

INSTRUCTION FOR USE

ELBUR Nursing Beds:
PB 521 II, PB 526 II



ELBUR PB 521 II



ELBUR PB 526 II



Dear Customer,

Congratulations on having chosen a quality ELBUR nursing bed which will certainly fully meet your expectations. We would like to take this opportunity to thank you for showing such confidence 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 nursing 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. In order to meet customer expectations we provide wide range of bed height-adjustment. 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 patient, user and operator. It describes: assembling, care and maintenance the nursing bed and operating the adjustment functions. Read these instructions carefully and follow them exactly in order to provide reliable service and avoid damage or incorrect operation.

We reserve the right to change technical specification to the ELBUR nursing beds detailed in these instructions, without obligation to update or replace products.

If you have any questions, please do not hesitate to contact your local distributor or Elbur customer service through our website. We will do our best to fulfil your needs.

Team Elbur

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1.0. Product description

1.1. Purpose and range of application

ELBUR adjustable nursing beds type PB are used to alleviate and compensate for an injury, disability or disease. They ensure comfortable use and contribute necessary care of infirm, frail people, thus enhancing conditions of work for nursing staff. Electric regulation simplifies getting in/out to bed, comfortable setting in chosen position and access to patient during hygienic actions given by care assistant.

ELBUR nursing beds are developed and manufactured in accordance with the current state of technical knowledge and all relevant safety standards. Most importantly, they ensure basic safety and essential performance, which are provided by the fulfilment of European laws and requirements:

- Council Directive 93/42/EEC concerning medical devices;
- EN 60601-1: Medical electrical equipment - Part 1: General requirements for basic safety and essential performance;
- EN 60601-2-52: Medical electrical equipment - Part 2-52: Particular requirements for basic safety and essential performance of medical beds;
- EN 60601-1-2: Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests;
- EN 60601-1-6: Medical electrical equipment -- Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability;
- EN ISO 14971: Medical devices -- Application of risk management to medical devices;








ELBUR nursing beds type PB are designed for application in nursing homes and rehabilitation facilities (application environment 3 – EN 60601-2-52), also for care provided in a domestic area (application environment 4 – EN 60601-2-52). They are intended to continuous use and care for infirm, frail and handicapped people.

1.2. Technical specification

MODEL:		ELBUR PB	521 II	526 II
TECHNICAL SPECIFICATION				
<i>Load [kg]</i>	Max.Patient Weight		165	140
	Safe Working Load		200	175
	Lifting Pole		80	
<i>Dimensions [cm]</i>	External [WxL]		90 x 190	102 x 206,5
	Mattress Support Platform [SxD]		90 x 190	90 x 200
	Under bed clearance		13,5	16,5
<i>Adjustment</i>	Height [cm]		36,0 ÷ 77,0	39,0 ÷ 80,0
	Angle – back rest section [°]		0 ÷ 70	
	Angle – upper leg rest section [°]		0 ÷ 32	
	Angle – lower leg rest section [°]		0 ÷ 20	
<i>Conditions: operating / storage</i>	Temperature [°C]		+10 ÷ +40	
	Humidity [%]		30 ÷ 75	
	Temperature [°C]		+5 ÷ +45	
	Humidity [%]		30 ÷ 75	
<i>Mattress</i>	Dimensions [HxWxL]		10x90x200 [cm] / 12x90x200 [cm]	
	Volume density of foamed material		35 ÷ 50 kg/m ³	
<i>Drive units</i>	Drive unit system		LINAK LA27	
	Control box		CB6	
	Input voltage		230V AC, 50Hz	
	Operating time		AB: 2 min / off 18 min	
	Ingress Protection		IP X4	
	Electrical appliance Class		II	
<i>Weight [kg]</i>	Noise level		< 65 dB (A)	
	Total		82,5	114,9
	Mattress frame (head section)		20,0	20,0
	Mattress frame (leg section)		20,0	20,0
	End board (1)		---	9,2
	Scissor lift		31,0	31,0
	Side rail (1)		---	2,3
	Lifting Pole		5,3	
	Drive units (scissor lift/back rest section, leg rest section)		4,5 (1,5 each)	
	Hand control / Control box		0,3 / 1,3	

1.3. Labeling of nursing beds









1.3.1. Name plates

REF	ELBUR PB xxx			SN: rrrmm12345	
	mm/rrrr	$U_{in}: 230V\sim$	50 Hz		
		$I_{in}: \text{max. } 0,8A$	$IP\ X4$		
		$Int: 10\%, \text{Max. } 2min/18min$			
	= xxx kg		= xxx kg		
 Elbur sp. z o.o. sp.k. Działosza 34, 56-500 Syców, POLAND www.elbur.eu / Tel:0048627869780, Fax:0048627869781					
				      	

Name plate data are defined in the following order:


- model name,
- serial number,
- date of manufacture,
- power supply parameters (voltage, frequency, current consumption),
- serial number with related barcode
- max. patient weight,
- safe working load,
- manufacturer,
- information and warning symbols.

1.3.2. Information labeling


    	 = 140 kg	35350
 ≥40 kg	 = 175 kg	
≥146 cm		
BMI ≥17		

- Max. Patient Weight = 140 kg
(for PB 521 II this value is 165 kg),
- Safe Working Load = 175 kg
(for PB 521 II this value is 200 kg).

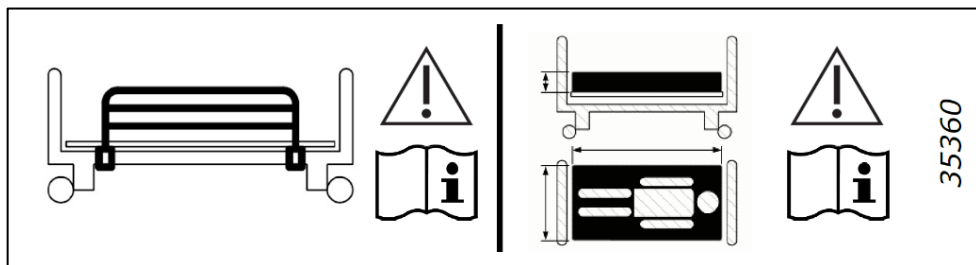
Warning

 *Nursing 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

 *Trapping hazards – finger (hand) entrapment / foot entrapment.*





Warning

- ⚠ *Incompatible side rails can create entrapment hazards.*
- ⚠ *Incompatible mattresses can create entrapment hazards.*
 - Dimensions of the standard mattress (H x W x L):
 - 10 x 90 x 200 [cm],
 - 12 x 90 x 200 [cm].

1.4. Explanation of symbols used on name plates

- application part type B according to EN 60601-1
- electrical appliance class II, double insulated
- ingress protection of electrical parts from splashwater
- do not use the medical device outdoors
- product must be disposed to the selected waste disposal within the European and local regulations
- product with a thermofuse
- safety isolating transformer, general
- pollution control mark (China)
- consult the instruction for use for warnings and precautions
- read and follow the instruction for use
- maximum patient weight



IPX4




- safe working load
- symbol regulatory compliance mark of The Australian Safety/EMC Regulations
- date of manufacture
- manufacturer
- Declaration of Conformity



2.0. Safety information

2.1. Marking and safety signs

Warning


 *Indications of potential risks.*


Note

 *Information and tips regarding the safe use.*

2.2. General advice and limitation of use

Warnings

 *Before assembling or first use nursing bed, please read and follow this instruction carefully. It provides information for the operator and patient regarding the convenient handling and safe operation.*

 *Remember to keep instruction manual for future reference – and have access to it at any time.*

It is necessary to contact physician in charge to make sure that there are not any limitations of use nursing bed in daily healthcare.

Due to the design, ELBUR nursing beds are only approved for use by patients 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.

The maximum patient weight is 140 kg and safe working load is 175 kg. It is a bit different for ELBUR PB 521 II, because maximum patient weight is 165 kg and safe working load is 200 kg. All those values are indicated on nursing bed labeling and cannot be exceeded.

It is recommended that patients taller than 190 cm should not use ELBUR nursing bed without a special extended bed frame, which can be ordered from manufacturer. It provides comfort of use without loss of any functionality for patient outside the standard range.















ELBUR nursing beds can be used for transporting patients (except PB 521 II), but due to safety and force the propulsion, it has to be done by two people. Also, nursing bed has to be in the lowest position.

ELBUR nursing beds are designed for long-term care. If they are used and operated properly, the estimated product life cycle is 4-8 years – it all depends on the conditions within and frequency at which it is used.

2.3. Potential risks and warning messages

2.3.1. General information

Warnings

-  *Use the nursing bed in accordance to normal operating procedure and its purpose.*
-  *Before start using the nursing bed read instruction carefully and familiarize with rated values provided at name plates, labels and in this manual. It helps to prevent any damage and risk occurring due to incorrect operation.*
-  *Safe working load cannot be exceeded.*
-  *Before every use make sure that the nursing bed is in proper and faultless condition.*
-  *Only use technically perfect bed.*
-  *Contact manufacturer or distributor if the exchange or repair of faulty parts have to be made.*
-  *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.*
-  *Use only original Elbur accessories – modification of nursing beds is strictly forbidden without authorization of our company.*
-  *It is necessary to perform specific control tests after modifying the nursing bed to make sure that it is going to work properly.*
-  *Make sure that other attached equipment can function in a secure and safe manner (do not hesitate to contact manufacturer with questions).*
-  *Make sure that all castors have their brakes applied when patient is on the nursing bed and location is not going to change.*
-  *Before adjusting the height of mattress support platform, make sure there are not any obstacles, such as furniture, window sill etc.*
-  *Do not use area under the bed as a storage space.*
-  *The special attention should be given to children – keep the hand switch away from them.*

2.3.2. Electrical components information

Warnings

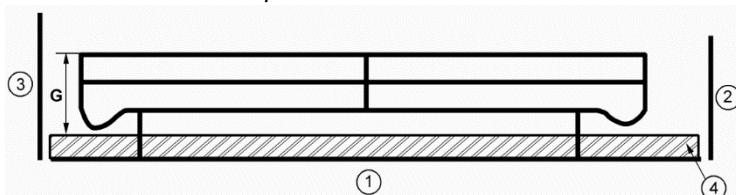
- ⚠ *Connect the bed directly to an electrical outlet – do not use extension cords or multiple outlet extension cords.*
- ⚠ *It is obligated to perform periodic inspections and electrical tests according to EN 62353 performed by technically trained person.*
- ⚠ *Do not open any electric components.*
- ⚠ *For reasons of safety and electromagnetic compatibility, use only original electric components from Elbur that have been released for the nursing bed model in order. Otherwise it can caused danger for patients and loss of bed functionality.*
- ⚠ *Make sure that hand switch is placed properly, that it is not trapped between side rails and mattress support platform/other furniture.*
- ⚠ *If the nursing bed is not going to be used for a while or before relocating it, always make sure that the power supply cord is unplugged from the mains supply and cannot be stretched, rolled over or damaged in any other way.*
- ⚠ *Make sure that no cable is damaged, that there is no loop in the cables and that they are not crushed by moving parts or components of other devices.*
- ⚠ *It is essential to leave the nursing bed unused for at least 18 minutes, after maximum period of operation of 2 minutes, which must not be exceeded.*
- ⚠ *At the same time only one person can operate the bed. It is strictly prohibited to press all buttons simultaneously on the hand switch.*
- ⚠ *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 moist towel.*

2.3.3. Information for care personnel

Warnings

- ⚠ *Do not perform medical operation on the nursing bed.*
- ⚠ *Do not use the nursing bed close to equipment generate high electromagnetic field.*
- ⚠ *Make sure that side rails slot into place securely.*
- ⚠ *Make sure that patient cannot be trapped between mattress support platform and side rails – use special equipment for slight of build patients.*
- ⚠ *Lower the mattress support platform to its lowest position when leaving patient unattended. It reduces risk of injury during getting in/out of the nursing bed.*
- ⚠ *If there is not enough space for the standard mobile hoist, use overhead lifts.*

- ⚠ *Make sure when adjusting the bed that no patient, operator or any other people, especially children can be jammed or injured.*
- ⚠ *The nursing bed must be cleaned and washed down with disinfectant in case of a patient change or in other situation required it.*
- ⚠ *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,
 $G \geq 22\text{cm}$

- ⚠ *When different mattress thicknesses are in use (thicker than 12 cm), operator or person in charge has a duty to decide to undertake special safety measures in order to prevent trapping or person completely falling out in accordance to EN 60601-2-52. Do not hesitate to ask for an advice Elbur customer service.*

2.3.4. Assembly information

Warnings

- ⚠ *Read instruction carefully before commencing assembly.*
- ⚠ *Verify the shipment contents with your order before commencing assembly to make sure that you have got all necessary parts and components.*
- ⚠ *Remember to use proper tools.*
- ⚠ *Two people qualified in nursing bed's operating are required to assembly.*
- ⚠ *There must be enough space for bed height adjustment. It cannot be blocked by any obstacles (bedside lockers or windowsills).*
- ⚠ *Make sure that cables connected control box with hand switch and other drive units are not damaged, that there is no loop in the cables and that they are not crushed by moving parts.*

2.3.5. Service information

Warnings

- ⚠ *Only specially authorized technicians are allowed to carry out troubleshooting activities and replace individual electric components.*
- ⚠ *Use the test protocol draft on pages 28 – 31 during maintenance (you can find it also on website www.elbur.eu) – the subsequent technical safety check has to be documented. It has to be done at least once a year and every re-use at the new place.*

⚠ *It is obligated with every maintenance to perform regular inspections, to ensure the safe condition of the nursing bed.*

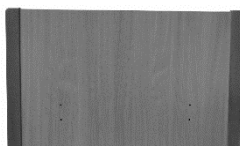
The safety information indicated above and found in this instruction manual must always be strictly observed.

3.0. Scope of delivery

Before commencing assembly of the nursing bed, please read instruction manual carefully and verify the shipment contents with your order (items described below may not be included in your model). Please contact your distributor or Elbur customer service, if you miss any component or get something in bad condition.



- ✓ *Mattress support platform
(1x head section + 1 foot section)*



- ✓ *End board type 526:
- 1x head board,
- 1x foot board.*



- ✓ *Scissor lift with drive unit.
Different models are available to order:*
 - without castors – on kick-stands (PB 521 II),
 - with castors (PB 526 II).

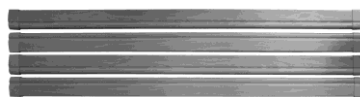
The scissor lift for PB 521 II is delivered with correctly adjusted height of kick-stands.



- ✓ *End board type 531:
- 1x head board,
- 1x foot board.*



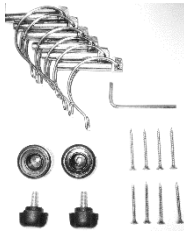
- ✓ *Lifting pole with handle*



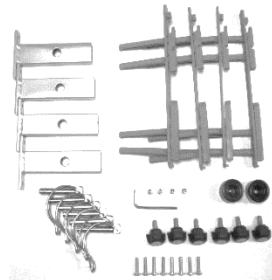
- ✓ *Side rails (4x lath)*



- ✓ *The drive set:*
 - 1x drive unit with control box,
 - 1x drive unit,
 - 1x hand switch,
 - 1x the mains plug,
 - cable set and cable holder,
 - 1x blind stopper for connection slot in the control box.



- ✓ *Assembly components for PB 521 II:*
- 6x quick-release bolt,,
 - 2x castor for assembly mattress support platform on the scissor lift,
 - 1x allen key,
 - 2x knurled screw,
 - 8x wood screw.



- ✓ *Assembly components for PB 526 II:*
- 4x bevel for assembly front boards,
 - 6x quick-release bolt,
 - 2x castor for assembly mattress support platform on the scissor lift,
 - 4x slider to assembly side rails,
 - 1x allen key,
 - 4x grub screw,
 - 6x knurled screw,
 - 8x screw for assembly bevel to end board.

4.0. Electric components

Warnings

- ⚠ *Nursing beds do not have emergency-off switch. Remove the power plug in emergency situation.*
- ⚠ *Take special care in assigning the drive units for adjustments of mattress support platform. These must not be interchanged. Otherwise it can caused damage of electric components.*

4.1. The scissor lift drive unit

Drive unit is mounted on scissor lift. It is used to adjust height of mattress support platform (up and down). User or operator do not have to assembly this drive unit because it is done by manufacturer.

4.2. Back rest / foot rest drive units

Nursing beds described in this instruction manual have one drive unit used to adjust back rest section and one drive unit used to adjust upper and lower leg sections. Both of them are fitted under the bed - in that case assembly is necessary – see subclauses 6.4-6.6.

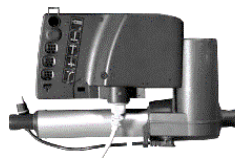


4.3. Control box

Control box is placed on back rest drive unit. In case of failure of any component, there are installed special systems blocking adjustment functions. Control box is protected against ingress of moisture and overload protection system:

- limit switches turn off drives, when they get to the limit position,
- thermal switch turns off control box if it overheats. It should be ready to re-use after 30 minutes break.

The EPR mains cable is fitted with a push-on anti-kink device and tension protection.



4.4. Hand switch

The electrical adjustment can be made using the hand switch. Functions can be controlled by the press of the button on keypad on the front side. The fixing bracket on the rear of the hand switch can be used to hold it in an easily reachable position on the nursing bed. Operating of hand switch is described in subclause 7.1.



5.0. Accessories and spare parts

Warnings

- ⚠ *Use only original Elbur accessories and spare parts – modification of nursing beds is strictly forbidden without authorization of our company.*
- ⚠ *It is necessary to perform specific control tests after modifying the nursing bed to make sure that it is going to work properly.*


Accessories and spare parts can be ordered from distributor or Elbur company. For reasons of safety, it is allowed to use only original spare parts or accessories from Elbur sp. z o.o. sp.k. Otherwise, our company will assume no liability for any accidents, damage, injury and risks that come about through the use of other spare parts or accessories.

6.0. Assembly

Before commencing assembly of the nursing bed, please read carefully instruction manual and verify the shipment contents with your order. Please contact your distributor or Elbur customer service, if you miss any items or get something in bad condition.

Warnings

- ⚠ *Two people qualified in nursing bed's operating are required to assembly.*
- ⚠ *In order to avoid wrong assembly, read carefully instruction manual and labelling on the bed. Remember also to use proper tools.*

 Check carefully marking on individual components to assembly nursing bed in a proper way.

6.1. Location requirements

- 230 Volt power outlet (properly installed) must be available, near the nursing bed in easily reachable position,
- there must be enough space available for adjusting the bed, the space under the bed must remain clear,
- there must be enough space for operator or caregiver to look after patient, at least on one side of bed.

6.2. Preparation

Before commencing assembly is necessary to:

- bring the scissor lift, mattress support platform, end boards out of the box,
- bring all accessories, side rails, drive units and all other components out of the box,
- remove all unnecessary package's items.

6.3. Assembly of mattress support platform on the scissor lift

- place the scissor lift on the flat, horizontal surface,
- attach control box with the scissor lift by cable,
- plug the mains cable and hand switch cable into control box, than raise the scissor lift up to the highest position using electric functions,
- put two black rolls on external pins (upper part of scissor lift),
- foot section of mattress support platform insert on just mounted black rollers,
- push head section of mattress support platform (look at labelling: 'HEAD SECTION'!) into foot section of mattress support platform to the limit – slide it parallel to make sure they are not going to chock,



- secure both sections of mattress support platform by screwing in and tightening the knurled screws,
- lower the mattress support platform slowly and put it horizontal on the scissor lift,
- align holes in the mattress support platform scissor lift lugs, then connect it using quick-release bolts.

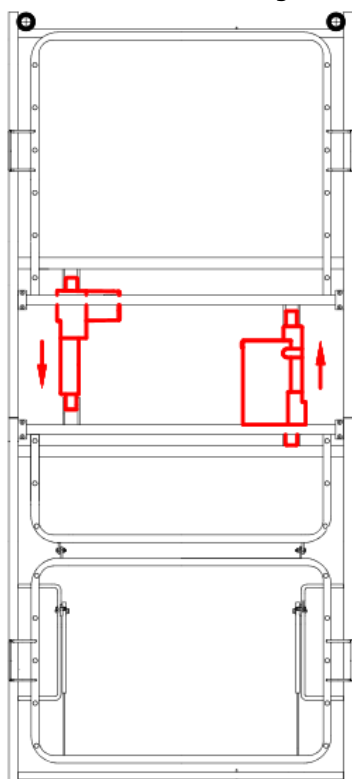


6.4. Location of drive units and control box for mattress support platform

Warning

⚠ *Take special care in assigning the drive units for adjustments of mattress support platform. These must not be interchanged. Otherwise it can cause damage of electric components.*

Picture attached below clearly indicates how to correctly assembly drive units of ELBUR nursing bed.



Plan view

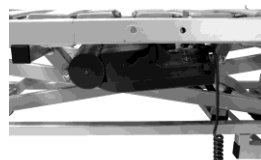
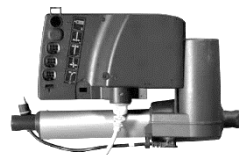
Head section



Foot section

6.5. Assembly of drive unit attached to control box – adjustment of back rest section

- drive unit with a control box is fixed under mattress support platform with the motor housing towards the foot end board (label on the bed);
- align holes in holders and the drive,
- insert the quick-release bolt and secure by closing the retainer,
- align holes in the second holder and the drive on the other its end,
- insert the quick-release bolt and secure by closing the retainer.



6.6. Assembly of drive unit – adjustment of leg rest section

- drive unit is fixed under mattress support platform with the motor housing towards the head end board (label on the bed);
- align holes in holders and the drive,
- insert the quick-release bolt and secure by closing the retainer,
- align holes in the second holder and the drive on the other its end,
- insert the quick-release bolt and secure by closing the retainer.



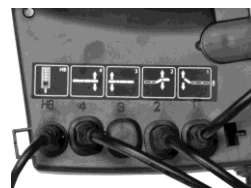
6.7. Connecting electric components

Warning

⚠ *Risk of short-circuit and fire – always check are cables in the correct position, jamming or kinking of the cable must be avoided.*

Plug the electrical component's plugs into the sockets as shown (plug arrangement from right to left):

- HB – hand switch,
- 4 – the scissor lift drive unit,
- 3 – unused connection slot (use blind stopper),
- 2 – leg rest drive unit,
- 1 – back rest section drive unit.



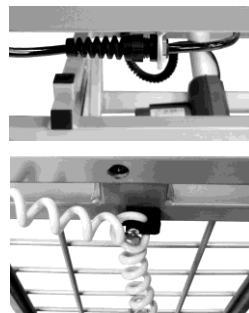
6.8. Cable routing

Warning

- ⚠ *Pay special attention to securely placing all cables and wirings. Make sure they will not be stretched, driven over or damaged by moving parts.*

The power cable holder is located on the mattress support platform on the foot section and head section. The power supply cord has to be secured in the power cable holder, otherwise it might be damaged by stretching, running over or squeezing.

There are holders for hand switch cable on both sides of the mattress support platform (in the non-moving section). Please use one on the side, where hand switch is going to be hooked.



6.9. Testing of adjustment functions

Warnings

- ⚠ *During the performing tests of adjustment functions, ensure that the cables and wires cannot be damaged or overstretched.*
- ⚠ *The nursing bed should be plugged-in to the separate socket during the tests.*
- ⚠ *There must be enough space for bed height adjustment. It cannot be blocked by any obstacles (bedside lockers or windowsills).*

Plug-in the mains cable plug and start checking all adjustment functions. There should be no strange noises from drive units and adjustment should go seamlessly. Leave the nursing bed in its highest position after performing all tests. Remember to remove the mains plug from the socket. After that you can finish assembling the nursing bed.

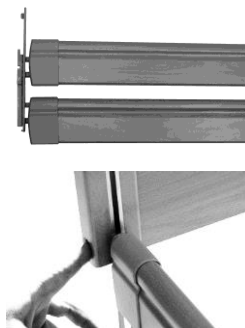
6.10. Assembly of the end boards (does not apply for PB 521 II)

- attach two bevels to each end board using screws,
- push bevels (attached with end boards) into tubes of the mattress support platform to the limit,
- secure end boards and mattress support platform connection by screwing in and tightening the knurled screws.



6.11. Assembly of side rails (does not apply for PB 521 II)

- push the plastic slider with the point facing upwards into the metal guide groove on the end board, while pressing the button on its side (releasing the button will lock the slider in the top guide);
- position of holes in the side rail cappings are not the same:
 - drilled holes offset downwards – top capping for bed rail,
 - drilled holes offset upwards – bottom capping for bed rail.



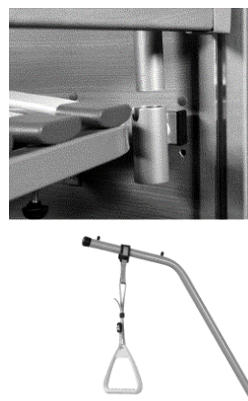
The side rails in the foot section end are assembled in the same way as in the head section. If the bed is equipped with wooden side rails on both sides of the nursing bed, assemble them in the same manner as the first.

Warning

- ⚠ *Wrong assembly of the 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!*

6.12. Assembly of the lifting pole

- in both corners of the head section of the mattress support platform there are sockets for assembly the lifting pole. It should be installed on the side, where patient gets in or out of the bed.
- the proper location of the lifting pole is determined by the horizontal pin inside the socket,
- the handle strap is attached to the lifting pole. Patient can hold it to make it easier for get in/out of the bed.



7.0. Operating of the nursing bed

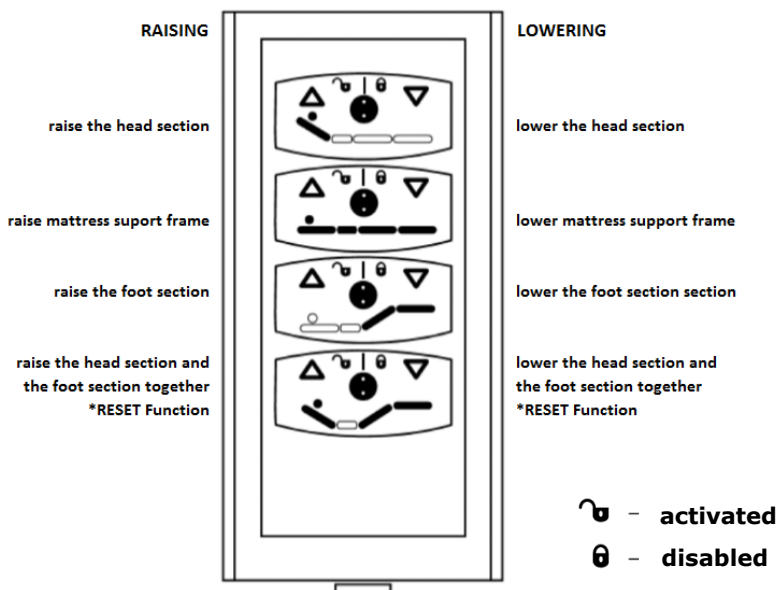
Before first use of the nursing bed, please read instruction carefully, especially potential risks described in subclause 2.3, which can appeared if safety procedures, instructions of using and operating are not followed.

7.1. Electric mattress support adjustment

Warnings

- ⚠ *Make sure that hand switch is placed properly, that it is not trapped between side rails and mattress support platform/other furniture.*
- ⚠ *It is essential to leave the nursing bed unused for at least 18 minutes, after maximum period of operation of 2 minutes, which must not be exceeded.*
- ⚠ *At the same time only one person can operate the bed. It is strictly prohibited to press all buttons simultaneously on the hand switch.*

The electric adjustment range of height or angle of mattress support platform is possible only within a predetermined range. The electrical adjustments can be made using the hand switch, which functions are described below.



Height adjustment range is 35,5 ÷ 76,5 cm for ELBUR PB 521 II, 39,0 ÷ 80,0 cm for ELBUR PB 526 II. Angle adjustment range for back rest section, upper leg rest section and lower leg rest section is 0 ÷ 70°, 0 ÷ 32°, 0 ÷ 20° respectively.

If necessary, it is possible to block individual functions of the bed using the attached blue key. For this purpose insert the key into proper holes in the middle of the handset:

- turn the key right - the green light will turn into yellow, which means that this function has been disengaged,

- turn the key left - in order to unlock the function (the green light will appear, which means function has been engaged again).

When the thigh rest is fixed, the lower leg rest can be adjusted individually – there are two adjusting ratchets, which lock the lower leg rest into position. In order to raise the lower leg rest in the foot end up (without the mattress brackets) to the desired level – the lower leg automatically snap into place. In order to lower leg rest first it is necessary to lift the lower leg all the way to the stopping point, then you can slowly drop the lower leg rest down. Also, the lower leg rest will be dragged down automatically if you lower the thigh rest.

Warning

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

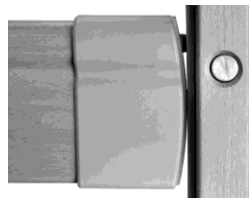
7.2. Side rails operating

Warnings

- ⚠ *It is necessary to hold side rails during lowering them to avoid rapid decrease.*
- ⚠ *The ends of side rails shall be always at the same level of mattress support platform head section and foot section.*
- ⚠ *Lowering height of mattress support platform with side rails in the lowest position or bringing side rails down if mattress support platform is in the lowest position, can cause foot entrapment!*

To raise wooden side rails pull them on an one end after the other until they lock in its highest position – there should not be any possibility to move them up or down.

To lower wooden side rails raise them slightly, push the locking button and lower them slowly – do not let to rapid decrease.



7.3. Setting the springiness of mattress support platform

Warning

- ⚠ *Rashness can caused finger entrapment between mattress support platform and sliding cube.*

The springiness for the individual wooden slats can be adjusted using six slides fixed to the center of the slatted frame, which allows to adjust it to suit the patient's weight within certain limits.

- ⇒ pull slide out (+) to outside bed direction - increase hardness.
- ⇐ push slide in (-) to inside bed direction - decrease hardness.

7.4. Castors operating (does not apply for PB 521 II)

Warning

- ⚠ *Make sure that all castors have their brakes applied when patient is on the nursing bed and location is not going to change.*

7.4.1. ELBUR PB 526 II

There should be access to castors at all the time. They have to be placed along the bed before locking them.

For the purpose of activating the brake push the foot lever down as far as it goes.

For the purpose of deactivating the brake push the foot lever toward the corner pole as far as it goes.



7.5. Movements of nursing beds (does not apply for PB 521 II)

Note

- ⚠ *Two people are required to transport patient on the nursing bed, duo to force the propulsion.*

Prior to moving bed to different position follow safety rules indicated below:

- mattress support platform has to be in flat and horizontal position,
- side rails has to be latched and in upper position,
- unplug the mains power cable and secure it in the power cable holder,
- check technical condition of castors,
- make sure that mattress support platform is in the lowest position,
- unlock brakes on castors in PB 526 II,
- nursing bed is ready to move.

After moving:

- plug-in the mains power cable,
- power supply cord shall be kept clear of any moving nursing bed part or mechanism, when it is in use, transport or from friction at sharp corners and edges within the nursing bed,
- lock all castors.

7.6. Emergency lowering of the back rest

In an emergency situation, when mains voltage has been interrupted or failure of electric components, the back rest section can be lowered manually by disassembling quick-release bolts locking the drive unit under the mattress support platform.

Warning

- ⚠ *Disregarding these safety guidelines and instructions may lead to serious injuries for user and patient – back injuries and danger of hands squeezing.*

Note

- ⚠ *Emergency lowering may only be carried out by at least two people.*
- ⚠ *We recommend to do practice emergency lowering of the backrest under normal conditions so that in case of an emergency you will be able to react quickly and properly.*

Emergency lowering of the back rest has to be done in the following order:

- disconnect the power cord from the mains socket,
- ease the load on the backrest,
- first person has to lift the back rest slightly head section of mattress support platform and holds it in that position,
- at that time second person has to remove the quick-release bolt by opening securing retainer and pulling the quick-release bolt out of the hole in the mounting holder,
- then, first person can carefully lower the back rest to the flat position.



To convert the bed back to its normal operating state the quick-release bolt has to be fitted again and secured with retainer. Then back rest drive unit is assembled properly and ready to use again.

8.0. Maintenance

Note

- ⚠ *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 moist towel.*
- ⚠ *Never use scouring agents, abrasive cleaning agents, stainless steel cleaners or scouring pads, because they can damage the surface.*
- ⚠ *Before beginning the cleaning unplug the power cable from the wall socket and make sure that it does not come into excessive contact with water or other cleaning solutions.*

8.1. Disinfecting

All mild, not aggressive disinfectants set out in EN 12720+A1 can be wiped on the beds to clean them. They must be cleaned and washed down with disinfectant in case of a patient change or in other situation required it.

8.2. Cleaning and care

All components of the nursing bed are made from the best quality material, which biocompatibility is described in technical documentation. The surface of steel tubes is coated with a durable polyester powder layer. All wooden or wood-based parts are protected with non-hazardous varnish. The nursing bed components can be easily cleaned and maintained according to the effective hygienic rules in specific areas by disinfecting wiping. Adhering to the described below rules of the bed maintenance ensures its long life and keeps its nice appearance.

CLEANING AND CARE		
NO.	Components	Cleaning method
1.	Steel tubes and coated metal parts	Use a slightly moisturized cloth and normal, mild, not aggressive agents for cleaning furniture
2.	Wooden and wood-based elements	
3.	Plastic components	
4.	Drive units	Housings should be wiped only with a slightly moisturized cloth

9.0. Service

Warnings

- ⚠ *Only specially authorized technicians are allowed to carry out troubleshooting activities and replace individual electric components.*
- ⚠ *Use the test protocol draft on pages 27 - 30 during maintenance (you can find it also on website www.elbur.eu) – the subsequent technical safety check has to be documented.*
- ⚠ *It is obligated with every maintenance to perform regular inspections, to ensure the safe condition of the nursing bed.*
- ⚠ *If damage or malfunction is suspected, take the bed out of service immediately and disconnect it from the power until exchange or repair of broken components.*
- ⚠ *Contact manufacture or distributor if the exchange or repair of faulty parts have to be made.*

It is obligated to perform regular inspections, to ensure the safe condition of the nursing bed:

- First inspection – before first use;
- Repeat inspection – not less than once a year and before every re-use,
- Service inspection – service should be performed after every repair.

You can find the inspection protocol on the following pages, which has to be used during services of the nursing beds.

Inspection of electro-medical equipment according to EN 62353

Customer / Medical Facility / Practice: _____

Address: _____

Type of inspection:

- First inspection ☐
- Repeat inspection ☐
- Inspection following repairs / servicing ☐
- Manufacturer's final inspection ☐

Electrical appliance class: I ☐ II ☐

Manufacturer: Elbur sp. z o.o. sp.k.

Bed type: PB _____

Serial number: _____

Inventory number: _____

Location: _____

Testing equipment used (name / type / serial number):

I. Visual inspection

1.1. Visual inspection of the mechanical components		
Are name plates and labels readable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are mechanical constructions free of no weld, bent of metal or wooden components?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is external frame of mattress support platform distorted?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are sections of mattress support platform fitted and adjusted properly?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are wooden slats or metal net without damages?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is construction under the mattress support platform (if applicable) completed and without any damages?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is lifting pole located and fixed properly?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are side rails without any damages?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are castors without damages and still good enough to use?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are all screw connections durable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are housings of components without damages?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are quick-release bolts mounting drive units fitted properly?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is lifting pole distorted?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is triangle grab handle still good enough to use?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
1.2. Visual inspection of the electrical components		
Is the power supply cord connected properly and without damage?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are mains cable and its plug without damage?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are cables connected correctly with strain relief / plugs fully inserted?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are cables, especially between moving parts of the bed, without any scratches, dents, kinks or bare wires?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are housings of drive units, control box and hand switch sealed and without any damages?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is labelling on the hand switch readable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

Description of defects (if applicable):

II. Electric measurements (according to EN 62353)

2.1. Measurement of protective earth resistance		
Applied only for Class I ME equipment $R \leq 300 \text{ m}\Omega$	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Results:		
2.2. Measurement of leakage current		
Direct method (for Class I ME Equipment) $I \leq 500 \mu\text{A}$	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Results:		
Differential method (for Class II ME Equipment): $I \leq 100 \mu\text{A}$	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Results:		
2.3. Measurement of insulation resistance		
For Class II ME Equipment: $R \geq 7 \text{ M}\Omega$	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Results:		

Description of defects (if applicable):

III. Performance check

3.1. Performance check of the electrical components		
Are control and blocking functions of the hand switch working properly?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are drive units working properly? (abnormal noises, smooth operation)	<input type="checkbox"/> YES	<input type="checkbox"/> NO
3.2. Performance check of the mechanical components		
Is suspension system working properly? (smooth operation, brakes)	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the distance between side rails less than 12 cm?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the distance between lower side rail and the mattress support platform less than 12 cm?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the distance between top of the mattress and the top edge of the top side rail at least 22 cm?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is it safe and simple to lock and unlock the side rails?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are side rails distorted with a load?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the CPR function working properly with a load of the back rest (if applicable)?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

Description of defects (if applicable):

IV. Results of the inspection

Inspection passed: YES ☐ NO ☐

If inspection was not passed:

- Defective equipment – Do not use the nursing bed → Repair ☐
- Defective equipment – Do not use the nursing bed → Take out of use ☐
- Nursing bed does not meet the safety requirements ☐

Attachments: _____

Comments:

Next inspection date: _____

Inspected on: _____

Inspected by: _____

Signature: _____

Inspection protocol can be also downloaded from website:

www.elbur.eu

9.1. Troubleshooting

DEFECT	POSSIBLE CAUSES	SOLUTION
Adjustment functions are not active (operator cannot adjust height or angle of mattress support platform)	Mains power cable is not plugged in	Connect the main power cable / Check the plug-in connection of electronic components.
	Cables not fixed firmly	Check the plug-in connection in the socket and control box.
	No voltage in the socket	Check the socket or fuse box (electrician!)
	Thermal switch turned on	Try again after 30 minutes break from using adjustment functions
	Disabler in the hand control activated	Deactivate disabler (turn key to the left)
	Hand control damaged	Notify customer service
	Control box damaged	Notify customer service
Lower leg rest section (optional function) does not adjust	Adjusting ratchets damaged	Notify customer service
Drive units stopped suddenly	Safe working load exceeded	Reduce the load, follow the instruction from this manual and indicated on labels
	Obstacles in the adjustment range	Remove all items, obstacles which interfere with the adjustment functions
Drive units	Working time exceeded	Let to cool system down, reduce the load, follow the instruction from this manual and indicated on labels

Control box overheated	Safe working load exceeded	Let to cool it down, reduce the load, follow the instruction from this manual and indicated on labels
	Thermal switch turned on	Try using adjustment functions after 30 minutes break
Locking castors are not active	Castors unclean	Clean castors, remove all obstacles
	Castors damaged	Notify customer service
Side rails trigged	Plastic sliders are unclean	Clean sliders, remove all obstacles
	Plastic sliders damaged	Notify customer service

10.0. Transport and storage

All ordered beds are packed on the transport pallet, which can be relocated by the hand pallet truck or the forklift. Reliable package protects beds from external damages and ensures that patient or user get a bed in the perfect condition.

Technical specifications (*subclause 1.2.*) contain guidance of operating and storage conditions for ELBUR nursing beds.

Nursing bed shall be protected from destruction under external influences before re-storage.

Disassembly of nursing bed shall be performed in the opposite directions to those specified in paragraph 6.0. *Assembly*.

11.0. Disposal

The nursing bed is made of metal, wooden and plastic components, electronic parts and electric cables. If the nursing bed must be scrapped, the plastic and metal parts shall be recycled according to legal regulations. Electronic components (hand switch, control box, linear actuators etc.) of nursing beds are considered as electronic scrap and must be disposed in accordance with WEEE – Guidelines 2002/96/EG (Electronic Law). If in doubt, please contact your nearest disposal facility, local community, distributor or Elbur customer service.

12.0. Warranty

The manufacturer gives a guarantee of 24 months for a perfect functioning nursing bed.

13.0. Notes

[illegible]



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