

Tudor Bed User Manual



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1. General Safety Instructions

- **Before putting this bed into operation, it is very important that this User Manual is read carefully. The manual contains important information for safe and proper use of the bed. Keep this manual handy for future reference.**
- All of the functions of this bed should be fully tested by a competent person before the bed is used.
- The bed must not be used if faults have been detected that may injure the patient, staff or a third person, or damage the bed or the surrounding furniture.
- The operating persons are obliged to acquaint the patient lying on the bed with the control functions that are designed for use by the patient, and their safe usage.
- The operating person is obliged, before using the bed, to be confident of the functionality and safe usage of the bed.
- The bed may be used only on even and solid floors .
- The bed must never be overloaded. **Maximum working load - 230 kg (36 Stone).**
- If there is a patient on the bed, castors must be locked (with the exception of when travelling with the bed). An unlocked bed poses risk of injury to the patient when leaving the bed or when supporting themselves.
- The height of the mattress platform must be adjusted according to the height and condition of the patient.
- This is a single patient bed; no other people should sit on the bed.
- When handling the moving parts of the bed, ensure that the patient, other people or objects do not become trapped.
- Before cleaning or maintaining the bed, the mains power cable must be disconnected from the mains.
- The bed should not be used where there is a danger of explosion or in the presence of flammable anaesthetics.
- When maintaining and cleaning the bed in the space between the undercarriage and mattress platform, the adjustment functions on the handset must be locked to avoid unintentional activation of the mattress platform.
- The mains power cable must be placed in a way so it does not get wound around the moving parts or trapped between them; if the mains power cable is damaged there is a serious danger of injury from electrical current.
- Inspections should be made at least once a month for visible wear and tear of all moving parts and cables.
- The bed is intended for adults from 12 years of age. Ensure that children only have access to the bed under adequate supervision. Do not allow children underneath the bed while it is in operation.

2. Features

- The drives for the adjustment are electric mechanical linear motors with maintenance free permanent lubrication.
- The motors are operated by a handset connected to the main control box via a spiral wound cable.
- The motors and handset are isolated from mains voltage (230v) and operated at DC 24v low voltage.

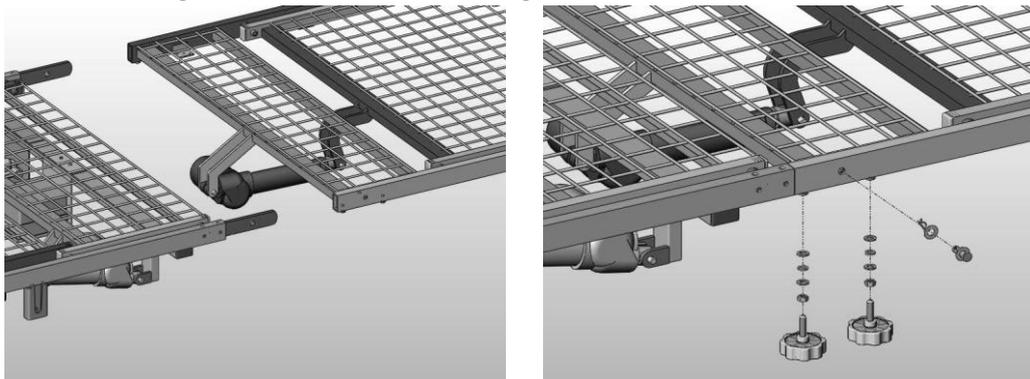
3. Installation

- The bed should only be assembled by a suitably competent person. The bed is suitable for installation by one person. When installing more than five beds, two people should be used to complete the installation. They must read and fully understand all of the instructions contained in this user manual. Do not attempt to assemble this bed if you are unsure about any part of the instructions, or if any damage or defect can be identified.
- The fuse in the mains plug should not exceed 5 amps.
- The bed should be located on a level flat surface. Do not site the bed on loose carpet, rugs or floor coverings.
- The cable from the mains power supply plug to the main control unit must be positioned clear of the lift mechanism and braked castors to eliminate the danger of shearing or crushing the cable.

4 Assembly

4.1 Assembly of the sleeping platform

- Slide the side frames together as indicated in the diagram.



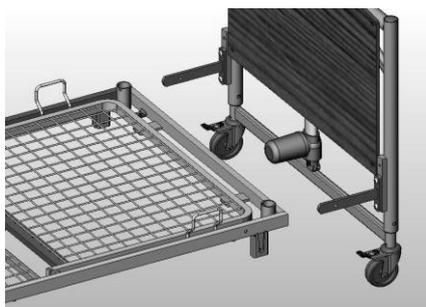
- Ensure both frames fit fully together until the outer tubes touch each other and the holes in the bed frame match up with the hole in the connecting bar.
- Insert the lock-pins and tighten the hand-screws on the underside on each side of the side frames. **Do not over tighten.**

4.2 Attaching the end frames to the sleeping platform

- Firstly identify the head and foot ends of the sleeping platform. The head end has one mesh section and foot end has two sections.

IMPORTANT - The head and foot frames **MUST** be fitted to the correct ends of the sleeping platform.

IMPORTANT - Please make sure that for normal use, the longer T bracket is fully inserted into the side frame before inserting the lock-pins. The second set of fixings are only to be used to extend the bed length, when an extension panel must be used.



Head frame



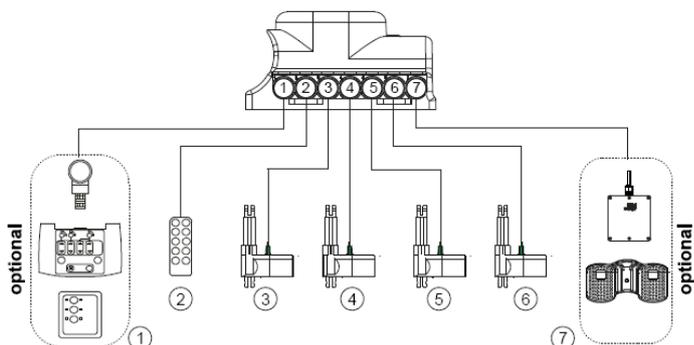
Foot frame

- Ensure the T bracket of the head frame fits fully into the side frame of the sleeping platform.
- Check that the holes in the side frame match up to the holes in the T brackets, before inserting the lock-pins.
- Tighten all hand-screws on the underside of the side frames. **Do not over tighten.**

4.3 Connecting the cables

The **Control box** has colour coding to clearly indicate the correct cable connections.

IMPORTANT – Please ensure that all cables are connected correctly, and test all of the functions fully before using the bed



Only connect the components as shown.

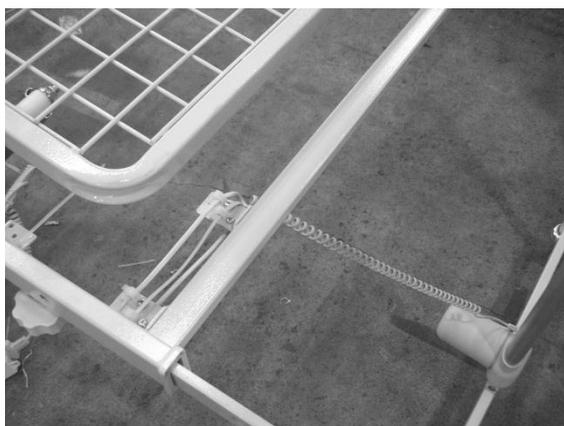
Connecting differently may result in damage to the control unit.

Colour Codes

1. Green: Supervisor device.
(Not available with this bed).
2. Red: Handset
3. Black: Backrest motor.
4. Yellow: Footrest motor.
5. Blue: Head raise-up motor
6. White: Foot raise-up motor
7. Black: Backup battery plug.
(Optional accessory)

4.4 Correct positioning of the cables

- The cables must be connected in the correct manner to avoid trapping the cables between the metal parts of the bed during use. This could cause damage to the cables and create a serious safety hazard.
- The correct way to locate the cables at the head end and foot ends of the bed are demonstrated below.



Cable to the motor at the foot end of the bed.



INCORRECT method of fitting the cable, foot end.



Cable to the motor at the head end of the bed.



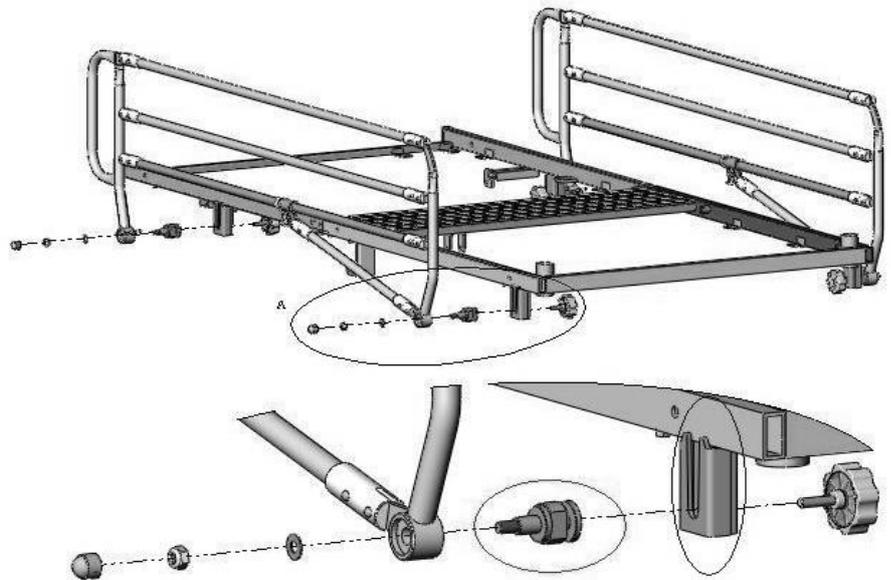
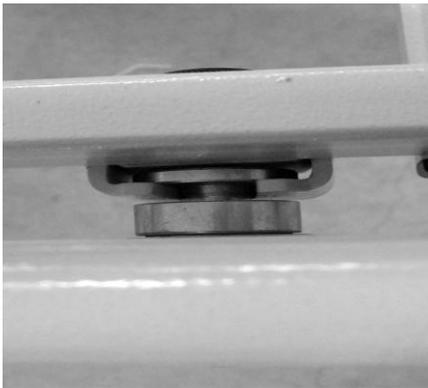
INCORRECT method of fitting the cable, head end.

IMPORTANT – Before using the bed, check that all cables have been fitted correctly and that they can not become trapped, damaged and dangerous during use.

4.5 Assembly of the side rails (optional)

IMPORTANT – Please ensure that the side rail is located fully, correctly and securely into the integral bracket, and that the hand-screws are tightened up fully to lock the side-rail in position before use.

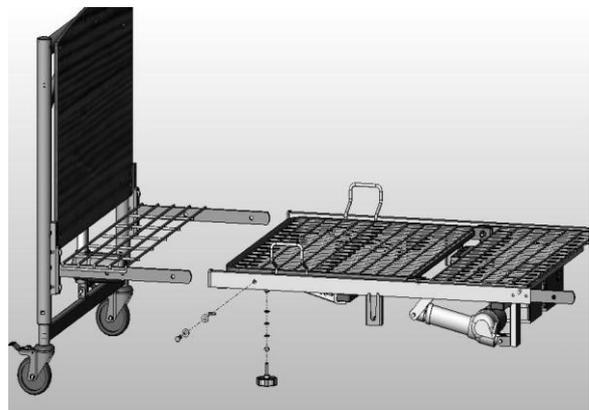
- The side rails must be fitted into the integral brackets as illustrated below, ensuring that they are pushed all the way down to the bottom of the bracket.
- The hand-screws must then be fitted onto the inside of the bracket and tightened fully to correctly and securely fix the side rails in place. The hand-screws have a fine thread. They are different to those used to securing the bed frame. **Do not over tighten.**



4.6 Using the integral bed frame extension (optional)

IMPORTANT - The bed must only be extended at the foot end. When extending the bed, only the approved extension panel should be used, and this **MUST** be fitted.

- Remove the lock-pins and loosen the hands-screws on the foot frame.
- Pull the foot frame out from the sleeping platform until the second set of holes on the T brackets match the fixing holes on the side frame.
- Insert the lock-pins and tighten 'hand-screws' on both sides. **Do not over tighten.**
- Fit the mesh extension panel on top of the extended T bracket.



Note:

This extension panel is an optional accessory. If you require this accessory please contact Park House Healthcare Ltd. Tel: 0845 0600 333.

5. Operating instructions

IMPORTANT - Any person using this bed must read this instruction manual carefully and they should be fully conversant with the correct operating procedures for its safe operation.

5.1 Locking system of the handset

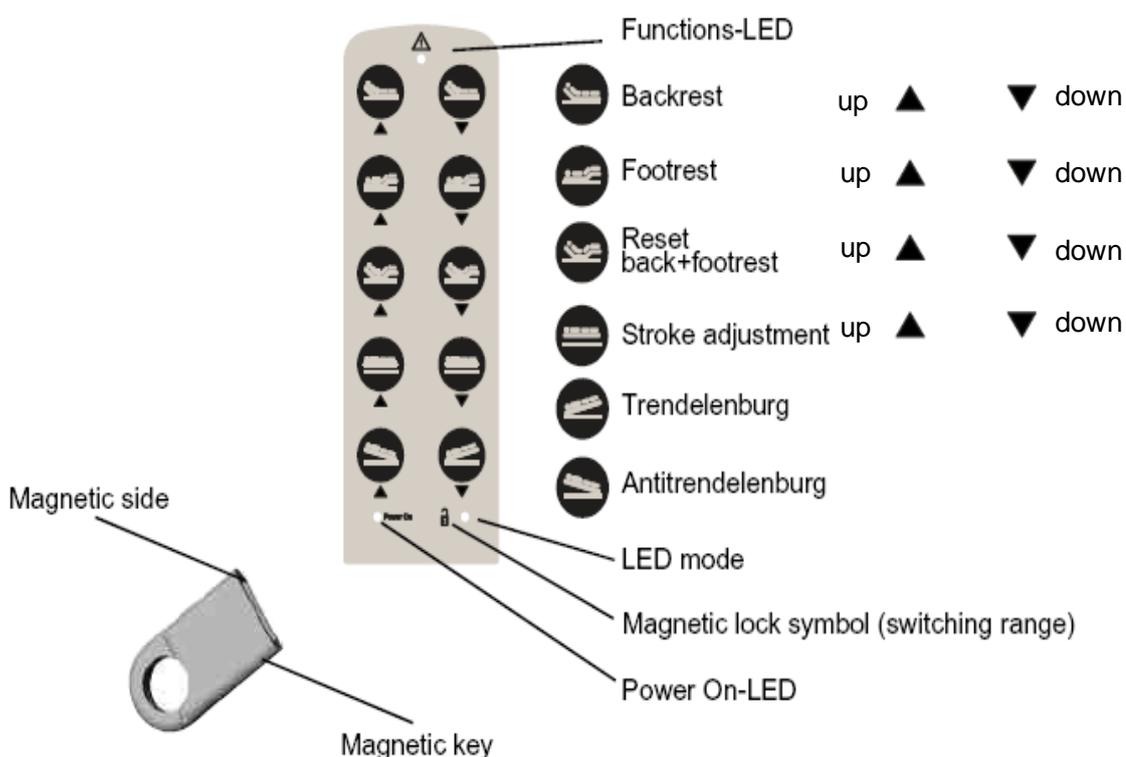
- The handset provides a locking function to avoid a potentially dangerous tilting operation. Touching the handset with the magnet key will release the locked functions.
- When the LED light is NOT LIT: The handset is locked.
When the LED is GREEN: The handset has all functions except the Trendelenberg tilting function.
When the LED is ORANGE: The handset has all functions operational.
- The handset is supplied in the Locked condition. The handset will resume locked condition with the LED not lit when there has been no further operation within 30 seconds. The handset will resume locked condition with the LED unlit after a power failure or interruption of power supply.

WARNING – Use of the Trendelenberg tilting function can be extremely dangerous. The operator **MUST** ensure that Trendelenberg tilting will not have an adverse effect on the patient before using.

5.2 Operation of the height adjustment and profiling functions

The head section, knee break, bed height and Trendelenberg tilting are adjusted by pressing the appropriate button on the handset. For ease of use, the buttons are labelled graphically according to their function.

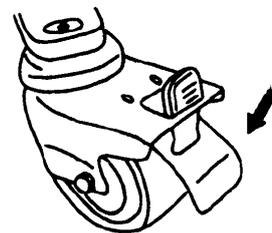
WARNING - Do not exceed the maximum usage period – all functions maximum of 6 minutes per hour.



6. Additional Safety information

IMPORTANT - In the case of any unusual noises or smells during the operation, **immediately** switch off the power at the mains and remove the mains plug from the power socket. Ensure that no cables are trapped in the mechanism or are damaged. If you have any doubts concerning the safe operation of this bed, do not use the bed, and call your local supplier or Park House Healthcare Ltd., Tel: 0845 0600 333

- Persons assembling or using the bed should read the user manual and familiarise themselves with its operation.
- Ensure that any objects such as waste paper baskets, occasional tables, chairs etc. are not placed beneath the lifting mechanism of the bed.
- To avoid injury, no limbs or body parts of either the occupant or carer must be protruding from the bed between the side rails or into the mechanism of the bed during operation of powered functions.
- Before moving the bed to a different location, remove from the mains power supply. Failure to do so may result in damage to the bed and / or serious or fatal injury.
- When moving the bed with occupant in-situ, do not push over threshold strips more than 2 cm max. height.
- Under no circumstances must the bed be moved by pulling or pushing the side rails, either when the bed is occupied or empty. Siderails are not designed for this purpose.
- Never exceed the maximum usage period of 6 minutes per hour, for the electrically driven bed functions, by lengthy and unnecessary profiling or height adjustments. This can trip the thermal safety fuse, which will stop powered movement of all electrically operated bed parts.
- Once the bed is sited in the desired position, always ensure that the castors are locked in the braked position. (See illustration right).
- Before dismantling or troubleshooting, ensure that all functions are in the lowered position (where possible), the power supply is switched off and the power cable is disconnected from the mains by un-plugging. Ensure that all functions are not under any undue load and are free moving.



Before operation

- Ensure that the assembly is completed fully, and in accordance with the instructions given in the user manual.
- Ensure that the local electrical mains supply voltage corresponds to that marked on the main control unit label before connecting to the mains supply.
- Ensure that cables from all motors are connected to the main control unit correctly before operation.
- Ensure that all functions of the bed have been tested and that the bed is working normally.

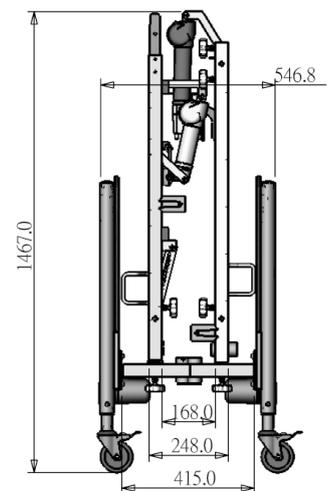
7. Maintenance, care and warranty

- To clean the powder coated tubular sections and wooden parts use a damp cloth with normal household cleaners or warm soapy water.
- Do not use any cleaning agents containing ammonia, abrasives or strong solvents. This will lead to damage of the powder coated finish on metal parts and the finish on the wooden parts.
- Mechanical cleaning, scouring, high-pressure hoses or automated cleaning will damage the bed.
- Moving parts on the bed are fitted with self-lubricating bearings, they should not be oiled or greased.
- All motors, cables and mechanical functions must be checked by a suitably qualified service engineer for damage and correct operation, at least once every twelve months.
- Extended warranties can be purchased from Park House Healthcare Ltd. For more information contact Customer Services on Tel: 0845 0600 333. In the event of a fault being discovered within the warranty period, the customer should notify the Company at the earliest opportunity. If, upon inspection, the Company accepts liability then the equipment shall be repaired or replaced at the companies discretion. If the Company does not accept liability it will inform the customer of the reasons for rejection and provide the customer with an estimate of either the repair or replacement cost.

8. Storage / Transport Frame

To prevent damage to the Tudor Bed or any components during storage or transportation, you should always use the storage / transport frame. To use this frame, please comply with the following steps:

- Disconnect the mains power plug and carefully roll up the power lead ensuring that there are no kinks.
- Disconnect all of the internal cables and store them securely.
- Remove the lock-pins from the centre of the sleeping platform and loosen the hand screws, then separate the two platform pieces in the middle.
- Remove the lock-pins from the ends of the sleeping platform and loosen the hand screws, then separate the platform pieces from the end frames.
- Fit the transport frames between the two bed ends as shown in the drawing.
- The two sleeping platform pieces should be carefully placed onto the storage frame with the actuators located in the middle as shown in the drawings, taking care not to damage any components.
- The lock-pins and hand screws must be installed and tightened to ensure secure and rigid fixing of the sleeping platform pieces during transportation or storage.
- The bed should only be moved on smooth hard surfaces. Any movement across rough or uneven flooring could cause damage to the castors.
- Store in a dry place (between +5 °C and +45 °C).
- The relative humidity of the air should be between 30% and 70%.
- Store all removed parts together in one place (or mark them as necessary) to avoid mixing them up with other products when re-assembling.
- Components must be stored without being subjected to strains.



IMPORTANT - When re-assembling the bed, all assembly procedures and safety checks must be performed as described in this user manual.

9. Troubleshooting

Fault	Action
Motors not working when handset operated.	Check the connection to mains (when mains power supply is being used). Check the handset, motor and main control box connections.
One motor does not work when the button is pressed.	Check the connection between motor cable and control box.
A BEEP sound is heard when the button is pressed.	The 'backup battery' (optional accessory) has low battery power. Plug power cable into mains socket and switch on.
Handset or motors do not function.	1) No power supply – Plug power cable into mains socket and turn on. 2) Handset or motor defective - Contact Park House Healthcare Ltd.
Motors suddenly have no response or movement.	1) Switch off and unplug the mains cable; plug it back in and switch on. 2) Leave the system in the rest position for approx. 20-30 min. 3) Contact Park House Healthcare Ltd.
Permanent or longer sounding warning signal.	Contact Park House Healthcare Ltd.
Handset LED lights up in locked state or does not light up in un-locked state.	Contact Park House Healthcare Ltd.
No adjustment can be made by handset.	1) Try using the magnet key to release the locking function. 2) Check the handset connections. 3) Contact Park House Healthcare Ltd.
<u>WARNING!</u>	
<ul style="list-style-type: none"> • Any unauthorized modifications, adjustments or alterations will result in warranty invalidation. • Repairs should only be carried out by a suitably qualified competent engineer. 	

10. Technical data / spare parts

Overall length	2090 mm	Overall width	1031 mm
Adjustable platform height	345 – 745 mm (low position) 410 – 810 mm (high position)	Clearance beneath the bed	135mm (low position) 200 mm (high position)
Total bed weight	95 kg (without mattress or accessories)	Transport kit weight	6 kg
Storage dimension on transport kit	0.935m wide x 0.550m deep x 1.52m tall		
Safe working load	230 kg (36 Stone) under normal and extension condition		
Sleeping platform height	345mm~745mm (low position)	410mm~810mm (high position)	
Head section weight	23 kg	Foot section weight *	23 kg
Headboard / footboard weight	22 kg each	Castors	5" with brake * Not inc. the control box
Length of side rail	1610mm	Height of side rail	360mm
		Side rail weight	8 kg each
Adjustment for backrest / Adjustment for leg rest	72 deg +/- 2 deg / 33 deg +/- 2 deg		
Power system	Dewert actuator system	Noise level	Up to 65 dB(A)
Raise-up motor	Megamat MCZ 2000N, IP66	Back motor	Megamat MCZ 4000N, IP66
Knee motor	Megamat MCZ 4000N, IP66	Control Box	MCL3, IP66
Handset	IPROXX 10 button SE, IP66	Backup battery	AG7, IP66
Tension voltage	230v/50Hz	Power duration	Max. 6 min/h (10%)

Product conforms to EN 1970:2000

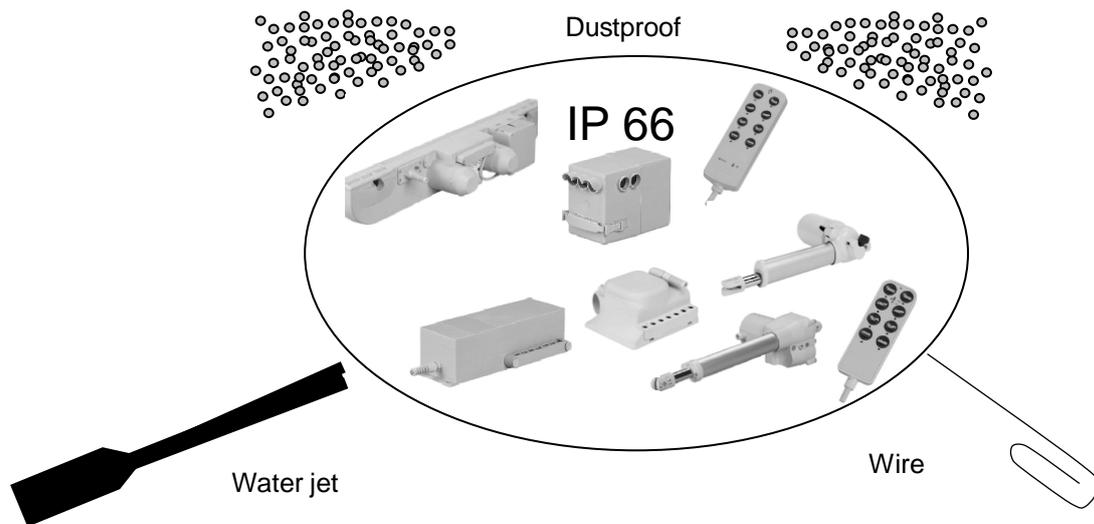
Product conforms to EN 60601-1:1990

Product conforms to EN 60601-1-2:2002, EN61000-3-2:2000,
EN61000-3-3:1995+1:2001,
IEC61000-4-2:1995+A1:1998+A2:2000
IEC61000-4-3:2002, IEC61000-4-4:2004
IEC61000-4-5:1995+A1:2000
IEC61000-4-6:1996+A1:2000
IEC61000-4-8:1993+A1:2000
IEC61000-4-11:1994+A1:2000

* We reserve the right to make technical changes, specification amendments and product improvements without notice.

11. IP 66 – Ingress Protection

The **Tudor bed** offers IP66 Ingress Protection on all electrical components and controls as standard. This is a very high level of protection which is completely dustproof and capable of being washed by a jet of water without affecting the electrical operation of the bed.



WARNING! The bed must be disconnected from the mains supply before any kind of washing procedure is undertaken. This bed and components are **NOT** suitable for steam cleaning or the use of aggressive chemical cleaners. If in any doubt about a cleaning method or materials, please check with your local supplier or dealer before cleaning.

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