

INSTRUCTIONS FOR USE

# Minuet 2



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## Contents

General Warnings and Cautions .....	4
<b>1. Introduction .....</b>	<b>6</b>
Product description .....	6
Product overview .....	7
<b>2. Applications .....</b>	<b>8</b>
Intended use .....	8
Indications .....	8
Contra-indications .....	9
<b>3. Assembly and Installation .....</b>	<b>11</b>
Mattresses .....	12
Assembling the bed .....	14
<b>4. Operation .....</b>	<b>20</b>
Control handset.....	20
Brakes and castors .....	21
Kneebreak angle .....	22
Extending the bed .....	23
<b>5. Accessories – Installation and Operation .....</b>	<b>24</b>
Full-length side rails .....	26
Side rail height extensions .....	28
Folding side rails .....	30
Pads for full length side rails CM-ACC03 & CM-ACC26 .....	33
Lifting poles CM-ACC09.....	34
Mobility support handle CM-ACC11 & CM-ACC12 .....	37
Flexible handset holder CM-ACC13.....	39
IV pole CM-ACC14 .....	41
Mattress pump bracket CM-ACC15 .....	42
Urine bag holder CM-ACC17 .....	43
Egress assist rail.....	44
Mattress retainers CM-ACC24 .....	48
<b>6. Dismantling the Bed .....</b>	<b>49</b>
<b>7. Cleaning.....</b>	<b>52</b>
<b>8. Care and Preventive Maintenance.....</b>	<b>53</b>
Preventive maintenance.....	53
Troubleshooting guide .....	55
<b>9. Warranty and Service .....</b>	<b>56</b>
<b>10. Technical Data .....</b>	<b>57</b>
<b>11. Electromagnetic Compatibility (EMC).....</b>	<b>61</b>

## Warnings, Cautions and Notes

**WARNINGS** given in this manual identify possible hazards in procedures or conditions, which if not correctly followed, could result in death, injury or other serious adverse reactions.

**Cautions** given in this manual identify possible hazards in procedures or conditions, which if not correctly followed, could result in equipment damage or failure.

**Notes** given in this manual (indicated by ) are used to explain or amplify a procedure or condition.

★ Indicates an optional item.

## General Warnings and Cautions

### WARNING

Keep these instructions in a safe place – you may need to refer to them later on.

These instructions are mandatory for the safe and effective use of this product, including the safety of patients and carers.

Read and understand these instructions before assembling or operating the bed. You must be trained in the proper use of this product, its functions and controls, and any accessories. The bed must be installed and operated in accordance with information in these instructions.

Unauthorised modifications or repairs to this product may affect its safety and will invalidate any warranty. Arjo accepts no liability for any incident, accident or reduction in performance which may occur as a result of such repairs or modifications.

Do not smoke or use naked flames near this equipment and do not expose it to extremes of temperature.

Do not use accessories that have not been designed and approved for use with the bed. Do not connect the bed to other equipment unless specified in these instructions.

This product contains small parts that may present a choking hazard to children if inhaled or swallowed.

Keep pets and children away from the bed unless they are supervised by an adult.

Electrical equipment can be hazardous if misused.

Do not use electrically powered beds in the presence of flammable gases such as anesthetic agents.

Ensure that the bed is assembled and installed in accordance with the instructions given in this manual.

Do not use this bed for transporting patients.

Always use a mattress of the correct size and type. Suitable pressure reducing and pressure relieving mattresses are available from Arjo.

Before operating the bed, make sure that the patient is safely positioned to avoid entrapment or imbalance.

When operating the bed, make sure its movement is not restricted by obstacles such as bedside furniture.

To reduce the risk of injury due to falls, lower the bed to minimum height whenever the patient is left unattended.

Make sure the control handset cord is positioned to avoid a strangulation risk.

## **WARNING**

**Do not allow the power cord to trail on the floor in such a way that it may cause a trip hazard.**

**Do not leave the Minuet 2 bed and accessories for extended periods of time in humid or wet areas.**

**Take care to ensure that the power cord is not damaged by the bed or other objects being moved over it.**

**When routing cables from other equipment take care to prevent squeezing cables between parts of the bed.**

**This product complies with the requirements of applicable standards for electromagnetic compatibility (EMC). However, medical electrical equipment requires special precautions regarding EMC and should be installed and used in accordance with the information in Chapter 11 of these instructions.**

**Wireless communications equipment such as wireless computer network devices, mobile phones, cordless telephones and their base stations, walkie-talkies, etc. may affect this product. The bed should be kept at least 2.3 metres (7.5ft) away from such equipment to minimise the possibility of interference.**

**Do not leave the patient in the tilt position unattended.**

**If a serious incident occurs in relation to this medical device, affecting the user, or the patient then the user or patient should report the serious incident to the medical device manufacturer or the distributor. In the European Union, the user should also report the serious incident to the Competent Authority in the member state where they are located.**

# 1. Introduction

## Product description

The Arjo Minuet® 2 is a bed with electrically operated functions, intended for use in the care of elderly or disabled persons.

It is designed to be dismantled into sections for ease of transportation, but can be easily assembled with a minimum of tools.

There are two basic models in the *Minuet 2* range:

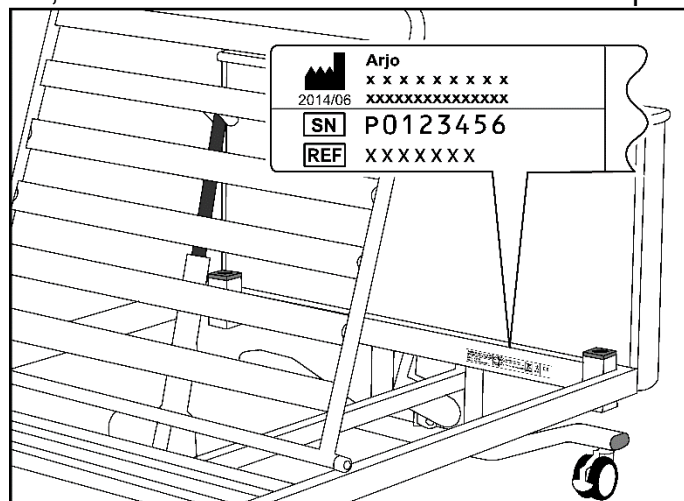
**Model 160** Four section bed with electrically adjustable height, backrest and leg elevation.

**Model 161** Model 160 with the addition of head down and foot down tilt.

### WARNING

The tilt function on model 161 does not meet the requirements of the Trendelenburg position. The bed cannot be used in applications that need the patient to be put in the Trendelenburg position.

The model number **REF** and serial number **SN** can be found on the specification label, located at the head end of the mattress platform.



