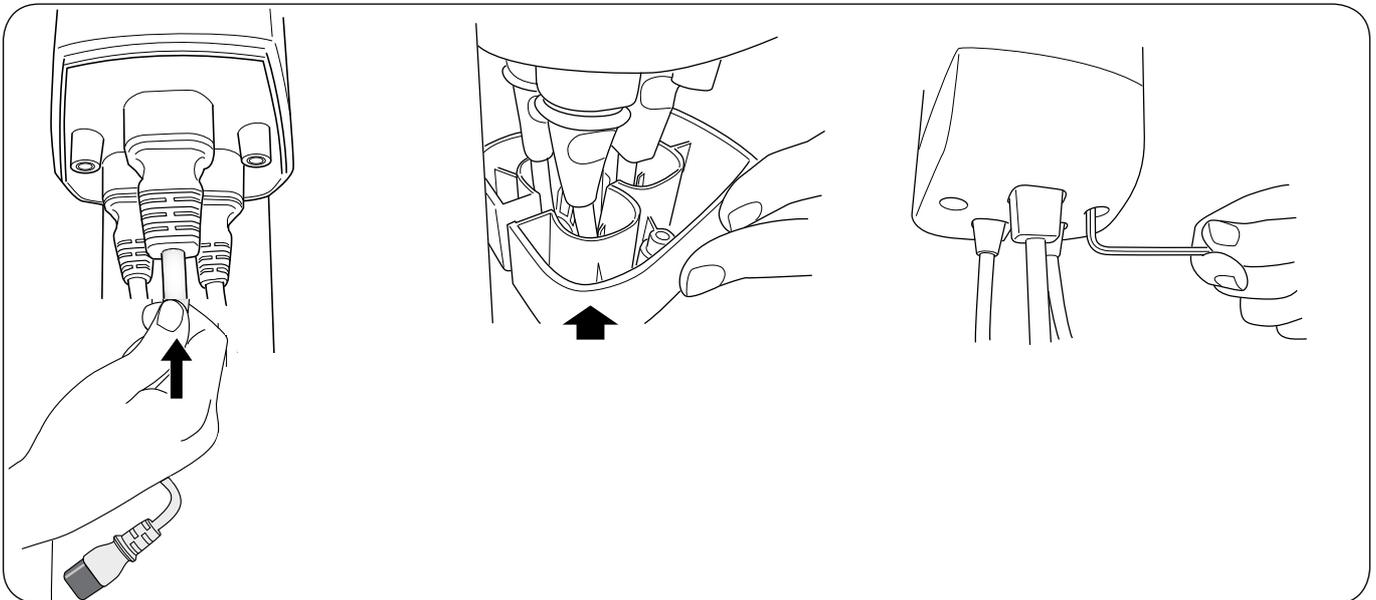
3SE650216-04  
2011-03-04

**Contains:**  
Adapter cable charging

**Qty:**  
1

**Fits:**  
Viking XL Prod. No. 2040013  
Viking L Prod. No. 2040014  
Viking M Prod. No. 2040015  
Golvo 8000/8008 (all models)

Tools required:



Connect the Charging cable to the Extension cable and the Extension cable to the wall socket (100-240 V AC). The battery is fully charged after 5 hours.

After completed charging, place the cable on the Charge cable hook.

**△ NOTE**

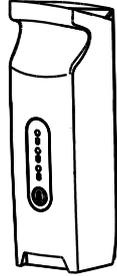
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

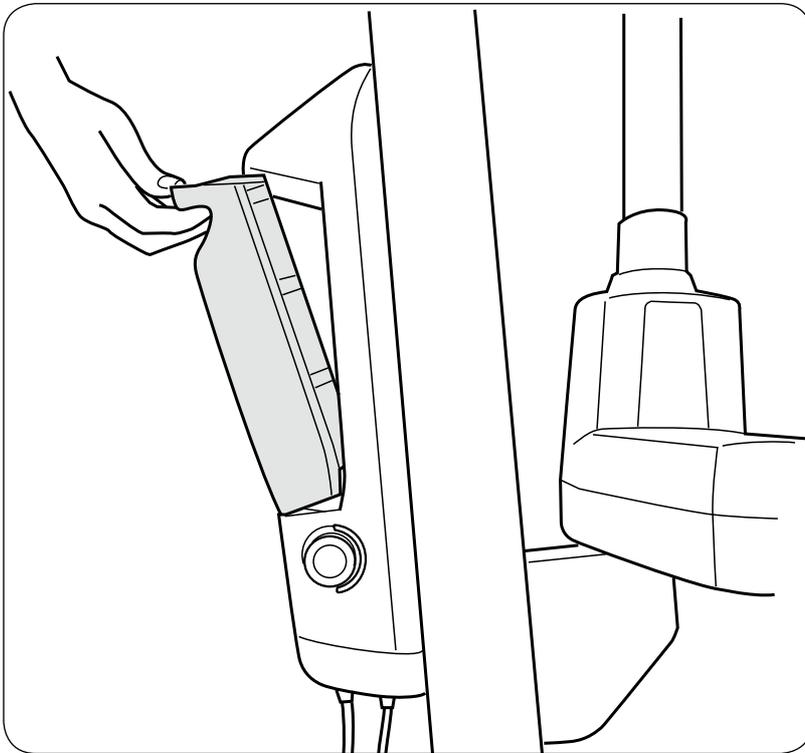
Prod. No. 2006107

**Contains:**  
Battery BAL20

**Qty:**  
1



**Fits:**  
Viking L 2040014



### △ NOTE

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.
- Old batteries are to be left at the nearest recycling station or given to personnel authorized by Liko.

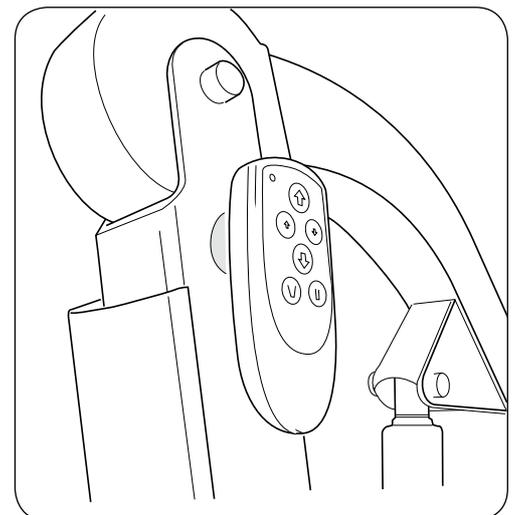
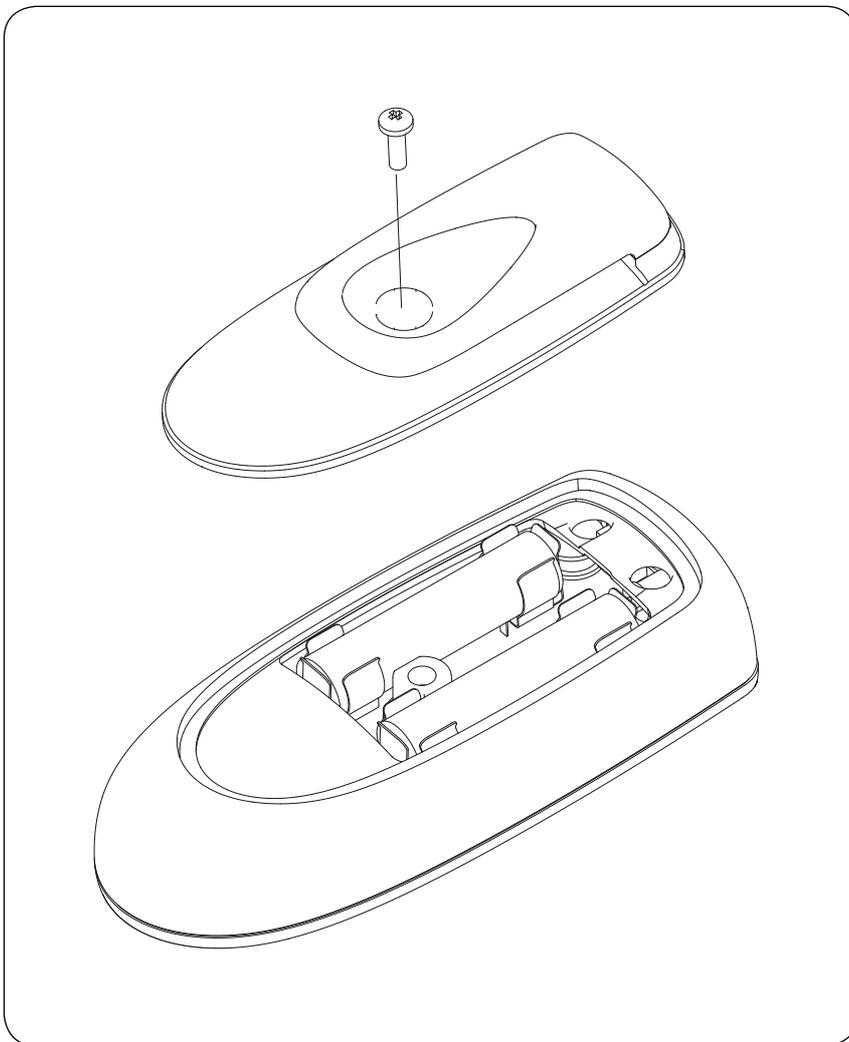
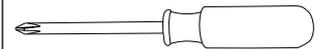


Assembly Instruction  
Monteringsanvisning

Prod. No. 21090020

3SE650217-04  
2011-03-04**Contains:**  
Belt Clips HBL20**Qty:**  
1**Fits:**  
Wireless hand control HBL20 Prod. No. 21090020

Tools required:

**△ NOTE**

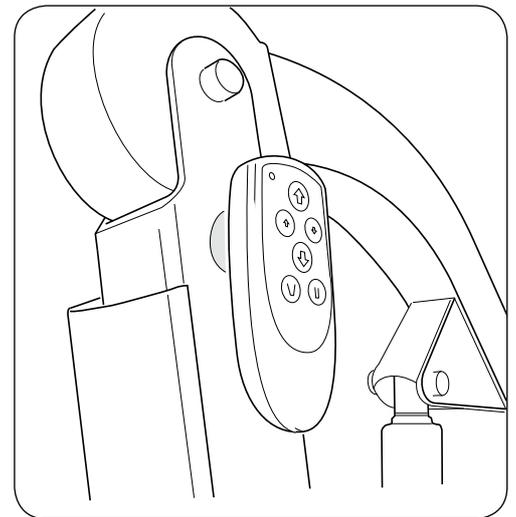
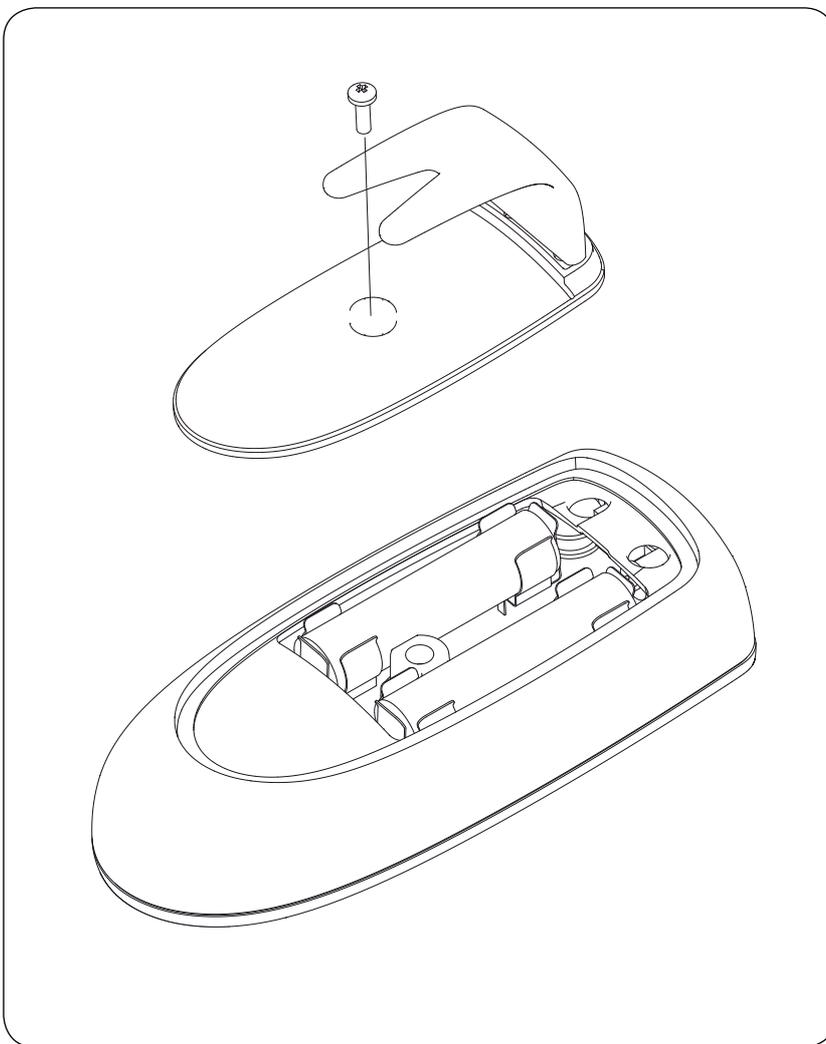
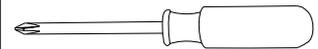
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 21090021

3SE650218-04  
2011-03-04**Contains:**  
Clips with hook**Qty:**  
1**Fits:**  
Wireless hand control HBL20 Prod. No. 21090020

Tools required:

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

Prod. No. 21090022

3SE650219-04  
2011-02-10

**Contains:**  
Charge cable hook

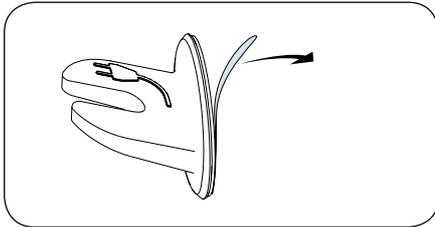
**Qty:**  
10



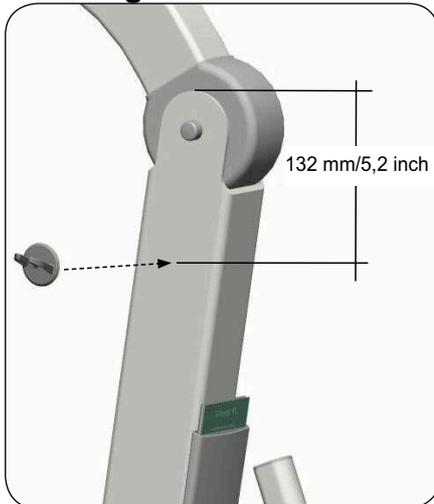
**Fits:**

Viking XL (2040013)  
Viking L (2040014)  
Viking M (2040015)  
Golvo 8000/8008 (all models)  
Liko M220 / M230

