

**BORRINGIA**

MAKE EVERY DAY A LITTLE BIT EASIER

**User's Operations Manual**  
**Zero Effort Handling™ of Bariatric Patients**



**With the Motor Driven**

**XXL Lift™**

**and Motorized Patient Positioning System**

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**Borrington Representative:**

**Certified Technician:**

## 1. Preface

The Borrhingia XXL Lift™ is a completely new and revolutionary tool for safe, efficient and effortless lifting, transferring, handling and positioning of bariatric patients. Developed in cooperation with Danish university hospitals, the XXL Lift combines all the advantages of mobile lifters and ceiling track lifters whilst retaining none of their respective disadvantages:

- The XXL Lift is a mobile device, which means that it can follow the patient's way through the hospital, eliminating the need for installations of costly bariatric ceiling track systems throughout the hospital, which are only needed, when a bariatric patient happens to in a given room. In short: The XXL Lift offers maximum flexibility and lower investments.
- The XXL lift is motorized by the patented CompassDrive® System, which allows the care giver to move the XXL Lift without any physical effort. CompassDrive allows the lifter to drive both forwards & backwards as well as **sideways** and thereby eliminates the work hazards associated with manually pushing heavy person lifters. Thereby the XXL Lift combines the flexibility associated with the mobile lifts with the safe work environment known from ceiling track systems.
- In addition, the XXL Lift offers a new and patented motorized patient positioning system. The PowerTilt™ System makes it possible for the patient to lie horizontally in the sling, which is ideal for lifting to/from beds, operating tables, stretchers and even the floor. In the reverse position, the patient can be lifted sitting upright in the sling, which is ideal for correct positioning in e.g. a wheelchair or a shower- & commode chair. With the PowerTilt these functions are motorized, meaning that the severe physical strain previously associated with positioning of bariatric patients has been eliminated.
- The fact that the strain is removed from the lifting, transferring, handling and positioning routines also means that the bariatric patients feel less like a “burden” to the caregivers, leading to a much more dignified care situation.

**We are certain that the XXL Lift will set new standards in bariatric care with lower investments, less work injuries, increased productivity and much more satisfied patients.**

In this User's Operations Manual you'll find important information about the correct use and maintenance of your new XXL Lift. It is a **must** that all caregivers, who operate the XXL Lift, have studied this Manual carefully, prior to using the XXL Lift. Should this Manual not provide answers to all your questions regarding a safe and correct use of the XXL Lift, please contact your dealer for clarification prior to taking the XXL Lift into use.

## 2. Explanation of Symbols

This User's Operations Manual contains important information about the correct and safe use of the XXL Lift. All users of the XXL Lift must have studied this manual carefully prior to using the lifter. All instructions in this manual should be followed meticulously. Before using the

patient lifter, all staff should be trained. We recommend that all operators practice using the XXL Lift and that they try being lifted themselves so as to know what the patients will experience. Before each lifting job, operators should think the entire process through and explain it to the patient.

#### Symbols used:



This symbol is used to indicate information and instructions, which have influence on work safety or patient safety and comfort. Failure to comply with such instructions may result in injury to caregiver or patient. These instructions must be followed meticulously at all times.



This symbol is used to indicate information and instructions, which have an impact on the equipment's functionality. Disregarding such information may lead to damage to the lifter and/or other equipment.



This symbol is used to indicate information and instructions, which can help both caregivers and patients obtaining safe, efficient and dignified lifting and transfer situations.

### 3. Disclaimer

- Read this manual carefully prior to using the product. We do not accept any responsibility or liability for damage or product failure caused by incorrect use of the lifter.
- This User's Operations Manual has been written according to our best efforts. All information, data and advice was correct at the time of printing. We reserve the right to revise this manual as and when technical changes are made to the product concerned. Only the documentation supplied with the actual product is valid.
- All warranty claims must be made immediately after detection of a defect.
- Only original Borringia spare parts & accessories may be used on the product.
- No alterations, modifications or conversions must be carried out.
- Only original Borringia slings designed to be used with the PowerTilt – motorized positioning system – may be used.
- But for product liability, Borringia A/S is liable for faults, product failures and omissions on its part as stated in the warranty agreement or purchase contract. Consumables (batteries, castors, slings) are not warranted.
- Claims for damages are expressly excluded, regardless of the legal basis, from which such claims originate.
- Failure to comply with the instructions given on safety, maintenance & usage in this User's Operations Manual renders the Declaration of Conformity delivered with this product as per the Council Directive (93/42/EEC) invalid.

## 4. Safety



Before using the Borrhigia XXL Lift, the caregiver must inspect the lifter and make certain that the lifter is in good working order and that all safety features have been applied. The lifter must be taken out of service immediately, if faults, which could have an impact on safety, are discovered. In that case, the XXL Lift must be serviced by an authorized service technician before being taken into use again.



The Borrhigia XXL Lift has a Safe Working Load (SWL) of 325 kg /715 lbs., which means that it is safe to lift patients weighing up to 325 kg / 715 lbs. Never attempt to lift a person, weighing more.



If used incorrectly the XXL Lift may tip causing serious injury to patient or caregiver. The XXL lifter should only be used for lifting when standing on a 100% level surface. **Never** attempt to lift a patient, whilst the lifter is standing on a sloping surface!



Always keep eye contact with the patient being lifted and pay close attention to the patient's hands & feet when lifting to avoid these being trapped in other equipment.



Make certain that all 6 connectors on the sling are safely locked into the receivers on the PowerTilt motorized positioning system before lifting.



If you have chosen the XXL Lift with a 4-point spreader bar, make certain that all 4 loops of the sling are securely hooked into the receivers prior to lifting.



The patient should sit as low as possible, preferably with his feet resting on the base of the XXL Lift.



Do not touch the legs or the base when operating the leg spreading function.



Even though the XXL Lift is power-driven, you should only use it to transport patients over very short distances, e.g. from the bed to a wheelchair. The XXL Lift is not a transport device and should not replace a wheelchair or a stretcher.



When moving the XXL Lift using the CompassDrive power drive with a patient suspended in the sling, **always** drive in the slowest speed setting and pay attention as the patient may swing during, stops, starts and turns.



Be **very** careful when moving the XXL Lift with a suspended patient in the proximity of furniture in order to avoid the patient colliding with such objects.



Do not use the XXL Lift on uneven surfaces. Avoid driving over thresholds, cables or other obstacles. Driving over such obstacles can render the XXL Lift unstable with the risk of it tipping over, which can result in **severe** bodily harm to both patient and caregiver.



The PowerTilt™ Motorized Positioning System may **only** be used in connection with original Borrhingia slings as the connectors on the slings and the receivers on the PowerTilt™ constitute an integrated system. Using other slings in connection with the PowerTilt™ is **not** safe and may lead to **severe** bodily harm to the patients.



If you have chosen the XXL Lift with a 4-point spreader bar, we recommend that you use Borrhingia slings. However, all CE-marked slings for 4-point spreader bars can safely be used. Make certain that any sling used has a sufficiently high SWL (Safe Working Load) to lift the patient.

