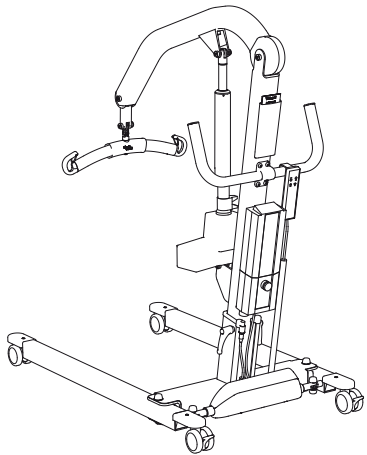


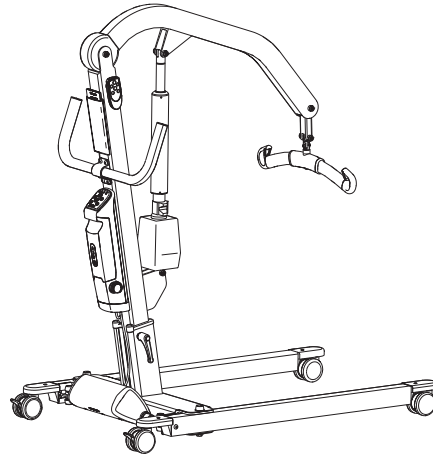
# Viking™ M

mobile lift

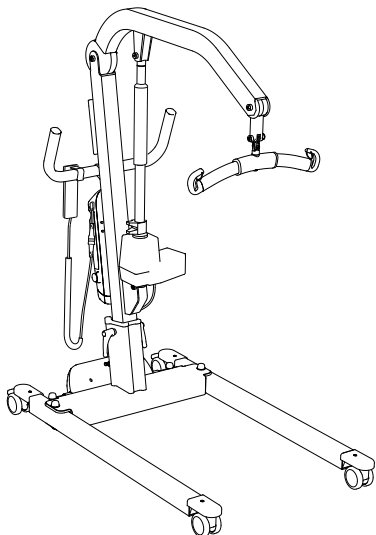
## Service Manual



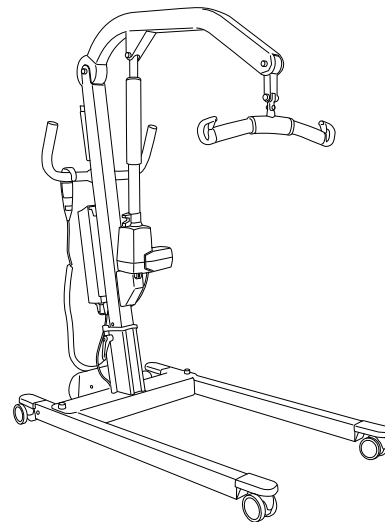
Prod. No. 2040005  
S/N 7 100 101-7 200 200  
*DISCONTINUED 2012*




Prod. No. 2040015  
S/N 7 500 401 - 7 600 500  
*DISCONTINUED 2016*



Prod. No. 2040035  
S/N 9 200 001 - 9 300 000  
*DISCONTINUED 2016*



Prod. No. 2040045  
S/N 9 400 001 -

 *In this document, this warning symbol indicates that special care should be taken. If instructions are not followed there is a risk of serious injury to patient or caregiver.*

**Spare part statement**

Liko AB will as a manufacturer of overhead & mobile lifts keep spare parts available for 10 years after the last manufacturing date of the product.  
Spare parts are available in the spare parts list or in the Service Manual for each model of lift.  
*Components (manufacturing parts) are not available after last manufacturing date.*

Repairs and maintenance may only be performed by personnel authorized by Hill-Rom and using original Liko™ spare parts.  
For information regarding Service and Maintenance education, contact your Hill-Rom representative.  
For contact information please visit our website: [www.hill-rom.com](http://www.hill-rom.com) | [www.liko.com](http://www.liko.com)

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# 1.1 Technical Data Viking™ M mobile lift, 2040005

**Lifting speed:** 3.5 cm/s (1.4 inch./s) without load

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

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

**Motor (mast):** 24 V, 9.2 A, permanent magnetic motor with mechanical safety mechanism and safety nut.

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


**Material:** Aluminium


**Emergency lowering:** Mechanical and electrical


**Wheels:** Front: 75 mm twin castor wheels. Rear: 75 mm brake-equipped twin castor wheels.

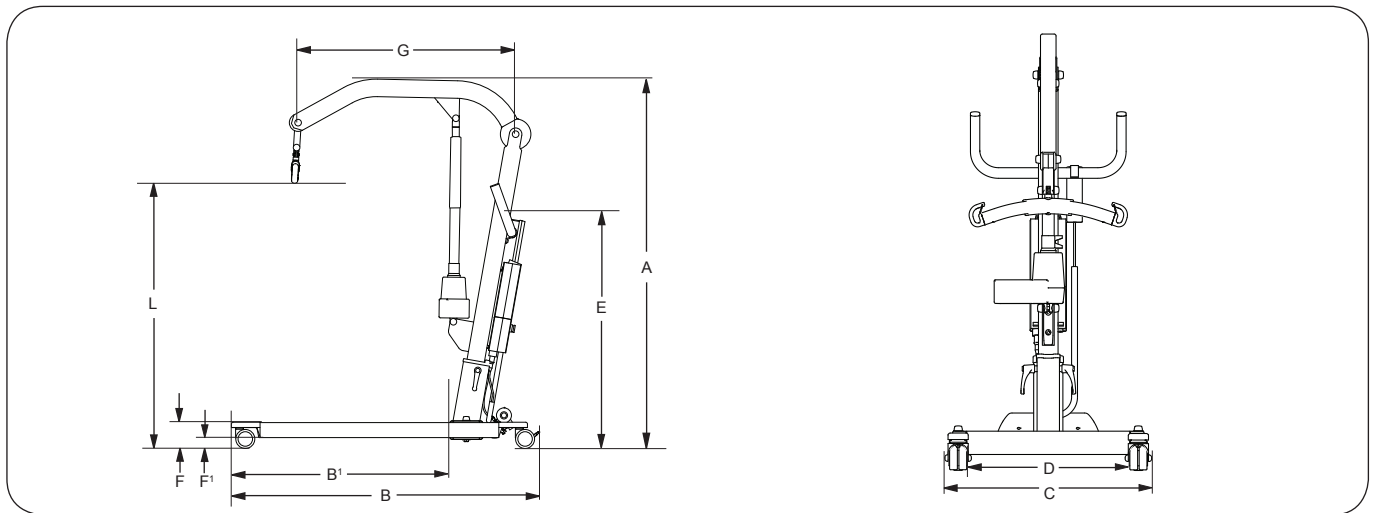
**Intermittent operation:** Int. Op 10/90, active operation max 2 min. Out of a time of 100, active must be less than 10, though not more than 2 min.

**Degree of protection:** IP 43

 Built for indoor operation.

 Type B, according to the degree of protection against electrical shock.

 Class II equipment.



Viking M	Max. load	L* Max.	L* Min.	A* Max.	A* Min.	B	B'	C	D	E*	F	F'	G	Weight Total	Weight Part	Turning diameter
A:	205	179 174 169	52 47 42	202 197 192	144 139 134	123	87	69-111	56-97	100 105 110	10,5	4,5	88	35	18	140
B:	450	70 69 67	21 19 17	80 78 76	57 55 53	49	34	27-44	22-38	39 41 43	4.1	1.6	35	77	40	55

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




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

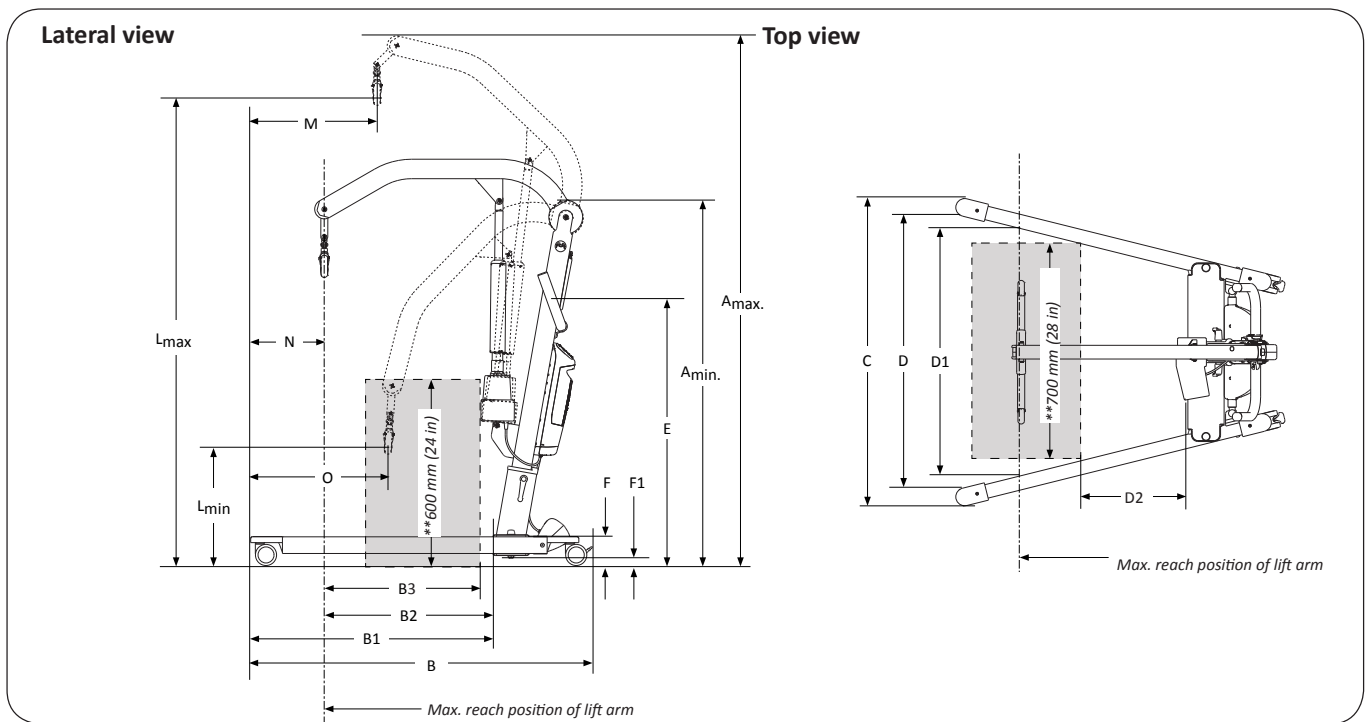
\* These measures depend on in which hole the mast is levelled and secured.

# 1.2 Technical Data Viking™ M mobile lift, 2040015

**Maximum load:** 205 kg (450 lbs)  
**Material:** Aluminium  
**Weight:** *Total weight:* 34.0 kg (75 lbs)      *Heaviest part:* 15.3 kg (34 lbs)  
**Wheels:** Front: 75 mm (3 inch.) twin wheels.  
Rear: 75 mm (3 inch.) twin wheels with brakes.  
**Turning diameter:** 1400 mm (55.2 in)  
**Em. Lowering:** Manual and electrical  
**Lifting interval:** 1270 mm (50.0 in)  
**Lifting Speed (no load):** 42 mm/s and 38 mm/s, respectively  
(1.7 in/s and 1.5 in/s, respectively)  
**Sound Level:** 46 dB(A)  
**Protection Class:** IP 54  
**Op. Forces of Controls:** HandControl: 4 N  
Operation Panel: 4 N  
**HandControl IR** Batteries: 2 AAA LR03 1.5 V.  
Reach: 2 m (80 in)

**Electrical Data:** 24 V  
**Intermittent operation:** Int. Op 10/90, active operation max 2 min. Only 10% of a given length of time may be active, yet no more than 2 min.  
**Batteries:** NiMH cells, 2.2 Ah. New batteries provided by the supplier.  
**Battery Charger:** CBL20001, built-in, 100-240 V AC, 50-60 Hz, max 600 mA.  
**Lift Motor:** Permanent magnet motor with mechanical safety mechanism; 24 V, 8.5 A  
**Motor for base-width adjustment:** 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.