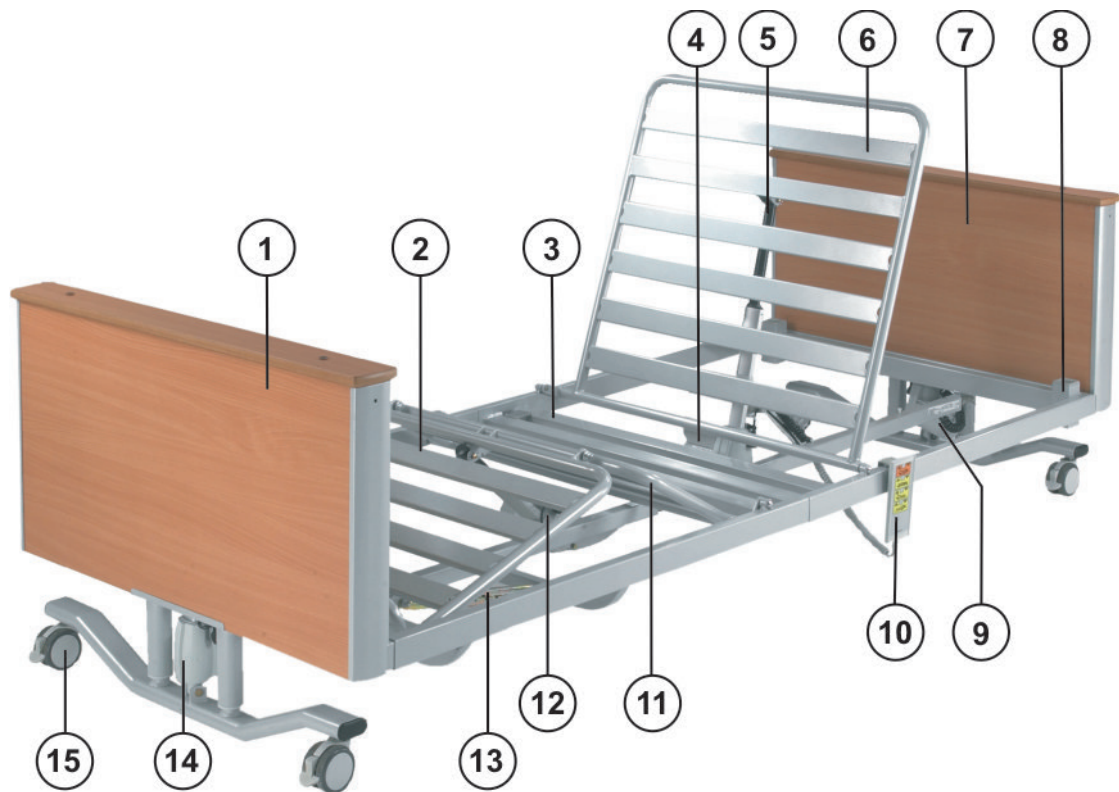
**Specification label**

### Features

- Push-button control for all electrical functions
- Electrically operated adjustment of height, backrest angle and leg elevation
- Manual adjustment of kneebreak angle
- Extending mattress platform
- Castors with integral brakes
- Backup battery to allow operation during power failure

A range of accessories is available, including side rails and lifting poles. The installation and use of these items is described in Chapter 5.

## Product overview



- |                                    |                               |
|------------------------------------|-------------------------------|
| 1. Foot end section                | 9. Head end actuator          |
| 2. Calf (lower leg) section        | 10. Control handset           |
| 3. Seat section                    | 11. Thigh (upper leg) section |
| 4. Control box / backup battery    | 12. Leg section actuator      |
| 5. Backrest actuator               | 13. Leg section ratchet       |
| 6. Backrest section                | 14. Foot end actuator         |
| 7. Head end section                | 15. Castor with brake lever   |
| 8. Lifting pole / accessory socket |                               |



## 2. Applications

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### WARNING

To ensure the patient can use the bed safely, their age, size and condition should be assessed by a clinically qualified person.

#### Intended use

Model 160 is suitable for use in the following areas:

- Long term medical care where medical supervision is required and monitoring is provided if necessary, e.g. nursing homes and geriatric facilities.
- A domestic area, i.e. home healthcare.

Model 161 is suitable for use in the following area:

- Long term medical care where medical supervision is required and monitoring is provided if necessary, e.g. nursing homes and geriatric facilities.

#### Indications

The bed is appropriate for situations where assistance is required in positioning the patient, or in reducing lifting and manual handling stresses on the carer.

The profiling mattress platform allows the patient to be supported in an upright sitting position. The enhanced support this provides helps to reduce shear and interface pressure on the patient.

The head down Tilt option can be used to increase blood flow. The bed cannot be used in applications that need the patient to be put in the Trendelenburg position. The Maximum tilt angle of the *Minuet* bed frame is 10°.

Foot down tilt option can be used to improve patient comfort.

The variable height feature allows the bed to be raised to provide easy access to the patient for the carer. The bed can then be lowered to make it easier for the patient to get into or out of the bed.

## **Contra- indications**

The bed is intended for use by adults and children over the age of twelve years.

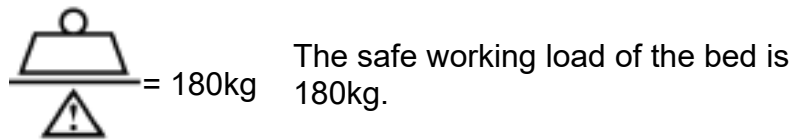
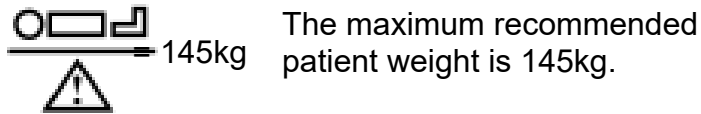
Model 160 is not suitable for use in the following situations:

- Intensive/critical care provided in a hospital where 24-hour medical supervision and constant monitoring is required, e.g. ITU, ICU and CCU.
- Acute care provided in a hospital or other medical facility where medical supervision and monitoring is required, e.g. general medical and surgical wards.
- Outpatient care.

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- Intensive/critical care provided in a hospital where 24-hour medical supervision and constant monitoring is required, e.g. ITU, ICU and CCU.
- Acute care provided in a hospital or other medical facility where medical supervision and monitoring is required, e.g. general medical and surgical wards.
- A domestic area, i.e. home healthcare.
- Outpatient care.
- The use of head down Tilt or foot down Tilt may be contraindicated for certain medical conditions. The tilt facility shall only be used under the guidance of a clinically qualified person after assessment of the patient's condition.

This bed is not suitable for patients weighing less than 88lb. (40kg).



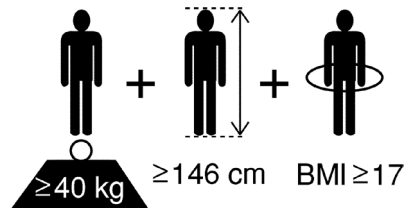
The safe working load is calculated as follows (in accordance with EN 60601-2-52):

Maximum patient weight .....	319lb. (145kg)
Mattress .....	44lb. (20kg)
Accessories (including attached loads) .....	33lb. (15kg)
TOTAL .....	396lb. (180kg)



## WARNING

**If the combined weight of the mattress and accessories exceeds 35kg, the maximum patient weight must be reduced accordingly.**



The recommended patient size is: weight equal or above 40kg, height equal or above 146cm, and BMI equal or above 17.

At the discretion of the carer, patients taller than 75in. (190cm) may be accommodated by extending the bed - refer to “Extending the bed” in Chapter 4. Ensure that the patient’s height does not exceed the “extended length” shown in Chapter 10 Technical Data.

### 3. Assembly and Installation

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#### WARNING

The bed sub-assemblies are heavy. Take appropriate precautions to prevent injury when moving or lifting them.

Before commencing assembly, make sure the brakes are applied on all four bed castors.

The assembled bed should be positioned so that the power plug can be reached easily if it needs to be disconnected from the electricity supply.

Read these instructions and understand them before you begin to assemble the bed.

Work on a suitable surface (e.g. carpet) to prevent damage to the bed components.

Make sure you have sufficient space before commencing assembly – the work area must be large enough to turn the bed upright once it is fully assembled.

#### WARNING

Always use the 5mm Allen (hexagon) key supplied when attaching the socket head screws. Using other tools may result in the screws not being fully tightened.



*The foot end and head end panels are almost identical. The foot end panel can be identified by the “Arjo” and “Minuet 2” badges attached to it.*

The various parts of the bed are moved by electrical devices called *actuators*. Actuators are positioned at either end of the bed and control bed height. Two actuators are positioned underneath the mattress platform and control the backrest and leg sections.

The actuators, control handset and power cord, are connected to a *control box*, which is fixed onto the backrest actuator together with the backup battery.

#### Caution

Before the first use, or if the bed has been unused for more than three months, connect the bed to the electricity supply for at least 24 hours to fully recharge the battery.

The bed should be connected to the electricity supply at all times during normal use to keep the backup battery fully charged.

Failure to follow these guidelines may reduce the life of the battery.

## Mattresses

### WARNING

Always use a mattress of the correct size and type. Incompatible mattresses can create hazards.

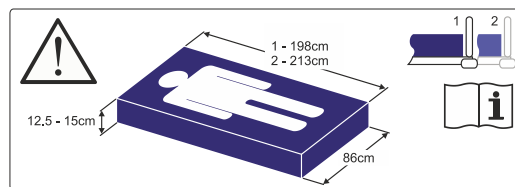
Entrapment hazards may exist when using a very soft mattress, even if it is the correct size.

Read the instructions for use supplied with the mattress.

Where the maximum patient weight specified for the mattress is different to that specified for the bed, the lower value applies.

To ensure compliance with EN 60601-2-52, an approved Arjo mattress should be used. Compliance with this standard when using other mattresses must be validated by the user.

A label on the mattress platform indicates the supported mattress height when used without side rails or standard height side rails:



### Mattress size label

If fitted, a label on the side rail will indicate if a different mattress height can be used safely:

Product Code	Side Rail Type	Mattress Thickness
CM-ACC00-1.52	Full Length Standard Height Wooden Side Rails (Grey/Beech)	5.9in.(15cm)
CM-ACC00-3.52	Full Length Standard Height Wooden Side Rails (Brown/Beech)	5.9in.(15cm)
CM-ACC01-1.52	Full Length Standard Height Wooden Side Rails (Grey/Cherry)	5.9in.(15cm)
CM-ACC00-1.14	Full Length Extra Height Wooden Side Rails (Grey/Beech)	6.8in.(17.2cm)
CM-ACC00-3.14	Full Length Extra Height Wooden Side Rails (Brown/Beech)	6.8in.(17.2cm)
CM-ACC01-1.14	Full Length Extra Height Wooden Side Rails (Grey/Cherry)	6.8in.(17.2cm)
CM-ACC01-3.14	Full Length Extra Height Wooden Side Rails (Brown/Cherry)	6.8in.(17.2cm)
CM-ACC02-1.52	Height Extension for Full Length Standard Height Wooden Side Rails (grey). Use with overlay between 4.3in.(11cm)- 4.5in.(11.5cm) thick.	5.9in.(15cm)
CM-ACC02-3.52	Height Extension for Full Length Standard Height Wooden Side Rails (brown). Use with overlay between 4.3in.(11cm) -4.5in.(11.5cm) thick.	5.9in.(15cm)
CM-ACC04-1.52	Full Length Standard Height Steel Side Rails	5.9in.(15cm)
CM-ACC06-1.52	Steel 3/4 Length Standard Height Folding Side Rails	5.9in.(15cm)
CM-ACC07-1.52	Steel Extra Height Folding Side Rails	6.8in.(17.2cm)
CM-ACC22-1.52	Egress Assist Rail Standard Height (Grey)	5.9in.(15cm)
CM-ACC23-1.52	Egress Assist Rail Extra Height (Grey)	6.9in.(17.2cm)

## ***Mattresses and side rails ★***

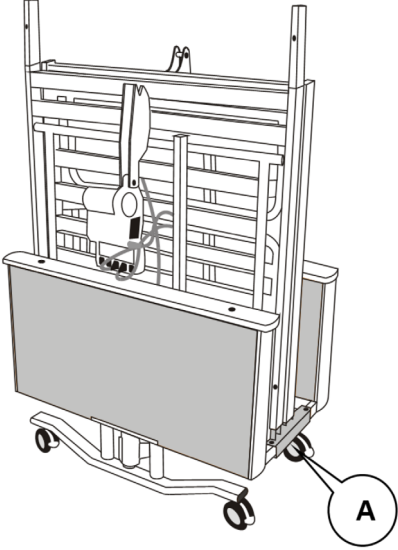
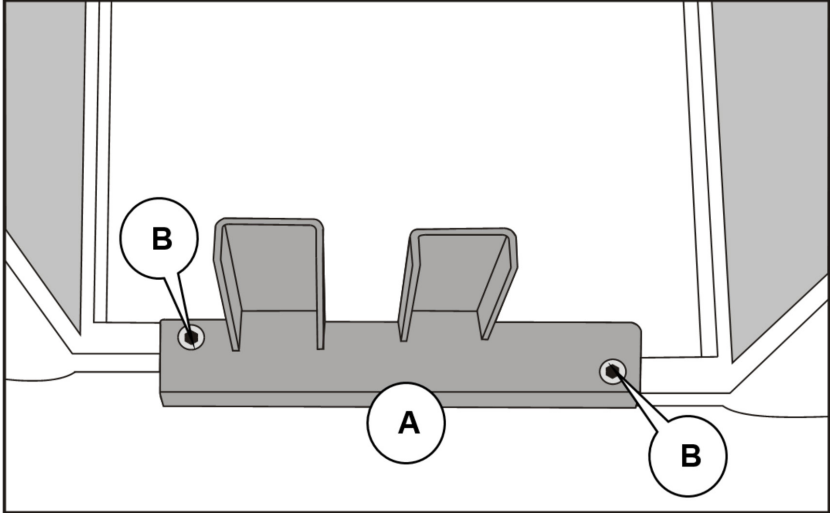
When choosing bed and mattress combinations, it is important to consider the use of side rails based on clinical assessment of each individual patient and in line with local policy.

When assessing the suitability of a mattress for use with side rails, the following factors should be considered:

- If the bed is installed with standard side rails, a foam mattress up to 5.9in. (15cm) thick can be used.
- If the bed is installed with extra-height side rails, a foam mattress up to 6.8in. (17.2cm) thick can be used.
- Specialist powered air / foam replacement mattresses will typically envelop the patient when loaded and can generally be deeper than a foam mattress without compromising safety. Other makes of specialist mattress replacement must be assessed individually prior to use to verify sufficient clearance is maintained.
- Only use a mattress overlay when combined with Full Length Standard Height Wooden Side Rails (CM-ACC00-1.52, CM-ACC00-3.52 or CM-ACC01-1.52) and Side Rail Height Extensions CM-ACC02-1.52 or CM-ACC02-3.52(see page 29). With this combination the bed can be fitted with a mattress up to 5.9in.(15cm) and an overlay between 4.3in.(11cm) and 4.5in.(11.5cm).
- To ensure compliance with EN 60601-2-52, an approved Arjo mattress should be used. Compliance with this standard when using other mattresses must be validated by the user.

For more information on suitable mattresses and mattress replacements, contact your local Arjo office or approved distributor. A list of Arjo offices can be found at the back of this manual.

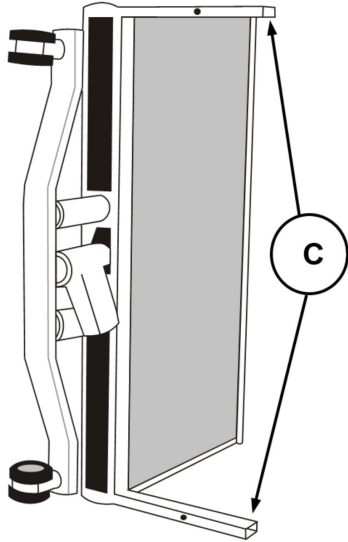
## Assembling the bed

<p>1</p>	 <p>The bed is supplied in four main sections, fixed together on two transit brackets (A) for ease of transportation.</p> <p>Remove the cardboard packing block and plastic tie between the mattress platform sections.</p> <p>Lift the two mattress platform sections off the transit brackets and lay them on the floor. The foot end mattress platform section must be lifted off the transit brackets before the head end section.</p>
<p>2</p>	 <p>Remove the two socket head screws (B) from one of the transit brackets (A). Remove the second transit bracket, taking care not to allow the end panel sections to fall. Keep the four socket head screws safe.</p> <p>Two other socket head screws are installed in holes in the mattress platform sections – remove these before starting assembly. The six socket head screws will be used in assembling the bed.</p> <p>Store the two transit brackets and packaging in a safe place.</p>

### WARNING

**Do not allow the end panel sections to fall when the transit brackets are removed.**

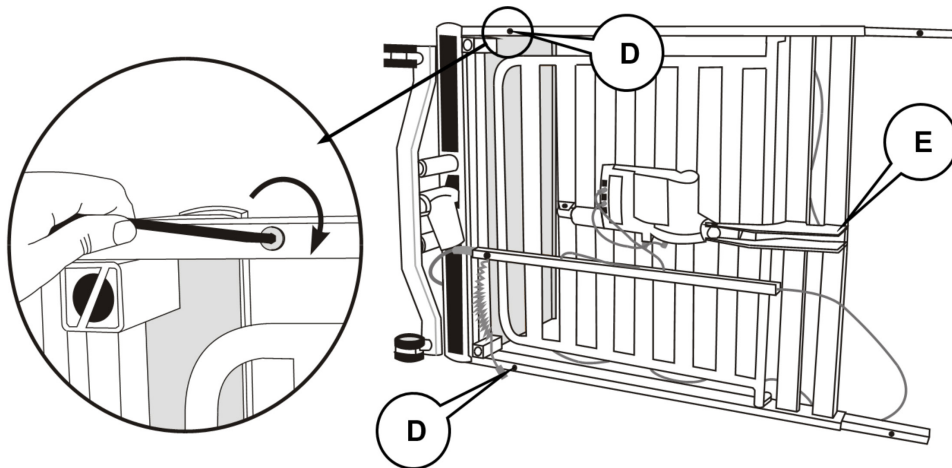
3



Lay the head end panel section on the floor with the two arms on the frame (C) pointing outwards towards the right as shown.