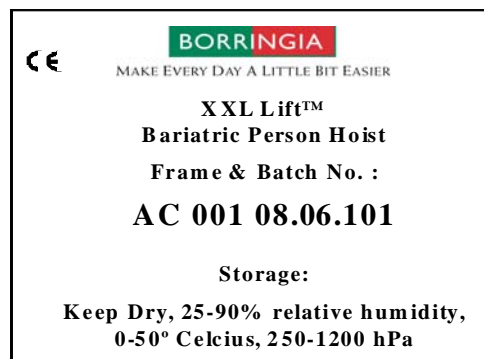


Old, frayed or cut slings may fail causing **severe** bodily harm to the patient. At the **first** sight of cut or frayed stitches and/or threads a sling **must** be discarded and destroyed. Slings **must** be inspected every 6 months or more often.



The Borrhingia XXL Lift should not be run constantly for more than 10 minutes per hour.

## 5. Transport & Storage Information



**Borrhingia:**  
**XXL Lift:**  
**Bariatric Person Hoist:**  
**Frame- & Batch No.:**  
**Storage:**  
**Keep dry:**  
**25-90% Relative humidity:**  
**0-50° Celcius:**  
**250-1200 hPa**

The manufacturer  
 Brand name of the product  
 Product description  
 Identification of the specific product  
 Information about how to store the product  
 To be stored away from rain and water  
 Indication of safe humidity-level  
 Safe storage temperature  
 Safe air pressure

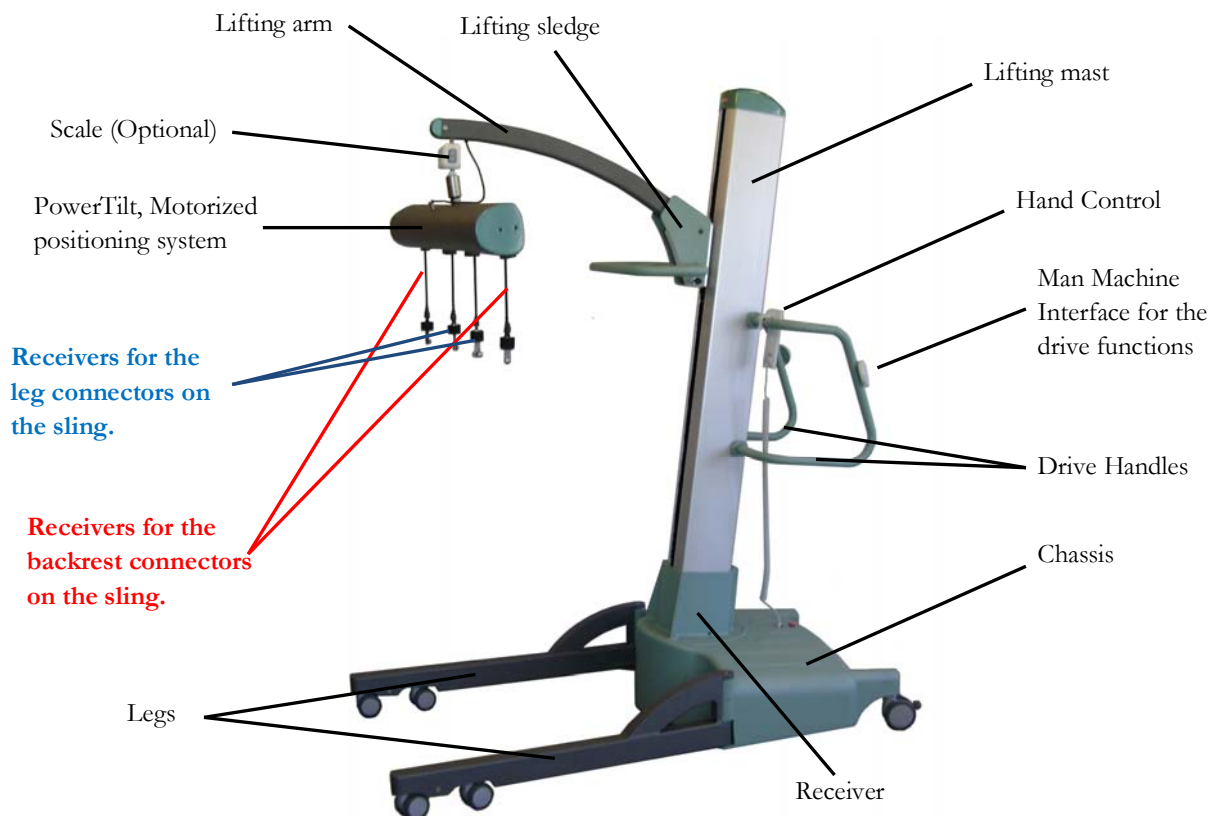
## 6. Overview of the XXL Lift

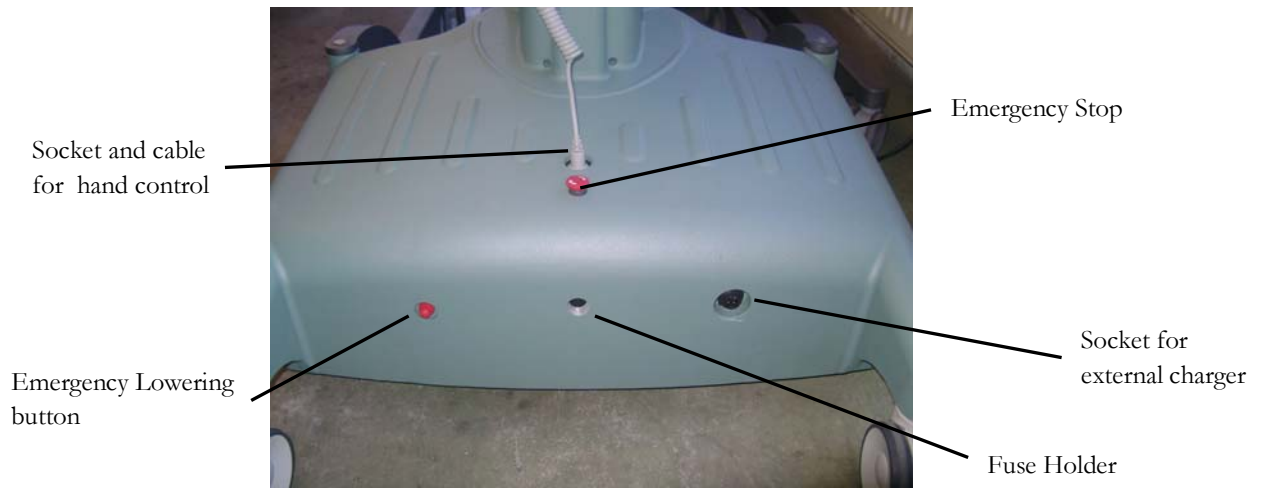
The XXL Lift was designed to meet the requirements of hospitals and institutions for a mobile lifter capable of handling the transfer of bariatric patients in a safe, dignified and efficient way. Whereas most bariatric lifters with traditional spreader bars are not suited for smaller patients due to the width of the spreader bar, the flexible cords on the PowerTilt™ allows smaller slings to adapt to the width of smaller patients. This makes the XXL lift a very versatile lifter, which can be used for all patient sizes.