Measurement in mm

A <sub>max</sub> *	A <sub>min</sub> *	B	B1	B2	B3***	C		D		D2**	E*	F	F1	L <sub>max</sub> *	L <sub>min</sub> *	M	N	O
						max.	min.	max.	min.									
2020	1440	1230	870	660	650	1110	690	970	560	195	1100	105	30	1790	520	385	220	495
1970	1390				650						1050			1740	470			
1920	1340				595						1000			1690	420			

Measurement in inch.




A <sub>max</sub> *	A <sub>min</sub> *	B	B1	B2	B3***	C		D		D2**	E*	F	F1	L <sub>max</sub> *	L <sub>min</sub> *	M	N	O
						max.	min.	max.	min.									
79.5	56.7	48.4	34.3	26.0	25.6	43.3	27.2	38.2	22.0	7.7	43.3	4.2	1.2	70.5	20.5	15.2	8.7	19.5
77.6	54.7				25.6						41.4			68.5	18.5			
75.6	52.8				23.4						39.4			66.5	16.5			

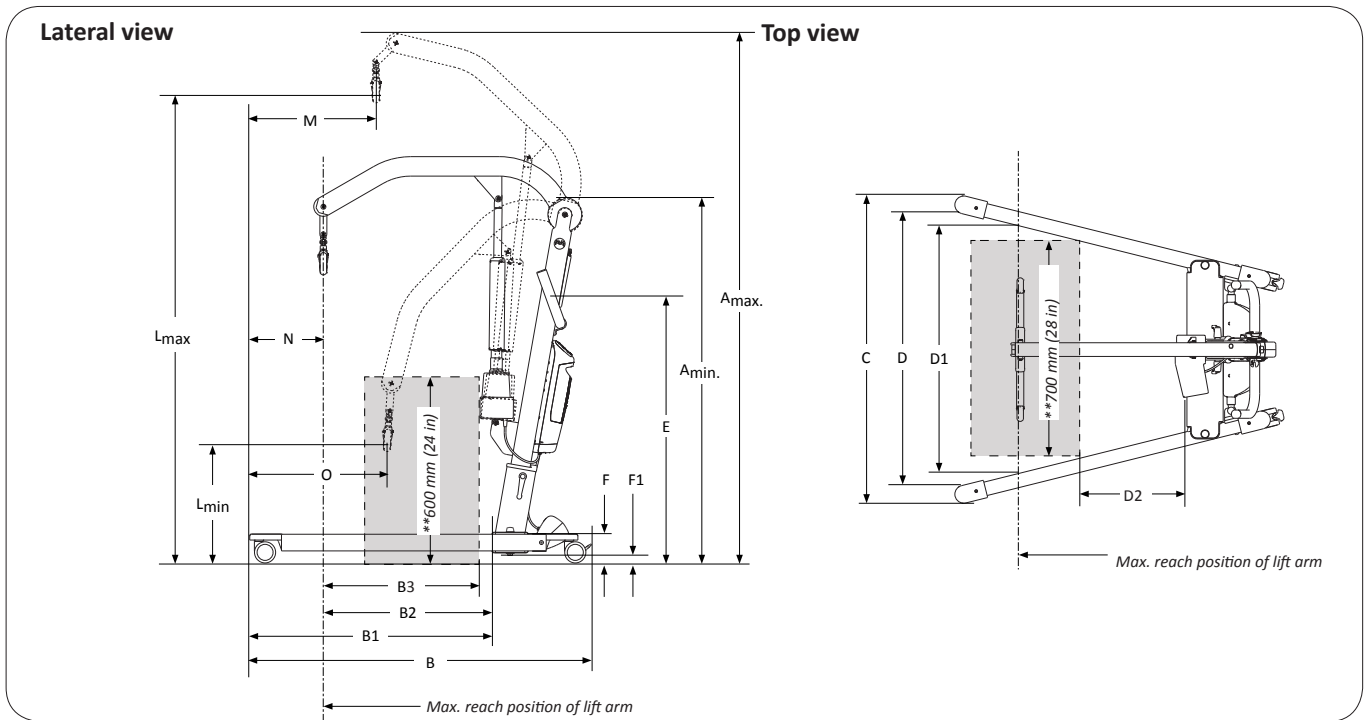
Note: The measurements are based on the lift being equipped with standard sling bar and standard wheels. When changing to other lifting accessories, or other wheels, check that the lift still achieves desired lifting height.

\* Different measurements apply to Viking M lift depending on the height-setting position, se  
\*\* Reference measurement according to Standard EN ISO 10535:2006.

# 1.3 Technical Data Viking™ M mobile lift, 2040035

<b>Maximum load:</b>	205 kg (450 lbs)	<b>Operating Forces of Controls:</b>	HandControl: 2.4 N Operation Panel: 4 N
<b>Material:</b>	Aluminium	<b>Electrical data:</b>	24 V
<b>Weight:</b>	Total weight: 30,2 kg (66.6 lbs) Heaviest part: 15,8 kg (34.8 lbs)	<b>Intermittent power:</b>	Int. Op 10/90, active operation max 2 min. Only 10% of a given length of time may be active, but no more than 2 min.
<b>Wheels:</b>	Front: 75 mm (3 inch.) twin wheels Rear: 75 mm (3 inch.) twin wheels with brakes	<b>Batteries:</b>	NiMH cells, 2.2 Ah. New batteries provided by the supplier.
<b>Turning diameter</b>	1400 mm (55.2 in)	<b>Battery charger:</b>	CBL20002, built-in, 100-240 V AC, 50-60 Hz, max 600 mA.
<b>Emergency lowering device:</b>	Mechanical and electrical	<b>Lift motor:</b>	Permanent magnet motor with mechanical safety mechanism 24 V, 8.5 A
<b>Lifting interval:</b>	1270 mm (50.0 in)	<b>Motor for base-width adjustment:</b>	Permanent magnet motor 24 V, 6 A
<b>Lifting speed (no load)</b>	42 mm/s and 38 mm/s, respectively (1.7 in/s and 1.5 in/s, respectively)		
<b>Sound level:</b>	46 dB(A)		
<b>Protection class:</b>	IP 54		

-  The device is intended for use indoors
-  Type B, in accordance with the electrical shock protection class.
-  Class II equipment.



Measurement in mm

A <sub>max</sub> *	A <sub>min</sub> *	B	B1	B2	B3***	C		D		D2**	E*	F	F1	L <sub>max</sub> *	L <sub>min</sub> *	M	N	O
						max.	min.	max.	min.									
2020	1440	1230	870	660	650	1110	690	970	560	195	1100	105	30	1790	520	385	220	495
1970	1390				650						1050			1740	470			
1920	1340				595						1000			1690	420			

Measurement in inch.

A <sub>max</sub> *	A <sub>min</sub> *	B	B1	B2	B3***	C		D		D2**	E*	F	F1	L <sub>max</sub> *	L <sub>min</sub> *	M	N	O
						max.	min.	max.	min.									
79.5	56.7	48.4	34.3	26.0	25.6	43.3	27.2	38.2	22.0	7.7	43.3	4.2	1.2	70.5	20.5	15.2	8.7	19.5
77.6	54.7				25.6						41.4			68.5	18.5			
75.6	52.8				23.4						39.4			66.5	16.5			

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.




\* Different measurements apply to Viking M lift depending on the height-setting position, se

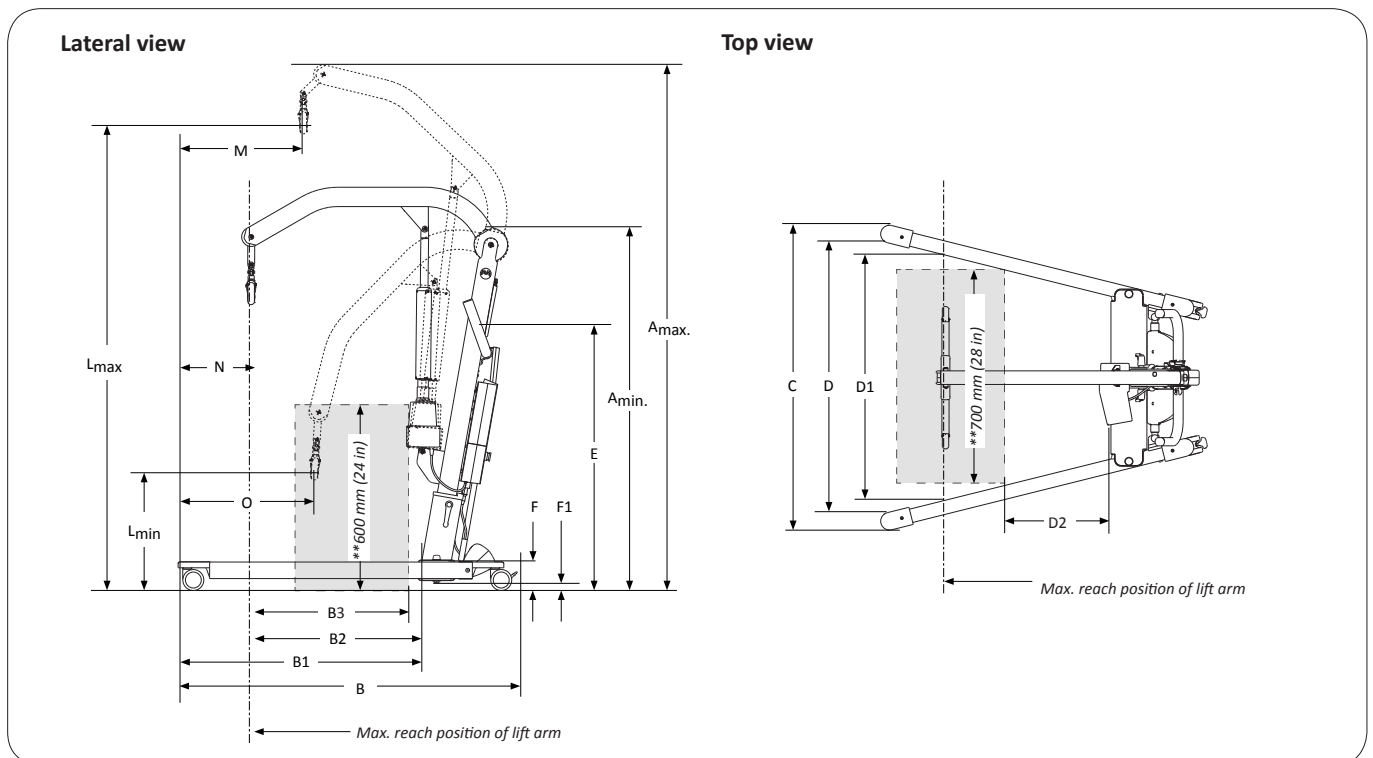
\*\* Reference measurement according to Standard EN ISO 10535:2006.

