

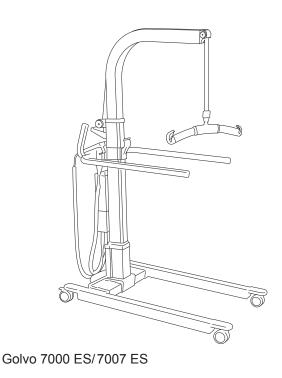


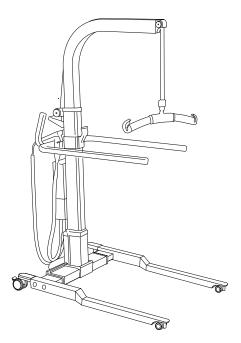
Instruction Guide

English 7EN140102-03 2009-07-03

Applies to the following models:

Golvo 7000 ES Prod. No. 2000009
Golvo 7007 ES Prod. No. 2000010
Prod. No. 2000010
Prod. No. 2000061





Golvo 7007 LowBase™

Product Description

Golvo is an electrically powered mobile lift, i.e., both raising and lowering of the lift arm and width adjustment of the base are done with electric motors.

To ensure maximum safety for caregivers and patients, Golvo is equipped for both mechanical and electrical emergency lowering. All Golvo lifts are equipped with convenient armrests, to assist both the caregiver and the patient. If needed, the armrests can be folded down into a support position.

Golvo is also available in a design with an extra low base; Golvo LowBase™. This model is recommended

for lifting to and from beds/barrack-beds that have a ground clearance of 58-110 mm (2.28-4.3 inch.).

Golvo can be used in most lifting situations: for example, between bed/wheelchair, to/from the toilet, in bath and shower, to/from the floor, for weighing patients and for horizontal lifting.

A comprehensive range of accessories are available for Golvo, including sling bars of different widths, slings in many sizes and fabrics, and accessories for ambulation/gait training, static weight-bearing, weighing patients, and for emergency room use and horizontal lifting, etc.

In this document, the person being lifted is called the "patient" and the person helping is called the "caregiver".

 Δ are triangles used to warn of situations that demand extra care and attention.

I IMPORTANT!

Carefully read these instructions and the instructions for the particular lifting accessory being used. Lifting and transferring patients always presents a potential risk. It is essential to thoroughly understand the content of these manuals, and that only trained persons use the equipment. If you have questions, please contact Liko or your local Liko representative.

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△ **NOTE!** This instruction guide contains information that is important for users of the product. A complete understanding of the contents of the instruction guide is essential, and only personnel who are well informed should use the equipment. Remember to keep the instruction guide readily accessible for users of the product.

Safety Instructions

Before using the lift for the <u>first</u> time, make certain that:

- · the lift is assembled according to the instructions
- · the lifting equipment is correctly applied to the lift
- · the batteries have been charged for at least 6 hours
- · you have read the instruction guides for the lift and lifting accessories
- · personnel using the equipment have received appropriate instructions and training.

Before lifting always make certain that:

- · the lift strap is not twisted or worn and that it can move freely in and out of the lift unit
- you have selected the correct type, size, material, and design of slings and accessories to safely meet the
 patient's needs
- · lifting accessories are not damaged
- · the lifting accessory is correctly applied to the lifting equipment
- · the lifting accessory is correctly and securely applied to the patient, so that no personal injury can occur
- the sling's strap loops are correctly fastened to the slingbar hooks when the sling strap is extended, but before the patient is lifted from the underlying surface.

△ Never leave a patient unattended in a lifting situation!







Golvo 7000 ES/7007 ES/7007 LowBase are tested by an accredited testing institute and comply with the requirements of the directives for medical-technical Class 1 products (MDD 93/42/EEC).

Golvo 7000 ES/7007 ES/7007 LowBase comply with the requirements according to IEC 60601-1, IEC 60601-1-2, EN ISO 10535, UL-60601-1 and CAN/CSA C22.2 No. 606.1.

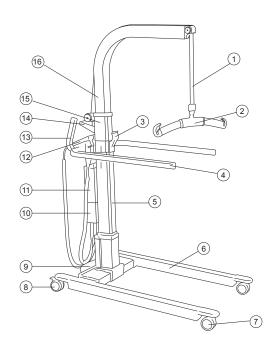
Particular care must be taken when using strong sources of electromagnetic interference, such as diathermy, etc, so that cables are not positioned on or near the lift. If you have questions, please consult the responsible assistive-device technician or the supplier.