### Main parts:

The lifter consists of a base with a chassis with a receiver for the lifting mast. The chassis contains the lifting motor, lifting electronics, leg spreading motor, batteries and battery management system as well as the CompassDrive® drive system. On the chassis there is plug for the hand control, an emergency stop button, an emergency lowering button as well as a plug for the external power supply. On the lifting mast there are 2 drive handles, each equipped with a man-machine-interface (MMI), which controls the drive functions of the XXL Lifter. The MMIs are placed in such a way that they can be controlled equally well from behind the lifter and from the side of the XXL Lift. This allows one to “save” the space normally needed behind the lifter for the operator. In this way, the XXL Lift can operate where there is limited space available next to e.g. the bed.

On the lifting mast there is a lifting sledge on which the lifting arm is attached. On the lifting arm are a scale (optional equipment) and the PowerTilt™ motorized positioning system.





## 7. Technical Data:

<b>Material:</b>	Steel, Aluminium & composite plastic (castors)
<b>Batteries:</b>	Lead-acid gel, closed cells. 4 12V x 7,3 Ah
<b>Motors:</b>	Lifting motor: 24V DC Leg spreading motor: 24V DC Drive motors: 48V DC
<b>Main Fuse:</b>	Cooper Electronics, ABC-15
<b>Mains Supply:</b>	230V/50-60Hz 100VA
<b>AC/AC Converter:</b>	Trans Electro 0821: 230/24V AC, 50-60Hz, thermal cut-out
<b>Rated Input:</b>	24V / 50-60Hz 100VA
<b>IP Protection:</b>	IPX5
<b>Maximum operating time:</b>	10 minutes per hour
<b>EMC Interference:</b>	EMC interference may occur if, the XXL Lift is used together with other electrical equipment.
<b>Maximum noise:</b>	65 db at 1 meter's distance
<b>Castors:</b>	6 x 100 mm castors, 2 on each leg & 2 rear castors with brake.

## 8. Measurements and Weight:

<b>Weight:</b>	198 kg / 436 lbs.	
<b>Weight, disassembled:</b>	Base: 120 kg / 264 lbs Lifting Mast: 51 kg / 112 lbs Lifting Arm w. PowerTilt: 27 kg / 59 lbs.	
<b>Safe Working Load (SWL):</b>	325 kg / 715 lbs.	
<b>Lifting range:</b>	1.170 mm	46,0"
<b>Lifting speed:</b>	30 mm / sec.	1,2" / sec.
<b>Turning diameter:</b>	1.770 mm	69,7"
<b>Operating forces:</b>	Buttons on hand control & MMI: 4N	
<b>Number of lifts when fully Charged:</b>	50 lifts (75 kg / 165 lbs, 50 cm)	
<b>Measurements (LxWxH):</b>	1.610 x 790 x 1.995 mm	63 x 31 x 78,5"



**Detailed measurements:**

<b>Height of mast:</b>	1.995 mm	78,5"
<b>Top of lifting arm, highest position:</b>	2.420 mm	95,3"
<b>Top of lifting arm, lowest position:</b>	1.255 mm	48,2"
<b>Lifting range:</b>	1.170 mm	46,0"
<b>Receivers on PowerTilt, lowest:</b>	600 mm	23,6"
<b>Receivers on PowerTilt, highest:</b>	1.770 mm	69,7"
<b>Distance, mast to centre of PowerTilt:</b>	843 mm	33,2"
<b>Height of the legs:</b>	145 mm	5,7"
<b>Length of legs:</b>	980 mm	38,6"
<b>Length, legs in narrow position:</b>	1.610 mm	63,4"
<b>Length, legs spread:</b>	1.570 mm	61,8"
<b>Width, legs in narrow position:</b>	795 mm	31,3"
<b>Width, legs spread:</b>	1.360 mm	53,5"
<b>Width between legs, narrow position:</b>	790 mm	31,1"
<b>Width between legs, spread position:</b>	1.260 mm	49,6"

**9. Assembly & Disassembly**

Due to the very high lifting capacity of the XXL Lift, the lifter and its parts are heavy. Therefore, we recommend that you do not disassemble the lifter once it has been assembled. If the lifter is not delivered in an assembled state, please follow the steps below:



Never attempt to assemble or disassemble the XXL Lift on your own. The lifting mast and the lifting arm are so heavy that handling them alone may lead to injuries



When mounting the arm onto the lifting mast, make certain that you do not get your hands or fingers trapped between the lifting arm and the lifting sledge, as this may cause serious injury.

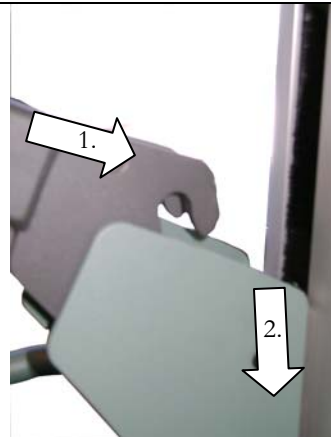
1. Lift the lifting mast by grabbing the drive handles. One person on either side of the mast. Insert the mast into the receiver on the chassis and gently let it slide down until it rests on the bottom of the receiver. The drive handles should point backwards. (When the mast is lowered contacts meet and the drive motor will make a noise. This is normal)



2. Tighten the safety screw on the back of the receiver securely with the Allen key.



3. Mount the lifting arm onto the lifting sledge on the front of the lifting mast. Start by catching the axel with the two hooks on the lifting arm.



4. Then pull out the safety pin and gently lower the lifting arm towards the lifting sledge. Let go of the safety pin and check that the lifting arm can swing upwards, but cannot be removed from the lifting sledge.



## 10. Slings

The XXL Lift uses special slings designed to work with the motorized positioning system, PowerTilt. The slings are equipped with special connectors, which lock into place on the receivers on the PowerTilt.

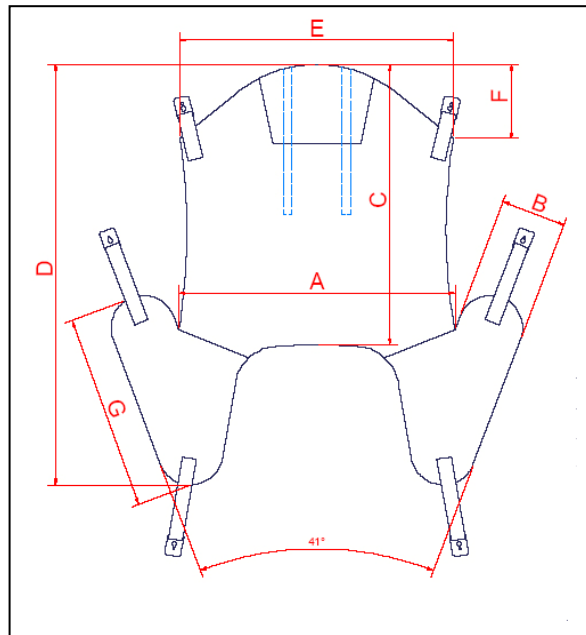


The PowerTilt™ Motorized Positioning System may **only** be used in connection with original Boringia slings as the connectors on the slings and the receivers on the PowerTilt™ constitute an integrated system. Using other slings in connection with the PowerTilt™ is **not** safe and may lead to **severe** bodily harm to the patients.