Position the bed so that you can work on the underside of the mattress platform whilst assembling the bed. This will make it easier to connect the actuators to the control box.

4



Slide the two side tubes of the head-end mattress platform section over the arms on the head end panel assembly.

Place socket head screws into the two holes (D) on the underside of the head end mattress platform and fix the sections together, installing the bottom screw first. Tighten both screws firmly.

 Use suitable packing material, e.g. cardboard, to raise the mattress platform sections off the floor by about 1cm; this will help in aligning the fixing holes correctly.

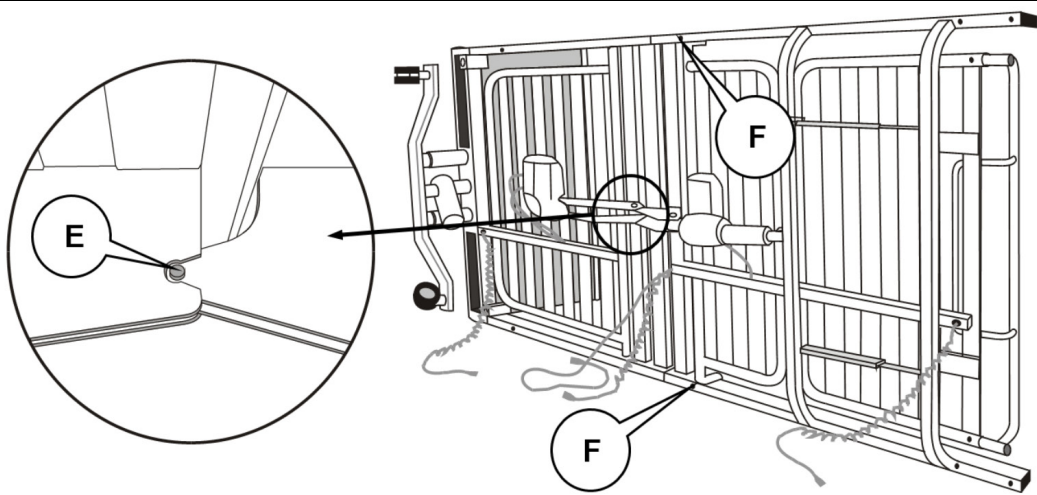
Unwrap the power cord from around the slot (E) on the head end mattress platform section.

## WARNING

**Take care not to pinch hands or fingers, or trap any cables, when sliding the bed sections together.**



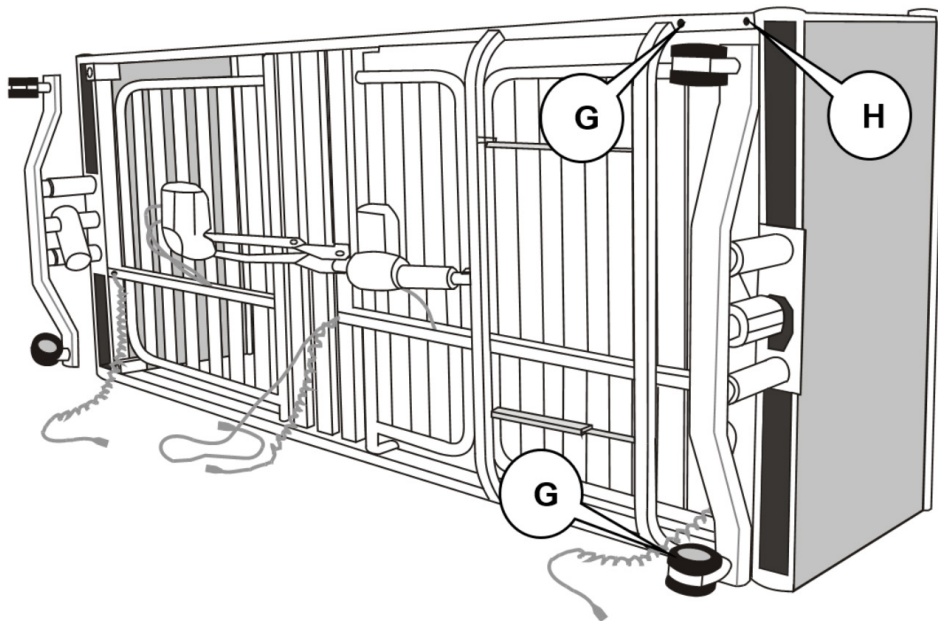
5



Assemble the foot end mattress platform to the head end mattress platform by sliding the two parts together. Make sure the slot in the head end section (E) locates over the bar in the foot end section.

Place socket head screws into the two holes (F) on the underside of the foot end mattress platform to fix the sections together, installing the bottom screw first. Tighten both screws firmly.

6



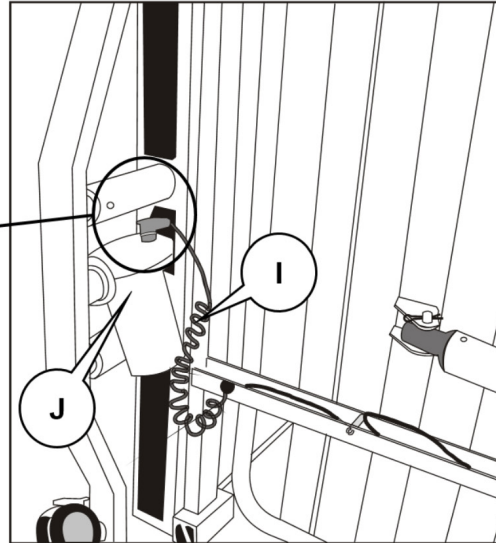
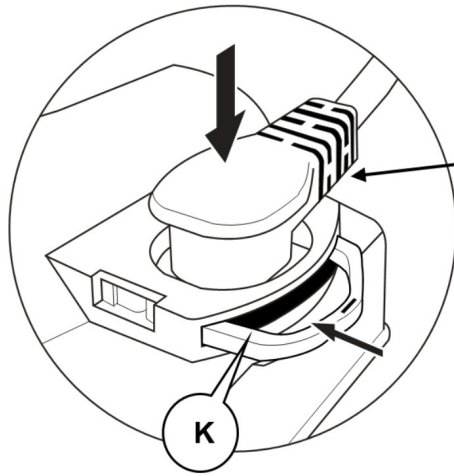
Assemble the foot end panel to the bed, lining up the fixing holes in the arms with the fixing holes (G) in the foot end mattress platform section.

Place two socket head screws into the holes to fix the two sections together, installing the bottom screw first. Tighten both screws firmly.



*The foot end mattress platform section has two sets of fixing holes. Use the ones closest to the crossbar as shown. The other holes (H) are used if it is necessary to extend the bed.*

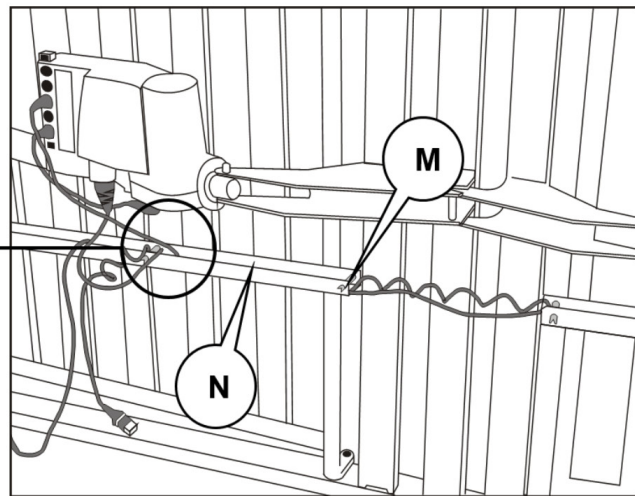
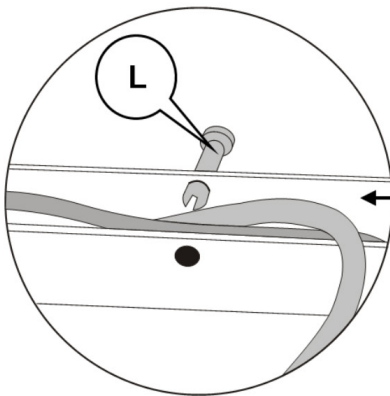
7



Plug the curly cable (I) into the head end height actuator (J). Make sure the plug is fully inserted in the socket. Push in the cable retaining clip (K) until it “clicks” into place.