This equipment is not suitable for use in the presence of flammable mixtures.

Maximum load: 200 kg (440 lbs.)

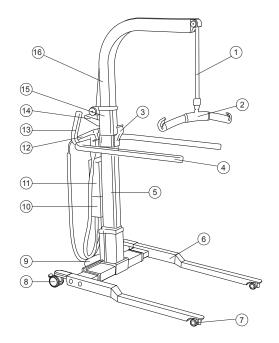
Definitions

Golvo 7000 ES/7007 ES



- Lift strap
- 2. Sling bar with safety latches
- 3. Parking bracket for sling bar
- 4. Foldable armrest
- 5. Mast with built-in motor for lifting
- 6. Base
- 7. Front wheel
- 8. Rear wheel with brake
- 9. Motor for base-width adjustment

Golvo 7007 LowBase™



- 10. Control box with emergency stop, built-in charger and electrical emergency lowering/ raising
- 11. Battery box
- 12. Hand control
- 13. Manoeuvering handles
- 14. Emergency lowering (mechanical)
- 15. Product decal
- 16. Lift arm

Technical Data

Lifting speed: Two speed levels: 4.8 cm/s (1.9 inch./s)

and 3.2 cm/s (1.3 inch./s); both speed

levels without load.

Batteries: Two 2.9 Ah, 12 V, valve-regulated

> lead-acid gel type batteries. New batteries are available from supplier.

Battery Built-in charger for 100-240 V AC,

charger: 50-60 Hz, max 400 mA.

Lift motor: 24 V, 6.5 A. Manufactured by Liko with

planetary gearing and safety nut (pre-

vents excessive wear).

Motor for width

adjustment: 24 V, 3.5 A. Geared motor.

Wheels: Standard front: 75 mm twin wheels.

Standard rear: 75 mm lockable twin-

wheels.

Material: Anodized aluminium. **Emergency**

lowering: Mechanical and electrical.

Intermittent Int. Op 10/90, active operation max 2 min. Out of a time of 100, active operation:

must be less than 10, however not

more than 2 min.

Degree of

protection: **IP 43** Sound level: 53 dB

This device is built for indoor operation.

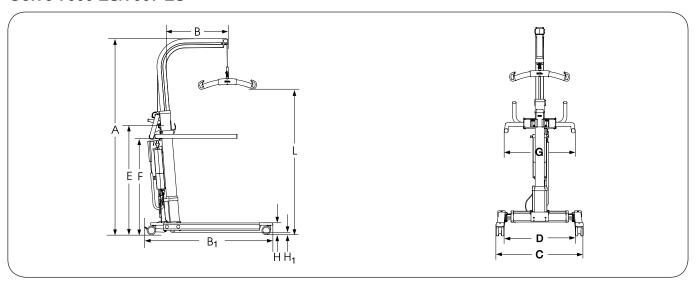
Type B according to the degree of protection against electric shock.

Class II equipment.

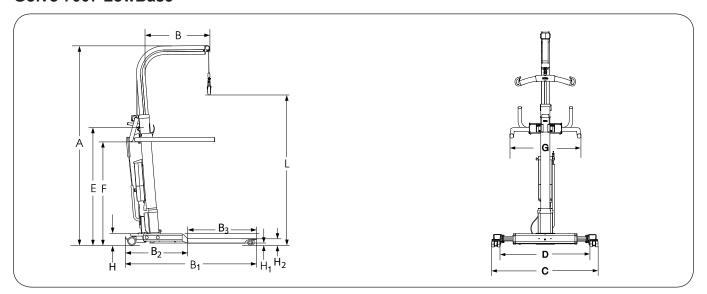
Patented

Measurements

Golvo 7000 ES/7007 ES



Golvo 7007 LowBase™



Maximum load and weight in kg. Measurement in mm.

Model	Wheel diameter	Max. load	L Max	A Max	A Min	В	B¹	B²	В³	С	D	E	F	G	Н	Н1	H ₂		Turning diameter
Golvo 7000 ES	75/75	200	1750	1990	1340	540	1120	-	-	670-950	530-810	960	840	600	110	23	-	42	1240
Golvo 7007 ES	75/75	200	1850	2080	1440	580	1190	-	-	750-1020	620-900	1060	940	600	110	23	-	44	1330
Golvo 7007 LowBase™	46/75	200	1850	2080	1440	580	1190	590	600	750-1020	620-900	1060	940	600	110	20	60	46	1330

Lifting range (1260 mm) is adjustable. See page 9.