The slings come in 4 sizes, medium, large, X Large and XX Large. All the slings are tested and approved for a patient weight of up to 325 kg /715 lbs. The slings are made of 100% polyester, which is widely recognized as non-allergenic and bio-compatible. The slings have 2 connectors for each leg part. This design eliminates painful shearing of the skin on the thighs:



Always read the separate User's instructions supplied with the sling carefully.



Measurements in centimetres:

	A	B	C	D	E	F	G	Art. No
<b>M</b>	85	20	95	140	85	25	58	25-41112
<b>L</b>	95	22	95	145	95	30	63	25-41113
<b>XL</b>	130	26	95	150	130	30	73	25-41114
<b>XXL</b>	170	30	95	155	170	35	83	25-41115





## 11. Application of the Sling & Lifting From a Bed











Make certain that the size of the sling matches the size of the patient. Too small or too large slings may cause discomfort to the patient.



If the patient is capable of participating, always let him help as much as he can. It improves the work environment and makes the process more dignified for the patient.

<p>1. Ask the patient to roll onto his side. If necessary assist him in doing so</p>	
<p>2. Fold the sling down the middle and place it along the spine of the patient. Then ask the patient to roll onto his other side so that he is lying on the folded sling. Gently pull the folded half of the sling out from underneath the patient</p>	
<p>3. Ask the patient to roll onto his back. He is now lying on the sling.</p>	
<p>4. Ask the patient to bend his leg and gently pull the leg part of the sling under the thigh. Repeat with the other leg.</p>	

<p>5. Close the buckle between the 2 leg parts as this will increase patient comfort during lifting.</p>	
<p>6. Drive the XXL Lifter under the bed and pay close attention to the height of the receivers on the PowerTilt so that they do not hit the patient. Then lower the 2 centre double-receivers of the PowerTilt using the hand control</p>	
<p>7. The 2 outer receivers are for the back of the sling, the 2 centre double-receivers are for the leg parts of the sling. Place the connectors of the first leg part on the corresponding centre double-receiver as shown on the picture.</p>	
<p>8. Turn the connector as show. The connector is now locked in place and cannot fall out. Repeat with the remaining 3 leg connectors</p>	
<p>9. When the 4 connectors for the leg parts are correctly placed in the receivers, it should look as in the picture.</p>	

<p>10. Use the motorized head-board of the bed to bring the patient into a sitting position.</p>	
<p>11. Place the connectors of on the backrest part of the sling in the corresponding outer receivers on the PowerTilt. Make certain that the connectors are securely locked as shown in pictures 7 and 8.</p>	
<p>12. Lower the head-board of the bed and use the PowerTilt to position the patient in a lying position. Check again that all connectors are securely locked and lower the bed as far as possible.</p>	

**Prior to lifting, always check the following points:**



Make certain that the drive system has turned itself off. If not, turn the CompassDrive system off, by pushing the on/off button.



Make certain that the rear castors on the XXL Lift are un-braked



Think and talk the lifting process that you are about to start through, **both** with your colleague(s) and with the patient. Make certain that there are no obstacles on the floor and that the legs of the XXL Lift have not be squeezed by moving parts on the bed.



Never lift the patient higher than absolutely necessary: 1 cm of clearance under the patient is sufficient.







Check that the sling is not wrinkled nor has creases as these may cause discomfort to the patient.



Check that the sling is not squeezing the patient's genitalia.

<p>1. Using the hand control, lift the patient.</p>	
<p>2. Never lift the patient higher than the point, where he has just cleared the mattress.</p>	

## 12. CompassDrive® – Motorized Power Drive System

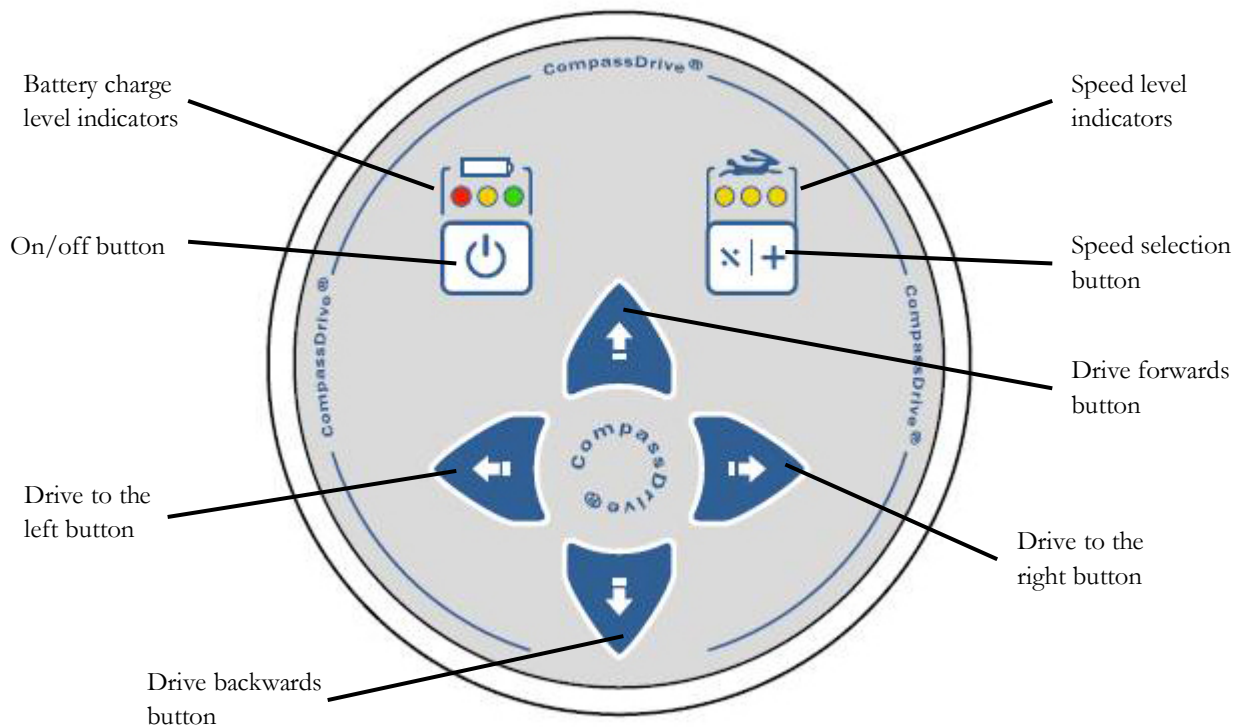
The XXL Lift is equipped with the unique and patented CompassDrive system. This system eliminates the need for manually pushing the lifter. The function as “human outboard engine” has caused many severe work injuries to caregivers working with mobile person lifters. Especially turning the lifter on the spot and driving sideways lead to a severe asymmetrical loading of the musculoskeletal system and can result in serious injuries. The heavier the patient and the lifter are the bigger the risk.

CompassDrive allows you to drive forwards and backwards as well as to the left and right. All you have to do is to push a button. Importantly, CompassDrive also makes it extremely easy to turn the XXL Lift on the spot.

The CompassDrive system, which is placed directly underneath the lifting mast, has an intelligent regulation of the pressure with which the drive wheel is pressed against the floor. In this way the drive wheel always carries approximately 80% of the combined weight of the XXL Lift and the patient. This means that the 6 castors on the lifter carry very little weight and therefore require

limited force to initiate movement. In this way the XXL Lift can be turned on the spot with minimum force – regardless of the weight of the patient.

The XXL Lift is equipped with 2 controls for the CompassDrive. They are situated on the right and left drive handles and placed at an angle, which allows you to use them either walking behind the lift or walking on either side of the lifter.





1. To turn on the CompassDrive system, push the on/off button. The system first lowers the drive wheel to the ground and subsequently adjusts the pressure of the wheel against the floor according to the weight of the patient. This takes 2-3 seconds and you can hear the system humming.
2. Select the drive speed by pushing the speed selection button. The system always starts up in the lowest speed i.e. 1 yellow lamp lit. If you push the speed selection button 1 time, 2 yellow lamps will be lit and middle speed level is chosen. Pushing the button one more time will light up all 3 yellow lamps and the highest speed is chosen. Pushing the speed selection button one more time will bring the system back into the lowest speed level.
3. Once you have chosen the desired drive speed, press down the drive button of the direction in which you want the XXL Lift to drive. As long as the chosen button is pressed down, the XXL Lift will continue to drive. When you let go of the drive button, the XXL lift will brake and come to a stop. If you, for instance, want to drive to the right and the drive wheel is in the position for going forwards/backwards, press the “drive right” button and keep it pressed down. First, you’ll hear a humming sound as the drive



wheel is turned. This lasts approximately 2 seconds. Just after, the lifter will start going towards the right until you let go of the drive button.

4. When the CompassDrive has not received any command for more than 30 seconds, the system automatically shuts down and the drive wheel is retracted from the floor.

<p>1. You may choose to drive, walking behind the lifter. This is convenient when there is plenty of space or when transporting the XXL Lifter e.g. down a corridor.</p>	
<p>2. If you want to drive sideways or want to manoeuvre in a confined space, the controls for the drive system are mounted in such a way that they can also be operated from the side. This limits the space needed between the bed and the nearest wall to the actual length of the XXL Lift</p> <p>When driving sideways, you may have to assist the drive system, until the front castors have been turned in the right direction. You do this best by pushing gently on the drive handle and the handle on the front of the mast as shown in the picture.</p>	



If the CompassDrive system has not received any drive commands for more than 15 minutes, the system shuts down completely in order to save power. In this state all electrical functions are turned off and you have to activate the CompassDrive system again in order to reactivate power for the lifting functions



Do not use the XXL Lift on uneven surfaces. **NEVER** drive over thresholds, cables or other obstacles. Driving over such obstacles can render the XXL Lift unstable with the risk of it tipping over, which can result in **severe** bodily harm to both patient and caregiver.



Even though the XXL Lift is power-driven, you should only use it to transport patients over very short distances, e.g. from the bed to a wheelchair. The XXL Lift is not a transport device and should not replace a wheelchair or a stretcher.



When moving the XXL Lift using the CompassDrive power drive with a patient suspended in the sling, **always** drive in the slowest speed setting and pay attention as the patient may swing during, stops, starts and turns.



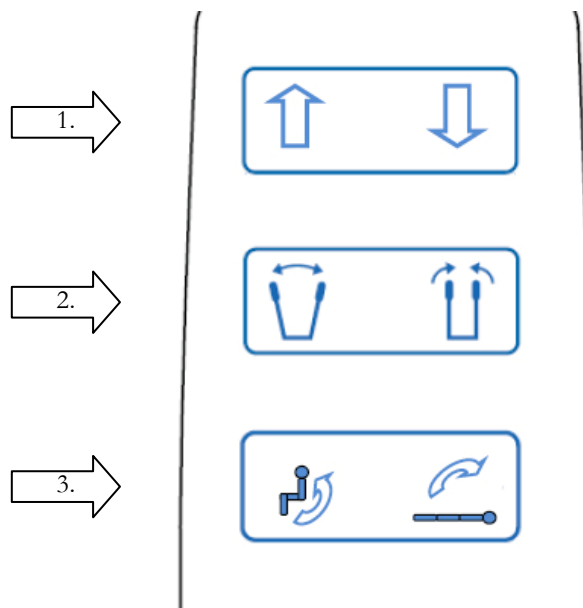
Be **very** careful when moving the XXL Lift with a suspended patient in the proximity of furniture in order to avoid the patient colliding with such objects.



**In order to be capable of driving very heavy patients without any effort to the caregiver, the CompassDrive system is EXTREMELY powerful. Obviously, such power may also cause injury to patient or caregiver, if either is trapped between the XXL Lift and another object. Therefore, always be extremely careful when driving with the CompassDrive.**

### 13. Hand Control for the Lifting Functions

The lifting functions are controlled via a hand held control with a spiral cable allowing the caregiver to be close to the patient during the lifting process:








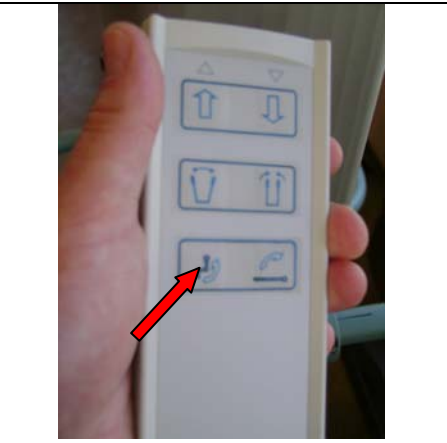


1. The 1<sup>st</sup> set of buttons control the lifting function, either “Up” or “Down”
2. The 2<sup>nd</sup> set of buttons control the leg spreading function, either “Wide” or “Narrow”
3. The 3<sup>rd</sup> set of buttons control the PowerTilt, motorized positioning system, either “Sitting” or “Lying”

## 14. Lifting From the Floor

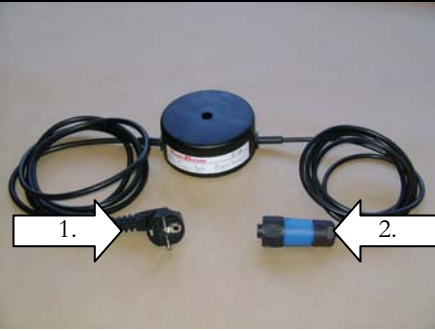

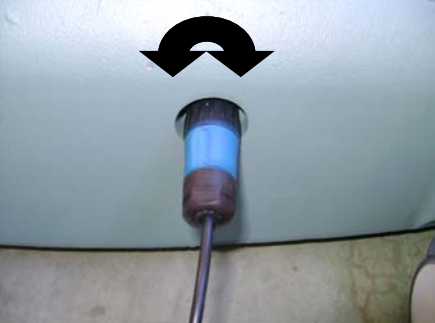
If you want to lift a patient from the floor, please follow the instructions below.