Repeat this procedure for the foot end height actuator.

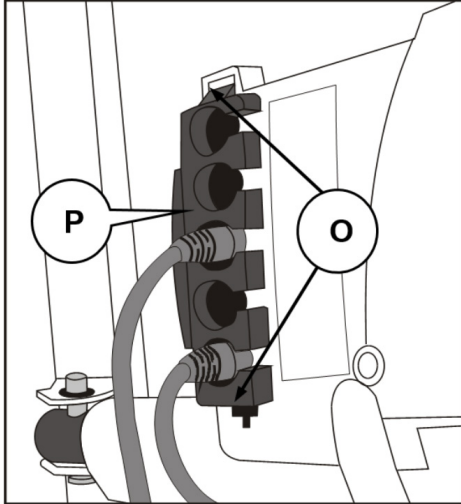
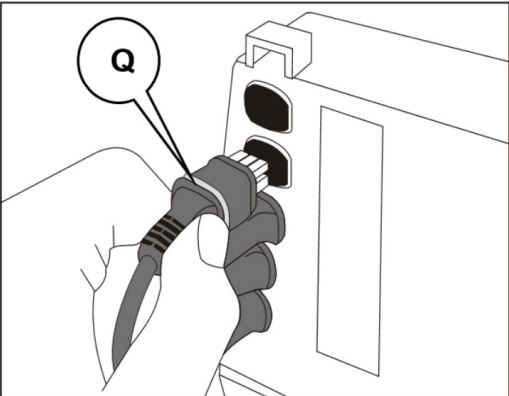




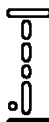
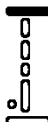



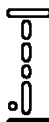
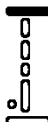



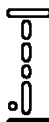
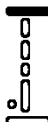
8



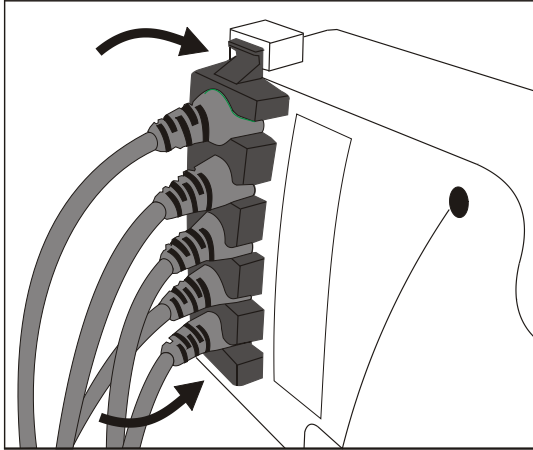
Squeeze together the split ends of the retaining pins (L) and (M), and partially push them out of the head end cable channel (N) as shown, *above left*. Do not allow the cables to spring out of the channel.

Carefully straighten out the cable(s) from the foot end section, and position them in the head end cable channel alongside the other cables.

Attach the two retaining pins to hold all the cables in place within the head end cable channel.

<p>9</p>		<p>Insert a small flat-bladed screwdriver into the two slots (O) and prize open the clips holding the retaining strip (P) onto the control box.</p> <p>Pull off the retaining strip and keep it safe.</p> <p>Do not unplug the cables connected to the control box sockets marked <b>1</b> and <b>3</b>.</p>										
<p>10</p>		<p>Plug the cable labeled <b>2</b> into the control box socket marked <b>2</b>.</p> <p>Plug the cable labeled <b>4</b> into the control box socket marked <b>4</b>.</p> <p>Make sure all the actuator plugs are pushed fully into their sockets and that the sealing rings (Q) are not visible.</p>										
<p>11</p>	 <p>Plug the control handset into the control box socket marked with the symbol shown on the left.</p> <p>Make sure the handset plug is pushed fully into the socket and that the sealing ring is not visible.</p> <p>The label on the control box indicates the function of each socket:</p>	<table border="1" data-bbox="544 1496 1235 1720"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	1	2	3	4						
1	2	3	4									
												

12



Attach the cables from the actuators and control handset through the holes in the retaining strip.

Push the retaining strip over the connector plugs, until the two lugs on the retaining strip “click” into position in the two holes in the control box.

The retaining strip will also help to secure the backup battery in position.

13

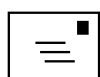
- Check that all six socket head screws holding the bed sections together are fully tightened.
- Carefully turn the bed upright onto its castors.
- Remove the plastic ties used to secure the backrest and leg sections to the bed frame during transit.
- Connect the power cord to a suitable outlet socket.
- Install the mattress retainers on the backrest and leg sections - refer to Chapter 5 for installation instructions.
- *Refer to Chapter 4.* Check that all the bed's electrical functions operate satisfactorily over their full range of movement. Make sure that no cables become stretched or trapped in the bed mechanism during operation.
- Install a suitable, compatible mattress on the bed.

The bed is now ready for use. Read the following chapters for guidance on using the bed and installing the optional accessories.

## 4. Operation

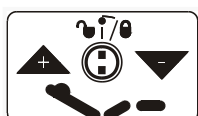
### Control handset

The handset gives the user control over backrest angle, leg elevation, bed height and tilt angle (model 161 only). The Auto-Contour function allows easy simultaneous adjustment of leg elevation and backrest angle.

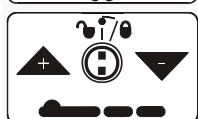


*When Auto-Contour is used to flatten the mattress platform, the leg sections remain raised until the backrest has partly lowered. This helps to prevent the patient slipping down the bed.*

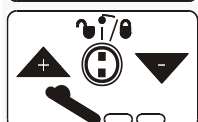
To operate a function, press and hold the appropriate button until the desired position is obtained.



**Auto Contour** – adjusts the backrest and leg sections to achieve a comfortable sitting position.



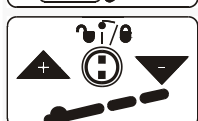
**Bed Height** – adjusts the height of the mattress platform above the floor.



**Backrest** – adjusts the angle of the backrest section.



**Leg Elevation** – adjusts the height of the calf section above the mattress platform.



**Tilt (model 161 only)** – allows the use of head down or foot down tilt.

### WARNING

**The bed cannot be used in applications that need the patient to be put in the Trendelenburg position. The Maximum tilt angle of the *Minuet* bed frame is 10°.**

The lockable handset has the facility to selectively disable bed functions to prevent use by the patient.

Between each pair of pushbuttons is a small rotary lockout switch.

*To disable a function:* push the plastic key into the two holes in the lockout switch (A) and turn the switch clockwise to the Locked position (B).

*To enable a function:* push the plastic key into the two holes in the lockout switch and turn the switch anti-clockwise to the Unlocked position (C).



### Caution

**To enable/disable a function the plastic key must be used. Only use the plastic key supplied. Using other tools may damage the switch.**

## Brakes and castors

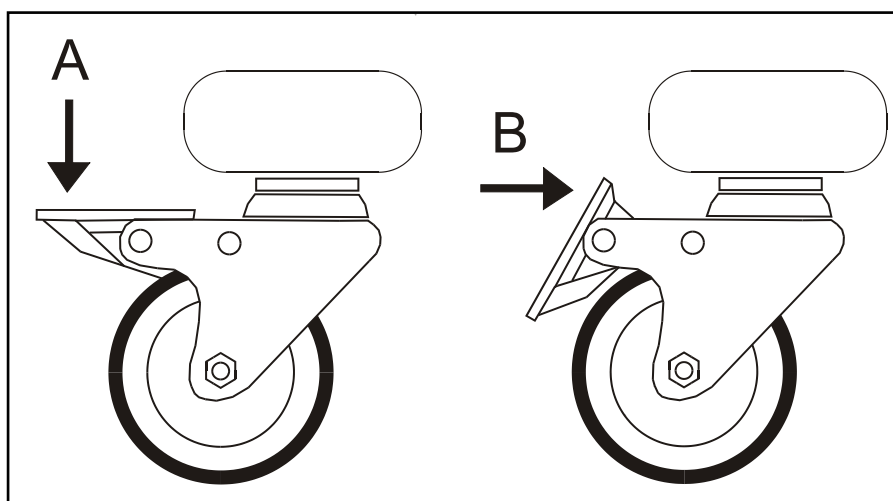
Each of the four castors is equipped with a separate brake.

