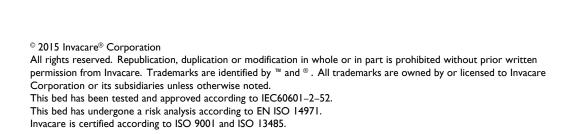
# Invacare® SB® 755



en **Bed** User Manual







# Contents

I Ge	neral	4
1.1	Introduction	4
1.2	Symbols in this manual	4
1.3	Intended Use	4
1.4		4
1.5	Warranty	4
1.6	•	4
1.7		4
2 Saf		5
2.1	General warning	5
2.2	0	5
	·	
-	<b>6</b>	<b>7</b> -
3.1	· F·· · · · · ·	7
3.2	· F	7
3.3	1 0	7
3.3		7
		8
3.3		8
3.4		8
3.4	I.I HB85 / HL85	8
		8
3.5	Castors and brakes	9
3.5	i.I Castor brake	9
3.5	5.2 Central brake system	9
3.6		9
3.6	- ·	9
3.6		0
3.7	Emergency release of the backrest or thigh/leg section I	0
4 Acc	cessories	
4.1	Accessories / Components	
4.2	Mattresses	•
	intenance	-
5.1	6	_
5. I	.I Non-washable components	2
6 Aft	er Use······I	3
6. l	Waste disposal	3
6.2	Reuse	3
7 Tro	oubleshooting	4
<b>7.</b> I	Troubleshooting	4
8 Ted	chnical data	5
8.1	Dimensions bed	5
8.2	Dimensions side rails	_
8.3	Allowed mattress sizes	_
8.4	Environmental conditions	-
8. <del>1</del> 8.5	Environmental conditions	

## I General

#### I.I Introduction

This user manual contains important information about the handling of the product. In order to ensure safety when using the product, read the user manual carefully and follow the safety instructions.

To ensure correct use, the bed must be tested and adjusted by qualified personnel.

All references to left and right are based on a person lying in he bed, on his back, with his head in the head end.

If a problem should arise in connection with the delivered product, please contact your *Invacare*<sup>®</sup> dealer. An address list is shown on the back side at this manual.

# 1.2 Symbols in this manual

In this user manual, warnings are indicated by symbols. The warning symbols are accompanied by a heading that indicates the severity of the danger.



#### WARNING

Indicates a hazardous situation that could result in serious injury or death if it is not avoided.



#### **CAUTION**

Indicates a hazardous situation that could result in minor or slight injury if it is not avoided.



#### IMPORTANT

Indicates a hazardous situation that could result in damage to property if it is not avoided.



Tips and Recommendations

Gives useful tips, recommendations and information for efficient, trouble-free use.



This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.



Manufacturer of the product.

#### I.3 Intended Use

- The bed has been developed for domestic care and long term environments.
- The bed has been developed for users over 12 years of age weighing 45-200 kg, taller than 150 cm.
- Safe Working Load (SWL): 235 kg (patient/user + accessories).
- Max User Weight: 200 kg.
- The bed is not intended for psychiatric patients.
- The bed is not intended for transportation of users.

The bed is defined to be used according to:

- Application environment 3; Long-term care in a medical area where
  medical supervision is required and monitoring is provided if
  necessary and medical electrical equipment used in medical
  procedures may be provided to help maintain or improve the
  condition of the patient.
- Application environment 4; Care provided in a domestic area where medical electrical equipment is used to alleviate or compensate for an injury, disability or disease.



#### **WARNING!**

Any other or incorrect use could lead to hazardous situations.

Invacare® accepts no liability for any use or change of the product other than as stated in this User manual.

### I.4 Service life

The expected service life of this product is eight years when used daily and in accordance with the safety instructions, maintenance intervals and correct use, stated in this manual. The effective service life can vary according to frequency and intensity of use.

# 1.5 Warranty

The warranty covers all material and production defects for two years from the date of delivery, provided it can be demonstrated that such defects were present before delivery. All manufacturing faults or defects must be promptly reported.

*Invacare*<sup>®</sup> may repair the fault or replace the component. The warranty provided by *Invacare*<sup>®</sup> does not cover additional costs (transport, packaging, labour, sundry expenses, etc. are for the customer's account).

The warranty does not cover:

- Damage caused during transport that is not directly reported to the forwarder at the moment of delivery.
- Repairs performed by unauthorized centers and personnel.
- Parts subject to normal wear.
- Malicious damages or damaged caused by improper use of the bed.

 $\textit{Invacare}^{\, \oplus}$  reserves the right to alter product specifications without prior notice.

# 1.6 Limitation of liability

Invacare accepts no liability for damage arising from:

- Non-compliance with the User Manual
- Incorrect use
- · Natural wear and tear
- Incorrect assembly or set-up by the purchaser or a third party
- Technical modifications
- Unauthorized modifications and/or use of unsuitable spare parts

A written authorization of Invacare must be obtained before installing additional adaptations on this Invacare product. Otherwise no liability claims can be made.

# 1.7 Scope of delivery

The bed is delivered, upright standing on a wooden stand, covered with a protective plastic.

Included in the delivery:

- Complete bed with castors, control box and mattress support.
- Accessories; bed ends, side rails, lifting pole etc is delivered apart according to customers order.

1567446-D

# 2 Safety

# 2.1 General warning

# $\triangle$

#### **WARNING!**

## Risk of injury

There is a risk of entrapment of fingers in the bed moving parts.

- Pay attention to your fingers.



#### WARNING!

# Risk of entrapment / suffocation

There's a risk of entrapment / suffocation between mattress support, side rail and bed end

- The bed must not be used by patients under 12 years of age, or by patients with body size equivalent to an average 12 years old or smaller.
- The bed, in combination with side rails must not be used for persons under 45 kg or under 150 cm height.
- The hand control must not be used by children.



### **WARNING!**

#### Risk due to electromagnetic interference

Electromagnetic interference between the bed and other electrical products can occur.

 To reduce or eliminate such electromagnetic interference, increase the distance between the bed and the products or switch them off.

This medical bed can be used together with medical electrical equipment connected to the heart (intracardially) or blood vessels (intravascularly) provided that following points are respected:

- The bed should be equipped with means for potential equalization connection marked out by a symbol shown in the back of this manual.
- Medical electrical equipment should not be fixed on the bed's metallic accessories such as side rails, lifting pole, drip rod, bed ends, etc.
- The medical electrical equipment power supply cord should be kept clear of the accessories or any other moving parts of the bed.



#### **WARNING!**

# Risk of patients slipping through the openings

The bed fulfils all requirements regarding maximum distances. However, it is possible that patients with small body dimensions slip through the openings between the side rails or through the opening between the side rail and the mattress support.

 Pay special attention, if the bed is used for the care of patients with small body dimensions.



## CAUTION!

- Always lower the bed to the lowest position before leaving the patient in the bed unattended.
- When entering or exiting the bed, the height adjustment should be used. Furthermore, the backrest can be used as support. However, the thigh- and leg section must be horizontal, otherwise, there is risk of overloading of the mattress support.

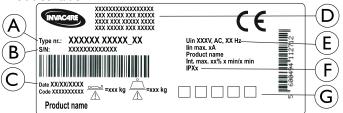
## IMPORTANT!

- Make sure that there is nothing under, over, or near the bed that can limit the movement of the bed or the mattress support, such as furniture, window frames and storage boxes.
- Do not roll the castors over the main power cord.
- Do not bring main power cord into moving parts.
- Disconnect the plug from the mains before moving the bed.
- Make sure that no wires (mains or from other equipment) are jammed or damaged, when the bed is used.
- The bed must not be placed close to a direct heat source (dire place, radiator etc) and not in direct sunlight.

# 2.2 Labels and symbols on the product

The product label is placed on the frame of the bed:

#### **Product label**



A	Type number of the bed
<b>B</b>	Serial number
©	Date of production
0	Manufacturer; Name and Address
E	Electrical information. See Chapter Technical Data.
F	Degree of protection. See also Technical data.
G	Symbols. See explanations in section; Symbols on the product.

#### **Abbreviations**

lin	Current in	Max	Maximum
Uin	Voltage in	min	minutes
Int.	Intermittency	kg	kilogram
AC	Alternating current	Α	Ampere

# **Symbols**



All symbols might not be present on all products.

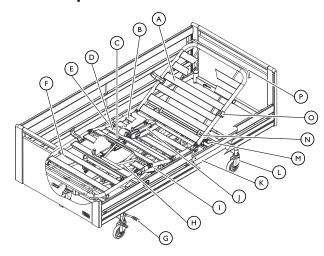
	Max. patient weight
<u></u>	Max. safe working load
	CLASS II equipment
<b>†</b>	Type B Applied Part.

$\rightarrow$	Potential equalization
	Refer to the user manual.
	Waste disposal and recycling information.
CE	This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.

6 1567<del>44</del>6-D

# 3 Operating the bed

# 3.1 Main parts of bed



Parts of standard bed:

- A Backrest
- ① Mattress support, lower half
- B Seat section
- ① Backrest motor
- © Leg section motor
- Base Frame
- D Thigh section
- (L) Brake castor with brake
- E Thigh section motor
- M Control Unit
- F Leg section
- N Mattress support, upper half
- G Brake pedal central
- Mattress retainer
- brake Shear arms
- P Mattress support extension

# 3.2 Setup

Before taking the bed into use:

- I. Move the bed to its correct position.
- 2. Connect the bed to the mains.
  - Assembly or disassembly of the bed and/or accessories should be performed by qualified personnel as stated in the service manual.

# 3.3 Operating side rails



#### **WARNING!**

# Risk of entrapment or suffocation

There's a risk of entrapment or suffocation between mattress support, side rail and bed end.

- Always ensure correct fitting of the side rails.

#### 3.3.1 Scala 2 side rail



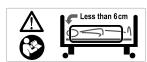
#### **WARNING!**

**Risk of entrapment**There's a risk of entrapment or suffocation between

mattress support, side rail and bed end.

- When using steel side rails, always make sure that the distance between the bed end and the side rail's handle upper edge is less than 6 cm in the head end and more than 32 cm in the foot end of the bed.

A sticker is placed on the side rail to indicate the minimum space between side rail and the head end of the bed:

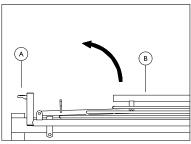




#### **CAUTION!**

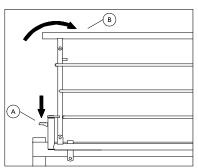
There's a risk of entrapment of fingers when assembling and operating the side rail.

ı



**Up:** Lift and pull the top bar B of the side rail towards the end with the locking mechanism (release button) A. Ensure, it is locked in place.

2.



**Down:** Press the release button (A) and push the top bar (B) of the side rail away from the locking mechanism

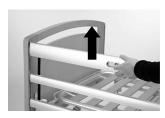


#### **CAUTION!**

If the side rail is not locked properly it can fall down.

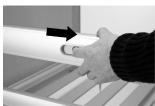
 Pull/push the top bar of the side rail to ensure that the locking system is properly engaged.

## 3.3.2 Britt V and Line side rails



Lock / Upper position

Pull up the top wooden side rail bar, until the locking pin locks with an audible click



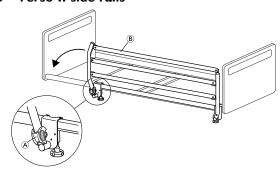
#### Release

Lift the top wooden side rail bar and press the two locking rings together.



**Down / Lower position**Lower the side rail.

# 3.3.3 Verso II side rails



## Folding down to open the side rail

- Hold the top bar ® with one hand and pull the locking button
   with the other hand.
- 2. Pull the top bar sidewards and release the locking button.
- 3. Fold the side rail down to its lowest position.

## Folding up to close the side rail



# **CAUTION!**

If the side rail is not properly locked it can fall down.

 Pull/push the top bar of the side rail to ensure that the locking system is properly engaged.

## 3.4 Hand controls



#### **WARNING!**

## Risk of personal injury and damage to property.

- The bed must be placed so that the height adjustment (up/down) is not obstructed by, for example, lifts or furniture.
- Take care that no body parts are being squeezed between fixed parts (such as side rails, bed ends etc) and moving parts.

# /Ì\

#### **WARNING!**

## Risk of injury

If the bed is used by confused or restless users or users with spasms:

- either, when the bed is equipped with a lockable hand control, lock the hand control functions.
- or make sure that the hand control is out of reach for the user.

#### 3.4.1 HB85 / HL85

#### Function buttons



To control bed sections; Press Up (left side) or Down (right side) of each button.



Sitting position



Backrest



Leg section



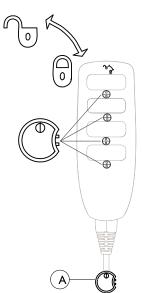
Thigh section



Height adjustment

# **ACP - Locking function**

The locking function (optional) prevents usage of certain function buttons. Regardless of how many buttons your hand control has, they can all be locked individually.



Insert the key  $\ensuremath{\mbox{\/o}}$  , in the key hole, below the wanted function and turn it.

### Lock

Turn the key (A) clockwise.

## Unlock

Turn the key (A) anti clockwise.

## 3.4.2 Soft Control

## Function buttons



Press up to raise the bed.

Press down to lower the bed.



Sitting position



Horizontal mattress support

"Out of bed" button (Raises the backrest and brings the thigh section to horizontal)

8 I567<del>446</del>-D



Thigh section



Leg section

## 3.5 Castors and brakes



#### **CAUTION!**

#### Risk of trapping/squeezing

All brakes are foot-operated.

- Do not release the brake with the fingers.



#### **CAUTION!**

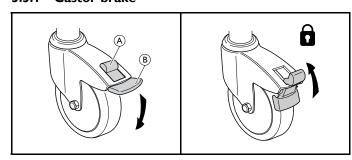
# Risk of injury

User can fall, while entering or exiting the bed, if brakes are not locked.

- Always lock the brakes before the user is moving in or out of bed or when attending to the user.
- At least one castor at the head end and one castor in the foot end must be locked.

Castors might make marks on different types of absorbing floor surfaces - such as untreated or badly treated floors. To prevent marks, *Invacare*® recommends to place a suitable kind of protection between the castors and the floor.

#### 3.5.1 Castor brake



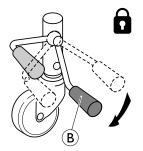
**Locking the brake** - Step on the outer pedal ® **Unlocking the brake** - Push up the release button ®

# 3.5.2 Central brake system

All the wheels are locked by locking one of the pedals.

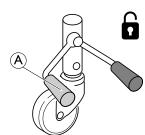


Always stand in the middle of the bed's long side when locking the brakes..



#### Lock the brakes

- Step on the red pedal ®

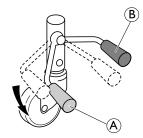


#### Unlock the brakes

- Step on the green pedal (A) until the brake is in **neutral position** = Both pedals on the same level.

# Steerable castor (optional)

The bed with central braking system may be equipped with a steerable castor operated with the central braking pedal.



# Activating the steering

- When the brake is in neutral position, step on the green pedal  $\widehat{\mathbb{A}}$  .

### Deactivating the steering

- When steering is activated; step on the red pedal  $\[ \mathbb{B} \]$  , until the brake is in neutral position.

# 3.6 Lifting pole



## **WARNING!**

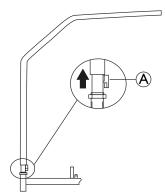
#### Risk of injury

The bed can tip if the handle is used, while the lifting pole is turned away from the bed.

- The lifting pole always has to be positioned with the handle hanging over the bed area.
- Do not exceed the maximum load of the lifting pole;
   70 kg.

# 3.6.1 Positioning the lifting pole

ı.



Lift the lifting pole until the control latch  ${}^{ ext{\textcircled{-}}}$  is released from the lifting pole tube.

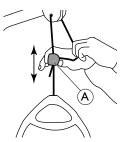
- 2. Turn the lifting pole to the desired position.
- 3. Lower the lifting pole and fixate it.

1567<del>44</del>6-D

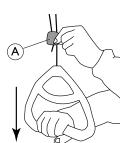
## 3.6.2 Changing the handle height

١.

2.



Hold the cord out while sliding the plastic cord lock A upwards or downwards until the handle reaches the preferred height.



Lock the handle by pressing back the cord in the lock  $\ensuremath{\underline{A}}$  and pull the handle downwards.

#### IMPORTANT!

After adjustment of the lifting pole handle

- Check that the two cords above the cord lock, are parallel and inside the cord lock.
- Make sure the cord is properly locked by pulling the handle hard.

# 3.7 Emergency release of the backrest or thigh/leg section

jį

An emergency release of the backrest could be necessary in the case of power- or motor failure.

# À

#### **WARNING!**

## Risk of entrapment

The backrest comes down fast and there is a risk of entrapment under the backrest.

- A minimum of two persons is required to release the backrest.
- Do not reach under the backrest, while lowering.

# IMPORTANT!

- An emergency release of the height adjustment is NOT possible.
- Remove the plug from the mains socket before emergency release of the backrest.





- 1. Both persons must hold the mattress section.
- One of them pulls out the cotter pin (from the motor in question).
- 3. Both persons slowly lower the mattress section until it is completely down.

10

# 4 Accessories

# 4.1 Accessories / Components

For accessories, please see more information in the instructions delivered with the accessory.



#### **Important**

 Use only original accessories and spare parts. Spare parts lists and extra user manuals can be ordered from Invacare

The tools necessary for mounting/dismounting the accessories of the bed are:

- Allen key
- adjustable spanner

### 4.2 Mattresses



#### **WARNING!**

# Safety aspects regarding combination of side rails and mattresses:

To get the highest possible safety level, when using side rails on the bed, the minimum and maximum measures for mattresses, must be respected.

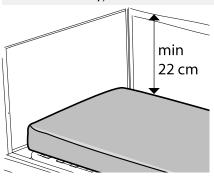
For correct mattress measures see mattress table: 8
 Technical data, page 15



#### **WARNING!**

#### Risk of entrapment and/or suffocation

- The user could get trapped and/or suffocate, if the horizontal space, between the mattress side and the inside of the side rail, is too big. Follow the minimum width (and length) of mattresses in combination with a given side rail, as stated in the mattress table: 8 Technical data, page 15
- Be aware that using very thick or soft mattresses (low density), or a combination of these, increases the risk.





## WARNING! Risk of falling

The user can fall over the edge and get seriously injured, if the vertical distance, between the top of the mattress and the edge of the side rail/bed end, is too short.

 Always keep a minimum distance of 22 cm. The maximum mattress height in combination with a given side rail is stated in the mattress table: 8 Technical data, page 15

1567<del>44</del>6-D

# 5 Maintenance

# 5.1 Cleaning and disinfection

#### IMPORTANT!

Wrong fluids or methods can harm or damage you product.

- Follow instructions carefully for either Non-washable or Washable components.
- Never use corrosive fluids (alkalines, acid, cellulose thinner, acetone etc)
- Never use a solvent that changes the structure of the plastic or dissolves the attached labels.
- Always make sure that the bed is carefully dried before taking it into use again.

## 5.1.1 Non-washable components

#### IMPORTANT!

Non-washable components cannot withstand washing with Jet based equipment.

- The washability of the components must be determined by authorized personnel.
- If the components cannot withstand Jet base equipment or if it is unclear they have to be cleaned as non-washable components.

## **Electrical components**

Method: Wipe off with a wet cloth or brush.

Max temp: 40 °C Solvent/ Water

chemicals:

## **Metal components**

Method: Wipe off with a wet cloth or brush.

Max temp: 40 °C

Solvent/ Household detergent or soap and water, 6-8 pH

chemicals:

## Wood and textile straps on side rails

Method: Wipe off with a wet cloth or brush.

Max temp: 40 °C

Solvent/ Household detergent or soap and water, 6-8 pH

chemicals:

# Textiles (including upholstery and mattresses)

Method: See attached label on each product.

12 1567446-D

# 6 After Use

# 6.1 Waste disposal

j

Waste disposal/recycle must comply with the laws and regulations for waste handling in each country.

Invacare® is continuously working towards ensuring that the company's impact on environment, locally and globally, is reduced to a minimum.

We comply with the current environment legislation (e.g. WEEE and RoHS directive).

We only use REACH compliant materials and components.

- All wooden parts must be dismantled and sent for incineration.
- All electric parts must be dismantled and be disposed of as electric components.

- · Plastic parts must be sent for incineration or recycling.
- Steel parts and castors must be disposed of as waste metals.

## 6.2 Reuse

This product is suitable for reuse after the following has been performed:

- Inspection
- Cleaning



# **WARNING!**

# Risk of injury

For detailed information about inspection and cleaning; see the Service manual for this product.

- Always inspect the product according to the service instructions before transferring the product to a different user.
- If any damage is found do not use the product.

I3

# 7 Troubleshooting

# 7.1 Troubleshooting

Symptom	Possible cause	Remedy
Bed section does not move	End of stroke reached	Operate opposite button
	Bed not plugged in	Plug in mains cable
	Hand control not connected	Ensure hand control correctly connected to control unit.
Full bed: No electric function does work	Hand control defective	Call dealer / technician to replace hand control
	Control unit defective	Call dealer / technician to replace control unit
	Cables entangled or pinched	Call dealer / technician to replace cables
Side rail does not open or close	Locking mechanism defective	Call dealer / technician to repair side rail

14 1567446-D

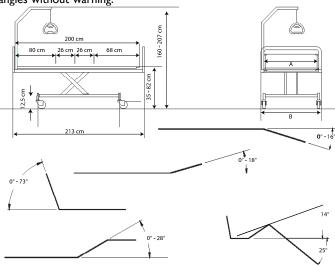
# 8 Technical data

# 8.1 Dimensions bed

- All measurements are stated in cm.
- All angles are stated in degrees.
- All measurements and angles are stated without tolerances, on a non-extended bed.

The bed can be extended respectively 5 and 10 cm's in both ends.

 $\textit{Invacare}^{\circledR}$  reserves the right to change the stated measurements and angles without warning.



	SB 755
Mattress support width A	85 / 90 / 105 / 120 cm
Total width B	90 / 100 / 110 / 125 cm
Mattress support length	200 (80+26+26+68) cm
Total length	213 cm
Bed to floor height	35 – 82 cm
Base to floor height	I5 cm
Total height (with lifting pole)	160 – 207 cm

# 8.2 Dimensions side rails

Side rail	Туре	Measures	Information
Line standard	Full length aluminium side rail	206 cm x 40 cm	Mounted on the bed end guideways. Release buttons in the middle.
Line Extendable	Full length aluminium side rail with telescopic extension	206-226 cm x 40 cm	Mounted on the bed end guideways. Release buttons in the middle.
Britt V	Full length wood side rail	205 cm x 40 cm	Mounted on the bed end guideways. Release buttons in the middle.

Scala Basic 2 / Scala Basic Plus 2	3/4 length collapsible steel side rail	168 cm × 40 cm	Mounted on the side tube. Release button in the head section.
Scala Medium 2	3/4 length collapsible steel side rail	165 cm x 46 cm	Mounted on the side tube. Release button in the head section.
Scala Decubi 2	3/4 length collapsible steel side rail	168 cm × 54 cm	Mounted on the side tube. Release button in the head section.
Verso II	3/4 length collapsible steel side rail	156 cm × 40 cm	Mounted on the side tube. Release button in the foot section.
Diana	3/4 length steel side rail	153 cm x 37 cm	Mounted on the bed frame. Release buttons in both ends.

# 8.3 Allowed mattress sizes

# Allowed mattress height and length depending on the side rail in use

Bed side rails	Allowed mattress sizes		
	Max height (cm)	Min height (cm)	Min length (cm)
Line/Line Extendable	18	12	200
Britt V	18	12	200
Scala Basic 2	15	8	200
Scala Basic Plus 2	15	8	200
Scala Medium 2	20	8	200
Scala Decubi 2	29	21	200
Verso II	18	10	200

# Allowed mattress width (for all side rails)

Bed width	Allowed mattress width
85 cm	83–85 cm
90 cm	88–90 cm
105 cm	103–105 cm
120 cm	118–120 cm

# 8.4 Environmental conditions

	Storage and transportation	Operation
Temperature	-10°C to +50°C	+5°C to +40°C
Relative humidity	20% to 75%	
Atmospheric pressure	800 hPa to 1060 hPa	

ĵ

Be aware that when a bed has been stored under low temperatures, it must be adjusted to operating conditions before use.

# 8.5 Electrical system

Voltage supply	Uin 230 Voltage, AC, 50 Hz (AC = Alternating current)
Maximum current input	lin max.1,5 Ampere
Intermit- tent (peri- odic motor operation)	10 % 2 min ON / 18 min OFF
Insulation class	CLASS II equipment
Type B Applied Part	Applied Part complying with the specified requirements for protection against electrical shock according to IEC60601-1.

Sound level	55 dB (A)
Degree of protection	The control unit, external power supply, motors and hand controls are protected according to IPx4, IPx6 or IPx6w (depending on configuration). See bed product label and label on each electric device for correct IP class. The lowest IP-classification decides the overall classification of the bed.
	IPx4- The system is protected against water splashed from any direction.
	IPx6- The system is protected against water projected from any direction (not high pressure).
	IPx6w- The system is protected against high pressurized water and steam projected from any direction.

The bed has no isolator (main switch). If the bed needs to be electrically disconnected, it has to be unplugged from the mains socket.

16 1567446-D

No	tes	

No	tes	

#### **Invacare Sales Companies**

#### Ireland:

Invacare Ireland Ltd, Unit 5 Seatown Business Campus Seatown Road, Swords, County Dublin

Tel: (353) I 810 7084 Fax: (353) I 810 7085 ireland@invacare.com www.invacare.ie

## **United Kingdom:**

Invacare Limited
Pencoed Technology Park, Pencoed
Bridgend CF35 5AQ
Tel: (44) (0) 1656 776 222
Fax: (44) (0) 1656 776 220
uk@invacare.com
www.invacare.co.uk