1. Place the patient on the sling by rolling him on to the side. Follow the steps 1 to 5 in chapter “10. Application of the sling and lifting from a bed”. For the patients comfort, we advice you to place a pillow under his head prior to applying the sling.

<p>2. Spread the legs on the XXL Lift with the hand control and slowly drive the XXL Lift towards the patient as shown on the picture. Pay close attention the patient’s feet and arms. Stop just before the patient’s feet touch the chassis of the lifter.</p>	
<p>3. Insert the 4 connectors for the leg parts of the sling into the 2 central receivers on the PowerTilt. <b>DO NOT</b> yet insert the connectors for the back parts of the sling.</p>	
<p>4. Using the hand control, gently lift the patient’s thighs by pushing the button for placing the patient in a lying position.</p>	

<p>5. If necessary use the lifting function to lift the patient's feet sufficiently high off the floor to allow you drive the lifter forwards until, the patient's feet can rest on top of the chassis.</p>	
<p>6. Lower the lift until you can insert the 2 connectors for the back parts of the sling into the 2 corresponding outer receivers. <b>Prior</b> to lifting, check that <b>all 6</b> connectors are correctly locked into the 4 receivers.</p>	
<p>7. Using the hand control, gently lift the patient's head from the floor by pushing the button for placing the patient in a sitting position.</p>	
<p>8. With one caregiver holding the pillow in under the patient's head, lift him off the floor</p>	
<p>9. Never lift the patient higher than absolutely necessary.</p>	

## 15. Charger & Charging of the Batteries

<p>1. The XXL Lift is supplied with an external safety transformer, which transforms the mains current down from either 230V or 100V AC to 24V AC.</p>	
<p>2. When the CompassDrive system is turned on, the battery charge level can be seen from the charge level indicators:</p> <ul style="list-style-type: none"> <li>• Red, yellow &amp; green lit: Fully charged</li> <li>• Red &amp; yellow lit: Half charged, charge when possible</li> <li>• Red lit: Batteries are low, charge ASAP</li> </ul>	
<p>3. In order to charge the XXL Lift, insert the mains plug (1) in the wall socket and turn it on. Then insert the 24V plug (2) in the socket on the back of the chassis of the XXL Lift. Turn threaded part on the plug clockwise to fasten the plug and counter-clockwise to remove it.</p>	



Always leave the XXL Lift to charge, when it is not being used. This increases the lifespan of the batteries significantly. You can leave the XXL Lift to charge indefinitely. The built-in battery charging system monitors and protects the batteries against over-charging



**Never** leave the XXL Lift for more than a week between charging. If left uncharged for long periods of time the batteries will discharge and after some months may have discharged to the point, where they cannot be re-charged and will have to be replaced.



**Never** attempt to charge the XXL Lift using a different external safety transformer than the original. This can damage the electronics of the XXL Lift and may lead to explosion of the batteries.



When the XXL Lift is charging all functions are shut down and neither the hand control nor the controls for the CompassDrive system will respond. This is a safety measure to avoid caregivers from unintentionally damaging the wall socket, the transformer or the XXL Lift.



## 16. Emergency Stop

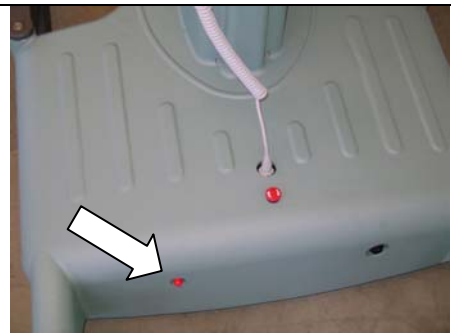
1. In case of an emergency situation during lifting, the XXL Lift is equipped with an emergency stop button situated on the top of the chassis. If this button is pushed, all lift functions are stopped. In order to reactivate the lifting functions, turn the emergency stop button clockwise and it will jump back up.



If an emergency situation has occurred as a result of the XXL Lift auto-activating either the lifting function, the leg-spreading function or the PowerTilt function, **immediately** take the XXL Lift out of work, place a **clearly visible** note with the text “**Do NOT use, NOT in working order**” on the XXL Lift. If possible, place the XXL Lift in quarantine and **DO NOT** use the XXL Lift again, before it has been inspected, repaired and released by a certified service technician

## 17. Emergency Lowering

1. In the unlikely event that the control electronics malfunction whilst a patient is suspended in the sling, you can bypass the electronics by pushing the emergency lowering button situated on the back of the chassis. This will slowly lower the patient.



If the emergency lowering function has been used, and the reason is not obvious (e.g. the plug of the hand control was not correctly inserted), **immediately** take the XXL Lift out of work, place a **clearly visible** note with the text “**Do NOT use, NOT in working order**” on the XXL Lift. If possible, place the XXL Lift in quarantine and **DO NOT** use the XXL Lift again, before it has been inspected, repaired and released by a certified service technician

## 18. Cleaning & Daily Inspection of the XXL Lift

Clean the XXL Lift regularly using a cloth with a standard detergent. Wipe dry with a dry cloth. Do not use alcohol, solvents, acids or other abrasive agents.

### Daily Inspection:



All staff should be trained to do a brief check of the XXL Lift prior to each use of it. The inspection should encompass the following:

- Make certain that there are no visible cracks in or deformations to the lifting arm, the lifting mast, the chassis, the legs or the PowerTilt or 4-point spreader bar.
- Check that the lifting function, the leg spreading function and the PowerTilt positioning function respond to the hand control
- Check that the CompassDrive starts and runs as described in chapter 11
- Check that the batteries are fully charged.
- Check that the 6 castors turn and run smoothly.
- Check that the emergency stop and the emergency lowering functions work.
- There should be no abnormal noises when operating any of the functions described.
- Check that the sling intended for use is not torn or frayed.

## 19. Annual Service Inspection of the XXL Lift

The XXL Lift **must** undergo minimum 1 annual inspection. This inspection must be carried out by a technician certified by Boringia or Boringia's representative in the country of operation. The annual service inspection must be carried out following the questionnaire shown in Appendix 1 to this manual.



Failure to comply with the Annual Service Inspections as described above may lead to **serious** injury to patients and/or caregivers. Boringia A/S or our partners cannot be held responsible or liable for injuries or damages caused by non-compliance with the service instructions.



Failure to comply with the Annual Service Inspections as described above may shorten the life span of the XXL Lift and lead to unnecessarily costly repairs.

## 20. Bi-Annual Inspection of the Lifting Slings

The lifting slings are critical to the patient safety. We therefore recommend that slings be inspected every 6 months or more often. Always follow the separate instructions provided with the lifting slings.



The PowerTilt™ Motorized Positioning System may **only** be used in connection with original Boringia slings as the connectors on the slings and the receivers on the PowerTilt™ constitute an integrated system. Using other slings in connection with the PowerTilt™ is **not** safe and may lead to **severe** bodily harm to the patients.



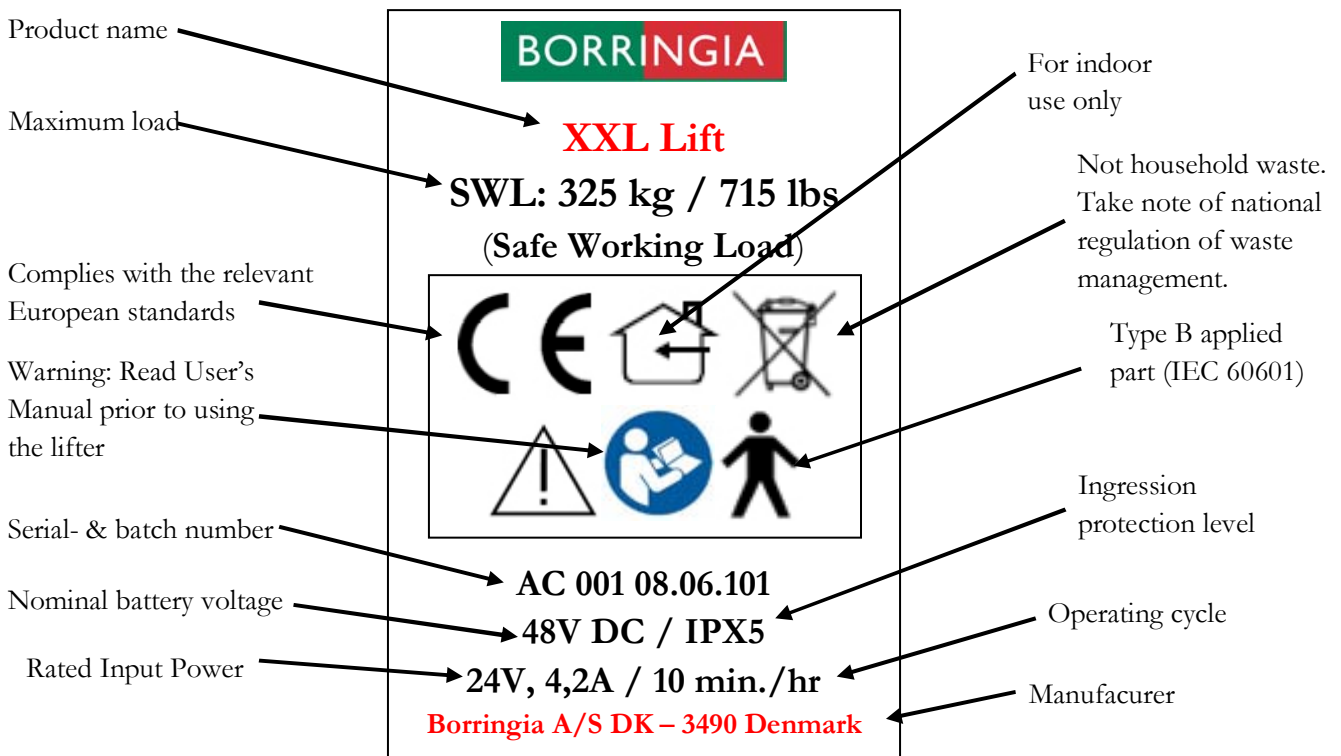
If you have chosen the XXL Lift with a 4-point spreader bar, we recommend that you use Borringia slings. However, all CE-marked slings for 4-point spreader bars can safely be used. Make certain that any sling used has a sufficiently high SWL (Safe Working Load) to lift the patient.



Old, frayed or cut slings may fail causing **severe** bodily harm to the patient. At the **first** sight of cut or frayed stitches and/or threads a sling **must** be discarded and destroyed. Slings **must** be inspected every 6 months or more often.

## 21. Marking of the XXL Lift

The XXL Lift is equipped with the following informal label. The label, which is only indicative instructs the caregiver to study this manual prior to using the XXL Lift. The label is placed on the back of the lifting mast.



## 22. Trouble Shooting

At some point you may experience that the XXL Lift does not respond as desired. In most instances there will be a logical explanation for this. Therefore, prior to calling you local representative for service, we recommend that you try going though the troubleshooting routines overleaf.



If you cannot resolve the problem at hand and have to call for service, **immediately** take the XXL Lift out of work, place a **clearly visible** note with the text "**Do NOT use, NOT in working order**" on the XXL Lift. If possible, place the XXL Lift in quarantine and **DO NOT** use the XXL Lift again, before it has been inspected, repaired and released by a certified service technician



Symptom:	1 <sup>st</sup> possible cause	2 <sup>nd</sup> Step:	3 <sup>rd</sup> Step:
Lifting, leg spreading and/or PowerTilt do not respond	<ul style="list-style-type: none"> <li>The system may be in power saving mode. Turn on the CompassDrive system to reactivate the lifter.</li> </ul>	<ul style="list-style-type: none"> <li>The emergency stop may be activated or hand control not correctly connected. Release the button &amp; drive plug for the hand control all the way home.</li> </ul>	<ul style="list-style-type: none"> <li>Check that the batteries are charged. If so, the electronics may be defective → <b>contact local representative for service</b></li> </ul>
Lifting, leg spreading and/or PowerTilt only move in one direction	<ul style="list-style-type: none"> <li>The electronics may be defective → <b>contact local representative for service</b></li> </ul>		
Lifting and leg spreading functions work, but PowerTilt does not respond	<ul style="list-style-type: none"> <li>Check that the power cable on the PowerTilt is intact &amp; correctly connected</li> </ul>	<ul style="list-style-type: none"> <li>The PowerTilt may be defective → <b>contact local representative for service</b></li> </ul>	
Lifting, leg spreading and/or PowerTilt move uncontrolled	<ul style="list-style-type: none"> <li>Hand control may have failed. Try a hand control from another XXL Lift if available.</li> </ul>	<ul style="list-style-type: none"> <li>The electronics are defective → <b>contact local representative for service</b></li> </ul>	
Lifting does not respond, but leg spreading and PowerTilt work	<ul style="list-style-type: none"> <li>Hand control may have failed. Try a hand control from another XXL Lift if available.</li> </ul>	<ul style="list-style-type: none"> <li>The electronics or the lifting motor are defective → <b>contact local representative for service</b></li> </ul>	