Maximum load and weight in lbs. Measurement in inches.

Model	Wheel- diameter	Max. load	L Max	A Max	A Min	В	B ₁	В2	В3	С	D	Е	F	G	Н	H ₁	H ₂	Weight	Turning diameter
Golvo 7000 ES	2.96/2.96	440	69	78	53	21	44	-	-	26-38	21-32	38	33	24	4.3	1	-	93	49
Golvo 7007 ES	2.96/2.96	440	73	82	57	23	47	-	-	30-40	24-35	42	37	24	4.3	1	-	97	52
Golvo 7007 LowBase™	1.8/2.96	440	73	82	57	23	47	23.2	23.6	30-40	24-35	42	37	24	4.3	0.8	2.4	101	52

Lifting range (49.6 inches) is adjustable. See page 9.

Assembly

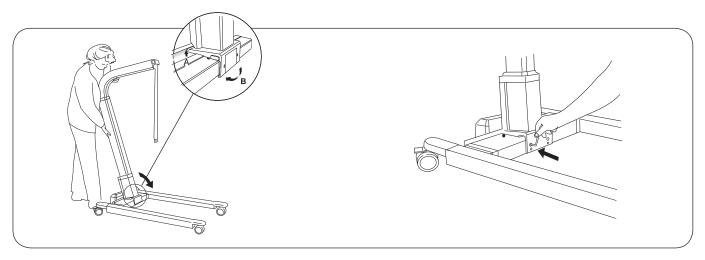
Before assembly, make sure you have the following parts and tools:

- mast with lift arm, motor for lift arm, control box and sling bar with bolt and locking nut (M8)
- armrest
- · base including motor for base width adjustment
- · battery box, including holder for charger cable
- · hand control with cable

- bag containing instruction guide, tag marked "Emergency lowering", charger cable and extension cable
- two M6 screws
- tools: Wrench: 17 mm

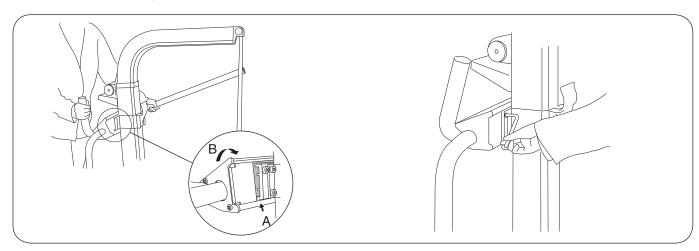
Allen wrench: 4, 5 and 6 mm

\triangle Lock the wheels before you begin assembling the lift.



- Start by unscrewing the transport safety plate (metal plate) at the lower edge of the mast.
 Then throw away the safety plate, the screws and the red information sticker attached to the safety plate.
- A) Place the mast on the center beam of the base, between the two black plastic caps.
- B) Push the mast forward as shown in the illustration above until it snaps onto the center beam.
- 2. Secure the mast with two M6 screws (enclosed) in the upper holes on the mast.

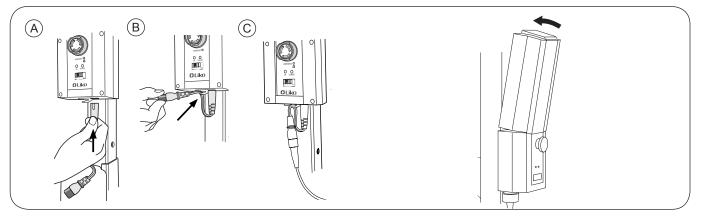
NOTE! Do not place any screws in the lower holes!



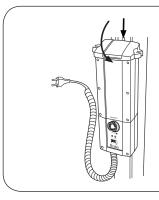
- 3. A) Place the armrest unit in the bracket on the mast, inserting it into the lower track first.
 - B) Lower the armrest unit, pressing on it until it snaps onto the upper track. Note that none of the premounted M8 screws should be completely unscrewed, although you may need to loosen some of them.
- 4. Secure the armrest by tightening the two premounted M8 screws.