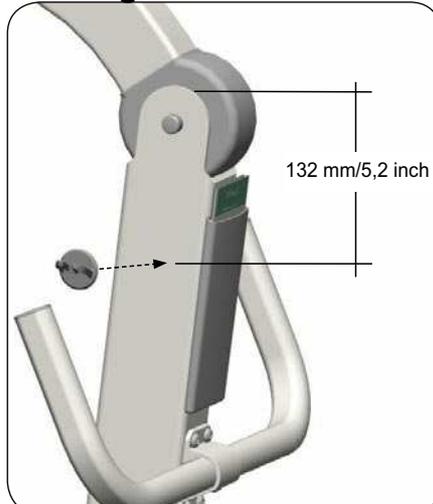
**1:**



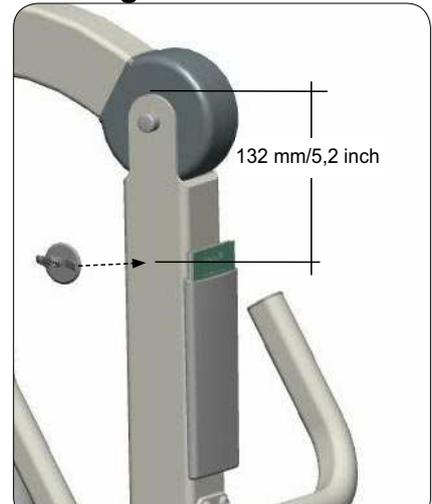
**2: Viking XL**



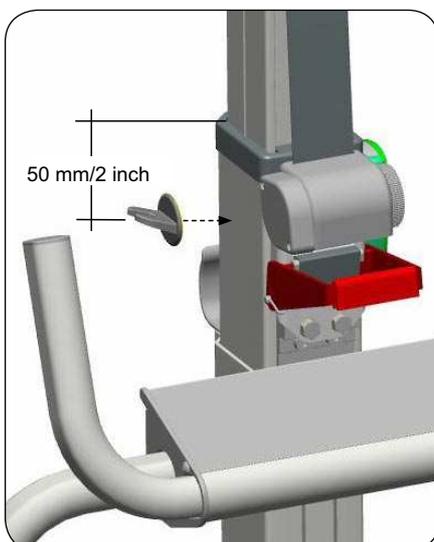
**Viking L**



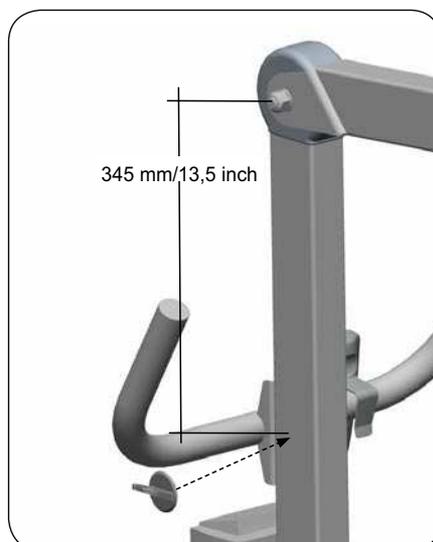
**Viking M**



**Golvo**



**Liko M220 / M230**



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

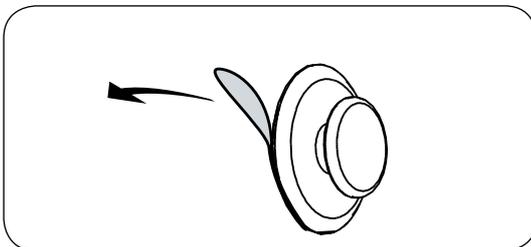
Prod. No. 21090023

3SE650220-04  
2011-03-04

**Contains:**  
HandControl hanger

**Qty:**  
10

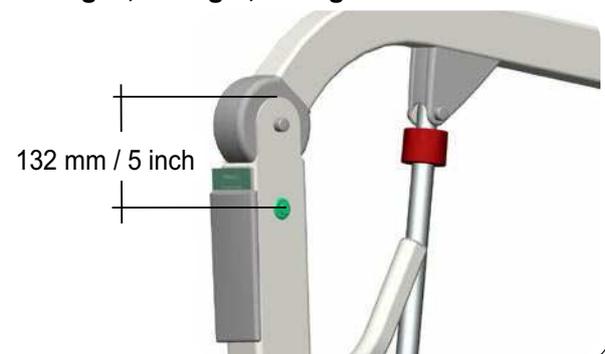
**Fits:**  
Golvo 8000 / 8008  
Viking M Prod. No. 2040015  
Viking L Prod. No. 2040014  
Viking XL Prod. No. 2040013



**Golvo**



**Viking M, Viking L, Viking XL**



**△ NOTE**

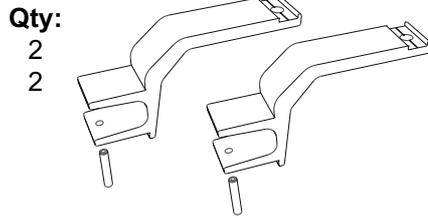
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

**Assembly Instruction  
Monteringsanvisning**

Prod. No. 20490037

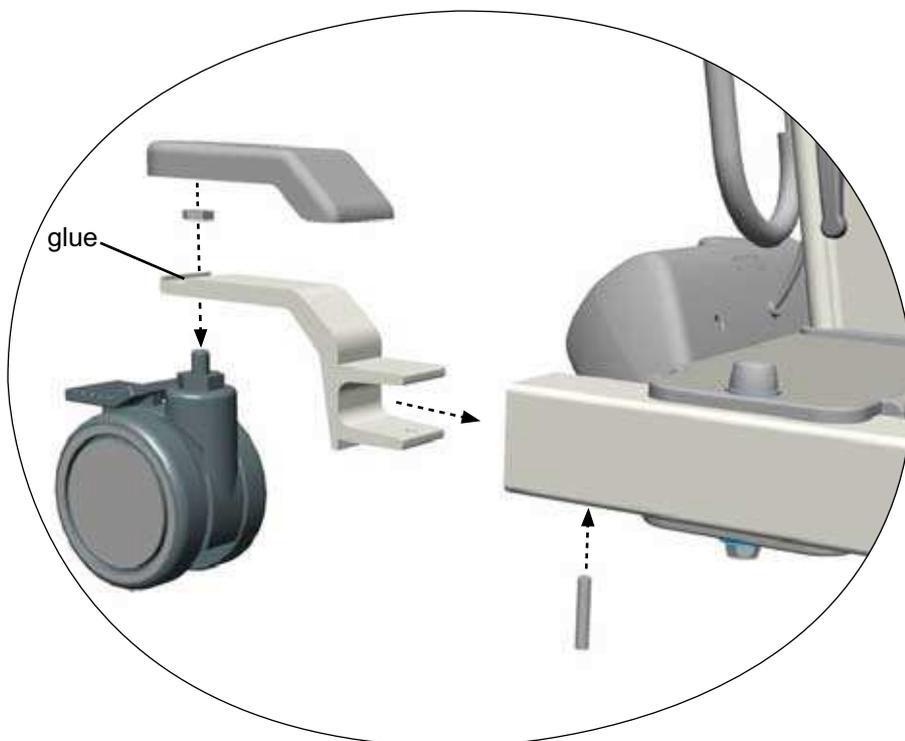
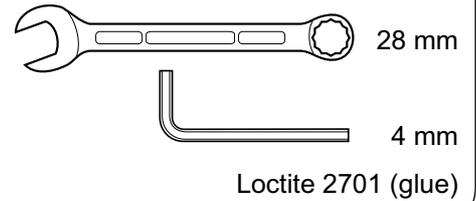
3SE650264-01  
2010-03-09

**Contains:**  
Rear fork 2  
Stop screw P6SS M8x45 2



**Fits:**  
Viking L  
Viking XL  
LikoLight 100/125 Prod. No. 2030001H  
Golvo 7000, 7000S/ES up to S/N 7024205  
Golvo 7007, 7007S/ES up to S/N 7729721

Tools required



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

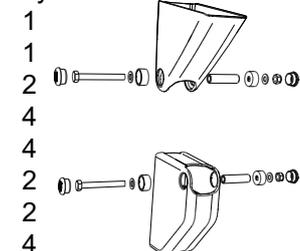
Prod. No. 20490040

3SE650273-01  
2010-10-19

**Contains:**

Bracket cover, pillar 1  
Bracket cover, arm 1  
Sleeve bearing Mob.38 2  
Cover hat Liko bottom 4  
Washer PS 6x12x1 4  
Screw M6S M6x50 2  
Locking nut M6 Nyloc 2  
Cover hat Liko 4

**Qty:**

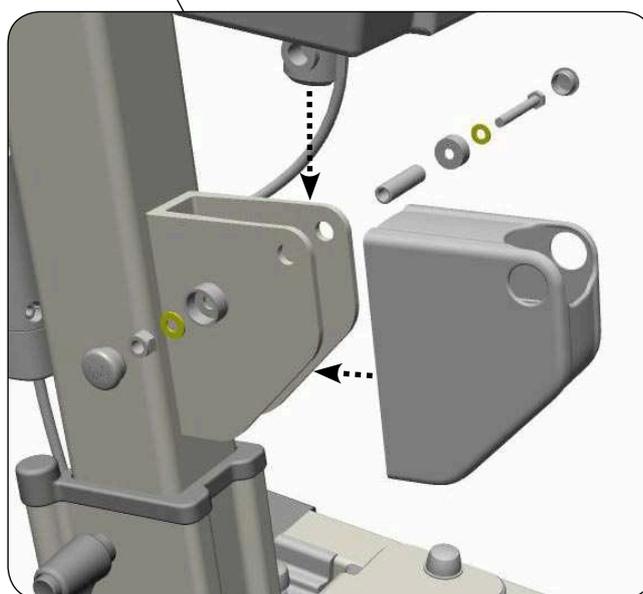
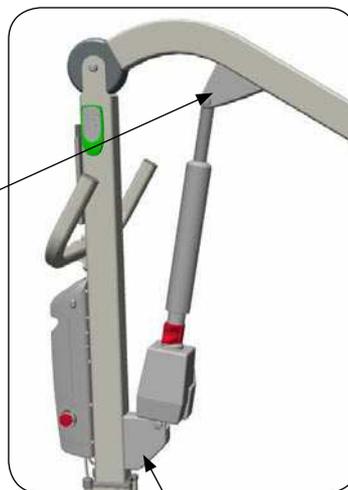
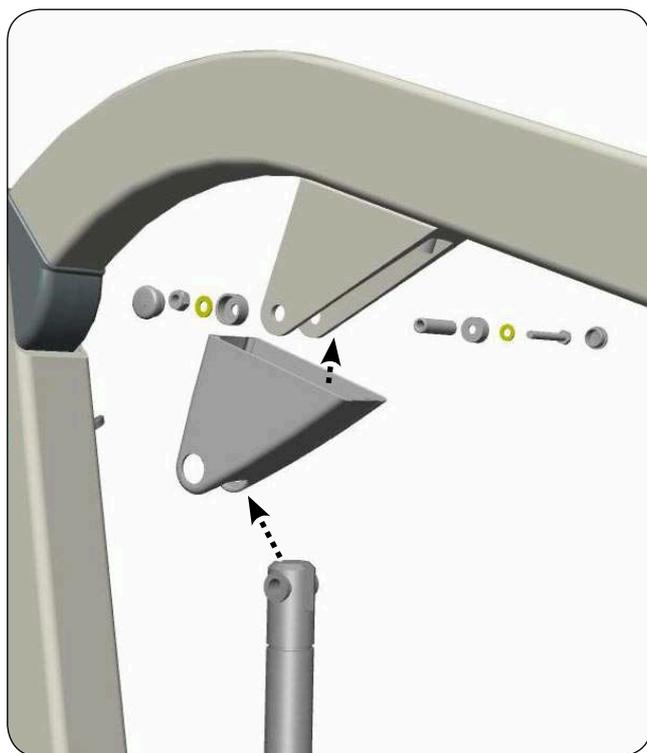


**Fits:**

Viking M (all models)  
Viking L, Prod. No. 2040004  
Viking XL (all models)

**Tools required:**

2 X  10 mm



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

Prod. No. 20490041

3SE650287-01

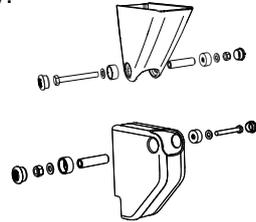
2011-03-25

Contains:

Bracket cover, pillar Vi L  
Bracket cover, arm Vi L  
Sleeve bearing Mob.38  
Cover hat Liko bottom  
Washer PS 6x12x1  
Screw M6S M6x50  
Locking nut M6 Nyloc  
Cover hat Liko

Qty:

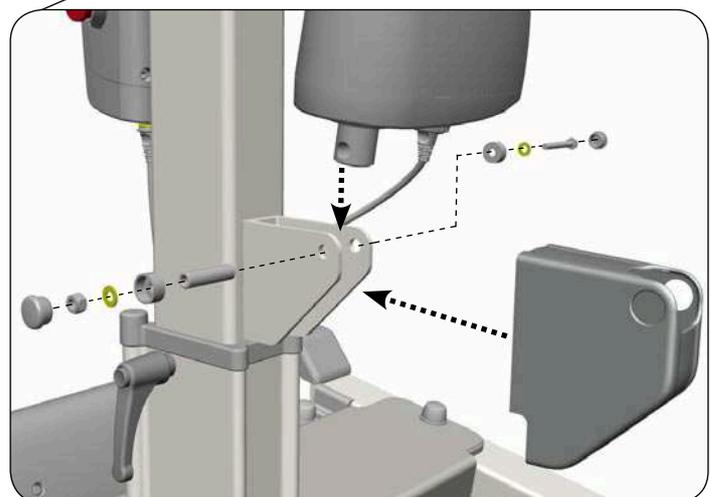
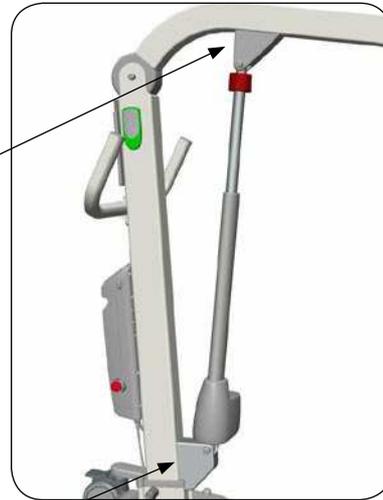
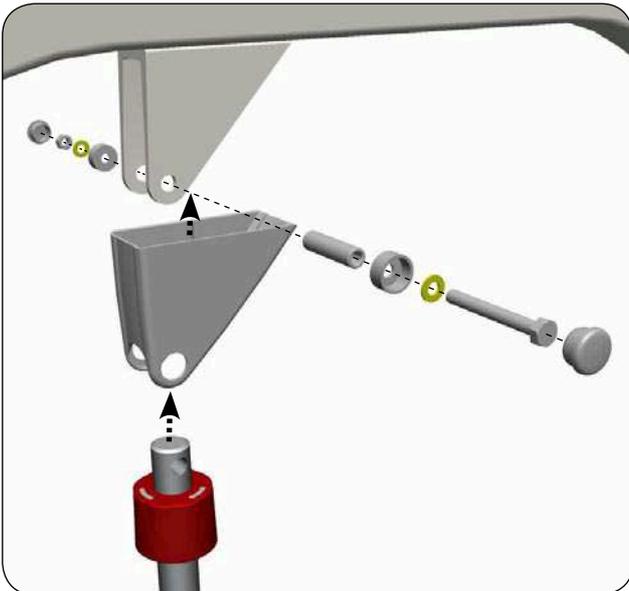
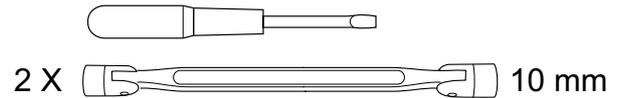
1  
1  
2  
4  
4  
2  
2  
4



