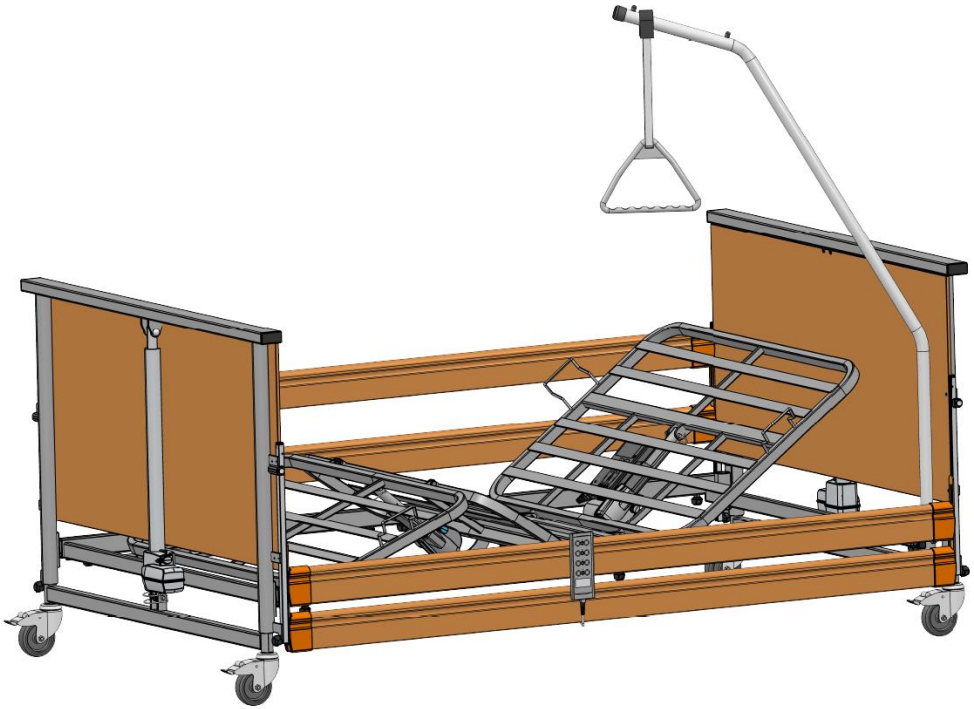
Instruction for Use

ELBUR PB 340



CE

Dear Customer,

Congratulations on having chosen a quality Care bed ELBUR PB 340 which will certainly fully meet your expectations. We would like to take this opportunity to thank you for showing such confidence and trust in our company and purchasing one of our products.

Due to designing and manufacturing in accordance to the latest technological development at the time of delivery, our care beds, which are used to alleviate and compensate for injuries and disabilities, are very durable and ensure essential performance. They combine modern design and technical accuracy with user-friendly handling, also meet the varying needs of patients and professional caregivers.

Based on great experience of Elbur company, we can guarantee high quality and reliability of our products. We also care about attractive design, as well as matching furniture systems and accessories, which can be chosen depending on the individual needs.

This instruction manual provides important information regarding safe operation for the Operators, Users and Patients. It describes: assembling, use and maintenance of the care bed and operating the adjustment functions. It will help you to get familiar with the assembly actions, operation, capabilities and limitations of your bed. Read these instructions carefully and follow them exactly in order to provide reliable service and avoid damage or incorrect operation.

If you have any questions regarding setting up, using, maintaining this product or you would like to receive other customer service information, please do not hesitate to contact your local distributor or if in doubt our company directly.

We always meet customer expectations and we will do our best to fulfil your needs in future.

Team Elbur

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General information

This instruction for use is part and parcel of the product and must accompany every product sold.

Article name, [number]	*Instruction for use of ELBUR PB 340, [35185]*
Document number, version, date of issue	*TF-17.5* *ver.01, 31.03.2022*

Contact details

When assistance is needed regarding setting up, using, maintaining this product or when is necessary to receive other customer service information, please do not hesitate to contact your local distributor or if in doubt our company directly at the following address:

Address	Elbur sp. z o.o. sp.k. Działosza 34 56-500 Syców, POLAND (PL) NIP: 9112035149 | REGON: 386426270
Telephone	+48 62 786 97 80
E-mail / Website	info@elbur.eu / www.elbur.eu

Design policy

This manual reflects the latest product development. However as our policy is one of continuous improvement, we reserve the right to modify design or introduce technical changes without prior notice or without being imposed to any obligation to adapt or replace similar products previously delivered.

Safety symbols used

In this instruction for use, safety information is displayed in the following way:

WARNING	
⚠	*Indication of a potentially hazardous situation that, if disregarded could lead to death or injury.*

CAUTION	
⚠	*Indication of a potentially hazardous situation that, if disregarded could result in damage / failure to the product or something around it.*

ATTENTION	
⚠	*General information or tips regarding the safe use and helpful courses of action.*

It is very important to read all written safety information included in this manual and follow the instructions exactly!

Pictures are used to clarify instructions in this manual. Details of the depicted product may deviate from your product.

1.0. Product description

1.1. Intended purpose and range of application

ELBUR PB 340 is classified as a Medical Device Class 1 in accordance with the Medical Device Regulation 2017/745 on medical devices. It is developed, manufactured and tested according to the current state of technical knowledge and all relevant safety standards for medically used beds. Most importantly, it ensures basic safety and essential performance, which are provided by the fulfilment of requirements presented in *EN 60601-2-52* standard.

ELBUR PB 340 is a bed with electrically operated functions, intended to be used in a long-term, continuous care of elderly or infirm, frail and handicapped adult patients. It provides a high degree of lying comfort. Subject to risk assessment, the bed is used to and may help to maintain, improve, compensate or alleviate for injury, disability, disease and the overall condition of the patient.

WARNING	
⚠	*A risk assessment must be carried out before the bed is used by a patient (age, size, condition should be assessed) by a clinically qualified person.*

It may be used in the following application groups according to EN 60601-2-52:

- *3 – Long-term care in a medical facility in which medical supervision is required and monitoring is provided if required.* A medical electrical device used in medical procedures can be provided to help maintain or improve the condition of the resident (e.g. retirement and nursing homes, rehabilitation facilities and geriatric institutions).
- *4 – Care in the home.* A medical electrical device is used to alleviate or compensate for injuries, disabilities or illnesses.

ELBUR PB 340 is approved by manufacturer for use by patients having a physical size equal to or greater than 146 cm, a mass equal to or greater than 40 kg and a body max index (BMI) equal to or greater than 17. It is recommended to use Elbur Mattress Platform Extension for patients taller than 190 cm.

It is designed and manufactured solely as resting place to support one patient with maximum weight of 215 kg. The safe working load of the bed is 250 kg.

The ELBUR bed described in this manual is not suitable for the patient transport, but it can be moved within the patient's room for cleaning purposes or to allow access to the patient for care activities.

WARNING	
⚠	*The indicated values of Maximum Patient Weight and Safe Working Load cannot be exceeded.*
⚠	*Only use suitable Side Rails and Mattress on this bed.*
⚠	*Only use accessories and spare parts approved by Elbur.*
⚠	*ELBUR PB 340 is not suitable for child patients or for use in hospitals.*

ATTENTION	
⚠	*Any other used than described above is considered improper and is excluded from a possible liability claim.*
⚠	*ELBUR PB 340 is not licensed for use on the North American market, especially in the United States of America. The distribution and use of the mentioned care bed in these markets, including through third parties, is prohibited by the manufacturer.*

All ELBUR care beds are developed and constructed in such a way that they can function long and safely.

If the bed is used and operated properly, the estimated product life is 4-8 years – it all depends on the conditions within and frequency at which is used.

ELBUR PB 340 is appropriate for situations where assistance is required in positioning the patient, or in reducing lifting and manual handling stresses on the carer – it makes the work the nursing staff easier. Electric regulation simplifies patients getting into or out of the bed, comfortable setting in chosen position and provides easy access to the patient during hygienic actions given by caregivers.

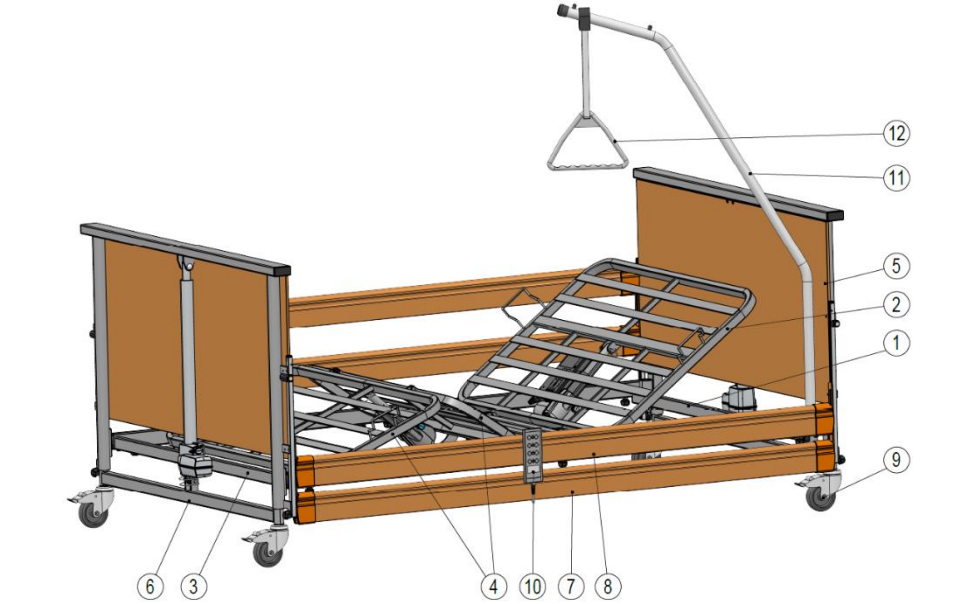
It is classified as a Class II electrical product and is suitable for indoor use only. The electrical building components comply with safety standard EN 60601-1 for Medical Electrical Equipment.

ATTENTION	
⚠	*ELBUR PB 340 has no special connectors for potential equalisation. Please be aware of that before connecting additional medical electrical equipment. The operator of the medical products has to ensure that the combination of the equipment meets the requirements of EN 60601-1 standard.*

The indivdual ELBUR care bed coponents are made from the best quality materials, which biocompatibility is described in the technical documentation. The bed is made predominantly of steel sections coated with a durable polyester-powder coating. All wooden or wood-based parts are protected with an ecologically coating that is low on harmful substances. The indicated surfaces are safe for contact with the skin.

The Mattress Support Platform (MSP) consists metal slats as a base standard. It is divided into four functional sections: Back Rest, Stationary Seat, Upper Leg Rest, Lower Leg Rest. The various parts of the bed are moved with protective-low voltage by the linear actuators. Two of them (Main Lift Actuators) are positioned at either end of the bed and control the bed height. Two other actuators are positioned underneath the Mattress Support Platform and control the Back Rest and the Leg Rest sections. Each indivudal position can be controlled adjusted continuoulsy with a touch of a button on the Handset. The actuators, handset and power cable are connected to a control box, which is fixed onto the Back Rest Actuator.

Basic UDI	*590426134ELBURPB340X3*



No.	Description	No.	Description
1	MSP (Head End Frame)	2	Back Rest Section with assembled Control Box on the Back Rest Actuator
3	MSP (Foot End Frame)	4	Leg Rest Section with assembled Leg Rest Actuator
5	Bed End (Head End)	6	Bed End (Foot End)
7	Full-length Side Rail (lower)	8	Full-length Side Rail (upper)
9	Castor with brake pedal lever	10	Handset
11	Lifting Pole	12	Triangle Handle

ELBUR PB 340 is designed to be dismantled into sections for ease of transportation, but can be assembled straightforward with a minimum of tools.

1.2. Technical specification

ATTENTION	
⚠	*All indications of dimensions and weights in this manual are approximate (measurement tolerance: ±15mm / 0,5kg / 1,5°).*
⚠	*The technical details below are only valid for this care bed, at its standard settings and optimal ambient conditions.*
⚠	*All parts and data are subject to a constant further development and therefore may differ from mentioned data.*
⚠	*The values are no longer applicable if your care bed has been modified, damaged or suffers from severe wear.*

TECHNICAL SPECIFICATION			
MODEL:		**ELBUR PB 340**	
Load [kg]	Maximum Patient Weight	215	
	Safe Working Load (SWL)*	250	
	Lifting Pole	80	
Dimensions [cm]	External of the Bed (W x L)	112 x 218	132 x 218
	Mattress Support Platform (W x L)	100 x 200	120 x 200
	Under bed clearance (in the lowest position of MSP)	approx. 19	
Adjustment	Height, *[cm]*	approx. 30 - 80	
	Angle – Back Rest Section, *[°]*	approx. 0 - 70	
	Angle – Upper Leg Rest Section, *[°]*	approx. 0 - 35	
	Angle – Lower Leg Rest Section, *[°]*	approx. 0 - 20	
Mattress	Dimensions (W x L), *[cm]*	100 x 200	120 x 200
	Maximum thickness, *[cm]*	15	
	Volume density of foamed material	35 - 50 kg/m^3	
Drive system	Control Box	LINAK CA40	
	Lifting Hi-Lo Actuator	LINAK LA40	
	Back Rest / Leg Rest Actuator	LINAK LA27	
	Handset	LINAK HL74 Comfort	
	Input voltage **	100-240V AC, 50/60 Hz	
	Output voltage	24V DC	
	Power input **	Max. 2,5A	
	Operating time (duty cycle) **	10%, 2 min / 18 min OFF	
	Ingress Protection **	IP X6 (Hi-Lo Actuators, Control Box)	IP X4 (MSP Actuators, Handset)
	Electrical appliance Class **	II	
	Noise level	Typically < 65 dB (A)	
Weight [kg]	Total	109,8	123,5
	MSP (Head End / Leg End Section)	24,2 / 20,4	29,8 / 23,5
	Bed End with Hi-Lo Actuator (1)	22,5	25,0
	Back Rest / Leg Rest Actuator	1,5 / 1,4	1,5 / 1,4
	Handset / Control Box	0,3 / 0,5	0,3 / 0,5
	Full-length Side rail (1)	2,8	2,8
	Lifting Pole with Triangle Handle	5,3	5,3
Operating conditions	Temperature [°C]	Od +10 do +40	
	Humidity [%]	30 - 75	
Storage conditions	Temperature [°C]	Od -20 do +50	
	Humidity [%]	30 - 75	

* The Safe Working Load equal to 250 kg is calculated as specified by EN 60601-2-52:

Maximum Patient Weight:	Mattress:	Accessories:
215 kg	20 kg	15 kg

** Electrical data values visible on the Name Plate of the ELBUR care bed.

1.3. Labelling of Care Bed ELBUR PB 340

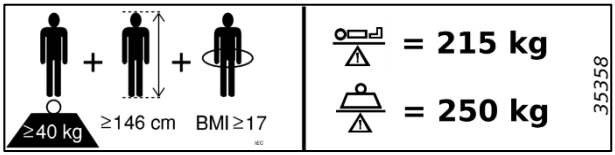
Manufacturer's Name Plate *(including serial number*)*

[located on the outside of the Bed End lower section]

**Please quote SN on all correspondence regarding sales and customer service information or to report unexpected operation.*

Warning / Information label no. 35358

[located on the inside of the MSP Head End frame]

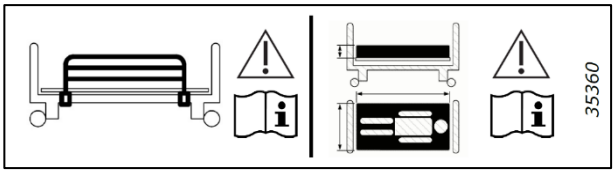


Warning

⚠ *Care beds are designed for patient having a physical size equal to or more than 146 cm, a mass equal to or more than 40 kg and a body max index (BMI) equal to or more than 17.*

Warning / Information label no. 35360

[located on the inside of the MSP Head End frame]



Warning

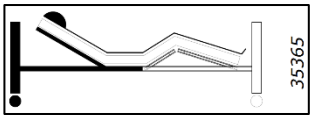
⚠ *Incompatible side rails can create entrapment hazards.*

⚠ *Incompatible mattresses can create entrapment hazards.*

Warning / Information label no. 35365

(Mattress Support Platform – Head End Section)

[located on the top of Back Rest Section]



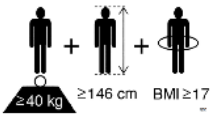
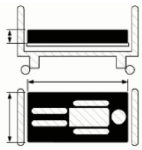
Warning / Information label no. Linak CA40

(Indication of the appropriate cables connection to Control Box channels)

[located on the CA40 Control Box]

1.4. Explanation of symbols used on labelling

Symbol	Description
REF	Catalogue number
SN	Serial number
	Date of manufacture (month/year)
	Manufacturer
	Maximum Patient Weight
	Safe Working Load (SWL)
MD	Medical Device
	Caution, read instructions before use
	Consult the Instruction for Use
	Temperature limit
	For indoor use only
	Do not dispose of in household or commercial waste. This product must be disposed via the separated municipal waste.
	Class II electrical device, double insulated, degree of protection against electric shock
	Type B applied part according to EN 60601-1 (symbol indicates this product has a degree of protection against electric shock for type B equipment)
CE	Conformity mark according to the Medical Device Regulation (EU) 2017/745

Symbol	Description
	Minimum Patient weight = 40 kg; Minimum Patient Height = 146 cm; Minimum Patient BMI = 17.
	Detachable side rail suitability *Incompatible Side Rails can create hazards!*
	Mattress suitability - *Incompatible Mattresses can create hazards!*
	Product with a thermofuse
	Safety isolating transformer, general
	Pollution control mark (China)
	Symbol regulatory compliance mark of The Australian Safety/EMC Regulations

2.0. Definition of the groups of persons involved

WARNING	
⚠	*All persons working with the ELBUR care beds must be acquainted with the safety instructions contained in this manual. Improper operation can result in personal injuries or product damage.*

Operator – every natural and legal person (e.g. care home operator, medical supply distributors) responsible for safe operation and supervising of the bed.

User – person who is qualified how to operate the bed or handle its functions, based on performed trainings, experience or briefing. The user is able to recognize and avoid possible risks and to assess the health condition of occupant.

Patient – person who is injured, disabled or handicapped and who occupies the ELBUR care bed in need of care.

For homecare application area Operator, User and Patient can be perceive as the same person.

3.0. Safety information and general warnings

WARNING	
⚠	*Before assembling and operating the care bed, you must read, familiarize, understand and follow all instructions in this manual at with rated values/symbol provided on labelling carefully. It helps to prevent any dame and risk occurring due to incorrect operation or use.*
⚠	*Use the care bed in accordance to its intended purpose and in accordance to all instructions detailed in this manual, describing the normal operating procedure.*
⚠	*Remember to keep this instruction manual for future reference. Please ensure that the manual is available to users and carers at any time throughout the bed's service life.*
⚠	*These instructions must be observed to ensure convenient handling, safe operation and effective use of this bed and the safety of users and carers.*
⚠	*All actions regarding assembling, handling, positioning and using of the bed must be performed in accordance with the provided information to ensure safe operation.*
⚠	*The safety features for operating the bed and instructions concerning the bed must be strictly observed.*
⚠	*Only use technically perfect bed, in proper and faultless condition - it must not be used if faults have been detected on it that may injure the patient, staff or a third person, the bed or surroundings.*
⚠	*If damage or malfunction is suspected, take the bed out of service immediately, label it as non-conforming product and disconnect it from the power until exchange or repair of broken components.*
⚠	*Any actions that are inconsistent with the manual are performed at your own risk and can result in serious injury or death. Elbur sp. z o.o. sp.k. shall not be held liable for any damage, injuries or accidents arising from unauthorised modifications, non-genuine spare parts, negligence or use that is at variance with this manual.*
⚠	*Any serious incident that occurs in relation to this medical device, affecting the user/operator or the patient, should be reported to manufacturer - Elbur sp. a o.o. sp.k. and the Competent Authority of the Member State in which the device is used.*
⚠	*The bed must only be operated by persons who are able to operate it in accordance with the manual. Operators and patients must be risk assessed to ensure they are able to operate the ELBUR PB 340 safely without risk to themselves or others.*
⚠	*Before using the bed, the operator should understand the bed and its functionality.*
⚠	*Bed users should only operate the bed if they have been assessed as competent to do so and can understand the safety instructions in this manual. The operating staff must make the patient aware of the control functions that apply to the patient subject to an assessment by a professional.*

WARNING	
⚠	*Two people qualified in care bed's operating are recommended to perform the assembly process.*
⚠	*This bed must not be exposed to smoke, naked flame, extreme temperature, flammable gases or other hazardous substances or situations.*
⚠	*The bed must not be used where there is a danger of explosion or in the presence of uncontained flammable liquids.*
⚠	*Electrical installations must meet local requirements.*
⚠	*Electrical equipment can be hazardous if misused or abused. Do not open any electric components.*
⚠	*Ensure that all cables (Power Mains Cable, Handset cable, Actuators cables) are not damaged by crushing, that there is no loop in the cables and that they are not get entrapped between the moving parts of the bed.*
⚠	*Only the Power Supply Lead supplied with the bed may be used. Connect it directly to an electrical outlet – do not use extension cords or multiple outlet extension cords.*
⚠	*Care bed should be located in place which allow to easily removing mains plug from the socket.*
⚠	*The electrical supply cable could create a trip hazard. Safely position and route the cable.*
⚠	*Make sure that the power supply cord does not get squished under the castors.*
⚠	*The Handset should be positioned to avoid strangulation risk. Make sure that Handset is placed properly, that it is not trapped between side rails and mattress support platform/other furniture.*
⚠	*At the same time only one person can operate the bed. It is strictly prohibited to press all (or even more than one) buttons simultaneously on the Handset.*
⚠	*Inappropriate use of the power supply cable and handset (shearing, kinking) could lead to dangerous electric hazards. The bed must not be used if there is any visible damage to the handset or cables.*
⚠	*When routing cable for other electrical equipment used with the bed, ensure cables cannot be squeezed, crushed or damaged by the moving parts on the bed. Inappropriate routing of accessory cables could lead to dangerous electric hazards. The bed must not be used if there is any visible damage to any cables.*
⚠	*If using the electrical functions adversely affects the health of the bed user, disconnect the power supply and only use the bed in static mode.*
⚠	*It is essential to leave the care bed unused for at least 18 minutes, after maximum period of operation of 2 minutes, which must not be exceeded.*
⚠	*For reasons of safety and electromagnetic compatibility, use only original electric components from Elbur that have been released for the care bed model in order. Otherwise it can caused danger for patients and loss of bed functionality.* *It is still possible that the operation performance is influenced by electromagnetic fields like those of cell phones, power generators of high power energy sources, despite sample of ELBUR care bed type PB equipped*

WARNING	
	with Linak drive system has been tested on electromagnetic combability and complies to the EN 60601-1-2 standard. On the other hand, it is also possible that the electronics of the bed influences other electronic devices.
⚠	*The special attention should be given to children and pets - keep them away from this bed unless supervised by an adult as there is a risk of injury and/or choking on small parts.*
⚠	*Maximum Patient Weight and Safe Working Load must never be exceeded.*
⚠	*Only one person should occupy the bed at any time.*
⚠	*Use the bed on the flat, level, solid floors - remember that all four castors must touch the ground and must be locked if there is a patient on the bed and location is not going to move, as an unlocked bed castors can cause injury to a patient who leaves the bed or changes position.*
⚠	*This bed is not adapted for patient's transport, but it can be moved within patient room for cleaning or patient access. Due to force the propulsion, it has to be done by two people. Patient has to stay in flat position and care bed should be adjusted in the lowest height. Remember to unplug the Power Supply Lead before relocating the bed and make sure it will not be rolled over or damaged in other way.*
⚠	*Never stand on the bed.*
⚠	*Do not use the bed as a means of transport, ladder, or storage for heavy or hot objects.*
⚠	*Do not perform medical operation on the care bed.*
⚠	*Before operating this bed, ensure the bed user is safely positioned to reduce the risks of bed fall or entrapment.*
⚠	*There must be enough space for bed height adjustment. It cannot be blocked by any obstacles such as bedside lockers or window sills etc.*
⚠	*When operating the moving parts of the bed, care must be taken to ensure that the patient, operator or any other people, especially children, and objects do not become trapped, jammed or injured.*
⚠	*The height of the mattress support platform must be adjusted to the correct height for the condition of the patient.*
⚠	*The bed should be left in its lowest position when the patient is unattended to reduce risk of injury due to falls.*
⚠	*Always check for any entrapment risks under the bed before lowering to its lowest position.*
⚠	*Never use area under the bed as storage space.*
⚠	*Use only original Elbur accessories which are compatible with this bed – any modification is strictly forbidden without authorization of our company.*
⚠	*Only use Side Rails that are compatible with this bed as supplied by Elbur. Incompatible side rails can create hazards and entrapment risks. There must be a minimum height of 22 cm without compression measured from the top of the mattress to the top edge of the top side rail.*
⚠	*When different mattress thicknesses are in use (thicker than 15 cm), operator or person in charge has a duty to decide to undertake special safety*

WARNING	
	measures in order to prevent trapping or person completely falling out in accordance to EN 60601-2-52.
⚠	*If a lifting pole is fitted on the bed, increased attention must be taken during movement or lifting, to the space around the lifting pole, so that the equipment is not damaged.*
⚠	*Make sure that other attached equipment can function in a secure and safe manner. Contact your local distributor or manufacturer, if you have any doubts.*
⚠	*Before cleaning the bed, the electrical supply must be disconnected.*
⚠	*The Care Bed must be cleaned and washed down with disinfectant (refer to chapter 11. Cleaning and Disinfection) in case of a patient change or in other situation required it.*
⚠	*Do not allow electric components to contact with water – the electrical components must not be cleaned with a water jet or a high-pressure cleaner. Clean only with a soft, damp cloth (not drenched).*
⚠	*Only specially authorized technicians are allowed to carry out troubleshooting activities and replace individual electric components.*
⚠	*When repairing the bed, only original materials and components may be used, otherwise the manufacturer cannot guarantee against any damage that might occur. Contact your local distributor or manufacturer directly if the exchange or repair of faulty parts have to be made.*
⚠	*It is obligated to perform periodic inspections and electrical tests according to EN 62353 performed by technically trained person at least once a year, with every re-use for a new patient or with every maintenance, to ensure safe condition of the care bed. The subsequent technical safety check has to be documented.*
⚠	*During performing service work patient cannot lay on the bed.*
⚠	*When it is necessary service technicians will receive from manufacturer circuit diagrams, parts list with description, calibration instructions and other needed information.*
⚠	*The manufacturer is not liable for damage caused as a result of not following instructions from this manual or by the lack or improper service.*

4.0. Scope of delivery, transport and storage

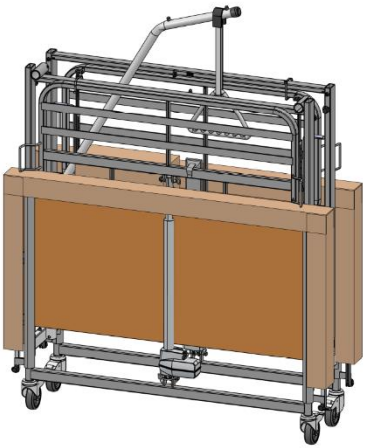
CAUTION	
⚠	*Extreme caution must be taken when moving the bed on its TLSU Transport Bracket to prevent the bed tipping over or moving unexpectedly.*
⚠	*Before assembling or operating the care bed, you must read, understand and follow all instructions in this manual carefully.*
⚠	*If the bed has become soiled or contaminated during transport refer to cleaning and disinfection instructions.*
⚠	*If the bed is stored in conditions outside the normal operating range, it should be allowed time to stabilise, in normal operating conditions, before use.*

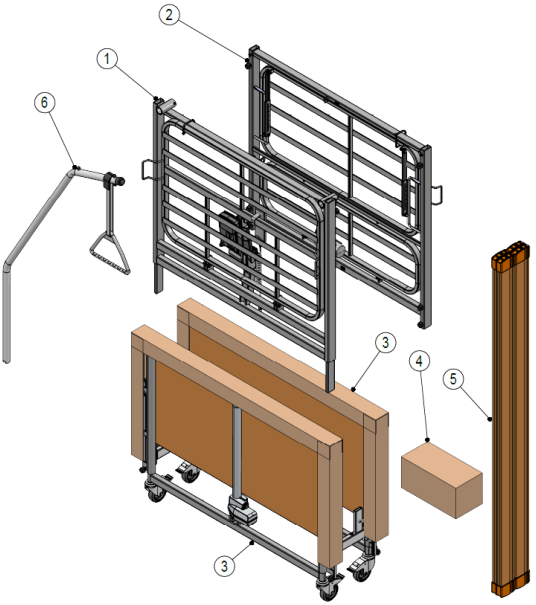
ATTENTION	
⚠	*An inspection must take place upon receipt to ensure the delivery is complete and undamaged. Check whether any visible damage has occurred to the bed during transport.*
⚠	*Always verify shipment contents with your order. The actual scope of delivery can vary from the explanations and graphic representations provided in this manual in the case of special versions, or due to technical changes.*
⚠	*Any missing parts, faults or damage must be reported immediately to the carrier and your local distributor or Elbur directly in writing.*

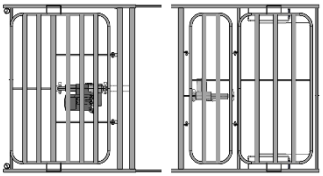
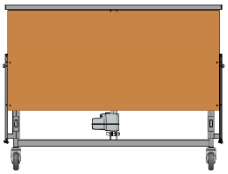
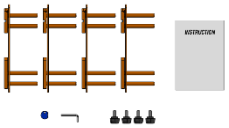
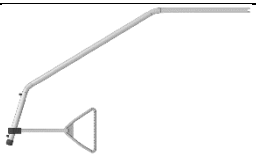
ELBUR PB 340 is delivered unassembled and mounted on the TLSU Transport Bracket, what simplify transport and relocating on the place of delivery.

Reliable package protects beds from external damages and ensures that patient or user get a bed in the perfect condition.

If not in use, store the bed at a dry location and protect it from mould, rust or destruction under external influences before re-use. Disconnect it from the mains supply, wrap the bed and accessories so that the coating and plastic parts cannot be damaged. Technical specifications *(subclause 1.2.)* contain guidance of operating and storage conditions.





Scope of delivery		
No.	**Description**	**Reference picture**
1.	Mattress Support Platform (Head End frame with Back Rest section) with the Power Cable, Handset, Back Rest Actuator and its cable connected to the Control Box, Head End Main Lifting Actuator cable)	
2.	Mattress Support Platform (Foot End with Leg Rest) with assembled Leg Rest Actuator and its cable, Foot End Main Lifting Actuator cable)	
3.	Bed End (fully assembled with mounted Hi-Lo Lifting Actuator) [set of 2 identical Bed Ends, which may be fitted to either end of the Mattress Support Platform]	
4.	Carton Box with accessories: • 4x Plastic Slider with 4 fingers, • 1x Blue Key to lock/unlock adjustment functions, • 1x 4mm Allen key, • 4x M8 plastic headed thumb screws, • 1x Instruction for Use.	
5.	Full-length Wooden Side Rails set (4 Side Rails with plastic end caps)	
6.	Lifting Pole with Strap and Triangle Handle	

5.0. Electric components

WARNING	
⚠	*Care bed PB 340 does not have emergency-off switch. Remove the power plug in emergency situation.*
⚠	*Duty cycle: Intermittent operation 2 min / 18 min OFF. This implies that after the maximum continuous action of two minutes, there must be a break of 18 minutes.*
⚠	*Do not attempt to open or repair any electrical parts. It could be fatal!*

CAUTION	
⚠	*Thermal switch turns off control box if it overheats, when e.g. someone continuously playing with the Handset. After a cooling down time of approx. 30 minutes, it should be ready to re-use again.*
⚠	*Limit switches turn off the Actuators, when they get to the limit position.*

ELBUR PB 340 is equipped with drive system produced by LINAK, a market leader in electric linear actuator technology worldwide.

The input voltage is converted into a protective low voltage in the Control Box. The Actuators and the Handset function with non-hazardous low voltage.

The level adjustment of the Mattress Support Platform is adjusted via two Main Lift Actuators, connected to the Control Box with helical cables.

Electric adjustments of the Back Rest and Leg Rest is performed by two separate Actuators connected with Control Box by straight cables.

Control Box	
Type	*Linak CA40*
Supply voltage, frequency	*100-240 V AC, 50/60 Hz*
Current input	*Max. 2,5 A*
Protection category	*IPX6 Washable*
Duty cycle	*10 %, Max. 2 min / 18 min.*
Electrical appliance Class	*II*

Power mains cable	
Type	*Linak, SML912163-A* *(The EPR Power Supply Lead is fitted with a push-on anti-kink device and tension protection)*

Handset	
Type	*Linak HL74 Comfort*
Protection category	*IPX4*

Main Lift Actuator	
Type	*Linak LA40*
Maximum Load / Lift	*2200 N / 500 mm*
Protection category	*IPX6*
Power rate	*24 V DC, Max. 6 A*
Duty cycle	*10 %, Max. 2 min / 18 min.*
Electrical appliance Class	*II*

Back Rest Actuator	
Type	*Linak LA 27*
Maximum Load / Lift	*6000 N / 85 mm*
Protection category	*IPX4*
Power rate	*24 V DC, Max. 5 A*
Duty cycle	*10 %, Max. 2 min / 18 min.*
Electrical appliance Class	*II*

Leg Rest Actuator	
Type	*Linak LA 27*
Maximum Load / Lift	*3500 N / 45 mm*
Protection category	*IPX4*
Power rate	*24 V DC, Max. 3,8 A*
Duty cycle	*10 %, Max. 2 min / 18 min.*
Electrical appliance Class	*II*

6.0. Accessories and spare parts

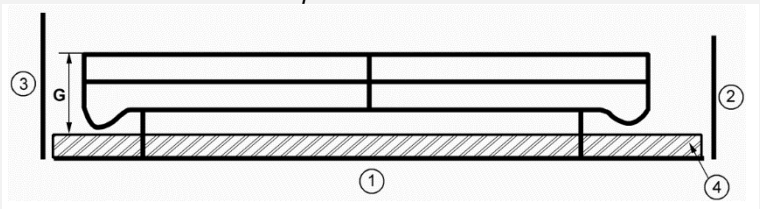
WARNING	
⚠	*For safety reasons only use original Elbur accessories – modification of this care bed is strictly forbidden without the approval of the manufacturer.*
⚠	*Elbur sp. z o.o. sp.k. will assume no liability for any accidents, damage, injury, hazards and risks arising from the use of other accessories and spare parts (not supplied by your local distributor).*
⚠	*It is necessary to perform specific control tests after modifying the ELBUR care bed to make sure that it is going to work properly.*
⚠	*When using accessories on the bed, ensure particularly that there are no risks of crushing or shearing for the patient when adjusting Mattress Support Platform and its sections positions.*
⚠	*Elbur sp. z o.o. sp.k. does not accept any liability for the use of these products on other makes.*

Every element of our additional equipment offer meets the special quality and safety standards of Elbur. Various accessories can be added to assist both – patient and carer. Thei installation is always done in a quick and easy manner.

Please contact Elbur Customer Service or your local distributor for advice on possible additional equipment designed for PB 340 or with questions regarding needed spare parts.

7.0. Mattress selection

WARNING	
⚠	*Incompatible mattresses can create hazards.*
⚠	*There must be a minimum height of 22 cm without compression measured from the top of the mattress to the top edge of the top side rail. This is illustrated on the pictured below.*



1 – mattress support platform, 2 – foot end board, 3 – head end board, 4 – mattress, ***G ≥ 22cm***

WARNING	
⚠	*Where a speciality mattress or mattress overlay is used and the distance from the top of uncompressed mattress to the top of the Side rails, if fitted, is less than 220 mm a risk assessment must be performed to assure equivalent safety.*
⚠	*Mattress platform extension infill piece must be used if the mattress support platform is extended. Failure to do so will result in unacceptable gaps and risk of injury and entrapment.*
⚠	*All mattresses must be fitted and used in accordance with the mattresses manufacturer or supplier's instructions.*

Standard mattress size, which is dedicated to Care bed ELBUR PB 340, has dimensions equal to 100x200 cm or 120x200 cm depends on the chosen version. A volumetric wight of at least 35 kg/m^3 is required.

The bed is configurated with Full-length wooden Side Rails which allow to use 15-cm thick mattress.

8.0. Assembly and use

CAUTION	
⚠	*Before commencing assembly of the care bed, you must read, understand and follow all instructions in this manual and labelling on the bed carefully.*
⚠	*Assembly must be carried out by suitably trained and qualified personnel.*
⚠	*All functions must be tested and approved after assembly by suitably trained and qualified personnel.*
⚠	*Assembly must take place in clear, uncluttered area – there must be enough space available for adjusting the bed and the space under the bed must remain clear.*
⚠	*230 V power outlet (properly installed) must be available, near the care bed in easily reachable position.*
⚠	*Children and pets should be kept away.*
⚠	*Packaging must be sorted according to recyclable and other types of waste and recycled and disposed of in line with the environmental regulations and legislation of the country concerned.*

ATTENTION	
⚠	*Two people qualified in care bed's operating are recommended to perform the assembly process.*

8.1. Preparation

It is necessary to:

1) remove all packaging material,
2) make sure all castors are locked,
3) pull the Lifting Pole out of the TLSU Transport Bracket,
4) pull the Side Rails out of the TLSU Transport Bracket,
5) lift the MSP Head End off the TLSU Transport Bracket,

6) lift the MSP Foot End off the TLSU Transport Bracket,
7) loosen 4 safety grub screws in the TLSU Brackets using an Allen key (packed in the bag with the assembly kit) in purpose of dismantle the Bed Ends,

CAUTION	
⚠	*The assembly will become unstable as the grubs screws are loosened.*

8) pull the Bed Ends out of the TLSU Transport Bracket.

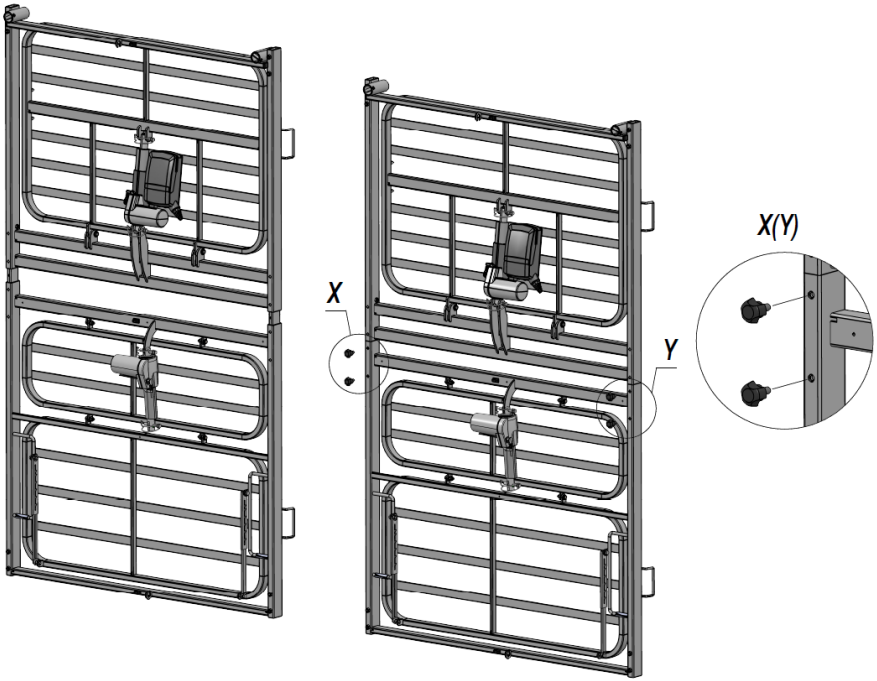
ATTENTION	
⚠	*We recommend to keep TLSU Transport System for future use during storage of the bed.*

8.2. Mattress Support Platform

1) Insert Head Section* of Mattress Support Platform into Foot Section of Mattress Support Platform as far as it goes – halves need to be joined by parallel movement to make sure that they do not get jammed.

*Head End is marked with this label (placed on the Back Rest Section).

2) When both parts of the Mattress Support Platform are pushed together, secure the MSP Head End onto the MSP Foot End with four plastic headed thumb screws in threaded holes (in the middle of the bed) and tighten by hand, one on each bottom side of the bed frame.

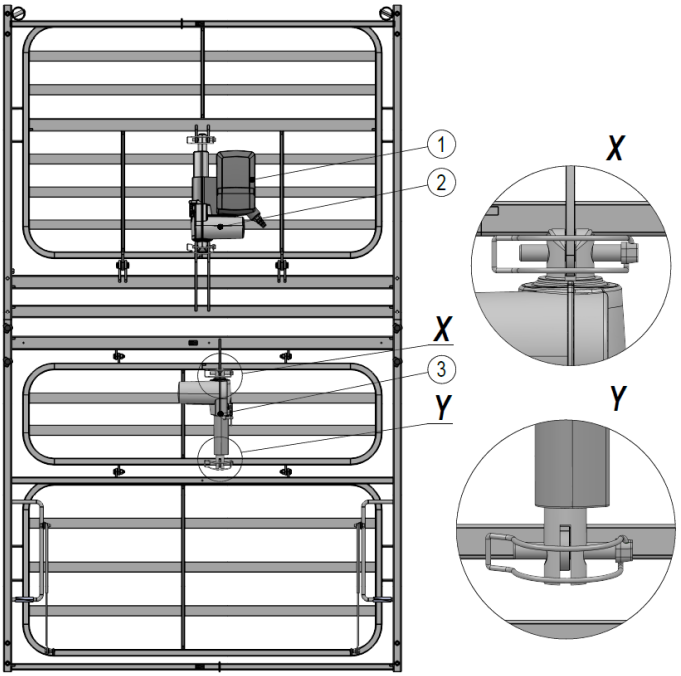


8.3. Control Box and MSP Actuators arrangement

ATTENTION	
⚠	*Control Box is fitted to the Back Rest Actuator in the warehouse.*
⚠	*Control Box with Back Rest Actuator and Leg Rest Actuator are assembled in the factory.*

Bottom View

MSP Head End



1) Control Box Linak CA40;
2) Back Rest Actuator Linak LA27;
3) Leg Rest Actuator Linak LA27.

MSP Foot End

8.4. Connecting electric components and cable routing

WARNING	
⚠	*Inspect all wiring for damage and risk of crushing.*

ATTENTION	
⚠	*The CA40 Control Box has a label to help identify the port into which to plug the handset and actuators cables. The numbers 1-4 are printed on the label and on the Control Box just above the ports.* 

1) Connect the cables from actuators and handset to the Control Box as described below:
   - 1 – Back Rest Actuator (already connected in the factory),
   - 2 – Head End Lift Actuator (already connected in the factory)*,
   - 3 – Leg Rest Actuator,
   - 4 – Foot End Lift Actuator*.

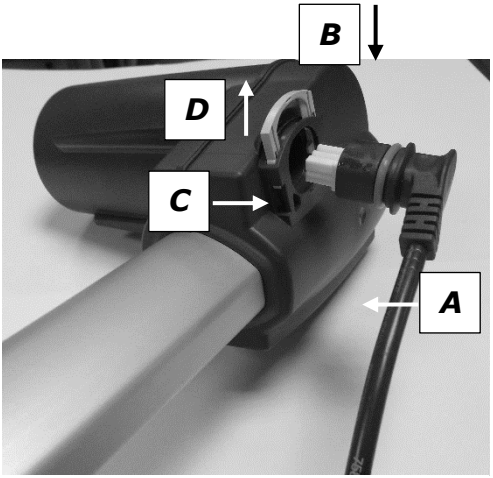
   *connect cables to Lifting Actuators after assembly of the Bed Ends with Mattress Support Platform.
2) Ensure the plugs are pushed into the sockets securely.
3) Ensure the Control box Clip securing cables plugged into appropriate channels is well-closed (see subclause 8.5).
4) CA40 Control box cover is not closed until the end to allow checking appropriate connection. When assembly of those components is finished cover has to be shut.

Handset and Power Supply Lead are already connected to the Control Box (performed in the factory).

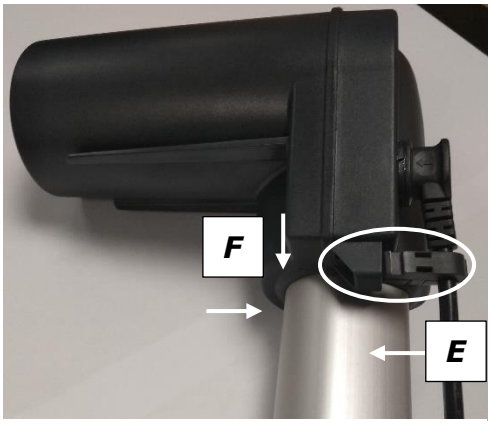
The power cable holder is located on the Mattress Support Platform, both Head End and Foot End. The Power Supply Lead has to be secured in the power cable holder with the strain relief provided on the cable, otherwise it might be damaged by stretching, running over or squeezing.

The handset cable must be routed from the Control Box underneath the Mattress Support Platform. It may come out from the MSP on either side, depending on user requirements. There are holders on both sides of the MSP (in the non-moving section), which can be used to hold Handset cable.

8.5. Actuator cable clip protection



New type of actuator cable clip



Old type of actuator cable clip

8.5.1. New type of actuator cable clip

To perform correct assembly insert the actuator cable to appropriate channel (A) and push the retaining clip down (B). Removing the retaining clip from the base of actuator is done by squeezing the clip on either side (C) then lifting the clip (D). If necessary, use a small flat blade screwdriver to lift the clip.

8.5.2. Old type of actuator cable clip

To perform correct assembly, insert cable plug appropriately in actuator channel and push retaining clip until it clicks into place (E). Removing the retaining clip old type from the base of actuator is done by pushing clip down then pulling it (F). Cable plug can be then easily bringing out from the actuator socket.

8.6. Castors operating

WARNING	
⚠	*Care must be taken to ensure the castor brakes are always locked when the bed is in use, being assembled or being dismantled, so that the bed does not move accidentally.*
⚠	*Always engage the brakes when the bed is stationery or left unattended.*

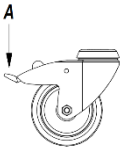
CAUTION	
⚠	*The castors may become damaged, when moving the bed along a rough, uneven or dirty surface. Good operation of the castors is influenced by wear and contamination of the castors (water, oil).*

ATTENTION	
⚠	*There should be access to castors at all the time.*
⚠	*Castors have to be placed along the bed before locking them.*

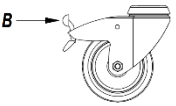
These castors are designed for use in an indoor environment and for travel on even, smooth and clean floors (e.g. ceramic floor tiles, linoleum, cast floors).

Each of the four castors is equipped with a separate brake.

1) To apply the brake press down on the surface of the lower tilting lever downwards by foot as far as it goes (A), until it brakes the castor and locks in the 'down' position.



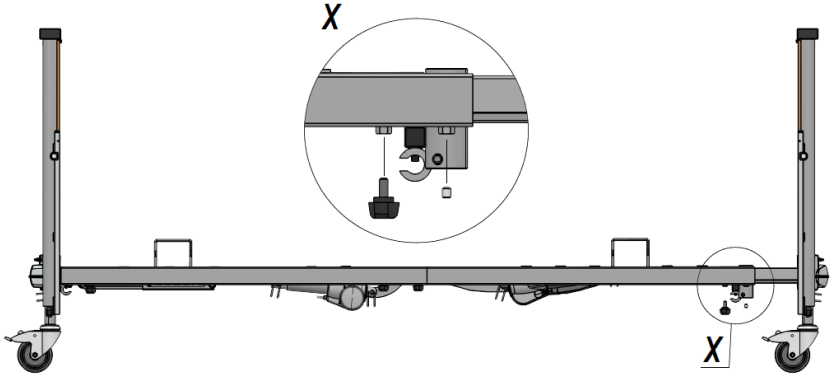
2) To release the brake press horizontally the surface of the top tilting lever backward by foot (B), until it springs back into the 'up' position - the castor is released.



8.7. Assembly of the Bed Ends with MSP End Sections

ATTENTION	
⚠	*The Bed Ends are identical and may be fitted to either and of the Mattress Support Platform.*

1) Fit a Bed end and Mattress Platform Head End together (push the Bed End T-Profiles into the MSP tubes to the limit). Tighten by hand two plastic headed thumb screws (one either side of the bed frame) and use an Allen key to tighten two grub screws (one either side of the bed frame).



2) Fit the remaining Bed End and Mattress Support Platform Foot End together in the same way like on the other end. Tighten by hand two plastic headed thumb screws and with use of an Alle key two grub screws, one of each either side of the bed frame.
3) Ensure that all eight plastic headed thumb screws and four grub screws in the Mattress Support Platform are tightened securely.

8.8. Height and angle adjustment of MSP sections

WARNING	
⚠	*Bed positioning must only be carried out by persons trained in use of the Handset.*
⚠	*Bed users should only operate the bed if they have been assessed as competent to do so and can understand the safety instructions in this manual. Before using the Handset, its operation must be well-explained to the bed user.*
⚠	*Check for obstructions around, above and below the Mattress Support Platform and position the bed so that it can operate through the full height range without any possibility of obstruction or entrapment.*
⚠	*Adjustment of moving parts may only be used for the intended use.*
⚠	*Do not exceed the maximum duty cycle of 2 minutes. Observe a subsequent break of at least 18 minutes by all means.*
⚠	*Always store the Handset in a safe place when not in use to avoid risk of strangulation and entrapment in the bed mechanism.*
⚠	*Do not lose or misplace the Handset locking key. Store it is a safe place out of patient's reach.*

ATTENTION	
⚠	*Some of the buttons might not respond when you press them. If this is the case, they are locked to be used only by medical staff according to your medical condition.*

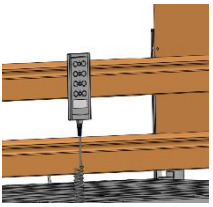
ATTENTION	
⚠	*Elbur assumes no liability for unauthorized technical changes.*

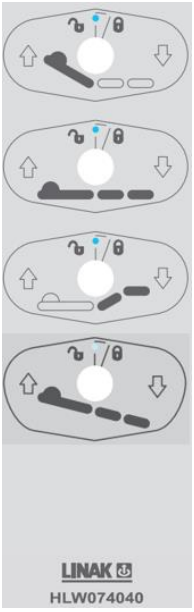
The Handset allows to adjust within predetermined range, the height of Mattress Support Platform and angle of the Back Rest and Leg Rest sections. It is possible to set the bed in the Comfort position as well, which simplifies everyday care, makes it easier to breathe and lowers the potential risk related of pulmontary aspiration during meals.

To change the position of the ELBUR PB 340 it is necessary to press and hold one of the buttons on the keypad on the front side of the Handset until desired position is obtained. To stop the movement, relase the button. The keypad's buttons are marked with corresponding symbols.

Height adjustment range is 30 ÷ 80 cm and angle adjustment range is: 0÷70° for Back Rest Section and 0÷35° for Upper Leg Rest Section.

The Handset has got mounting bracket on its rear panel. It allows to keep the Handset always in easily reachable position on the care bed. A coiled cable allows the necessary freedom of movement while operating.



RAISING		**LOWERING**
Raise the Back Rest Section		Lower the Back Rest Section
Raise the Mattress Support Platform		Lower the Mattress Support Platform
Raise the Leg Rest Section		Lower the Leg Rest Section
Non-functional		**Comfort position** – Raising the Head End and lowering the Foot End*

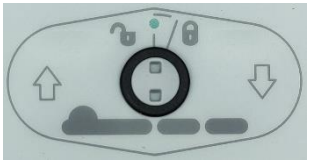
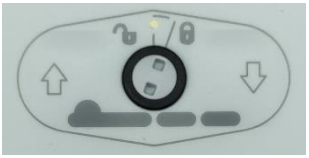
*To return to the starting, flat position of Mattress Support Platform, please use the button responsible for lowering the whole surface of MSP (second right from the top).

To prevent unintended movements by the patient, the controls of the Handset can be individually locked or unlocked using the attached Linak Blue Locking Key.

For this purpose, insert the Handset Locking Key into the Lock / Unlock small dial between two buttons of the function to be Locked.

Rotate the Handset locking key clockwise – the indicator changes then from Green (Unlocked) to Yellow (Locked).

If you turn the Handset Locking Key anti-clockwise, the indicator in the middle turns green, what means that the button is 'Unlocked' and function has been engaged again.

Green Indicator	Yellow Indicator
	
Function Unlocked (activated)	Function Locked (disabled)

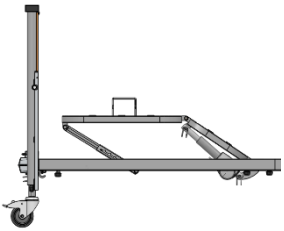
8.9. Additional adjustment of the Lower Leg Rest

WARNING	
⚠	*Do not put your fingers between moving parts of the mattress support platform – it can caused their entrapment and injuries!*

If the Leg Rest is raised using the Handset, its both sections are adjusted in that direction: Upper Leg Rest and Lower Leg Rest.

During lowering the Leg Rest using the Handset, the Lower Leg Rest Section locks into place in several intermediate positions of two rastomats fitted underneath this part of MSP Foot End. If the Leg Rest would be raised again using the Handset, the Lower Leg Rest would remain in position.

In addition to electrical regulation, Lower Leg Rest Section can be also manually adjusted. The upper Leg Rest must be raised in order to raise the Lower Leg Rest manually.



To raise the Lower Leg Rest, grab its end profile (not mattress guides) and pull it up until desired position is reached. The Lower Leg Rest engages automatically at a notch of rastomat.

To lower this part of the bed, firstly it has to be raised to its full extent to unlock rastomats and then lowered carefully.

8.10. Emergency lowering of the Back Rest

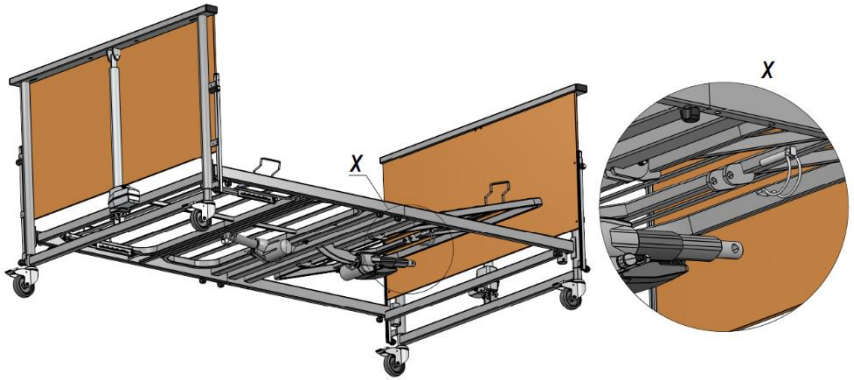
WARNING	
⚠	*Emergency lowering of the Back Rest should be carried out by at least two people.*
⚠	*Disregarding of these safety guidelines may lead to serious injuries for the user and the patient – back injuries and danger of hands squeezing.*
⚠	*All functions must be tested and approved after emergency situation.*

ATTENTION	
⚠	*It is recommended to perform practice emergency lowering of the Back Rest under normal conditions so that in case of an emergency situation you will be able to react quickly and properly.*

In an emergency situation, when mains voltage has been interrupted or in case of electric components failure, the Back Rest can be lowered manually by disassembling one of the quick-release bolt in the Head End, which fixes the Back Rest Actuator under the Mattress Support Platform.

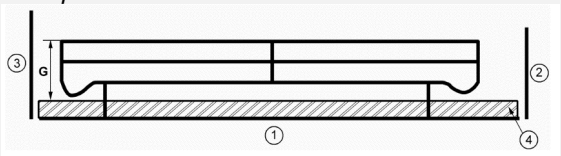
Emergency lowering of the Back Rest has to be done in the following order:

1) Disconnect the Power Supply Lead from the mains supply,
2) Ease the load on the Back Rest,
3) One operator has to lift the Back Rest slightly and holds it in that position,
4) At that time another operator has to remove the quick-release bolt in the Head End used to fit Back Rest Actuator with mounted Control Box under the MSP - opening securing retainer and pull the quick-release bolt out of the hole in the mounting bracket,
5) Then, first person can carefully lower the Back Rest to the flat position.



6) To convert the bed back to its normal operating state the quick-release bolt has to be fitted again and secured with retainer. The Back Rest is assembled properly and ready to use again.

8.12. Side Rails

WARNING	
⚠	*Only use Side Rails that are compatible with this Bed as supplied by Elbur. Incompatible Side Rails can create hazards.*
⚠	*The Side Rails first and foremost serve as a fall prevention. There must be a minimum height of 220 mm without compression measured from the top of the mattress to the top edge of the top side rail. This is illustrated on the picture below.*  *1 – Mattress Support Platform, 2 – Foot End Board, 3 – Head End Board, 4 – Mattress,* ***G ≥ 220 mm***
⚠	*Where a speciality mattress or mattress overlay is used and the distance from the top of uncompressed mattress to the top of the Side Rails, if fitted, is less than 220 mm a risk assessment must be performed to assure equivalent safety.*
⚠	*Position of drilled holes in the wooden slats of Full-length Side Rails are not the same.*   *Upper wooden slat have two holes drilled offset downwards.* *Lower wooden slat have two holes drilled offset upwards.* *Wrong assembly of the Full-length Side Rails does not let to achieve required distance from the top of the mattress to the top edge of the top side rail, which can caused patient's entrapment or falling out of the Bed!*
⚠	*The operation of the Side Rails should be done with great care. Fingers can be quickly pinched between the longitudinal pieces.*
⚠	*When lower the Side Rails, you must always hold the top wooden slat / bar to avoid its rapid decrease, potential damage or entrapment risk.*
⚠	*If the Side Rails are in the upper position, always make sure they are securely locked.*
⚠	*Both ends of the Side Rails shall always be at the same level during use. They may not remain in a diagonal position.*
⚠	*Make sure that the bed's functions are not impaired when raising or lowering the Side Rails.*
⚠	*Do not use the Side Rail or their height extensions to move / lift the Bed.*
⚠	*A qualified person or medical professional have to assess and approve patient to use the Side Rails. It is necessary to consider the size, age*

WARNING	
	and condition of the patient before allowing the use of Side Rails. If agreed always advise the patient on correct use of them.

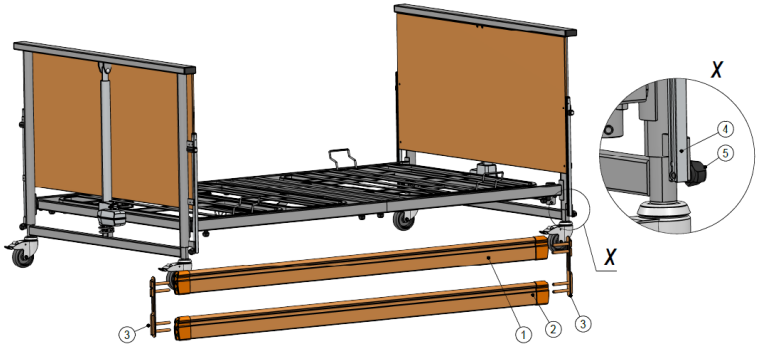
CAUTION	
⚠	*Before installation of the Side Rails and each new use, inspect all mechanical parts on the Mattress Support Platform, all parts of the Side Rails, and all parts which secure the Side Rails for any possible damages.*

The ELBUR Care Bed described in this manual is equipped with Full-length Side Rails, made of wooden bars with plastic end caps. They are used to prevent the patient from accidentally falling out of the Bed.

Assembly

The ELBUR Full-length Side Rails are ready to use after assembly described below:

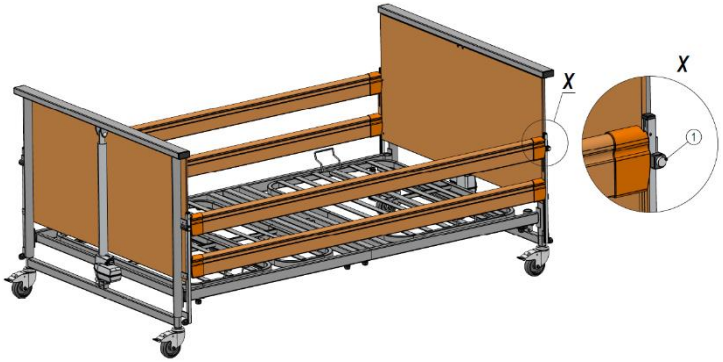
1) Insert the Plastic Slider [3] on the right and left in the upper [1] and lower [2] wooden slats.
2) Slide the wooden slats with Plastic Slider in the relevant sliding rail [4] of the Head End Board and press the release button [5] on its side at the same time.
3) Grasp the upper wooden slat and pull upwards until the Full-length Side Rails until they audibly engage at both ends.
4) Repeat these steps for the Foot End Board and later on for the other side of the Care Bed.



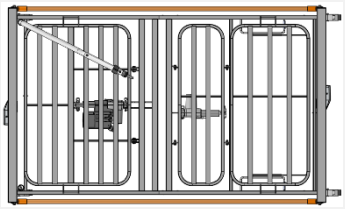
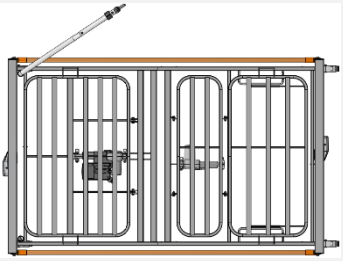
Lowering the Full-length Wooden Side Rails

1) Grasp the upper wooden slat and lift it slightly upwards,
2) Press the release button (1) at the same time on one side of the Head or Foot Bed End,
3) The Side Rails are released on the corresponding side and can be easily lowered down from their highest position to the stop in the bottom. Lower the Wooden Full-length Side Rails slowly– do not let to rapid decrease.
4) The Side Rails are now diagonal (they cannot be left like that) – carry out the previously described steps on the opposite end. The Full-length Side Rails

would be then in the lower position and patient can easily get in or get out out of the ELBUR Care Bed.



8.13. Lifting Pole

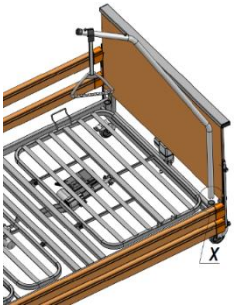
WARNING	
⚠	*If a Lifting Pole is fitted on the bed, increased attention must be taken during movement or lifting, to the space around the Lifting Pole, so that the equipment is not damaged. Do not use it to push or pull the bed.*
⚠	*The Lifting Pole must not be fitted or swivelled with the top of the Lifting Pole beyond the edge of the Mattress Support Platform.*
	RIGHT  *WRONG* 
⚠	*The maximum wight Lifting Pole can safely support is 80 kg – do not exceed it and do not hang other objects on the Lifting Pole and its parts.*
⚠	*Never use more than one Lifting Pole on the bed.*
⚠	*If the Lifting Pole will not locate steadily across the bar in the one of the vertical tube and still rotates, the Lifting Pole cutout or mounting bar can be damaged. In this situation or if any other sign of wear is found (e.g. Strap), remove the Lifting Pole from use immediately and contact your local distributor or Elbur Customer Service directly.*
⚠	*A qualified person must advise the user on correct use of the Lifting Pole and adjust the Strap to the correct length.*

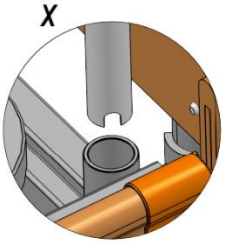
CAUTION	
⚠	*The appropriate location of the Lifting Pole is determined by the horizontal pin inside the corner socket of the MSP Head End.*

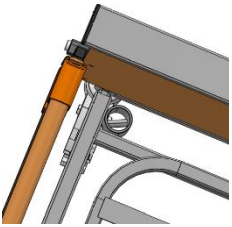
The Lifting Pole is supplied with an adjustable Strap and Triangle Handle. It is used to reposition the patient in bed and to assist the user in getting out of bed.

The Lifting Pole is ready to use after assembly described below:

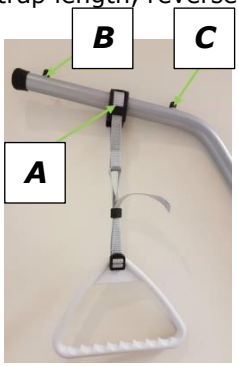
1) There are two vertical tubes on either side at the Head End of Mattress Support Platform into which Liftin Pole fits.
2) The Lifting Pole has cutouts at the base which must locate across the bar, which is welded at the base of each vertical tube.
3) Insert the Lifting Pole vertically downwards into chosen (it should be installed on the side, where patient gets out of the bed) vertical tube and lower it until it reaches the base of the vertical tube.
4) Position the top of Lifting Pole so that the top of the Lifting Pole is above the centre of ELBUR PB 340. Rotate the Lifting Pole from side to side until the cutout locates in the bar in the vertical tube. It should not be possible now to rotate the Lifting Pole. If the Lifting Pole does rotate, lift it up a little, then lower it again and attempt to locate the cutout on the bar.

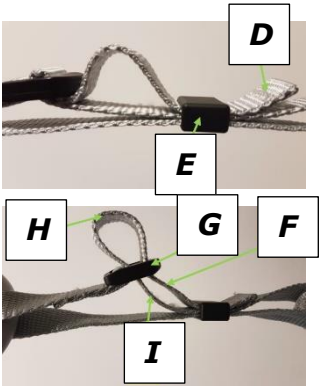






5) Strap should be placed over the top of the Lifting Pole so its rubber pad (A) rests on the top of the Lifting Pole between two lugs (B and C) on the top of the horizontal part of the Lifting Pole.
6) To increase the length of the Strap, ease a short length of the loose end of the Strap (D) through the plastic retaining clip (E).
7) Push the Strap (F) through the buckle (G) until there is a small loop (H). Pull the other end of the Strap (I) back through the buckle.
   Repeat this operation until the Strap is the required length (to shorten the Strap length, reverse the procedure).





8) After adjusting the Strap, ensure it is threaded correctly as shown below.

9.0. Movements of care beds

WARNING	
⚠	*This bed is not adapted for patient's transport, but it can be moved within patient room for cleaning or patient access. Due to force the propulsion, it has to be done by two people. Patient has to stay in flat position and care bed should be adjusted in the lowest height.*
⚠	*Moving or repositioning must be carried out by suitably trained and qualified personnel.*
⚠	*Do not move the bed when the Power Supply Lead is plugged in to the mains supply socket.*
⚠	*All functions must be tested and approved after moving or repositioning by a competent person.*

Prior to moving the bed to a different location follow safety rules indicated below:

1) Ensure the Mattress Support Platform is at its lowest, flat and horizontal position.
2) Disconnect the Power Supply Lead plug from the mains supply and secure it against being crushed or dragged over the floor.
3) Side Rails are latched in upper position.
4) Secure the Handset, Power supply lead and all cables to prevent damage.
5) Unlock the castors brakes and move the bed.
6) When the bed has been moved or repositioned, lock all castors, inspect the Mains Power Cable visually for mechanical damage and if everything is fine, plug it in. Place the Power Supply Lead in a way that it will not be rolled over or strained during the operation of the bed.
7) Perform the full functionality check.

10.0. Functionality Check

CAUTION	
⚠	*Functionality check must be carried out by suitably trained and qualified personnel.*
⚠	*All functions must be tested and approved by a competent person after assembly and before putting the bed into operation.*
⚠	*Functionality check must not be carried out with the bed occupied.*
⚠	*The Power supply lead should be plugged into the separate socket during tests and use.*
⚠	*Position the bed where is enough space for operating it through its full height range without any chance of obstruction or entrapment – check*

CAUTION	
	for obstructions around, above and below the bed frame (it cannot be blocked by any obstacles as bedside lockers or windowsills).
⚠	*Check all cable ties have been removed (there is one cable tie for attaching Back Rest to MSP Head Section and one cable tie for attaching Leg Rest Section to MSP Leg Section for transport).*

1) Check all bolts, nuts, screws and other fasteners are present and correctly tightened.
2) Examine all cables for risk of crushing or deterioration – ensure that they cannot be damaged or overstretched.
3) Plug the Power supply lead into a mains supply socket and carry out a full test of all electrical bed positioning functions using the Handset:
   - raise the bed to full height,
   - lower the bed until it stops,
   - raise and the lower the Back Rest,
   - raise and then lower the Leg Rest.

   There should be no strange noises from drive units and adjustment should go seamlessly.
4) Check the correct function of the castors and brake control.
5) Check that Side Rails on both sides of the Bed are at the same level and are firmly assembled, secured. Check their safe operation and make sure they are locked in appropriate way when they are in the upper position.
6) Check the appropriate work of the Lifting Pole:
   - make sure the Lifting Pole does not rotate from side to side.
   - ensure the top of the Lifting Pole is over the centre line of the bed.
   - make sure that the rubber pad on the Lifting Pole Strap is located between the lugs on the top of the Lifting Pole.
   - inspect the Strap for any damage or fraying.
   - ensure the Strap buckle is secured correctly.
7) Check all other bed accessories, paying particular attention to fasteners and moving parts.

11.0. Cleaning and Disinfection

WARNING	
⚠	*The bed must be cleaned and disinfected before re-using the bed for a different patient or in any other situation requiring it.*
⚠	*Never use scouring agents, abrasive cleaning agents, corrosive, caustics, strong acids, detergents containing highly concentrated alcohol, phenol-based disinfectant solutions or other materials that could damage the coating and the surface of the bed parts and alter the structure of behaviour of the plastics.*
⚠	*All functions must be tested and approved after cleaning or disinfection actions by a trained and qualified personnel. On any suspicion of the intrusion of moisture into the electrical components, disconnect the*

WARNING	
	mains plug immediately and do not re-establish the connection. Put the bed out of operation immediately, attach an appropriate visible label and contact the manufacturer.
⚠	*Non-observance of these guidelines may result in serious injury and in the considerable damage of the care bed and its components.*

CAUTION	
⚠	*The bed must be disconnected from the mains supply before beginning the cleaning and disinfecting procedure.*
⚠	*The bed must not be cleaned in automatic bed washer or with high-pressure or steam cleaner, as liquid penetrates into the electrical components could result malfunctions and danger. Protect especially those components from moisture.*

ATTENTION	
⚠	*Elbur cannot be liable for any damage or risk of damage if inappropriate cleaning or disinfectant agents are used.*
⚠	*Observing the instructions described in this chapter will retain the usability of the ELBUR care bed for a long time to come and will keep its nice appearance.*

Cleaning and disinfecting procedure:

1) Empty the care bed - remove the mattress and all accessories.
2) Adjust the Mattress Support Platform to the highest position and adjust the position of the Back Rest and Leg Rest to provide access for cleaning all the mattress platform parts.
3) Disconnect the bed from the mains supply.
4) Lock the bed castors before beginning cleaning procedure where it will take place.
5) Clean / disinfect the bed by wiping all rigid parts with a soft, damp cloth (not drenched) with a mild household disinfectant, suitable for varnishes and synthetics (only gentle, not aggressive agents should be used in order to maintain the material resistance).
6) Before starting the operation, check the Mains plug and all electrical components for residual moisture or other damage.

12.0. Disassembly

WARNING	
⚠	*Disassembly must be carried out by suitably trained and qualified personnel in a clear, uncluttered area. Children and pets should be kept away.*
⚠	*Do not move the bed when the Power Supply Lead is plugged in to the Mains supply socket.*
⚠	*If bed has become soiled or contaminated during use refer to cleaning and disinfection instructions before perform dismantling process.*

WARNING	
⚠	*Extreme caution must be taken when moving the bed on the TLSU Transport Bracket to prevent the bed tipping over or moving unexpectedly.*

1) Apply the brakes on all four castors.
2) Remove all accessories installed on the Bed, such as Lifting Pole, Side Rails, and put them on side or pack into carton boxes.
3) Lower the Mattress Support Platform to its lowest, horizontal position.
4) Lower the Back Rest and Leg Rest to their flat positions and attach cable ties to secure them to the MSP Head and Foot Ends accordingly.
5) Unplug the Power supply lead from the mains supply.
6) Disconnect the Leg Rest Actuator cable and the Foot End Main Lifting Actuator cable from the Control Box.
7) Unscrew two headed thumb screws and dismantle the Bed End from the MSP Head End. Repeat this procedure in the MSP Foot End, placing the Mattress Support Platform carefully on the flat surface.
8) Insert the Bed Ends into the TLSU Transport Brackets and tighten the head knobs by hand (or use Allen key to tighten the grubs screws).
9) Dismantle the Mattress Platform Support Head End from the Mattress Support Platform Foot End - unscrew two headed thumbs screws on the middle of the Bed, on it both sides.
10) Lift the MSP Foot End and slide its tubes down into uprights on the TLSU Transport Brackets.
11) Lift the MSP Head End and slide it down onto the uprights on the TLSU Transport Brackets.
12) If the Lifting Pole is not packed in the carton box, place it in the vertical tube welded to one part of the TLSU Transport Bracket.
13) If not in use, the ELBUR Care Bed should be stored in clean, dry and well-ventilated location - protect the disassembled bed from mould, rust or other destruction under external influences before re-use. Wrap the bed and its accessories so that the coating and all components cannot be damaged. Technical specifications contain guidance of operating and storage conditions.

13.0. Troubleshooting

WARNING	
⚠	*Troubleshooting must be carried out by suitably trained and qualified personnel – never repair your care bed yourself attempting to solve the problem.*
⚠	*Do not attempt to open or repair any electrical parts. It could be fatal!*
⚠	*All functions must be tested and approved by a competent person after troubleshooting.*
⚠	*Even if the care bed is used properly, a technical problem may occur. In this case, always contact your distributor or Elbur Customer Service.*

DEFECT	POSSIBLE CAUSES	SOLUTION
Adjustment functions are not active (operator cannot adjust height or angle of Mattress Support Platform)	The Power supply lead is not plugged into the mains supply or is not plugged into the Control Box	Plug in the Main power cable
	The Actuator cables are not correctly plugged in at both the Actuator and the Control Box or the Handset is not plugged into the Control Box	Check the plug-in connection in Actuators and Control Box
	Adjustments functions are locked on the Handset	Unlock an appropriate function
	No voltage in the socket	Check the mains socket or fuse box (electrician!)
	The adjustment time or Safe Working Load exceeded	Reduce the load, follow the instructions from this manual and values on labelling, allow the drive system to cool down
	Actuators or Control Box or Handset defective	Notify the operator or Elbur Customer Service
Actuators stopped suddenly during adjustment	The adjustment time or Safe Working Load exceeded	Reduce the load, follow the instructions from this manual and values on labelling, allow the drive system to cool down
	Obstacles in the adjustment range	Remove all items, obstacles which interfere with the adjustment functions
Individual Actuators run in one direction only	Actuator, Control Box or Handset defective	Notify the operator or Elbur Customer Service
Opposite functions when operating the Handset	Mixed cables connection in the Control Box	Check the plug-in connection in the Control Box, follow the instructions from this manual and the label on the Control Box
Castor does not rotate or swivel	Brake applied	Release the brake
	Castors unclean	Clean castors, remove all obstacles
	Castors damaged	Notify the operator or Elbur Customer Service
Lower leg rest does not adjust	Adjusting ratchets damaged	Notify the operator or Elbur Customer Service

14.0. Maintenance

WARNING	
⚠	*Maintenance must be carried out only by or under supervision of suitably trained and qualified personnel or professional persons such as electricians or electro-technically instructed persons who have knowledge of the relevant provisions and are able to recognize possible risks and hazards. Failure to do so my result in injury or an unsafe product.*
⚠	*ELBUR care bed must be checked and serviced on regular base, once yearly as a minimum, before every re-use and after every repair.*
⚠	*More frequent inspections should be carried out when the product is subjected to heavy use or aggressive environments, or where required by local regulations.*
⚠	*Failure to carry out periodic checks, or continuing to use the product if a fault is found, may compromise the safety of both the patient and user. Preventive maintenance can help to prevent accidents.*
⚠	*Do not perform maintenance with the service user or a bed user on the ELBUR care bed.*
⚠	*All functions must be tested and approved after service actions by a competent, suitably trained and qualified personnel.*
⚠	*If any damage, performance issue or cause for concern is noted during the inspection the bed should be withdrawn from service and appropriate steps taken.*

ATTENTION	
⚠	*When it is necessary service technicians will receive from manufacturer circuit diagrams, parts list with description, calibration instructions and other needed information.*
⚠	*The manufacturer is not liable for damage caused by the lack of or improper service.*

Medical devices must be inspected regularly in terms of safety according to the stipulated regulations of manufacturer and the related technical standards. Regular inspections facilitate the maintaining of the highest possible safety level, prevent potential risk of wear and tear in the daily use and allow to keep ELBUR care bed trouble-free for years.

To ensure bed user or bed patient safety and to prolong the lifetime of the ELBUR care bed in safe condition, the company *Elbur sp. z o.o. sp.k.* as manufacturer specifies an inspection interval, which stipulates that a safety-technical inspection is to be executed at least once annually, before passing on to a new user and after every repair.

Also, daily visual inspection is strongly recommended and may be carried out by a competent person. First part of Inspection Protocol provided on the following pages relates to the Visual Check.

Inspection Protocol for ELBUR care beds type PB
(Form Number: *PSF-08.9-02* ; date of issue: 31.03.2022)

Customer Name / Medical Facility	
Address	

Model designation	*ELBUR PB _____*	
Reference Number		
Serial Number		
Electrical appliance class	*I* ☐	*II* ☐
Date of manufacture		
Manufacturer	*Elbur sp. z o.o. sp.k.*	

Type of inspection	*First Inspection* ☐	*Planned Preventive Maintenance* ☐	*Repair Service* ☐
Testing equipment (name, type, SN)			

1. Visual Inspection				
No.	**Description**	**YES**	**NO**	**N/A**
1.	Are the Name Plate and all Warning/Information labels present, readable and easy to understand?	☐	☐	☐
2.	Is the Instruction for Use available?	☐	☐	☐
3.	Are the Maximum Patient Weight and Safe Working Load observed and not exceeded?	☐	☐	☐
4.	Are the Mattress Support Platform, Back Rest and Leg Rest sections, Bed Ends / Scissor Lift, Side Rails and accessories (e.g. Lifting Pole, Bed Lever) in the perfect condition (without any signs of abuse, breakage, damage, deformation?	☐	☐	☐
5.	Is the powder coating of metal parts without any scratches or damage? Is welding without any cracks, craters, splatter? Are all sharp edges deburred?	☐	☐	☐
6.	Are all fixtures, fittings, nuts, bolts etc. tight, secure and durable as appropriate?	☐	☐	☐
7.	Are all plastic end caps complete and without damage?	☐	☐	☐
8.	Is the Mattress Support Platform secured tightly to the Bed Ends / End Boards using plastic headed thumb screws, clamping levers or grub screws?	☐	☐	☐
9.	Is screw connection for mattress support platform Head End and Foot End appropriate and safe?	☐	☐	☐
10.	Is the Mattress Support Platform base (wooden slats, meta strips) without any objections and signs of damage? Is it stable, complete and well-assembled? Are MSP sections (Back Rest and Leg Rest) fitted and adjusted properly in the safe manner?	☐	☐	☐
11.	Are castors without any sign of damage, wear or contamination?	☐	☐	☐
12.	Are the Power Supply Lead and all other electrical cables secured, connected correctly (fully inserted to appropriate slots/sockets) and routed to prevent damage by pinching or crushing, especially between moving parts?	☐	☐	☐
13.	Are all cables protected from non-intended running over, wringing and bringing out?	☐	☐	☐

1. Visual Inspection				
No.	**Description**	**YES**	**NO**	**N/A**
14.	Does the Power Supply Lead or Handset show any sign of damage or abuse?	☐	☐	☐
15.	Are indicators on the Handset easy to understand and readable?	☐	☐	☐
16.	Are Control Box with Back Rest Actuator and Leg Rest Actuator in the right direction, according to instructions in this manual and label underneath the Mattress Support Platform?	☐	☐	☐
17.	Are all Actuators mechanically secured in appropriate way with quick-release bolts or with bolts and clips?	☐	☐	☐
18.	Are housings of Control Box, Handset and Actuators sealed and without any sign of damage?	☐	☐	☐
19.	Are wooden components (End Boards, Side Rails) in the perfect condition and without any sign of damage, wear?	☐	☐	☐
20.	Is the Lifting Pole properly located and securely fixed?	☐	☐	☐
21.	Is the Triangle Handle place between its moving lugs and is Strap without any sign of wear?	☐	☐	☐
22.	Is the Bed Lever assembled in the fitted zone indicated in the accessory instruction manual?	☐	☐	☐
23.	Are there any other signs of abuse, damage, breakage or excessive wear?	☐	☐	☐
24.	Is the area around, above and below the bed clear of possible obstruction?	☐	☐	☐

2. Performance check				
No.	**Description**	**YES**	**NO**	**N/A**
1.	Is it possible to operate the ELBUR bed as per its intended purpose without unexpected noise or motion?	☐	☐	☐
2.	Are all electrical positioning functions, available to achieve using the Handset, working properly?	☐	☐	☐
3.	Can the Bed be adjusted in the defined range indicated in this instruction manual, without any obstacles?	☐	☐	☐

2. Performance check				
No.	**Description**	**YES**	**NO**	**N/A**
4.	Is it possible to lock/unlock individual functions on the Handset with a special Locking Key?	☐	☐	☐
5.	Are drive units working properly (allow the smooth operation without any abnormal noises)?	☐	☐	☐
6.	Are the Mattress Support Platform and Bed Ends mechanically sound i.e. without any cracking at welds during position adjustment?	☐	☐	☐
7.	Is it possible to perform quick lowering of the Back Rest in the emergency situation?	☐	☐	☐
8.	Is it possible to adjust the Lower Leg Rest smoothly and safely, either electrically and manually (lock/unlock of two rastomats in several positions)?	☐	☐	☐
9.	Are castors operating correctly, including the brakes?	☐	☐	☐
10.	Is there any risk of entrapment or bed user injury?	☐	☐	☐
11.	Are the Side Rails without any sign of damage, breakage or wear?	☐	☐	☐
12.	Is set of Side Rails appropriately assembled and firmly seated in accordance to its instructions? Are they operating smoothly and in the safe manner? Is it simple to release Side rails and lock them in the upper position safely?	☐	☐	☐
13.	Is the difference between side rails, and between lower side rail and the mattress support platform, less than 12 cm?	☐	☐	☐
14.	Is the distance between Side Rails and Bed Head less, and between divided Side Rails less than 6 cm, and between Side Rails and Bed Foot End less than 6 cm or greater than 32 cm?	☐	☐	☐
15.	Is the mattress fitted correctly without any unacceptable gaps?	☐	☐	☐
16.	Is the distance between top of the mattress and the top edge of the top side rail at least 22 cm?	☐	☐	☐
17.	Are all accessories fitted in line with the accessory manufacturer instructions and their using is safe?	☐	☐	☐

3. Electric measurements (according to current EN 62353 standard)				
No.	**Description**	**YES**	**NO**	**N/A**
1.	Protective earth resistance: measured value less than or equal to 0,3 Ω $R \leq 300\ m\Omega$ (applied only for Class I ME Equipment) Result:	☐	☐	☐
2.	Device leakage current:			
	Direct method (for Class I ME Equipment): measured value less than or equal to 0,5 mA $I \leq 500\ \mu A$ Result:	☐	☐	☐
	Direct method (for Class II ME Equipment): measured value less than or equal to 0,1 mA $I \leq 100\ \mu A$ Result:	☐	☐	☐
3.	Insulation resistance (for Class II ME Equipment): measured value greater than or equal to 7 MΩ $R \geq 7\ M\Omega$ Result:	☐	☐	☐

Evaluation				
Results of Inspection		**Date of inspection**	**Inspected by**	**Signature**
☐ PASS	☐ FAIL			

In the event the Inspection result did not pass and ELBUR care bed did not meet the safety requirements	☐ Repair ☐ Take out of use ☐ N/A
Additional comments / Description of defects (if applicable)	
Next Inspection Date	

ATTENTION	
⚠	*Elbur provides the Inspection Protocol for ELBUR care beds in every Instruction for Use. It can also be downloaded from our website: www.elbur.eu. The Inspection Protocol should be kept on file and serves as evidence report of the performed service.*

15.0. Electromagnetic Compatibility statement

Guidance and manufacturer's declaration – Electromagnetic emissions		
The ELBUR care bed is intended for use in the electromagnetic environment specified below. The customer or the user of the bed should assure that it is used in such an environment.		
Emission test	**Compliance**	**Electromagnetic environment - guidance**
RF emissions CISPR 11 (partly)	Group 1	The ELBUR care bed uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11 (partly)	Class B	The ELBUR care bed is suitable for use in all establishments, including domestic establishment and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration - Electromagnetic immunity The ELBUR care bed is intended for use in the electromagnetic environment specified below. The customer or the user of the bed should assure that it is used in such environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment-guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ±8 kV air	± 6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient / burst IEC 61000-4-4	± 2kV for power supply lines ±1kV for input/output lines	± 2kV for power supply lines Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV differential mode Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Voltage Dips, short interruptions and voltage variations on power supply Input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0,5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec	<5% U_T (>95% dip in U_T) for 0,5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the ELBUR care bed requires continued operation during power mains interruptions, it is recommended that the bed be powered from an uninterruptible power supply.
Power frequency (50, 60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	The bed power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration - Electromagnetic immunity			
The ELBUR care bed is intended for use in the electromagnetic environment specified below. The customer or the user of the bed should assure that it is used in such environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment-guidance**
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 V rms 150 kHz to 80 MHz 3 V/m 80 MHz to 2,5 GHz	3 V 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the ELBUR care bed including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separations distance: $d = 1{,}2\sqrt{P}$ $150\ kHz\ to\ 80\ MHz$ $d = 1{,}2\sqrt{P}$ $80\ MHz\ to\ 800\ MHz$ $d = 2{,}3\sqrt{P}$ $800\ MHz\ to\ 2{,}5\ GHz$ where 'P' is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and 'd' is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, 'a' should be less than the compliance level in each frequency range 'b'. Interference may occur in the vicinity of equipment marked with the following symbol: 
Note 1: At 80 MHz and 800 MHz, the higher frequency range applies. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
a	Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the ELBUR care bed is used exceeds the applicable RF compliance level above, the ELBUR care bed should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the ELBUR care bed.		
b	Over the frequency range 150 kHz to 80MHz, field strengths should be less than 3 V/m		

Recommended separation distance between portable and mobile RF communications equipment and the ELBUR care bed

The ELBUR care bed is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled.
The customer or the user of the ELBUR care bed can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the ELBUR care bed as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter [W]	Separation distance according to frequency of transmitter [m]		
	150 kHz to 80 MHz $d = 1{,}2\sqrt{P}$	80 MHz to 800 MHz $d = 1{,}2\sqrt{P}$	800 MHz to 2,5 GHz $d = 2{,}3\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,20	1,20	2,30
10	3,79	3,79	7,27
100	12,00	12,00	23,00

For transmitters rated at a maximum output power not listed above, the recommended separation distance 'd' in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where 'P' is the maximum output power rating of the transmitter in Watts (W) according to the transmitter manufacturer.
Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

CAUTION

⚠ *For reasons of safety and electromagnetic compatibility, use only original electric components from Elbur that have been released for the ELBUR care bed model in order. The use of non-approved accessories may result in loss of bed functionality, increased emissions or reduced immunity of the equipment.*
It is still possible that the operation performance is influenced by electromagnetic fields like those of cell phones, power generators of high power energy sources, despite sample of ELBUR care bed type PB has been tested on electromagnetic combability and complies to the EN 60601-1-2 standard. On the other hand, it is also possible that the electronics of the bed influences other electronic devices.

⚠ *When this bed is used adjacent to other electronic devices, the user should observe the equipment to verify normal operation.*

16.0. Disposal

CAUTION	
⚠	*If the ELBUR care bed is to be scrapped, the synthetic and metallic parts are to be separated and disposed of properly. The operator must ensure that all components of the bed are to be disposed of are not contaminated.*

ATTENTION	
⚠	*Contact Elbur Customer Service or your local authority for advice on proper disposal.*

The ELBUR care bed is made of metal, wooden and plastic components, electronic parts and electric cables. In the event of the disposal of materials from the bed, end-of-life parts must be disposed of in accordance with current, local environmental legislation.

ELBUR care beds are classified as industrial electrical equipment (type b2b) in accordance with the WEEE Directive 2012/19/EC. All replaced electrical and electronic components of the electrical adjustment system must be treated as electric scrap and properly disposed of accordingly.

17.0. Warranty

ATTENTION	
⚠	*Damage to your product caused by improper use or lack of maintenance will cause the warranty to laps.*
⚠	*Unauthorised technical changes to the product voids all warranty claims.*

The manufacturer gives a guarantee of 36 months for a perfect functioning care bed. It is based normal, intended use and maintenance as described in this manual.

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