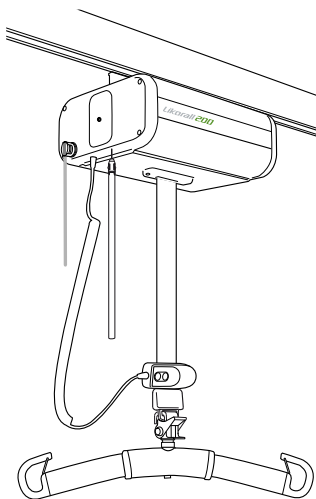


Likorall™ overhead lift

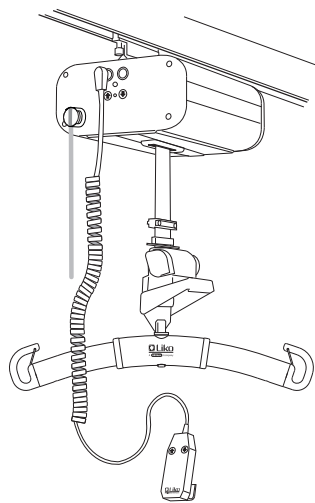


Service Manual

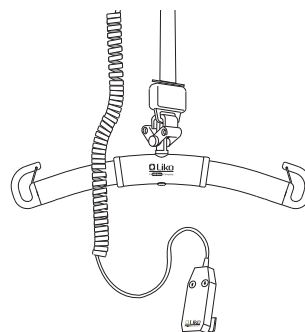
Overhead Lift	Prod. No.
Likorall 200	3121001
Likorall 242 ES	3122005-3122006 / NA
Likorall 242 ES R2R	3122007-3122008 / NA
Likorall 242 S	3122009-3122010 / NA
Likorall 242 S R2R	3122011-3122012 / NA
Likorall 243 ES, natural	3123001 / NA
Likorall 243 ES, white	3123002 / NA
Likorall 250 ES, natural	3122501 / NA
Likorall 250 ES, white	3122502 / NA
Likorall 250 S, IRC	3124050



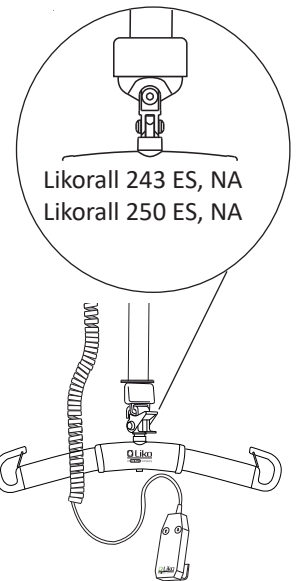
Likorall 200



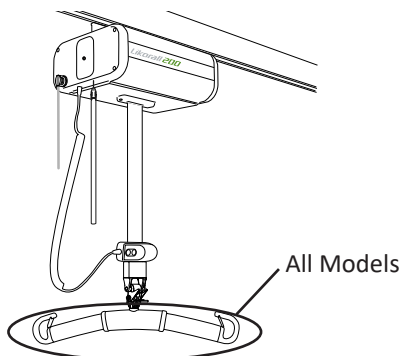
Likorall 242 S
Likorall 242 ES



Likorall 242 S R2R
Likorall 242 ES R2R



Likorall 243 ES
Likorall 250 ES
Likorall 250 S IRC





*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 stationary & 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 local Sales or Service representative.
For contact information please visit our website: www.hill-rom.com | www.liko.com

Table of Contents

Likorall™ overhead lift

	<u>Page</u>
1.0 Technical Data	
1.1 Likorall 200	4
1.2 Likorall 242 S/ES, 243 S/ES, 250 S/ES.....	5
2.0 Troubleshooting	
2.1 Likorall 200	6
2.2 Likorall 242 S/ES, 243 S/ES, 250 S/ES.....	7
3.0 Spare Parts List (spare parts / model)	
3.1 Spare Parts List (spare parts / model)	8
3.2 Spare Parts Positions.....	10
3.3 Spare Parts List (spare parts information)	13
4.0 Spare Parts Assembly information	21
5.0 Periodic Inspection Information	22
6.0 Preventive Maintenance	23
7.0 Installation Instructions	24
8.0 Product Changes	32

1.1 Technical Data

Likorall™ 200 overhead lift

Maximum load: 200 kg (440 lbs.)

Batteries: 2 x 12 V 2,4-2,6Ah. Valve-regulated lead-acid gel-type batteries. New batteries are provided by the supplier.

Battery charger: CH01 FW7218M/24; 100-240 V AC, 50-60 Hz, max 500 mA

Lifting speed: 50 mm/s (2 inch./s)

Lifting interval: 2050 mm (80.7 inch.)

Electrical data: 24 V, 12 A

Lift unit dimensions: 340x250x165 mm (LxWxH) (13.4x9.8x6.5 inch. ,LxWxH)

Lift unit weight: 12.5 kg (27.5 lbs.)

Emergency lowering device: Electrical

Intermittent power: Int. Op 10/90, active operation max 0.5 min.


Protection class lift motor: IP 33


Sound level: 51 dB

Protection class hand control: IP 54

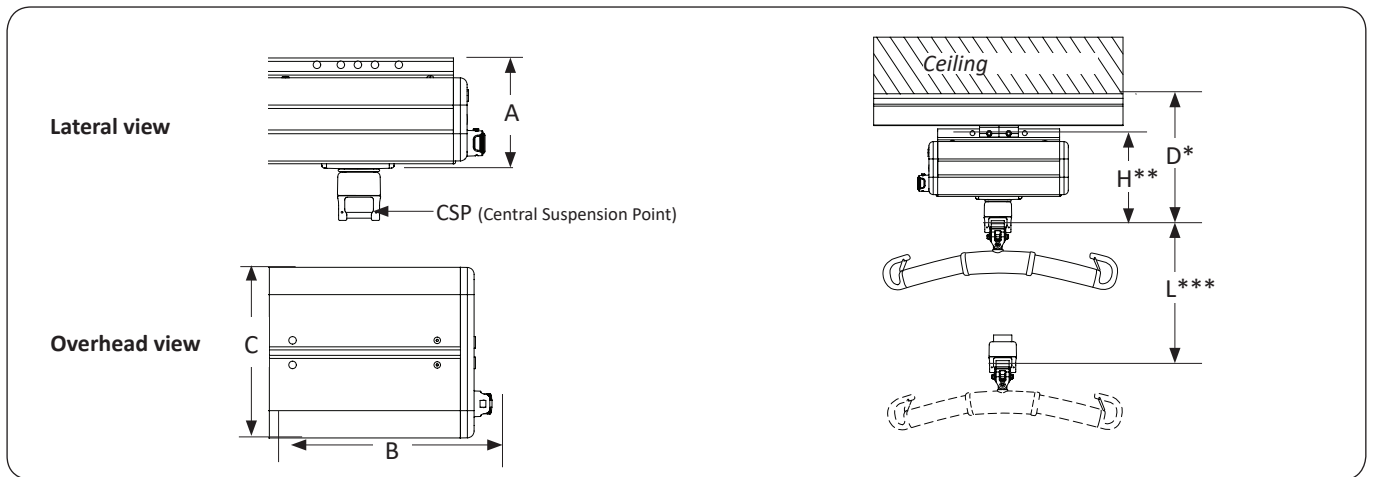
Operating forces hand control: 3 N

Cable length hand control: 870 mm (34 inch.)

 Intended for indoor use.

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

Likorall™ Overhead Lift is equipped with a SFS (Single Fault Safety) safety drum. This patented safety design provides protection against uncontrolled lowering.



Measurements in mm.

A	B	C	D*	H**	L***
165	340	250	304	221	2050

Measurements in inch.

A	B	C	D*	H**	L***
6.5	13.4	9.8	12.0	8.7	80.7

* Minimum distance from ceiling to CSP at maximum lifting height.


** Built-in dimension: the distance between the attachment point for the lift unit on the carriage and the CSP at maximum lifting height.


*** Lifting interval: the distance between maximum lifting height and minimum lifting height measured in CSP.

1.2 Technical Data

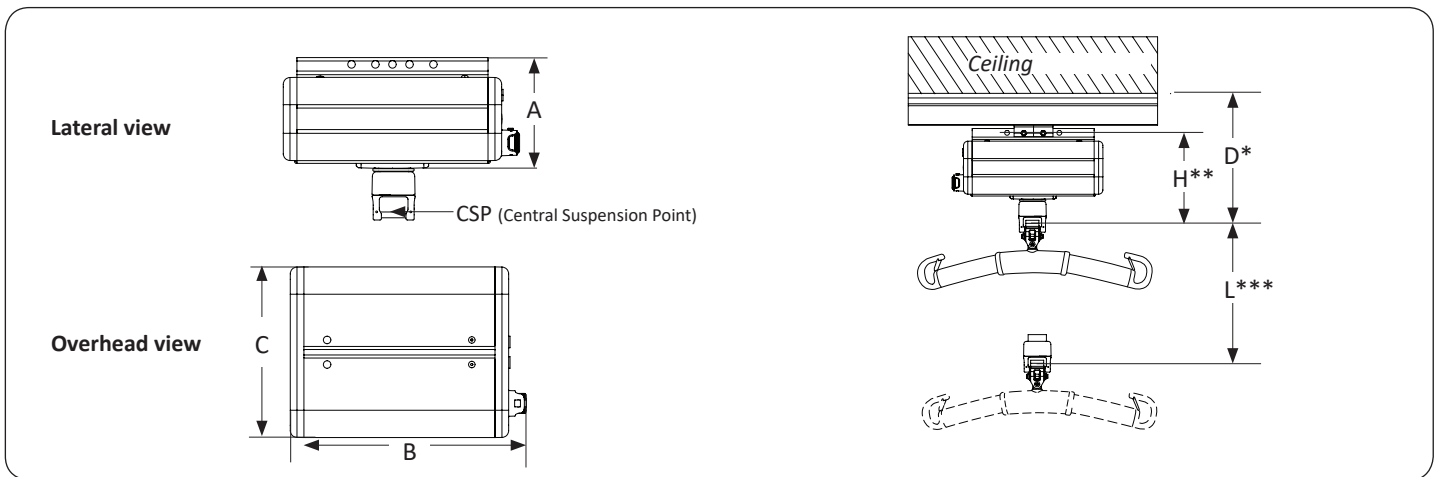
Likorall™ 242 S/ES, 243 S/ES, 250 S/ES overhead lift

Maximum load:	Likorall 242: 200 kg (440 lbs) Likorall 243: 230 kg (507 lbs) Likorall 250: 250 kg (550 lbs)	Emergency lowering device:	Mechanical: Likorall 242 Electrical: Likorall 242 R2R Likorall 243 Likorall 250
Batteries:	2 x 12 V (2.4 Ah - 2.6 Ah). Valve-regulated lead-acid gel-type batteries. New batteries are provided by the supplier.	Intermittent operation:	Int. Op 10/90, active operation max 0.5 min.
Battery charger:	SMP CC-10-43-24; 100-240 V AC, 40-60 Hz, max 600 mA IRC (In-Rail Charging): CH01 FW7218M/24; 100-240 V AC, 50-60 Hz, max 500 mA	Sound level:	49 dB
Lifting speed:	50 mm/s (2 inch./s)	Protection class:	IP 43
Lifting interval:	2050 mm (80.7 inch.) (242 vertically adjustable)	Protection class hand control:	IP 43
Electrical data:	24 V, 12 A	Operating forces of controls:	5 N
Lift motor weight:	Likorall 242 13.0 kg (28.6 lbs) Likorall 242 R2R 13.2 kg (29 lbs) Likorall 243 12.6 kg (27.7 lbs) Likorall 250 12.6 kg (27.7 lbs)	Ambient temperature:	Min. + 10°C - Max. + 40°C (Min. 50° F - Max. 104° F)

 Intended for indoor use.

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

The Likorall™ overhead lift is equipped with a SFS (Single Fault Safety) safety drum. This patented safety design provides protection against uncontrolled lowering.



Measurements in mm.

A	B	C	D*	H**		L***
165	340	250	304	221 (models: 242 R2R, 243, 250)		2050
				346 (models: 242)		

Measurements in inch.

A	B	C	D*	H**		L***
6.5	13.4	9.8	12.0	8.7 (models: 242 R2R, 243, 250)		80.7
				13.6 (models: 242)		

* Minimum distance from ceiling to CSP at maximum lifting height.

** Built-in dimension: the distance between the attachment point for the lift unit on the carriage and the CSP at maximum lifting height.

*** Lifting interval: the distance between maximum lifting height and minimum lifting height measured in CSP.

2.1 Troubleshooting

Likorall™ 200 overhead lift

The lift doesn't work.



1. Make sure that the emergency stop button has not been activated (shall not be pressed in).
2. Check that the handcontrol cable is connected correctly.
3. Charge the battery.
4. If the problem persists, please contact Hill-Rom.