Fits:

Viking L, Prod. No. 2040014

Tools required:



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

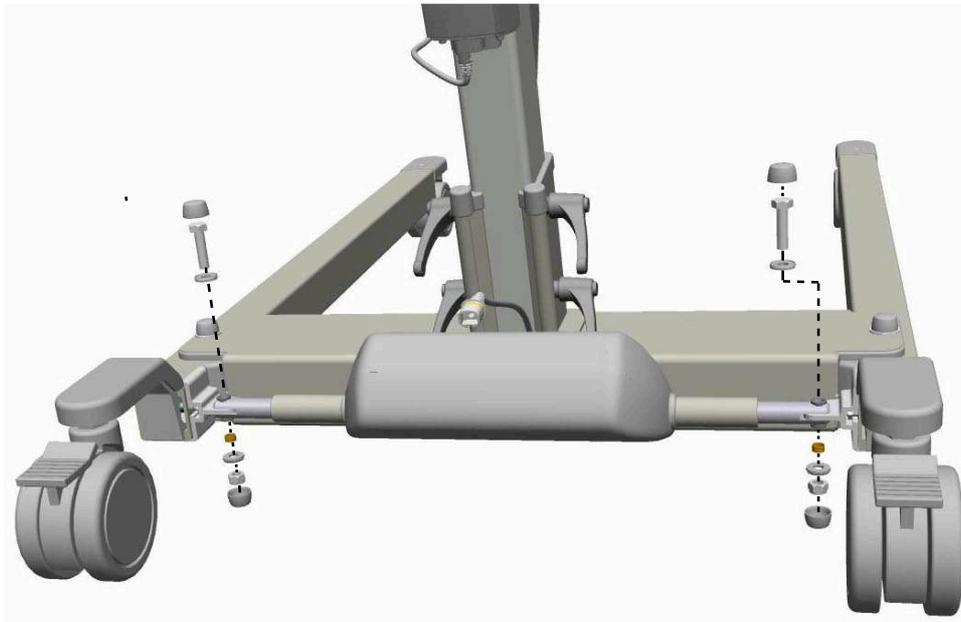
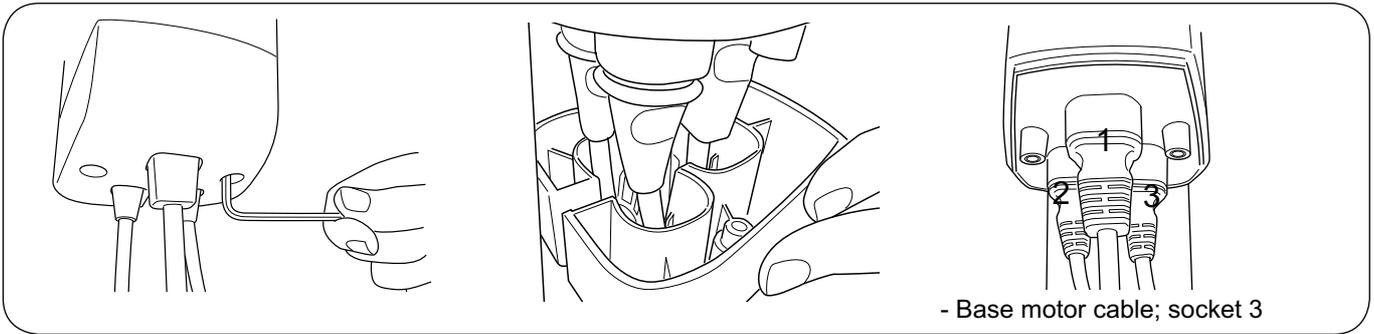
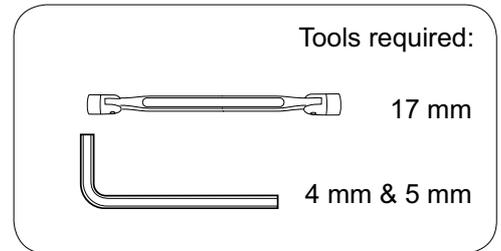
Assembly Instruction  
Monteringsanvisning

Prod. No. 20490042

3SE650288-01  
2011-03-28

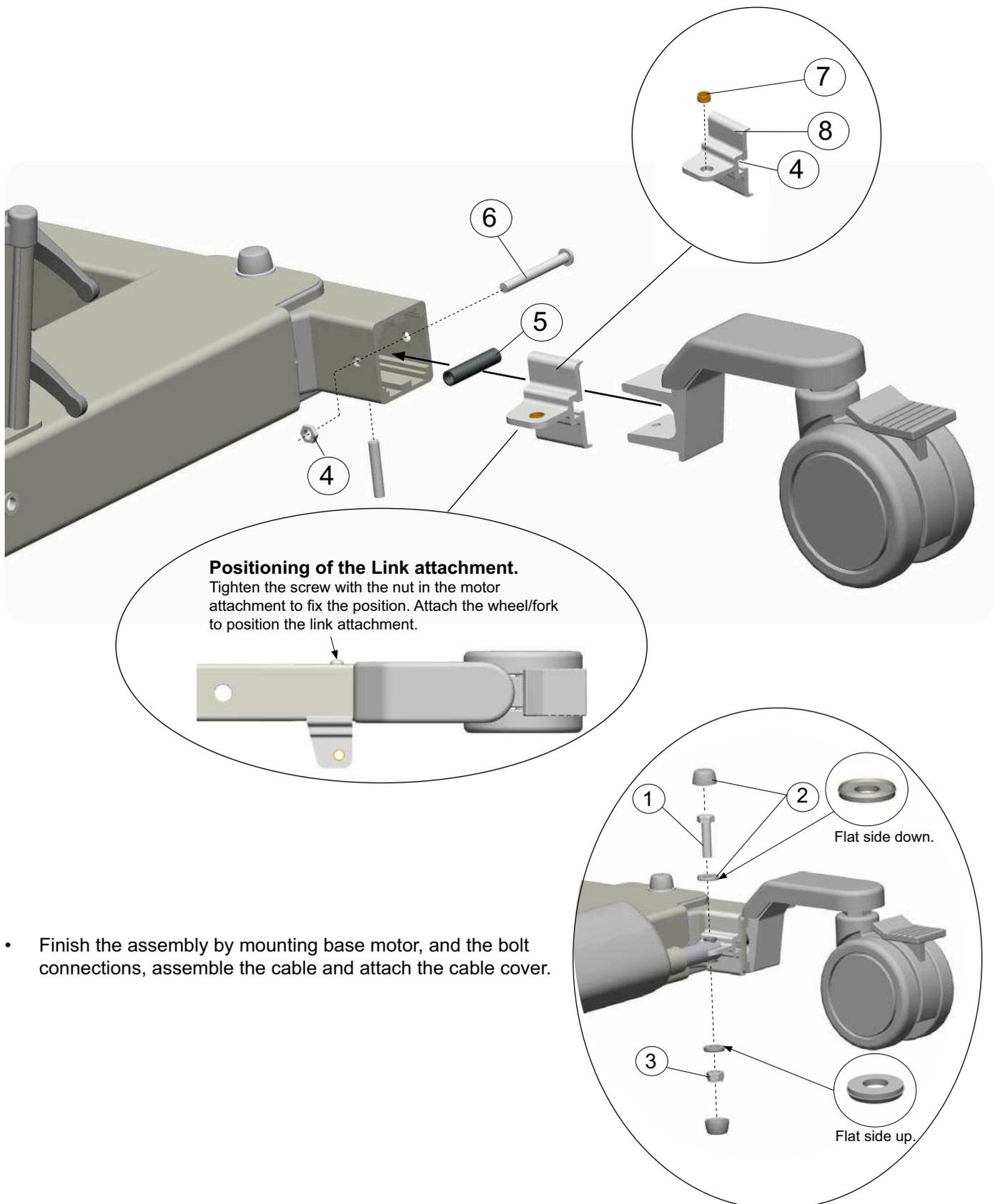
POS:	Contains:	Qty:
1	Screw M6S M10x40	2
2	Cover hat M10 grey U102	4
3	Locking nut M10 nyloc	2
4	Locking nut M6LM M8	2
5	Distance Ben Vi XL	2
6	Screw K6S M8x70	2
7	Nylon bearing 10x12x6	2
8	Link attachment Viking XL	2

**Fits:**  
Viking XL (Prod. No. 2040013)  
Viking L (Prod. No. 2040014)



- Unfasten the base motor by removing the bolt connections.
- Remove the Base motor by pushing the motor axle from the middle beam hole.




**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Assembly Instruction  
Monteringsanvisning

Prod. No. 20490043

3SE650289-01  
2011-03-22

**Contains:**

Control Unit CBL20  
Cable cover  
Screw cable cover  
Allen Key 2,5 mm

**Qty:**

1  
1  
2  
1



**Fits:**

Viking L , Prod. No. 2040014

**Requires:**

Liko Service System, Prod. No. 21090024

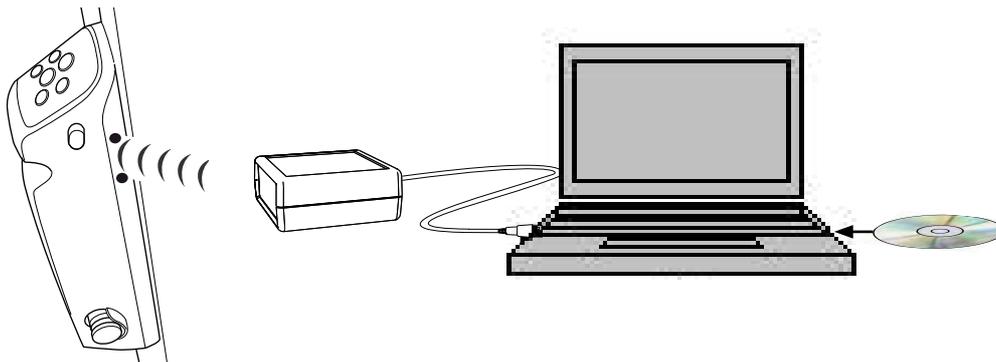
Tools required:

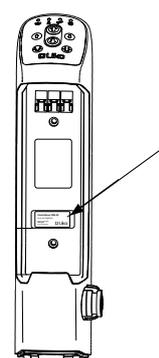


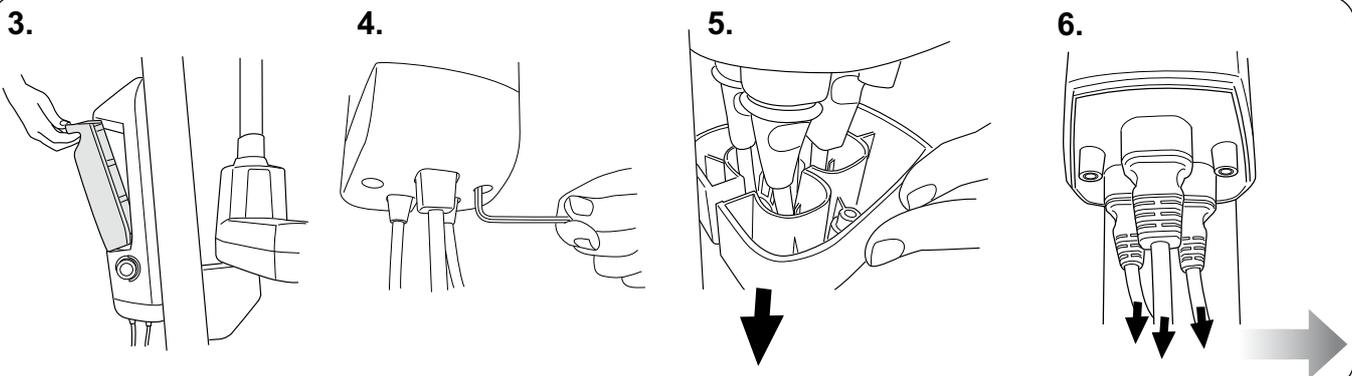
2,5 & 3 mm

1.  **Before use!**

**Control Unit CBL Vi L must be programmed with Liko Service System, Prod. No. 21090024 according to the Instruction Guide for the Service System.**

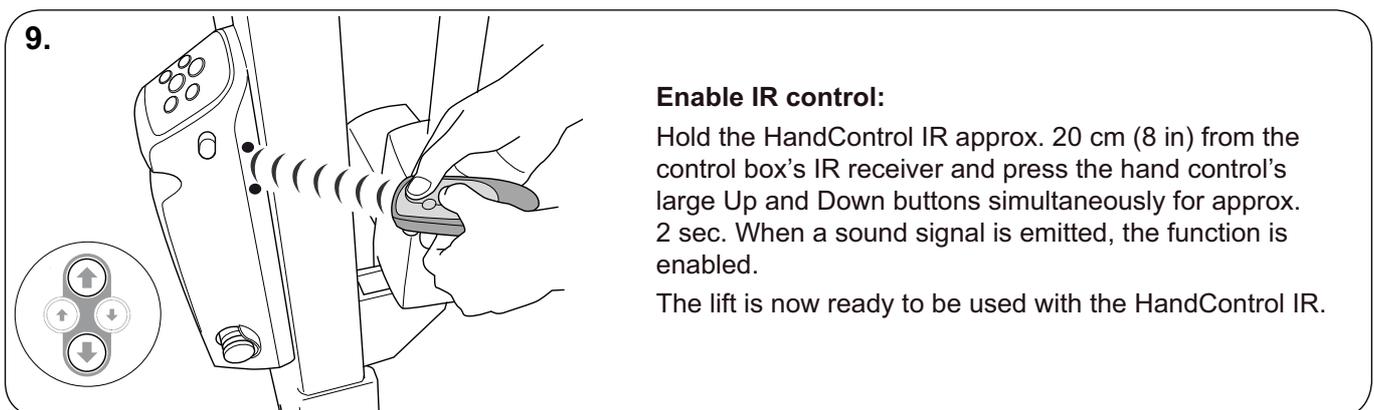
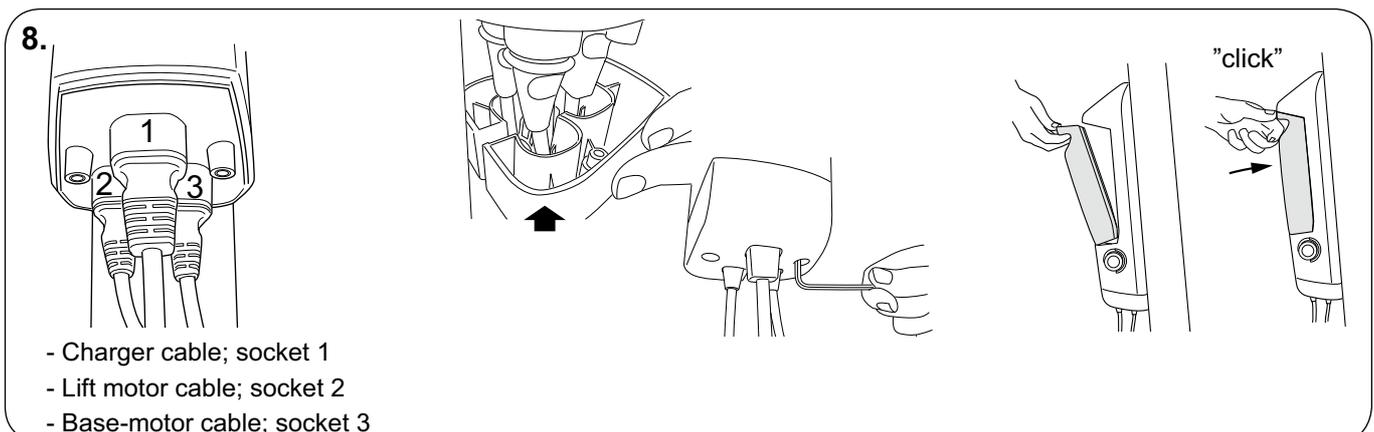
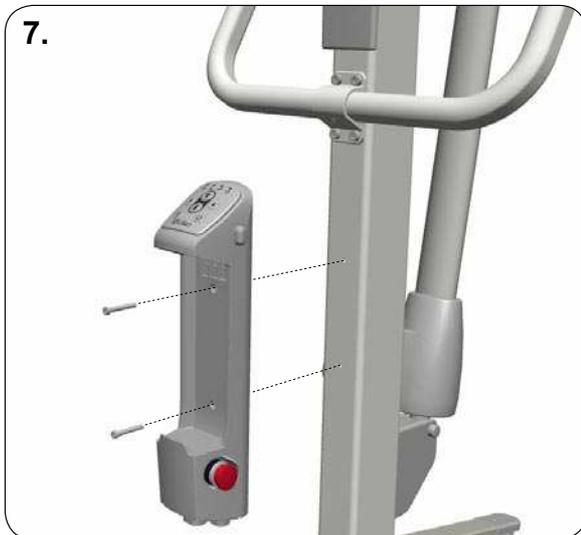