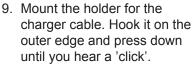


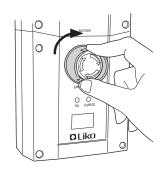
- 5. Assemble the sling bar (or other accessory) using M8 screws and locking nut (enclosed). Make certain to turn the screws 2 mm (0.08 inch.) past the lock function on the nut. Do not tighten so much that the sling bar connector cannot move in relation to the locking plate.
- 6. Connect the cables to the control box as follows:
 - Cable for hand control to socket number 1.
 - Cable for lift motor to socket number 2.
 - Cable for base motor to socket number 3.



- 7. A) Connect the extension cable for the charger cable to the control box.
 - B) Insert it in the tension clip on the underside of the control box.
 - C) Finally, connect the charger cable to the extension cable.
- Place the battery in its holder above the control box. Check that the battery locks into the holder (audible click).







 Reset the emergency stop by turning the button in the direction indicated by the arrows.



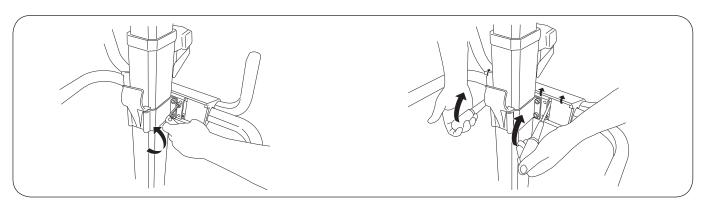
 Press the tag marked "Emergency" securely into place on the emergency lowering device.

After assembly, check to ensure that:

- the lifting motions correspond with the buttons on the handcontrol
- the emergency lowering works properly (mechanical and electrical)
- · wheel brakes work properly
- the width adjustment of the base works properly
- the indicator lamps on the front of the control box light during charging.

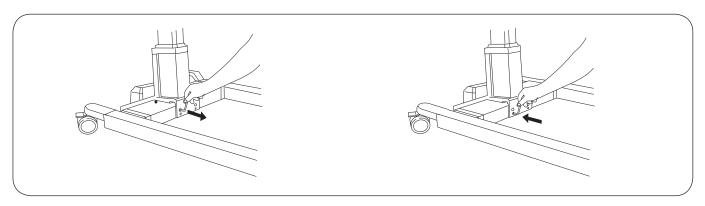
Disassembly

- 1. Start by loosening the sling bar or other accessory mounted on the lift.
- 2. Loosen the armrest holder as described below:



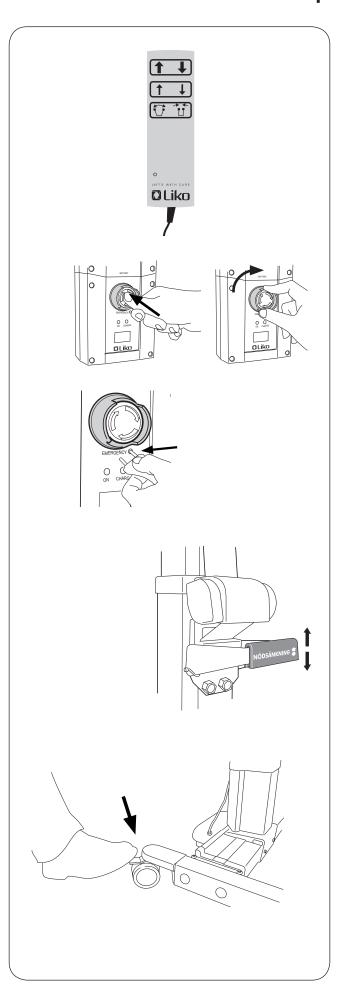
- A. Loosen both of the M8 screws on each side of the mast.
- B. Remove the armrest holder by using two screw-drivers.
- 3. Release cables for the hand control, the lift motor and the motor for base adjustment.
- 4. Remove the mast:

 Δ When the mast is free from the base it must be supported so it does not fall.



- A. Remove both of the safety screws from the upper holes on the mast.
- B. Screw in the safety screws in the lower holes on the mast. This releases the mast from the base and it can now be taken down.

Operation



Operation

Operate the lift using the pushbuttons on the hand control.

For raising and lowering, press either of the two upper pushbuttons. The direction in which the arrows are pointing applies when the hand control is held as shown in the illustration. The thicker sets of arrows refer to the maximum lifting speed. The thinner arrows refer to the lower lifting speed. The lifting motion ends as soon as the push button is released.

For base-width adjustment, press either of the two lower push-buttons:

₩ider

** Narrower.

Emergency stop

To activate

Press in the red button on the control box.

To reset

Turn the button in the direction of the arrows.

Electrical emergency lowering/raising

For electrical emergency lowering/raising, use a thin object and press into the hole marked "Emergency" on the control box.

△ The object used to press must not be too sharp since this might cause damage to the control box!

Mechanical emergency lowering

- 1. Emergency lowering should always take place over a bed, wheelchair, or other appropriate place.
- 2. To operate, pull down the handle marked "Emergency Lowering" and then release the handle upward. Continue pumping the handle until the patient in the lift is on a stable surface. Press down on the sling bar and continue to pump the handle down and up until the sling bar is low enough to permit the sling's strap loops to be unhooked.

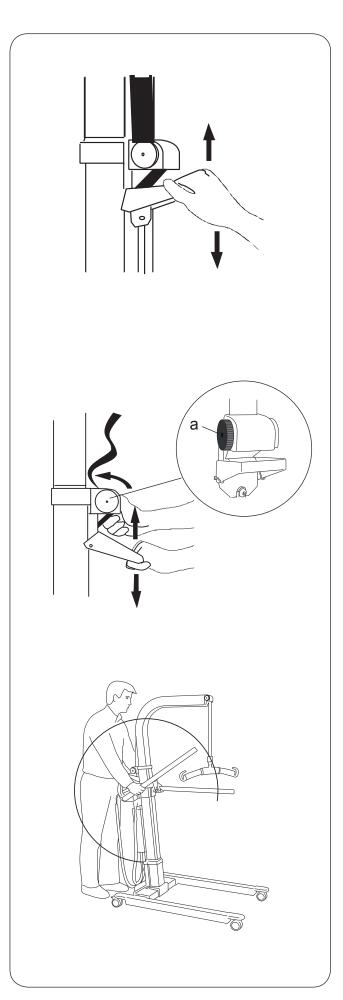
Locking the wheels

The rear wheels can be locked for rotation and lateral movement. To lock the wheels, press down the brake lever with your foot. To release the brakes, press up the brake lever with your foot.

During lifting, wheels should remain unlocked so that the lift may shift to the patient's center of gravity. The wheels should, however, be locked if there is a risk for the lift moving into the patient, for example when lifting from the floor.

 Δ Locked wheels during lifting increases the risk of the lift tilting over.

△ CAUTION! Due to the risk for injury, never use your hands to lock the foot brake!



Setting the lifting range

If you need to move the sling bar closer to the floor, you can do this by using the mechanical lowering device to extend the lift strap. Do not extend the lift strap more than necessary since this also influences the maximum lifting height. For example, when lifting a patient from the floor it may be necessary to lower the lifting range if the sling's strap loops do not reach the hooks of the sling bar even when the lift arm is in its lowest position.

Do the following: Hold down the red emergency lowering handle while simultaneously pulling down the sling bar with the other hand. This extends the lift strap and lowers the sling bar. Continue until you achieve the needed length.

After mechanical lowering / Resetting the lifting range

If you extend the lift strap while testing/using the emergency lowering function, the height of the lifting range is lowered. To reset the maximum lifting height, you must re-establish the original length of the lift strap.

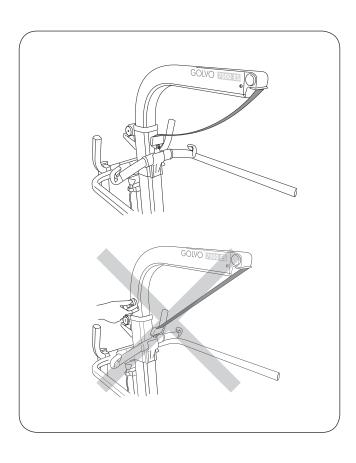
Do the following:

- Unweight the lift strap above the emergency lowering device by placing the sling bar on the lift mast or by having another person holding up the sling bar to keep the lift strap slack.
- 2. Move the emergency lowering handle down and up with one hand, while turning the black knob clockwise (tightening the lift strap) with your other hand. Repeat the action until the red mark on the lift strap is slightly above the emergency lowering device.

Armrest

If needed, the armrests can be folded down into a support position. The armrests have two functions: to give the patient a greater sense of security and to make it easier for the caregiver to move the lift.

△ CAUTION! When moving a patient in the lift between different rooms, the armrests should be placed in the support position!



Parking the sling bar

When the lift is not being used, or when moving an empty lift, the sling bar can be placed in the parking bracket.

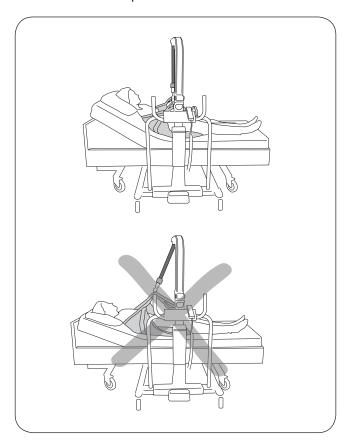
The parking bracket is intended for use with Universal SlingBar 350, 450 and 600 (all models).

△ Important when using the parking position: Never raise the lift arm while the sling bar is parked in the parking bracket since this might cause personal injury or damage on the lift if the sling bar suddenly

releases from the hook and swings forward.

Transfers from a bed

Always make certain that the lift strap is vertical and parallel to the mast. To achieve this, Golvo should be placed correctly under the bed. Adjust the width and/or change the position of Golvo in relation to the base of the bed to achieve the correct position.



Check that the lift strap is vertical during the lift.

Do not start the lift unless the sling bar is well balanced. An unbalanced load leads to wear and tear on the lift strap. It may also cause instability of the lift during the lift motion.

 Δ An unbalanced load increases the risk of the lift tilting over!

Charging the batteries

For maximum battery life, batteries must be charged regularly. We recommend charging after use or each night. Maximum charge is reached after about 6 hours. When the batteries are fully charged, the charger disconnects automatically. NOTE! A yellow indicator lamp on the control unit lights constantly during charging. When the batteries are fully charged, the yellow lamp shuts off. If this lamp continues to light after 8 hours, the batteries probably need to be replaced. Discontinue charging and replace batteries.

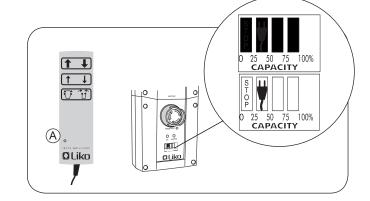
Never charge batteries in a wet area!

If the lift is not in daily use, we recommend that the emergency stop be pressed in after the lift has been used. This breaks the current and conserves battery power. Make sure the lift is fully charged before pressing in the emergency stop.

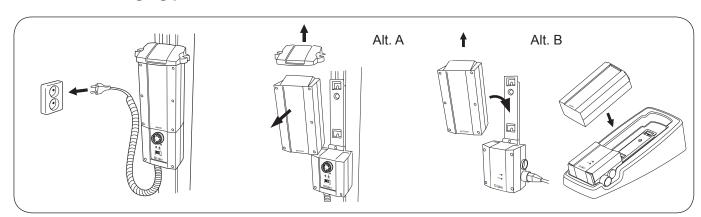
Battery capacity

If the battery needs charging, a beep tone will sound and a lamp (A) is lit on the handcontrol. There is, however, enough power left in the battery for a few more lifts.

A display on the control box shows the current battery capacity. When all fields of the display are black, the battery is fully charged. When a plug symbol appears (see illustration), the battery must be re-charged immediately.



Alternative charging procedures



With built-in charger:

Plug the charger cable into a power socket (100-240 V AC). Check that the yellow lamp on the control box lights (indicates charging).

If the charger cable is stretched out it should be replaced to avoid the risk of the cable getting caught and tear.

With wallmounted charger or table charger housing:

Loosen the holder for the charger cable. Remove the battery box from the control box by loosening the locking device on top of the battery box.

Alt. A. Place the battery box on the wallmounted charger. Check that the charger is plugged into the power socket (100-240 V AC) and that the yellow lamp on the front of the charger lights (indicates charging).

Alt. B. Place the battery box on the charger in the table charger housing. Check that the charger is plugged into the power socket (100-240 V AC) and that the yellow lamp on the front of the charger lights (indicates charging).

Note! The lift does not operate when the charger cable is plugged into a power socket.



Old batteries are to be left at the nearest recycling station or given to personnel authorized by Liko.

Maximum Load

Different maximum allowable loads may apply to different products on the assembled lift system: lift, sling bar, sling and other accessories. For the total lift system, the lowest max. allowable load indicated for the respective products on the system always applies. For example: A Golvo that is approved for 200 kg (440 lbs.) may be equipped with a lifting accessory that is approved for 300 kg (660 lbs.). In this case, the applicable max. load is 200 kg (440 lbs.) for the total lift system. Study markings on the lift and lifting accessories or contact your Liko representative if you have any questions.

Recommended Lifting Accessories

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

Sling bars and accessories recommended for use with Golvo are described below.

Changing sling bars and adding extra accessories affects the maximum lifting height of the lift. Before changing sling bars and accessories, it is important to ensure that it will still be possible to achieve the desired lifting height for situations in which the lift will be used.

For choice of appropriate slings and other lifting accessories, see e.g., the brochure "Lifting accessories". For further guidance on choosing a sling, consult the instruction guide for the respective sling model. Here you will find advice on suitable combinations of Liko sling bars and Liko slings.

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

SlingBar Mini 220 Max 205 kg / 450 lbs.	Prod. No. 3156005	
Universal SlingBar 350 Max 300 kg / 660 lbs.	Prod. No. 3156074	(C) to (C) to (C)
Universal SlingBar 450 (Standard for Viking L) Max 300 kg / 660 lbs.	Prod. No. 3156075	Oliko
Universal SlingBar 600 Max 300 kg / 660 lbs.	Prod. No. 3156076	G Cube
Universal TwinBar 670 Max 300 kg / 660 lbs.	Prod. No. 3156077	B G am o
Sling SideBars 450 incl. storage bag Max 300 kg / 660 lbs.	Prod. No. 3156079	
Sling Cross-bar 450 Max 300 kg / 660 lbs.	Prod. No. 3156021	
Sling Cross-bar 670 Max 300 kg / 660 lbs.	Prod. No. 3156018	
Golvo • 7EN140102-03	12	₩ww.liko.com

SlingBar Cover Paddy 30

Prod. No. 3607001

(fits Universal SlingBar 350, 450 and 600 and SlingBar Slim 350)



Bag for SlingBars

Prod. No. 2001025



Golvo 7007 LowBase Kit

Prod. No. 20090071

This reconstruction kit enables the lift to be adapted to beds /barrack-beds with a very low ground clearance, 58-110 mm (2.28-4.3 inch.).

Contact Liko for more informtion.



Quick-release Hook

Liko's Quick-release Hook system enables quick and easy exchange of lifting accessories on Liko's mobile and stationary lifts. Golvo requires Q-link for use with Quick-release Hook.

Quick-release Hook Universal fits Universal SlingBar 350, 450 and 600 (Prod. No. 3156074-3156076). Quick-release Hook TDM fits Sling Cross-bar 450 and 670 (Prod. No. 3156021 and 3156018) and Universal TwinBar 670 (Prod. No. 3156077).

When a sling bar mounted with the Quick-release Hook system is used, the lifting height will be 33 mm (1.3 inch.) shorter than with a permanently mounted sling bar.

See "Guide to Liko's Quick-release Hook System", which can be downloaded from our website, www.liko.com, or contact Liko for more information on the advantages and use of the Quick-release Hook system.



Quick-release Hook Universal

Prod. No. 3156508



Quick-release Hook

TDM Prod. No. 3156502



Q-link

Prod. No. 3156509



Prod. No. 2001020

For patients with sufficient body stability, the Standaid Set can be used for shorter transfers, for example between a wheel-chair and a toilet, or between a bed and a wheelchair. The patient is lifted to a semi-standing position with the help of SafetyVest or the SupportVest, behind the back and under the arms.



Stretchers

Most Liko stretcher models can be used in combination with Golvo.

Contact Liko for more information.



Liko OctoStretch Prod. No. 3156055



Scale

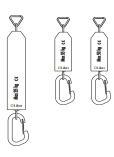
In need of weighing patients in combination with Golvo, we recommend LikoScale 350. Max. load 350 kg (770 lbs.). LikoScale 350 is certified according to the european directive NAWI 90/384 (Non Automatic Weighing Instruments). Contact Liko for more information.



Support Springs

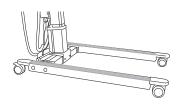
Elastic springs enable a gentler springing motion, which makes activities such as gait training easier and more natural. Springs are available in three different designs:

Long, max. 70 kg (154 lbs.)/pair	Prod. No. 3166511
Short, max. 70 kg (154 lbs.)/pair	Prod. No. 3166512
Short, max. 100 kg (220 lbs.)/pair	Prod. No. 3156513.
For more information, see instruction guide	for Liko MasterVest,
mod. 60, 64, or Liko Lift Pants, mod. 92.	



Leg Protector

Leg Protector Set Golvo 7000, grey	Prod. No. 20060110
Lea Protector Set Golvo 7007, grev	Prod. No. 20060120



Extra Battery Box Prod. No. 2006106



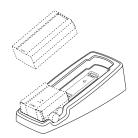
Charger for Extra Battery Prod. No. 2004106

for wall mounting or for use with Table Charger Housing



Table Charger Housing Prod. No. 2107103 excl. battery box and charger

a table charger housing for the charger when you do not wish to mount the charger on the wall.



Simple Troubleshooting

The lift does not work up/down.

Base-width adjustment does not work.



- 1. Check that the emergency stop button is not pushed in (page 8).
- 2. Check that the cables to the control box are correctly connected (page 6).
- 3. Check that the charger cable is not connected to the power socket.
- 4. Check that the battery is charged (page 11).
- 5. Check that the contact plates of the battery are not defective or broken off.
- 6. If the lift still does not work satisfactory contact Liko.

Battery charging does not work.



- 1. Check that the emergency stop button is not pushed in (page 8).
- 2. Check to ensure that the power socket is power-supplied.
- 3. Check that the charger cable is correctly connected (pages 6 & 11).
- 4. Check that the contact plates of the battery are not defective or broken off.
- 5. If the lift still does not work satisfactory contact Liko.

The lift stops in the elevated position.



- 1. Check that the emergency stop button is not pushed in (page 8).
- 2. Use the electrical emergency lowering to safely lower the patient (see page 8).
- 3. Use the mechanical emergency lowering to safely lower the patient (page 8).
- 4. Check that the battery is charged (page 11).
- 5. If the lift still does not work satisfactory contact Liko.

The lift does not reach its maximum lifting height.



- 1. Check that the correct lifting range has been set (page 9).
- 2. If the lift still does not work satisfactory contact Liko.

If you hear unusual sounds or discover wear and tear on the strap.



Contact Liko.

Care and Maintenance

Care and inspection

For safe and troublefree operation, a few routine procedures should be performed every day the lift is used.

- · Visually inspect the lift and check for external damage or wear
- · Check the sling bar connector
- · Check the lift strap for wear and make sure it is not twisted
- · Check that the safety latches work properly
- · Test the operation of raising and lowering and the base-width adjustment function
- Check that the correct lifting range has been set and that the emergency lowering works properly
- · Charge the battery every day the lift is being used, and check the charger function

When necessary, clean the lift with a moist cloth, using common surface cleaners or disinfectants. **NOTE! Do not use cleaning products that contain phenol or chlorine, since these can eventually damage aluminum and polyamide material.**

 \triangle The lift must not be exposed to running water.

Service

Golvo must be inspected at least once per year. Pay particular attention to parts that are subject to wear.

 \triangle Repairs and maintenance may only be carried out according to Liko service manual, by personnel authorized by Liko and using original Liko spare parts.

Service agreements

Liko invites you to sign a service agreement for regular maintenance and testing of your Liko products. Contact your local Liko representative for more information.

Transportation and storage

During transportation, or when the patient lift is not to be used for some time, the emergency stop button should be pushed in. The environment where the patient lift is transported and stored should have a temperature between 10 °C and 40 °C and a humidity between 30 % and 75 %. The air pressure should be between 700 and 1060 hPa.

Recycling

For instructions on how your Liko product should be recycled, please visit our website www.liko.com.

Product changes

Liko's products are constantly being updated and refined. Liko reserves the right to change aspects of the products without prior notice. Contact your local Liko representative for updated information and advice.

Design and Quality by Liko in Sweden

Liko is quality certified according to ISO 9001 and its equivalence for the medical device industry, ISO 13485. Liko is also certified according to environmental standard ISO 14001.



www.liko.com