A repeated signal can be heard from the lift.



1. Charge the battery immediately.
2. If the problem persists, please contact Hill-Rom.

The lift emits a repeated LED signal.



1. Charge the battery immediately.
2. 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. Check that the handcontrol cable is connected correctly.
3. Use the selected electrical emergency lowering device to lower the patient onto a firm surface.
4. Charge the battery.
5. If the problem persists, please contact Hill-Rom.

The lift does not achieve maximum lifting capacity.



1. Charge the battery.
2. If the problem persists, please contact Hill-Rom.

In event of unusual sounds or any leakage from the lift



Please contact Hill-Rom.

2.2 Troubleshooting

Likorall™ 242 S/ES, 243 S/ES, 250 S/ES overhead lift

The lift doesn't work.



1. Make sure that the emergency stop button has not been activated (shall not be pressed in).
2. Check that the handcontrol cable is connected correctly.
3. Charge the battery.
4. If the problem persists, please contact Hill-Rom.

A repeated signal can be heard from the lift.



1. Charge the battery immediately.
2. 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. Check that the handcontrol cable is connected correctly.
3. Use the selected electrical emergency lowering device to lower the patient onto a firm surface.
4. Charge the battery.
5. If the problem persists, please contact Hill-Rom.

The lift does not achieve maximum lifting capacity.



1. Charge the battery.
2. If the problem persists, please contact Hill-Rom.

In event of unusual sounds or any leakage from the lift



Please contact Hill-Rom.

3.1 Spare Parts List (spare parts / model)

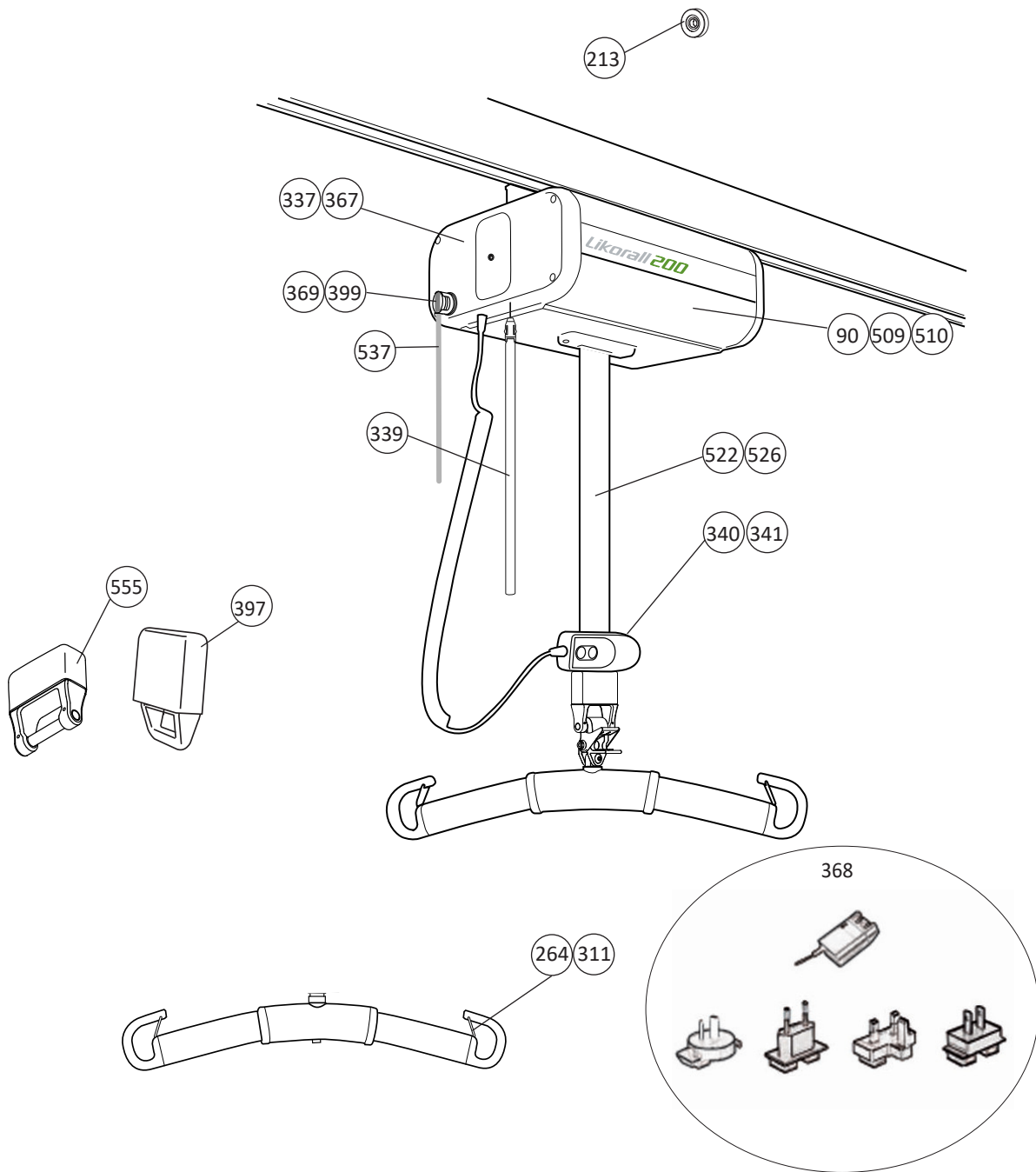
Likorall™ Overhead Lift										
PROD. NO.	POS. NO.	NAME	200	242 ES	242 ES R2R	242 S	242 S R2R	243 ES	250 ES	250 S IRC
20090041	36	Spring Magazine		x	x	x	x			
31190007	78	Body/Handle set for Emergency Low. Device		x	x	x	x			
31190018	87	Latch		x	x	x	x	x		
31290007	90	Battery 2,4-2,6 Ah/12 V	x	x	x	x	x	x	x	x
3106004	130	Parking Bracket (fits Instruction Placard Likorall, 3126003)								
31290056	186	Hook R2R		x	x	x	x			
31290057	203	Strap Stop		x	x	x	x			
31290059	210	Movable Strap Stop		x	x	x	x			
31290060	213	Plastic Wheel with Bearing	x	x	x	x	x	x	x	x
31190021	252	Body/Handle set for Emerg. Low. Device (Stainless steel)		x	x	x	x			
31590011	264	Latch Universal SlingBar	x	x	x	x	x	x	x	x
31290070	282	Cable for hand control LR242S/ES w. conn. plug 8-pol		x	x	x	x	x		
31390007	283	Restoration set Limiting switch		x (ES)		x (S)	x (S)			
31590014	311	Latch, composite	x	x	x	x	x	x	x	x
31290073	337	Electronic card w cover LR 200	x							
31290075	339	Emergency Low.Device LR 200	x							
31290076	340	Hand control LR 200	x							
31290077	341	Hand control hook LR 200	x							
31390009	367	Fuse 10A	x							
21090025	368	Charger CH01	x							
31290078	369	Emergency Guard Activator	x	x	x	x	x	x	x	x
31290079	396	Fuse LR 12,5 A		x	x	x	x	x	x	x
31590005	397	Q-link	x	x	x	x	x	x	x	x
31590025	398	Lift strap joint		x	x	x	x	x	x	x
31290080	399	Emergency Stop Mk2	x	x	x	x	x	x	x	x
21090061	415	Key pad Hand control 2-buttons								

3.1 Spare Parts List (spare parts / model)

Likorall™ Overhead Lift												
PROD. NO.	POS. NO.	NAME	200	242 ES	242 ES R2R	242 S	242 S R2R	243 ES	250 ES	250 S IRC		
31290085	430	Gable LR 250 S IRC								X		
31290086	431	Fuse 12 A		X	X	X	X	X	X	X		
31290087	442	Cables, Likorall		X	X	X	X	X	X	X		
31290091	494	Cable grommet		X	X	X	X	X	X			
21090048	503	Long cable for handcontrol (8 pol 180 cm)		X	X	X	X					
31290109	504	Electronic card with cover 242 ES		X	X							
31290110	505	Electronic card with cover 242 S				X						
31290111	506	Electronic card with cover 243/250 ES						X	X			
31290092	509	Actuator Restoration set, Likorall	X	X	X	X	X	X	X	X		
31290093	510	Electrical Motor, Likorall	X	X	X	X	X	X	X	X		
31290098	518	LiftStrap for Easy Strapper, black		X	X	X	X					
31290100	520	LiftStrap for fixed SlingBars , black						X	X			
31290101	521	LiftStrap for Quick-release Hook , black		X	X	X	X	X	X	X		
31290102	522	LiftStrap 1800 mm LR 200, grey	X									
31290103	523	Easy Strapper Likorall, black		X	X							
31290104	524	Easy Strapper Likorall, grey		X	X	X	X					
31290105	525	LiftStrap for Easy Strapper, grey		X	X	X	X					
31290106	526	LiftStrap 2000 mm LR 200, grey	X									
31290107	527	LiftStrap for Quick-release Hook, grey		X	X	X	X	X	X	X		
31290108	528	LiftStrap for fixed SlingBars, grey						X	X			
31290114	532	Lift Strap 5.0 m, for Easy Strapper, grey - SPECIAL LIFT STRAP		X	X	X	X					
		ONLY FOR USE WHEN CEILING HIEGHT EXCEEDS 3,5 meter (138 inch)										
31290123	537	Emergency Guard Strap	X	X	X	X	X	X	X	X		
20090102	554	Snap On Handle		X	X							
31590027	555	Q-link II	X		X	X	X	X	X	X		
31290131	556	Hook R2R II			X	X	X					

3.2 Spare Parts Positions Likorall™ overhead lift

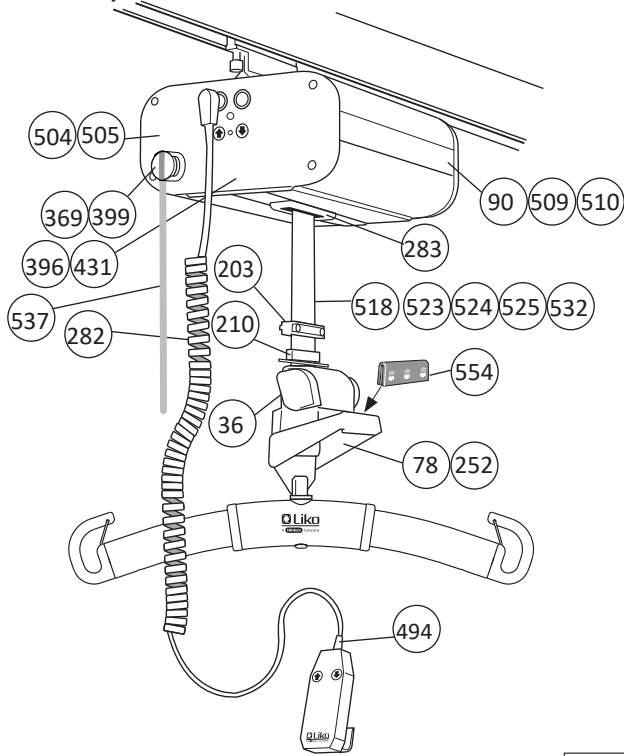
PROD. NO.	PRODUCT
3121001	Likorall™ 200 overhead lift



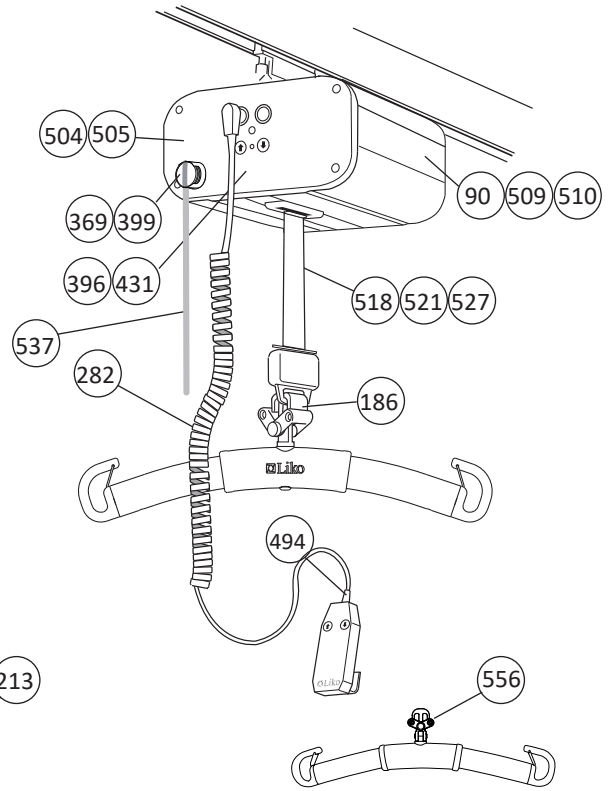
3.2 Spare Parts Positions Likorall™ overhead lift

PROD. NO.	PRODUCT	PROD. NO.	PRODUCT
3122005	Likorall 242 ES overhead lift	3122007	Likorall 242 ES R2R overhead lift
3122006	Likorall 242 ES overhead lift, white	3122008	Likorall 242 ES R2R overhead lift, white
3122009	Likorall 242 S overhead lift	3122011	Likorall 242 S R2R overhead lift
3122010	Likorall 242 S overhead lift, white	3122012	Likorall 242 S R2R overhead lift, white

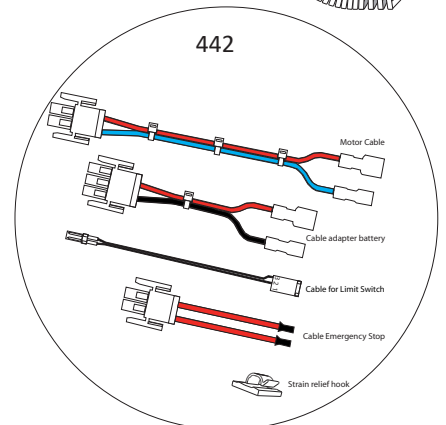
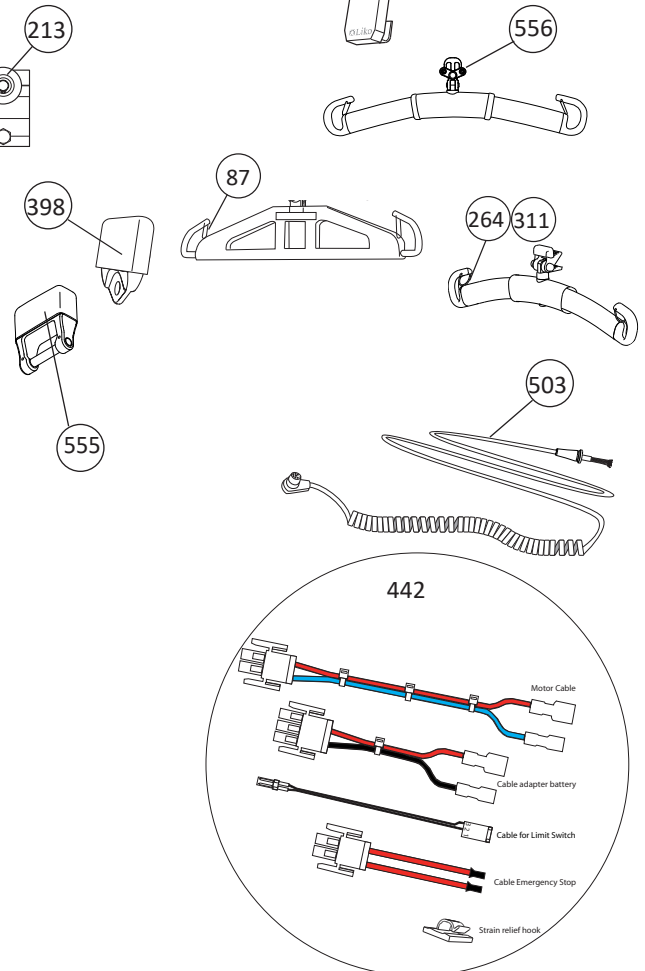
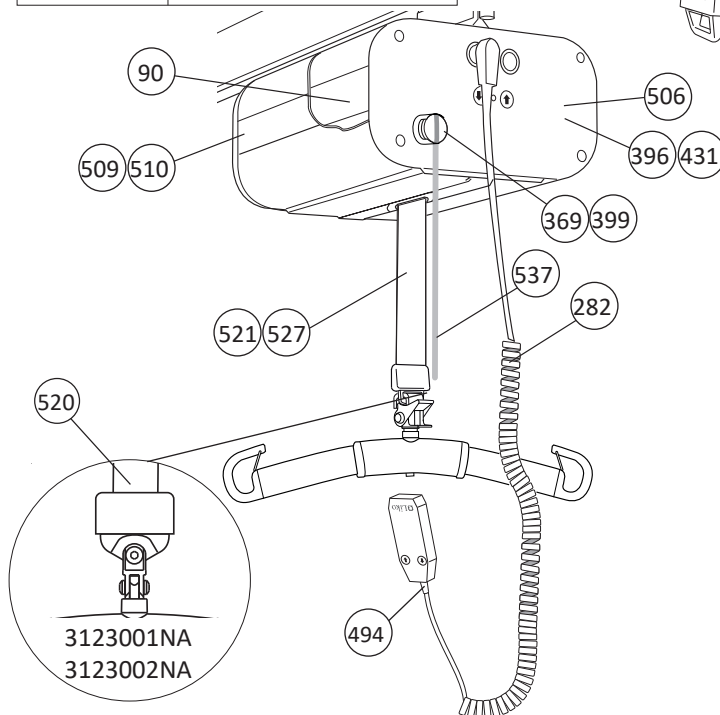
Likorall 242 S/ES



Likorall 242 S/ES R2R

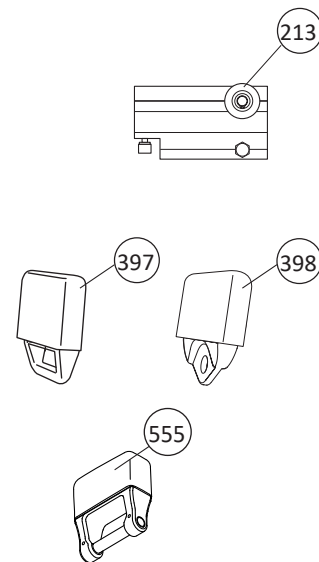
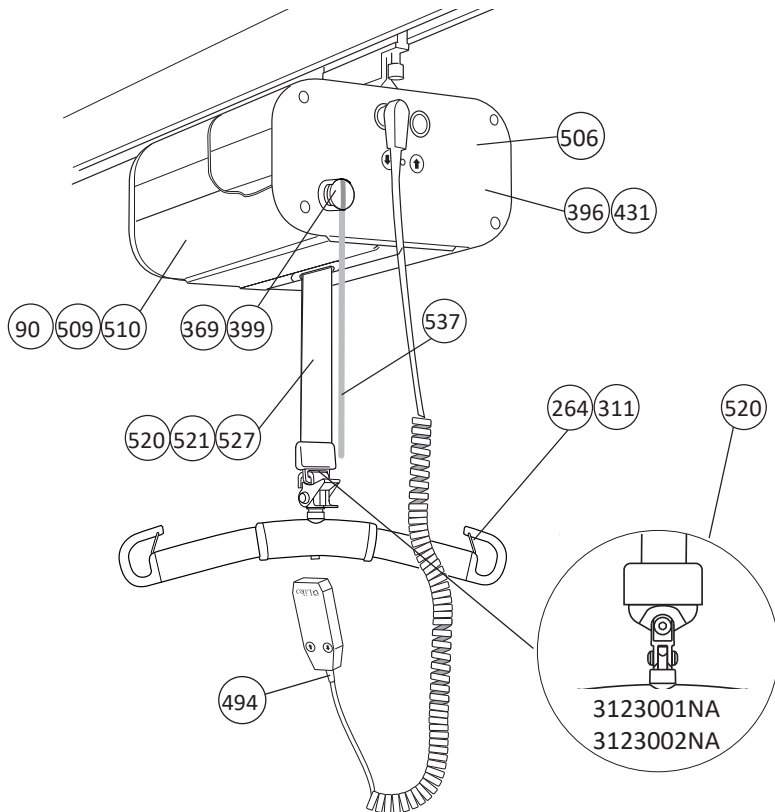


PROD. NO.	PRODUCT
3123001	Likorall 243 ES
3123002	Likorall 243 ES, white

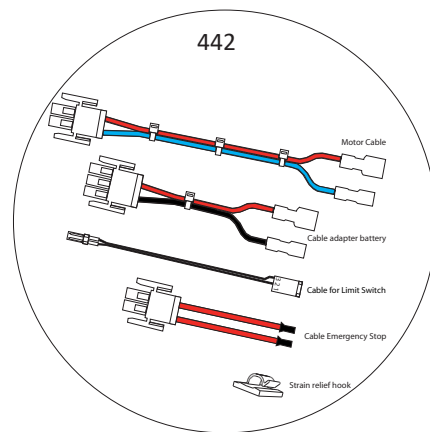
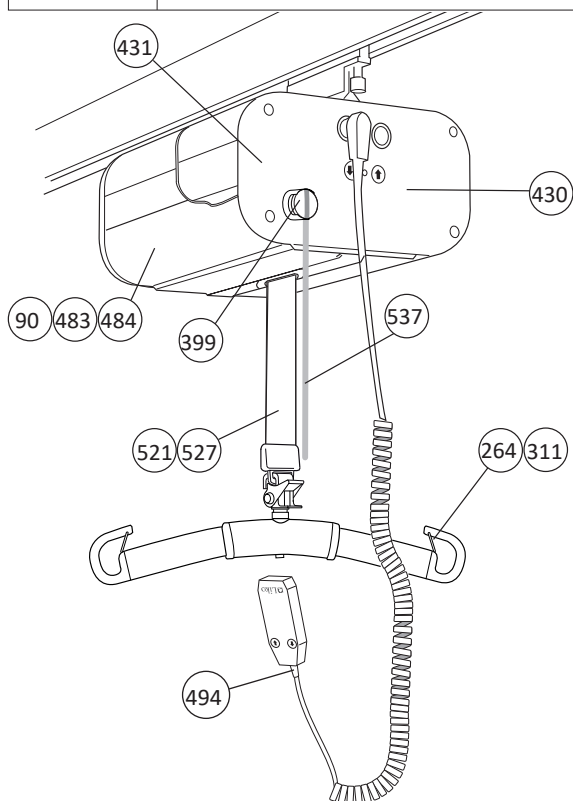


3.2 Spare Parts Positions Likorall™ overhead lift

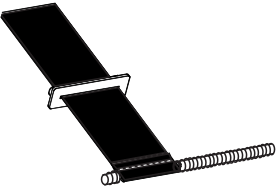
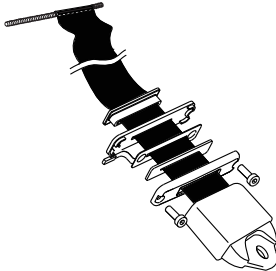
PROD. NO.	PRODUCT
3122501	Likorall™ 250 ES overhead lift
3122502	Likorall™ 250 ES overhead lift, white



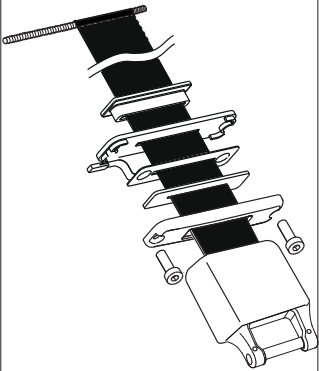
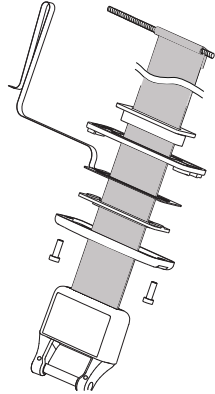
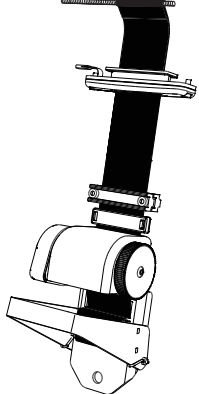
PROD. NO.	PRODUCT
3124050	Likorall™ 250 S IRC



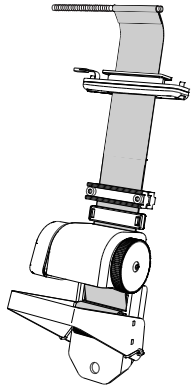
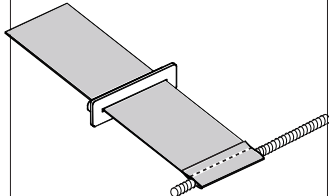
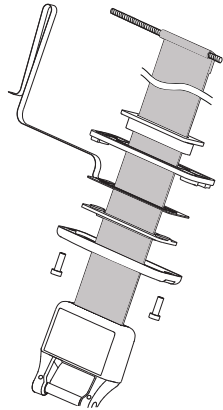
3.3 Spare Parts List Likorall™ overhead lift

LiftStrap																						
<p>△ It is very important that the correct lift strap is mounted to the overhead lift motor. Older versions of the Likorall™ overhead lift have black shorter lift strap. (The Likorall™ 200 overhead lift has short and long grey lift straps) Likorall™ overhead lift serial number (S/N) controls the choice of lift strap.</p>																						
PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.																		
31290098	518	LiftStrap for Easy Strapper, black (31290103)	set		3EN670209																	
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>Up to S/N:</th> </tr> </thead> <tbody> <tr> <td rowspan="4">242 S</td> <td>3122009</td> <td rowspan="2">8 016 399</td> </tr> <tr> <td>3122010</td> </tr> <tr> <td>3122009NA</td> <td rowspan="2">286 004</td> </tr> <tr> <td>3122010NA</td> </tr> <tr> <td rowspan="4">242 ES</td> <td>3122005</td> <td rowspan="2">8 102 099</td> </tr> <tr> <td>3122006</td> </tr> <tr> <td>3122005NA</td> <td rowspan="2">429 024</td> </tr> <tr> <td>3122006NA</td> </tr> </tbody> </table>				Fits:	Prod. No:	Up to S/N:	242 S	3122009	8 016 399	3122010	3122009NA	286 004	3122010NA	242 ES	3122005	8 102 099	3122006	3122005NA	429 024	3122006NA
		Fits:				Prod. No:	Up to S/N:															
		242 S				3122009	8 016 399															
						3122010																
						3122009NA	286 004															
						3122010NA																
		242 ES				3122005	8 102 099															
						3122006																
						3122005NA	429 024															
3122006NA																						
31290100	520	LiftStrap for fixed SlingBars, black	set		3EN670211																	
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>Up to S/N:</th> </tr> </thead> <tbody> <tr> <td rowspan="4">243 ES</td> <td>3123001</td> <td rowspan="2">8 203 599</td> </tr> <tr> <td>3123002</td> </tr> <tr> <td>3123001NA</td> <td rowspan="2">368 003</td> </tr> <tr> <td>3123002NA</td> </tr> <tr> <td rowspan="4">250 ES</td> <td>3122501</td> <td rowspan="2">8 303 699</td> </tr> <tr> <td>3122502</td> </tr> <tr> <td>3122501NA</td> <td rowspan="2">6 604 004</td> </tr> <tr> <td>3122502NA</td> </tr> </tbody> </table>				Fits:	Prod. No:	Up to S/N:	243 ES	3123001	8 203 599	3123002	3123001NA	368 003	3123002NA	250 ES	3122501	8 303 699	3122502	3122501NA	6 604 004	3122502NA
		Fits:				Prod. No:	Up to S/N:															
		243 ES				3123001	8 203 599															
						3123002																
						3123001NA	368 003															
						3123002NA																
		250 ES				3122501	8 303 699															
						3122502																
						3122501NA	6 604 004															
3122502NA																						

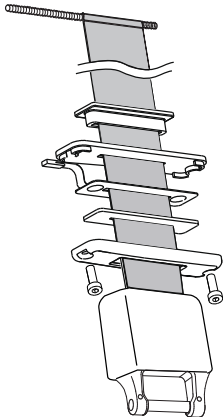
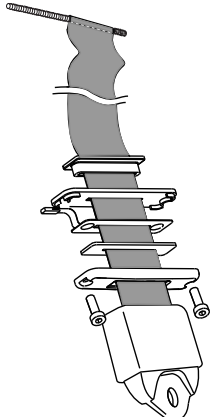
3.3 Spare Parts List Likorall™ overhead lift

LiftStrap																																			
<p>△ It is very important that the correct lift strap is mounted to the overhead lift motor. Older versions of the Likorall™ overhead lift have black shorter lift strap. (Likorall™ 200 overhead lift has short and long grey lift straps). Likorall™ overhead lift serial number (S/N) controls the choice of lift strap.</p>																																			
PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.																															
31290127	521	LiftStrap for Quick-release Hook, black	set		3EN670212																														
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>Between S/N: Up to S/N:</th> </tr> </thead> <tbody> <tr> <td rowspan="3">242 S R2R</td> <td>3122011</td> <td>7 920 001 - 8 016 112 and 8 016 169 - 8 016 399</td> </tr> <tr> <td>3122011NA 3122012NA</td> <td>260 603 - 286 004</td> </tr> <tr> <td>3122012</td> <td>8 016 399</td> </tr> <tr> <td rowspan="2">242 ES R2R</td> <td>3122007 3122008</td> <td>8 102 099</td> </tr> <tr> <td>3122007NA 3122008NA</td> <td>423 745 - 429 009</td> </tr> <tr> <td rowspan="3">243 ES</td> <td>3123001 3123002</td> <td>8 203 599</td> </tr> <tr> <td>3123001NA 3123002NA</td> <td>368 003</td> </tr> <tr> <td>250 ES</td> <td>3122501 3122502</td> <td>8 303 699</td> </tr> <tr> <td></td> <td></td> <td>3122501NA 3122502NA</td> <td>6 604 004</td> </tr> <tr> <td>250 S IRC</td> <td>3124050</td> <td>4004</td> </tr> </tbody> </table>				Fits:	Prod. No:	Between S/N: Up to S/N:	242 S R2R	3122011	7 920 001 - 8 016 112 and 8 016 169 - 8 016 399	3122011NA 3122012NA	260 603 - 286 004	3122012	8 016 399	242 ES R2R	3122007 3122008	8 102 099	3122007NA 3122008NA	423 745 - 429 009	243 ES	3123001 3123002	8 203 599	3123001NA 3123002NA	368 003	250 ES	3122501 3122502	8 303 699			3122501NA 3122502NA	6 604 004	250 S IRC	3124050	4004
		Fits:				Prod. No:	Between S/N: Up to S/N:																												
		242 S R2R				3122011	7 920 001 - 8 016 112 and 8 016 169 - 8 016 399																												
						3122011NA 3122012NA	260 603 - 286 004																												
						3122012	8 016 399																												
		242 ES R2R				3122007 3122008	8 102 099																												
						3122007NA 3122008NA	423 745 - 429 009																												
		243 ES				3123001 3123002	8 203 599																												
						3123001NA 3123002NA	368 003																												
250 ES	3122501 3122502		8 303 699																																
		3122501NA 3122502NA	6 604 004																																
250 S IRC	3124050	4004																																	
31290128	522	LiftStrap <u>1800 mm</u> LR 200, grey	set		3SE670213																														
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>S/N:</th> </tr> </thead> <tbody> <tr> <td>200</td> <td>3121001</td> <td>up to 8 405 800 and S/N: 8 405 969 - 8 406 299</td> </tr> </tbody> </table>				Fits:	Prod. No:	S/N:	200	3121001	up to 8 405 800 and S/N: 8 405 969 - 8 406 299																								
Fits:	Prod. No:	S/N:																																	
200	3121001	up to 8 405 800 and S/N: 8 405 969 - 8 406 299																																	
31290103	523	Easy Strapper Likorall, black	set		3EN670214																														
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>Up to S/N:</th> </tr> </thead> <tbody> <tr> <td rowspan="4">242 S</td> <td>3122009</td> <td rowspan="2">8 016 399</td> </tr> <tr> <td>3122010</td> </tr> <tr> <td>3122009NA</td> <td rowspan="2">286 004</td> </tr> <tr> <td>3122010NA</td> </tr> <tr> <td rowspan="4">242 ES</td> <td>3122005</td> <td rowspan="2">8 102 099</td> </tr> <tr> <td>3122006</td> </tr> <tr> <td>3122005NA</td> <td rowspan="2">429 024</td> </tr> <tr> <td>3122006NA</td> </tr> </tbody> </table>				Fits:	Prod. No:	Up to S/N:	242 S	3122009	8 016 399	3122010	3122009NA	286 004	3122010NA	242 ES	3122005	8 102 099	3122006	3122005NA	429 024	3122006NA													
		Fits:				Prod. No:	Up to S/N:																												
		242 S				3122009	8 016 399																												
						3122010																													
						3122009NA	286 004																												
						3122010NA																													
		242 ES				3122005	8 102 099																												
3122006																																			
3122005NA	429 024																																		
3122006NA																																			

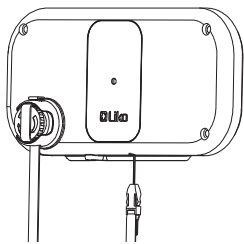
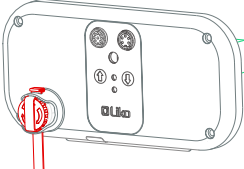
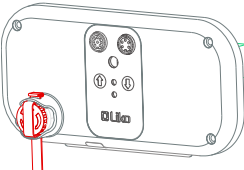
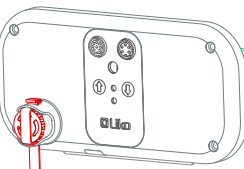

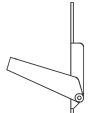

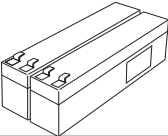

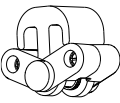
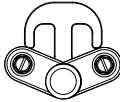
3.3 Spare Parts List Likorall™ overhead lift

LiftStrap																	
<p>△ It is very important that the correct lift strap is mounted to the overhead lift motor. Latest versions of Likorall™ overhead lift have grey longer lift strap. (Likorall™ 200 overhead lift has short and long grey lift straps) Likorall™ overhead lift serial number (S/N) controls the choice of lift strap.</p>																	
PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.													
31290104	524	Easy Strapper Likorall, grey	set		3EN670215												
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>From S/N:</th> </tr> </thead> <tbody> <tr> <td rowspan="4">242 S</td> <td>3122009</td> <td rowspan="2">8 016 400</td> </tr> <tr> <td>3122010</td> </tr> <tr> <td>3122009NA</td> <td rowspan="2">286 005</td> </tr> <tr> <td>3122010NA</td> </tr> <tr> <td rowspan="4">242 ES</td> <td>3122005</td> <td rowspan="2">8 102 100</td> </tr> <tr> <td>3122006</td> </tr> <tr> <td>3122005NA</td> <td rowspan="2">429 025</td> </tr> <tr> <td>3122006NA</td> </tr> </tbody> </table>				Fits:	Prod. No:	From S/N:	242 S	3122009	8 016 400	3122010	3122009NA	286 005	3122010NA	242 ES	3122005
Fits:	Prod. No:	From S/N:															
242 S	3122009	8 016 400															
	3122010																
	3122009NA	286 005															
	3122010NA																
242 ES	3122005	8 102 100															
	3122006																
	3122005NA	429 025															
	3122006NA																
31290105	525	LiftStrap for Easy Strapper, grey (31290104)	set		3EN670216												
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>From S/N:</th> </tr> </thead> <tbody> <tr> <td rowspan="4">242 S</td> <td>3122009</td> <td rowspan="2">8 016 400</td> </tr> <tr> <td>3122010</td> </tr> <tr> <td>3122009NA</td> <td rowspan="2">286 005</td> </tr> <tr> <td>3122010NA</td> </tr> <tr> <td rowspan="4">242 ES</td> <td>3122005</td> <td rowspan="2">8 102 100</td> </tr> <tr> <td>3122006</td> </tr> <tr> <td>3122005NA</td> <td rowspan="2">429 025</td> </tr> <tr> <td>3122006NA</td> </tr> </tbody> </table>				Fits:	Prod. No:	From S/N:	242 S	3122009	8 016 400	3122010	3122009NA	286 005	3122010NA	242 ES	3122005
Fits:	Prod. No:	From S/N:															
242 S	3122009	8 016 400															
	3122010																
	3122009NA	286 005															
	3122010NA																
242 ES	3122005	8 102 100															
	3122006																
	3122005NA	429 025															
	3122006NA																
31290129	526	LiftStrap <u>2000 mm LR 200</u> , grey	set		3SE670217												
		<table border="1"> <thead> <tr> <th>Fits:</th> <th>Prod. No:</th> <th>S/N:</th> </tr> </thead> <tbody> <tr> <td>200</td> <td>3121001</td> <td>8 405 801 - 8 405 968 and from S/N 8 406 300</td> </tr> </tbody> </table>	Fits:	Prod. No:	S/N:	200	3121001	8 405 801 - 8 405 968 and from S/N 8 406 300									
Fits:	Prod. No:	S/N:															
200	3121001	8 405 801 - 8 405 968 and from S/N 8 406 300															

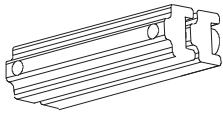
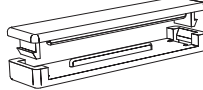

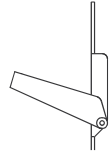


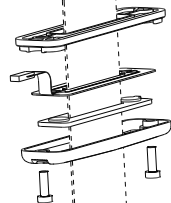

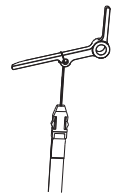

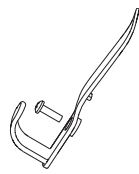

3.3 Spare Parts List Likorall™ overhead lift

LiftStrap								
<p>△ It is very important that the correct lift strap is mounted to the overhead lift motor. Latest versions of the Likorall™ overhead lift have grey longer lift strap. (Likorall™ 200 overhead lift has short and long grey lift straps) Likorall™ overhead lift serial number (S/N) controls the choice of lift strap.</p>								
PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.				
31290130	527	LiftStrap for Quick-release Hook, grey	set		3EN670218			
		Fits:				Prod. No:	From S/N:	
		242 S R2R				3122011	8 016 400 (and 8 016 113 - 8 016 168)	
						3122011NA 3122012NA	286 005	
						3122012	8 016 400	
		242 ES R2R				3122007 3122008	8 102 100	
						3122007NA 3122008NA	429 010	
		243 ES				3123001 3123002	8 203 600	
						3123001NA 3123002NA	368 004	
		250 ES				3122501 3122502	8 303 700	
3122501NA 3122502NA	6 604 005							
250 S IRC	3124050	4005						
31290108	528	LiftStrap for fixed SlingBars, grey	set		3EN670219			
		Fits:				Prod. No:	From S/N:	
		243 ES				3123001	8 203 600	
						3123002		
						3123001NA 3123002NA	368 004	
						250 ES	3122501	8 303 700
		3122502						
		3122501NA 3122502NA					6 604 005	
		31290114				532	<p>△ EXTENDED LIFT STRAP, ONLY FOR USE ON LIKORALL™ OVERHEAD LIFT INSTALLED IN ROOM WITH A CEILING HEIGHT FROM APPROX. 3.5 - max 3.95 METER / 138 - max.155 INCH, FROM FLOOR TO RAIL WHERE THE MOTOR IS ATTACHED Lift Strap 5.0 m, for Easy Strapper, grey</p> <table border="1"> <tr> <td>Fits:</td> </tr> <tr> <td>242 S</td> </tr> <tr> <td>242 ES</td> </tr> </table>	Fits:
Fits:								
242 S								
242 ES								

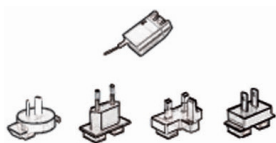
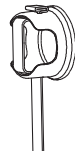

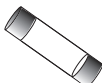




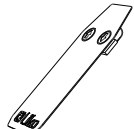
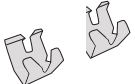
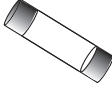
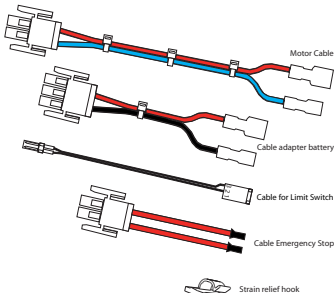
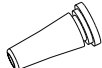
3.3 Spare Parts List Likorall™ overhead lift

PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.
Electronic Cards				
31290073	337	Electronic card with cover LR 200	pce	 3SE640292
31290085	430	Gable LR 250 S IRC	pce	 3SE650262
31290109	504	Electronic Card with Cover 242 ES <i>(From S/N 423745)</i>	pce	
31290110	505	Electronic Card with Cover 242 S <i>(From S/N 262603)</i>	pce	
31290111	506	Electronic Card with Cover 243/250 ES	pce	 3SE690234
Other spare parts				
20090041	36	Spring Magazine	pce	 3EN630214
31190007	78	Body/Handle set for Emergency, Lowering Device	pce	 3EN650209
31190018	87	Latch	pair	 3EN640271
31290007	90	Battery 2,4-2,6 Ah/12 V	pair	 3SE630239
3106004	130	Parking Bracket <i>Fits Instruction Placard Likorall, 3126003</i>	pce	 -
31290056	186	Hook R2R	pce	 3SE640288
31290131	556	Hook R2R II	pce	 3SE640288

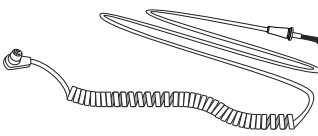
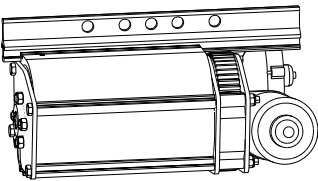
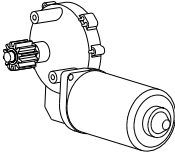

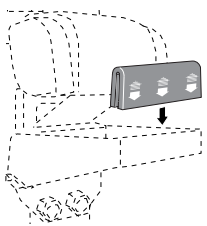
3.3 Spare Parts List Likorall™ overhead lift

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
31290057	203	Strap Stop (grey)	pce		3EN640287
31290059	210	Movable Strap Stop, 10 pce	set		3EN640286
31290060	213	Plastic Wheel with Bearing	pair		3SE650207
31190021	252	Body/Handle set for Emergency Lowering Device (<i>Stainless steel</i>)	pce		3EN650209
31590011	264	Latch universal	pair		3SE630229
31290070	282	Cable f hand control LR 242 S/ES (8-pin connector)	pce		3EN650203
31390007	283	Restoration set Limiting switch △ Fits only with lift strap assembled with mechanical emergency lowering.	set		3EN650204
31590014	311	Latch, composite <i>Fits Universal SlingBar from S/N 1299511</i>	pair		3SE640242
31290075	339	Emergency Lowering Device LR 200	pce		3SE640294
31290076	340	Hand control LR 200	pce		3SE640295
31290077	341	Hand control hook LR 200	pce		3SE640296
31390009	367	Fuse 10A, 10 pce	set		3SE650231

3.3 Spare Parts List Likorall™ overhead lift

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
21090025	368	Charger CH01	pce		3EN650232
31290078	369	Emergency Guard Activator	pce		3SE650233
31290079	396	Fuse LR 12,5 A, 10 pce Only to Likorall 242, 243, 250 with this type of fuse holder: 	set		3SE640238
31590005	397	Q-link	set		3EN640236
31590025	398	Lift strap joint	set		3EN640237
31590027	555	Q-link II	Set		3EN690292
31290080	399	Emergency Stop Mk2	pce		3EN650250
21090061	415	Key pad Hand Control 2-buttons (Replaces Spare Part No. 21090060 and 21090038)	pce		3EN650261
31290086	431	Fuse 12 A, 10 pce Only to Likorall 242, 243, 250 with this type of fuse holder: 	set		3SE650271
31290087	442	Cables, Likorall	set		3SE650274
31290091	494	Cable grommet, 10 pce	set		3SE690214

3.3 Spare Parts List Likorall™ overhead lift

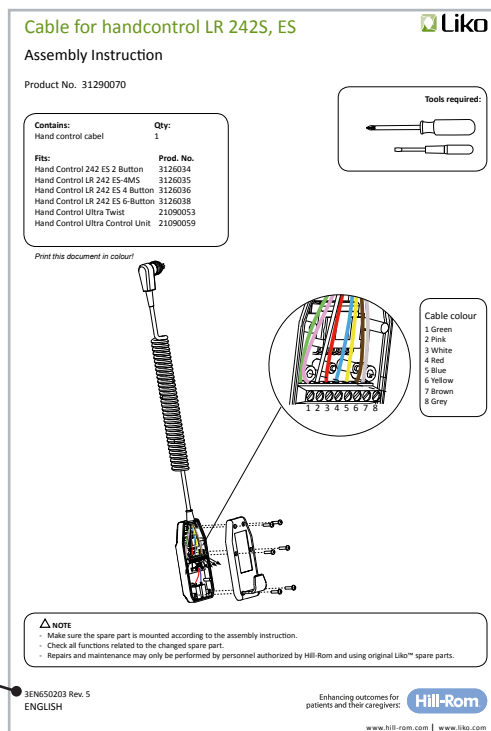
PROD. NO.	POS. NO.	NAME	UNIT	ASSEMBLY INSTR.
21090048	503	Long Cable for hand control 8pol Cable 180 cm, black	pce	 3EN690215
31290092	509	Actuator Restoration set, Likorall (Replaces Spare Part No. 31290054 and 31290089)	pce	 3EN690206
31290093	510	Electrical Motor, Likorall (Replaces Spare Part No. 31290069 and 31290090)	pce	 3SE690207
31290123	537	Emergency Guard Strap 2000 mm	pce	 3SE690238
20090102	554	Snap-on handle, 10 pce	set	 -

4.0 Spare Parts Assembly Information

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

INFORMATION

Document Number



NOTE

- Always make sure the spare part is mounted according to the assembly instruction.
- Mandatory: Check all functions related to the changed spare part according to the assembly instruction.
- 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 on the Partnerweb:

<https://partner.liko.com> - "My information" - "Documents"

If you don't have access, send a mail for registration to: se.customer.service@hill-rom.com

5.0 Periodic Inspection Information, Likorall™ overhead lift

According to ISO 10535:2006 Annex B, Periodic Inspection of medical device Liko™ overhead lift should be performed at least once a year. For Likorall™ overhead lift Periodic Inspection overhead lift (3EN191001) is available on the Partner Web and in Agile (internally).

Lift information		Customer reference	
Lot		Agreement No.	
Product Number		Name	
Serial Number		Address	
Installation year		Post Code	

OVERHEAD LIFT

	Action required	Approved	Not approved
1	Product Serial		
2	General inspection		
3	Carriage		
4	Reel control		
5	Emergency Stop		
6	Emergency Lowering		
7	Lifted Scales (Not valid for Mastact®)		
8	Charger (Not valid for Mastact®)		
9	Stapler		
10	JB Stop		

ENVIRONMENTAL IMPACT

	Action required	Approved	Not approved
11	Complete environmental		

LOAD TESTING

	Max Load applied	Approved	Not approved
12	Maximum Load certified lift	kg	lbs
13	Emergency lowering Maximum Load	kg	lbs

Physical Measurements

	Measured dimension	Approved	Not approved
14	Lift height / Lift stop depth	mm	

Clear service

	Action required	Approved	Not approved
15	Service Symbol reset		

Inspection sign off

Complete inspection according to instructions for the check points (page 2-8), fill in this page and sign below.

Approved to use the overhead lift: **Approved** **Not approved**

Action required: Actions according to the inspection items "NOT APPROVED" should be performed immediately. After performed actions, sign below. If anything is unclear or if you have questions, please contact Hill-Rom or your local Hill-Rom representative. Contact information is to be found at www.hill-rom.com.

Inspection performed by: _____ Date: _____

Next inspection: _____

Inspection performed in accordance with ISO 10535:2006 Annex B. Periodic inspection. Educating customers for patients and their caregivers.

Hill-Rom

NOTE!

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

Liko technical documentation can be found on the Partnerweb:

<https://partner.liko.com> - "My information" - "Documents"

If you don't have access, send a mail for registration to: se.customer.service@hill-rom.com

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


6.0 Preventive Maintenance

Expected Life Time

The expected life time of a Likorall™ overhead lift is 10 years of normal use provided that recommended 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 need to be replaced in order for the overhead lift to meet its expected life time. They are listed below.

Parts that needs to be replaced:

Part	Part No.	Year of life expectancy:	Replacement:
Lift Strap	See spare parts list	5 years	 Must be replaced before 5 years of use, or if wear and tear is detected.
Battery	31290007	3 years	Can be used more than 3 years if no malfunction is detected.
HandControl	See User Manual or Liko™ Product List	3 years	Can be used more than 3 years if no malfunction is detected.

7.0 Installation Instructions

Likorall™ overhead lift

⚠ Before installation:

Read and understand the contents of the Liko™ Overhead System Installation Hand Book; 3EN680001. Make sure the maximum load of the installed rail system is equal to or larger than the maximum load of the Likorall™ overhead lift.

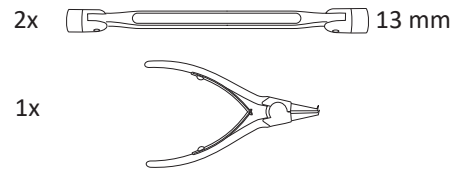
Basic condition for installation:

It is recommended to assemble the carriage to the lift motor before installation in the rail system.

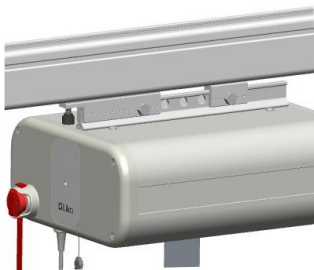
Overhead lift:

Overhead lift:	Colour:	Maximum load:
3121001 Likorall™ 200	natural	Max 200 kg (440 lbs)
3122005 Likorall™ 242 ES	natural	Max 200 kg (440 lbs)
3122006 Likorall™ 242 ES	white	Max 200 kg (440 lbs)
3122009 Likorall™ 242 S	natural	Max 200 kg (440 lbs)
3122010 Likorall™ 242 S	white	Max 200 kg (440 lbs)
3122007 Likorall™ 242 ES R2R	natural	Max 200 kg (440 lbs)
3122008 Likorall™ 242 ES R2R	white	Max 200 kg (440 lbs)
3122011 Likorall™ 242 S R2R	natural	Max 200 kg (440 lbs)
3122012 Likorall™ 242 S R2R	white	Max 200 kg (440 lbs)
3123001 Likorall™ 243 ES	natural	Max 230 kg (507 lbs)
3123002 Likorall™ 243 ES	white	Max 230 kg (507 lbs)
3122501 Likorall™ 250 ES	natural	Max 250 kg (550 lbs)
3122502 Likorall™ 250 ES	white	Max 250 kg (550 lbs)
3124050 Likorall™ 250 S IRC	natural	Max 250 kg (550 lbs)

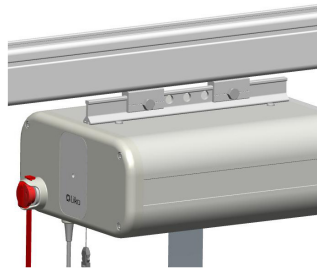
Tools Required



Likorall™ overhead lift attached to the different types of carriages:



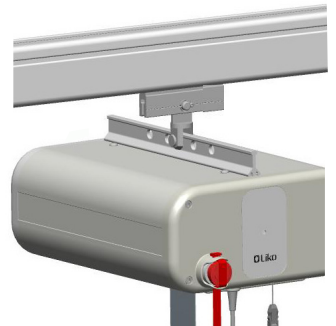
3126011 Carriage (2pcs) with brake



3126012 Carriage (2p) without brake



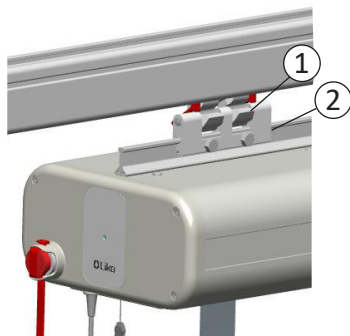
3126028 Carriage LR 360° for R2R



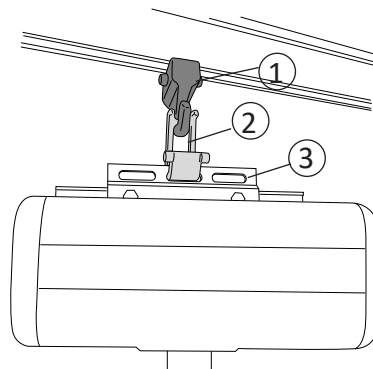
3126014 Carriage for R2R w/o brake



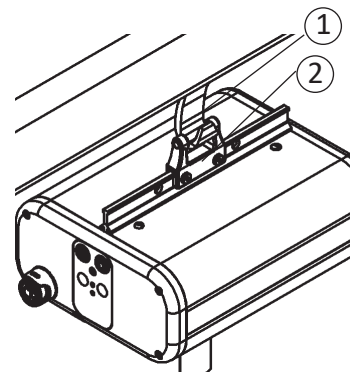
3126015 Carriage for R2R, with brake



1) 3126008 Quick-release Carriage LR
2) 3126009 Quick-release adapter



1) 3136015 Carriage with hook for MR/LR
2) 3126029 Carriage adapter LR
3) 3136016 Adapter MR/LR



1) 3136011 S65 Carriage with Hook
2) 3126030 Carriage Adapter LR for S65

7.0 Installation Instructions

Likorall™ overhead lift

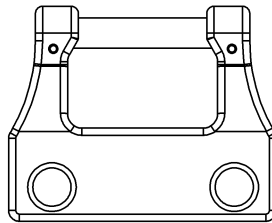
3136011 S65 Carriage with Single Hook

Contains:

Carriage Adapter LR for S65
Shoulder Bolts
M6 Fasteners

Qty:

1
2
4



x 1



x 2



x 4

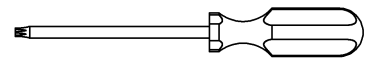
Fits:

Likorall™ overhead lift (all models)

△ This symbol indicates a warning.

△ Important!

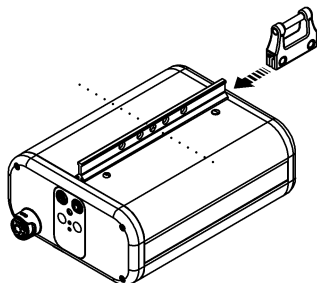
For safety reasons, it is essential that this component is correctly fitted to the lift according to these instructions.

Tools Required:

T30 x2

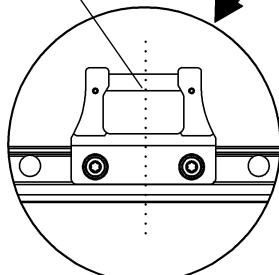
**Installing the Carriage Adapter LR for S65:**

1. Slide the adapter onto the lift mounting bracket.

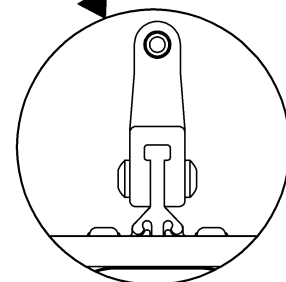
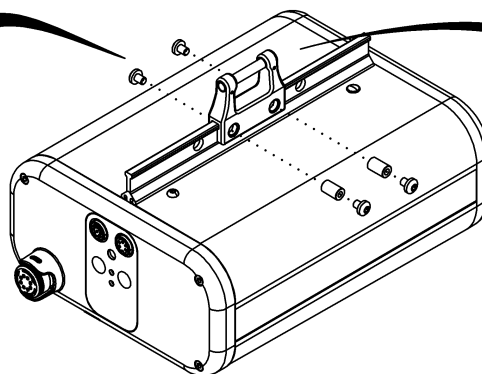


2. Place the adapter in the center of the mounting bracket and affix with the accompanying M6 screws (4) and accompanying 10 mm x 16.5 mm threaded pins (2). Stabilize the screws on one side using one T30 driver, while attaching the screws and pins on the opposite side with the other T30 driver. The recommended bolt torque is 4 N-m (35 in-lbs). Make sure the screws are entirely inserted when tightened. See the illustrations below.

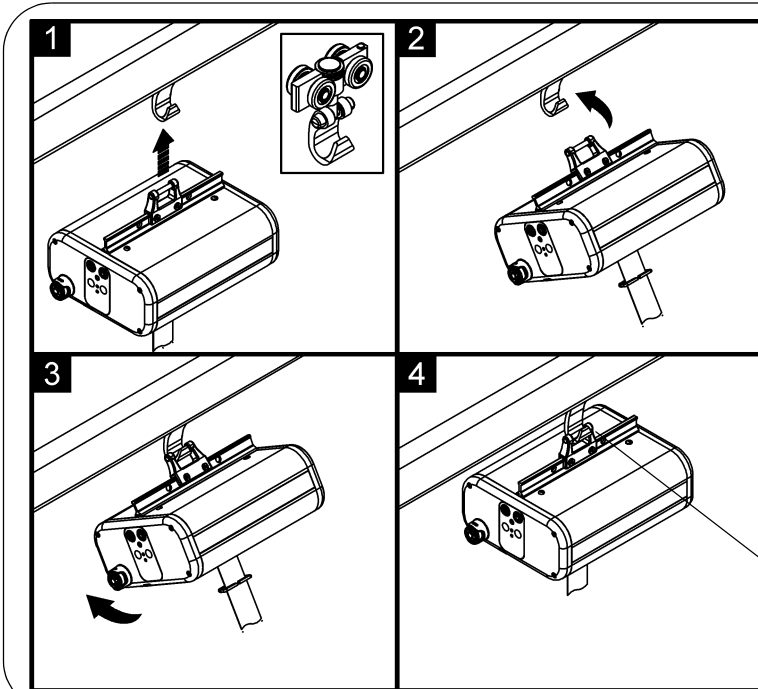
Center line



Front View



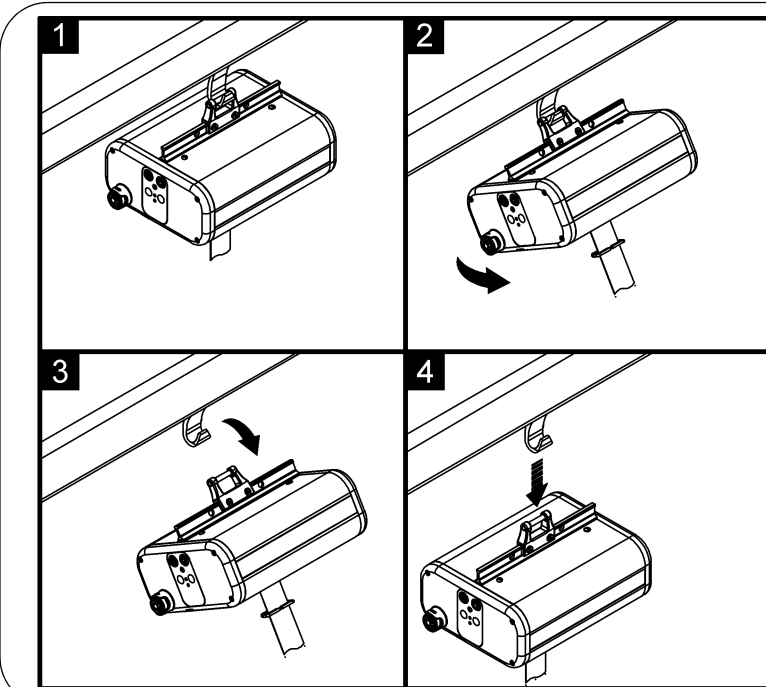
Side View



△ **Safety critical assembly!**

△ Make sure the rolling pin on the adapter is resting straightly and securely at the bottom of the S65 carriage hook!

Dismounting: Follow the steps below to remove the lift assembly from the S65 carriage hook.



△ **NOTE**

- Make sure the adapter is attached according to the instructions.
- Check all functions related to the adapter.
- Make sure when mounting the carriage that it is resting securely in the S65 hook and is not angled or leaning to one side.
- Repairs and maintenance may only be performed by personnel authorized by Hill-Rom and using original Liko™ spare parts.

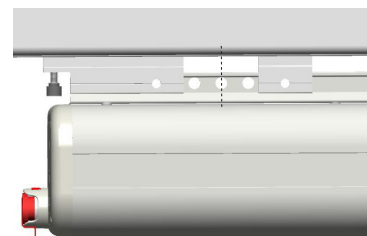
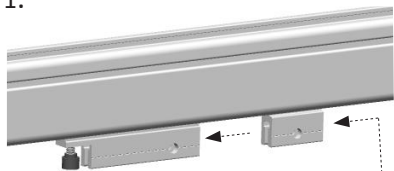
7.0 Installation Instructions

Likorall™ overhead lift

3126011 Carriage with brake LR

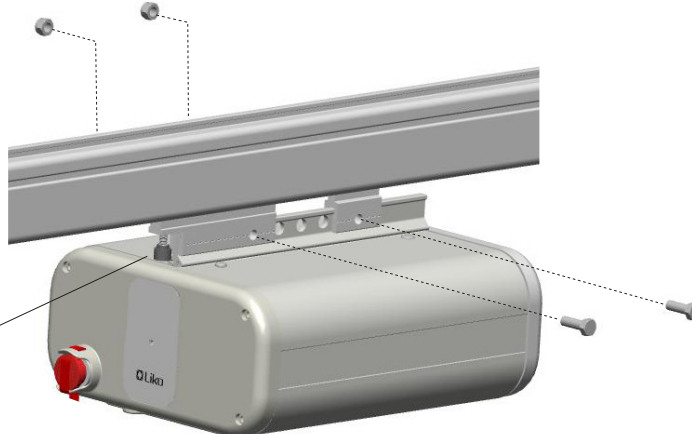
Note! Not compatible with rail curve 90° and rail curve 45°.

1.



Position of carriages.

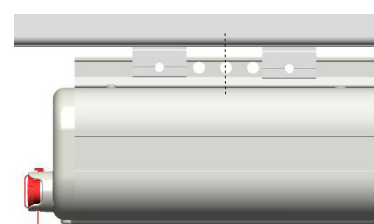
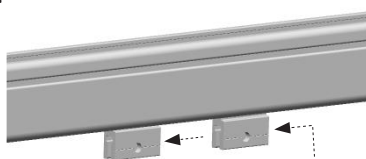
2.



Friction brake adjustment.

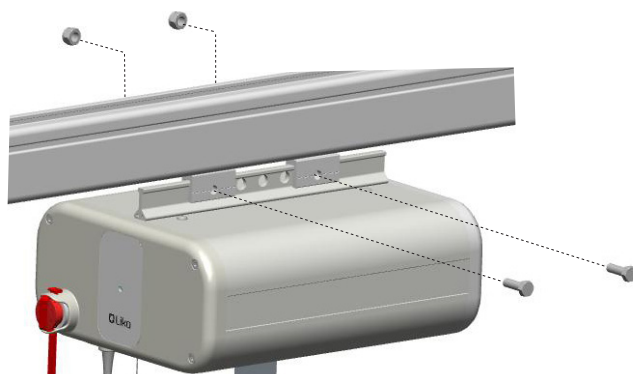
3126012 Carriage without brake

1.



Position of carriages in straight rail.

2.



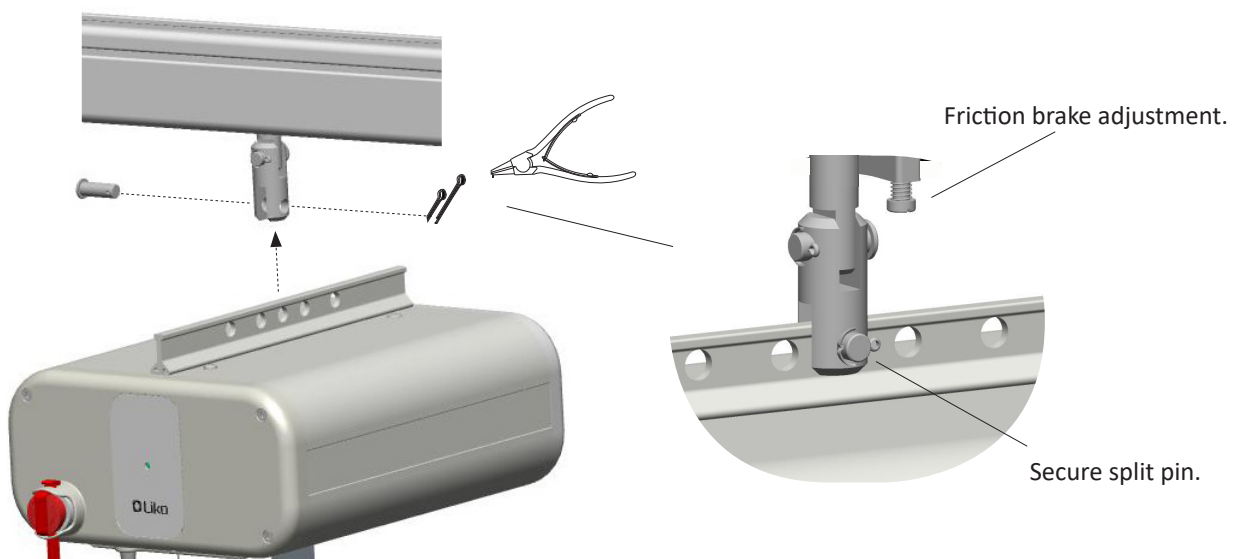
Position of carriages in rail curve.

7.0 Installation Instructions

Likorall™ overhead lift

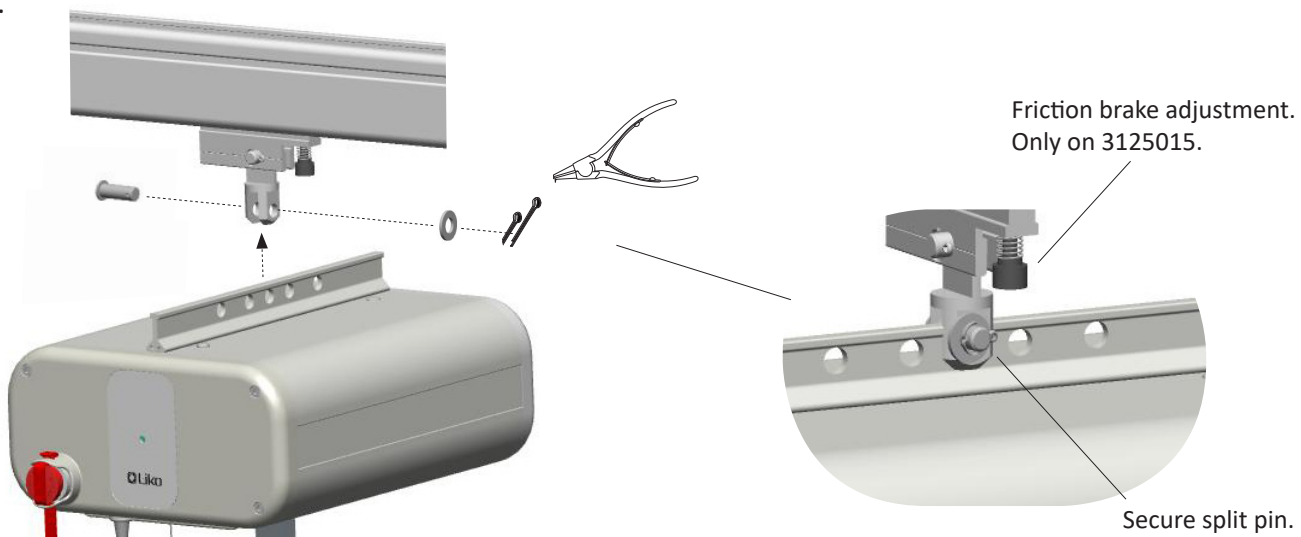
3126028 Carriage LR 360° for R2R

1.



3126015 Carriage for R2R, with brake 3126014 Carriage for R2R, without brake

1.



7.0 Installation Instructions

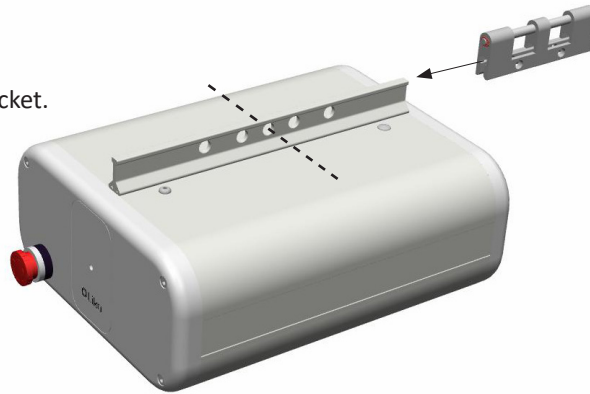
Likorall™ overhead lift

3126008 Quick-release Carriage LR

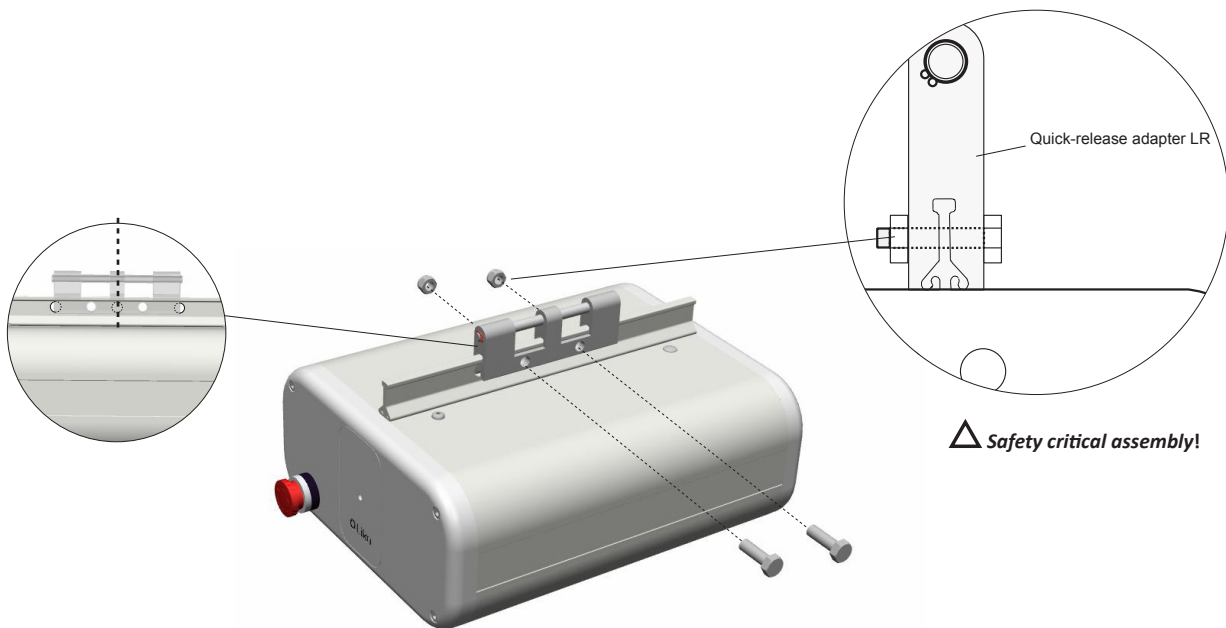
3126009 Quick-release Adapter LR

Mounting the Quick-release adapter:

1. Slide the adapter on to the lift units mounting bracket.



2. Place the adapter in the centre of the mounting bracket and fix with the accompanying bolts M8x25 and locking nuts M8. Make sure that the screw go all the way through the locking nut when it is tighten.



3. Connect the lift unit and Quick-release adapter to the Quick-release carriage:



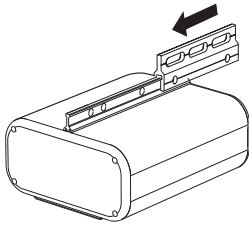
7.0 Installation Instructions

Likorall™ overhead lift

3136015 Carriage with hook for MR/LR

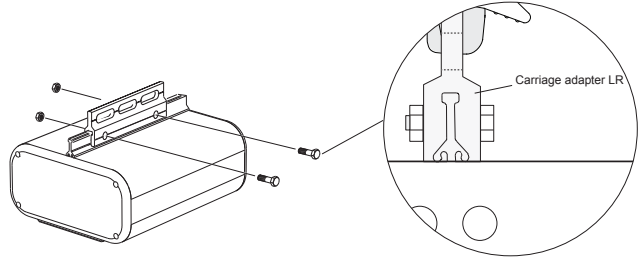
3126029 Carriage adapter LR

3136016 Adapter MR/LR



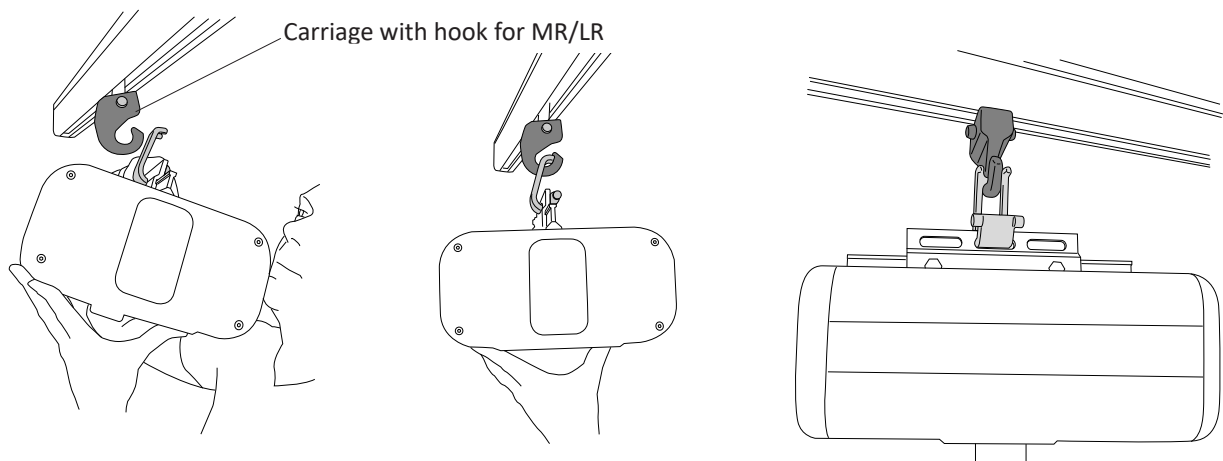
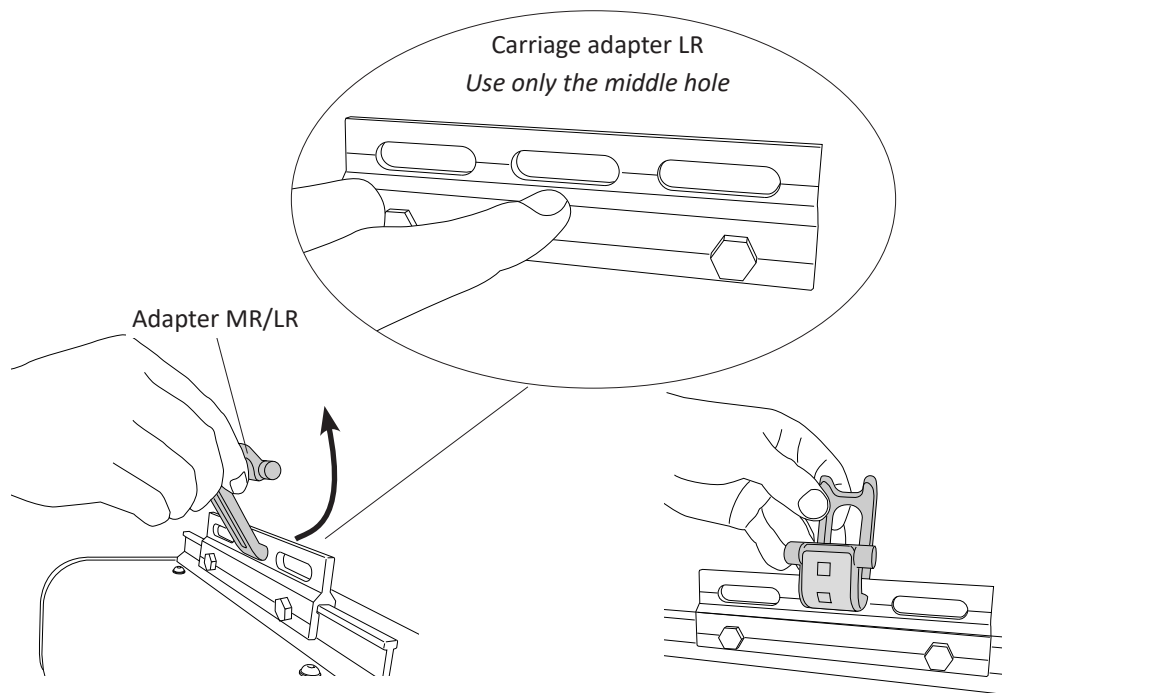
Slide the Carriage adapter LR into the Likorall™ mounting bracket.

△ Safety critical assembly!



Place the Carriage adapter LR centrally on the mounting bracket and fix with included screws M8x25 and locking nuts M8 in the outer holes.

△ Make sure both screws are tightened!

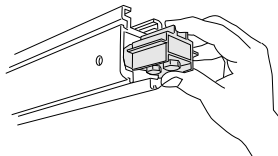


7.0 Installation Instructions

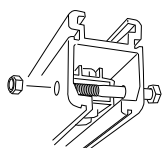
Likorall™ overhead lift



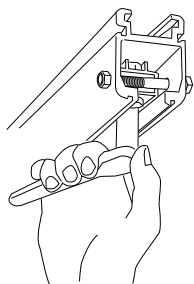
After installing the Likorall™ overhead lift, attach the End Stops in the rail:



1. Insert and locate the end stop in all rail sections.



2. Secure the through bolts.

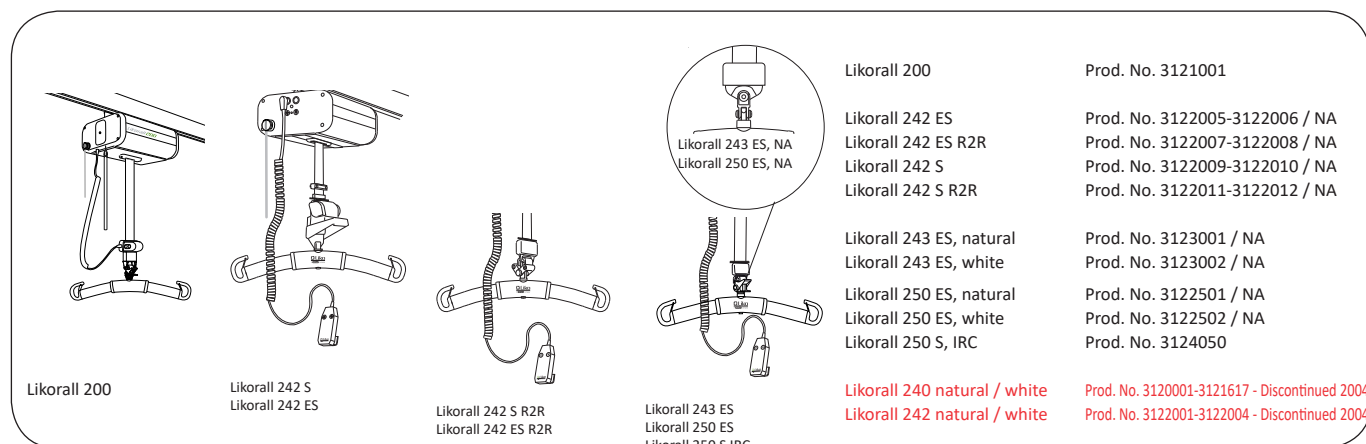


3. Secure the end stops, and apply choice of cover hats
(white or grey)

Check all functions related to the installed parts.

8.0 Product Changes

Likorall™ overhead lift



2019

Changes	Type	Prod. No.	Rev.	From S/N	Proj.
The Q-link changed to the Q-link II The S65 carriage with Single Hook has been reintroduced The Carriage adapter LR for S65 has been introduced	all	3401000 3136011 3126030			PRJ01055

2018

Changes	Type	Prod. No.	Rev.	From S/N	Proj.
Changed Battery supplier.(Changed from 2,4 to 2.6Ah) Backward compatible	all				SUS002547

2016

Changes	Type	Prod. No.	Rev.	From S/N	Proj.
Periodic inspection railsystem is removed from the service manual. For inspection of the rail system, use Periodic Inspection Liko™ Rail System (3EN111001). In Periodic Inspection detailed instruction regarding inspection of the slingbar is added. Sparepart 21090060 is replaced by 21090061 Key Pad hand control 2-button.	all				C138052

2015

Changes	Type	Prod. No.	Rev.	From S/N	Proj.
Information in periodic inspection is added regarding inspection in non Liko Rail Systems, in North America	all				C136163
Torque added when assembling the limit switch. Lift strap Asm instructions updated with this information. S/N adjusted on these pages regarding lift strap length. Spareparts from Likorall 240 obsoleted from spare parts list. The spare parts will go obsolete Oct. 1st 2015	Likorall 240	31290006 31290014 3126031 3126033 31290055 31290068			C132984 MOD002779

2014

Changes	Type	Prod. No.	Rev.	From S/N	Proj.
Sparepart 21090038 is replaced by 21090060 Key Pad hand control 2-button. New spare part 31290123 Emergency Guard Strap					SUS00442 1910

8.0 Product Changes

Likorall™ overhead lift



2013

Changes	Type	Prod. No.	Rev.	From S/N	Proj.
Spareparts to old versions of Likorall has been discontinued.	Likorall 240	31290052	-	-	1910
		31290053	-	-	
		31290005	-	-	
- The liftstraps has been modified. New type of seam and new 145 mm long treaded bolt. All Lift Strap Spare Parts has got new spare part numbers. (see Spare Parts List)	Likorall 200	3121001	02	8 411 000	1797
	Likorall 242 S	3122009	02	8 024 000	
		3122010	02	8 024 000	
		3122011	02	8 024 000	
		3122012	02	8 024 000	
		3122009NA	02	286 200	
		3122010NA	02	286 200	
		3122011NA	02	286 200	
		3122012NA	02	286 200	
	Likorall 242 ES	3122005	02	8 103 700	
		3122006	02	8 103 700	
		3122007	02	8 103 700	
		3122008	02	8 103 700	
		3122005NA	02	429 200	
		3122006NA	02	429 200	
		3122007NA	02	429 200	
		3122008NA	02	429 200	
	Likorall 243 ES	3123001	02	8 205 400	
		3123002	02	8 205 400	
		3123001NA	02	368 200	
		3123002NA	02	368 200	
	Likorall 250 ES	3122501	02	8 306 300	
		3122502	02	8 306 300	
		3122501NA	02	6 604 200	
		3122502NA	02	6 604 200	
	Likorall 250 S IRC	3124050	02	5 500	



Likorall™ overhead lift

2012

Changes	Type	Prod. No.	Rev.	From S/N:	Proj.	
- The motor has been modified. - New version of PCBA - Revision numbers (Rev.) are implemented. It is visible on the product label at the lift and on the packaging label. - Clarifying instructions regarding maximum load testing has been inserted in our documentation. (never go below start position with max load) - New longer grey lift straps on Prod. No: 3122009NA 3122010NA 3122011NA 3122012NA 3122005NA 3122006NA 3122007NA 3122008NA 3123001NA 3123002NA 3124050	Likorall 200	3121001	01	8 406 676	1748	
	Likorall 242 S	3122009	01	8 000 001	1817	
			3122010	01	8 000 001	
			3122011	01	8 000 001	
			3122012	01	8 000 001	
			3122009NA	01	286 005	
			3122010NA	01	286 005	
			3122011NA	01	286 005	
			3122012NA	01	286 005	
		Likorall 242 ES	3122005	01	8 100 001	
			3122006	01	8 100 001	
			3122007	01	8 100 001	
			3122008	01	8 100 001	
			3122005NA	01	429 025	
			3122006NA	01	429 025	
			3122007NA	01	429 025	
			3122008NA	01	429 025	
		Likorall 243 ES	3123001	01	8 200 001	
			3123002	01	8 200 001	
			3123001NA	01	368 004	
		3123002NA	01	368 004		
	Likorall 250 ES	3122501	01	8 300 001		
		3122502	01	8 300 001		
		3122501NA	01	6 604 005		
		3122502NA	01	6 604 005		
	Likorall 250 S IRC	3124050	01	4005		



8.0

8.0 Product Changes

Likorall™ overhead lift



2011

Changes	Type	Prod. No.	S/N:	Proj.
Due to production problems some Likorall was produced according to proj 754, with shorter black lift strap, old version of motor, and PCBA. Temporary solution until project 1748 was released.	Likorall 200	3121001	7 900 001 - 8 405 800 8 405 969 - 8 406 299	-
	Likorall 242 S	3122011	7 920 001 - 8 016 112 8 016 169 - 8 016 399	

2011

Changes	Type	From S/N	Project
New layout on decal and product labels.	Likorall 200		1690/1694
New layout on decal and product labels. Spare part 31290078 Emergency guard activator, reintroduces.	Likorall 242 S		1690/1694
	Likorall 242 ES Likorall 243 ES Likorall 250 ES Likorall 250 S IRC Likorall 242 S (NA) Likorall 242 ES (NA) Likorall 243 ES (NA) Likorall 250 ES (NA)	285 300 427 700 366 306 6 603 100	

Changes	Type	From S/N	Project
- The Hand Control Cable is 15 cm longer and more flexible. - The lifting range has been modified to 205 cm. - New longer grey lift strap. - The motor has been modified.	Likorall 200	8 405 801	1211/1051
- The lifting range has been modified to 205 cm. - New longer and grey lift straps. - The motor has been modified. - New fuse (12A) and fuse holder Proj 1211/1051 was never implemented on Likorall NA.	Likorall 242 S	8 016 001	1211/1051
	Likorall 242 ES Likorall 243 ES Likorall 250 ES Likorall 250 S IRC Likorall 242 S (NA) Likorall 242 ES (NA) Likorall 243 ES (NA) Likorall 250 ES (NA)	8 102 001 8 203 501 8 303 501 - - - -	

2010

Changes	Type	From S/N	Project
New type of ceiling lift, prepared for continuous charging through the rail system by In-Rail charging system (IRC)	Likorall 250 S IRC	2001-2500 (pre serial)	1099



Enhancing outcomes for patients and their caregivers®



8.0 Product Changes

Likorall™ overhead lift

New cover with integrated emergency stop collar and emergency stop cord. Lift strap equipped with Q-link is now standard on Likorall 243 ES and Likorall 250 ES.	Likorall 242 S	8 007 961	754
	Likorall 242 ES	8 100 714	
	Likorall 243 ES	8 201 237	
	Likorall 250 ES	8 301 629	
New cover with integrated emergency stop collar and emergency stop cord.	Likorall 200	8 401 443	
	Likorall 242 S (NA)	284 580	
	Likorall 242 ES (NA)	426 991	
	Likorall 243 ES (NA)	365 346	
	Likorall 250 ES (NA)	6 601 769	

2009

Changes	Type	From S/N	Project
New version of electronic card; version F	Likorall 200	8 401 051	1030

2007

Changes	Type	From S/N	Project
New version of Electronic card.	Likorall 242 S	8 000 001	560
	Likorall 242 ES	8 100 001	
	Likorall 243 ES	8 200 001	
	Likorall 250 ES	8 300 001	
New version of Electronic card.	Likorall 242 S (NA)	278 548	
	Likorall 242 ES (NA)	425 687	
	Likorall 243 ES (NA)	363 741	
	Likorall 250 ES (NA)	6 600 301	

2005

Changes	Type	From S/N	Project
Current limit changed from 10.5A to 11.5A.	Likorall 242 ES	424689	383
Safety Squeeze Protection upgraded with Twist Protection.	Likorall 242 S	267210	156
	Likorall 243 ES	362586	
	Likorall 242 ES	424379	
Hang-Up for Hand control	Likorall 242 S	266387	183
	Likorall 242 ES	424229	
	Likorall 243 ES	362487	