2.  **With permanent marker, fill in the S/N at the product label (same as on the Viking L)**



Assembly Instruction  
 Monteringsanvisning

Prod. No. 20490043



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20490045

3SE650291-01

2011-03-25

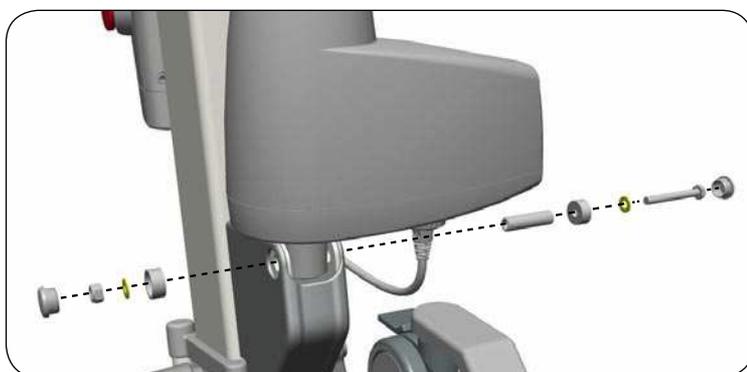
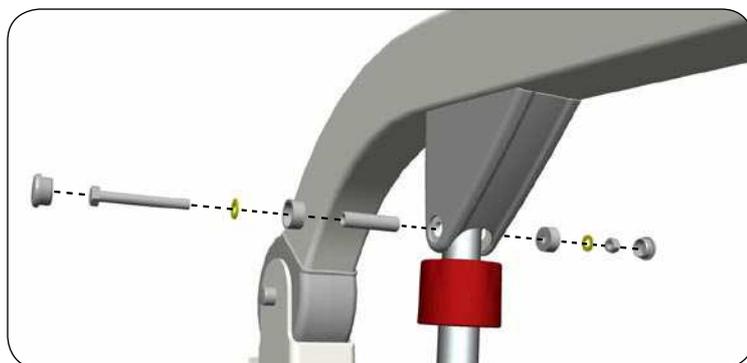
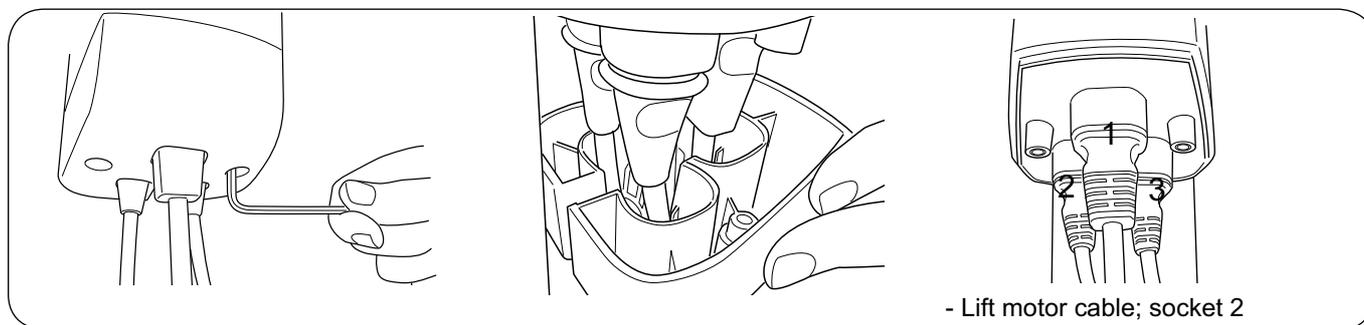
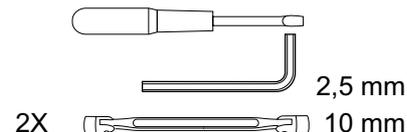
**Contains:**

	Qty:
Actuator Viking XL LA44	1
Sleeve bearing Mob.38	2
Coverhat Liko + Cover hat Liko bottom	4
Washer PS 6x12x1	4
Screw M6S M6x50	2
Locking nut M6 Nyloc	2

**Fits:**

Viking XL, Prod. No. 2040013  
Viking L, Prod. No. 2040014

Tools required:



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 20490047 Leg cover L & XL  
20490048 Leg cover M

3SE650294-01  
2011-04-01

**Contains:**

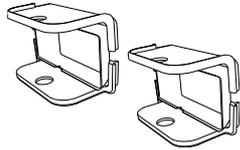
Leg cover, 3 pce

**Qty:**

2

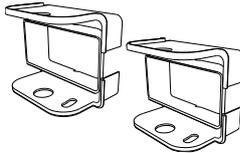
**20490047 Fits:**

Viking L  
Viking XL



**20490048 Fits:**

Viking M



**Tools required**

2,5 mm

2x 17 mm

Flourflon PTFE- grease

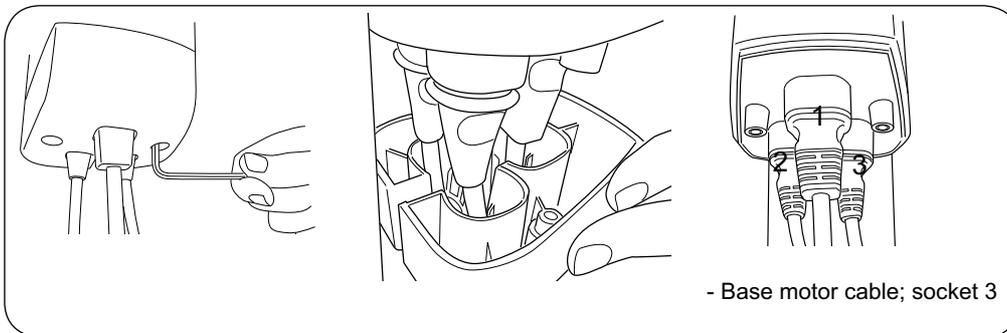
△ Before mounting; Press button for narrower base-width adjustment to end position.

**Prod. No.**

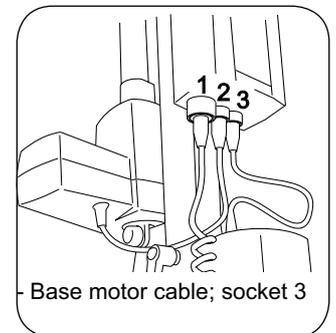
2040013, Viking XL  
2040014, Viking L  
2040015, Viking M

**Prod. No.**

2040003, Viking XL  
2040004, Viking L  
2040005, Viking M

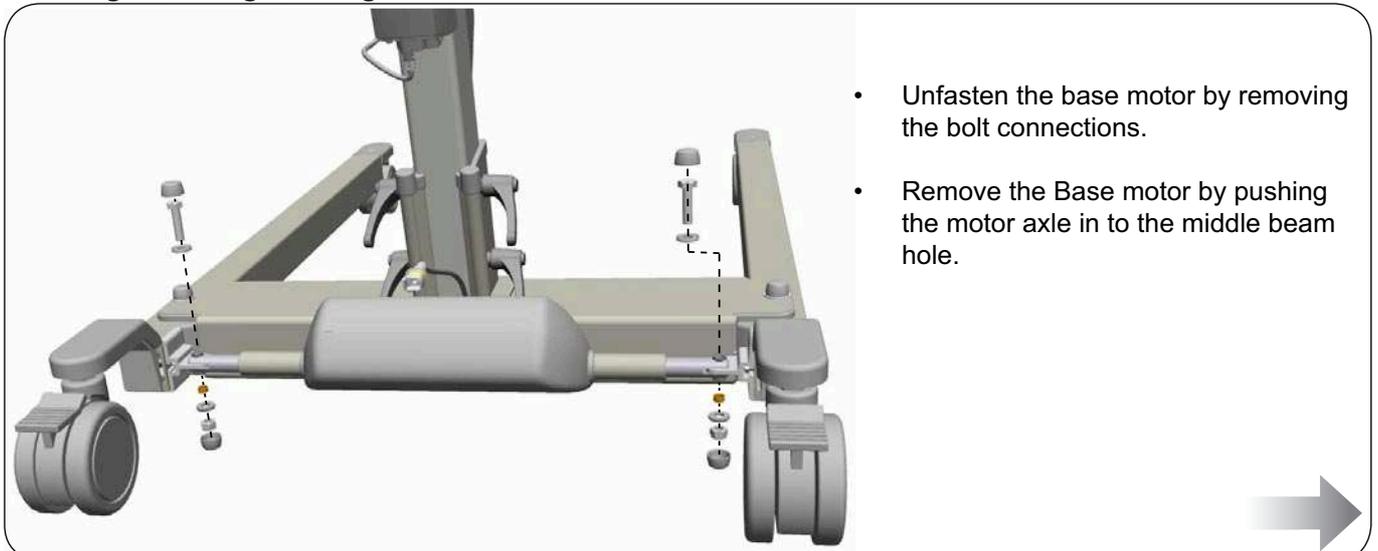


- Base motor cable; socket 3



- Base motor cable; socket 3

**Viking XL, Viking L, Viking M, All models:**

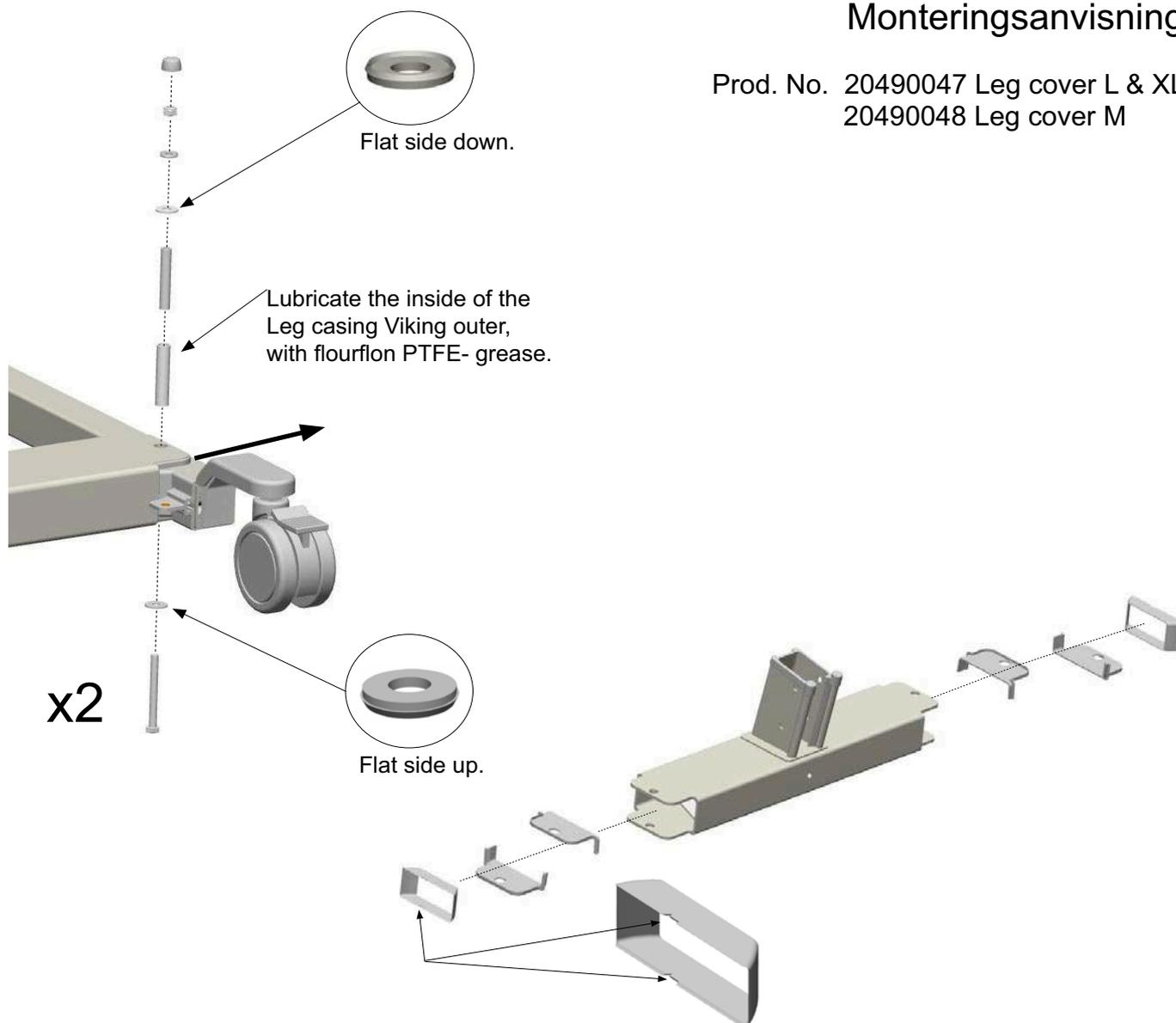


- Unfasten the base motor by removing the bolt connections.
- Remove the Base motor by pushing the motor axle in to the middle beam hole.



## Assembly Instruction Monteringsanvisning

Prod. No. 20490047 Leg cover L & XL  
20490048 Leg cover M



- Finish the assembly by mounting the base motor and bolt connections.  
(Picture showing Viking XL, same assembly for Viking M and Viking L.)

### **△ NOTE**

- Make sure the legs are mounted parallel to each other
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

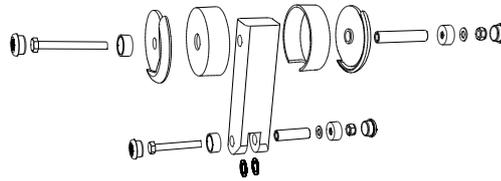
## Assembly Instruction Monteringsanvisning

Prod. No. 20490049

 3SE650295-01  
2011-04-01

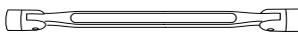
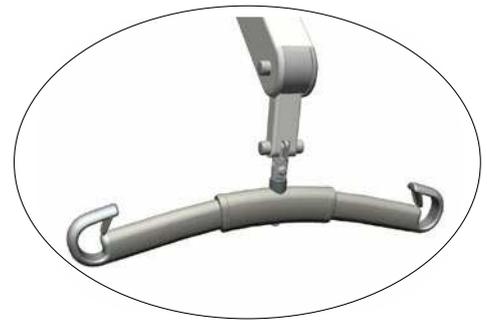
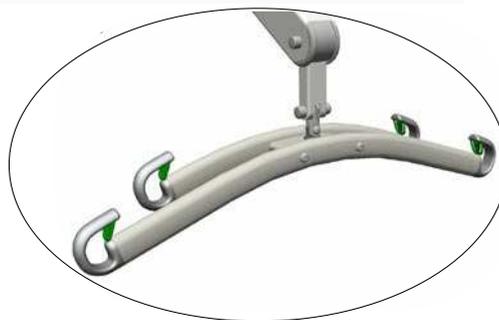
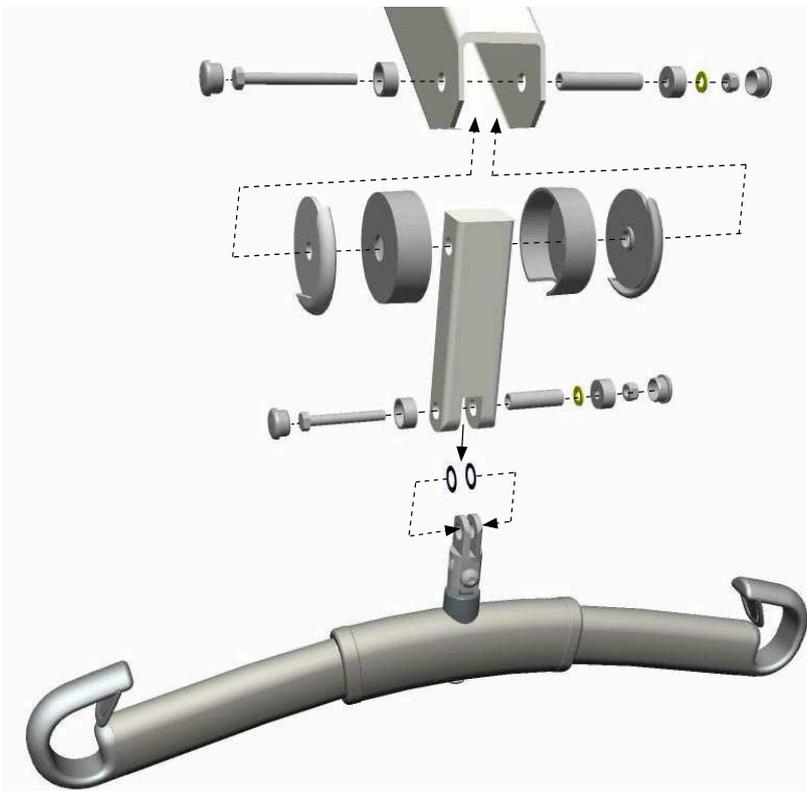
**Contains:**

Friction washer Link	2
Link Viking	1
Sleeve bearing Mob.34	1
Cover hat Liko, bottom	4
Screw M6S M6x45	1
Washer TBRB 6x12x1	2
Locking nut M6 Nyloc	2
Cover hat Liko	4
Cap I Viking	2
Cap Y Viking	2
Sleeve bearing Mob.50	1
Screw M6S M6x60	1

**Qty:**

**Fits:**

Viking XL, Viking L, Viking M, Viking XS

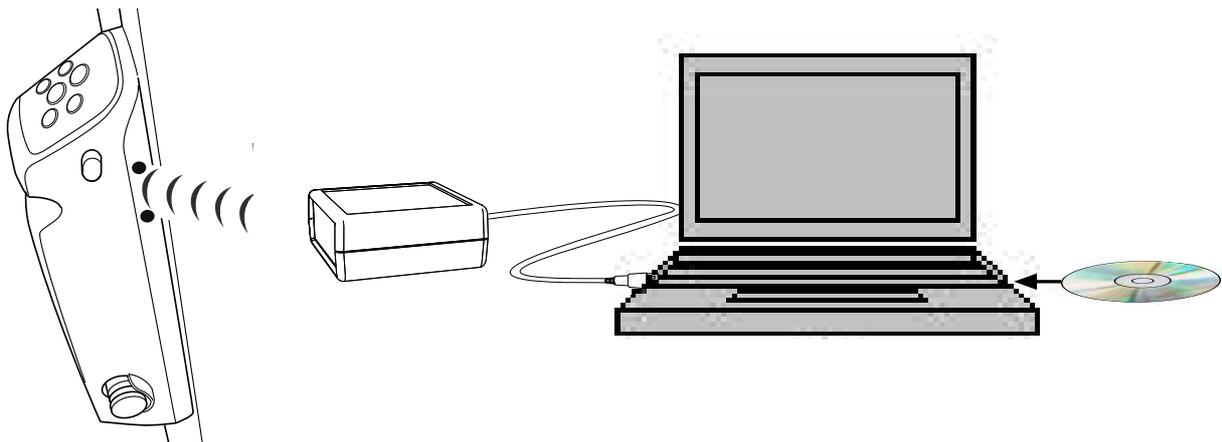
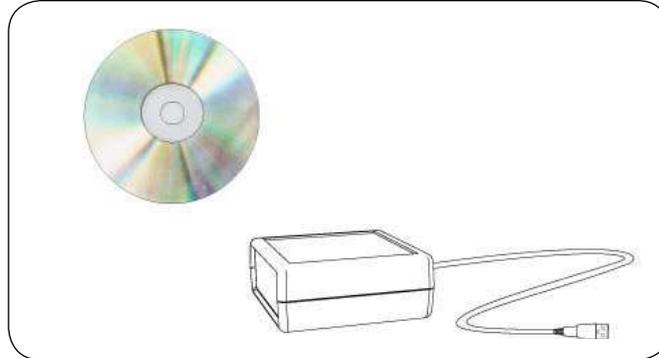
**Tools required**

 2x  10 mm

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko/Hill-Rom and using original Liko spare parts.

## Liko Service System

Prod. No. 21090024



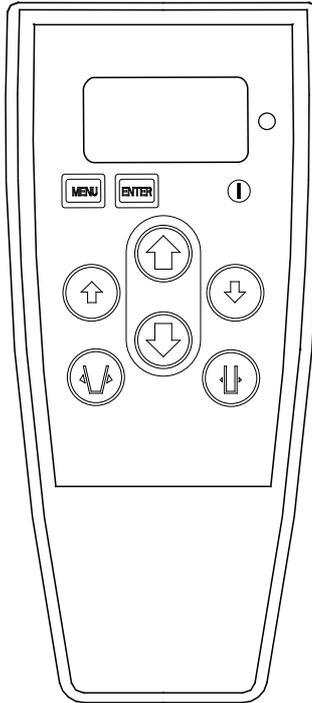
### Product Description

Liko Service System is a soft ware developed to enable service technicians to conduct service in an easy way on all lifts equipped with the control unit CBL 20. It also gives the service technician the possibility to program the spare part on the field.

***Detailed information can be found in the instruction guide accompanying the product.***

## Liko Diagnostic System - Service

LDS Service Prod. No. 21090016



### Product Description

Liko lifts equipped with LDS (Liko Diagnostic System™) record and store information on how the lift is used.

LDS Monitor and LDS Service are two different models of readers for LDS information stored in a lift.

Both models can be used as hand control to operate Liko's IR controlled lifts equipped with LDS.

LDS Service is specially developed for Liko's authorized service technicians to reset the LDS service interval after completed service/periodic inspection.

***Detailed information can be found in the instruction guide accompanying the product.***





A Hill-Rom Company

Viking XL, Viking L, Viking M

Periodic Inspection

Prod. No 2040003, 2040004, 2040005, 2040013, 2040014, 2040015

2011-03-04

Output (TAAxT):  Ah (Prod. No. 2040013-2040015)

Lift type: .....

Serial No: .....

Version: .....

Prod. Year: .....

Customer references

Agreement No: .....

Name: .....

Address: .....

Post code: .....

The lift must be thoroughly inspected at least once per year. Inspection and service must be carried by Liko/HillRom authorized personnel. Instructions for check points, from the next page.

Check points:

	Approved	To be actioned	Not approved	Comments:
1 Product decal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
2 Visible damage to the lift surface finish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
<b>Base</b>				
3 Castor wheels, forks and fork covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
4 Castor brakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
5 Base covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
6 Base opening and closing linkage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
7 Base frame castor play and levelling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
<b>Mast</b>				
8 Locking handles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
9 Lift arm hardware and covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
10 Flexlink to arm hardware and covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
11 Flexlink to slingbar hardware and covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
12 Slingbar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
13 Mast actuator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
14 Battery and electrical cable installations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
15 Hand control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
16 Emergency stop function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
17 Emergency lowering device	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
18 Control unit CBL20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
<b>Load Testing</b>				
19 Max. load test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
20 Mechanical emergency lowering load test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
<b>Accessory</b>				
21 Armrest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
<b>Instructions</b>				
22 Documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....

Approval to use the mobile lift  Approved  To be actioned  Not approved

If the mobile lift has one or more check points with result "Not approved" the mobile lift must not be used. If the mobile lift has one or more check points with result "To be actioned" these actions should be performed immediately.

After performed actions sign below. If anything is unclear or if you have questions, please contact Liko or your local Liko representative. Contact information is to be found at [www.liko.com](http://www.liko.com).

Inspection performed by: \_\_\_\_\_ Date: \_\_\_\_\_

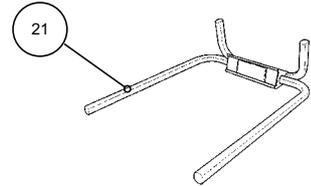
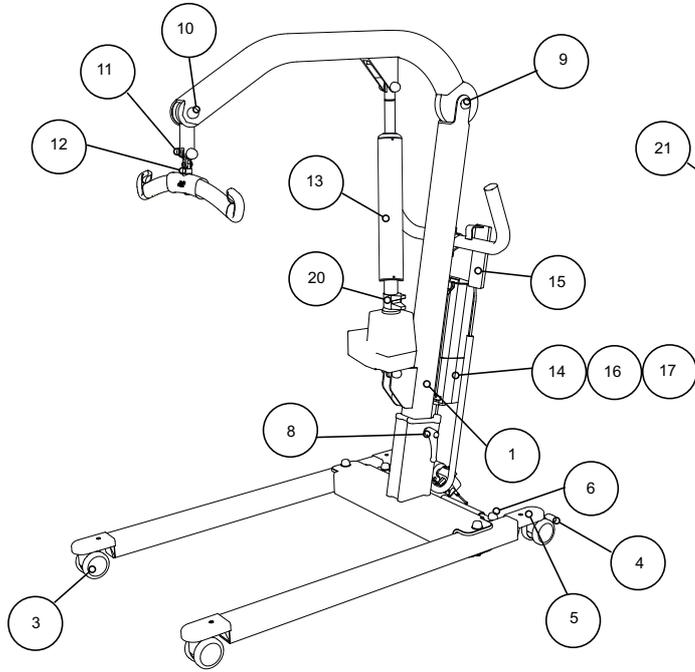
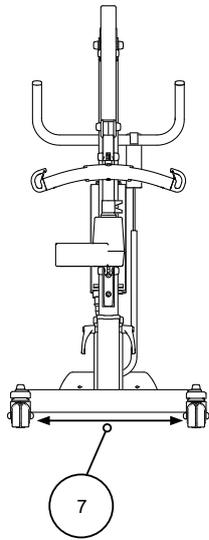
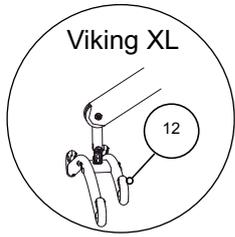
Final approval by: \_\_\_\_\_ Approval date: \_\_\_\_\_

Next inspection: \_\_\_\_\_

Inspection performed in accordance with ISO 10535:2006 Annex B- Periodic inspection

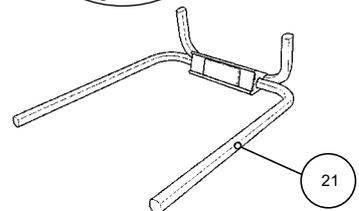
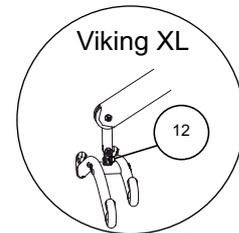
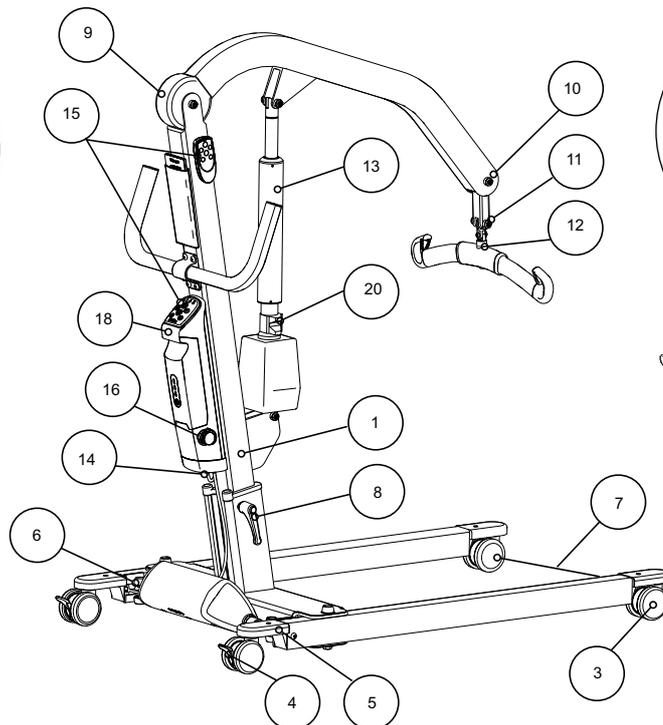
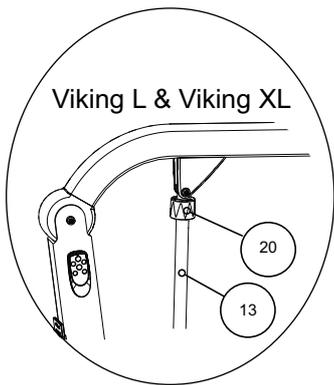
### Check points

- Viking XL Prod. No. 2040003
- Viking L Prod. No. 2040004
- Viking M Prod. No. 2040005



### Check points

- Viking XL Prod. No. 2040013
- Viking L Prod. No. 2040014
- Viking M Prod. No. 2040015



## Instructions for the check points

### 1 Product decal

- Verify presence of mast decal with model type and serial number.

### 2 Visible damage to the lift surface finish

- Check for scratches, dents, deformities or unusual surface wear.

### 3 Castor wheels, forks and fork covers

- Roll the lift, unloaded and with load, along the floor. Check to ensure that all castors roll and turn freely.
- Verify that the castor fasteners are tight. There should not be any play between the fork and the castor nut.
- Remove the front fork cover and inspect safety casing and bolt channel for cracks or fractures.

### 4 Castor brakes

- Lock the brakes. Make sure the wheels do not turn and the castor housing does not swivel when the lift is pushed.

### 5 Base covers

- Verify that the protective plastic covers are secure.

### 6 Base opening and closing linkage

- Inspect the linkage between legs and base motor. Make sure there is no cracks or deformations at the legs.
- Inspect the plastic protective cover shell for cracks, deformation or gaps.
- Open and close the base to maximum and minimum dimensions.
- Listen for particular noises and vibrations.

### 7 Base frame castor play and levelling

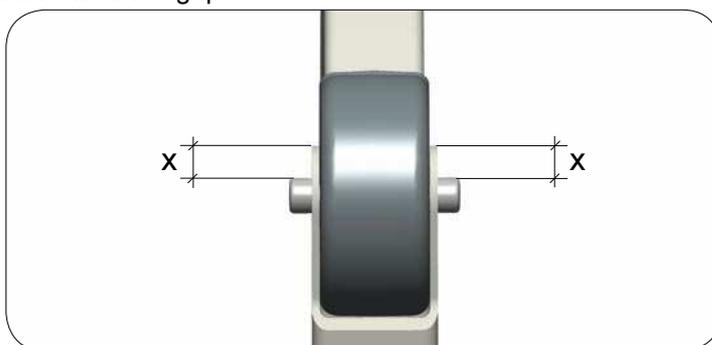
- Manually open and close legs at the front castors to measure wheel play. Base width wheel play should not exceed 35mm / 1,38 Inch total.

### 8 Locking handles

- Loosen & re tighten locking handles. Verify that threads are not damaged or binding.

### 9 Lift arm hardware and covers

- With the lift in it's lowest position, manually raise the lift arm. Verify that the shaft lowers and raises freely. If the arm is binding, the mounting screw is too tight.
- Inspect the plastic protective cover shells for cracks, deformation or gaps.
- Verify that the diameter of the holes in the mast, where the arm and mast is connected, is not bigger than 12 mm/0,47 inch, and the "ears" of the mast not is deformed, by measuring the distance from top of cover hat, to top of mast. The measure of length should be the same on each side ( $X=X$ ). Make sure there is no play in the arm.



### 10 Flexlink to arm hardware and covers

- With the slingbar hanging in it's lowest position, manually raise the slingbar and flexlink arm.
- Verify that the flexlink arm lowers and raises freely. If the flexlink is binding the screw is too tight.
- Inspect the plastic protective cover shells for cracks, deformation or gaps.

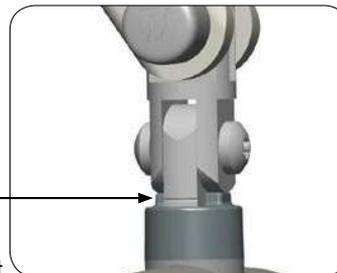
## Instructions for the check points

### 11 Flexlink to slingbar hardware and covers

- With the slingbar hanging in it's lowest position, manually pivot the slingbar side-to-side. Verify that the flexlink arm lowers and raises freely. If the flexlink is binding, the mounting screw is too tight.
- Verify that hardware covering plastic caps are secure.
- If no accessories is attached, verify that the slingbar is assembled directly to the flexlink.

### 12 Slingbar

- Inspect visually to ensure that the slingbar is free from any scratches, sharp edges or deformities.
- Check that the unit rotates freely on its bearings.
- Make sure the lower slingbolt has a mark, as the picture shows. If not, the slingbar must be replaced.
- Make sure that both safety latch clips are mounted and fall back against the body of the slingbar.



### 13 Mast actuator

- Verify that the upper and lower actuator fasteners to the mast are tight.
- Visual inspection of tubes, back fixture and piston rod eye.
- Check of abnormal noise.
- If the lift is equipped with Outer tube: Pull the Outer Tube to the top and bottom (with the lift arm in its highest position). Make sure the Outer Tube not get stuck in any position.

- Check of electric end stop

Prod. No. 2040003-2040005: By using test box 21090014 UK or 21090015 US

Prod. No. 2040013-2040015: Run the lift all the way up and down. Verify that the Indicator lamp for overload (orange light) not lights.

### 14 Battery and electrical cable installations

- Verify that all cables are properly inserted. Re-insert if uncertain.
- Make sure the charge cable hook is mounted at the mast.

Prod. No. 2040003-2040005: Verify battery charge (recharge battery or test with Prod. No. 2101100 Battery tester with diodes).

Prod. No. 2040013-2040015: Inspect that the cable cover is mounted correctly.

Verify battery charge. During charging the lights shall shine alternatively (orange, orange, green). Completed charging is indicated by a flashing green light.

### 15 Hand control

- With the emergency stop out, verify that all functions on the hand control are working.

Prod. No. 2040013-2040015: With the emergency stop out, verify that all functions on the operation panel are working.

### 16 Emergency Stop function

- Press in the emergency stop button. With the emergency stop pressed in, verify the lift does not operate with the hand control buttons.
- Turn the red emergency button in the direction of the arrows. Verify the button releases from the locked position into the raised, open position.

### 17 Emergency lowering device (only on Prod. No. 2040003-2040005)

- With the emergency stop out, verify that the electrical emergency-lowering device functions.

## Instructions for the check points

### 18 Control unit CBL20 (only on Prod. No. 2040013-2040015)

- With the Service unit, check that the correct current limit is programmed in CBL20:

	CLIM_1 Power limit for lifting motion (up)	CLIM_2 Power limit for widening motion (base-width adjustment)
<b>Viking M</b>	8,5 [A] (CBL20 version 0-3: 9,2 [A])	6 [A]
<b>Viking L</b>	6,4 [A]	6 [A]
<b>Viking XL</b>	8,0 [A]	6 [A]

- With the emergency stop out, verify the function of the electrical emergency-lowering device at the operation panel.

### 19 Max. load test

- Run the lift with maximum load, all the way up and down.

Max load	kg	lbs
<b>Viking M</b>	205	450
<b>Viking L</b>	250	550
<b>Viking XL</b>	300	660

- Run the base in and out with maximum load.

- Make sure all four wheels have contact with the floor.

- Listen for peculiar noises and vibrations.

### 20 Mechanical emergency lowering load test

- Raise with maximum load (see table above) and with (50 kg/110 lbs) until the arm is parallel to the ground.

Prod. No. 2040003-2040005, 2040015: Lift red emergency handle, on on the actuator, upwards and hold, verify that the load lowers.

Prod. No. 2040013-2040014: Manually turn the red actuator collar in the direction of the arrows to lower.

### 21 Armrest (accessory)

- Verify that both arms rotate freely and hang vertically when not in use.

- Rotate arms to raised position. Perform a load test of the armrest with (40 kg/88 lbs).

### 22 Documentation

- Instructions / Instruction guide

#### Prod No 2040013 - 2040015, Viking with intelligent control box:



Complete the inspection by clearing the service indication lights with the Service unit.





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# Viking XL, L, M Preventative Maintenance

Prod. No 2040003, 2040004, 2040005

### Customer Reference:

Lift type:
Prod No:
Serial No:
Prod. Year:

Contract No:
Name:
Address:
(Zip Code)

To ensure maximum life cycle, should Preventative Maintenance be carried out according to the table below. Inspection and service must be carried by Liko/HillRom authorized personnel. Instructions for check points, from the next page.

## Check points:

Base	Month	12	24	36	48	60	72	84	96	108	120
<input type="checkbox"/> 1a Surface treatment .....		<input type="checkbox"/>									
<input type="checkbox"/> 2 Front castors .....		<input type="checkbox"/>									
<input type="checkbox"/> 3 Rear castors / brakes .....		<input type="checkbox"/>									
<input type="checkbox"/> 4a Pivot bolts .....		<input type="checkbox"/>									
<input type="checkbox"/> 4b Base opening and closing linkage .....				<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>	
<b>Mast</b>											
<input type="checkbox"/> 1b Surface treatment .....		<input type="checkbox"/>									
<input type="checkbox"/> 5 Mast sections lift arm .....		<input type="checkbox"/>									
<input type="checkbox"/> 6 Flexlink.....		<input type="checkbox"/>									
<input type="checkbox"/> 7 Slingbar bolt.....		<input type="checkbox"/>									
<input type="checkbox"/> 8 Battery.....		<input type="checkbox"/>									

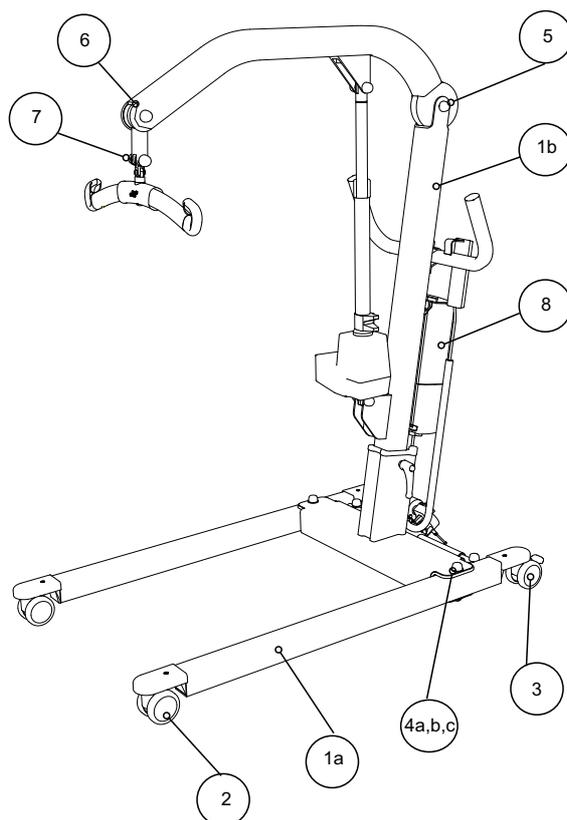
When maintenance is performed; mark specified square with "X"  
When part is replaced; mark specified square with "R"

**Lubricate with PTFE or silicon grease**

Interval/Month:

Date:

## Check points



### Instructions regarding the check points for

#### Viking XL, Viking L, Viking M

Prod No. 2040003, 2040004, 2040005

### 1 a&b Surface treatment



Viking M



Viking L



Viking XL

Visually inspect the mast and base for external damage or wear.

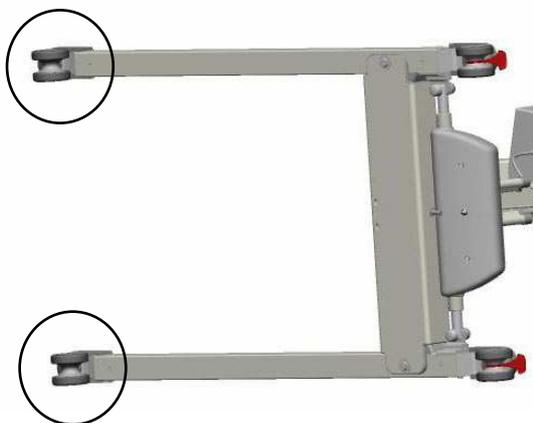
If needed, clean the patient lift with warm water or ethanol.

**Warning! Do not use chemicals containing phenol or chlorine, since the aluminium parts may be damaged.**

## Instructions regarding the check points for Viking XL, Viking L, Viking M

Prod No. 2040003, 2040004, 2040005

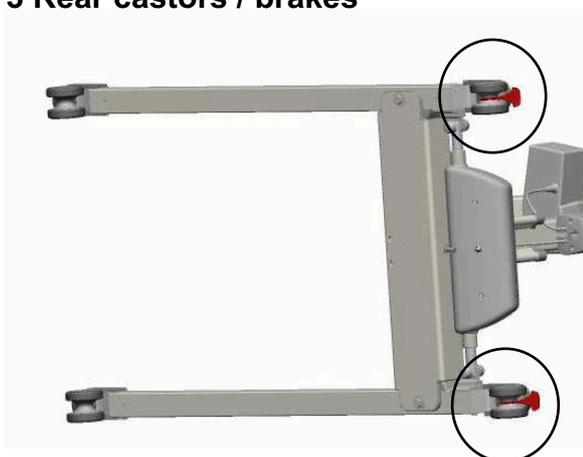
### 2 Front castors



Check and clean front castors. If wheels are in poor condition, replace them. (For Spare Part No, see the Service Manual.)

Prod No. 2040003, 2040004, 2040005

### 3 Rear castors / brakes

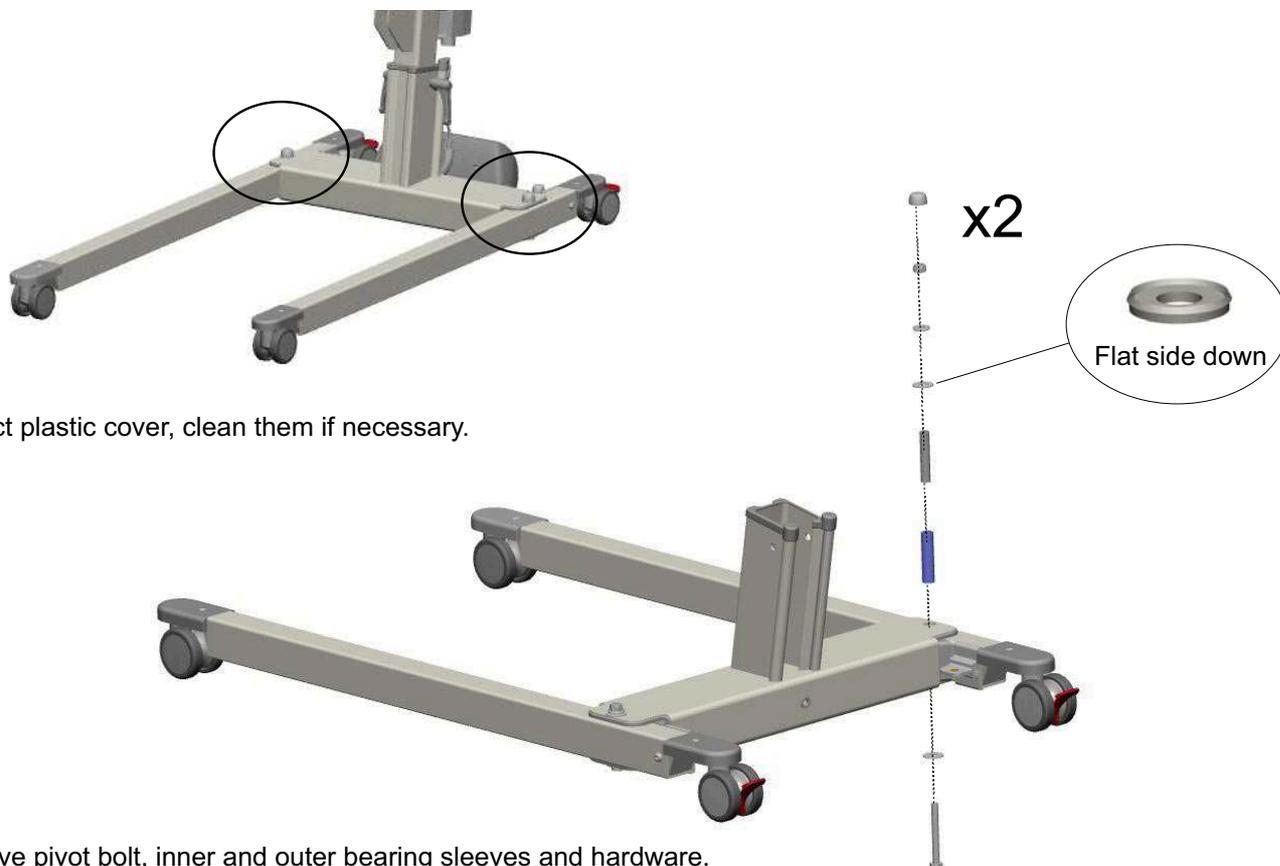


Check and clean front castors. If wheels are in poor condition, replace them.  
(For Spare Part No, see the Service Manual.)  
Check the brakes. They should lock in all directions.

## Instructions regarding the check points for Viking XL, Viking L, Viking M

Prod No. 2040003, 2040004, 2040005

### 4a Pivot bolts



Inspect plastic cover, clean them if necessary.

Remove pivot bolt, inner and outer bearing sleeves and hardware.  
Clean and lubricate pivot bolt, inner and outer bearing sleeves.

Prod No. 2040003, 2040004, 2040005

### 4b Base opening and closing linkage

Remove hardware covers from middle beam and actuator.

Remove leg from middle beam and actuator.

- (a) Remove pivot bolt, inner and outer bearing sleeves and hardware.
- (b) Remove link arm cover, bolt and nut.

Remove plastic covers and inspect middle beam edges for burrs. File smooth if required.



Clean and inspect the three pieces of plastic cover. Replace if cracked or deformed. (For Spare Part No, see the Service Manual.)

Clean, lubricate and reassemble pivot bolt, bearing sleeves and hardware.  
Tighten pivot bolt and apply plastic hardware covers.

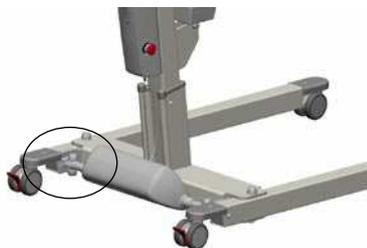
Reconnect actuator to link arm. Apply plastic hardware covers.

## Instructions regarding the check points for

### Viking XL, Viking L, Viking M

Prod No. 2040003, 2040004, 2040005

#### 4c Base motor linkage

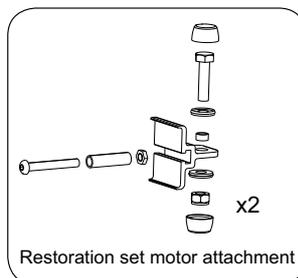


Remove link arm cover, bolt and nut.

Clean, lubricate and reassemble pivot bolt, bearing sleeves and hardware.

Inspect the legs at the linkage. If the linkage are in poor condition, replace them with Restoration set motor attachment.

(For Spare Part No, see the Service Manual.)



Reconnect actuator to link arm. Apply plastic hardware covers.

Prod No. 2040003, 2040004, 2040005

#### 5 Mast sections Lift arm

Remove hardware covers.

Remove and lubricate lift arm bolt.  
Visually inspect lift arm, plastic covers for wear, cracks or deformation.  
Reassemble in reverse order.

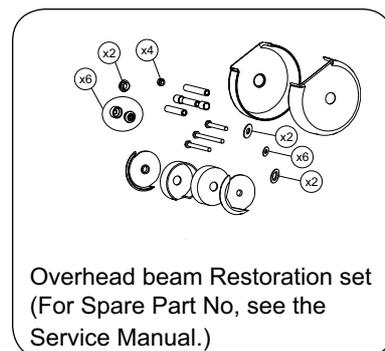


Raise the arm and then release, so that it falls to the lowest position.

If the arm does not fall to the lowest position, the screw is too tight.



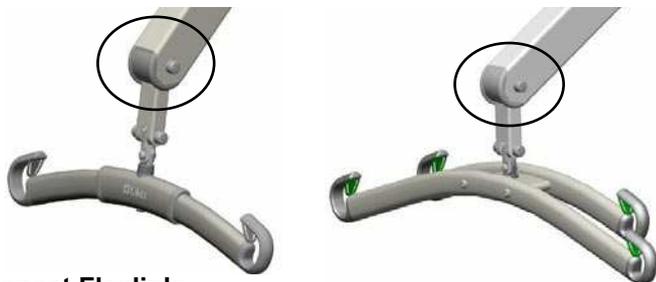
Remove and lubricate actuator hardware. Visually inspect actuator plastic bushings for wear. Replace if worn. Reassemble in reverse order.



## Instructions regarding the check points for Viking XL, Viking L, Viking M

Prod No. 2040003, 2040004, 2040005

### 6 Flexlink

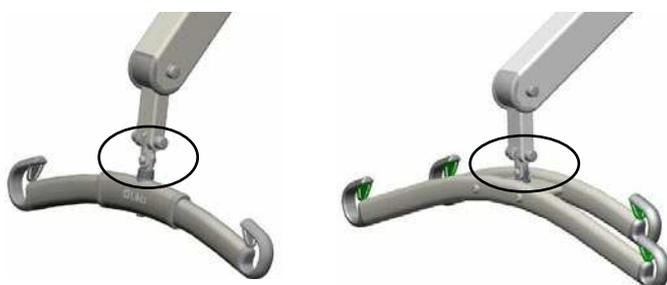


#### Inspect Flexlink:

1. Remove covers.
2. Remove, clean and lubricate flexlink. Inspect shell covers for cracks or gaps.
3. Pull out the Flexlink and check for wear. Re-assemble in reverse order.
4. Lift up the slingbar and then release, so that it falls to the lowest position. If the link does not fall to the lowest position, the screw is too tight.

Prod No. 2040003, 2040004, 2040005

### 7 Slingbar bolt



#### Inspect Slingbar bolt: (Universal SlingBar and Universal TwinBar)

1. Check slingbar bolt for wear.
2. Remove slingbar centerbolt and bearing, wipe of any dirty, dust or residue. (Universal Twinbar)

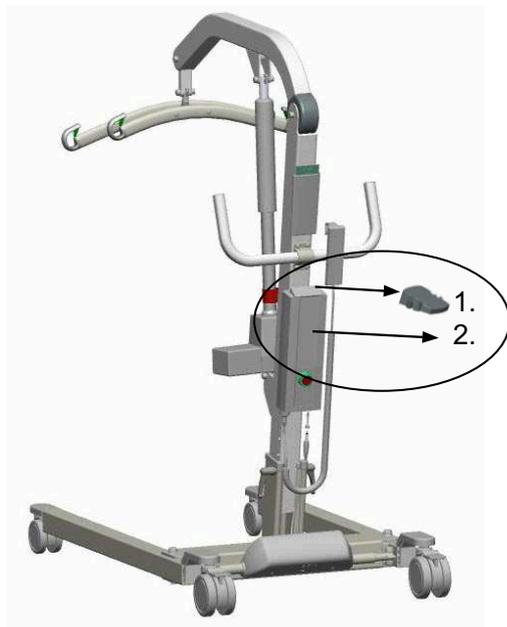


3. Reassemble in reverse order pivot slingbar centerbolt within the Flexlink. If the slingbar is binding, the screw is too tight.

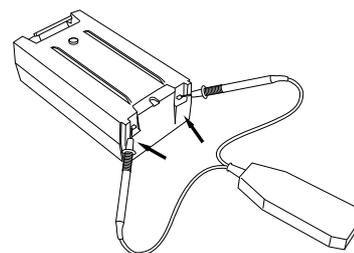
## Instructions regarding the check points for Viking XL, Viking L, Viking M

Prod No. 2040003, 2040004, 2040005

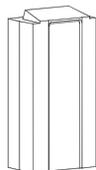
### 8 Battery



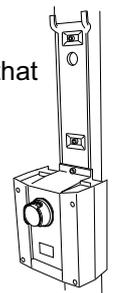
1. Remove the charger cable holder.
2. Remove the battery.
3. Inspect V-shaped metal contacts on the battery pack casing for uniformity. Check the battery with the battery tester Part. No. 2101100.



A signal should be audible for more than 5 sec. If not, replace battery with spare part 2006106.



4. Inspect V-shaped metal contacts on control box for uniformity. Verify that plastic housing for metal contacts is not damaged/deformed. Tighten screws.



5. Place the removable battery pack into position on top of the control box. Adjust until you hear a clicking sound.

***Recommended replacement every three years!***



# Preventative Maintenance



A Hill-Rom Company

Prod. No. 2040013 Viking XL  
2040014 Viking L  
2040015 Viking M

### Customer Reference:

Lift type:
Product No:
Serial No:
Prod. Year:

Contract No:
Name:
Address:
(Zip Code)

### Diagnostic system

TAAxT	Ah	AOLA	Charges		
PAAxT	Ah	AABT	Removals		
AAS	Starts	AEUP	EposUp		
ASERV	Times	AEDWN	EposDn		
IMED	mA	IDNR			
ALA	Charges	AOLUP	OverLoads	PAOLUP	OverLoads
AALA	Charges	PADT	Hours	AFSERV	Times

To ensure maximum life cycle, should Preventative Maintenance be carried out according to how much the lift is used (TAAxT), see the table below. Inspection and service must be carried by Liko/HillRom authorized personnel. Instructions for check points, from the next page.

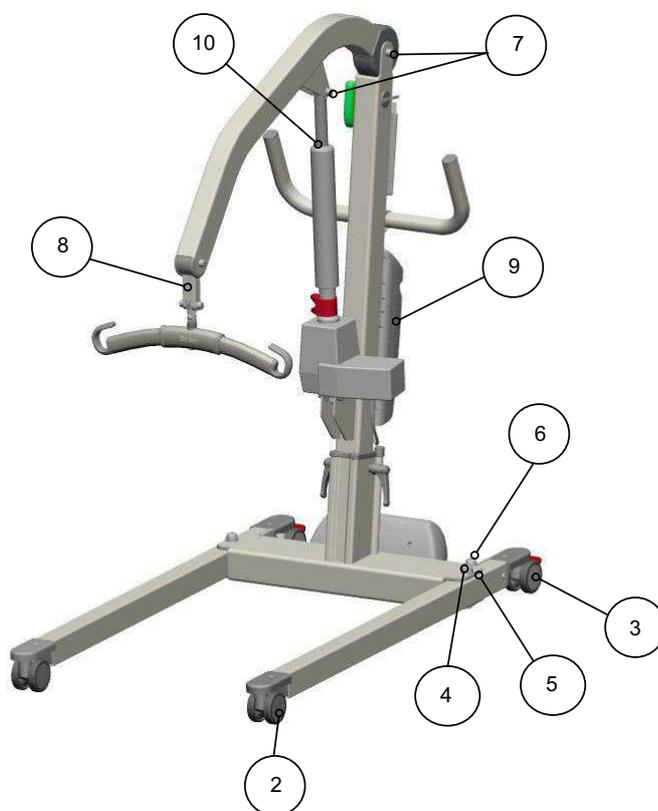
### Check points:

	Output (TAAxT) Ah:				(ELT)	
	Viking XL:	204	408	612	816	1020
	Viking L:	182	364	546	728	910
	Viking M:	140	280	420	560	700
<b>Base</b>						
1a Surface treatment .....	<input type="checkbox"/>					
2 Front castors .....	<input type="checkbox"/>					
3 Rear castors / brakes .....	<input type="checkbox"/>					
4 Pivot bolts .....	<input type="checkbox"/>					
5 Base opening and closing linkage .....	<input type="checkbox"/>					
6 Base motor linkage .....	<input type="checkbox"/>					
<b>Mast</b>						
1b Surface treatment.....	<input type="checkbox"/>					
7 Lift arm .....	<input type="checkbox"/>					
8 Flexlink / Lift arm joint / Slingbar bolt .....	<input type="checkbox"/>					
9 Battery.....	<input type="checkbox"/>					
10 Actuator.....	<input type="checkbox"/>					

**Lubricate with PTFE or silicon grease**

Date: \_\_\_\_\_ Serviced by: \_\_\_\_\_

## Check points



### Instructions regarding the check points

#### 1a&b Surface treatment



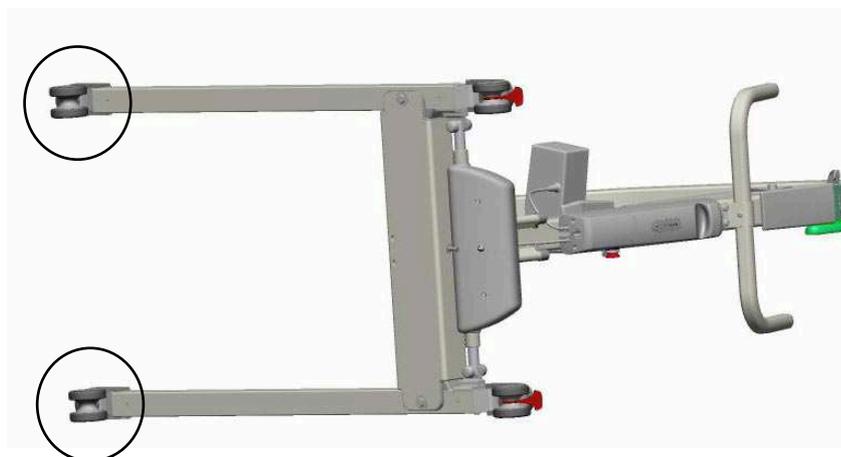
Visually inspect the lift for external damage or wear.

If needed, clean the patient lift with warm water or ethanol.

**Warning! Do not use chemicals containing phenol or chlorine, since the aluminium parts may be damaged.**

## Instructions regarding the check points

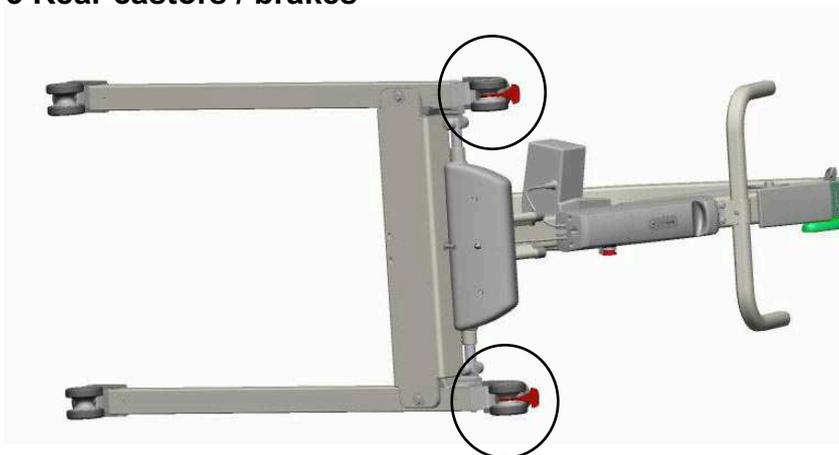
### 2 Front castors



Check and clean front castors. If wheels are in poor condition, replace them. (For Spare Part No, see the Service Manual.)

<b>Front castors needs to be replaced after:</b>	<b>Viking XL</b> 1020 Ah	<b>Viking L</b> 910 Ah	<b>Viking M</b> 700 Ah
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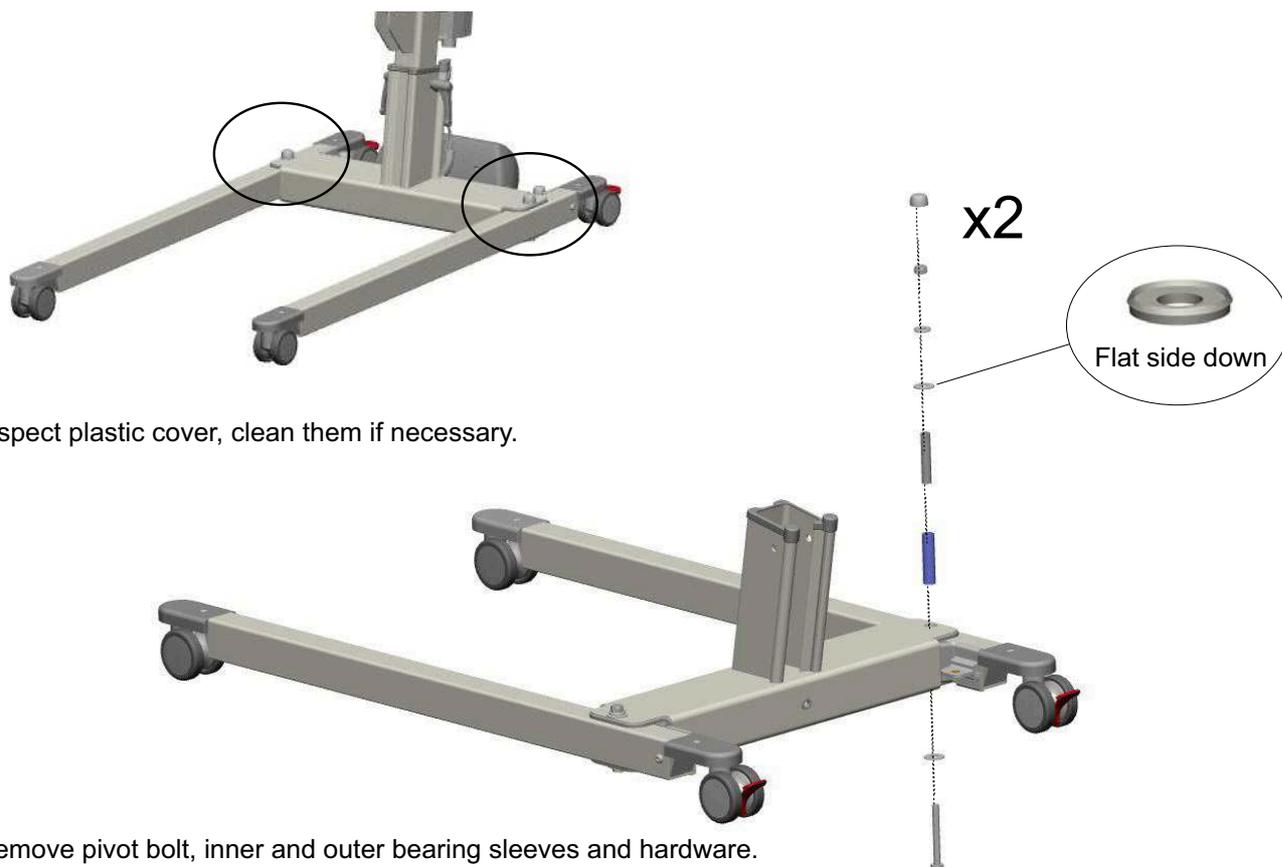
### 3 Rear castors / brakes



Check and clean front castors. If wheels are in poor condition, replace them.  
(For Spare Part No, see the Service Manual.)  
Check the brakes. They should lock in all directions.

<b>Rear castors needs to be replaced after:</b>	<b>Viking XL</b> 1020 Ah	<b>Viking L</b> 910 Ah	<b>Viking M</b> 700 Ah
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#### 4 Pivot bolts



Inspect plastic cover, clean them if necessary.

Remove pivot bolt, inner and outer bearing sleeves and hardware.  
Clean and lubricate pivot bolt, inner and outer bearing sleeves.

#### 5 Base opening and closing linkage

Remove hardware covers from middle beam and actuator.

Remove leg from middle beam and actuator.

- (a) Remove pivot bolt, inner and outer bearing sleeves and hardware.
- (b) Remove link arm cover, bolt and nut.

Remove plastic covers and inspect middle beam edges for burrs. File smooth if required.



Clean and inspect the three pieces of plastic cover. Replace if cracked or deformed. (For Spare Part No, see the Service Manual.)

Clean, lubricate and reassemble pivot bolt, bearing sleeves and hardware.  
Tighten pivot bolt and apply plastic hardware covers.

Reconnect actuator to link arm. Apply plastic hardware covers.

**Leg covers needs to be replaced after:**

**Viking XL**  
612 Ah

**Viking L**  
546 Ah

**Viking M**  
420 Ah

## Instructions regarding the check points

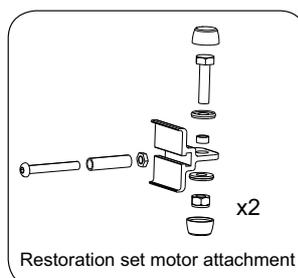
### 6 Base motor linkage



Remove link arm cover, bolt and nut.

Clean, lubricate and reassemble pivot bolt, bearing sleeves and hardware.

Inspect the legs at the linkage. If the linkage are in poor condition, replace them with Restoration set motor attachment.  
(For Spare Part No, see the Service Manual.)



Reconnect actuator to link arm. Apply plastic hardware covers.

### 7 Lift arm

Remove hardware covers.

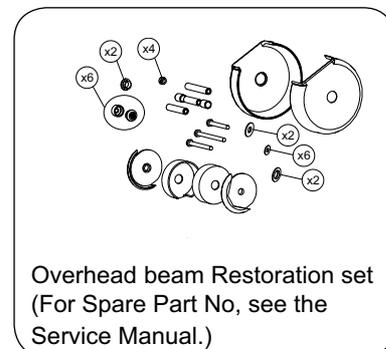
Remove and lubricate lift arm bolt.  
Visually inspect lift arm, plastic covers for wear, cracks or deformation.  
Reassemble in reverse order.

Raise the arm and then release, so that it falls to the lowest position.

If the arm does not fall to the lowest position, the screw is too tight.



Remove and lubricate actuator hardware. Visually inspect actuator plastic bushings for wear. Replace if worn. Reassemble in reverse order.



Overhead beam Restoration set  
(For Spare Part No, see the Service Manual.)

**Overhead beam Rest. set needs to be replaced after:**

**Viking XL**

**Viking L**

**Viking M**

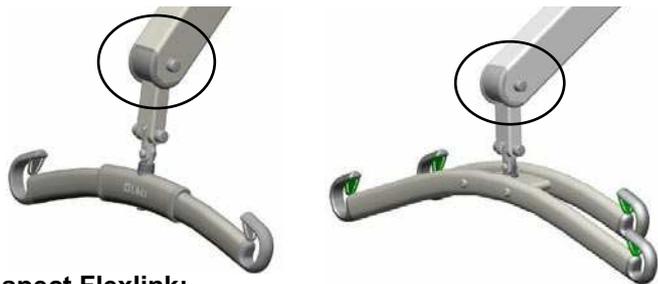
**1020 Ah**

**910 Ah**

**700 Ah**

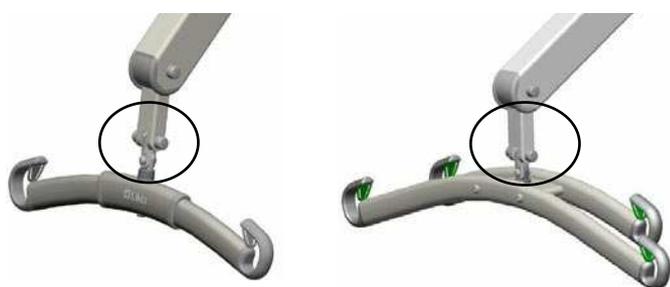
## Instructions regarding the check points

### 8 Flexlink / Lift arm joint / Slingbar bolt



#### Inspect Flexlink:

1. Remove covers.
2. Remove, clean and lubricate flexlink. Inspect shell covers for cracks or gaps.
3. Pull out the Flexlink and check for wear. Re-assemble in reverse order.
4. Lift up the slingbar and then release, so that it falls to the lowest position. If the link does not fall to the lowest position, the screw is too tight.



#### Inspect Slingbar bolt: (Universal SlingBar and Universal TwinBar)

1. Check slingbar bolt for wear.
2. Remove slingbar centerbolt and bearing, wipe of any dirty, dust or residue. (Universal Twinbar)



3. Reassemble in reverse order pivot slingbar centerbolt within the Flexlink. If the slingbar is binding, the screw is too tight.



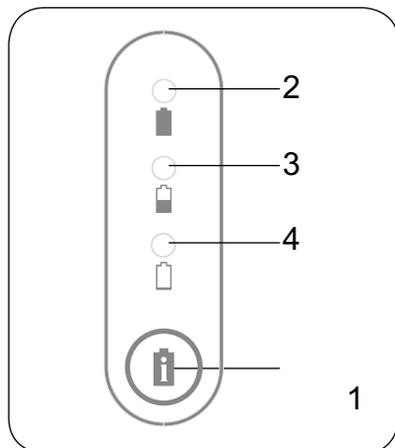
Flexlink needs to be replaced after:

**Viking XL**  
1020 Ah

**Viking L**  
910 Ah

**Viking M**  
700 Ah

## 9 Battery



### Battery capacity

Check battery capacity by pressing the i button (1).

The following information is displayed:

**2 – Green light:** More than 50% of battery capacity remaining.

**3 – Yellow light:** 25% -50% of battery capacity remaining.

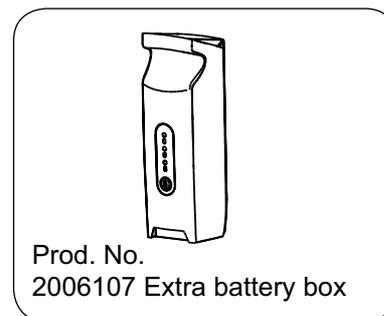
**4 – Yellow light:** 0% -25% of battery capacity remaining.

The indicator lamps light for about 30 seconds before switching off.

Battery capacity is also displayed during lift operation.

Maximum charge is reached after about 5 hours. When the batteries are fully charged, the charger switches automatically to maintenance charging.

The lamps blink alternately (yellow/yellow/green) during charging. A blinking green lamp indicates that charging is complete. When operating time is noticeably shorter than normal, the batteries should probably be replaced. Discontinue charging and replace the batteries with 2006107 Extra battery box.



	Viking XL	Viking L	Viking M
<b>Batteries needs to be replaced after:</b>	<b>408 Ah</b>	<b>364 Ah</b>	<b>280 Ah</b>
<b>and:</b>	<b>816 Ah</b>	<b>728 Ah</b>	<b>560 Ah</b>

## 10 Actuator

1. Visually inspect the actuator and the Outer tube (Outer Tube only on Viking M) for wear, cracks or deformation.

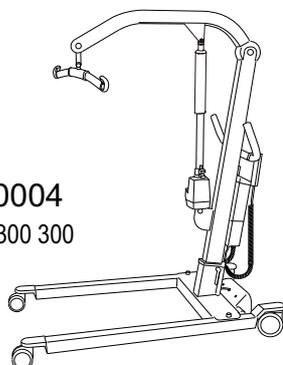
2. Replace the actuator after 700 Ah. (For Spare Part No, see the Service Manual.)



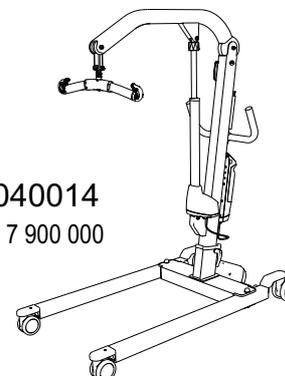
	Viking XL	Viking L	Viking M
<b>Actuator needs to be replaced after:</b>	<b>1020 Ah</b>	<b>910 Ah</b>	<b>700 Ah</b>

## Product changes

Prod. No. 2040004, 2040014  
2010-xx-xx



Prod. No. 2040004  
S/N. 7 200 201 - 7 300 300



Prod. No. 2040014  
S/N. 7 800 001 - 7 900 000

Changes	Model 2040014 S/N	Model 2040004 S/N	Project
<b>2010</b>			
New model Prod. No. 2040014 with intelligent control unit and IR hand control.	7 800 001		934
<b>2008</b>			
4 mm shorter middle beam. Link attachment for base motor adjusted.		7 202 000	671
<b>2007</b>			
Outer tube on actuator, and washers in pivot points.		7 201 500	520
New arm and friction washers at link Viking L introduces.		7 200 795	EFR715
Old safety latch back.		7 200 690	619
New safety latch composite.		7 200 664	
<b>2006</b>			
Flourflon grease inside of outer leg casing.		7 200 637	
Hook composite with safety latch composite.		7 200 591	467
Actuator Viking XL replaces actuator Viking L.		7 200 586	
Keeps the actuator, Viking XL has different actuator.		7 200 511	432
901890122 Screw M6S M10x40 GL=15 mm change to 930000040 screw M6S M10x40.		7 200 488	
New pivot points between arm-Mast, actuator-arm, Mast-actuator, arm- link and link-slingbar.		7 200 488	
New arm. Same as Viking XL, different hole.		7 200 483	
<b>2005</b>			
New screw thread on bolts M6S M10x80 och M6S M10x65.		7 200 483	
New length on mast.		7 200 483	
New diagonal profile inside the Middle Beam.		7 200 476	
New locking handles.		7 200 431	
Emergency guard for control box.		7 200 431	
<b>2004</b>			
New Slingbar "Universal Slingbar 450".		7 200 387	
Viking L delivered with the old Slingbar Standard 450.		7 200 285	

