



***Invacare® Medley Ergo***

Bed - Bett - Cama - Lit - Letto

<b>User manual</b>	<b>EN</b>
<b>Gebrauchsanweisung</b>	<b>DE</b>
<b>Gebruiksaanwijzing</b>	<b>NL</b>
<b>Manual de utilização</b>	<b>PT</b>
<b>Manuel d'utilisation</b>	<b>FR</b>
<b>Manual del usuario</b>	<b>ES</b>
<b>Manuale d'uso</b>	<b>IT</b>



This manual must be given to the user of the product.  
Before using this product, read this manual and save for future reference.



**Yes, you can.®**

# ***Invacare<sup>®</sup> Medley Ergo***

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## Congratulations

Congratulations on your choice of *Invacare*® **Medley Ergo** nursing bed. **Medley Ergos** is the dismantable nursing bed from *Invacare*® designed especially for home nursing. **Medley Ergo** bed provides ease of handling combined with good functionality.

Please read the entire user manual before using the bed.

If you have any questions concerning the use or maintenance, please contact us.

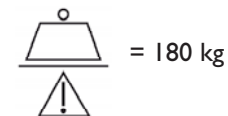
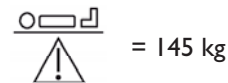
All indications of right and left are based on that a person lying on his back in the bed.

Please note that there may be sections in this user manual, which are not relevant to your bed, since this manual applies to all (on the date of printing) existing modules.

## I. General information

### I.1 Product use

- The **Medley Ergo** bed has been developed for domestic care, long term care and features a comfortable sitting and lying position for the patient. Furthermore, ergonomical operation for the carer is ensured.
- The **Medley Ergo** 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.
- If the patient height exceeds 2 meters it is recommended to use a mattress support extension.
- The max. patient weight: 145 kg, provided that the weight of the mattress and the accessories do not exceed 35 kg. (Safe working load weight: max. 180 kg).
- The bed is not intended for children under 12 years and psychiatric patients.
- Furthermore; Be aware of the limitations of use mentioned in the warnings. (chapter 1.4)
- The following parts may be in contact with user during normal use of bed: bed ends, mattress deck, mains cord and hand control.
- The **Medley Ergo** is not intended to be used for patient transport.
- The **Medley Ergo** bed is suitable for disinfection with household disinfectants.



- The **Medley Ergo** is suitable for refurbishment.
- The estimated product life cycle is 5 years for a **Medley Ergo** bed.
- The bed is quipped with loose cables, which have to be exchanged if damaged.
- The control unit, external power supply, hand control and motors are protected according to IPX4. (The IP rating is a measure of protection against ingress of foreign matter into a product)
- Remove the plug from the mains voltage before moving the bed. The cable must be kept clear off the floor and the castors during transportation.
- The adjustment area of the mattress support is: 40-80 cm or alternatively 33-73 cm for **Medley Ergo\***.
- The adjustment area of the mattress support is: 28-68 cm or alternatively 21-61 cm for the **Medley Ergo Low\***.
- The angle between the lower leg section and horizontal is adjustable from 0° to 15°.

## 1.2 Certification

- The **Medley Ergo** bed is marked with the CE - mark in accordance with directive 93/42/EEC concerning Medical Apparatus.
- **Medley Ergo** bed have been approved according to IEC 60601-2-52  
(Beds provided with tilt function can not be approved according to IEC 60601-2-52)
- The **Medley Ergo** bed has been approved and marked with the TÜV mark.
- The **Medley Ergo** bed has undergone a risk analysis according to EN ISO 14971:2001-03
- The **Medley Ergo** bed has undergone a usability analysis according to IEC 60601-1-6

*Invacare*® is certified according to DS/EN ISO 9001 and ISO 13485 which ensures that our customers are always supplied with products of uniform quality.

Throughout the entire production process our materials/products are quality controlled by the operators. Additionally, a final test is carried out prior to packaging and shipping. If the product does not correspond to the quality demands of *Invacare*®, it will be discarded.

If, contrary to our expectations, a problem should arise in connection with the delivered product, please contact your *Invacare*® supplier. An address list is shown on the back side at this manual.

*Invacare*® reserves the right to alter product specifications without prior notice.

### 1.3 Labels and symbols



**WARNING** - This symbol warns of dangers.

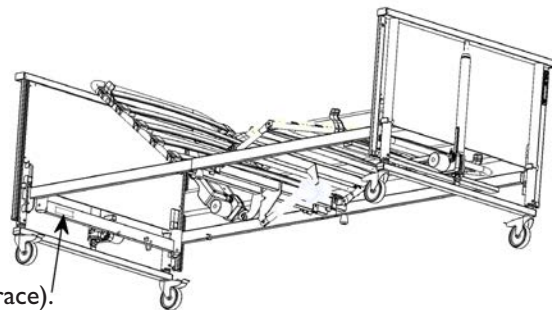
If the necessary measurements are not taken, it can result in injury or damage to the bed.



**NOTE** - This symbol informs about important information and guidelines.



Instruction - Reference to the user manual.



To identify the product please look at the Product-label (located on headrest cross brace).

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Tel: +351 225 162 300 Fax: +351 225 105 739

Type no. of the bed. — Type nr.: 1557962 - 0152  
Serial no. — S/N: 13A09003375

Date of production. — Date 25/01/2013

Code IEC 60601-2-52

Electrical information See chapter 7  
Uin 230V ~ 50 Hz  
lin max. 2A  
Medley Ergo  
Int. 10% max. 2 min/18 min  
IPX4

Symbols See chapter 1 and 7  
= 145kg = 180kg

CE

3 008027 1000

## 1.4 Safety and Warnings



*Invacare*® accepts no liability for any use, change or assembly of the product other than as stated in this user manual. Accessories not mentioned in this manual must not be used.



The **Medley Ergo** bed fulfils all requirements regarding maximum distances. However, if the bed is used for the care of patients with a small body dimensions, it must be especially noted that there is a risk of such a patient slipping through the openings between the side rails or through the opening between the side rail and the mattress support.



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. Either for persons that are restless (spasms) or confused, unless a professional risk assessment has taken place and been accepted.



When using side rails it is essential to ensure correct fitting - **otherwise there is danger of entrapment / suffocation between mattress support, side rail and bed end.**



Do not place any objects underneath bed.





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 the blood vessels (intravascularly), provided that following points are respected:

- The medical 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 as describe above, should not be fixed on the bed's metallic accessories such as side rails, lifting pole, drip rod, bed ends ect. In addition, the medical electrical equipment power supply cord should be kept clear of the accessories or any other moving part of the bed.



Make sure that there are 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.



Always lower the bed to the lowest position before leaving the patient in the bed unattended.



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



Never lower deck height of bed more than 40 cm when using bed with a lifter. Use ground clearance info in section 8 of this manual to determine lifter compatibility with bed before use.



- It can be dangerous to roll over the mains cable.
- Do not bring mains cable into moving parts.
- Disconnect the plug from the mains before moving the bed.
- The cables must be mounted in such a way that they are kept clear of the floor and do not block the castors.

We recommend to mount the mains cable on the hook for this purpose, see picture.



## 1.5 Warranty

The warranty covers all material and production defects for 2 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*® may repair the fault or replace the component. The warranty provided by *Invacare*® 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 damage or damaged caused by improper use of the bed.

## 2. Receiving the bed

### 2.1 Parts of the bed



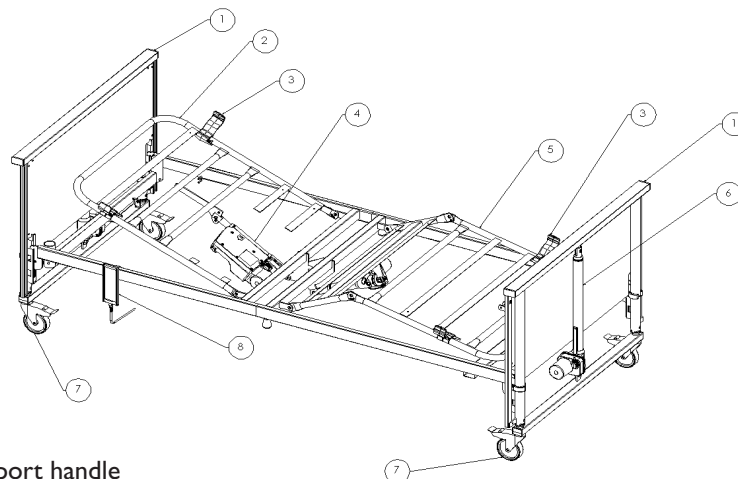
Check the packaging, if the bed shows any signs of damage upon delivery, please see the terms of delivery.

Follow part must be provided:

1. Pair of bed ends
2. Mattress support, head end
3. 4 pcs. of mattress support bracket
4. Motor for head end.
5. Mattress support, foot end
6. Motors for bed end.
7. Castors
8. Hand control

Optional :

- Transport fitting
- Lifting pole
- Rastofix for leg section
- Mattress support extension (15 cm)
- Motor for leg end
- Side rail (wood)
- Side rail (steel)
- Side rail (Verso 11)
- Side rail (Scala 2 series)
- Side rail height extender



- Support handle
- Safety floor mattress
- Wood cover for bed ends
- Equipotentiality plug

## 2.2 Assembly of the bed



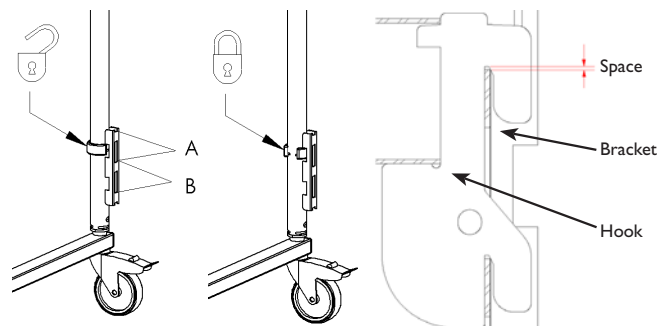
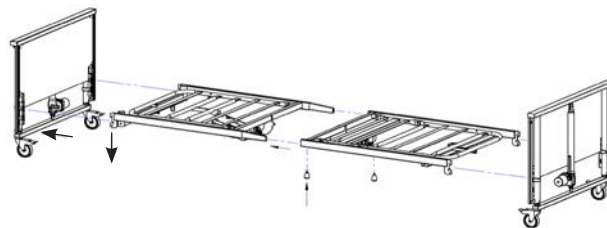
For questions concerning the assembly of your bed please contact your dealer or Invacare customer service.

### Mattress Support

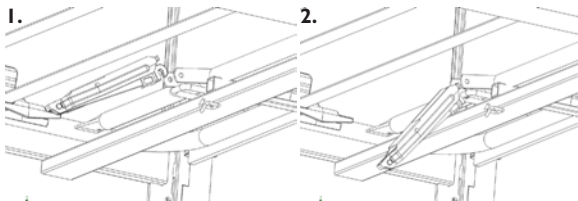
1. Push the foot end of the mattress support onto the head frame.
2. Tighten with two thumb screws.
3. Turn the four mattress handles of the backrest and footrest up.
4. Turn the locking ring\* on the bed ends to the position “open”
5. Latch the mattress support to the bed ends and press firmly into position\*\*.
6. Make sure that the bed ends are in the same level. It is possible to level the bed in high position **(A)** and low position **(B)**.
7. Turn the locking ring to the position “lock”. Always put locking ring in the upper slot as shown in pictures

\*The locking rings locks ensure that the mattress support is not accidentally lifted clear of the bed ends.

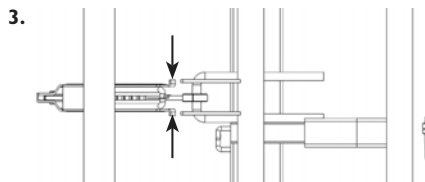
\*\*It is normal to have a small space between the top of the slot on the mattress hook and the bracket on the bed end.



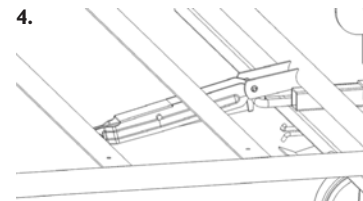
### Rastofix



1. & 2. Press bottom of Rastofix at the foot end of the bed



3. Squeeze upper end of Rastofix together



4. Rotate Rastofix between tabs and release

## Control Box

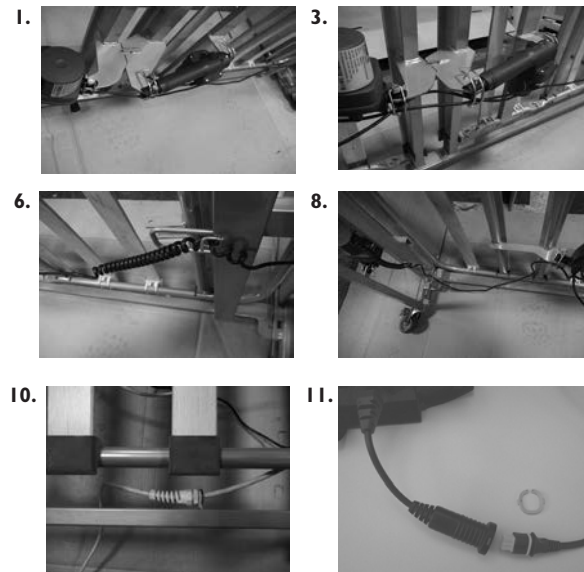
The control box is latched to the backrest motor. The control box is provided with a label with symbols showing where to connect the motors' plugs.

- Backrest motor.
- Bed end motors.
- Thigh section's motor.
- Hand control.

## 2.3 Wiring

In order to prevent the cables from being torn apart when activating the motors it is very important to follow the instructions below.

1. Connect the cables of the bed end motors (head and foot end) directly to the control box.
2. Wire the cable of the bed end motor (foot) through the pipe pin of the thigh motor.
3. The cable of the thigh motor must be directed through the pipe pin of the thigh motor.
4. Connect the mains cable to the 230V plug.
5. Run the motors of the bed ends to their top position.
6. Place the motor cable of the foot end on the hook at the foot end.
7. Run the backrest to its top position.
8. Place the head end motor cables on the 2 hooks at the head end and through the pipe pin of the backrest motor.
9. Fasten the safety clip to the control box.
10. Verify that the mains cable strain relief is attached to bed frame.
11. For **Medley Ergo** with 24V external power supply, verify that mains cable is attached to control unit power supply cable.



Improper routing, kinking, shearing or other mechanical damages of cables could lead user injury.



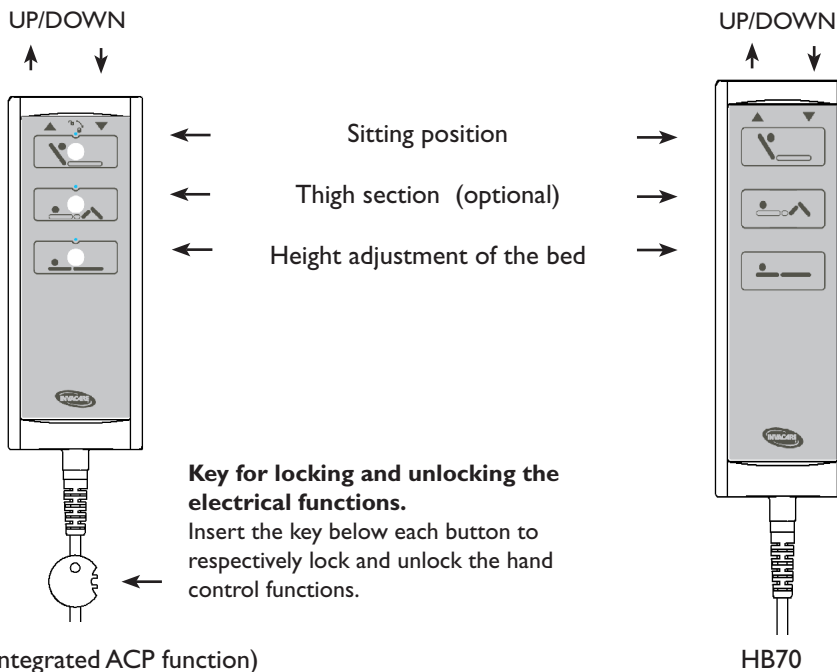
After completion of assembly, always check that bed is fully functional before placing patient in bed.

## 2.4 Dismantle the bed

- Dismantle siderails and lifting pole.
- Bring the bed to its lowest position and adjust all mattress support sections to horizontal position.
- Disconnect the power card. Roll the cable onto the hook of the head end of the bed.
- Disconnect all the motor plugs from the motors (do not disconnect the backrest motor cable - cable 1).
- Dismantle the safety comb from the control by means of a tool, e.g. a flat headed screwdriver.
- Pull out the cables of the bed end motors and leg section motor.
- Separate the mattress support from the bed ends.
- Divide the head and foot end of the mattress support.

### 3. Operating the bed

#### 3.1 Operating of the hand control unit.



The beds can be equipped with a hand control that activate the tilt of the mattress support, this hand control can be ordered from *Invacare*® - please refer to the section "Order numbers for accessories".



Medically trained persons must only operate the tilt function - otherwise, there is a risk of injury to the patient's health.

To deactivate bed functions, remove mains cord plug from power outlet.

### 3.2 Operating the braking castors

**i** Marks from the castors might under special conditions appear on different types of absorbing floor covering - including untreated or badly treated floors. In matters of doubt, Invacare® recommends placing a suitable kind of protection between the castors and the floor. Do not release the brake with the fingers as there can be a risk of trapping.



Always apply the brakes when there is no need for moving the bed, to avoid accidents during entering or exiting the bed, and during handling of the patient.

When the bed is positioned correctly, at least one castor at the head end and one castor in the foot end must be braked.

**Braking:** Step on the pedal. (pos. I)

**Releasing the brake:** Push up on underside of brake pedal.

Each of the castors is provided with brakes for both lengthwise and crosswise locking. The brake is foot-operated.

#### Placement in the room



The bed must be placed so that the height adjustment (up/down) is not obstructed by, for example, lifts or furniture. Otherwise there is a risk for injury on user and/or equipment.

### 3.3 Adjustment of leg section (optional)

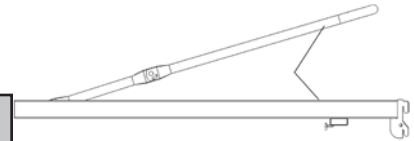
Operate the leg section by lifting the leg section.

**Up:** Lift the leg section.

**Down:** Lift the leg section right up and then lower the leg section.

### 3.4. Emergency lowering of the backrest and/or thigh section

An emergency release of the mattress support may be necessary in case of e.g. a power- or motor failure. An emergency release of the height adjustment is **NOT** possible.





Remove the plug from the mains before emergency release of the mattress support.

- 1) Hold the backrest.
- 2) Remove the pipe pin from the backrest motor.
- 3) Lower the backrest motor.
- 4) Lower the backrest.



A minimum of 2 persons are required to emergency release a mattress section. Both persons hold the mattress section. One person pulls out the pipe pin. Both slowly lower the mattress section until it is completely down.

## 4. Accessories



When 3/4 length using side rails you must always make sure that the distance between the bed end and the side rail's handle upper edge is between 3 - < 6 cm for the the head section and more than 32 cm for the foot section



There is a risk of entrapment of fingers on assembly and operation of the side rail.

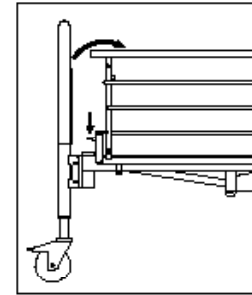
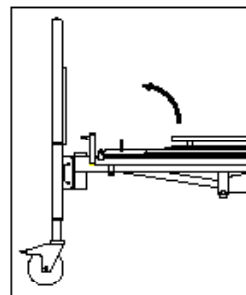
### 4.1 Mounting / dismantling the Scala 2 series and Verso II steel side rail

#### Mounting

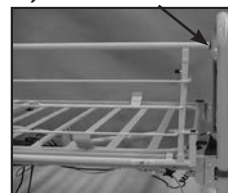
The side rail must be mounted according to the assembly instruction side rail. Tighten the side rail with the finger screws.

#### Dismounting

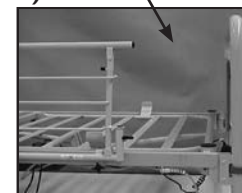
Loosen the finger screws and remove the side rail.



1) 3 - < 6 cm



2) 32 cm



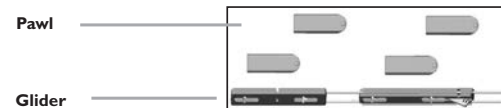
## 4.2 Fitting the full length side rails

The installation of steel- and wooden side rails are identical

1) The gliding system consists of 5 different parts which all must be installed simultaneously.

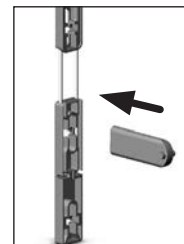
A disassembled gliding system is shown in illustration A.

A: Disassembled gliding system



**The 4 pawls are clipped onto the glider (B and C).**

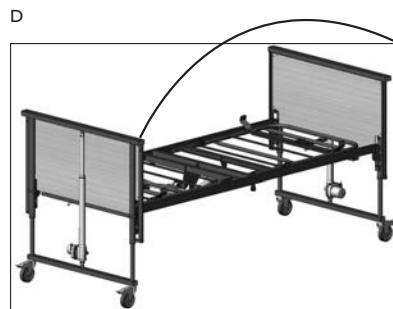
B: Removal



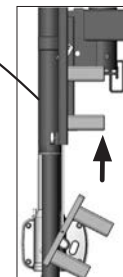
C: Installation



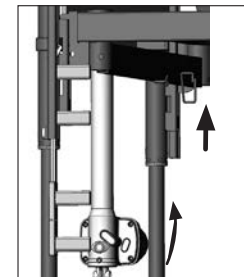
2) For an ergonomic working position and easier assembly, raise the bed to 1/3 of full height position. The gliding system of one bed end is guided into the bed end according to illustration D and E.



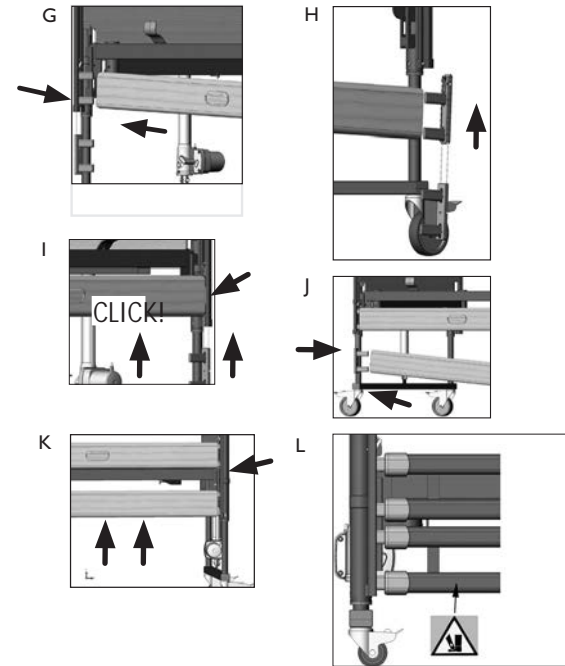
E



F



- 3) The upper side rail bar is installed according to illustration G.
- 4) The gliding system in the opposite end are installed onto the upper side rail bar according to illustration H.
- 5) The side rail bar is raised until an audible click can be heard. Please be sure, that the gliding system has engaged properly into the first hole. (see illustration F and I).
- 6) The lower pawl is unfolded and the lower side rail bar is installed onto the pawl according to illustration E and J.
- 7) The lower pawl in the opposite end unfolded (see illustration E) and the lower side rail bar is then installed onto the lower pawl. Again, please ensure that pawls and gliders are completely engaged. (See illustration K).
- 8) The locking finger screws are installed and tightened.
- 9) On the **Medley Ergo low** version, please set one warning sticker on each end of the lower pawls of full length side rails. The 4 stickers are put in the bed ends packaging.



When lowering the side rails, there is a risk of entrapment between side rails and mattress support.



There is a risk entrapment on assembly and operation of the side rails.



There is a risk of foot crushing the floor and the lower pawl of the side rails when the mattress support and the side rails are in lower position.

### 4.3 Lifting pole



Position the lifting pole in such a way that the handle extends inwards across the bed. Always lock lifting pole with thumb screw. If the lifting pole is used while the handle has been turned away from the bed - the bed can tip when the handle is used. Maximum load of the lifting pole is 80 kg. Make sure that the lifting pole screw is properly tightened.

#### Mounting

1. Insert the lifting pole into the lifting pole tube and fix with the thumb screw.

#### Adjusting the height of the lifting pole handle

1. Loosen the cord as shown in **A**.
2. The lifting handle can now be adjusted to the desired height.
3. Press the cord together as shown in **B** and check that the cord is locked in the cord lock by pulling the handle.



A



B

#### The distance between the lifting pole and the mattress

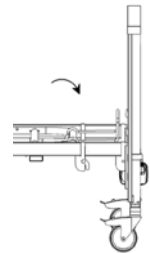
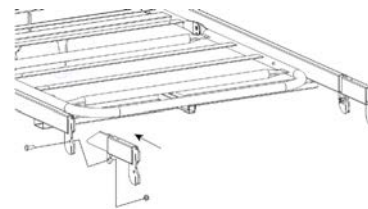
Minimum (at 16 cm mattress)      36-59 cm

Maximum (at 10 cm mattress)    42-65 cm



#### 4.4 Fitting the mattress support extension

1. Remove the foot bed end from bed.
2. Insert bed extension into frame of bed and secure with nut and bolt.
3. Reinstall foot bed end onto bed.
4. Add mattress deck extender to foot end of mattress deck.



## 4.5 Mattress

Safety aspects regarding combination of side rails and mattresses.

In order to obtain the highest possible safety level, when using the bed in combination with side rails, it is important to respect the minimum and maximum measures for mattresses stated in the table.

To mitigate the possibility of the user crawling over the top of the side rail, with the risk of severe injury due to e.g. falling, a minimum vertical distance of 22 cm between the top of the mattress and the top of the side rail are to be respected. The maximum mattress height in combination with a given side rail is stated in the table.

The **Medley Ergo** is equipped with mattress support brackets. These brackets must be properly installed on both sides of the bed, in combination with the correct mattress size, to prevent patient entrapment and risk of suffocation.

To prevent head entrapment between the inside surface of the side rail and the mattress, with the risk of e.g. suffocation, a safety maximum space has to be respected. When especially very thick mattresses or soft mattresses (low density) or a combination of these it is important to focus on this risk. The minimum width (and length) of mattresses in combination with a given side rail is stated in the table.

<b>Medley Ergo</b>	<b>Max. Mattress Height</b>	<b>Min. Mattress Height</b>	<b>Max. Mattress Width</b>	<b>Min. Mattress Width</b>	<b>Min. Mattress Length*</b>	<b>Max. Mattress Length*</b>
Mattress support platform - high position	12 cm	6 cm	95 cm	85.5 cm	195 cm	208 cm
Mattress support platform - low position	18 cm	12 cm	95 cm	85.5 cm	195 cm	208 cm
Verso 11 side rail	16 cm	10 cm	95 cm	85.5 cm	195 cm	208 cm
Scala Basic 2 side rail	16 cm	10 cm	90 cm	85.5 cm	195 cm	208 cm
Scala Basic Plus 2 side rail	16 cm	10 cm	90 cm	85.5 cm	195 cm	208 cm
Scala Medium 2	22 cm	10 cm	90 cm	85.5 cm	195 cm	208 cm
Scala Decubi 2	30 cm	23 cm	90 cm	85.5 cm	195 cm	208 cm

\*For beds equipped with Mattress Support Extension, add 15 cm

#### **4.6 Transport brackets**

See instructions at the last page in this User manual to reconfigure bed for transport or storage.

## 5. Order numbers for accessories

1560435-0101	Wood side rail full length (1 pair)
1560446-0101	Wood side rail full length + 15 cm (1 pair)
1560076-0152	Steel side rail full length (1 pair)
1177461-7042	Sliders side rail Extra full length (1 pair)
1538420-0152	Wood side rail full length height extender (1 pair)
1528930-0152	Steel side rail Scala Basic 2 (1 pair)
1529745-0152	Steel side rail Scala Basic Plus 2 (1 pair)
1530436-0152	Steel side rail Scala Medium 2 (1 pair)
1530817-0152	Steel side rail Scala Decubi 2 (1 pair)
1554518-0152	Steel side rail Verso II (1 pair)
1417510-0152	Support handle 25x80 cm, 1 pc.
1417511-0152	Support handle 40x30 cm, 1 pc.
021963.M0	Support handle 40x50 cm, 1 pc.
021964.M0	Support handle 25x30 cm, 1 pc.
1417512-0152	Support handle 40x95 cm, 1 pc.
1177230-0101	Wood Cover for bed ends, beech (one pair)
1560077-0152	Extended mattress support +15 cm
1423980-7035	Mattress retainer
1560337	Shipping fittings, Medley Ergo, unpainted
1560399-0152	Transport fittings, Medley Ergo, painted
1177361	Hand control HB72
1177363	Hand control HB73
1177365	Hand control with tilt HB74
1177362	Hand control HL72 with integrated ACP function
1177364	Hand control HL73 with integrated ACP function
1177366	Hand control with tilt HL74, with integrated ACP function
1509466-7016	External power supply (transformer) with wire
1177259	Rastofix bracket for leg section
1542093-0154	Lifting pole
1494608	Safety Floor Mattress

## 6. Cleaning and Maintenance

### 6.1 Cleaning

The bed does not tolerate cleaning in automatic washing plants or the use of water-jet based cleaning equipment.

1. Please make sure the power plug is removed from the socket outlet before cleaning.
2. The bed should be washed down using a wet sponge, cloth or brush.
3. Use ordinary household cleaning agents. Never use acids, alkalines or solvents such as acetone or cellulose thinner.
4. The hand control, motors and control unit may be washed with brush and water, but not with pressurized water.
5. Dry the bed after cleaning.

**NB!** All plugs must be installed during washing of the bed.



## 6.2 Maintenance chart

**Service and maintenance of the *Medley Ergo* must only be performed by personnel who have received the necessary instruction or training.**

**Bed/Id. no.:** \_\_\_\_\_

Date: _____ Initials: _____					
Visual inspection of all parts of the bed (plastic deformation and/or wear and tear of welded joints).					
Control of all centres of rotation (motors + mattress support parts).					
All motors running without failures (with regular speed and at low noise).					
Check the Rastofix fittings and function.					
Visual inspection of all cabinets for damages.					
Check that mains cable and plug are intact. Check the running of the cable.					
Check all remaining cables for damages. Also check the running of the cables.					
Check of siderails' fixing and locking/movement.					
Check the wheels (security, braking and free rolling).					

## 6.3 Maintenance

- i** • Personnel who have received the necessary instructions or training may only perform Service and maintenance of the bed.
- When relocating the bed, service must be carried out according to the service schedule.

### - Before use

Ensure that all manual and electrical parts functions correctly and are in a secure state.

### - After 3 months

Ensure that all manual and electrical parts are functioning, and tighten bolts, screws, nuts, etc.

### - Every two year

Service should be performed after the maintenance chart. See chapter 6.2 - Maintenance chart.



Modification of **Medley Ergo** is strictly forbidden without authorization of Invacare

## 6.4 Lubrication plan

We recommend lubricating the bed according to the following instructions:

1. Points of rotation in mattress support and base frame - Lubricate with oil.
2. Motor attachment points to mattress platform - Lubricate with oil
3. Upper attachment point of Rastofix fitting - Lubricate with oil



**NB!** The full length side rails gliding system must not be lubricated with oil – otherwise the side rail bars will move sluggishly.

Lubricate with medically clean oil, e.g. KEN-WO 50, order no.: 813239.

**NB!** Remove the mains plug from the socket before cleaning.

## 7. Electrical system

Voltage supply:

230 V ~ 50 Hz.

Max. current input:

2 A.

Intermittent (periodic motor operation):

10%, max. 2 min/18 min.

Protection class:

IPX4

Sound level:

45-50 dB (A)

Insulation class: II, type B.



Alternating current:



Direct current:



The patient is not separated from the ground and the chassis



Potential equalization:



Indoor use only



Thermal fuse product



The bed is not provided with a mains switch, so the mains plug is the only separation from the mains.

## 7.1 Trouble-shooting the electrical system

Symptom	Possible cause	Remedy
The motor is not running. The relay in the control box makes a clicking noise.	<ol style="list-style-type: none"> <li>1) Motor plug not pushed fully into the control box.</li> <li>2) The motor is defective.</li> <li>3) Motor cable is damaged.</li> <li>4) Control box defective.</li> <li>5) Hand control defective</li> </ol>	<ol style="list-style-type: none"> <li>1) Push the motor plug right into control unit.</li> <li>2) Replace the motor.</li> <li>3) Replace the cable.</li> <li>4) Replace the control box.</li> <li>5) Replace the hand control.</li> </ol>
Control box is in order except one direction on one channel.	<ol style="list-style-type: none"> <li>1) Hand control defective.</li> <li>2) Control box defective.</li> </ol>	<ol style="list-style-type: none"> <li>1) Replace the hand control.</li> <li>2) Replace the control box.</li> </ol>
Motor is running, but the spindle does not move.	Motor damaged.	Replace the motor.
The motor cannot lift full load.		
Motor noise, but no movement of piston rod.		
Piston rod operate inwards and not outwards.		


## 7.2 Electro Magnetic Compliance (EMC)

<b>Guidance and manufacturer's declaration – electromagnetic emission</b>		
The medical bed <b>Medley Ergo</b> is intended for use in the electromagnetic environment specified below. The customer or the user of the bed should assure that it is used in such an environment.		
<b>Emissions test</b>	<b>Compliance</b>	<b>Electromagnetic environment - guidance</b>
RF emissions CISPR 11 (partly)	Group 1	The medical bed <b>Medley Ergo</b> uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11 (partly)	Class B	The medical bed <b>Medley Ergo</b> is suitable for use in all establishments including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies	

<b>Guidance and manufacturer's declaration – electromagnetic immunity</b>			
The medical bed <b>Medley Ergo</b> is intended for use in the electromagnetic environment specified below. The customer or the user of the bed should assure that it is used in such an environment.			
<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment - guidance</b>
Electrostatic discharge (ESD)  IEC 61000-4-2	± 6 kV contact  ± 8 kV air	± 6 kV contact  ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient / burst  IEC 61000-4-4	± 2 kV for power supply lines  ± 1 kV for input/output lines	± 2 kV for power supply lines  ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge  IEC 61000-4-5	± 1 kV differential mode  ± 2 kV common mode	± 1 kV differential mode  ± 2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines  IEC 61000-4-11	< 5 % $U_T$ (>95 % dip in $U_T$ ) for 0,5 cycle  40 % $U_T$ (60 % dip in $U_T$ ) for 5 cycles  70 % $U_T$ (30 % dip in $U_T$ ) for 25 cycles  < 5 % $U_T$ (>95 % dip in $U_T$ ) for 5 sec	< 5 % $U_T$ (>95 % dip in $U_T$ ) for 0,5 cycle  40 % $U_T$ (60 % dip in $U_T$ ) for 5 cycles  70 % $U_T$ (30 % dip in $U_T$ ) for 25 cycles  < 5 % $U_T$ (>95 % dip in $U_T$ ) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the medical bed <b>Medley Ergo</b> requires continued operation during power mains interruptions, it is recommended that the medical bed <b>Medley Ergo</b> be powered from an uninterruptible power supply or a battery.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE $U_T$ is the a. c. mains voltage prior to application of the test level.			

Conducted RF IEC 61000-4-6	3 V	3 V	<p>Portable and mobile RF communications equipment should be used no closer to any part of the EQUIPMENT medical bed <b>Medley Ergo</b> including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = \left[ \frac{3,5}{V_1} \right] \sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m	3 V/m	$d = \left[ \frac{3,5}{E_1} \right] \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = \left[ \frac{7}{E_1} \right] \sqrt{P} \quad 800 \text{ MHz to } 2,5 \text{ GHz}$

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
			<p>where <math>p</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in metres (m).<sup>b</sup></p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,<sup>a</sup> should be less than the compliance level in each frequency range.<sup>b</sup></p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

<sup>a</sup> Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the medical bed **Medley Ergo** is used exceeds the applicable RF compliance level above, the medical bed **Medley Ergo** should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the medical bed **Medley Ergo**.

<sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than  $[V_1]V/m$ .



**Recommended separation distances between portable and mobile RF communications equipment and the medical bed *Medley Ergo*.**

The medical bed ***Medley Ergo*** is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the medical bed ***Medley Ergo*** can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the medical bed ***Medley Ergo*** as recommended below, according to the maximum output power of the communications equipment

Rated maximum output of transmitter  W	Separation distance according to frequency of transmitter  m		
	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2,5 GHz
	$d = \left[\frac{3,5}{V_1}\right]\sqrt{P}$	$d = \left[\frac{3,5}{E_1}\right]\sqrt{P}$	$d = \left[\frac{7}{E_1}\right]\sqrt{P}$
0,01	0.12	0.12	0.23
0,1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33

For transmitters rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

## 8. Technical specifications



Further information available upon request of Invacare.

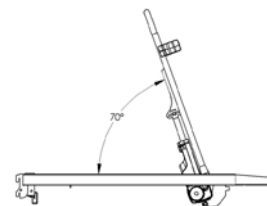
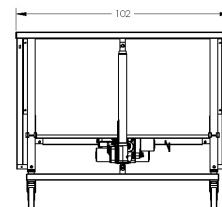
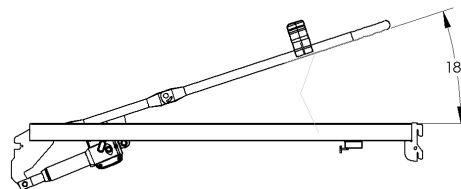
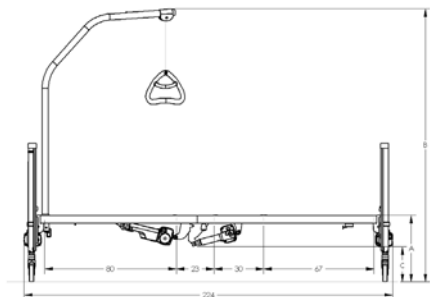
### 8.1 Dimensions

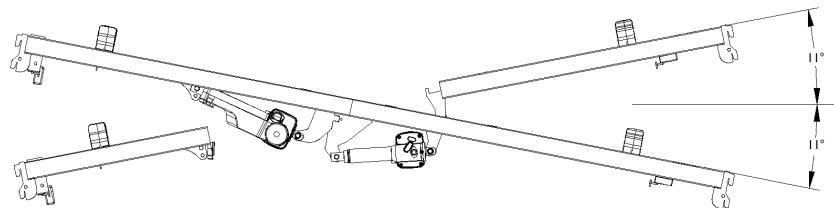
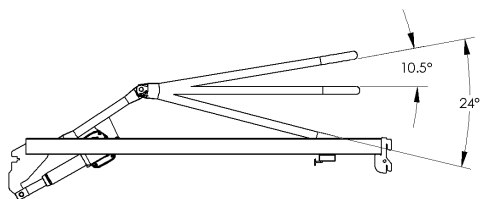
All measurements are stated in cm. All angles are stated in degrees.

All measurements and angles are stated without tolerances.

Invacare® reserves the right to change the stated measurements and angles.

Medley Ergo		
	Low	High
A	33 - 73	40 - 80
B	160 - 201	166 - 207
C	15 - 55	22 - 62
Medley Ergo Low		
	Low	High
A	21 - 61	28 - 68
B	146 - 187	153 - 194
C	2 - 42	9 - 49

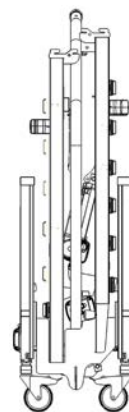
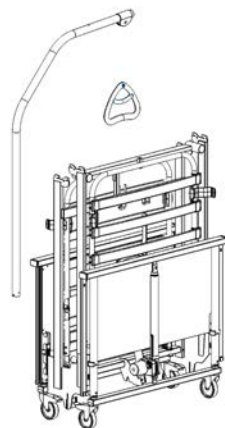
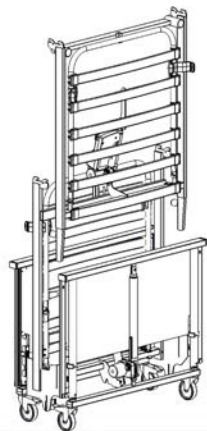
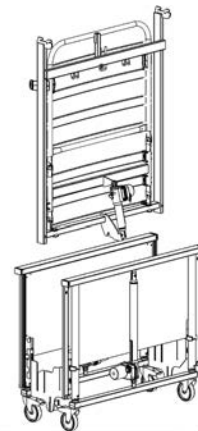
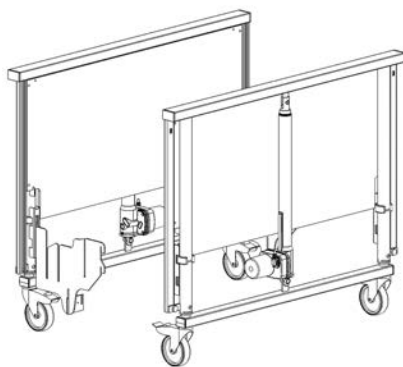
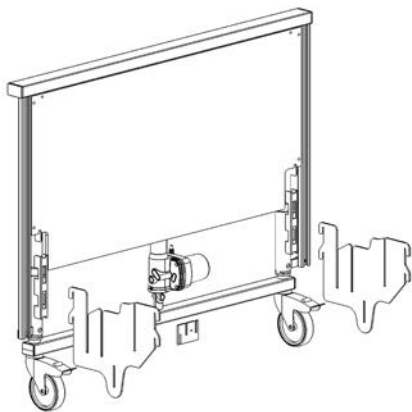




## 8.2 Environmental conditions

<b>Environment Conditions</b>			
<b>Temperature</b>	<b>Relative humidity</b>	<b>Atmospheric pressure</b>	<b>Lighting conditions</b>
<b>Storage</b>			
From - 25° C To + 70° C	15% 93%	800 hPa 1060 hPa	Any
<b>Operating</b>			
From + 5° C To + 40° C	15% 93%	800 hPa 1060 hPa	Any
Be aware that when a bed has been stored under low temperatures, it must adjusted to operating conditions before use.			
Dust and lint have no effect on operation of bed			

## Shipping brackets - Transport brackets



## 8.3 Weights

### Medley Ergo standard bed

Medley Ergo bed end - 1 piece.....	14,7 kg
Medley Ergo Low bed end - 1 piece.....	13,7 kg
Mattress support with wood slats, mains cord, mattress retainers, & hand control, head end	16,8 kg
Mattress support with steel slats, mains cord, mattress retainers, & hand control, head end	15,9 kg
Mattress support with wood slats & mattress retainers, foot end . . . . .	16,0 kg
Mattress support with steel slats & mattress retainers, foot end . . . . .	15,1 kg

### Medley Ergo accessories

Medley Ergo full length wood side rails - 1 side.....	9,2 kg
Medley Ergo full length steel side rails - 1 side . . . . .	9,1 kg
Scala Basic 2 side rail - 1 piece.....	7,4 kg
Verso 11 side rail - 1 piece.....	8,3 kg
Lifting pole.....	4,2 kg
Rastofix.....	0,3 kg
Mattress support extension (15 cm).....	1,8 kg
Transport brackets . . . . .	2,1 kg
Wood cover for bed ends - 1 piece.....	5,2 kg

## 9. Waste disposal

This product has been supplied from an environmentally aware manufacturer that complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/CE. This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation. The »crossed out wheelie bin« symbol is placed on this product to encourage you to recycle wherever possible. Please be environmentally responsible and recycle this product through your recycling facility at its end of life.

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. Waste disposal must comply with the laws and regulations pertaining waste handling in each country.



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**Version:** C

**Date:** 02.2013

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according to  
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**EN ISO 13485**

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