Symptom:	1 <sup>st</sup> possible cause	2 <sup>nd</sup> Step:	3 <sup>rd</sup> Step:
The CompassDrive does not turn on when the on/off button is pushed	<ul style="list-style-type: none"> <li>If the lifter is connected to the charger, all systems are deactivated. Removed the plug from the charger</li> </ul>	<ul style="list-style-type: none"> <li>One of drive controls may be defective. Try activating the CompassDrive using the other control. If this works, contact local representative for service</li> </ul>	<ul style="list-style-type: none"> <li>The CompassDrive and/or the drive controls may be defective → contact local representative for service</li> </ul>
The CompassDrive does not turn on when the on/off button is pushed	<ul style="list-style-type: none"> <li>The Batteries may be discharged → charge the batteries</li> </ul>	<ul style="list-style-type: none"> <li>The CompassDrive and/or the drive controls may be defective → contact local representative for service</li> </ul>	
The CompassDrive does not respond to one of the controls	<ul style="list-style-type: none"> <li>Only one drive control can be in command at the same time. Do not push any buttons for 10 seconds and then try again</li> </ul>	<ul style="list-style-type: none"> <li>The CompassDrive and/or the drive controls may be defective → contact local representative for service</li> </ul>	
The CompassDrive drives uncontrolled	<ul style="list-style-type: none"> <li>The drive system, or the controls are defective → contact local representative for service</li> </ul>		

### 23. Optional Equipment


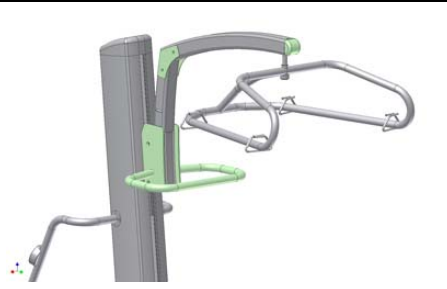
The XXL Lift is a complete lifting and positioning concept and therefore the optional equipment available is very limited. For safety reasons, we recommend that you order you XXL Lift in the desired configuration. This will allow us to make certain that the optional equipment chosen is correctly and safely installed.



Should you want to have optional equipment installed after acquiring your XXL Lift, please note that such equipment may **ONLY** be installed by a certified service technician.



**Never** attempt mounting non-original parts or components on the XXL Lift as this can lead to fatal injuries.

<p>1. The XXL Lift can be equipped with a medical grade scale allowing caregivers to monitor the weight of the patients and thereby obtain a warning of sudden de-hydration. Please, refer to the separate User's Manual supplied with the scale.</p>	
<p>2. Should you not want the motorized positioning system, the XXL Lift may be delivered with 4-point spreader bar. This will allow you to use all CE-marked slings for 4-point spreader bars. The 4-point spreader bar for the XXL Lift is designed in such a way that the patient has plenty of clearance over his head.</p>	

## 24. Warranty:

Borringia A/S offers an extended 3 year warranty on the XXL Lift on all defects, which can be traced back to manufacturing. For parts, where the intensity of use decides their lifespan (castors, batteries, hand controls and slings), the warranty is limited to 12 months. The warranty is valid for 3 years, starting at the date of purchase – but no later than 6 months after manufacturing.

The extended warranty is only valid provided the following points have been complied with:

- All service inspections must have been carried out in accordance with the instructions in this manual and all Annual Service Reports must be signed and stamped by an authorized and certified service technician. The owner of the XXL Lift has the responsibility for the carrying out annual of service inspections and must carry the costs of doing so.
- Product failures due to incorrect use or lack of service as described in this manual are not covered by the extended warranty.
- Borringia will cover the costs of spare parts and labour in the warranty period, provided the repairs are carried out by a certified and authorised service technician or by Borringia. Transport of the lifter to and from the site of service is not covered by the warranty.

## 25. Appendix 1, Annual Service Inspection

Annual Service Inspection						
Service Contract No.:						
Product: AC001, XXL Lift, Mobile Person Lifter		Frame- & Batch No.: AC001 XX XX XX - 1111		Client:		
Department / User:		Contact person:		Valid from:		
Telephone:		Fax:		Client Responsible:		
Service Inspection performed by:		Date:		Signature & Stamp:		
Control point:	Description:	All right:	Lubricated	Noise / Irregularity	Tightened:	Comment Nr.:
Lifting mast	Fits snugly into receiver on the chassis					
Lifting mast	Can easily be taken out of & put into the chassis					
Lifting mast, cracks or deformation?	Any sign of damage?					
Safety screw in chassis tightened	Tightened?					
Drive handles fixed and Complete	Do not move when used					
Lifting arm locked in place	Safety pin works					
Lifting arm, cracks or deformation	No sign of deformation or cracks					
Lifting arm, suspension for yoke	Tightened? Deformation or cracks?					
PowerTilt	No sign of deformation or cracks?					
PowerTilt, turns easily	Turns 350 degrees and stops at end stops?					
PowerTilt, receivers securely fastened?	Any sign of damage to receivers?					
PowerTilt, power cable intact & in place	Any sign of damage?					
PowerTilt, cords for receivers	Cords torn, cut or frayed?					
Scale, suspension for yoke	Tightened? Deformation or cracks?					
Scale, works?	Turns on/off? Calibrates?, Reacts to weight?					
Chassis, cracks or deformation	Any sign of damage?					
Hand Control	"Hold to activate" works					
Hand Control, Lifting, leg-spreading and PowerTilt work	Any abnormal noises?					
Lifting, with full load	Lifts through range with 325 kg loading?					
Hand Control	O-Ring intact., greased & correctly inserted					
Emergency Stop	Cuts all action, springs back when released?					
Emergency Lowering	Lifting arm goes down, when activated					

Control point:	Description:	All right:	Lubricated	Noise / Irregularity	Tightened:	Comment No.:
Legs, cracks or deformation	Any sign of damage?					
Castors, cracks or deformation	Any sign of damage?					
Castors, turn and run smoothly?	Brakes on rear castors work?					
Charging, safety transformer	Any sign of damage?					
Charging, safety shut-down	All activities cut off during charging?					
CompassDrive, start-up	Initiates and drives in all directions?					
CompassDrive, hold-to-run	Driving stops when buttons are released?					
CompassDrive, start-up	Adjusts pressure according to load?					
CompassDrive, speed selection	Toggles through all 3 levels					
CompassDrive, battery indicators	Show battery level and charging in progress?					
CompassDrive, auto shut-down	Shuts down and retracts wheel after 30 sec.?					
CompassDrive, manual shut-down	Shuts down and retracts wheel on demand					

Comment No:	Proposed activity:

**General Comments:**

Written repair offer made?	Approved by contact person?	Repair carried out?	Repair invoiced?

### Offer for Repair

Explanation:	Units	Price/Unit	Price/Unit
<b>Sub-Total:</b>			
<b>+ V.A.T:</b>			
<b>TOTAL:</b>			

Offer Accepted: