

Hudson Shower Bench

User manual




This manual should always be in close proximity of the product.

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1. Symbols used in this manual

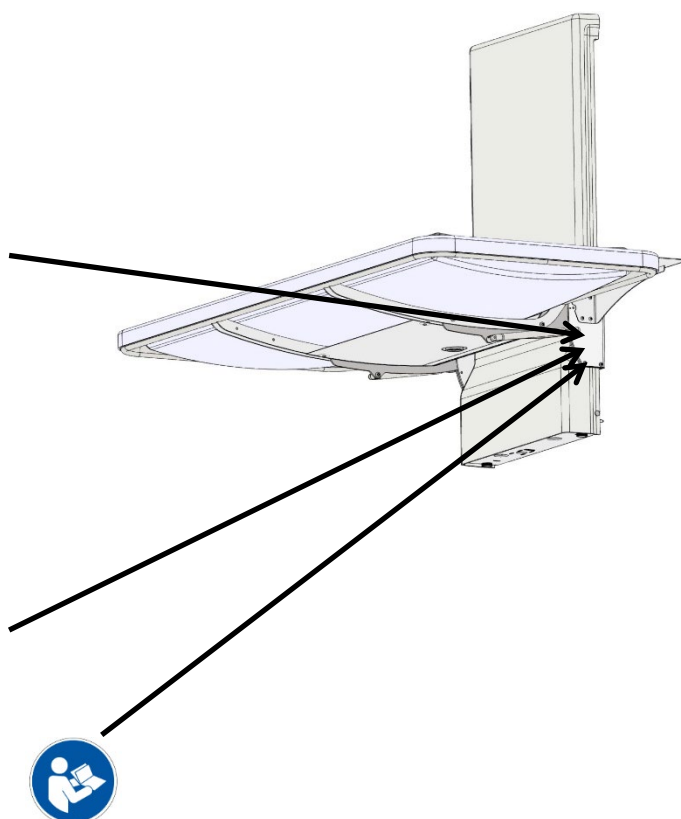
Warning Symbol Indication of potentially hazardous situation. If not avoided it can result in serious injury or death.	
Caution Symbol Indication of potentially hazardous situation which may result in minor or moderate injury. It may also be used to alert against unsafe practices.	
Notification Symbol This symbol is used to notify correct use and handling of the product.	

2. General safety





	<p>This manual must be read and understood before use. Always keep this manual in close proximity of the product.</p> <p>The use, installation and service of this product must be in compliance with this manual to avoid accidents and serious personal injury.</p> <p>Never use or handle this product in other ways specified in this manual as it can result in personal safety hazards and/or cause damage to the product.</p> <p>Persons installing and/or using this product either as operator or user should have the necessary safety information and access to this manual.</p> <p>If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified designated persons in order to avoid a hazard.</p>
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	<p>Do not perform repairs, disassembly or assembly operations, additions, re-adjustments or modification of the product beyond what is described in this manual. These must be carried out by Care Spaces or Care Spaces authorized personnel. Do not perform service while in use.</p> <p>This appliance can be used by adults who have read and understood the user manual. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.</p> <p>Do not use the product if it has defects or have become damaged before being repaired or replaced. If the control box makes unusual noise or smells, switch off the mains voltage immediately.</p> <p>Take care that the cables are not damaged.</p> <p>The products must only be used in an environment that corresponds to their IP protection.</p>
	<p>The information in this manual is based on correct installation in accordance with installation instructions for this product.</p> <p>Care Spaces cannot be held liable if the product is used in any way that differs from stated in this manual and/or installation instruction.</p> <p>Care Spaces reserve the right to amend this manual and reference documents without prior notice.</p>

2.1 Product Unit label



	This product is UKCA-marked in accordance with: UK SI 2002 No. 618 - <i>The Medical Devices Regulations 2002</i> , and its amendments UK SI 2008 No. 1597 - <i>The Supply of Machinery (Safety) Regulations 2008</i> , and its amendments
	This product is CE-marked in accordance with: European Medical Device Directive 93/42/EEC, including amendments incorporated in Directive 2007/47/EEC. European Medical Device Regulation (EU)2017/745 Council Directive 2006/42/EC on machinery Council Directive 2011/65/EU, RoHS
	Manufacturer name and address
	Date of production
	Stock number
	Serial number
	Consult manual before use
	Operating interval of electrically operated equipment. The use of electrical height adjustable equipment can run at maximum 2 minutes, followed by an 18-minute break.
	Type BF applied part. The product complies with IEC 60601-1 requirements to provide protection against electric shock.

	Consult manual for important safety related information, warnings and safety precautions.
	Class II, double isolated electrical components.
	Do not dispose as unsorted municipal waste. Product must be returned to a designated recycling station.
	Operating and storing temperatures may not exceed 5-40C°

3. General requirements

3.1 Product information

Manufacturer:	Ropox A/S Ringstedgade 221, DK-4700 Naestved +45 55 75 05 00 Email: Info@ropox.com		
Product models	Part number	Model	Configuration
	40-25023	146cm	
	40-25026	178cm	
	40-25029	210cm	
	40-25073	146cm	Incl. back support
	40-25076	178cm	Incl. back support
	40-25079	210cm	Incl. back support
Expected service life	5 years		
MDD Class 93/68/EEC MDR Class 2017/745	Class I		
Applied part classification 60601-1	Type BF applied part		
MEE Class 60601-1	Class II		
Intended environments	<p>This product is to be used only in: Professional Healthcare Environment Homecare Environment</p> <p><i>The device is not intended for use in special environments as defined by IEC 60601-1-2</i></p>		
Maximum user weight according to DS/EN ISO 17966:2016	220kg		
Power supply	100-240V ~50/60Hz		
I in	Max 2.0A		
Intermittence	2min use / 18min pause		
Height adjustment	30-100cm		
Speed of actuation	≈ 17 mm/s		
IP rating	IPX6		
Ambient temperature	-10 °C to +50 °C Transport and storage+5 ° C to +40 °C Operation		

Materials in contact with patient	Component	Material description
	Unit Cover	ABS
	Tub	PMMA
	Slats	PUR FLEX 200 Steel
	Coverplate	powder coated

Accessories	Item Number	Model/specification
	40-25034	Bedguard for 146cm
	40-25036	Bedguard for 178cm
	40-25035	Bedguard for 210cm
	40-25038	End guard rail
	40-25031	Back rest for showerbed with slats
	40-25090	Headrest

3.2 Product description

The Shower/changing bench is a height-adjustable solution suitable for user weights up to 220 kg. It serves as a stable platform for showering and changing people with impairments, and the three sizes make it useful for adults and children.

3.3 Intended purpose

The height adjustable shower/changing Bench makes showering and changing safe and comfortable for disabled and people with mobility disabilities. The soft and flexible slats provide the user with optimum comfort, and the electrical height adjustment and the ergonomic design ensure the best possible working environment for the carer. The user-friendliness, the design and the welfare technology result in security and satisfaction for both user and helper. The Bench can quickly be adjusted to the desired level, for example, you can lower the bench to just 30 cm above floor level making the transfer of a user onto the Bench smooth and easy.

3.4 Intended operator

Reading and understanding this manual will be sufficient training for an intended operator. Children under the age of 16 or patient are not considered intended operator.

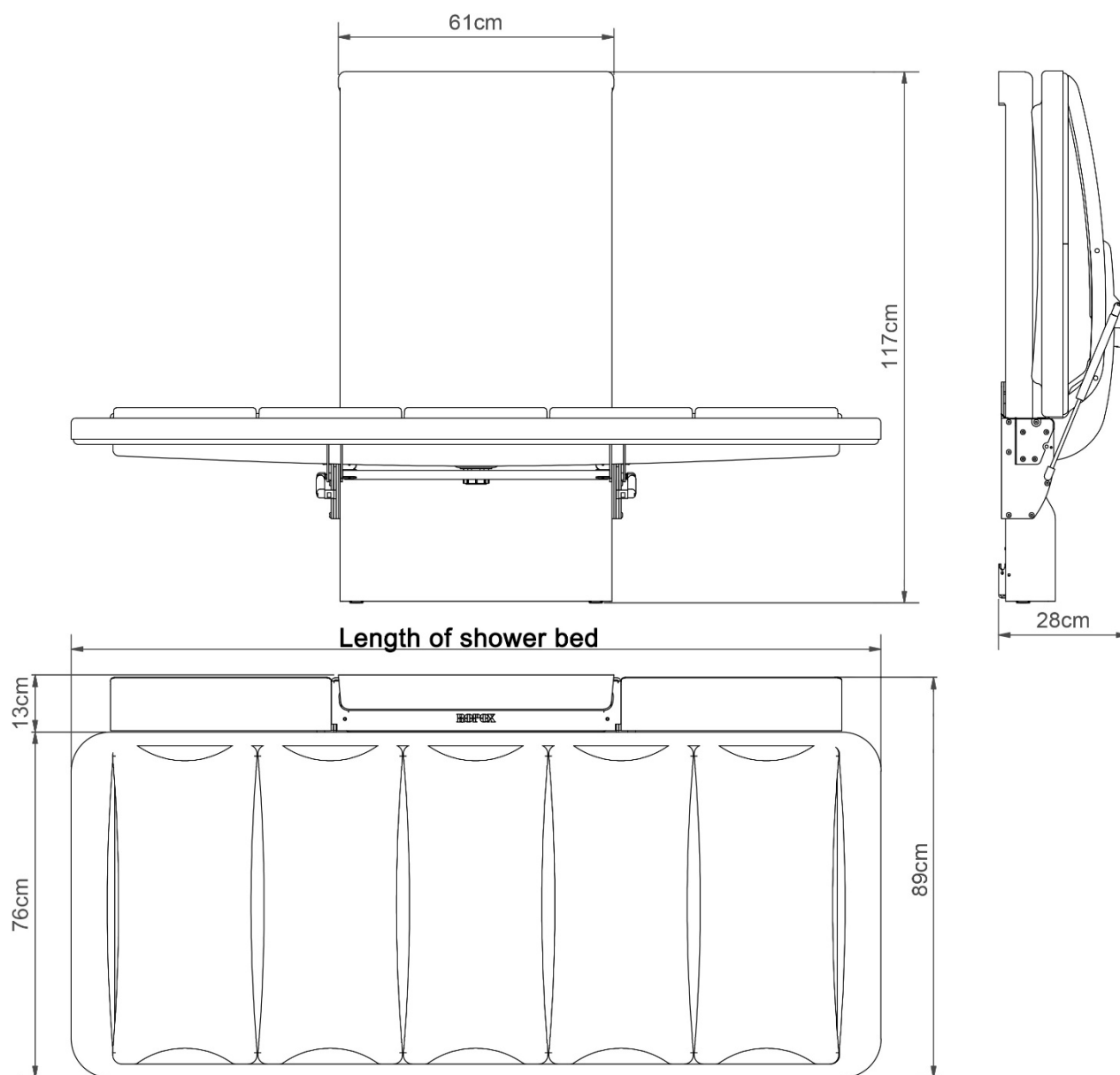
3.5 Essential performance

The device does not have any function related to basic safety or essential performance. In case of loss or degradation of performance, the user can be lifted off the device

3.6 Complaints and adverse events

Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is located.

3.7 Product dimensions

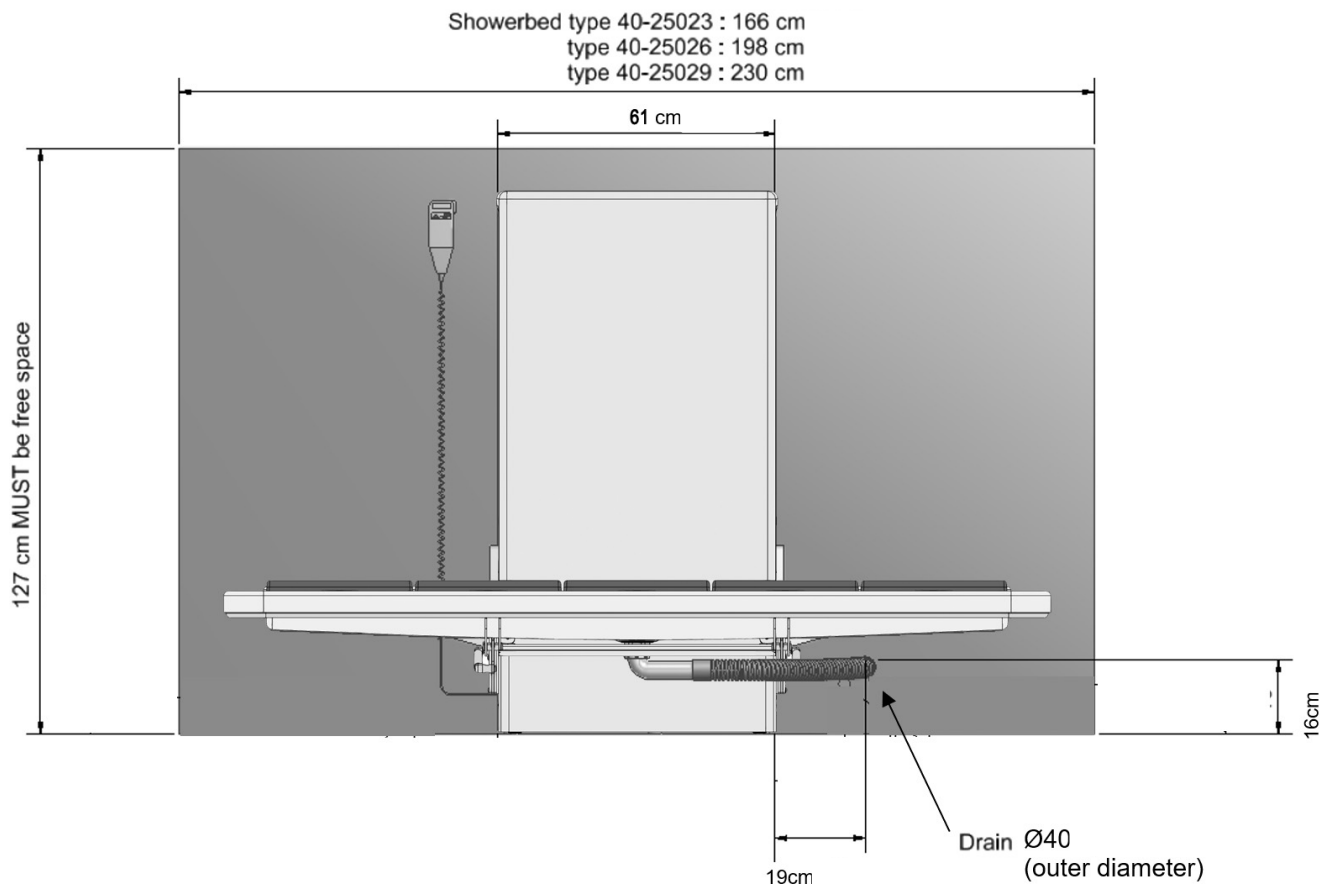


Length of shower Bench	Part No. (excl. back support)	Part No. (incl. back support)
146cm	40-25023	40-25073
178cm	40-25026	40-25076
210cm	40-25029	40-25079

4. Instructions for use

4.1 Installation of product

Make sure that you allow free space on all sides of the unit as shown below.



4.1.1 Placement of the Main 100-240 V socket, the hot and cold water and the drain

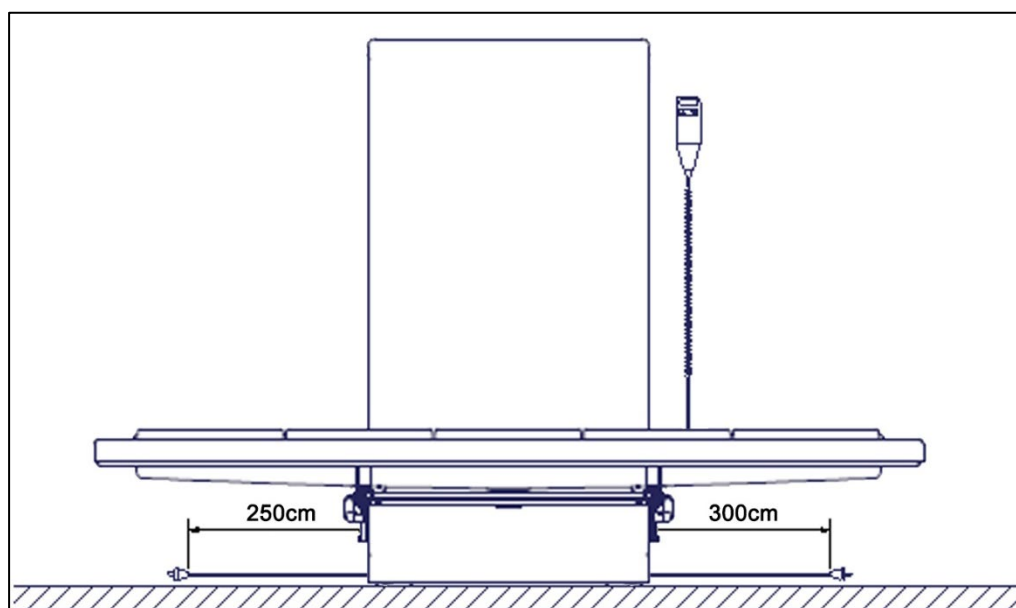
The drain must be placed in the free area beside the lifting unit and underneath the Bench in the lowest position.

The placement on the picture above is a suggestion of optimal position.

Hot and cold water shall be placed so as not to come in conflict with the area of height adjustment.

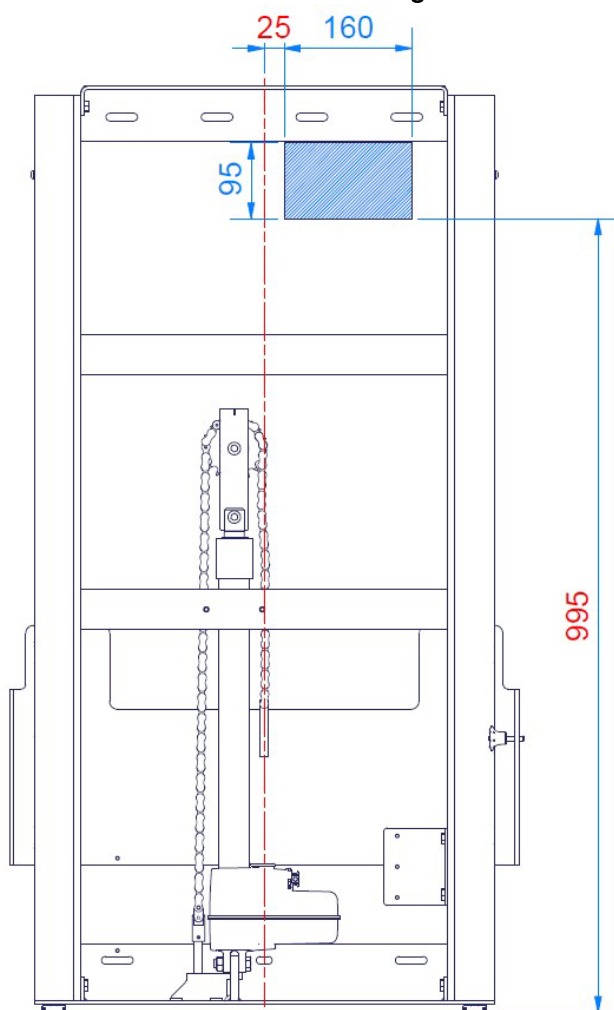
The electrical outlet can be placed either behind or outside of the lifting unit. In either case, make sure that the Main 100-240 V socket is placed according to the national requirements for such installations.

4.1.1.1 Placement of Electrical outlet outside of lifting unit



The main power cable has a total length of approx. 320cm of which 250cm is outside the lifting unit. The cable can be pulled out in either left or right side.

4.1.1.2 Placement of outlet behind lifting unit

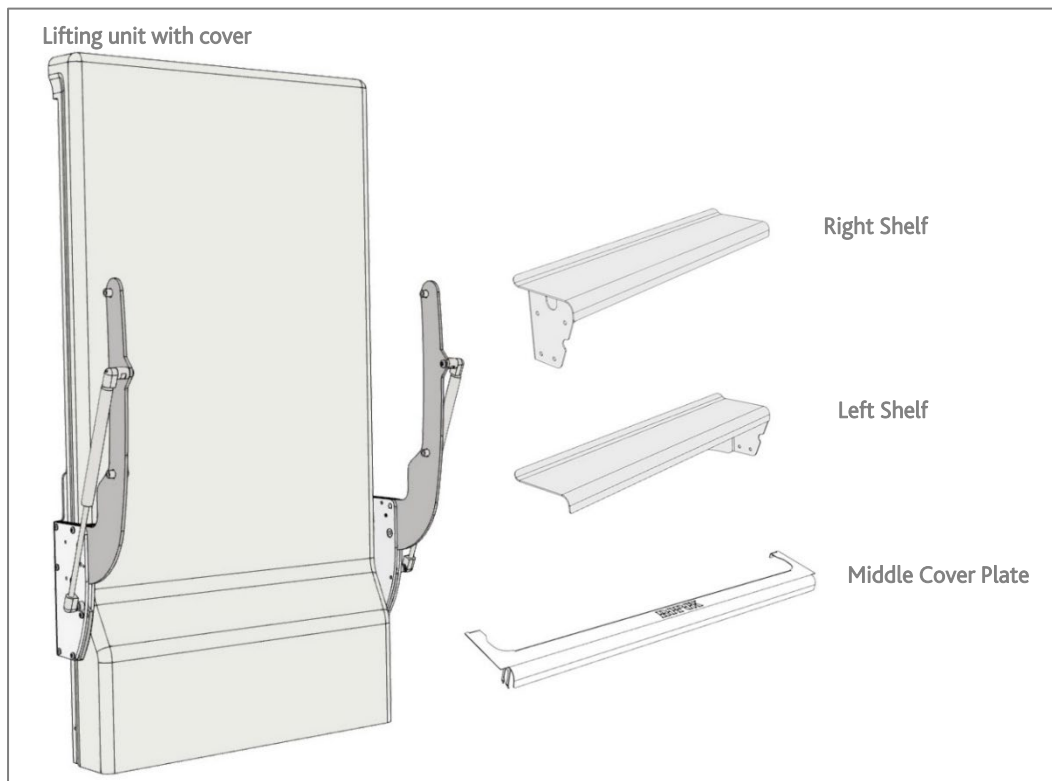


The following drawing illustrates the space that can be allocated for an electrical outlet without interfering with the movement of the unit. The blue-hatched area are is the safe area for placing an electrical outlet and cover. Placing the outlet and/or cover outside of this area may result in product damage and malfunction.

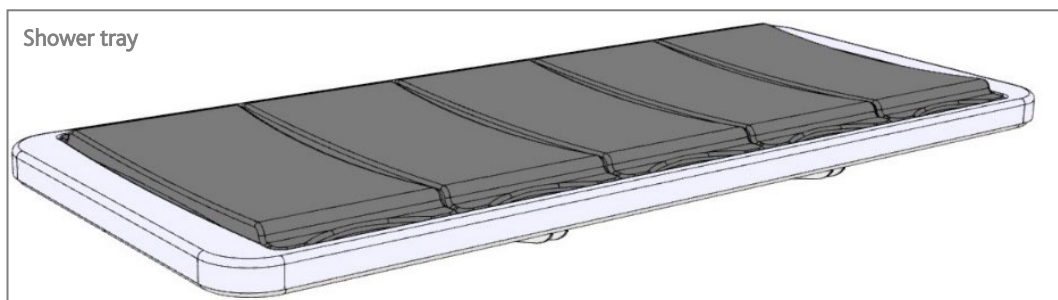
If possible, hold off on the final position of the mains cable and cover in the wall, until the lifting unit has been fully placed and fixed to the wall (steps for mounting the unit are detailed later in this manual). Then raise the sled to the top-level position and use the cutout to ensure a safe fit of the electrical cable and cover with proper clearance all around.

Note: Depth of electrical outlet (incl. wire) must not exceed 65mm from the wall

4.1.2 Receiving the Shower & Changing Bench



The Shower & Changing Bench will come in two packages. One for the "Lifting unit" and one for the "Shower tray unit".

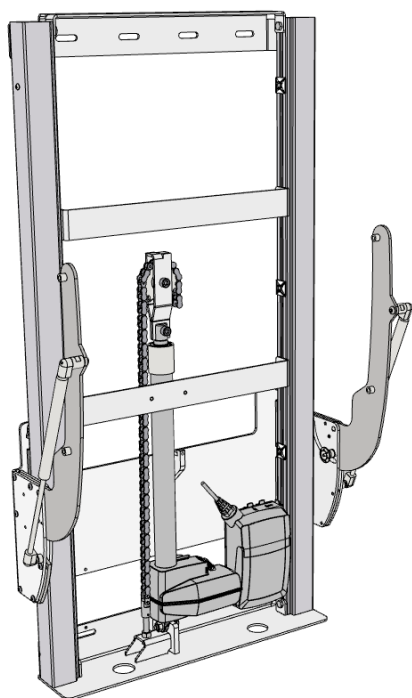


4.1.3 Remove the cover

The plastic cover can slide up and released from the lifting unit, or it can be clicked out by pulling it forward.

!! Take care not to scratch the plastic cover in the process !!

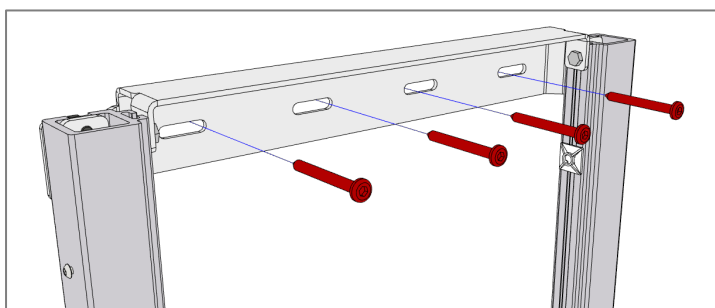
4.1.4 Mounting to the wall



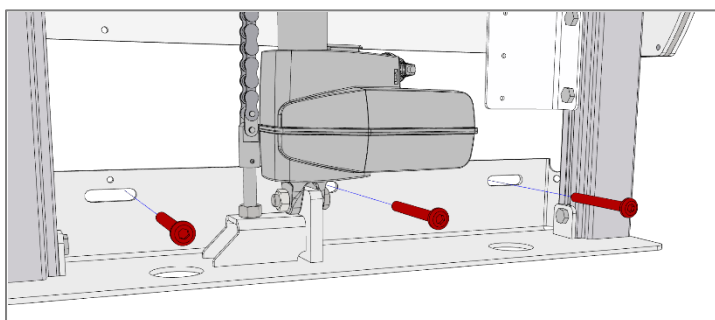
Place the lifting unit in the desired location. Be especially aware of the position of the drain, electrical and water inlet on the wall, as described previously.



Attach the frame securely to the wall by using adequate bolts and rawlplugs suitable for the type of wall construction / material on site. The Shower Bench is being supplied with a set (7 pcs) of screws and rawlplugs, which is **ONLY** intended for mounting the unit in a concrete wall. If the unit is to be mounted on another kind of wall, suitable plugs and screws for that wall type must be used. The Shower Bench is tested according to a load of up to 220 kg applied to the shower Bench.

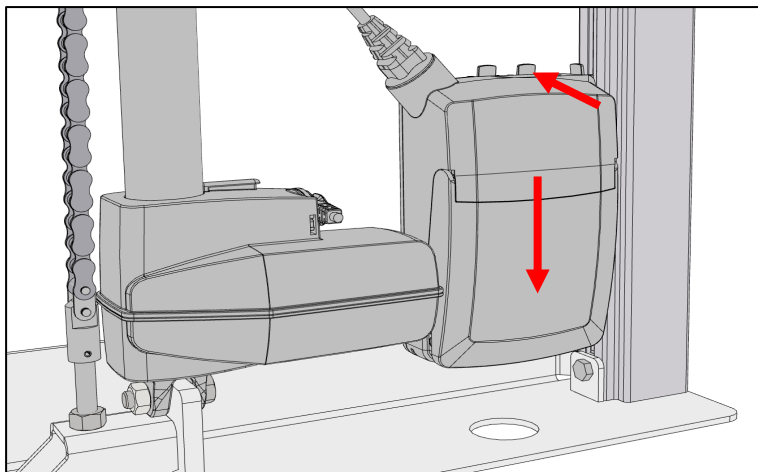
The attachment holes can be marked up on the wall, four possibilities in the top, and three in the bottom of the frame. Place the frame against the wall and make sure it is horizontal. The frame is standing on two adjustable feet. Adjust these if the floor is uneven or has a tilt, until the top of the lifting unit is level. Mark out the hole locations. Remove the frame and drill the holes.



Maximum pull force for each of the four screws in top of the unit: 45 kg



	<p>Note!</p> <p>Make sure that no dust or other obstacles are interfering with the rollers, chain, sprocket, or gas springs. This can cause malfunction and damage the system.</p>
	<p>Caution!</p> <p>It is important that the frame is screwed securely to the wall. If the frame comes loose, a person may fall off the shower Bench.</p>



To gain access to all the bottom holes, the control box will need to be temporarily removed. This is done by unlocking it from the holder at the top, pressing it back and sliding the control box down.

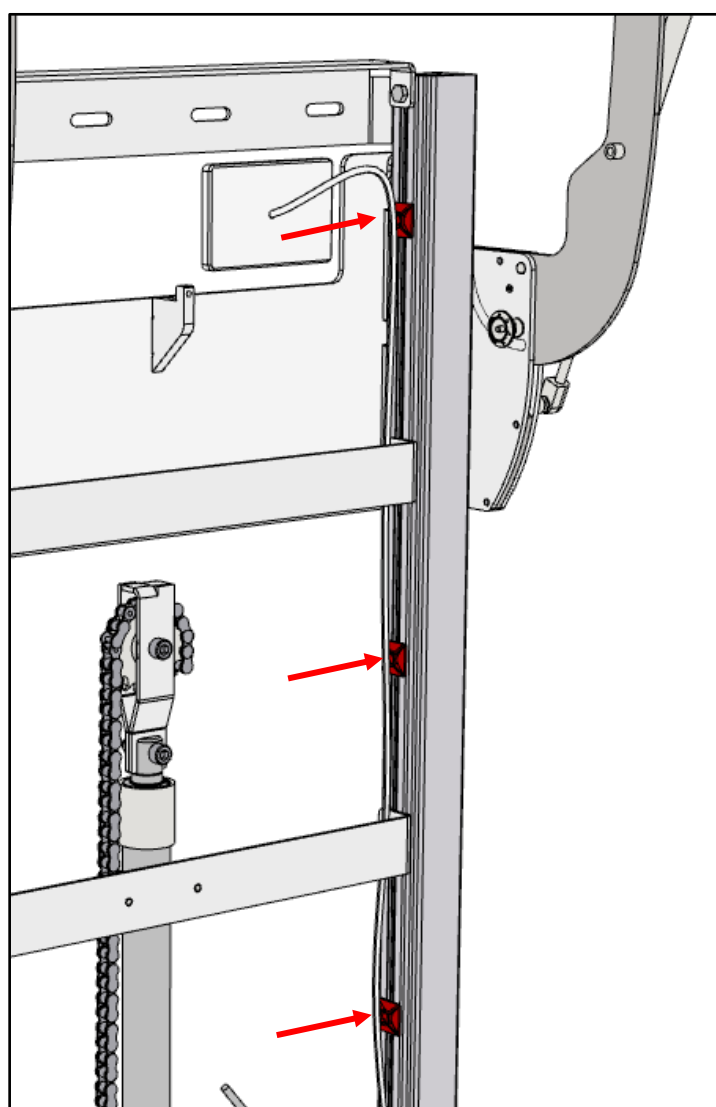
Remember to securely re-attach the controlbox, before putting the cover back on the lifting unit.

4.1.5 Mounting the wires

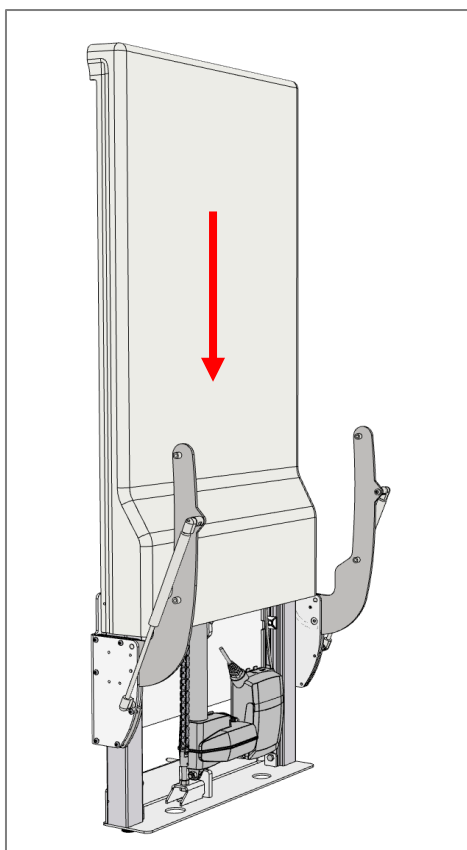
If the electrical outlet is placed behind the unit, It is crucial to control the cable from the outlet, down to the control box. This is to ensure that the sled will not squeeze, cut or otherwise damage the cable during product use.

Fix the mains cable to the brackets (highlighted by the arrows) using the included zip-ties, making sure the cable is tight with no loose parts that could get trapped by the moving sled.

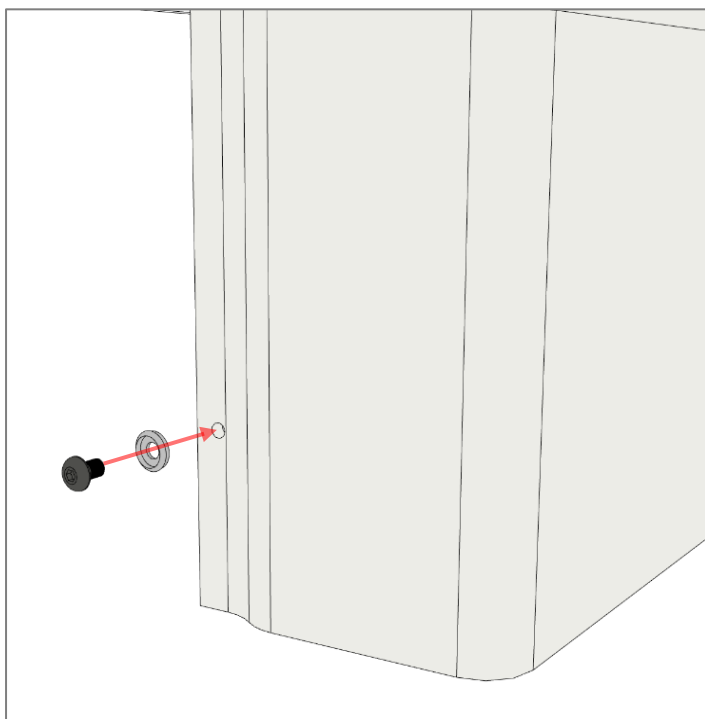
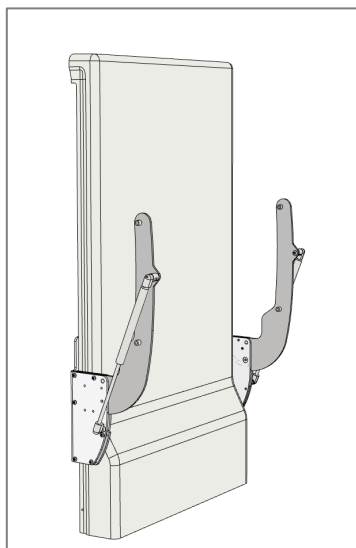
Once everything is placed, perform a test-run of the full length of travel down and up again to ensure that nothing is in danger of entrapment or collides with the moving sled.



4.1.6 Re-mount the plastic cover

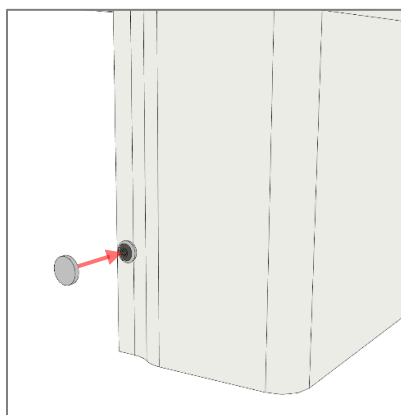


The cover can either be clicked in place from the front or slide down from above. Make sure that the cover reaches the floor and is in contact with the wall at the top. This step can also wait until the end of the installation process if ease of access to the electrical components is required.

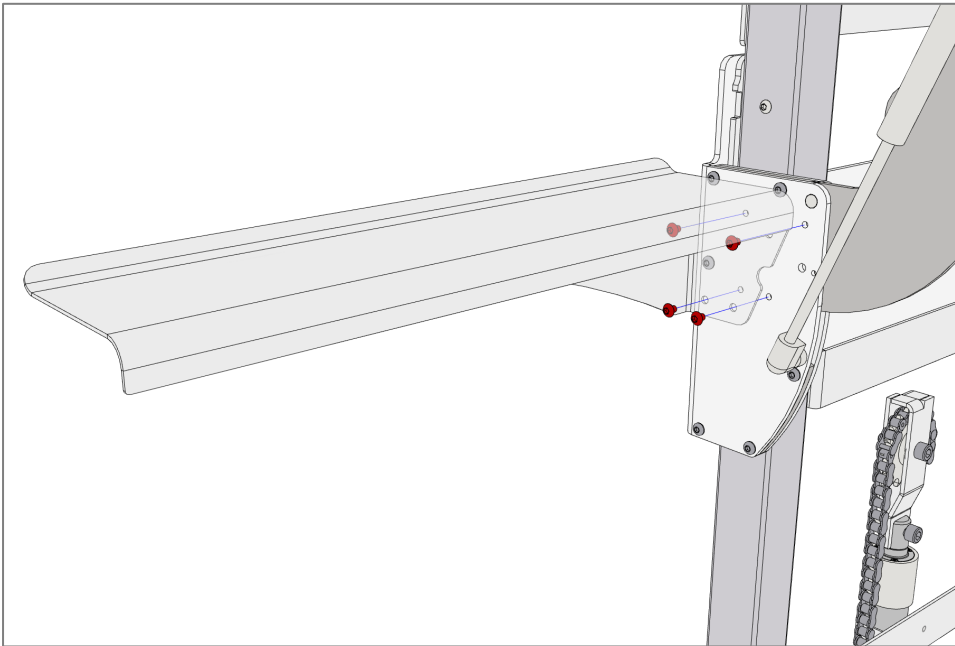


When all the wires have been attached and screws fastened, the cover must be fixed in place. Use the attached M5x8 screws and screw button cover. This step can wait until the end to make it easier to access the control box and wires if needed.

Once the screw is tightened, click on the white button plastic cover.

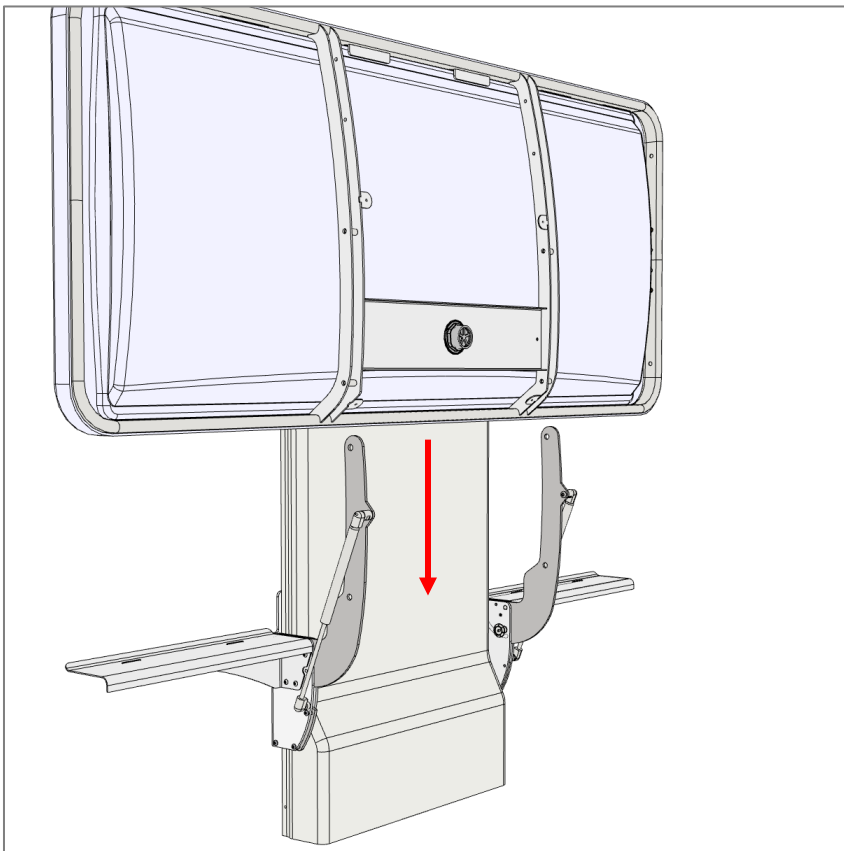


4.1.7 Mount the shelves on the Lifting unit

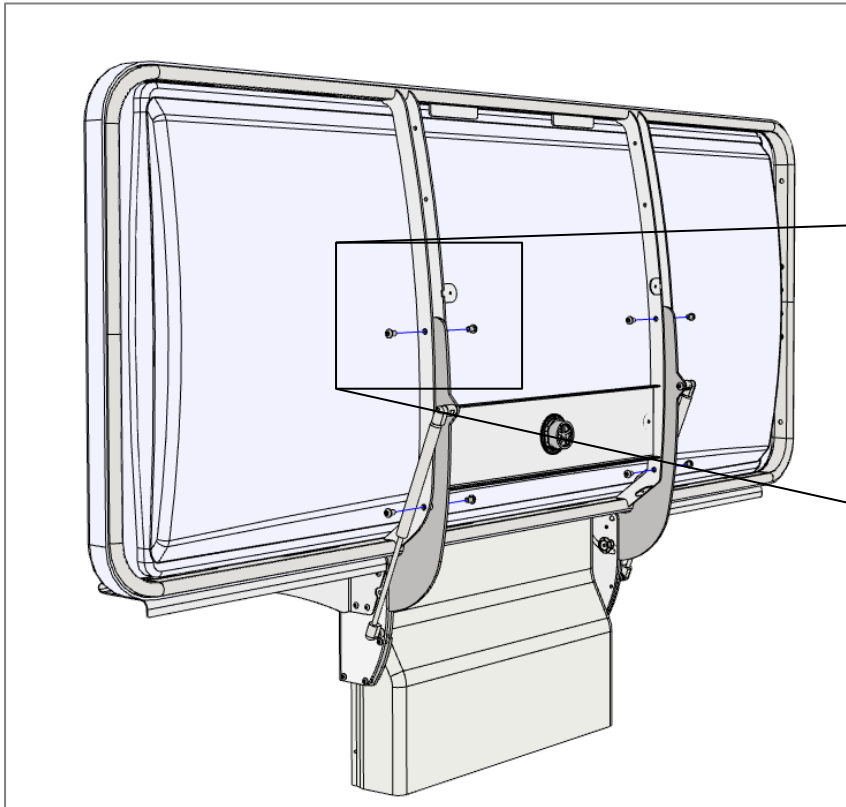


Use 4 pcs. M6x6 screws to mount the shelves on both sides of the lifting unit.

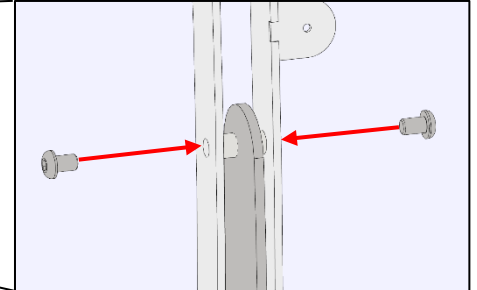
4.1.8 Mount the Shower tray on the Lifting unit



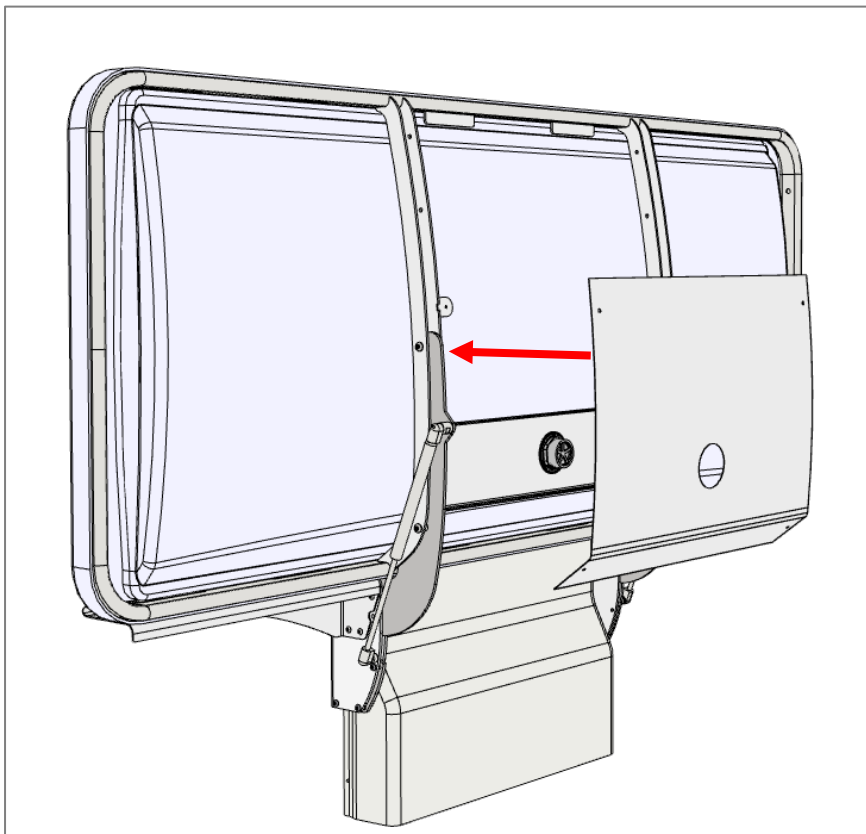
Slide the shower tray in between the lifting unit and the support arms on the lifting unit. It is an advantage to be two persons when doing this.



Fasten the Shower tray to the Lifting unit with 8 pcs. M8x12 through the bushings in the support arms.



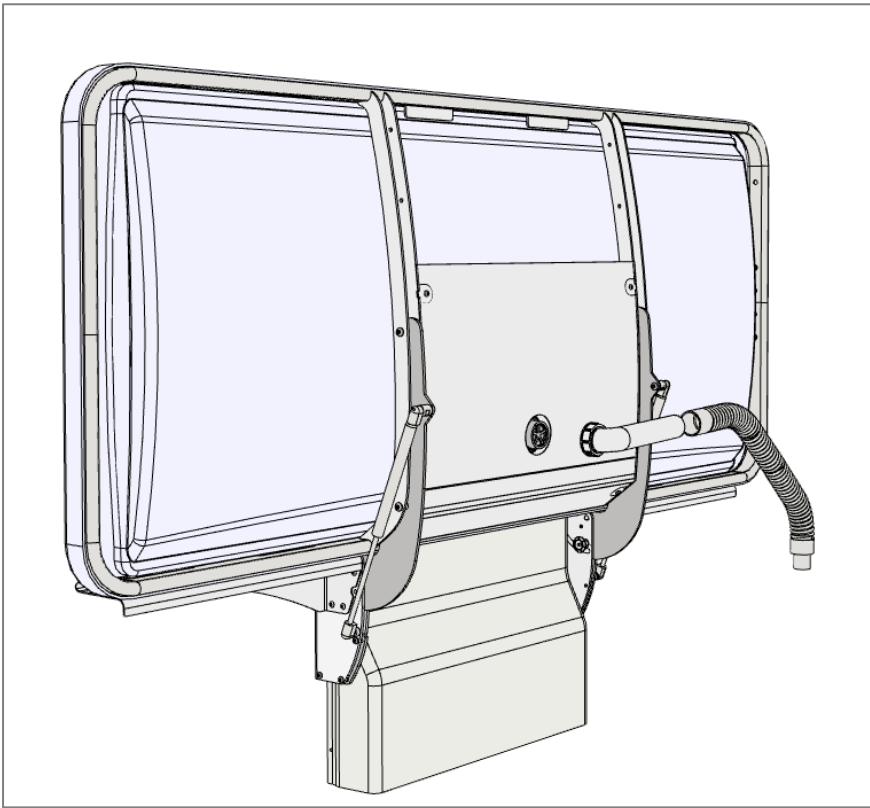
4.1.9 Mount the cover plate on Shower tray



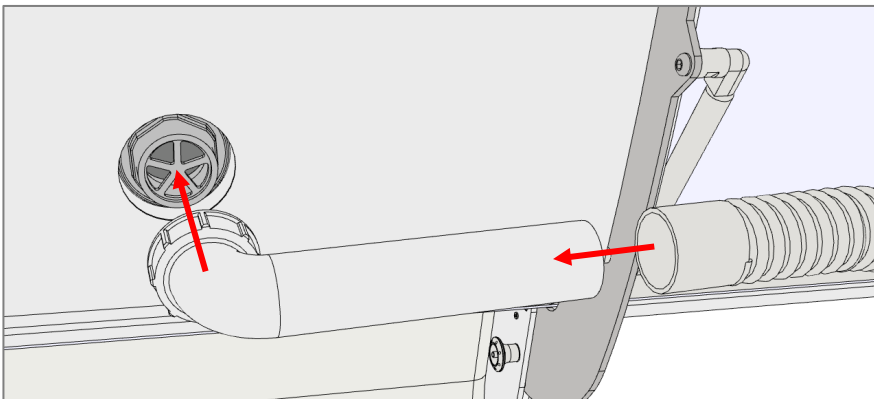
Place the cover plate between the two support arms underneath the Shower tray.

Fasten it with 4 pcs M5x8 screws.

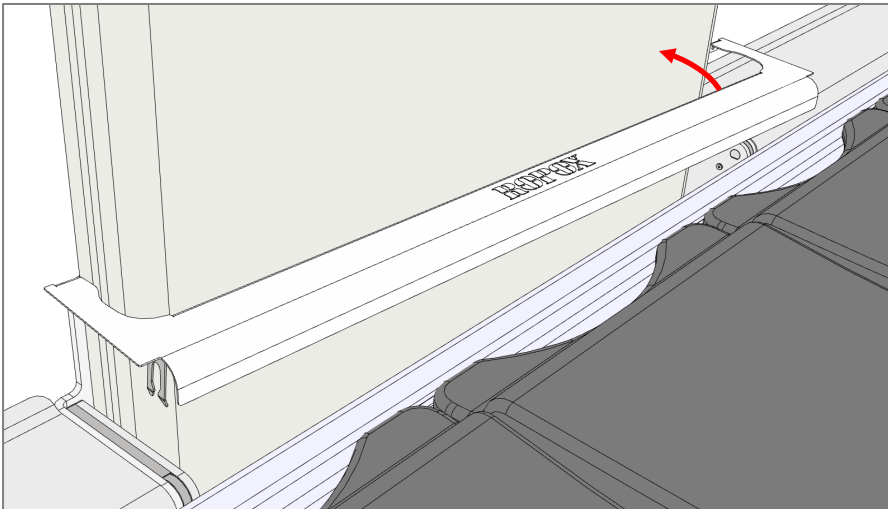
4.1.10 Mount the Drain and Flexible hose on the Shower tray



Screw the plastic nut on the scuttle and tighten it firmly. Connect the flexible hose to the drain tube and connect it to the drain in the wall or on the floor.



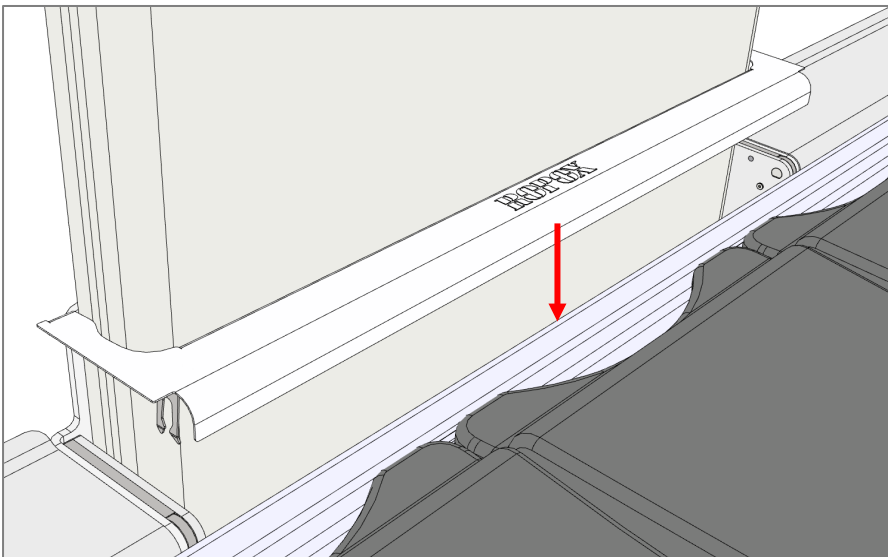
4.1.11 Mount the middle cover plate



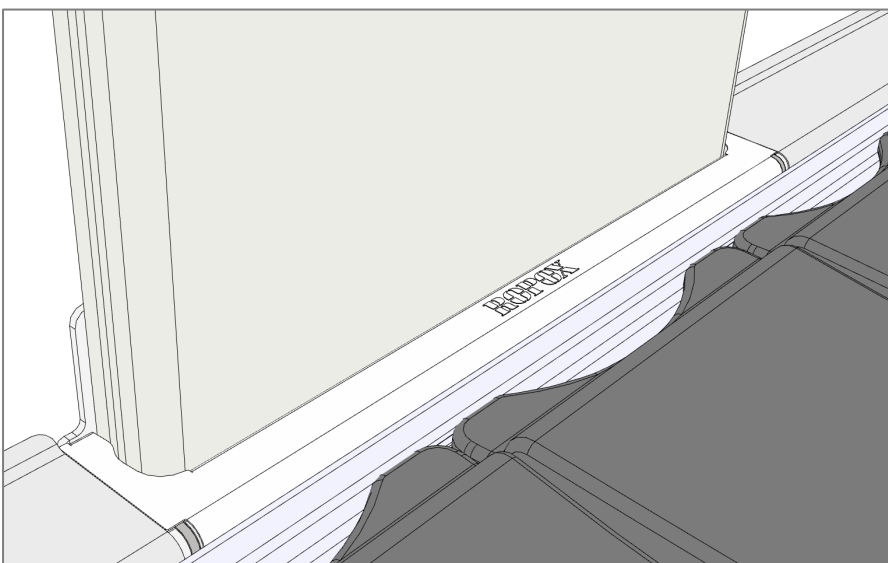
If the large plastic cover has not yet been installed, do this before starting this step.

Set the middle plate against the plastic cover at an angle, as shown.

Rotate the cover into place



Push it down until you hear the locks snap into place



Double check that it sits flush and firmly on the lifting unit

**Warning!**

The product should always be able to travel the full range of actuation without colliding with objects. Failing to do so will compromise the product stability.
Special care should be taken in ensuring that no children or adults are sited under the product as severe injury from entrapment may occur.

- After mounting, with the cover off, make sure that the chain is in correct position on the sprocket, also check that cable plugs are connected correctly to the control box.
- Check that no cables can be trapped or squeezed during the full range of movement of the product
- Connect the main power, and the shower Bench is ready to be used.

4.2 Operating the product

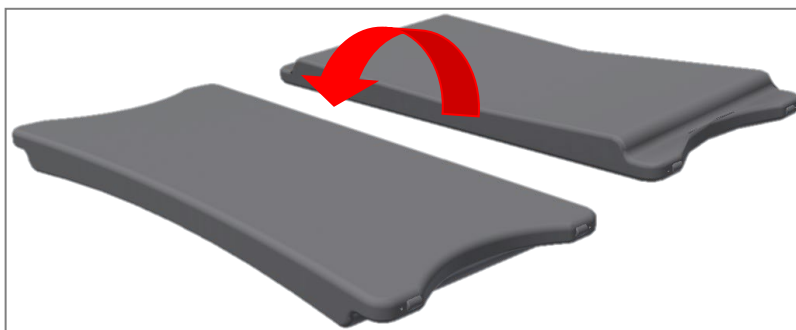
Before start using this product, be sure that "main power" has been connected as described in electrical connections.

By using the up ▲ down ▼ buttons on the handheld control switch, the height adjustment of the shower Bench can be performed. The control switch has a spiral cord, which can be pulled out to a length of 200cm.

Maximum load onto the Shower & Changing Bench 220 kg

4.2.1 The slats

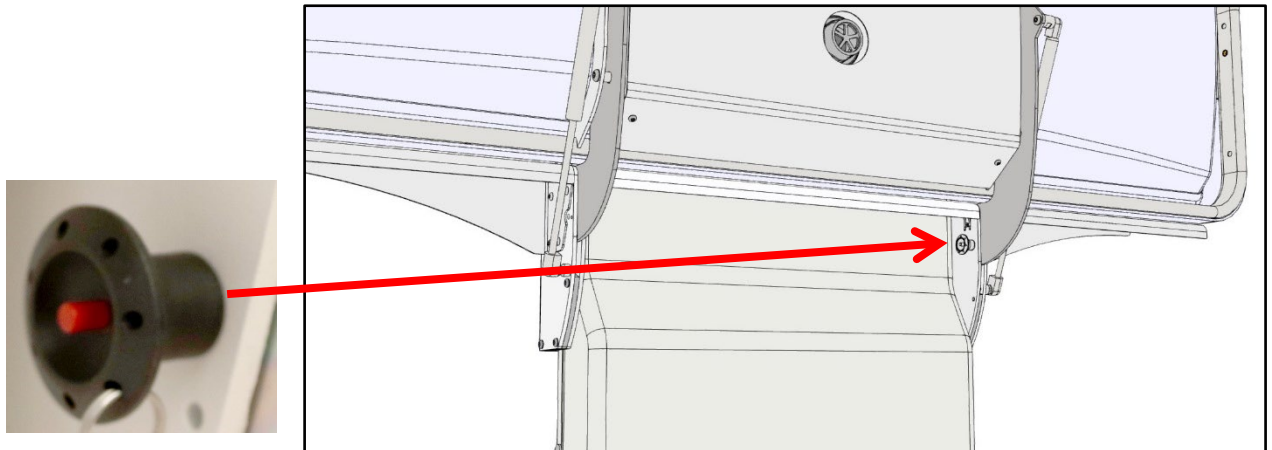
The slats have two sides with different hardness and can be turned around in the Shower tray. The soft side is used, when the person on the Shower Bench needs to be washed. The hard side is used, when the person on the Shower Bench needs to be changed.



4.2.2 How to fold changing bench up and down

The changing Bench can be secured against inadvertent folding while in the upright position by locking the table with the locking pin. When worktop is folded up, press and hold the red button while inserting the split. The shower Bench is now locked against folding down.

For folding changing Bench in downwards position, remove locking pin by pressing and holding the red button, while removing the split. The top can now be lowered by hand.



Note!

Prior to folding worktop in upright position, if there is a bedguard mounted, it must be folded underneath the worktop.



Warning!

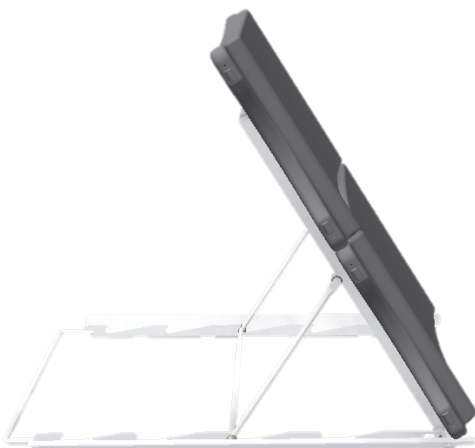
Always make sure worktop is securely locked in upright position with locking pin when left in this position. Check shower Bench is locked by pulling the worktop to ensure locking pin is fully engaged and worktop cannot be lowered

4.3 Installation of accessories

4.3.1 Back support

The back support fits all shower Bench lengths and uses two slats. No tools are required for mounting in the shower tray, as the back support has been designed to fit directly into the tray. The back support has three positions: 20°, 40° and 60°.

Item No. 40-25031



Recommendations for use

- Make sure that the unit has been placed correctly in the shower tray so that the two side rails of the bottom frame rest properly on the sides of the tray.
- See that the horizontal supporting rod has snapped into place before leaning on the back support.
- When folding down the back support after use, do not let go of the support, as it will fall down. Instead, carefully lower the back support to horizontal position.
- When folding down the back support, make sure that there are no fingers between the frame and the support in order to prevent fingers from getting caught.
- Note that the slats may become slippery when in contact with water and soap.

4.3.2 Benchguard

Bench guard is available as an option. The brackets will be mounted underneath the frame with the screws supplied.

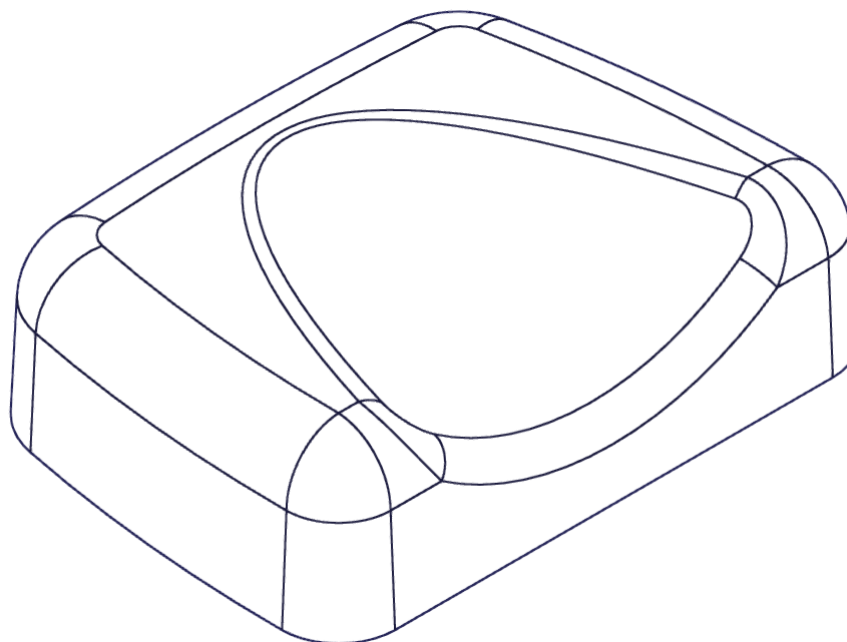
Length of Shower Bench	Shower bench	Bench guard foldable	Bench end guard Fixed
146cm	40-25023 / 40-25073	40-25034	40-25038
178cm	40-25026 / 40-25076	40-25036	40-25038
210cm	40-25029 / 40-25079	40-25035	40-25038

4.3.3 Neck support

Neck Support is an ergonomically crafted neck support, and it is available as an option. The Neck Support lifts and supports the user's neck and gives a more pleasant experience. It can also be used with the Back Support.

The Neck Support is molded in one piece of a bacterial and fungal retardant material and is therefore extremely easy to maintain and easy to clean. The pad is furthermore waterproof.

Item No. **40-25090**



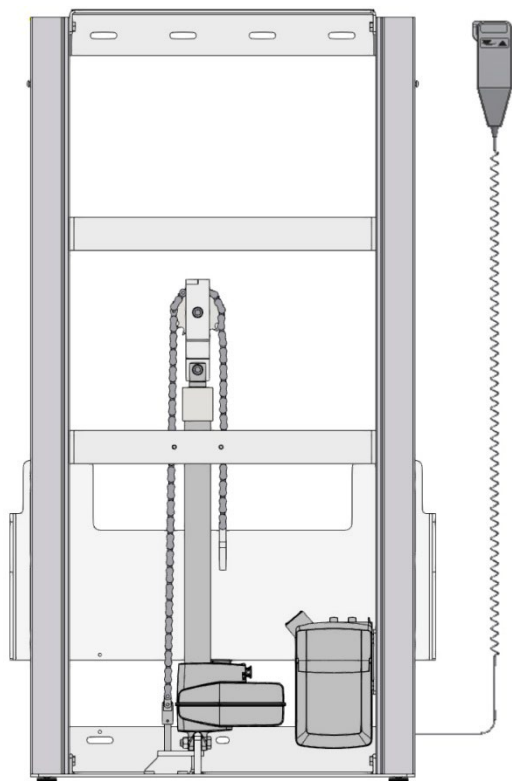
Recommendations for use

Less suitable for people with uncontrolled movements.

4.4 Electrical component diagram

4.4.1 Wire diagram

The shower Bench is delivered with the control box already mounted on the frame. The diagram shows how the cables which are connected to the control box.

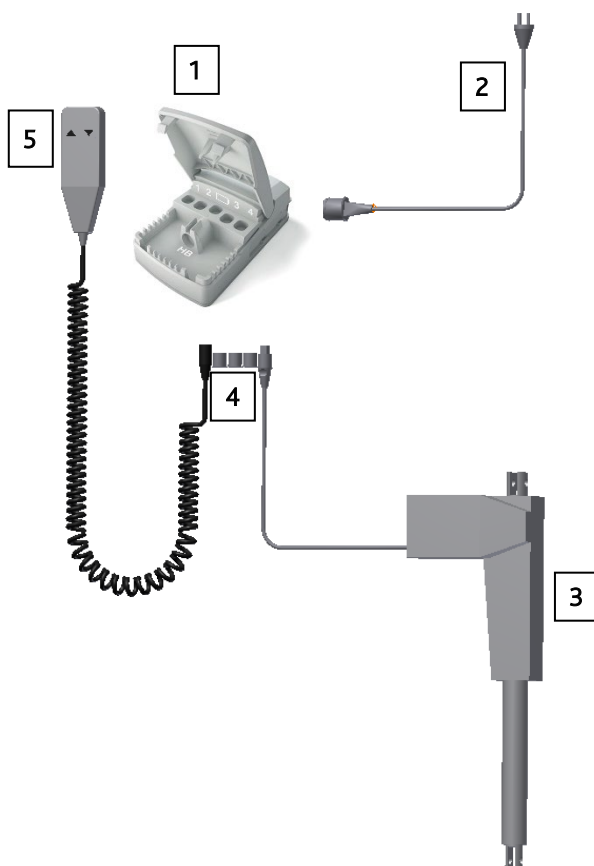


All the plugs are watertight, and therefore they can be a little tricky to connect / disconnect. Make sure that the plugs are positioned correctly before they are pushed into the sockets at the control box. The plugs must be pushed into the sockets until the "O-ring" is no longer visible.

Motor, control box and control switch apply to IP66. This means that they are dust tight and protected against heavy seas, or powerful jets of water.

The electronic system is designed for periodical use only, this means a max. duty cycle of 10%; 2min on / 18min off.

1. Control box
2. Mains cable 230V
3. Motor, connects to socket 1
4. End plugs, connects to socket 2, 3 & 4
5. Hand control, connects to HB socket



4.4.2 Connecting cables

The shower Bench is delivered with the control box already mounted on the frame.

Motor cable connects to socket 1.

Sockets 2 and battery are not in use and are blocked. Sockets 3 & 4 are capped from factory

Hand control connects to "HB".

Mains cable connects to the socket at the top of the box.

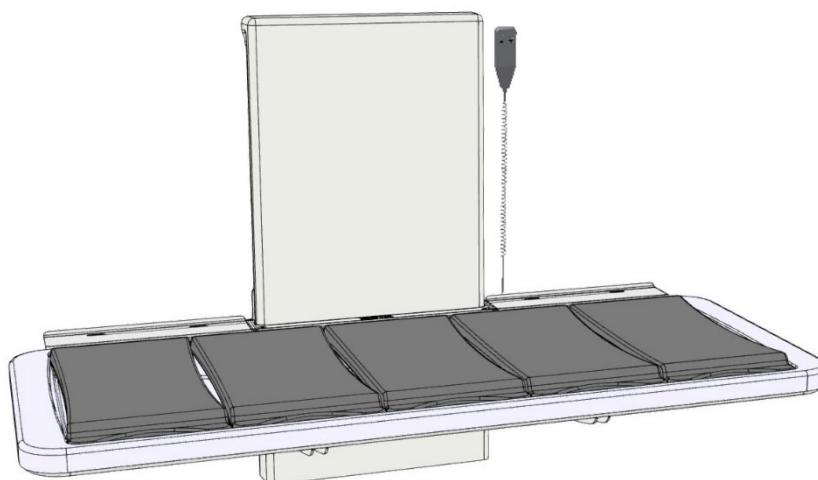


Note!

To obtain the full IPX6 value, it is very important that all the plugs have been pressed firmly into the sockets and the "O-ring" is no longer visible.

4.4.3 Placement of the hand control

Bracket for hand control can be placed on the wall as shown.



Caution!

Hand control should be placed out of reach of children.


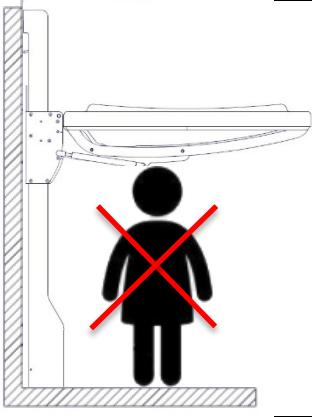

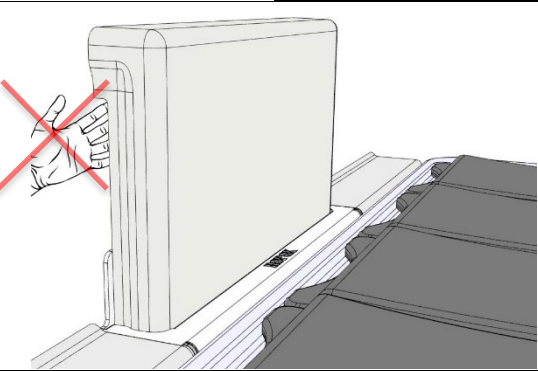






Warning!

The product should always be able to travel the full range of actuation without colliding with objects. Failing to do so will compromise the product stability.

Special care should be taken in ensuring that no children or adults are sited under the product as severer injury from entrapment may occur.

4.5 Residual risk

<p>Warning</p>  <p>Be aware that there are no persons under the showerbed when it is moving down, as a danger of impact, entrapment and head trauma may occur.</p>	
<p>Caution</p>  <p>Do not place the hand in the slits of the cover, as a danger clamping may occur.</p>	
<p>Warning</p>  <p>In case of incorrect installation of plumbing parts, water leaks can occur on the floor, which may increase the risk of falling.</p>	
<p>Warning</p>  <p>Make sure no water is in the basin during movement. Water may otherwise splash onto floor, which may increase the risk of falling.</p>	

5. Trouble shooting

Problem	Solution
The showerbed does not move up or down when pressing the hand control	Check if: <ul style="list-style-type: none"> ➤ 100-230 V is connected, and if the power is on. ➤ The engine is connected to the control box. ➤ The hand control is connected to the control box. ➤ The actuator is overloaded. (NOTE: For every 2 minutes of activity, it needs 18 minutes of rest).
Hand control is defect	Check if: <ul style="list-style-type: none"> ➤ The washbasin is height adjustable by means of another control.
When pressing the UP and DOWN buttons, only "click" sounds come out of the control box – no movement	<ul style="list-style-type: none"> ➤ The plug may not be mounted correctly. ➤ Demount all cables from the control box, and mount again. ➤ A "reset" might be needed. See the instructions below under "Maintenance".
The frame seems loose or unstable	<ul style="list-style-type: none"> ➤ Tighten all screws of the frame, cf. mounting instructions.
The showerbed cannot be height adjusted or the adjustment feels very difficult	<ul style="list-style-type: none"> ➤ Check that there are no jammed objects preventing the height adjustment.
It takes too long for the water to leave the tub	<ul style="list-style-type: none"> ➤ Check the flexible hose for clogging and clean it, if required. ➤ Check that the flexible hose has not been mounted so high on the wall that it acts as an additional siphon. ➤ Check that the flexible hose is not kinked or twisted. Adjust the hose so that they are not kinked/twisted.

6. Maintenance

**Notification!**

Failing to comply with periodic maintenance may result of degrading of product function and safety.

6.1 Periodic maintenance


The Shower & Changing Bench is maintenance free. For reasons of safety and reliability, we recommend inspection of the unit once a year:

At inspections, the following must be checked:

- Check that all bolts and screws have been tightened securely.
- Check that the frame can move freely and unhindered from bottom to top position without problems.
- **Resetting the Shower Bench** Press and hold down both buttons on the control. Keep the buttons depressed until the beep tone stops beeping. Then move the frame to bottom position for resetting. Check that the movement is even and smooth.
- Check that any water connection hoses and drain hoses are tight and functional.
- Check that all cables are mounted correctly and are in order and undamaged.

7. Cleaning

Do not use a pressure cleaner to clean this product. Any limescale buildup should be removed with suitable bathroom cleaning agents. Dirt and grime should be removed after each use, which can be done with lukewarm water and a suitable all-purpose cleaning agent. Use a cloth or soft sponge to wash the product. Dry the product off with a wrung cloth.



	<p>Note!</p> <p>Do not use cleaning agents containing abrasive e.g., scouring powder, steel wool, scouring sponge.</p> <p>This product is not designed to be sterilized. Autoclaving and sterilization beyond normal cleaning as this may possibly change the product safety and function.</p>
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Preapproved cleaning agents

Tradename	Solution
Acticlor plus	1000ppm
S90 sanirens	1-3% peracid
FUTUR, Alkalisk rens	1% solution [pH 9,5]

Cleaning agents containing the following chemicals must not be used in cleaning

Acetone
Ammonium carbonate
Ethyl acetate
Formic acid
Hydrochlorid acid
Isopropanol
Methyl acetate
Nitric acid
Phosphoric acid

	<p>Caution!</p> <p>Disinfect the changing between uses to avoid cross contamination</p>
	<p>Caution!</p> <p>Do not disinfect the product when connected to mains and/or are in use with a patient</p>


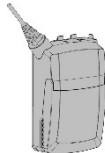



8. Component part list



Notification!

Care Spaces will make parts list and circuit diagrams available for extraordinary maintenance and repair beyond what is described in this manual. Repair beyond what is described in this manual may only be done by Care Spaces designated service personnel.

8.1 Change of spare parts

97001799	Actuator/motor Type: LA40 Stroke 350 mm	
97001691	Control box Type: CA30	
97001688	Hand Control Type: HB30	
40-25030	Slat	
40*40090-315	Flexible plumbing kit	

9. Environmental protection



The product is not intended to be disposed as municipal waste. Proper disassembly, sorting and disposal of components must be done by waste disposal professionals.

Part	Disposal recommendation
Tub	Hard plastic
Slats	Residual Waste
Frame & unit	Steel
Control box	Electronics
Actuator	Electronics

10. Electromagnetic compatibility

10.1 Suitable Environments

The device is suitable for use at home, at daycare centers, at day centers for persons with physical or mental disabilities or at hospitals except near active HF surgical equipment and the RF shielded room of a medical electrical system for magnetic resonance imaging, where the intensity of electromagnetic disturbances is high.

10.2 Basic safety and Essential performance

The device does not have any function related to basic safety or essential performance. In case of loss or degradation of performance, the user can get on and off the product.

10.3 Adjacent and stacked use

	<p>Warning!</p> <p>Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally</p>
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10.4 Cables

Cable component	Length
Power cable	3,2m
Hand control spiral cable	Approx. 5m extended.

	<p>Warning!</p> <p>Use of accessories, transducers, and cables other than those specified or provided by the manufacturer of this could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.</p>
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