# 1.4 Technical Data Viking™ M mobile lift, 2040045

**Maximum load:** 205 kg (450 lbs.)  
**Material:** Aluminium  
**Total weight:** 30 kg (66 lbs.) excl battery  
**Weight of heaviest part:** 15.2 kg (33.5 lbs.)  
**Wheels:** Front: 75 mm (3 inch) twin wheels  
Rear: 75 mm (3 inch) twin wheels with brake.  
**Turning diameter:** 1400 mm (55.2 inch)  
**Emergency lowering device:** Mechanical and electrical  
**Lifting interval:** 1270 mm (50.0 inch)  
**Lifting speed (no load)** 36 mm/s (1.4 inch/s)  
**Sound level:** 46 dB(A)  
**Protection class:** IP X4  
**Operating Forces of Controls:** Handcontrol: 5 N  
**Electrical data:** 24 V  
**Intermittent power:** Int. Op 10/90, active operation max 2 min. Only 10% of a given length of time may be active, but no more than 2 min.

**Batteries:** *Lead-acid gel, valve-regulated battery*  
- 24 V, 2.9 Ah Prod. No. 2006106  
Weight 2.8 kg (6.2 lbs.).  
*Li-ION battery*  
- 25.6 V, 2.25 Ah Prod. No. 2006109  
Weight 1 kg (2.2 lbs.)  
**Battery charger:** Internal charger,, 100-240 V AC, 50-60 Hz, max 400 mA.  
**Lift motor:** Permanent magnet motor with mechanical safety mechanism  
24 V, 10.5 A  
**Motor for base-width adjustment:** Permanent magnet motor  
24 V, 6 A  
**Surrounding functional environment:** Temperature: +10°C to +40°C,  
Humidity: 20% to 90% at 30°C non-condensing, Air pressure: 800HPa to 1060HPa, Altitude: max. 2000m.

-  The device is intended for use indoors
-  Type B, in accordance with the electrical shock protection class.
-  Class II equipment.



Viking M														Measurements: mm / inch				
Amax.*	Amin.*	B	B1	B2	B3***	C		D		D2**	E*	F	F1	Lmax*	Lmin*	M	N	O
						max.	min.	max.	min.									
2020	1440				650						1100			1790	520			
1970	1390	1230	870	660	650	1110	690	970	560	195	1050	105	30	1740	470	385	220	495
1920	1340				595						1000			1690	420			
79.5	56.7				25.6						43.3			70.5	20.5			
77.6	54.7	48.4	34.3	26.0	25.6	43.3	27.2	38.2	22.0	7.7	41.4	4.2	1.2	68.5	18.5	15.2	8.7	19.5
75.6	52.8				23.4						39.4			66.5	16.5			

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

\* Different measurements apply to Viking M lift depending on the height-setting position, see "Assembly".  
\*\* Reference measurement according to Standard EN ISO 10535:2006.

## 2.1 Troubleshooting Viking™ M mobile lift, 2040005

***The lift do not work up/down.***

***The base-width adjustment does not work (in/out).***



1. Check that the emergency stop button is not pushed in.
2. Check that the cables are connected correctly.
3. Check that the charging cable is not connected to the wall socket.
4. Check that the battery is charged.
5. Check that the contact plates on the battery pack are not defected or broken.
5. *If the lift still does not work satisfactorily, contact Hill-Rom.*

***Battery charging does not work.***



1. Check that the emergency stop button is not pushed in.
2. Check that the contact plates on the battery pack are not defected or broken.
3. *If the lift still does not work satisfactorily, contact Hill-Rom.*

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



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

***If you hear unusual sound from the lift.***



Contact Hill-Rom.



## 2.2 Troubleshooting Viking™ M mobile lift, 2040015

***The lift do not work up/down with the Hand Control IR***

***The base-width adjustment doesn't work (in/out) with the Hand Control 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 problem persists, please contact 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 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 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 Hill-Rom.*

***If you hear unusual sound from the lift.***




*Contact Hill-Rom.*

## 2.3 Troubleshooting Viking™ M mobile lift, 2040035


***The lift doesn't work up/down with Hand Control.***

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


- 
1. Check that the emergency stop button has not been pressed.
  2. Check the battery capacity.
  3. Check that the charger cable is not connected to an electric outlet.
  4. Check that the hand control cable is correctly connected.
  5. If the lift works via the operation panel, change the Hand Control.
  6. *If the problem persists, please contact 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. Check that the emergency stop button has not been pressed.
  2. Check 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. *If the problem persists, please contact Hill-Rom.*

***The charger doesn't work.***

- 
1. Check that the emergency stop button has not been pressed.
  2. Check that the charger cables are connected correctly.
  3. Make sure that the battery is properly attached.
  4. *If the problem persists, please contact Hill-Rom.*

***The lift is stuck in the high position.***

- 
1. Check that the emergency stop button has not been pressed.
  2. Check the battery capacity.
  3. Check that the hand control cable is connected correctly.
  4. Electrical emergency lowering, use the operation panel to lower the patient onto a firm surface.
  5. Use the mechanical emergency lowering device to lower the patient onto a firm surface.
  6. *If the problem persists, please contact Hill-Rom.*

***If you hear unusual sounds.***



Contact Hill-Rom.

## 2.4 Troubleshooting Viking™ M mobile lift, 2040045

***The lift do not work up/down with Hand Control.***

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



1. Make sure that the emergency stop button has not been activated (shall not be pressed in).
2. Check the battery capacity.  
Check if the Li-ION battery has been set in to sleep mode, see chapter "Operation".
3. Make sure that the battery is properly seated in the control box.
4. Check that the charger cable is not connected to an electric outlet.
5. Check that the handcontrol cable is correctly connected to the control box.
6. Check that the lift arm actuator cable is correctly connected to the control box.
7. Check that the base width actuator cable is correctly connected to the control box.
8. *If the problem persists, please contact Hill-Rom.*

***The charger doesn't work.***



1. Check that the charger cables are connected correctly.
2. Make sure that the battery is properly seated in the control box.
3. Try an alternative mains outlet.
4. *If the problem persists, please contact Hill-Rom.*

***The lift is stuck in the high position.***



1. Make sure that the emergency stop button has not been activated (shall not be pressed in).
2. Make sure that the battery is properly seated in the control box.
3. Check the battery capacity.  
Check if the Li-ION battery has been set in to sleep mode, see chapter "Operation".
4. Check that the handcontrol cable is connected correctly.
5. Electrical emergency lowering, use the operation panel to lower the patient onto a firm surface, see chapter; Operation.
6. Use the mechanical emergency lowering device to lower the patient onto a firm surface, see chapter; Operation.
7. *If the problem persists, please contact Hill-Rom.*

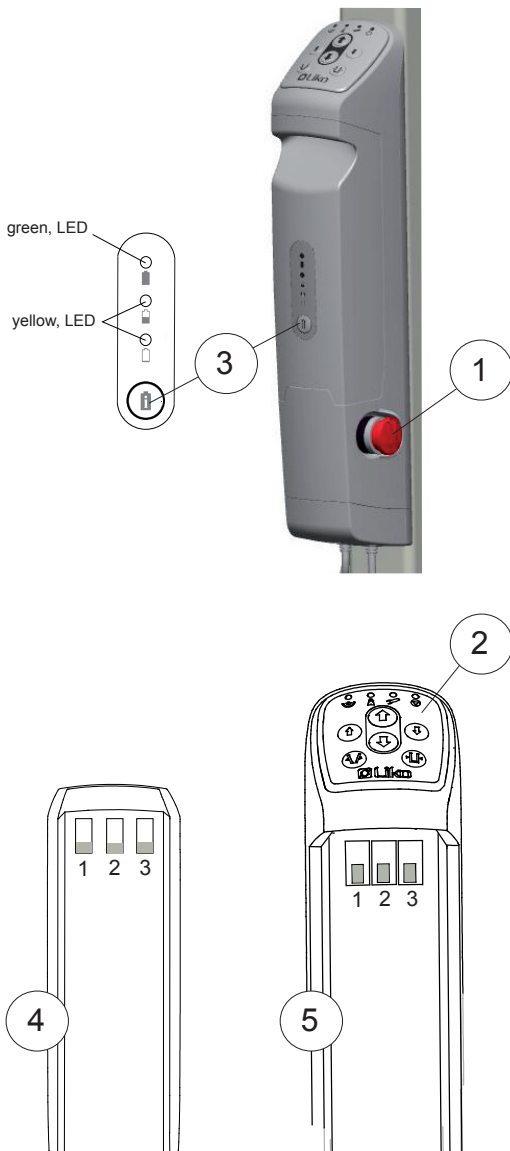
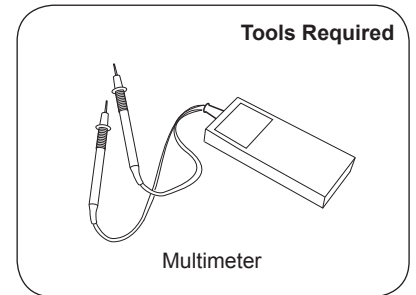
***If you hear unusual sound from the lift.***



Contact Hill-Rom.

## 2.5 Trouble Shooting CBL 20

**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:

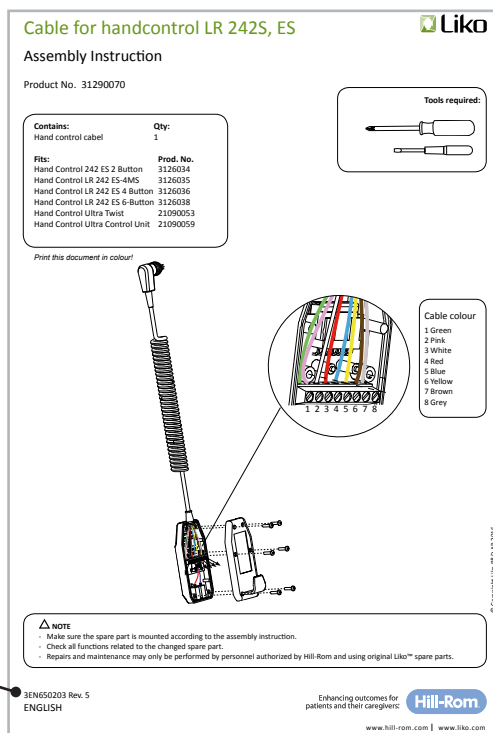
- **The liftarms up/down function or base width in/out function doesn't work?**
  - a) Change position on actuator and base motor cables.
  - b) Perform step 2 and see if fault is on output channel or motors.
- **The control panel function's on controlbox is ok, but the hand control has no function?**
  - 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.

## 3.0 Spare Parts Assembly Information

# INFORMATION

Assembly Instructions to Liko™ spare parts are attached with the products. The assembly instructions are also available in Agile and on the Partner Web. Document number to spare parts assembly instructions can be found in the spare parts list.

Document Number



### △ NOTE

- Always 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 Hill-Rom and using original Liko™ spare parts.

Liko technical documentation can be found under “My information” - “Documents” on the Partnerweb: <https://partner.liko.com/> If you don't have access, contact Ann-Christin Sundström for registration: E-mail: [ann-christin.sundstrom@hill-rom.com](mailto:ann-christin.sundstrom@hill-rom.com), Tel: +46 (0)920 - 47 47 10

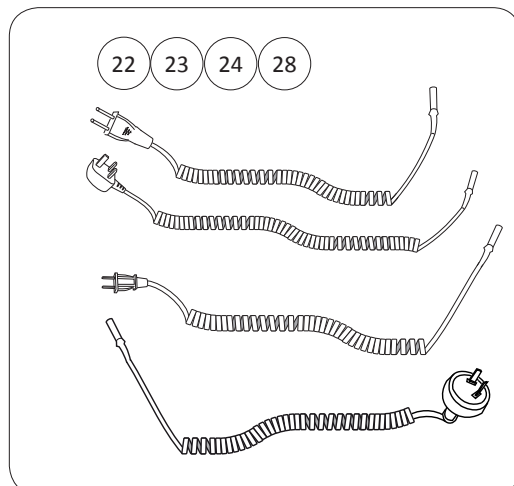
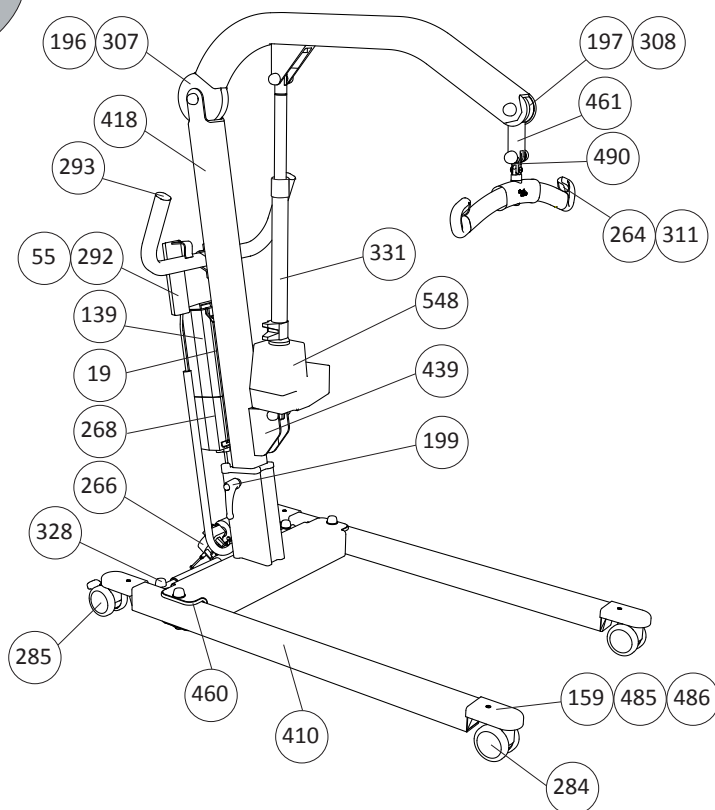
## 4.1 Spare Parts List, Viking™ M mobile lift, 2040005

### Spare Parts Positions Viking™ M mobile lift

PROD. NO.	PRODUCT
2040005	Viking M (Discontinued 2013) (S/N 7 100 101 - 7 200 200)

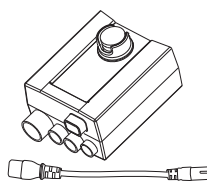

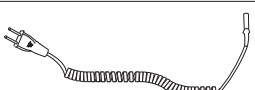
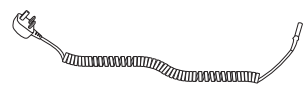
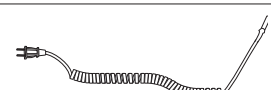
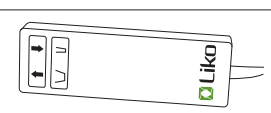
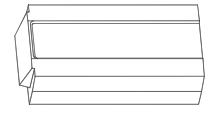
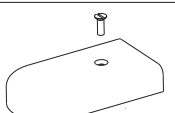
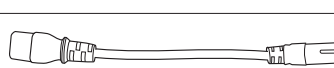
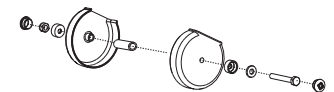
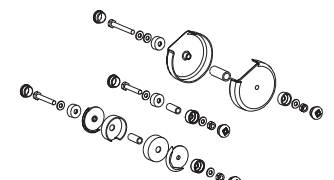
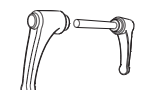
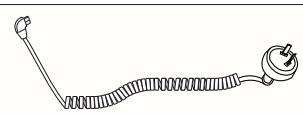




There are four models of Viking™ M mobile lift; Prod. No. 2040005, 2040015, 2040035 and 2040045. One spare parts list for each model. Make sure to order correct spare part.



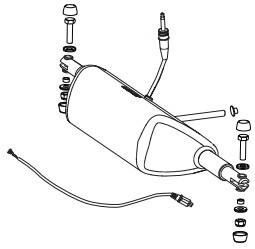




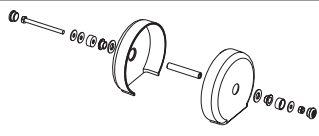
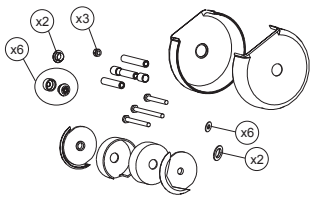

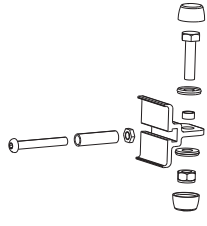
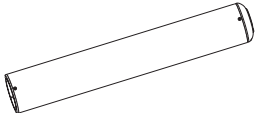
## 4.1 Spare Parts List, Viking™ M mobile lift, 2040005

### Viking™ M mobile lift, 2040005

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20490013	268	Control Box Viking M S/N 7100101-7200200	pce		3SE630223
20490013US	268	Control Box Viking M , US S/N 7100101-7200200 only for the US-market			
20090023	19	Attachment for Control Box	pce		3EN630238
20090026	22	Cable for charging EU	pce		3EN630237
20090027	23	Cable for charging UK	pce		
20090028	24	Cable for charging US	pce		
20190017	55	Hand control EE 4 buttons	pce		3SE630204
2006106	139	Extra Battery	pce		3EN630224
20390006	159	Fork Cover	pair		183916
21090001	160	Extension Cable	pce		3EN630225
20490007	196	Lift Arm Plastic Cover to S/N 7106200	set		3SE630240
20490008	197	Restoration set Overhead beam to S/N 7106200	set		3SE630228
20490010	199	Locking handle Viking XL	pair		3SE630244
20090050	248	Cable for Charging AU/NZ	pce		3EN630237
21090011	263	Extension Cable US	pce		3EN630218
31590011	264	Latch Universal SlingBar	pair		3SE630229

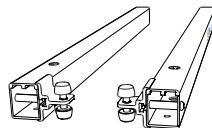
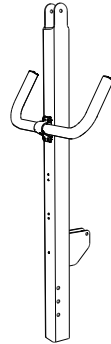
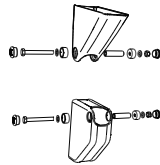

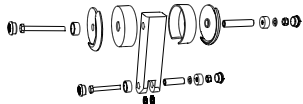
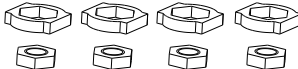
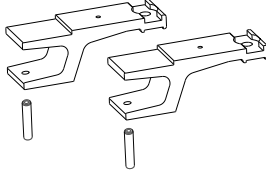
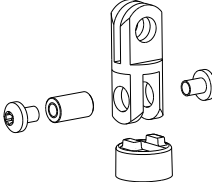
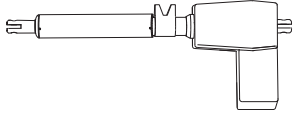
## 4.1 Spare Parts List, Viking™ M mobile lift, 2040005

### Viking™ M mobile lift, 2040005

PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.
20490011	266	Base Motor Viking M, L <i>(Viking M 2040005 up to S/N 7107499 also need spare part 20490028, Pos 328)</i>	pce	 3EN630296
20490014	284	Front Wheel 75 mm Standard from S/N 7102064	pce	 182904
20490015	285	Rear Wheel 75 mm Standard from S/N 7102064	pce	 182903
20090058	292	Hook for Hand control 2,4,6	pce	 3SE630210
20090066	293	End Cover Handle/Arm Support grey, 4 pce	set	 3SE630271
20490023	307	Lift Arm Plastic Cover from S/N 7106201	set	 3EN630250
20490024	308	Overhead Beam Rest. set from S/N 7106201	set	 3EN630251
31590014	311	Latch, composite <i>Fits Universal SlingBar from S/N 1299511</i>	pair	 3SE640242
20490028	328	Restoration set motor attachment	set	 3SE640258
20490030	331	Outer Tube	set	 3SE640260



## Viking™ M mobile lift, 2040005

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20490036	410	Viking M Legs <i>from S/N 7100308</i>	pair		3SE650259
20490038	418	Mast Viking M <i>including handle and motor attachment</i>	set		3EN650269
20490040	439	Bracket Cover	set		3SE650273
20490048	460	Leg Cover	set		3EN650294
20490049	461	Flexlink	set		3SE650295
20090080	485	Fork locking attachment, 4 pair	set		3SE690208
20090081	486	Wheel Fork	pair		3SE690209
20490052	490	SlingBar Assembly set	set		3SE690210
20490064	548	Actuator LA34 CBJ	pce		3EN690277

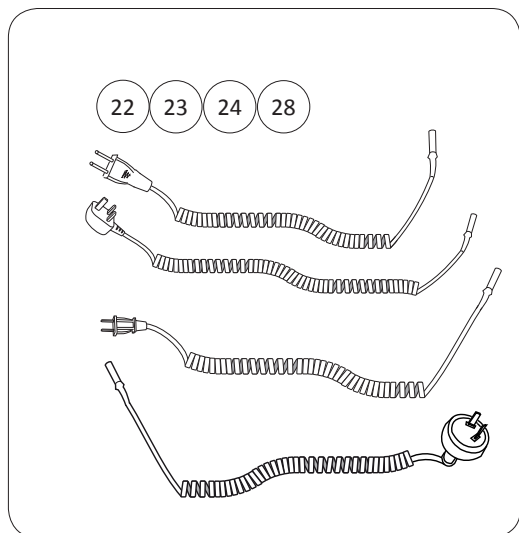
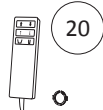
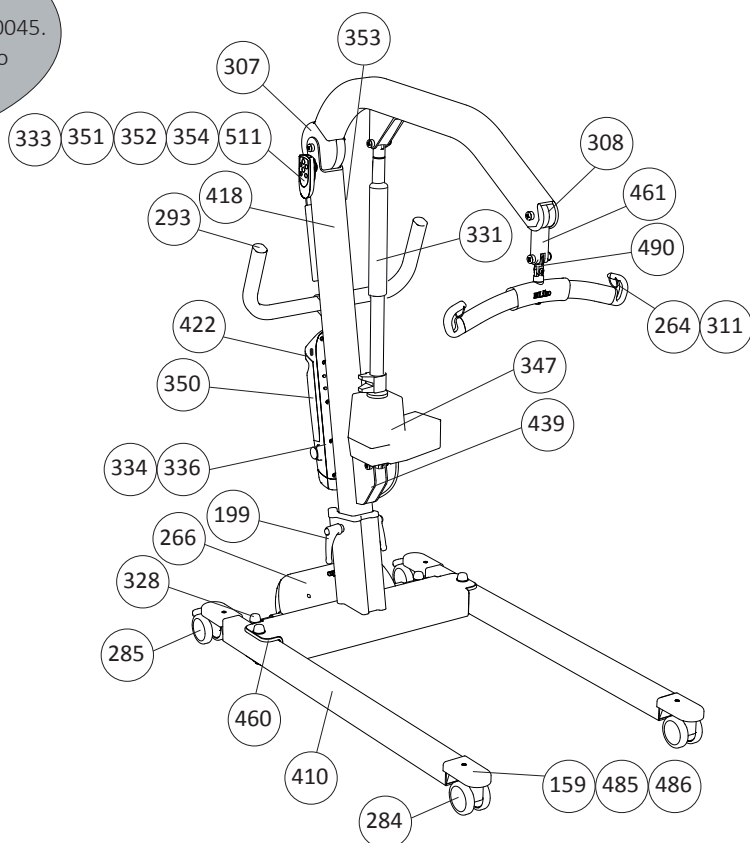
## 4.2 Spare Parts List, Viking™ M mobile lift, 2040015

### Spare Parts Positions Viking™ M mobile lift

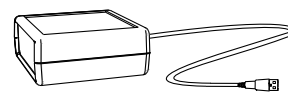
PROD. NO.	PRODUCT
2040015	Viking M (CBL control box) <i>(Discontinued 2016)</i> (S/N 7 500 401 - 7 600 500)



There are four models of Viking™ M mobile lift; Prod. No. 2040005, 2040015, 2040035 and 2040045. One spare parts list for each model. Make sure to order correct spare part.





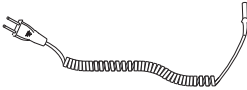


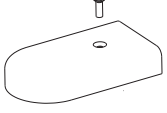
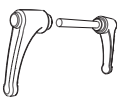
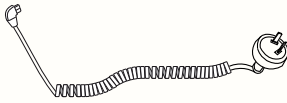
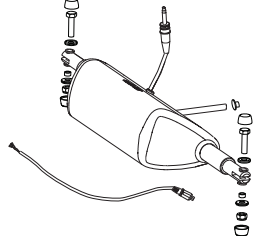
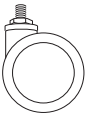

#### Service Tool



Liko™ Service System


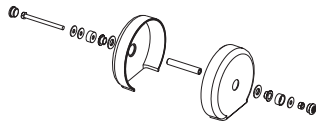
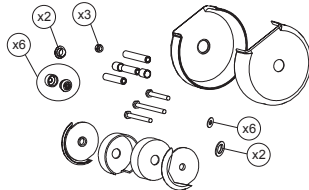

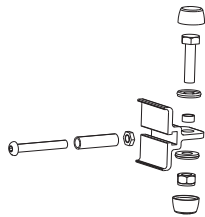
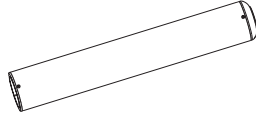
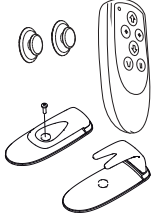
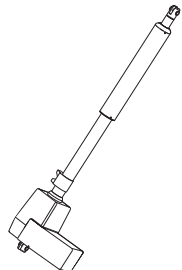



## 4.2 Spare Parts List, Viking™ M mobile lift, 2040015

### Viking™ M mobile lift, 2040015

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20490032	334	Control Unit CBL, Viking M <i>Before use; requires Software and, needs to be programmed with Liko™ Service System, Prod. No. 21090024</i>	pce		3SE640299
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 Hill-Rom/Liko™ Alvik, Sweden</i>	pce		3SE650270
20090026	22	Cable for charging EU	pce		3EN630237
20090027	23	Cable for charging UK	pce		
20090028	24	Cable for charging US	pce		
20390006	159	Fork Cover	pair		183916
20490010	199	Locking handle Viking XL	pair		3SE630244
20090050	248	Cable for Charging AU/NZ	pce		3EN630237
20490011	266	Base Motor Viking M, L <i>(Viking M 2040005 up to S/N 7107499 also need spare part 20490028, Pos 328)</i>	pce		3EN630296
20490014	284	Front Wheel 75 mm Standard <i>from S/N 7102064</i>	pce		182904
20490015	285	Rear Wheel 75 mm Standard <i>from S/N 7102064</i>	pce		182903





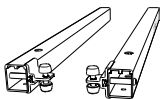
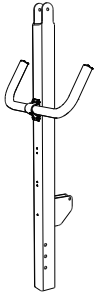

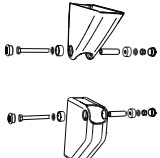
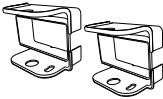
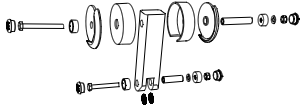
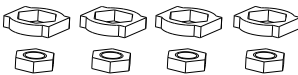
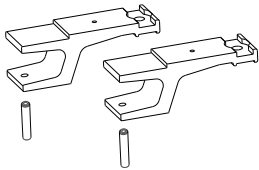
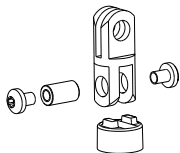
## 4.2 Spare Parts List, Viking™ M mobile lift, 2040015

### Viking™ M mobile lift, 2040015

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20090066	293	End Cover Handle/Arm Support grey, 4 pce	set		3SE630271
20490023	307	Lift Arm Plastic Cover <i>from S/N 7106201</i>	set		3EN630250
20490024	308	Overhead Beam Rest. set <i>from S/N 7106201</i>	set		3EN630251
31590014	311	Latch, composite <i>Fits Universal SlingBar from S/N 1299511</i>	pair		3SE640242
20490028	328	Restoration set motor attachment	set		3SE640258
20490030	331	Outer Tube	set		3SE640260
20490031	333	Wireless hand control HBL20	set		3SE640298
20490033	347	Actuator Vi M	pce		3EN650214
21090018	348	Extension cable CBL20	pce		3SE650216
21090019	349	Extension cable CBL 20 US,	pce		3SE650216
2006107	350	Extra battery box	pce		7EN137106 Instruction Guide

## 4.2 Spare Parts List, Viking™ M mobile lift, 2040015

### Viking™ M mobile lift, 2040015

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
21090020	351	Beltclip HBL20	pair		3SE650217
21090021	352	Clips with hook HBL20	pair		3SE650218
21090022	353	Charge cable hook , 10 pce	set		3SE650219
21090023	354	Hand control hanger, 10 pce	set		3SE650220
20490036	410	Viking M Legs <i>from S/N 7100308</i>	pair		3SE650259
20490038	418	Mast Viking M <i>including handle and motor attachment</i>	set		3EN650269
20090077	422	Locking device CBL20, 10 pce	set		3SE640217
20490040	439	Bracket Cover	set		3SE650273
20490048	460	Leg Cover	set		3EN650294
20490049	461	Flexlink	set		3SE650295
20090080	485	Fork locking attachment, 4 pair	set		3SE690208
20090081	486	Wheel Fork	pair		3SE690209
20490052	490	SlingBar Assembly set	set		3SE690210

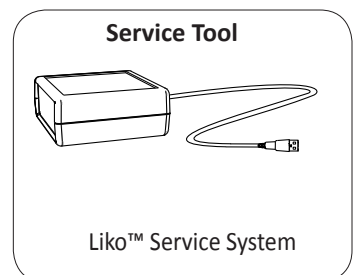
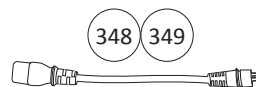
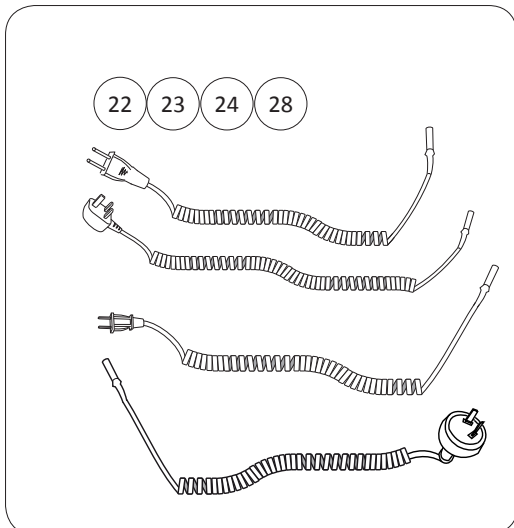
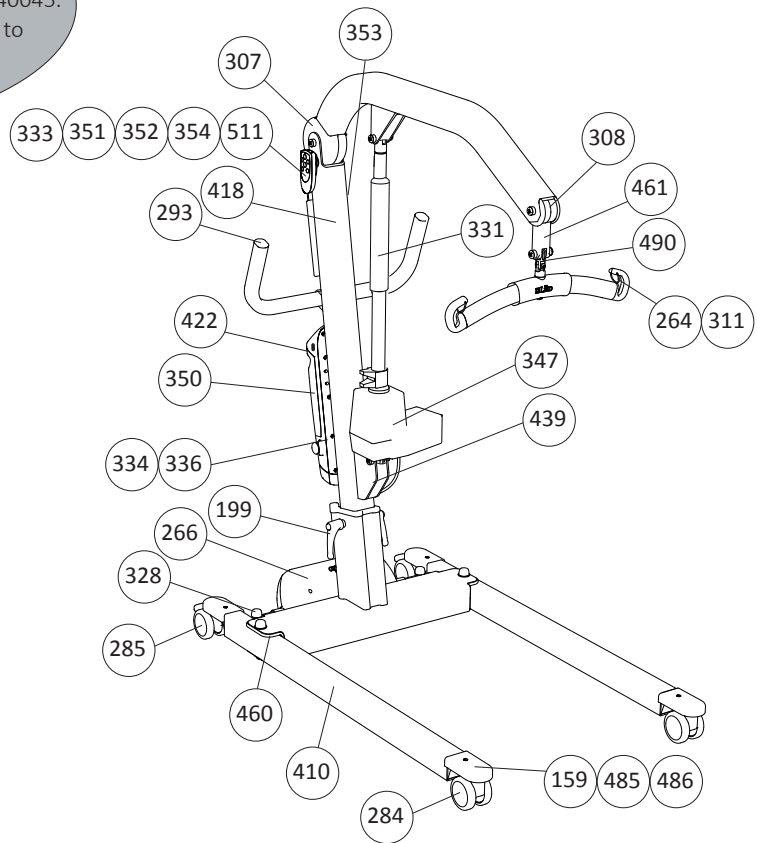
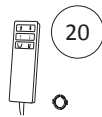
## 4.3 Spare Parts List, Viking™ M mobile lift, 2040035

### Spare Parts Positions Viking™ M mobile lift

PROD. NO.	PRODUCT
2040035	Viking M (CBL control box and cable hand control) <i>(Discontinued 2016)</i> (S/N 9 200 001 - 9 300 000)

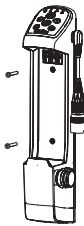
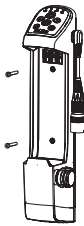
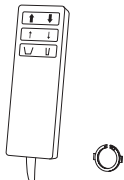

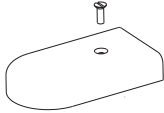
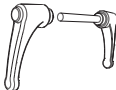

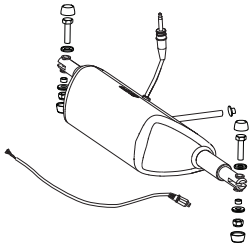




There are four models of Viking™ M mobile lift; Prod. No. 2040005, 2040015, 2040035 and 2040045. One spare parts list for each model. Make sure to order correct spare part.





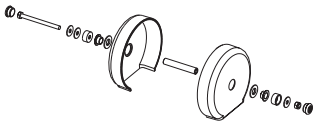
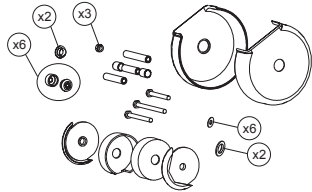

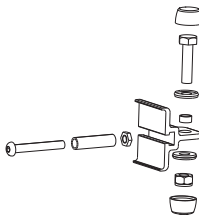
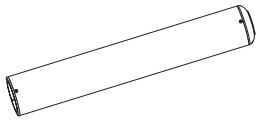
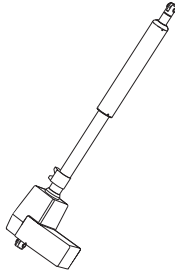


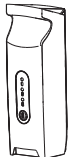
## 4.3 Spare Parts List, Viking™ M mobile lift, 2040035

### Viking™ M mobile lift, 2040035

PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.	
20490053	334C	Control Unit CBL Viking M, Cable <i>Before use; requires Software and, needs to be programmed with Liko™ Service System, Prod. No. 21090024</i>	pce	 3SE690226	
20490054	336C	Control Unit CBL by S/N, Cable <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 Hill-Rom/Liko™ Alvik, Sweden</i>	pce	 3SE690227	
20090089	20	Hand control 6-Button	pce	 3SE690232	
20090026	22	Cable for charging EU	pce		3SE630237
20090027	23	Cable for charging UK			
20090028	24	Cable for charging US			
20390006	159	Fork Cover	pair	 183916	
20490010	199	Locking handle Viking XL	pair	 3SE630244	
20090050	248	Cable for Charging AU/NZ	pce	 3EN630237	
20490011	266	Base Motor Viking M, L <i>(Viking M 2040005 up to S/N 7107499 also need spare part 20490028, Pos 328)</i>	pce	 3EN630296	
20490014	284	Front Wheel 75 mm Standard <i>from S/N 7102064</i>	pce	 182904	
20490015	285	Rear Wheel 75 mm Standard <i>from S/N 7102064</i>	pce	 182903	

## 4.3 Spare Parts List, Viking™ M mobile lift, 2040035


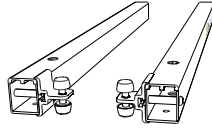
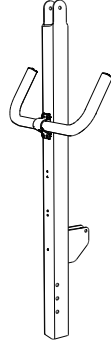

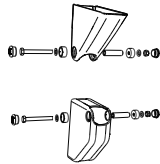
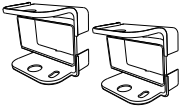
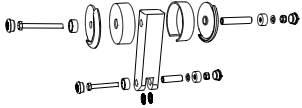
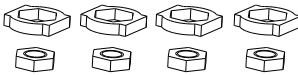
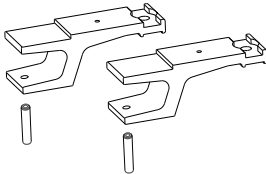
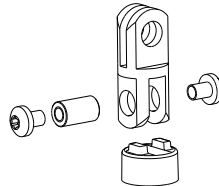
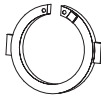
### Viking™ M mobile lift, 2040035

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20090058	292	Hook for Hand control 2,4,6	pce		3SE630210
20090066	293	End Cover Handle/Arm Support grey, 4 pce	set		3SE630271
20490023	307	Lift Arm Plastic Cover <i>from S/N 7106201</i>	set		3EN630250
20490024	308	Overhead Beam Rest. set <i>from S/N 7106201</i>	set		3EN630251
31590014	311	Latch, composite <i>Fits Universal SlingBar from S/N 1299511</i>	pair		3SE640242
20490028	328	Restoration set motor attachment	set		3SE640258
20490030	331	Outer Tube	set		3SE640260
20490033	347	Actuator Vi M	pce		3EN650214
21090018	348	Extension cable CBL20	pce		3SE650216
21090019	349	Extension cable CBL 20 US,	pce		3SE650216
2006107	350	Extra battery box	pce		7EN137106 Instruction Guide



## 4.3 Spare Parts List, Viking™ M mobile lift, 2040035

### Viking™ M mobile lift, 2040035

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
21090022	353	Charge cable hook , 10 pce	set		3SE650219
20490036	410	Viking M Legs <i>from S/N 7100308</i>	pair		3SE650259
20490038	418	Mast Viking M <i>including handle and motor attachment</i>	set		3EN650269
20090077	422	Locking device CBL20, 10 pce	set		3SE640217
20490040	439	Bracket Cover	set		3SE650273
20490048	460	Leg Cover	set		3EN650294
20490049	461	Flexlink	set		3SE650295
20090080	485	Fork locking attachment, 4 pair	set		3SE690208
20090081	486	Wheel Fork	pair		3SE690209
20490052	490	SlingBar Assembly set	set		3SE690210
20490057	511	Locking Ring CBL, 10 pce	set		3SE690231

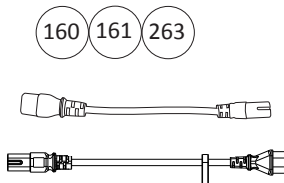
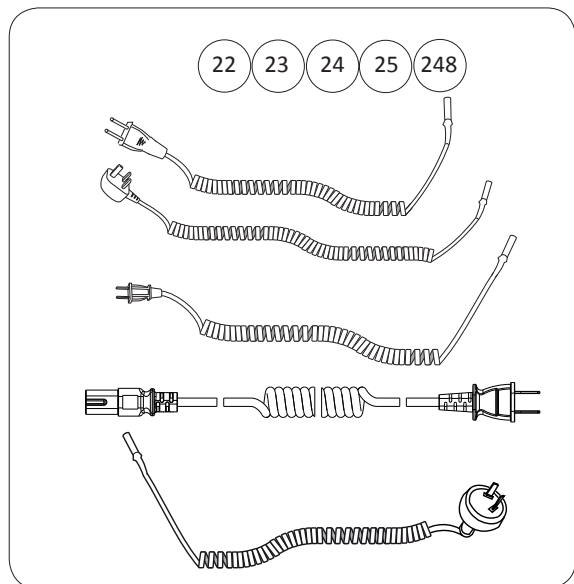
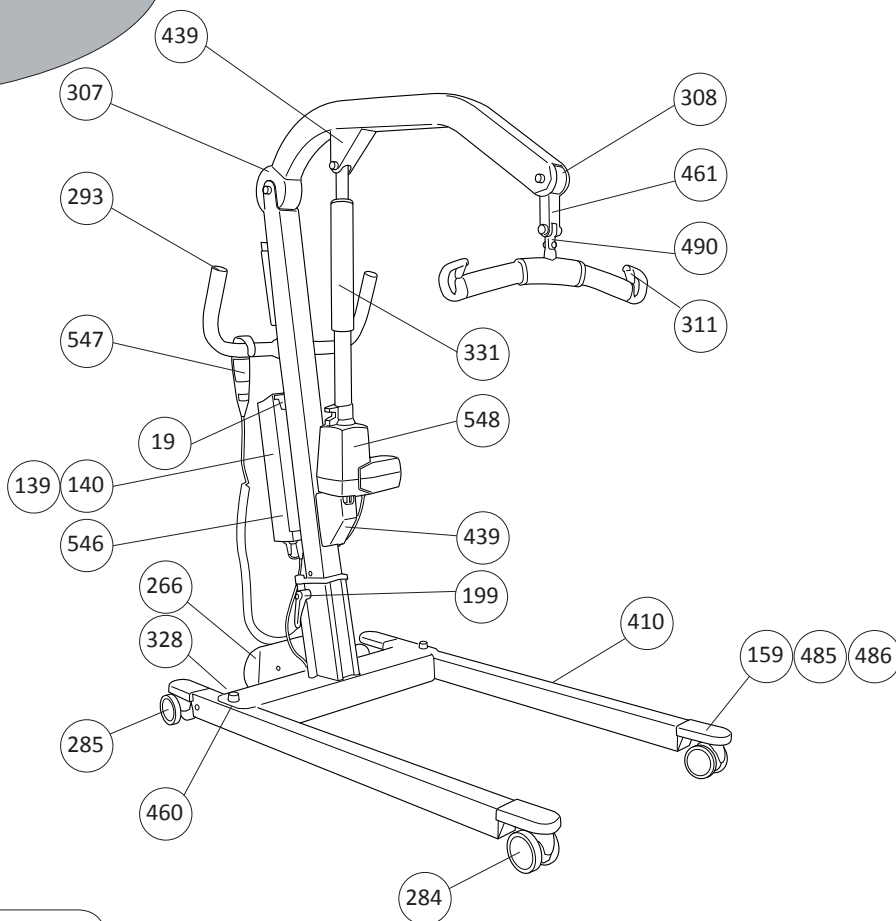
## 4.4 Spare Parts List, Viking™ M mobile lift, 2040045

### Spare Parts Positions Viking™ M mobile lift

PROD. NO.	PRODUCT
2040045	Viking M ( Jumbo care control box and LED hand control) from S/N 9 400 001

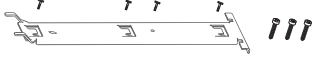
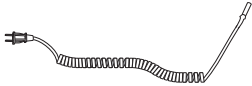
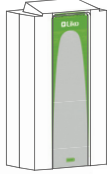
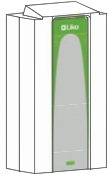
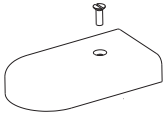


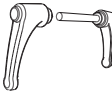


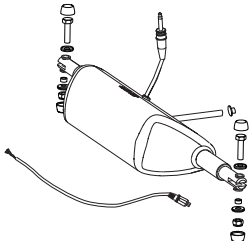




There are four models of Viking™ M mobile lift; Prod. No. 2040005, 2040015, 2040035 and 2040045. One spare parts list for each model. Make sure to order correct spare part.




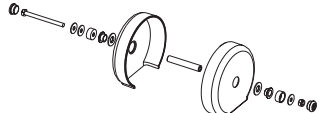
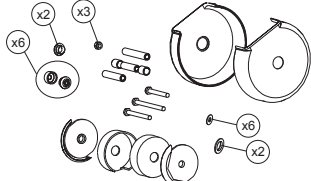

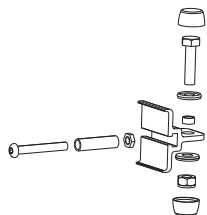
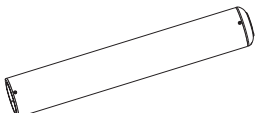

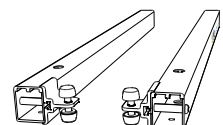
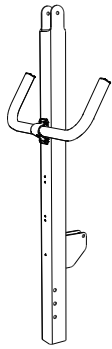
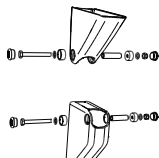
## 4.4 Spare Parts List, Viking™ M mobile lift, 2040045

### Viking™ M mobile lift, 2040045

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20090023	19	Attachment for Control Box	pce		3EN630238
20090026	22	Cable for charging EU	pce		3SE630237
20090027	23	Cable for charging UK			
20090028	24	Cable for charging US			
20090029	25	Cable for charging JP			
2006106	139	Battery Lead Acid, 24 V, 2.9 Ah	pce		3EN630224
2006109	140	Battery Lithium Ion, 25.6 V, 2.25 Ah	pce		7EN137107 Instruction Guide
20390006	159	Fork Cover	pair		183916
21090001	160	Extension Cable	pce		3EN630225
21090000	161	Extension cable JP	pce		3EN690280
20490010	199	Locking handle Viking XL	pair		3SE630244
20090050	248	Cable for Charging AU/NZ	pce		3EN630237
21090011	263	Extension Cable US	pce		3EN630218
20490011	266	Base Motor Viking M, L <i>(Viking M 2040005 up to S/N 7107499 also need spare part 20490028, Pos 328)</i>	pce		3EN630296
20490014	284	Front Wheel 75 mm Standard <i>from S/N 7102064</i>	pce		182904
20490015	285	Rear Wheel 75 mm Standard <i>from S/N 7102064</i>	pce		182903


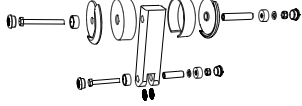
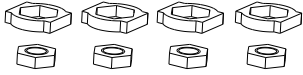
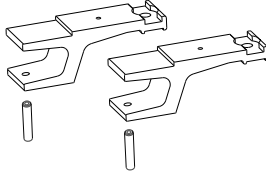
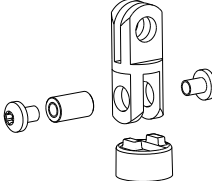
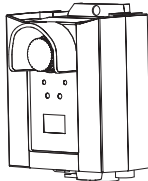

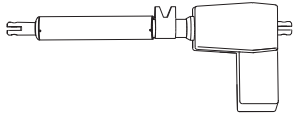
## 4.4 Spare Parts List, Viking™ M mobile lift, 2040045

### Viking™ M mobile lift, 2040045

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20090066	293	End Cover Handle/Arm Support grey, 4 pce	set		3SE630271
20490023	307	Lift Arm Plastic Cover <i>from S/N 7106201</i>	set		3EN630250
20490024	308	Overhead Beam Rest. set <i>from S/N 7106201</i>	set		3EN630251
31590014	311	Latch, composite <i>Fits Universal SlingBar from S/N 1299511</i>	pair		3SE640242
20490028	328	Restoration set motor attachment	set		3SE640258
20490030	331	Outer Tube	set		3SE640260
21090022	353	Charge cable hook , 10 pce	set		3SE650219
20490036	410	Viking M Legs <i>from S/N 7100308</i>	pair		3SE650259
20490038	418	Mast Viking M <i>including handle and motor attachment</i>	set		3EN650269
20490040	439	Bracket Cover	set		3SE650273

## 4.4 Spare Parts List, Viking™ M mobile lift, 2040045

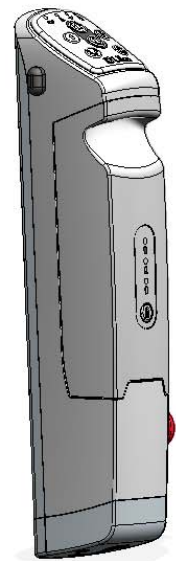
### Viking™ M mobile lift, 2040045

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20490048	460	Leg Cover	set		3EN650294
20490049	461	Flexlink	set		3SE650295
20090080	485	Fork locking attachment, 4 pair	set		3SE690208
20090081	486	Wheel Fork	pair		3SE690209
20490052	490	SlingBar Assembly set	set		3SE690210
20490062	546	Control Box Jumbo Care	pce		3SE690231
20490063	547	Hand control, buttons LED	pce		3EN690276
20490064	548	Actuator LA34 CBJ	pce		3EN690277

## 5.1 Control Unit CBL, Parameter Code Key

Liko™ Diagnostic System™ (operating data) is stored in Control Unit CBL

Parameter:	Information:
<b>TAAxT</b> [Ah]	Totally Accumulated Amphours (current x time)
<b>TAAxTR</b> [Ah]	Totally Accumulated Amphours, resetable (current x time) Can be reset by the manufacturer.
<b>PAAxT</b> [Ah]	Periodically Accumulated Amphours (current x time) Calculated continuously from the moment the lift is used until the first service.
<b>PAKT</b> [Months]	Periodically Accumulated Calendar time. Calculated between services.
<b>TADT</b> [Hours]	Totally accumulated drive time.
<b>AAS</b> [Starts]	Accumulated starts. The number of lifting motions counted from the moment the lift was used the first time.
<b>ASERV</b> [Services]	Accumulated services Number of performed service events made using LSS or LDS.
<b>IMED</b> [A]	Average power consumption during TADT. Overall accumulated operating time.
<b>ALA</b> [Charges]	Accumulatet number of started charging.
<b>AALA</b> [Charges]	Accumulated number of completed charging
<b>AOLA</b> [Charges]	Accumulated numbers of not completed charging. Counts each disrupted charging event.
<b>AABT</b> [Removals]	Accumulated number of battery replacements. Counts each battery replacement where a used battery is replaced.
<b>AEUP</b> [Endpos. up]	Accumulated number of end positions during lifting motion up.
<b>AFSERV</b> [Services]	Accumulated number of reset Service Number of "Clear Service" performed manually.
<b>AEDWN</b> [Endpos. down]	Accumulated number of end positions during lifting motion down.
<b>SFSTAT</b>	N/A (This funktion is not in use)
<b>IDNR</b>	Identity number of the control box.
<b>AOLUP</b> [Overloads]	Accumulated number of stops due to overload.
<b>PADT</b> [Hours]	Periodically accumulated operating time.
<b>IMED 20</b> [A]	Average current consumption. Recounted for each lifting motion (up) which lasts more than 20 seconds.
<b>ELT</b> [Ah]	TAAxTR limit (constant) for ELT indication.
<b>ELTCNT</b> [Commands]	Number of ELT resets (only performed at replacement of actuator).
<b>CLIM_1</b> [A]	Current limit for lifting motion (up).
<b>CLCT</b> [ms]	Maximum allowed time to override CLIM_1 before cut-off
<b>CLIM_2</b> [A]	Current limit for widening motion (base-width adjustment).
<b>SINTT</b> [Months]	Indicates service intervals in calendar months.
<b>SINTAS</b> [Ah]	AxT limit for service event. (current x time)
<b>CYCLET</b> [Hours]	Cycle time is a constant for a medium driving cycle.
<b>PAOLUP</b> [Overloads]	Periodic accumulated number of stops due to overload.



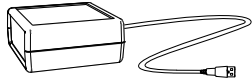

Control Unit CBL

- The information listed above is stored in the Control Unit CBL.
- Replacing the Control Unit CBL without using the LSS may cause some data loss as this data is recordable by LSS and a computer. When data is stored in Liko™ database it can be retrieved if needed.
- Resetting the Service Interval using the LSS, LDS or Manually, will reset the Accumulated Amp-hours (PAAxT), Accumulated Time (PAKT), Accumulated Operating Time (PADT) and Accumulated number of stops due to overload (PAOLUP).

## 5.2 Control Unit CBL, Reset Service Interval Parameters

### CBL RESET SERVICE INTERVAL PARAMETERS

After the Periodic Inspection has been performed Service Light and Service Interval Parameters\* in the Liko™ Diagnostic System™ has to be reset. Reset can be done using one of the following Service Tools/Methods:

<p>Prod. No. 21090024</p>	<p><b>1. Liko™ Service System, LSS</b> (Requires a computer)  <i>Read and store the data from the Control Unit CBL into a computer. Data can also be transferred to a Liko™ Server. Can also reset the ELT-light (Expected Life Time). Use when Periodic Inspection or Preventative maintenance is performed.</i></p> <p><i>Service Documents for the lift can be printed. Use for tracking and and transfer data when Spare Parts are changed.</i></p>	
<p>-</p>	<p><b>3. Manual Service</b>  <i>Resets the Service Interval Parameters*.</i>  <i>△Service Interval Parameters should only be reset after a complete Periodic Inspection</i>  <i>Use the following combination of buttons on the control panel:</i></p> <p><i>A: Press and hold button 1 &amp; 2</i>  <i>B: While holding 1 &amp; 2, press button 3, and hold all three buttons for three seconds.</i></p> <p><i>Works from Item No: CBL20001-05, see label on CBL</i></p>	

### IMPACT ON PARAMETERS

Changes of parameters when LSS, LDS or Manuel Service reset has been used:

Parameter:	1. LSS:	2. LDS:	3. Manual Service:	Check Points in PM ***
Service Light *	Unlit	Unlit	Unlit	
TAAxT	unchanged	unchanged	unchanged	x ***
TAAxTR	unchanged	unchanged	unchanged	
PAAxT **	0	0	0	x ***
PAKT **	0	0	0	
TADT	unchanged	unchanged	unchanged	
AAS	unchanged	unchanged	unchanged	x ***
ASERV	+1	+1	unchanged	x ***
IMED	unchanged	unchanged	unchanged	x ***
ALA	unchanged	unchanged	unchanged	x ***
AALA	unchanged	unchanged	unchanged	x ***
AOLA	unchanged	unchanged	unchanged	x ***
AABT	unchanged	unchanged	unchanged	x ***
AEUP	unchanged	unchanged	unchanged	x ***
AFSERV	0	0	+1	x ***
AEDWN	unchanged	unchanged	unchanged	x ***
SFSTAT	N/A	N/A	N/A	
IDNR	unchanged	unchanged	unchanged	x ***
AOLUP	unchanged	unchanged	unchanged	x ***
PADT **	0	0	0	x ***
IMED20	unchanged	unchanged	unchanged	
ELT	unchanged	unchanged	unchanged	
ELTCNT	unchanged	unchanged	unchanged	
CLIM1	unchanged	unchanged	unchanged	
CLCT	unchanged	unchanged	unchanged	
CLIM2	unchanged	unchanged	unchanged	
SINTT	unchanged	unchanged	unchanged	
SINTAS	unchanged	unchanged	unchanged	
CYCLET	unchanged	unchanged	unchanged	
PAOLUP **	0	0	0	x ***

\* Indicates Service Periodic Inspection interval reached.

\*\* Service Interval Parameters (the PAAxT, PAKT, PADT and PAOLUP are all used to determine Service intervals)

\*\*\* Parameters to use in the Preventative Maintenance

## 5.3 Control Unit Jumbo Care

### Control Box operation and information

1. Emergency Stop button
2. Electrical emergency lifting.
3. Electrical emergency lowering.
4. "ON" - lights up green when the charger is connected to mains.
5. "CHARGE" - lights up yellow constantly during charging and will turn off when charging is completed.
6. Display Pop-up information:

Battery power (100- 50 %)

Battery power (50- 25 %) Battery needs charging.

Battery power (Less than 25 %) battery needs charging.  
A buzzer will sound when pressing a push button.

Charge the lift immediately! A buzzer will sound when pressing a push button.  
The remaining battery power can only make the lift arm go down.



The lift is connected to the mains.



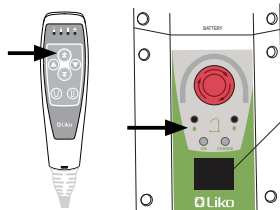
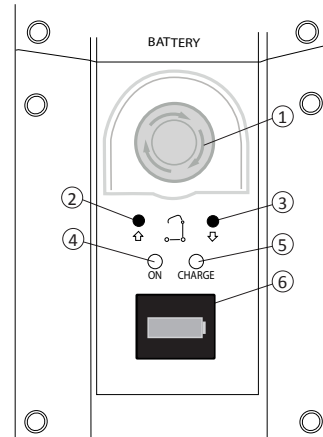
Short circuit warning! Check cables and connections. Warning is shown until repaired!



Overload! Too much load is applied to the lift.



Service indicator. The Jumbo Care control box will be pre-set with a service interval of 12 months / 8000 cycles, whichever comes first. When it is time for service the display will show the service symbol and one single beep will tell that it is time for Periodic Inspection. To get the service data on the display, press "lifting arm up" button (short press ½ sec.) on the hand control or on the control box.



#### Service data



Total lifting actuator cycles

*One cycle is defined as: Driving with load up for a minimum of 5 seconds, following by driving down for a minimum of 2 seconds.*



Total lifting actuator work (As)

*Total work made by the lifting actuator.*

**Recommended max use of As/year: 252 000 As (G9)**



Total number of overloads

*Counts the number of time the actuator (up/down) has been overloaded.*



Days since last service/  
days between services

*Service Counter shows days since last service/days between services (360).*

### RESET SERVICE COUNTER

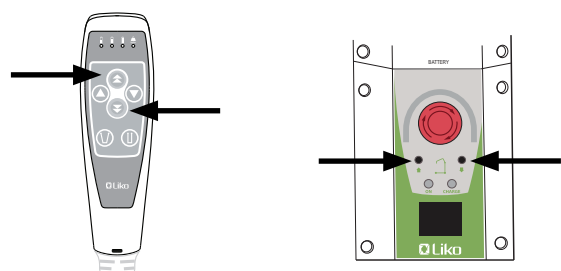
After the Periodic Inspection has been performed the Service Counter (days and cycles until next service) has to be reset.

#### Before resetting the counter:

It is important to write down the values from the control units in the Periodic Inspection Protocol (3EN371001).

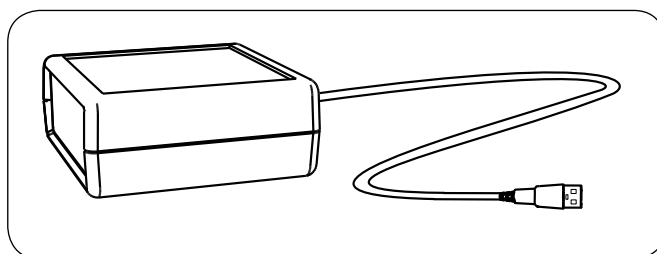
Press the "fast speed" up and down buttons on the hand control or up and down buttons on the control box for 5 seconds.

*An audio signal will confirm the resetting.*

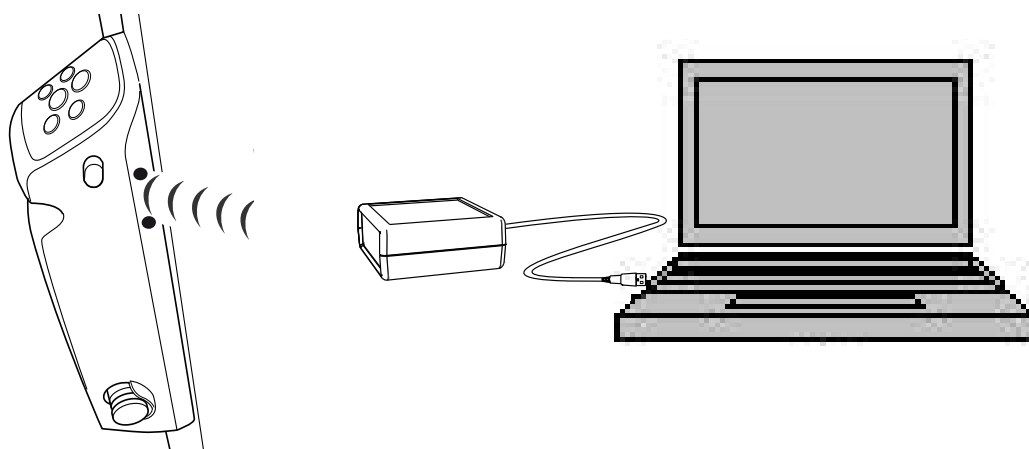




## 6.0 Liko Service System



Prod. No. 21090024



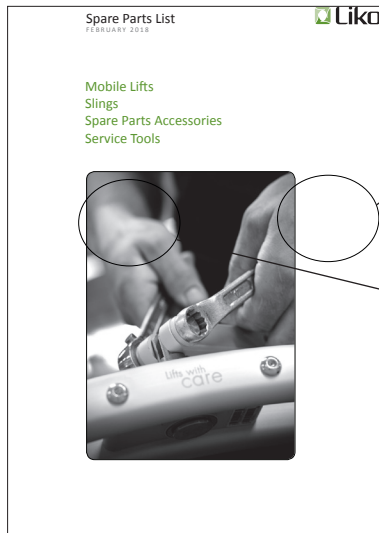
### Product Description

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 supplied with the product.***

## 7.0 Periodic Inspection Information, Viking™ M mobile lift

According to ISO 10535:2006 Annex B, Periodic Inspection of medical device Liko™ mobile lift should be performed at least once a year. For Liko™ mobile lifts Periodic Inspection Liko mobile lifts (3EN371001) is available in Agile and on the Partner Web.



**NOTE!**

△ Periodic Inspection shall be performed at least once per year.

**Viking™ M mobile lift 2040045:**

**The accumulated use of the lift (As) should be logged at each Periodic Inspection!**

**Viking™ M mobile lift 2040015 and 2040035:**

**The accumulated use of the lift (Ah) should be logged at each Periodic Inspection!**

INFORMATION

Liko technical documentation can be found under “My information” - “Documents” on the Partnerweb: <https://partner.liko.com/> If you don't have access, contact Ann-Christin Sundström for registration: E-mail: [ann-christin.sundstrom@hill-rom.com](mailto:ann-christin.sundstrom@hill-rom.com), Tel: +46 (0)920 - 47 47 10

Periodic Inspection may only be performed by personnel authorized by Hill-Rom and using original Liko™ spare parts.

**Available Liko Periodic Inspections:**

- 3EN371001 Periodic Inspection Liko Mobile lifts
- 3EN111001 Periodic Inspection Liko OH Rail system
- 3EN191001 Periodic Inspection Overhead Lifts
- 3EN301001 PI Freespan Freestand
- 3EN601001 Periodic Inspection Liko accessories

Also available is Periodic Inspection Slings. This inspection should be performed by a person who is suitable, has good experience and sufficient knowledge about design, use and maintenance of the sling.

- 7EN160834 General Periodic Inspection Protocol Liko Slings and Sabina SupportVests

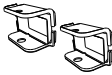







## 8.0 Preventive Maintenance, Viking™ M mobile lift

### Expected Life Time

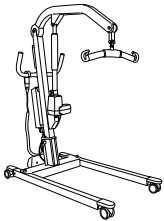
The expected life time of a Viking™ M mobile lift is 10 years of normal use or 700 Ah (Prod. No. 2040015 and 2040035) or 252 000 As (prod No 2040045) which comes first, provided that required Periodic Inspection and Preventive Maintenance is performed by personnel authorized by Hill-Rom and using original Liko™ spare parts.

However certain parts have a shorter life cycle and will need to be replaced in order for the mobile lift to meet its expected life time. They are listed below:

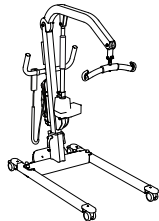
### Parts that needs to be replaced:

Part		Part No.	Replacement interval:	Replacement:
Leg Covers		20490048	6 years or 420 Ah or 1 512 000 As	Can be used more than 2 years if no malfunction is detected.
Battery Lead Acid		2006106	3 years or 756 000 As	Can be used more than 3 years if no malfunction is detected.
Battery Li- Ion		2006109	3 years or 756 000 As	Can be used more than 3 years if no malfunction is detected.
Battery (to CBL)		2006107	4 years or 280 Ah	Can be used more than 4 years if no malfunction is detected.
Hand Control		20190017	2 years	Can be used more than 2 years if no malfunction is detected.
Hand Control		20490031	2 years or 182 Ah	Can be used more than 2 years if no malfunction is detected.
Hand Control		20090089	2 years or 182 Ah	Can be used more than 2 years if no malfunction is detected.
Hand Control		20090098	2 years or 655 200 As	Can be used more than 2 years if no malfunction is detected.

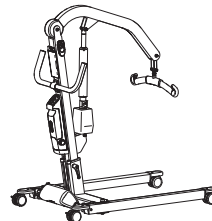
Expected Life Time	Product No.	Year	Work
Viking™ M mobile lift	2040005	10	-
Viking™ M mobile lift	2040015	10	700 Ah
Viking™ M mobile lift	2040035	10	700 Ah
Viking™ M mobile lift	2040045	10	2 500 000 As



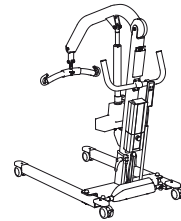
**Prod. No. 2040045**  
From S/N 9 400 001



**Prod. No. 2040035**  
S/N 9 200 001 - 9 300 000  
*(Discontinued 2016)*



**Prod. No. 2040015**  
S/N 7 500 401 - 7 600 500  
*(Discontinued 2016)*



**Prod. No. 2040005**  
S/N 7 100 101 - 7 200 200  
*(Discontinued 2012)*

Changes	Model 2040045 from S/N	Model 2040035 from S/N	Model 2040015 from S/N	Model 2040005 from S/N	Project
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**2018**

2040045 New alternative for battery, Li-ION	9405000	-	-	-	SUS002966
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**2016**

Model 2040035 and 2040015 are obsoleted and replaced by new model 2040045 Equipped with with Jumbo Care Control Box, Hand Control HB30 and Actuator Viking M.	9 400 001	Discontinued	Discontinued	-	SUS001043
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**2012**

New model of Viking M with fixed handcontrol is introduced. Prod. No 2040035.	9 200 001	-	-	-	1707
Model 2040005 is discontinued				Discontinued	1740

**2010**

Covers to motor brackets introduced.			7 505 000	-	791
Spring in Outer Tube altered. New screws to fasten the handle. Diagonal profile has been shortened.			7 503 472	-	791

**2009**

OuterTube also introduced on Prod. No. 2040005.			-	7 108 587	974
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Changes	Model 2040005 S/N	Project
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**2008**

4 mm shorter middle beam. Link attachment for base motor adjusted.	7 502 500	-	671
Viking M prod. no. 2040015 with new control box and IR hand control.	7 500 401	-	556

**2007**

New linkage between legs and motor.	7 107 500		633
New washers (PS 6x12x1) arm-mast	7 107 064		EFR 758
Seal tape at Sling bolt, introduced on Slingbars from s/n 1231718.	-		493
New washers arm-mast PS12x18x1	7 106 528		EFR 694
Holder for Quick Reference Guide, and tape has been added. New washers (TBRB 6,4x12x1,6) in the pivot point on the mast.	7 106 201		519
Old latch back.	7 105 310		619
New Composite Latch.	7 105 034		467

**2006**

Washer 8,4/20x2,0 has been added to base-width adjustment.	7104347		
New pivot points between arm-mast, actuator-arm, mast-actuator, arm- link and link-slingbar (M6 screw and nuts).	7 103 094		370

**2005**


New Locking handles.	7 102 079		
New wheels and forks 75mm. Emergency guard for control box.	7 102 064		351
Base motor moved 3 mm back to avoid touching the middle beam.	7 101 100		213
New current limit in control box.	7 101 023		

**2004**

New Slingbar "Universal Slingbar 450".	7 100 862		226
Viking M delivered with the old Slingbar Standard 450.	7 100 382		
Width of base increased with 40 mm. Viking M is from now on equipped with a new Adapter.	7 100 308		



[www.hill-rom.com](http://www.hill-rom.com) | [www.liko.com](http://www.liko.com)

 Liko AB  
Nedre vägen 100  
SE-975 92 Luleå, Sweden

Enhancing outcomes for  
patients and their caregivers:

