



Solite Pro
Community Care Bed Range

Instructions for use

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Warning

* Highlighted pages are for authorised personnel reference only, if in doubt contact Drive DeVilbiss Healthcare Ltd. or your local distributor.

1. INTRODUCTION

Thank you for purchasing this product. These instructions for use should be read carefully before operating the bed. Please ensure that you understand all instructions, if you have any questions concerning the operation or maintenance of the bed please contact your provider / supplier who will provide you with expert professional advice. Drive DeVilbiss Healthcare Ltd. recommend the bed is assembled and maintained by Drive DeVilbiss Healthcare Ltd. service engineers or qualified personnel.

2. CONTACT INFORMATION

For assistance in setting up, using, maintaining your bed, to report unexpected operation or for any service, warranty, sales or customer service information regarding this product, please contact your provider or if in doubt contact Drive DeVilbiss Healthcare Ltd. at the following address:

Drive DeVilbiss Healthcare Ltd.
Sidhil Business Park,
Holmfield, Halifax,
West Yorkshire,
HX2 9TN, UK

Any serious incident that occurs in relation to the device should be reported to Drive DeVilbiss Healthcare Ltd and the competent authority of the Member State in which the device is used. Please quote the product serial number on all correspondence. This can be found on the identification labels, which are located on the inside of the backrest section frame, on the inside of the leg section frame, and on the lower section of each bed end.

Service & Maintenance	Spares	Customer Service
Tel: +44 (0)1422 233136	Tel: +44 (0)1422 233138	Tel: +44 (0) 845 0600 333
Fax: +44 (0)1422 233010	Fax: +44 (0)1422 233010	Fax: +44 (0) 845 0600 334

info@drivedevilbiss.co.uk
www.sidhil.com
www.drivedevilbiss.co.uk

For Service & Support outside the United Kingdom & Northern Ireland please contact the local distribution company from where this equipment was purchased. Failure to do so may result in the manufacturer's warranty becoming void.

3. PRODUCT DESCRIPTION

3.1 Environment

Your bed is intended for use in the following environments:

- A domestic area where the bed is used to alleviate or compensate for an injury, disability or disease.
- A long term care area where medical supervision is required and monitoring is provided if necessary (e.g. nursing homes, rehabilitation facilities, geriatric facilities etc.).

3.2 Intended Patient Group

The bed frame is intended for an adult who is up to 191kg in weight. A lower (or upper) age limit is not defined as it depends on the physical size of the patient in relation to the various proportions and gaps around the bed frame. Patients must be in excess of 146cm in height ranging up to 201cm (bed extended) and have a BMI greater than 17.

The bed frame is intended to support a single adult. The bed is intended for multiple patients and multiple uses.

3.3 Intended Use

The intended use of the bed is to support the weight of the patient, as defined in section 3.2, whilst sleeping or resting and to assist the end user to gain and/or maintain a suitable position.

3.4 Indications

To assist in the care and/or comfort of the patient or care provider when the bed is used in the environments specified in section 3.1.

3.5 Product Overview

The Solite Pro range of beds are intended to be plugged into a permanent mains supply. A battery backup version is available for such times that a mains supply is not available or reliable. A low height version of the bed is also available. The low height bed has a minimum and maximum mattress platform height 100mm lower than the standard height bed.

The bed has one handset, intended for use by both the patient and carer, which provides the carer with the ability to lock out the use of bed functions as necessary to reduce the risk of accidental operation.

The handset operates an electronic linear actuator system, which is controlled via a central control box. The actuators are attached to the moving parts of the bed frame allowing the bed to be operated via the use of the handset.

Two powder coated steel bed ends support the mattress platform frame, the electrical system and a set of side rails (when fitted) to provide patient protection; the bed has a safe working load of 226kg. The bed is manoeuvrable via the aid of four individually lockable castors which are attached to the bed ends, however it is not designed for patient transportation. The bed can be disassembled into four separate sections, which can be assembled onto the transport stands provided with the bed, aiding transportation and storage.

3.6 Features

- Electrically operated backrest, height adjustment and leg rest angle.
- Auto regressing backrest.
- Electrically operated foot down tilt*.
- Auto contour – simultaneous adjustment of the backrest and leg rest section.
- Battery backup functionality (SOLITE/PRO/LOW/BB only).
- Patient handset with individual function lockout.
- Integral mattress platform extension.
- Integral leg section extension.
- Optional integral full length side rails.
- Can be broken down into four separate sections.
- Transport stands to aid storage and bed transportation.



Warning

* The 9 button handset provided omits the head down tilt (Trendelenburg) function for safety reasons. If a Trendelenburg function is required a replacement handset can be purchased featuring this function. Please refer to section 18 for the part code, and refer to the contact information in section 2 to order or to request further information – Drive DeVilbiss Healthcare Ltd. recommend the use of the standard 9 button handset when the bed is being used in a domestic environment.

- The Solite Pro Low does not meet the upper height requirements of EN 60601-2-52, if patient or carer requirements are such that the height range is deemed to pose a potential hazard the Solite Pro should be used instead, please refer to the contact information in section 2 to request further information.

4. SAFETY

4.1 Warnings and Cautions



Warning

Warnings in these instructions for use highlight potential hazards that if disregarded could lead to injury or death.



Caution

Cautions in these instructions for use highlight potential hazards that if disregarded could lead to equipment damage or failure.

4.2 Risk Assessment

Before a patient uses the bed a risk assessment must be performed on a patient by patient basis. The risk assessment should include, but is not limited to:

- Entrapment.
- Falling out of the bed.
- Small adults (and children).
- Patients who lack capacity.
- Unauthorised people with access to the bed.
- Use of side rails and other accessories.

4.3 Contraindications

Patient conditions for which the use of the Solite Pro and Solite Pro Low bed is a contraindication are as follows:

- Cervical or skeletal traction.
- Unstable spinal fractures - If bed functions remain unlocked.
- General skeletal fractures - If relevant bed functions remain unlocked.
- Mental capacity not sufficient to operate handset functions safely - If bed functions remain unlocked.
- Confused, agitated or restless - If side rails fitted and/or in raised position.
- Exceeds maximum patient weight of bed.
- Less than 146cm in length.
- BMI less than 17.
- Less than 40kg in weight

Other contraindications may be relevant which are specific to the patient or care environment.

4.4 Bed Load

Safe working load: 226kg (35½ stone)

Maximum patient weight: 191kg (30 stone)

Safe working load is the sum of:

- Patient mass.
- Mattress mass.
- Accessories mass.
- Mass supported by the accessories (excluding patient mass).



Warning

The maximum loads shown above are for the bed to be occupied by one person only. The bed is not designed to take the weight of visitors sitting on the side of the bed. Additional weight could damage components or cause the bed to become unstable, potentially causing injury.

4.5 Training

All professional users are to be suitably familiar with the bed's functionality and its limitations prior to use. Patients are to be familiarised with handset and bed functionality by the professional user at the earliest opportunity, ideally before using the product.

It is the responsibility of the professional user to ensure they are suitably qualified to use the bed and any associated accessories safely and correctly. If these instructions for use are not deemed sufficient and the need for training is required please contact Drive DeVilbiss Healthcare Ltd. or your local provider (see section 2) who will be able to discuss training options with you.

4.6 General Warnings



Warning

- The bed is to be installed and put in to service in accordance with the information provided in these instructions for use.
- The bed is typically not suitable for child use, if it is to be used for child occupancy ensure a risk assessment has been undertaken taking in to account the proportions of the child and dimensions of the bed frame.
- The bed is not suitable for occupants who are less than 146cm in length - If in doubt please contact your provider or Drive DeVilbiss Healthcare Ltd. for further advice.
- The bed is not suitable for occupants who weigh less than 40kg - If in doubt please contact your provider or Drive DeVilbiss Healthcare Ltd. for further advice.
- The bed is not suitable for occupants who have a BMI less than 17 - If in doubt please contact your provider or Drive DeVilbiss Healthcare Ltd. for further advice.
- Misused electrical equipment can be hazardous.
- Accessories that have not been approved or designed for use with the bed are not be used - a hazard could be introduced due to product combination incompatibility.
- Modification of the bed frame is not allowed without the permission of Drive DeVilbiss Healthcare Ltd. – a hazard could be introduced.
- Electrically operated beds should not be used in the presence of flammable gasses or used in oxygen rich environments – risk of explosion / fire.
- Keep the bed away from sources of heat and naked flames (e.g. cigarettes, electric fires, fan heaters etc.) - risk of explosion / fire.
- Bed functions must be locked out if there is any doubt about the ability of the patient to operate the bed safely.
- If children, patients who lack capacity or even pets pose a potential risk of intentional or unintentional tampering with the bed its suitability for use is to be considered during the initial patient / product risk assessment.

5. TRANSPORT AND STORAGE

The following conditions should be followed when transporting and storing the bed:

- To save space, the bed should be stored on the transport stand.
- The bed should always be stored on a flat and level floor.
- The bed ends should be set to minimum height.
- The bed extension should be set to its innermost position.
- Side rail components, if applicable, (not including side rails) to be kept in the channels on the bed ends (or stored safely together).
- The brakes should be applied.
- All profiling sections should be secured with re-usable cable tie/hook and loop tape (or similar).
- All functions on the handset should be locked out.
- The bed should be covered to protect it from fluid ingress, dirt, dust etc.
- Beds should not be stored one on top of another.
- Beds should not be stored on their side.
- Ambient temperature: -10°C to +50°C.
- Humidity: 20% - 90% at 30°C – not condensing.
- Atmospheric pressure: 800hPa to 1060hPa (altitude ≤ 2000m).



Warning

- The bed is not intended for patient transport, it is not to be moved out of the room it is located in with a patient occupying the bed - risk of patient / carer injury. If the bed is to be moved within the room with an occupant in the bed a risk assessment in line with local health and safety policy is to be undertaken in order to ensure that neither staff or patients are put at risk when moving the bed; this is dependent on the situation and load on the bed.
- If transporting the bed whilst on its transport stand ensure a risk assessment in line with local health and safety policy is undertaken to ensure that the staff are not put at risk when moving the bed, especially in regards to moving up / down inclines and uneven surfaces.
- The bed must never be moved on the transport stand with the locking collars missing or in the unlocked position - risk of bed collapse.
- To prevent the risk of cross infection, when removing a bed from an end user's residence ensure that all activities in relation to the bed are carried out using disposable gloves and that they are then discarded appropriately, unless it can be verified that the bed and any associated accessories have been suitably cleaned and disinfected prior to collection.
- On the return of a bed from an end users residence, prior to putting the bed into storage ensure it has been cleaned and disinfected in line with the local infection control policy and / or as defined in section 13 of these instructions for use.



Caution

- The bed is not to be pushed over thresholds - if done so damage to the frame could occur.
- re-usable cable tie/hook and loop tape (or similar) used for storage should be removed after assembly and before operation - damage to the frame could occur due to restriction.

6. SYMBOL DEFINITION

The following symbols are found on this bed:



Warning
Beware of potential hazard



Caution
Beware of potential product damage



Refer to instructions for use - Recommended
Failure to read the instructions for use could introduce a hazard



Refer to instructions for use - Mandatory
Failure to read the instructions for use could introduce a hazard



Total bed weight
On transportation stands



Care is to be taken when pushing the bed over thresholds when on transport stands - Risk of tipping



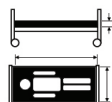
Maximum patient weight
Refer to section 4.4



Safe working load
Refer to section 4.4



Mass greater than 20kg



Mattress suitability
Refer to section 18



Mattress strapping suitability



Detachable side rail suitability
Use of an incorrectly specified or positioned side rail could introduce a hazard.



Minimum patient weight



BMI ≥ 17

Minimum patient BMI



≥ 146 cm

Minimum patient height



Atmospheric pressure limit



Humidity limit



Temperature limit



Lot number



Date of manufacture



Manufacturer



Catalogue number



Medical device



Class II electrical device

The user / occupant is protected by at least two layers of insulation between the current carrying parts (e.g. control box and mains cable) and the metal accessible parts – If damage is noticed to any electrical component, turn off at the mains and contact your provider or Drive DeVilbiss Healthcare Ltd. immediately.

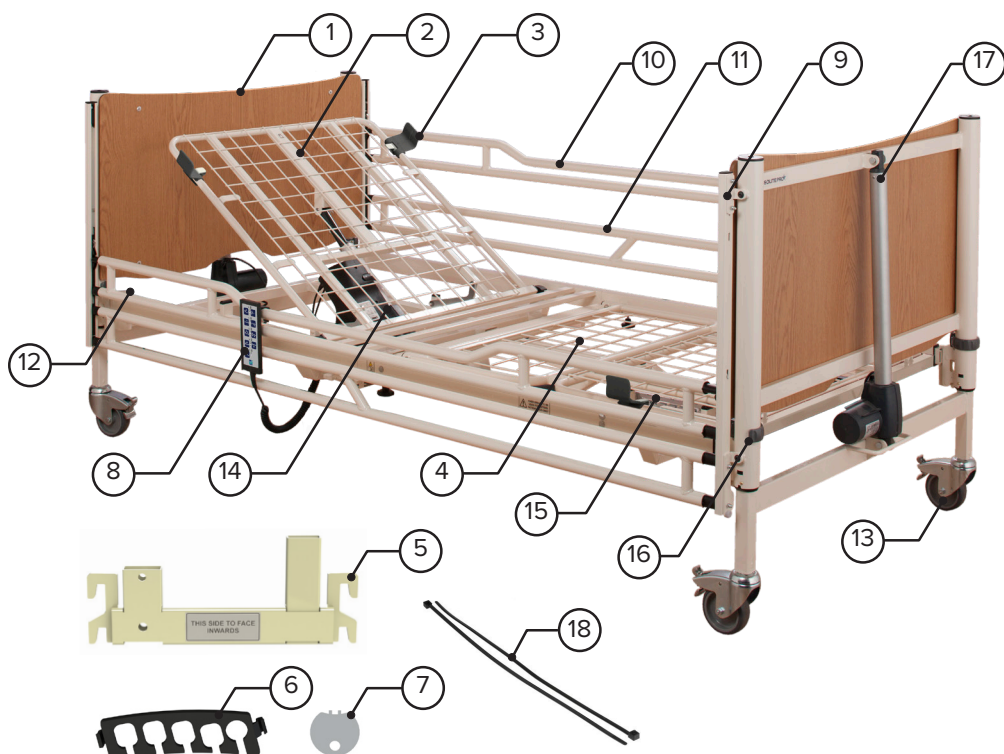


Type BF applied part

Applied Part: The parts of the bed that come into physical contact with the user / occupant in order for the bed to carry out its intended function (refer to section 16.2 for a list of applied parts).

Type BF: Applied parts which are electrically isolated from earth and other parts of the medical equipment - Complying with specific requirements for protection against electric shock to EN 60601-1.

7. PARTS IDENTIFICATION



(Image shown of Solite Pro with integral side rails)

- | | |
|--------------------------------------|---|
| 1. Bed end x 2 | 10. Upper side rail (if fitted) x 2 |
| 2. Backrest section x 1 | 11. Lower side rail (if fitted) x 2 |
| 3. Mattress side retainer x 4 | 12. Accessory socket x 2 |
| 4. Leg section x 1 | 13. Braked castor x 4 |
| 5. Transport stand x 2 | 14. Control box / Backrest actuator x 1 |
| 6. Control box clip x 1 | 15. Leg rest actuator and battery box (if fitted) x 1 |
| 7. Handset lock key x 1 | 16. Platform locking collar x 4 |
| 8. Handset x 1 | 17. Bed end actuator x 2 |
| 9. Side rail channel (if fitted) x 4 | 18. Re-usable cable tie x 2 |

8. BED ASSEMBLY AND PREPARING FOR USE



Warning

- Before attempting to assemble the bed ensure these instructions have been read and fully understood.
- Only qualified personnel are to assemble and prepare the bed for use, if in doubt contact Drive DeVilbiss Healthcare Ltd. or your local distributor.
- Ensure a risk assessment in line with local health and safety policy is undertaken to ensure that staff are not put at risk when performing assembly activities.
- Take care when disassembling the bed from the transport stand, the sections are of considerable weight.

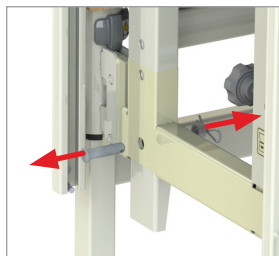
8.1 Removal from the Transport Stand

No tools are necessary for the assembly of the bed. The assembly procedure is as follows:

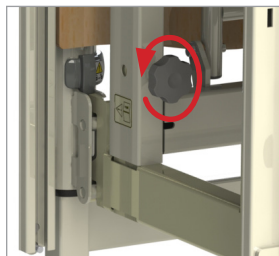
- Clear the area intended for the bed of any obstructions and ensure the surface is level.
- Apply the brakes to the castors.
- Remove the clevis pin, 'R' clip and plastic spacer that secure each transport stand to the backrest section (8.1.1). These parts will be required when assembling the bed sections together. Lift the backrest section off the transport stands and carefully place it flat on the floor.
- Loosen the hand wheels on the leg section that secure it to the transport stands (8.1.2). Lift this section off the transport stands and carefully place it flat on the floor.
- Lift the locking collars slightly and rotate inwards on one of the bed ends so that they are both in the unlocked position (8.1.3). Refer to the warning label on each collar to identify the unlocked position.
- Carefully lift the end of the transport stands away from the unlocked bed end and place carefully against a wall or on the floor. If placing against a wall ensure the castor brakes are applied.

Note: when the transport stands are lifted away neither bed end will be supported.

- Rotate the locking collars inwards on the remaining bed end so that they are in the unlocked position.
- Carefully lift the ends of the transport stand away from this bed end. The bed has now been separated into its constituent parts.



8.1.1 Clevis pin, spacer, and 'R' clip removal



8.1.2 Hand wheel



8.1.3 Locking collar in unlocked position

8.2 Assembling the Bed

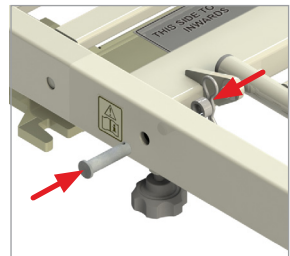
- Whilst supporting one of the bed ends, lift one of the mattress platform halves and hook into the bed end (8.2.1). Adjust the position of the mattress platform half if necessary to ensure it is hooked centrally onto the bed end. Turn the locking collars into their locked position, indicated by the warning label on the collar. When turning the collar to the locked position it will rise and then fall, this is the self locking mechanism engaging. Note: If this action is being undertaken by a single person Drive DeVilbiss Healthcare Ltd. recommend that the castors are braked before assembly commences.
- Repeat for the remaining bed end and mattress platform half. The bed end with the bed's logo should be assembled to the leg section.
- Release the brakes on the castors on both bed ends.
- Bring both halves of the bed together (8.2.2) and align each section so that the spigots in the backrest section locate into the open tube ends in the leg section. Pull the two sections together and tighten the two hand wheels.
- Place the clevis pins through the holes by both central joints with the head of the pin on the outside of the bed. Place the plastic spacer over the end of the pins and insert the 'R' clips from the top of the bed through the hole in the pin (8.2.3).



8.2.1 Bed end and backrest assembled



8.2.2 Bring assembled bed halves together



8.2.3 Clevis pin, spacer, and R clip fitting



Warning

- The bed must never be used if the hand wheels and / or clevis pins and associated 'R' clips are loose or missing - risk of bed collapse.
- The bed must never be used with the locking collars in the unlocked position or if missing - risk of bed collapse.



Caution

Ensure all re-usable cable tie/hook and loop tape (or similar) securing any of the sections in place are removed prior to operation - damage to the frame could occur.

8.3 Fitting the Electrical System

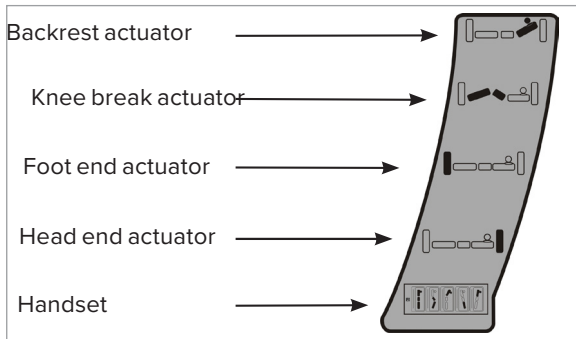
- Plug the actuator and handset cables into the control box. The control box has a label showing the correct port into which the corresponding cable should be inserted (8.3.1).

Note: The plugs only fit into the ports in one orientation. Ensure the cables are plugged fully into the control box.



Warning

The two bed ends are identical however plugging the actuators into the correct ports is important to ensure the bed ends operate as intended - risk of the bed having the ability to go into head down tilt accidentally if incorrectly plugged in, creating a potential hazard when in use.

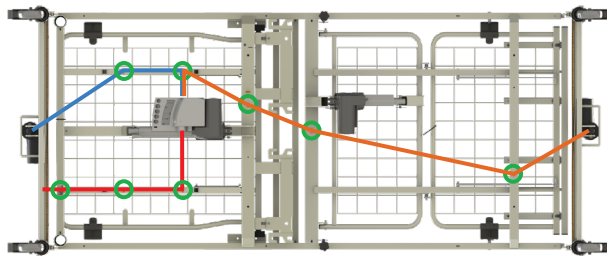


8.3.1 Control box label

- Once all the cables are connected they are to be secured in place by attaching the supplied retaining clip to the control box.
- Drive the bed to its maximum height then secure the actuator cables in the twist clips under the mattress platform (refer to section 8.4). Ensure each bed end actuator cable has enough free cable to allow full movement of the actuator.

8.4 Cable Routing

The actuator cables are to be routed on the bed frame as shown below:



8.4.1 Bed cable routing

Cable Clips
Mains cable (default)
Head End Actuator Cable
Foot End Actuator Cable

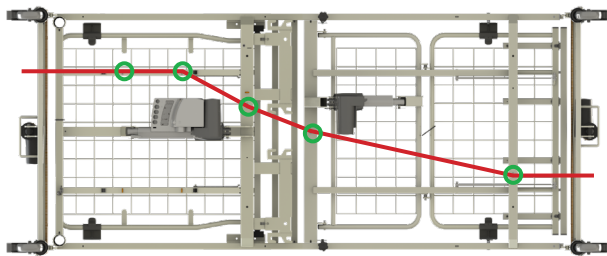


Warning

Ensure all cables, in particular the mains cable, are free from moving parts and are not under excessive tension to avoid cable damage - Damaged cables can create a risk of electrocution / fire.

8.5 Ancillary Product Cable Routing

When fitting ancillary electrical equipment the ancillary mains cable is to be routed using the twist cable clips located underneath the bed. These clips are shared with the bed's actuator cables.



8.5.1 Ancillary product cable routing

Ancillary product cable routing



Warning

Ensure all ancillary cables are free from moving parts and are not under excessive tension to avoid cable damage - damaged cables can create a risk of electrocution / fire.

8.6 Fitting the Side Rails

Ensure the bed extension is positioned at the correct length for the side rails that are being fitted (extended length or standard length side rails). Refer to section 8.8 for details of how to adjust the bed extension.

Raise the bed to approximately the midpoint of its height range. Refer to section 9.4 for details of handset operation.



Warning

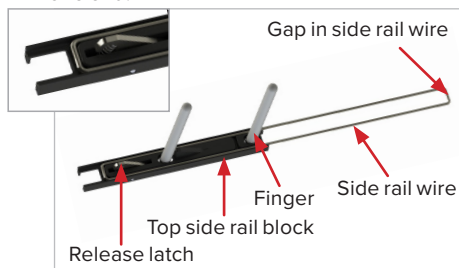
If there is any doubt about the assembly of the side rails contact the provider of the equipment or Drive DeVilbiss Healthcare Ltd., incorrectly fitted side rails can lead to death.

Note: if the side rail finger blocks are already located inside the side rail channels, remove the finger blocks from just one end of the bed, then proceed to assembly stage 4 below.

1. Unscrew the thumb wheels located at the bottom of each side rail channel.
2. Clip the side rail wire over the top side rail block, identified by the metal release latch at one end.

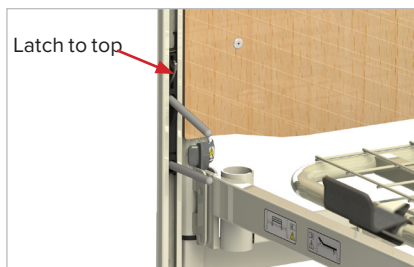


8.6.1 Thumb wheel removed

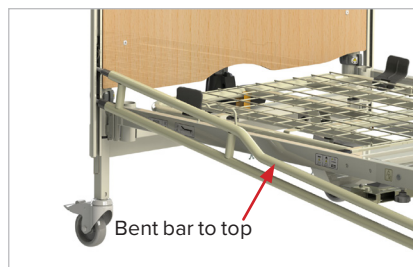


8.6.2 Top side rail block and wire assembly

3. Insert the top side rail block into one of the side rail channels until it latches in the lowest position; note the correct orientation of the block (release latch to top).
4. Slide the top side rail, identified by a bent bar, over the fingers in the top side rail block. This must be oriented so the bent bar is at the top, otherwise assembly will not be possible.



8.6.3 Top side rail block latched



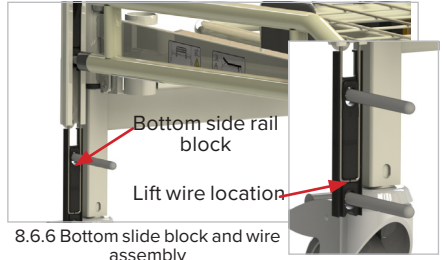
8.6.4 Top side rail inserted

5. Connect another side rail wire and top side rail block together as described in step 2, and insert the fingers into the vacant end of the top side rail. Lift this top side rail block into the channel until it latches in place.



8.6.5 Top side rail assembled

6. Release the latch on one of the top side rail blocks and steadily lower to allow sufficient space for the bottom side rail block to clip over the lift wire. It is essential that the lift wire is clipped into the bottom side rail block in the correct location.



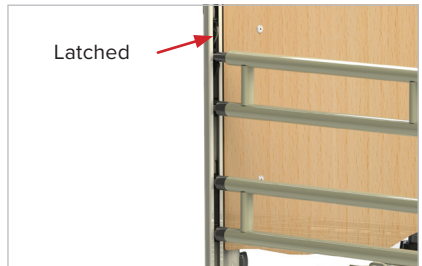
8.6.6 Bottom side block and wire assembly

7. Slide the bottom side rail, identified by two parallel bars and a diagonal support, over the fingers in the bottom side rail block. This side rail must be oriented with the holes facing downwards. Raise the side rail so it latches in place at one end.



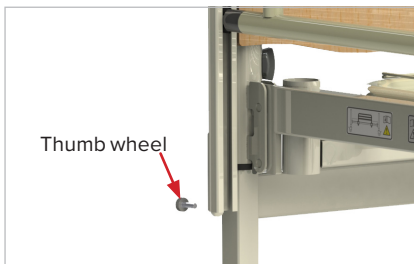
8.6.7 Bottom side rail inserted

8. Repeat for the other end of the bottom side rail.



8.6.8 Side rail raised

9. Reinsert the thumb-wheels into the bottom of each side rail channel to secure the channels in place.



8.6.9 Thumb wheel re-inserted

10. Repeat the process for the other side of the bed. Check the side rails operate correctly to confirm that they are correctly assembled.

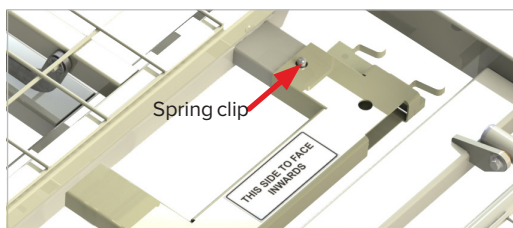


8.6.10 Side rails fitted

8.7 Storing the Transport Stands

The bed comes complete with integral transport stands and storage brackets. To store these away once the bed is assembled, follow the procedure below;

- Raise the bed to its full height.
- Holding one transport stand turn it so the words 'this side to face inwards' face upwards.
- Slide the stand into the tubes positioned under the backrest section, push the spring clip down and push the stand past until the clip springs back locking the transport stand in position (Inboard of side tube)
- Repeat the procedure for the remaining transport stand.



8.7.1 Transport stand stored

8.8 Extending the Bed

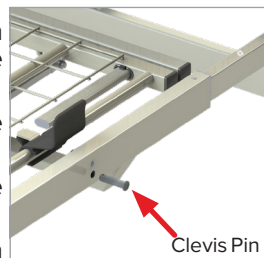
To extend the bed frame



Warning

Never extend the bed when side rails are fitted - risk of side rails falling and creating a crushing hazard. Remove side rails first.

- Flatten all sections and lower the bed to its minimum height (see section 9.4 for the operation of the handset).
- Ensure the brakes are applied at the head end of the bed.
- Unclick the foot end actuator cable from the bed frame cable clips (to prevent over extending the cable).
- Remove the 'R' clips, spacers, and clevis pins from both sides of the bed frame, towards the foot end of the bed (8.8.1).
- Unlock the foot end castors. Whilst holding the foot end near the locking collars, pull the bed extension out until it reaches its fully extended length (the extension will stop when it is fully extended).
- Reinsert the 'R' clips, spacers, and clevis pins to lock the extension out. If the clevis pin will not fully insert into the frame, then the extension is not fully extended.
- Reconnect the foot end actuator cable to the bed frame cable clips.



8.8.1 Removal of extension clevis pin and extending frame

To extend the platform / leg section

- Grip the platform extension at both sides and gently pull the platform extension out, keeping it parallel with the bed frame, until it locks in the extended position (8.8.2). Note that the bed frame must be extended prior to extending the platform.



8.8.2 Extending of platform

Returning the bed to its original state is a reverse of the above.



Warning

- Drive DeVilbiss Healthcare Ltd. recommend that the length extension is only used for those individuals who require it due to their physical height requirements, it is not to be fitted as the default for all occupants. A patient risk assessment must be performed to assess the need for the extension.
- The platform extension must be returned to its shortened length before reducing the main bed frame extension or damage could be caused to the platform extension or bed end and may pose a crushing hazard.
- If the bed is in its extended state and with the leg section profiled an opening can be created at the foot end of the bed; a patient risk assessment must be performed to assess if this poses a potential hazard to the patient - If so the leg section function must be locked out prior to use.

8.9 Side Rails and Mattresses

The Solite Pro can be specified with side rails; refer to section 18 for a comprehensive list of options. When specifying a mattress and side rail combination a clinical assessment of the patient's needs must be carried out in line with local policy.



Warning

- Ensure that any mattresses used are of the correct size and type and have been fitted correctly (see section 18) – incorrect mattress specification could lead to an entrapment and / or falls hazard.
- Ensure the side rails (if fitted) are compatible with the mattress and bed combination (see section 18) - incorrect product combinations could pose an entrapment hazard.

8.10 Side Rail Safety

Drive DeVilbiss Healthcare Ltd. only recommends the use of Drive DeVilbiss Healthcare Ltd. side rails with Drive DeVilbiss Healthcare Ltd. beds. Drive DeVilbiss Healthcare Ltd. does not recommend the use of the Solite Pro bed and the associated side rails when caring for individuals who are less than 146cm in length - It is the equipment provider's responsibility to ensure suitability for use.



Warning

- Whilst every care has been taken to ensure that the design of Drive DeVilbiss Healthcare Ltd.'s side rails meet the relevant safety standards, beds fitted with side rails can still pose a potential risk of death from entrapment and asphyxiation.
- All staff responsible for the purchase, selection for use, and the adjustment of bed side rails should be aware of the potential risk of entrapment and asphyxiation when a bed is occupied.



Warning

Care must be taken when positioning and adjusting side rails to ensure that any spaces between the side rails, mattress or bed frame will not allow entrapment of the occupant's head or body. In addition, consideration should be given to the size and physiological condition of the occupant and an assessment undertaken to ensure that the spacing between the bars of the side rails are not wide enough to present a potential risk of entrapment and / or asphyxiation. All staff responsible are to be aware that increased vigilance is required when nursing patients in beds fitted with side rails.

8.11 Checking the Bed

The bed is now fully assembled. Before it is put into use, ensure the bed has been correctly assembled by carrying out the following checks:

- Are the locking collars on the corners of the bed securely in their locked position (refer to the warning label on each locking collar)?
- Are the two leg section mattress platform hand-wheels fully tightened?
- Have the two clevis pins been passed through the bed's central join and secured with 'R' clips and spacers?
- Has all packaging been removed, e.g. re-usable cable tie/hook and loop tape (or similar) securing the platform sections?
- Are all four mattress side retainers present? Any missing retainers should be replaced before the bed is used.
- Are the cables free of all moving parts of the bed and is there sufficient free cable to allow for movement?
- Is the bed clear of obstructions?
- If fitted, are the fixings securing the integral side rail channels fully tightened?
- If fitted, do the integral side rails raise/lower smoothly and lock automatically when raised to the highest position?
- Has a risk assessment been performed on the suitability of the bed (and any ancillary equipment) for the user?

8.12 Knee Break / Leg Section

Note: The operation of the leg section is dependent on the position of the ratchets as detailed below.

The bed is fitted with an adjustable leg section. When the leg section function on the handset is operated the height or angle of the leg section is adjusted, depending on whether or not the leg section ratchet is engaged.

Leg section angle adjustment:



8.12.1 Leg section angle adjustment

Leg section height adjustment:



8.12.2 Leg section height adjustment

To set the bed so that the leg section angle adjustment operates:

- Press the leg section button on the handset to fully lower the leg section. The ratchet will automatically default to the angle adjustment setting when the leg section is fully lowered.

To set the bed so that the leg section height adjustment operates:

- Press the leg section button on the handset to raise the leg section to maximum height.
- Taking hold of the bottom of the foot section, slowly lift the section manually so the ratchet engages, stopping when the required angle has been reached.

Note: The ratchet will reset if lifted to its full extent, and will therefore not engage the leg section height adjustment.

- The foot section will now be raised as the leg section is driven up / down. The ratchet will automatically reset when the leg section is fully lowered again, defaulting the leg section to the angle adjustment setting.



Warning

Before attempting to engage / disengage the ratchet mechanism either:

- Ensure there is no load on the foot section, or
- Support the foot section with a second able bodied person.



Caution

The leg section is only to be used for the lifting of a patient's legs - any other use may damage the bed frame.

8.13 Lockout Function

The handset is supplied with a lockout function which enables the carer to disable any of the bed functions if they are deemed unsuitable for the occupant. The lockout function on the handset is to be used at the discretion of the carer.

To lock / unlock a function, insert the handset key provided into the desired function port and turn to the required position (clockwise to lock, anti-clockwise to unlock). When a function has been locked a yellow indicator will appear above that function.

Note: the handset functions are likely to be in the locked state when the bed is first installed.



8.13.1 Locked function



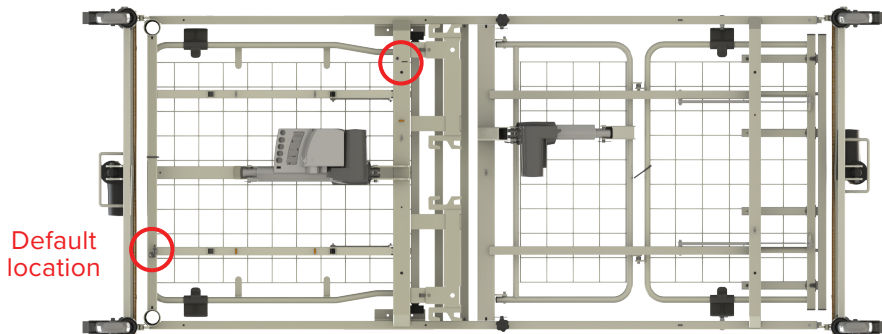
Warning

- Engage the lockout functions if a patient could be injured due to inadvertent motion of the mattress platform.
- If children, patients who lack capacity or even pets pose a potential risk of intentional or unintentional tampering with the bed the lockout function on the handset is to be used at the discretion of the carer.
- Consideration is to be taken with regards to the storage of the handset lockout key to minimise the risk of it being swallowed or posing a choking hazard to a baby, child, bed occupant or any other person.
- Consideration is to be taken when storing the handset lockout key to minimise the risk of unauthorised users changing the lock setting.

8.14 Relocating the Mains Cable Bracket

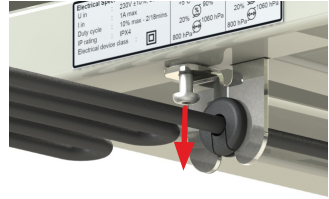
The mains cable bracket is factory fitted at the end of the backrest, however depending on your bed type, it may be possible to relocate it to a more central position on the mattress platform to assist in situations where power sockets may be less accessible.

The two potential mains cable bracket locations are circled below:



To remove the mains cable bracket from its current mounting point:

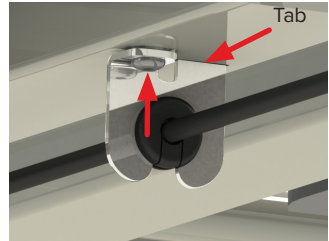
- Unscrew the fixing securing it to the bed and lift the bracket away.



8.14.1 Removing mains cable bracket

To secure the mains cable bracket to the alternative mounting point:

- Locate the tab on the bracket inside the slot in the tube and insert the screw through the bracket and into the mounting point. Fully tighten the screw to ensure the bracket is fastened securely to the bed.
- Ensure the mains cable is routed appropriately and any excess cable length secured in the orange mains cable clips to avoid kinking or shearing of the cable during operation of the bed.
- Check that an adequate length of free cable is available to account for full movement of the backrest by raising and lowering the backrest section, ensuring the cable is not at risk of stretching / straining.



8.14.2 Fitting mains cable bracket

Drive DeVilbiss Healthcare Ltd. recommends that the mains cable exits the bed from the default location at the end of the backrest, and that the mains cable bracket is always returned to the default position at the end of the backrest with the mains cable correctly routed prior to disassembly of the bed and assembly onto the transport stands.



Warning

- The mains cable bracket must be secured to one of the two mounting points on the bed at all times. Failure to adequately secure the bracket to the bed may lead to kinking or shearing of the cable which may lead to exposed live wires - risk of electrocution.
- Inappropriate routing / positioning of the mains cable could cause kinking or shearing of the cable which may lead to exposed live wires, even when the bracket is secured to one of the two mounting points - risk of electrocution.

8.15 Installation / Preparing for Use

Prior to operating the bed for the first time the following simple checks must be performed:

- Ensure the bed and all accessories are at room temperature.
 - Ensure the bed has been cleaned and disinfected (see section 13).
 - Ensure the brakes on the castors have been applied.*
 - Before locking the castors, ensure they are aligned so that they run parallel to the length of the bed.
 - Ensure the mains cable is plugged into an appropriate mains socket.
 - The handset may be in a locked or unlocked state, ensure it is set according to the patient requirements (see section 9.4 for handset operation).
 - Using the handset ensure the bed is level (see section 9.4 for handset operation), before positioning the bed according to the patient's needs.
- * All four castors should be locked to prevent inadvertent movement of the bed. If the bed will be used in tilt, it is advisable to unlock the foot end castors whilst operating the function to prevent the castors from dragging over the floor during the tilting motion. Once the required tilt position is reached, all castors should be locked.



Warning

- Ensure the mains cable is plugged into an appropriate power source at all times.
- Ensure the electrical cables are not in tension, paying particular attention to the mains cable when the bed / backrest travel up / down.
- Ensure that all cables and the handset are clear of all moving parts to prevent damage to the electrical components.
- Inappropriate handling / positioning of the mains cable could cause kinking or shearing of the cable which may lead to exposed live wires - risk of electrocution.
- Drive DeVilbiss Healthcare Ltd. recommend the bed is left in its lowest position when the patient is unattended in order to reduce the risk of injury due to a fall.
- Before operating the bed ensure the patient is positioned appropriately ensuring all limbs are clear of moving parts to reduce the risk of patient injury.
- The mains plug is the disconnect device for the means of isolating the bed from the mains supply, the plug must be accessible at all times.
- Precautions are to be taken when routing cables from external equipment around the bed to ensure that they do not become crushed, trapped or damaged - damaged cables could pose a risk of electrocution / fire.
- A CE marked extension cable must only be used when it is not possible to reach a wall socket with the equipment mains cable – contact Drive DeVilbiss Healthcare Ltd. or the equipment provider for information regarding the safe use of extension cables.
- If an extension cable is used never overload it by plugging in appliances that together will exceed the maximum current rating stated for the extension cable – risk of fire.
- ‘Block’ adaptors should not be used.
- Ensure multiple socket outlets are not positioned under the bed frame - liquids that leak onto such a socket could pose an electrical / fire risk.
- Any electrical component that is part of the bed frame or associated ancillary equipment that is found to be damaged must be removed from service immediately and replaced - damaged electrical components could pose a risk of electrocution / fire.
- Consideration is to be taken in the positioning of the bed cables and handset cable to minimise the risk of accidental strangulation resulting from entanglement of the bed occupant or any other person.



Warning

- After assembly of the bed there should be no parts remaining, however consideration is to be taken in the event of spare components (pins, clips etc.) being evident to minimise the risk of them being swallowed by the bed occupant or any other person; this could pose a choking hazard.
- Keep the bed away from sources of heat and naked flames (e.g. cigarettes, fireplaces, electric fires, fan heaters etc.) – Close proximity could damage the electrical system and / or pose a fire hazard.



Caution

- If the bed has come from a storage / transport temperature environment near to the minimum or maximum values stated allow the bed to adjust to room temperature for a minimum of 2 hours prior to plugging the bed into the mains supply - risk of electrical system damage if operated outside of the recommended temperatures.
- Do not use the side rails to move the bed – side rail / bed frame could be damaged.
- Avoid placing the bed frame in direct sunlight - direct sunlight could damage the electrical system and / or cause the bed to fade in colour over time, including fading of the bed labelling.
- Avoid placing the bed frame in a moisture rich environment – prolonged exposure to moisture could damage the electrical system and / or have a detrimental affect on the bed frame components.
- Special care should be taken when fitting an air mattress to the bed as incorrect fitting could damage the bed frame.
- The bed is not designed to run off battery power for long periods (SOLITE/PRO/LOW/BB only) and should always be plugged into the mains supply during normal use - allowing the battery to discharge fully may impair its performance.
- When the bed is operated, ensure that obstacles such as over bed tables and other furniture are not causing an obstruction.
- Ensure the bed is positioned an appropriate distance from walls/other furniture to prevent equipment damage when operating the bed (particularly when operating in tilt)
- If the bed is being used in conjunction with a hoist ensure the under bed clearances are checked before lowering the bed to minimum height - risk of frames clashing.
- Special precautions regarding EMC need to be taken, the bed is to be installed and put into service according to the EMC information provided in section 17.

9. OPERATION OF THE BED

9.1 Operational Limits

- Ambient temperature: +5°C to +40°C
- Humidity: 20% - 90%
- Atmospheric pressure: 800 hPa to 1060 hPa (altitude ≤ 2000m)

9.2 Brake System

The bed has four braked castors.

- To apply the brakes: Press the brake pedal down on each of the four castors using the foot - Drive DeVilbiss Healthcare Ltd. recommend appropriate footwear is worn to operate the pedal safely.
- To release the brakes: Push the brake release pedal down on each of the four castors (located on top of the castor).

When the bed is in use Drive DeVilbiss Healthcare Ltd. recommend all brakes are applied in normal use – Foot end castors should be unlocked if the tilt function is to be used.

9.3 Operating the Side Rails (When Fitted)



Warning

- Ensure the side rails are locked in place at all times when in the raised position to prevent injury or entrapment.
- When raising / lowering the side rails ensure they are free from limbs, to prevent injury or entrapment.
- When exiting the bed the side rails are not to be held on to - risk of finger entrapment / crushing hazard if weight of patient's legs allows side rails to flex downwards and close the gap between the rails.



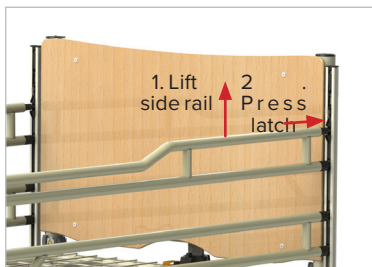
Caution

- Do not use the side rails to move the bed – side rail / bed frame could be damaged.
- Do not use the side rails as a positioning or lifting aid – side rail and / or bed frame could be damaged.
- When lowering, do not drop the side rail - side rail and / or bed frame could be damaged.

This information refers to the operation of Solite Pro integral full length side rails. For details of how to operate a different type of side rail, refer to your side rail instructions for use.

To lower the integral side rails:

1. Lift one end of the top side rail upwards.
2. Depress the release latch at the raised end of the side rail whilst holding the side rail up.
3. Gently lower the side rail until fully down at one end. The release latch can be released after the side rail has begun to lower.
4. Repeat the process at the opposite end of the bed.



9.3.1 Lowering the side rails

To raise the integral side rails:

1. Lift the upper side rail until it is heard to latch into position at the top height at both ends of the bed.

9.4 Electrical Operation

The bed is supplied with an easy to use handset. The handset may be operated by the occupant or carer. If the carer is to operate the bed ensure that the occupant is made aware of the action(s) about to take place.

Holding down of the relevant button causes the desired function to operate, releasing the button causes the operation to terminate and all movement to stop.



Warning

- Ensure a risk assessment is undertaken to ensure the suitability of the occupant using the handset.
- The handset cable must also be considered in regards to the risk of accidental strangulation of the bed occupant or any other person - If the cable introduces an unacceptable risk it is recommended that the handset is removed from the bed.
- Before lowering the bed ensure no one is in close proximity to the underside of the bedframe - risk of crushing.
- Before lowering the bed ensure feet/limbs are kept away from the castor pedals - risk of crushing (SOLITE/PRO/LOW only).
- As standard, the handset provided omits a head down tilt (Trendelenburg) function for safety reasons. If the Trendelenburg function is required a replacement handset can be purchased featuring this function. Please refer to section 18 for the part code, refer to the contact information in section 2 to order or to request further information – Drive DeVilbiss Healthcare Ltd. recommend the use of the standard handset when the bed is being used in a domestic environment.



Caution

- If the bed is continuously used for an extended period of time and it exceeds the duty cycle the control box may become temporarily disabled or irreparably damaged – see section 16.2 for further detail.
- Before lowering the bed ensure the area underneath is free from objects / obstructions - risk of damage to the bed and object / obstruction.

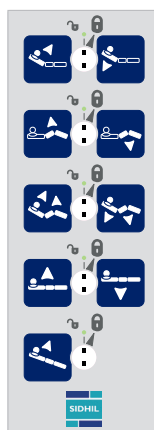
Backrest up / down

Leg section up / down

Auto contour up / down
(backrest & leg section)

Raise / lower mattress
platform

Foot down tilt



9.4.1 Handset functions

When the bed is in the foot down tilt (or head down tilt if a 10 button handset is used) position the platform is levelled via the mattress platform raise / lower buttons to take the frame fully up or down until the platform is level.

10. ASSEMBLY ONTO THE TRANSPORT STANDS

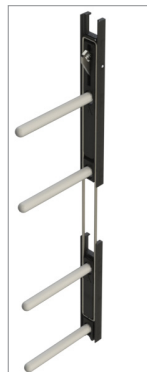


Warning

- Before attempting to assemble the bed onto the transport stands ensure these instructions have been read and fully understood.
- Ensure a risk assessment in line with local health and safety policy is undertaken to ensure that staff are not put at risk when performing assembly activities.
- Take care when assembling the bed onto the transport stands, the sections are of considerable weight (see section 16).

Side Rails (if fitted)

- Raise / lower the mattress platform to approximately its middle height, ensuring the platform is level.
- Remove the thumb wheel from each side rail channel.
- Carefully lower the side rail (the lower slide block will partially protrude from the channel).
- Unlatch the slide blocks at one end of the bed and, whilst lowering and supporting the side rails, carefully remove the slide blocks from the bottom of the channel.
- Whilst supporting the side rails, remove them from the slide block fingers at both ends, and place them on the floor, then reinsert the slide block assemblies into the side rail channel for storage. Refit the thumb wheel to the bottom of the side rail channel.



10.1 Slide block assembly

Electrics

- Flatten and lower the bed to its minimum height (see section 9.4).
- Unplug the mains cable from the mains socket.
- Using a flat bladed screwdriver remove the retaining clip from the control box.
- Unplug the bed end and leg section actuator cables from the control box.
- Detach the cables from the cable routing clips on the underside of the bed.

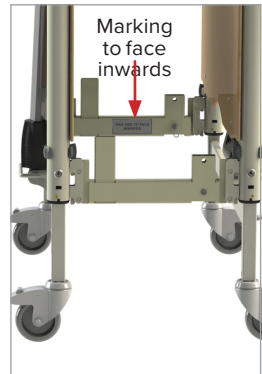
Bed Frame

- If the bed is in the extended position, retract the extension (see section 8.8).
- Using the two reusable cable ties / hook and loop straps that come with the bed, secure the moving parts of the backrest and leg section to the bed frame halves.
- Remove transport stands from the under bed storage brackets.
- Release the castor brakes.
- Loosen the hand wheels in the middle of the bed frame and remove the clevis pins, 'R' clips and spacers from the central joint.
- Whilst supporting both halves of the bed frame near the centre of the bed, split the bed in half by carefully pulling the sections apart and gently lower onto the floor - this may be considered easier with the help of a second able bodied person.

- Apply the castor brakes on the bed ends.
- Unlock both locking collars on one bed end (collar must be lifted before turning).
- Whilst supporting the bed end, lift the platform half away from the bed end and gently position both sections appropriately.
- Repeat for the remaining half of the bed.

Assembling onto the Transport Stand

- Hook both transport stands onto one bed end, taking care to ensure the brackets are both oriented correctly (each stand has an identifying mark showing the correct side -10.2).
- Turn both locking collars into the locked position.
- Hook the remaining bed end onto the transport stands.
- Turn both remaining locking collars into the locked position.
- Before lifting the backrest and leg section frames, ensure the moving parts have been secured with re-usable cable ties or similar.
- Carefully lift the leg section and lower the open ends onto the vertical tubes of the transport stands, ensuring the electrics are facing inwards. The leg section must be fitted to the transport stands before the backrest section.



10.2 Transport stand marking

- Carefully lift the backrest section and lower the spigots through the larger open tubes on the transport stands, ensuring the electrics are facing inwards.
- Tighten the hand wheels on the leg section frame.
- Insert the clevis pins through the transport stands and backrest section and secure with the 'R' clips and spacers.
- Ensure the instructions for use, control box clip and handset locking key are safely stored, and that all cabling is neatly wrapped around the relevant bed sections and is not dragging on the floor or under excess tension.



10.3 Bed on transport stands



Warning

- The bed must never be moved on the transport stand with the locking collars missing or in the unlocked position - risk of bed collapse.
- Ensure moving parts have been secured with re-usable cable tie/hook and loop tape (or similar) risk of sections moving in an uncontrolled manner.

11. POWER FAILURES

The bed does not have battery backup functionality unless you have purchased the battery backup variant of the bed (SOLITE/PRO/LOW/BB). This can be identified by a battery box fastened to the leg section actuator. In the event of a power failure the bed will not function, resulting in the backrest and / or leg section remaining in the last position being used (for example, a raised position).

The backrest and leg section are operated via two individual actuators that are located underneath the mattress platform. If either the backrest or leg section actuator is raised in the event of a power failure and needs to be lowered:

- Locate the actuator supporting the relevant section.
- Hold / support the section - It is recommended that two carers support the section*.
- Remove the pins that hold each end of the actuator in place, and remove the actuator.
- Gently lower the section(s) to the flattened position.
- The function that has been manually lowered should be locked out on the handset until the actuator is reattached.



Warning

* If the section is to be lowered with a patient in the bed, a risk assessment should be carried out to determine the weight applied to the backrest and whether it is possible to lower the section safely. It is recommended that two carers support the section prior to lowering. When the pins are removed there is nothing supporting the section, the carer(s) holding the frame must be ready to support the weight on removal of the pin.

For beds that feature battery backup functionality, the bed can be operated normally via the handset in the event of a power failure. The bed functions may operate at a slower speed when the bed is operating from the battery.

12. BATTERY CHARACTERISTICS (SOLITE/PRO/BB AND SOLITE/PRO/LOW/BB ONLY)

The internal battery trickle charges whilst the bed is plugged into the mains supply to keep it in a continually charged state, the bed will continue to operate normally whilst charging. There is no audible or visual signal to identify when the battery is charging or in use.

Note: When operating under battery power the bed functions may stop operating without warning once the battery charge is depleted. Return to mains supply as soon as possible.



Warning

Ensure the battery is not exposed to direct sunlight or a secondary heat source - Direct heating of the battery via an external source could pose a risk of fire or cause an explosion.



Caution

The battery is not to be used in normal use (i.e. bed disconnected from the mains supply) - battery life expectancy may be reduced.

13. DECONTAMINATION

Infection control and routine cleaning must be carried out in accordance with your local infection control policy or regulatory body.

It is advisable to remove any accessories that are fastened to the bed. These instructions apply to the bed and all accessories, excluding pads and mattresses.



Warning

- Always disconnect the bed from the main power supply prior to cleaning.
- Ensure all ports on the electrical system (control box and actuators) have cable plugs fully inserted to maintain the IP rating.
- Regular cleaning and disinfection of the bed frame and relevant accessories will help to prevent the risk of infection to the occupant and / or carer.
- Prior to transferring the bed frame / accessory to another user ensure it has been cleaned and disinfected using the method as detailed below to help prevent the risk of cross infection.

13.1 Cleaning and Disinfection Guidelines

General Cleaning:

- The bed should be cleaned by starting with the cleanest parts of the bed and systematically moving to the dirtiest parts. Extra care should be taken around areas where excess dirt or dust may gather.
- The cloth should be changed during the cleaning process if it becomes soiled.
- Wipe down with a clean cloth moistened with a mild detergent and dilute with warm water (40°C).
- Rinse with cold, clean water and a clean cloth, and allow to fully dry before use.

Decontamination:

- Mop up any fluid with paper towels.
- Wipe bed down using cold clean water.
- Wipe down with a 0.1% Chlorine solution (1,000ppm) in cold water.
- Rinse with cold clean water and a clean cloth and allow to fully dry before use. Always ensure the cleaned parts are allowed to dry before putting the mattress back in place.

In cases of blood spills or other bodily fluids it is recommended that a 1% Chlorine solution (10,000ppm) is used instead.

Note: If any of the stages stated above are omitted or combined it will reduce the effectiveness of the clean.



The use of neat bleach or similar surface cleaners is not recommended as damage may be caused to the cleaned surfaces.

13.2 Steam Cleaning

The Solite Pro and Solite Pro Low can be dry steam cleaned. The individual manufacturer's instructions should be followed when using a steam cleaner and the following precautions observed:

- Avoid directing steam directly at electrical components and reduce steam pressure when cleaning near electrical items and connections.
- Avoid directing steam directly at wooden components and reduce steam pressure when cleaning near wooden components.
- Use soft brushes and wiper cloths as recommended by the steam cleaner manufacturer.
- Do not use excessive force or steam pressure on labels.
- Ensure the bed is dry and all debris from the cleaning process has been removed prior to reuse.
- Ensure all electrical functions operate as normal once the bed has been cleaned and dried.



Do not use high pressure hoses on the bed as they could cause damage to the electrical components.

14. MAINTENANCE

14.1 General Inspection

Drive DeVilbiss Healthcare Ltd. recommends that authorised personnel perform frequent visual and operational inspections. If there are any signs of damage or the bed is not performing as it should withdraw it from service until the bed has been repaired and is fit for use again.

Periodically check to ensure that:

- The bed operates as per its intended purpose.
- All parts are present.
- All fixtures and fittings are tight.
- The frame is mechanically sound, with no cracking, particularly around welded areas.
- No parts show signs of excessive wear.
- The electrical components display no sign of damage - if so turn off at the mains and remove the bed from use immediately.
- The bed is cleaned following the guidelines in these instructions for use.

14.2 Fault Finding

Listed below are a set of electrical faults that may occur within the service life of the bed. If a fault does occur please try the following suggestions, as these may help in diagnosing the fault.

Fault	Possible Cause	Remedy
Electrical function(s) do not work	Functions locked out on handset	Unlock function(s) - see section 8.13
	Mains cable not plugged into the control box or wall	Check to see if the 'power on' light on the control box is lit and the mains cable is plugged in at both ends
	Fuse has blown in the mains plug	Check to see if the 'power on' light on the control box is lit, if not replace fuse
	Actuator / handset cables not plugged in	Check plug connections on the control box and actuators
	Damage to electrical component(s)	Turn off at the mains and contact an approved service engineer
	Heavy load on the bed and the duty cycle has been exceeded	If the control box has exceeded its duty cycle, permanent damage will have occurred, a replacement control box will be required
Electrical function(s) working slowly	Heavy load on the bed	Remove load
	Bed is operating on battery power (SOLITE/PRO/LOW/BB only)	Check mains cable is plugged in at both ends and turned on (power light will be visible on control box)
Incorrect functions work when handset operated	Cables plugged into incorrect ports on control box	Review cables and graphic on control box to assess if connections are correct

14.3 Servicing

Only authorised service personnel or Drive DeVilbiss Healthcare Ltd. service engineers should carry out repairs or service activities. Failure to do so may result in the manufacturer's warranty becoming void. The bed must be serviced once yearly, as a minimum.



Warning

- Failure to carry out the following checks at the stated frequency could negatively influence the essential performance of the bed and as a result put the patient at risk.
- Always disconnect the bed from the mains power supply prior to performing any maintenance procedures (when not checking electrical functions).
- Modification of the bed frame is not allowed without the permission of Drive DeVilbiss Healthcare Ltd. - a hazard could be introduced.
- The bed should be vacated by the patient before any maintenance or inspection takes place. If it is not possible due to the patient's mobility, a risk assessment should be carried out, and if deemed safe to proceed, care should be taken for the service engineer to avoid contact with the patient when working on electrical items.
- Only Drive DeVilbiss Healthcare Ltd. approved components, specified for the Solite Pro and Solite Pro Low beds, should be used - if in doubt contact Drive DeVilbiss Healthcare Ltd. or your local distributor.
- Electrical system components are only to be replaced by authorised service personnel or a Drive DeVilbiss Healthcare Ltd. service engineer.
- Never attempt to re-wire any components.
- Linak battery packs may emit an increased amount of flammable gas as they age - risk of explosion / fire. Drive DeVilbiss Healthcare Ltd. advise that batteries are replaced every 4 years or sooner (SOLITE/PRO/LOW/BB only).

To maintain the bed's essential performance the following checks must be performed:

- Check that all electrical functions operate correctly on the handset.
- Check that all electrical components and cables are in good condition - If not turn off at the mains and remove bed from use until replacement parts are available.
- Check the retaining clip is fastened to the control box, securing the electrical cables in place.
- Check that the red retaining ring is correctly inserted and clipped into the control box securing the mains cable in place.
- Check that all four mattress side retainers are present, any missing retainers should be replaced before the bed is used.
- Check that all nuts, bolts and fasteners are tight and that none are missing or incomplete.
- Check that all locking collars and hand wheels are present.

- Check that the backrest and leg rest functions (angle and height adjustment modes) work correctly.
- Check the castors lock / unlock correctly and that when locked the castors do not swivel or roll.
- Check that all product labels are present and intact.
- Check that the frame is mechanically sound with no cracking around the welds, bending of tubes etc.
- Raise and lower the side rails. Check that they move smoothly.
- If side rails are fitted, check that the lock on the side rails automatically engages when the side rails are raised.
- If any gaps appear to be outside of specification remove the bed from use until the dimension of the gap in question has been confirmed.
- For beds fitted with battery backup (SOLITE/PRO/LOW/BB) check that the battery is capable of suitably powering the bed.
- If different age combinations of transport stands have been swapped between beds in use, check that the handwheels on the leg section platform securely tighten when the bed is fitted to its transport stands. If parts are still loose when fully assembled, a longer handwheel may be required. In this situation please contact your equipment provider.
- If in doubt about the correct replacement of a component contact Drive DeVilbiss Healthcare Ltd. or your local distributor.
- Refer to the service manual for part codes and assembly detail. Copies are available from Drive DeVilbiss Healthcare Ltd. Contact details can be found in section 2.

15. DISPOSAL OF PARTS

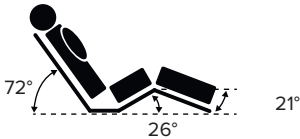
- When the bed frame, any associated accessories and / or the electrical system has come to the end of its useful life, follow local recycling and W.E.E (Waste Electrical and Electronic Equipment) policies – For further information contact Drive DeVilbiss Healthcare Ltd. (see section 2).
- The electrical system on the bed frame is not to be disposed of in general municipal waste. Some of the electrical components could be harmful to the environment and where viable the components can be recovered and reused / recycled.
- The steel, wood and plastic components are also to be separated and disposed of following the local recycling policy as these can also be recovered and recycled.



Warning

The bed and any associated accessories are to be decontaminated before disposal to avoid risk of cross contamination.

16. SPECIFICATION

16.1 Bed Data		SOLITE PRO	SOLITE PRO LOW
Product code		SOLITE/PRO	SOLITE/PRO/LOW
Product code (with battery backup)		-	SOLITE/PRO/LOW/BB
Overall length		2230mm	
Overall width (without side rail channels fitted)		965mm	
Overall width (with side rail channels fitted)		1015mm	
Mattress platform height		395 - 815mm	295 - 715mm
Under bed clearance (to underside of frame when bed is lowered)		340mm	245mm
Under bed clearance (to underside of actuator when bed is lowered)		203mm	103mm
Mattress platform length		2010mm	
Mattress platform length (extended)		2175mm	
Mattress platform width		905mm	
Foot down tilt*		0 - 12°	
Mattress platform angles (max)			
Safe working load		226 kg (35½ stone)	
Maximum patient weight		191 kg (30 stone)	
Product weight (on transport stand)		82.6 kg	
Part weights	Leg section	20.4 kg	
	Backrest	23.2 kg	
	Bed ends (each)	18.0 kg	
Application environment		3 & 4	
Shock and vibration		To be used on a flat level floor (e.g. vinyl/carpet/laminate based)	
UV		Intended for indoor use only	



Warning

- * As standard, the handset provided omits the head down tilt (Trendelenburg) function for safety reasons. If Trendelenburg function is required, a replacement handset can be purchased featuring this function. Please refer to section 18 for the part code, and to the contact information in section 2 to order or to request further information – Drive DeVilbiss Healthcare Ltd. recommend the use of the standard handset when the bed is being used in a domestic environment.
- The Solite Pro Low does not meet the upper height requirements of EN 60601-2-52:2009, if patient requirements are such that the height range is deemed to pose a potential hazard the Solite Pro should be used instead, please refer to the contact information in section 2 to request further information.

16.2 Electrical Data

Voltage in:	230V±10%, ~50/60Hz.
Current in:	1A
Mains cable fuse:	3-10A
Duty cycle:*	10%
	2 mins of continuous use followed by 18 mins not in use.

* Electrically operated beds are intended to be operated intermittently rather than continuously. If the bed is operated continuously for up to 2 minutes it must then be left for at least 18 minutes before reuse to allow the electrical system to cool sufficiently. If the bed is continuously used for an extended period of time and it exceeds the duty cycle the control box may become temporarily disabled or irreparably damaged.

Safety standards:	EN 60601-1
	EN 60601-11
	EN 60601-2-52

Electrical shock prevention:



Applied parts:	Mattress platform
	Profiling sections
	Bed ends
	Handset
	Side rails

Liquid ingress protection:	IPX4 - Splash resistant
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Battery backup:	Individual battery non replaceable
(SOLITE/PRO/BB & SOLITE/PRO/LOW/BB only)	(Contact bed provider for battery part code)

Noise level:	66.9 dB(A) max
Service life:	10 years (battery life: 4 years)

Environmental conditions:

	Operational Limits*	Transportation / Storage Limits
Ambient Temperature	+5°C to +40°C	-10°C to +50°C
Humidity	20% - 90% at 30°C non condensing	20% - 90% at 30°C non condensing
Atmospheric Pressure	800 to 1060hPa	800 to 1060hPa
Altitude	≤ 2000m	≤ 2000m

* Always ensure the bed is brought up/down to room temperature before plugging in and operating - Drive DeVilbiss Healthcare Ltd. recommend the bed is left for a period of two hours or more to reach room temperature.

17. ELECTROMAGNETIC COMPATIBILITY (EMC)

The Solite Pro / Solite Pro Low electrical system has been designed to meet the EMC requirements of EN 60601-1-2 however it may still be affected by or emit harmful radio frequency (RF) energy. The RF emissions from the electrical system are very low and are not likely to cause any interference to nearby electronic equipment, however interference to sensitive equipment is still possible. Likewise if the immunity limits of the electrical system are exceeded the system may be seen to operate abnormally.

If the bed or any alternative equipment is found to be operating abnormally turn off the piece of equipment that is believed to be causing the interference (if possible) to identify the source of the RF energy. Once identified mitigation measures are to be taken, such as the separation distances being increased and/or the device(s) being re-orientated.

If the bed continues to operate abnormally, turn off at the mains supply and contact Drive DeVilbiss Healthcare Ltd. or your local distributor (see section 2).

For specific emissions and immunity information relating to the bed, please contact Drive DeVilbiss Healthcare Ltd or your local distributor (section 2).



Warning

- The bed should not be used adjacent to or stacked with other medical electrical equipment, where viable. If adjacent or stacked use is necessary, the bed and associated medical electrical equipment should be observed to verify normal operation — if not taken in to account, abnormal operation could occur.
- Use of accessories and cables other than those specified or provided by Drive DeVilbiss Healthcare could result in increased electromagnetic emissions or decreased electromagnetic immunity of the bed and result in improper operation.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30cm to any part of the bed (including its cables), otherwise a degradation in performance could result.

18. ACCESSORIES

A full range of accessories, including various approved mattresses are available from Drive DeVilbiss Healthcare Ltd.

SIDE RAILS AND SIDE RAIL PADS	CODE
Integral side rails and side rail channels	SOLITE/PRO/SR/KIT
— Integral side rails	SOLITE/PRO/SR/A2
— Integral side rail channels (full set)	SOLITE/PRO/CHANNEL/KIT
Integral side rail pads	SOLITE/PRO/SR/PAD
Integral side rail mesh cradle padding system	SOLITE/PRO/EPS
Integral extended length side rails and side rail channels	SOLITE/PRO/SR/EXT/KIT
— Integral extended length side rails	SOLITE/PRO/SR/EXT
— Integral side rail channels (full set)	SOLITE/PRO/CHANNEL/KIT
Integral side rail pad extensions	SOLITE/PRO/SR/EXT/PAD
Integral side rail height extensions	SOLITE/PRO/SR/HE
Integral side rail height extension pads	BED01/SR/HEXT/PAD
Integral side rail height extensions (removable foot ends)	SOLITE/PRO/SR/HE/1
Integral side rail height extension pads	METAL/SR/HEX/PS
Grange side rails	GRANGE/SR
Grange side rail pads	1316/PS/CREAM
GRAB HANDLES	CODE
Standard grab handle	1210/GRAB
Short grab handle*	1216/GRAB
OTHER ACCESSORIES	CODE
Lifting pole	SOLITE/LASER/LP/1
Transfusion pole	BED/DP
Bed end pads	SOLITE/PRO/HF/PAD
10 button handset (with Trendelenburg)	CONTROL/038

Characteristics of the accessories can be found in the relevant accessory's instructions for use.

* 1216/GRAB is incompatible with side rails fitted to the bed. If side rails are required, please order 1210/GRAB.



Warning

Accessories that have not been approved or designed for use with the bed are not be used - A hazard could be introduced due to product combination incompatibility.

The bed has been tested and approved with the following mattresses:

		Length	Width	Thickness
Foam Mattresses				
Acclaim VE	MAT/ACCL/VE/W	1990mm	880mm	152mm
Acclaim Profiler	MAT/ACCL/PRO/W			152mm
Softrest	MAT/SOFT			152mm
Softrest Thin	MAT/SOFT/THIN			64mm
Softrest VE	MAT/SOFT/VE			152mm
Softrest Contour	MAT/SOFT/CON			152mm
Essential Foam	MAT/BASIC			127mm
Permaflex Plus	MAT/ACCL/PERM/ PLUS			152mm
Permaflex HSF	MAT/ACCL/PERM/HSF			152mm
Permaflex ST	MAT/SOFT/PERM			152mm
Memaflex	MAT/ACCL/MF			152mm
Value Range	MAT10BE		900mm	127mm
Value Range	MAT20BE	900mm	152mm	
Foam Extensions				
Acclaim VE Extension	MAT/ACCL/VE/EX/STRAPS	180mm	880mm	152mm
Softrest Extension	MAT/SOFT/EX/STRAPS			
Dynamic Mattresses				
Trio II	DYN/DIG/TRIO/2	2000mm	880mm	270mm
Plus II	DYN/DIG/PLUS/2			220mm
SoloXtra	DYN/DIG/SOLO/XTR			160mm
Solo II	DYN/DIG/SOLO/2			120mm
Apollo	DYN/DIG/1200			200mm
Acclaim Flow	MAT/ACCL/FLOW	1990mm	880mm	152mm
Atlas	DYN/DIG/ATLAS	2020mm	885mm	200mm

The above list of compatible mattresses includes some discontinued product lines. For a full list of available accessories please contact Drive DeVilbiss Healthcare using the contact information provided on the reverse of this document. Other Drive DeVilbiss Healthcare Ltd. mattresses available upon request – Contact your provider or Drive DeVilbiss Healthcare Ltd. to check for compatibility and suitability.



Caution

- It is essential that dynamic mattress straps are only attached to the moving parts of the profiling mattress platform. If the straps are incorrectly fitted around the main section of the mattress platform, serious damage could occur to various components of the bed. If in doubt contact your provider or Drive DeVilbiss Healthcare Ltd.
- Ensure the dynamic control box is not positioned on the side rails, risk of control unit falling off when side rails are lowered.
- When fitting a mattress, ensure it is seated inside the mattress retainers at the sides and foot end of the bed, and that the leg section extension is located in its fully retracted or fully extended state. If the leg extension is not correctly located in position, damage to bed components could occur.

18.1 Mattress / Side Rail Compatibility Chart

		GRANGE/SR	SOLITE/PRO/SR	SOLITE/PRO/SR/HE
Acclaim VE	MAT/ACCL/VE/W	✓	✓	✓
Acclaim Profiler	MAT/ACCL/PRO/W	✓	✓	✓
Softrest VE	MAT/SOFT/VE	✓	✓	✓
Softrest Contour	MAT/SOFT/CON	✓	✓	✓
Essential Foam	MAT/BASIC	✓	✓	✓
Memaflex	MAT/ACCL/MF	✓	✓	✓
Permafex Plus	MAT/ACCL/PERM/ PLUS	✓	✓	✓
Permafex HSF	MAT/ACCL/PERM/HSF	✓	✓	✓
Permafex ST	MAT/SOFT/PERM	✓	✓	✓
Value Range	MAT10BE	✓	✓	✓
Value Range	MAT20BE	✓	✓	✓
Trio II	DYN/DIG/TRIO/2	-	✓*	✓
Plus II	DYN/DIG/PLUS/2	-	✓*	✓
SoloXtra	DYN/DIG/SOLO/XTR	✓	✓*	✓
Solo II Softrest Thin	DYN/DIG/SOLO/2 MAT/SOFT/THIN	-	✓*	✓
Apollo	DYN/DIG/1200	-	✓*	✓
Atlas	DYN/DIG/ATLAS	-	✓*	✓
Acclaim Flow	MAT/ACCL/FLOW	✓	✓	✓
Standard Grab Handle	1210/GRAB	✓**	✓**	-
Short Grab Rail	1216/GRAB	-	-	-
Padded Side	1316/PS/CREAM	✓	-	-
Padded Side	SOLITE/PRO/SR/PAD	-	✓	-
Padded Side	BED01/SR/HEXT/PAD	-	-	✓



Warning

* If the dynamic mattresses listed are used without side rail height extensions a patient risk assessment must be performed to ensure the gap between the top of the mattress and top of the side rail when raised is acceptable and will not introduce a hazard to the patient.

** Care must be taken when raising / lowering the GRANGE/SR and SOLITE/PRO/SR when used in conjunction with the 1210/GRAB, as the gap between the two components can introduce a finger entrapment hazard, positioning dependent.

- When using the bed with a dynamic mattress, the space introduced by cell compression at the mattress edge and the side rail (if fitted) is to be considered. A patient risk assessment must be performed to ensure an asphyxiation risk is not introduced by the patients face inadvertently sinking into the gap between the mattress and side rail.
- Ensure extension blocks are positioned centrally to the platform. If offset to one side a gap will be introduced between the extension block and the side rail, introducing a potential asphyxiation risk.
- When the height extension is used in conjunction with a foam mattress ensure patient ingress/egress is not compromised - if so, remove and refit the height extension as required during patient transfers.
- Care must be taken when raising the backrest when used in conjunction with the 1210/GRAB, as the gap between the two components can introduce a finger entrapment hazard with the mattress retainers, positioning dependent. Refer to INSTRUC/1210/GRAB for specific positioning detail.
- The use of a dynamic mattress, when the bed is in an extended state, is dependent on the outcome of an individual risk assessment. When using a Drive DeVilbiss Healthcare Ltd. mattress that is equipped with static head cells, the risk assessment is to take into account that these static cells will have moved down the bed if the foot end of the mattress is positioned at the foot of the extended bed.

Drive DeVilbiss Healthcare Ltd. cannot be held responsible for any injury or incident which relates to the use of any product combinations not approved by Drive DeVilbiss Healthcare Ltd. It is the carer's responsibility for selecting and fitting the products correctly and ensuring that the product combination is compatible.

19. WARRANTY

Drive DeVilbiss Healthcare Ltd. warrants that this product will perform in accordance with its specification and will remain free from defects in material and workmanship when used under normal conditions for a period of 5 years (which specifically is - 1 year full parts and labour, 4 further years parts only) from the date of purchase from Drive DeVilbiss Healthcare Ltd. and its subsidiary companies. If purchased from an authorised dealer or international distributor, the product is warranted for 1 year parts only. If a Drive DeVilbiss Healthcare Ltd. service contract is taken on the bed from year 1 (i.e. from the first service after 12 months from the date of purchase), a full parts and labour warranty is provided on the bed for the period in which the service contract is maintained, up to a maximum of 10 years from the date of purchase.

DRIVE DEVILBISS HEALTHCARE LTD. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. IN NO EVENT WILL DRIVE DEVILBISS HEALTHCARE LTD. BE LIABLE FOR PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES, OR FOR AN AMOUNT IN EXCESS OF THE PURCHASE PRICE OF THE DEFECTIVE DRIVE DEVILBISS HEALTHCARE LTD. PRODUCT OR PRODUCTS.

Proof of purchase must be presented with any claim. Except as provided herein, this warranty will not apply to any Drive DeVilbiss Healthcare Ltd. products that have been (a) damaged by lightning, water, or power surges, (b) neglected, altered, abused, or used for a purpose other than the purpose for which they were designed, (c) repaired by you or any other party without Drive DeVilbiss Healthcare Ltd. prior written authorisation, (d) used in conjunction with a third party product or products not approved in advance by Drive DeVilbiss Healthcare Ltd., (e) damaged or failed by or attributes to acts of God, (f) damaged, caused by failure to follow instructions, or (g) otherwise used in a manner inconsistent with any instructions provided by Drive DeVilbiss Healthcare Ltd. The warranty explicitly exempts consumable items.

This warranty contains the entire agreement between you and Drive DeVilbiss Healthcare Ltd. with respect to any warranty matters, and supersedes any and all other written or oral statements, representations or agreements relating to the subject matter of this warranty.

In the event of a product defect during the warranty period you should contact your supplier, whether it be Drive DeVilbiss Healthcare Ltd., its subsidiary companies, authorised dealers or international distributors who will at their option unless otherwise provided by law; a) correct the defect by product repair within the terms of the warranty b) replace the product with one of the same or similar design or c) refund the purchase price. All replaced parts and products on which a refund is made become the property of Drive DeVilbiss Healthcare Ltd. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This limited 5 year warranty gives you specific legal rights and you may also have other rights.

Drive DeVilbiss Healthcare Ltd. cannot be held responsible for any injury or incident which relates to the use of this bed in conjunction with accessories manufactured by companies other than Drive DeVilbiss Healthcare Ltd.

Drive DeVilbiss Healthcare Ltd. has a policy of continual product improvement and reserves the right to amend specifications covered in this document. No part of this document may be reproduced without the written approval of Drive DeVilbiss Healthcare Ltd.

Side Rail Community Design Registration Number:
002742254

drive

DeVilbiss
HEALTHCARE

CONTACT INFORMATION

Tel: +44 (0) 845 0600 333 Fax: +44 (0) 845 0600 334

Email: info@drivedevilbiss.co.uk

www.drivedevilbiss.co.uk



Drive DeVilbiss Healthcare Ltd., Holmfild, Halifax,
West Yorkshire, HX2 9TN, United Kingdom

A member of the Drive DeVilbiss Group of Companies



ORIGINAL INSTRUCTIONS
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