### WARNING

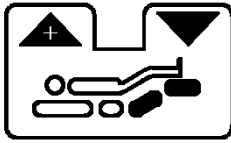
To prevent the bed from moving, apply the brakes on all four castors whenever the patient is moved to or from the bed.

**To apply the brake** Press down on the brake operating lever (A) until it locks in the “down” position.

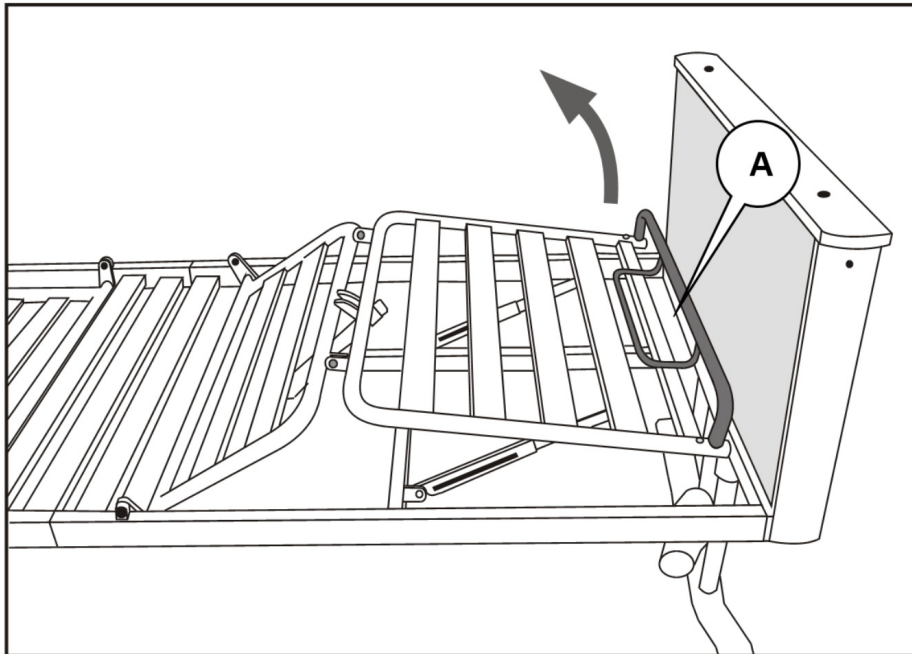
**To release the brake** Push the upper end of the brake operating lever horizontally (B) until it springs back into the “up” position.



## Kneebreak angle



Use the control handset to raise the thigh section to the desired height.



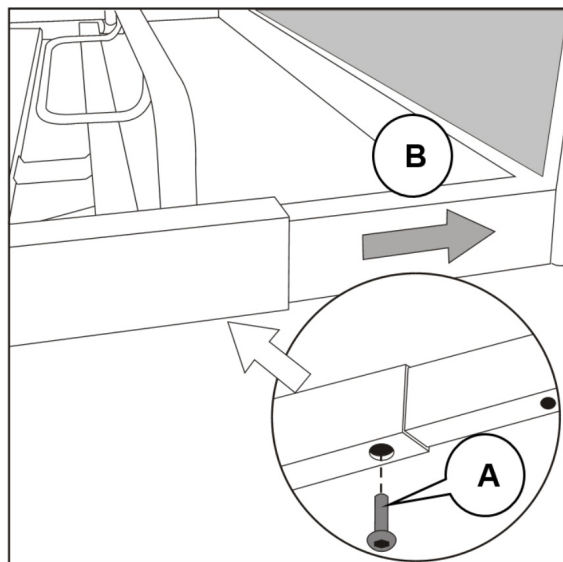
Lift the mattress retaining bar (A) upwards to release the ratchet mechanism; then lower it to the required angle.

Slightly lift the mattress retaining bar again to re-engage the ratchet mechanism.



## Extending the bed

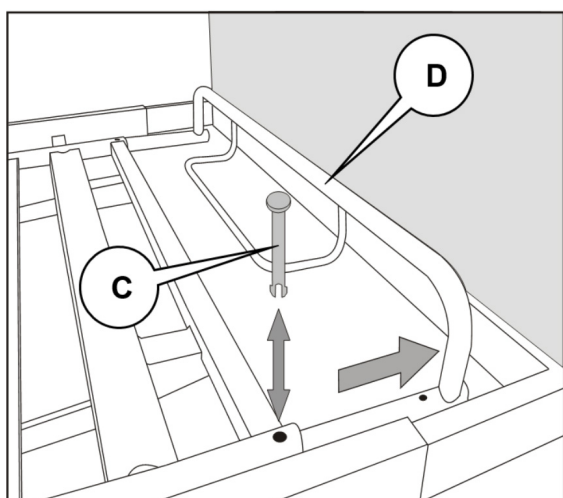
To accommodate taller patients, the mattress platform can be extended by 5in. (13cm) as follows.



Remove the two socket head screws (A) securing the foot end panel to the bed.

Pull the foot end panel out from the bed (B) and line up the end fixing holes below the mattress platform with the fixing holes below the foot end panel section.

Replace the socket head screws (A) to secure the foot end panel in the extended position. Make sure both screws are fully tightened.



Squeeze the split ends of the two retaining pins (C) and push them up and out of the holes.

Pull the mattress retaining bar (D) towards the foot end of the bed.

Line up the second pair of fixing holes in the mattress retaining bar with the holes in the leg section.

Replace the two retaining pins by pushing them down through the leg section and mattress retaining bar.

### WARNING

Install a suitable foam mattress extension (squab) at the head end when the bed is extended.



## 5. Accessories – Installation and Operation

Various accessories can be added to *Minuet 2* beds to assist both patient and carer. This chapter describes how to install and use these accessories correctly.

Accessories currently available are shown in the table below.

Product Code	Description
CM-ACC00-1.52	Full Length Standard Height Wooden Side Rails (Grey/Beech)
CM-ACC00-3.52	Full Length Standard Height Wooden Side Rails (Brown/Beech)
CM-ACC01-1.52	Full Length Standard Height Wooden Side Rails (Grey/Cherry)
CM-ACC00-1.14	Full Length Extra Height Wooden Side Rails (Grey/Beech)
CM-ACC00-3.14	Full Length Extra Height Wooden Side Rails (Brown/Beech)
CM-ACC01-1.14	Full Length Extra Height Wooden Side Rails (Grey/Cherry)
CM-ACC01-3.14	Full Length Extra Height Wooden Side Rails (Brown/Cherry)
CM-ACC02-1.52	Height Extension for Full Length Standard Height Wooden Side Rails (grey)
CM-ACC02-3.52	Height Extension for Full Length Standard Height Wooden Side Rails (brown)
CM-ACC03	Pads for Full Length Side Rails
CM-ACC04-1.52	Full Length Standard Height Steel Side Rails
CM-ACC06-1.52	Steel 3/4 Length Standard Height Folding Side Rails
CM-ACC07-1.52	Steel Extra Height Folding Side Rails
CM-ACC09	Lifting Pole with strap and handle
CM-ACC11	Mobility Support Handle (to fit left side of bed)
CM-ACC12	Mobility Support Handle (to fit right side of bed)
CM-ACC13	Flexible Handset Holder
CM-ACC14	IV Pole
CM-ACC15	Mattress Pump Bracket
CM-ACC17	Urine Bag Holder
CM-ACC22-1.52	Egress Assist Rail Standard Height (Grey)
CM-ACC23-1.52	Egress Assist Rail Extra Height (Grey)
CM-ACC24	Mattress Retainers (supplied with the bed)
CM-ACC26	Full Length Side Rails pads with top cushion



*Arjo reserves the right to change accessory details and availability without notification. Some accessories may not be available in all countries.*

## Side rails – all models, full length and folding

### WARNING



Only use Arjo side rails that are designed and specified for use with this bed. Incompatible side rails can cause a hazard.

Side rails should be installed either by a properly trained person or, due to the size and shape of these items, by two people if they are unfamiliar with the installation procedure.

Side rails must always be used with a suitable mattress of the correct size; refer to page 12 for more information.

- The maximum recommended mattress thickness for use with standard height side rails is 5.9in. (15cm).
- Extra-height side rails can be used with mattresses or mattress combinations up to 6.8in. (17.2cm) thick.
- Side Rail Height Extension and Full Length Standard Height Wooden Side Rails can be used with a mattress and mattress overlay up to 10.4in.(26.5cm) thick.

The clinically qualified person responsible should consider the size, age and condition of the patient before allowing the use of side rails.

Side rails are not intended to restrain patients who make a deliberate attempt to leave the bed.

Always run the cable from the control handset between the side rail and the frame of the bed.

Do not use the side rails or side rail height extensions to move or lift the bed.

When using a powered air mattress system, the air supply tube for the mattress should be positioned between the side rail and the frame of the bed.



Side rail contact points are identified by this symbol. Take care to keep hands and fingers away from these areas.

## Full-length side rails

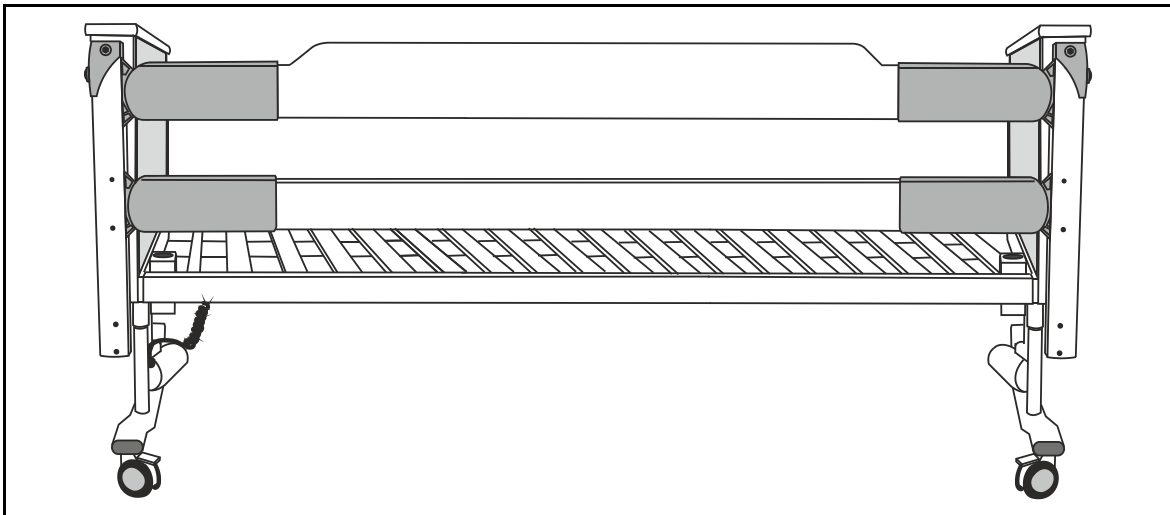
### WARNING

Always use the 4mm and 5mm Allen (hexagon) keys supplied when securing the socket head screws. Using other tools may result in the screws not being fully tightened.

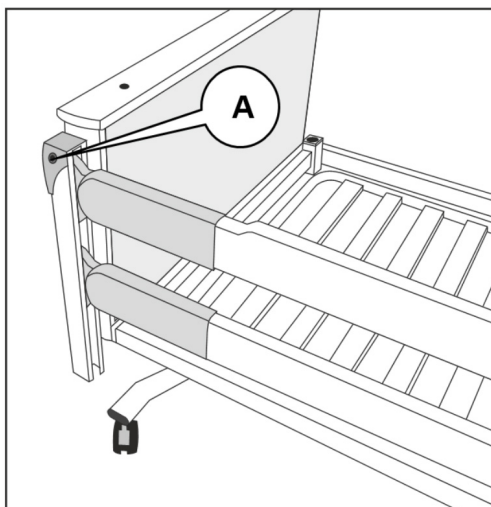
*These instructions show the fitting of wooden extra height side rails model CM-ACC00-1.14. The other models of full-length side rails are attached and used in the same way. Extra height side rails should be used when the mattress thickness is between 5.9in. (15cm) and 6.8in. (17.2cm). Refer to page 12*



Full-length side rails are supplied as identical pairs. They can be attached to either side of the bed.



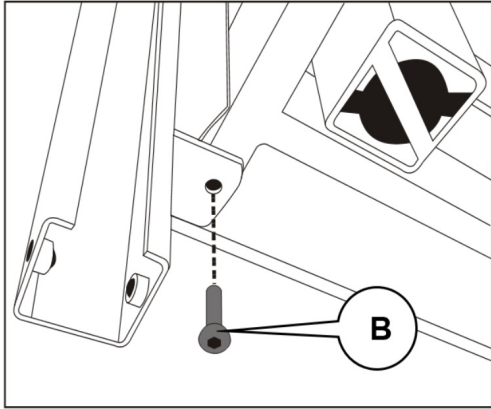
### Installation



Position the side rail on the bed.

Line up the fixing holes on the edges of the bed end panels with the top fixing holes in the side rail end pillars.

Attach the side rail to the end panels with the two M6 x 80mm socket head screws (A), but do not tighten them fully at this stage.

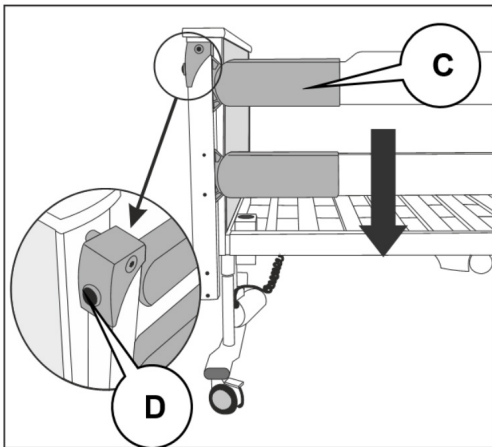


Secure the side rail fixing bracket to the underside of each end panel, using two M8 16mm socket head screws (B). Make sure both these screws are fully tightened.

Fully tighten the two top fixing screws (A).

Repeat this procedure to attach the other side rail on the opposite side of the bed.

### Operation



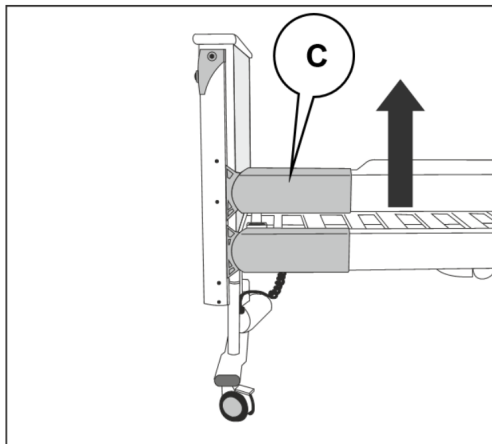
*To lower the side rail:*

Hold the plastic molding (C) at the foot end of the bed and lift the rail slightly.

Press and hold the release button (D) on the side rail end pillar.

Lower the side rail to its bottom position.

Repeat this procedure at the head end of the bed.



*To raise the side rail:*

Hold the plastic moulding (C) at the foot end of the bed and pull the top rail upwards until the side rail locks automatically in the raised position.

Repeat this procedure at the head end of the bed.

### WARNING

**Always hold the plastic moulding at one end of the top rail when raising or lowering the side rail. Do not allow the side rail to drop as this may damage the side rail.**

### Accessory weights – full-length side rails (per side)

CM-ACC00.14	24lb. (11.0kg)
CM-ACC00.52	22lb. (10.0kg)
CM-ACC04.52	26lb. (12.0kg)

## Side rail height extensions

*These instructions illustrate the fitting of side rail height extensions CM-ACC02-1.52 and CM-ACC02-3.52 for full length standard height wooden side rails (CM-ACC00-1.52, CM-ACC00-3.52, and CM-ACC01-1.52).*



*Side rail height extensions should be used with the recommended thickness of mattress (see page 12). Clamp-on extensions can be added to the full-length side rails to increase their height by 5.5in.(14cm) and allow use of a mattress overlay of a thickness from 4.3in.(11cm) to 4.5in.(11.5cm).*

CM-ACC02-1.52 and CM-ACC02-3.52 are for use with full length standard height wooden side rails CM-ACC00-1.52, CM-ACC00-3.52 or CM-ACC01-1.52.

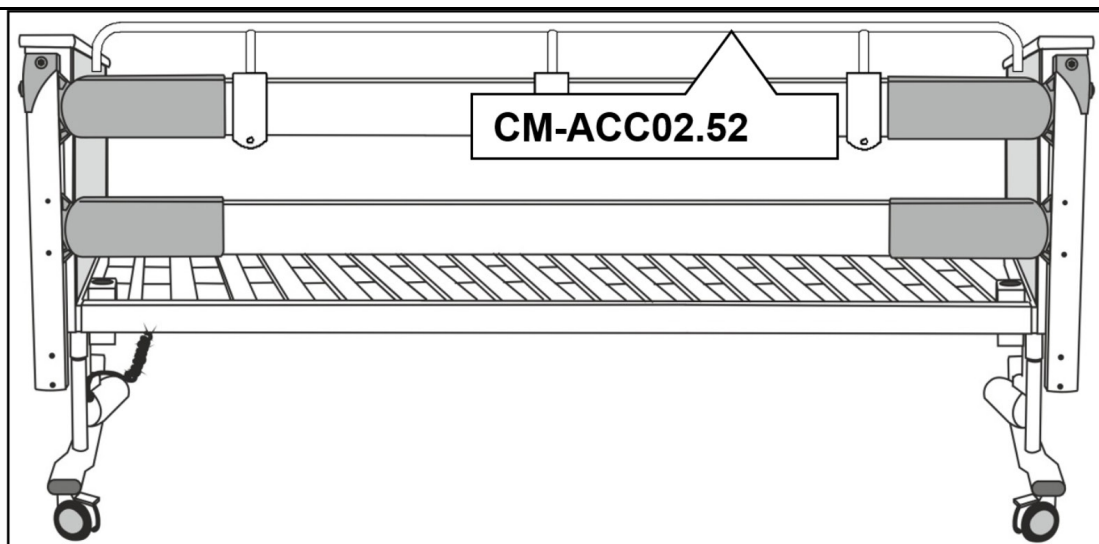
The safety side height extensions are supplied as identical pairs. They can be used on either side of the bed.

### WARNING

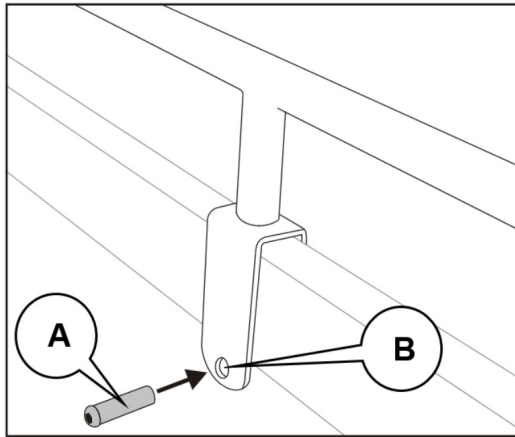
**Only use side rail height extensions with the side rails for which they are designed.**

**Always use the correct M8 size hex wrench (Allen key) supplied when fitting the socket head screws. Using other tools may result in the screws not being fully tightened.**

**Before use, make sure that the accessory is tightly fitted to the side rail and does not move forward.**

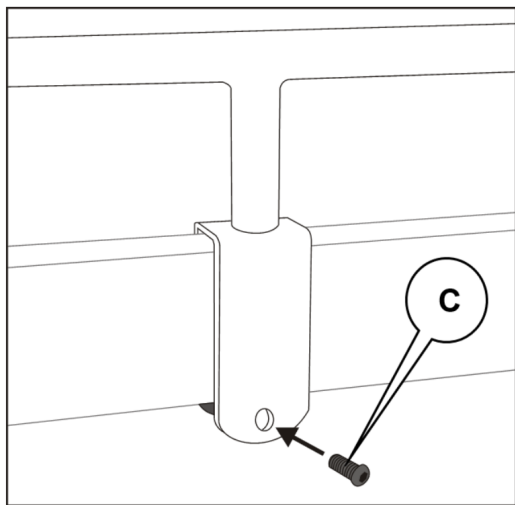


## Installation



Raise the side rail and position the height extension on the side rail with the fixing clamps over the top rail.

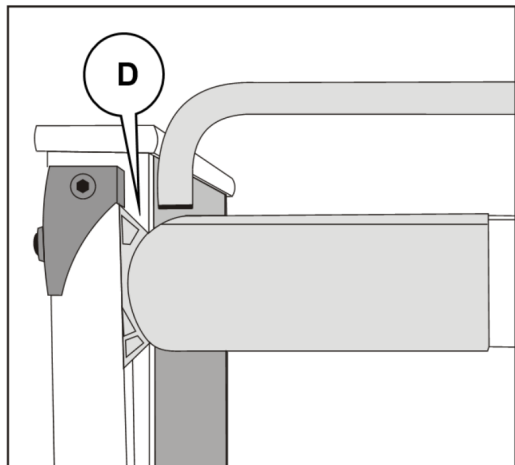
Push the fixing pin (A) through the larger of the two holes in the fixing clamp (B), so that the fixing pin passes under the side rail top rail.



Secure the fixing pin in position by fitting an M8 socket head screw (C) through the smaller hole on the other side of the fixing clamp.

Do not tighten the screw fully at this stage.

Repeat this procedure for both fixing clamps.



Slide the height extension assembly along the side rail top rail until the distance (D) between the height extension and the bed end panel is the same at both ends of the bed.

Fully tighten the two socket head screws (C) to secure the height extension in position.

Repeat this procedure to install the other height extension on the opposite side of the bed.

## Accessory weights –side rail height extensions

CM-ACC02-1.52

6.6lb.(3kg) each

CM-ACC02-3.52

6.6lb.(3kg) each

## Folding side rails

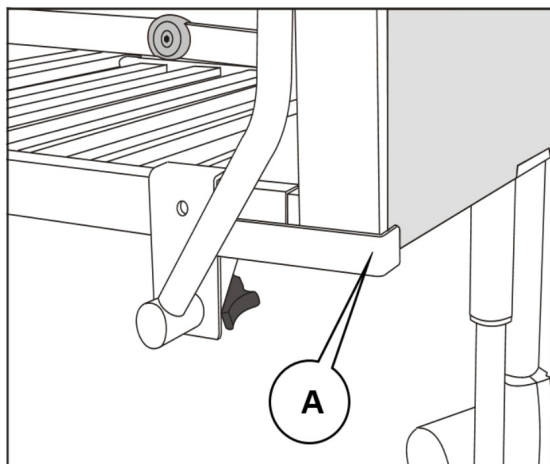


*These instructions show the side rails model CM-ACC06.52. Extra height folding side rails CM-ACC07.52 are attached and used in the same way. Extra height side rails should be used when the mattress thickness is between 5.9in. (15cm) and 6.8in. (17.2cm). Refer to page 12.*

The folding side rails are supplied as a pair to suit the right and left hand sides of the bed, as viewed from the head end. These illustrations show the left-hand side rail.

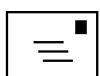


## Installation

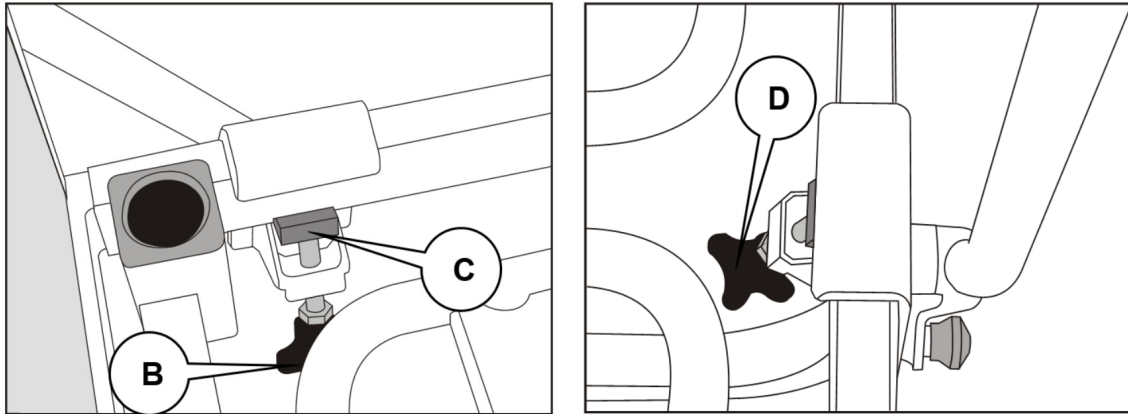


Position the side rail assembly on the side frame of the bed, with the two fixing brackets hooked over the top of the bed frame.

The spacer bar (A) must be located behind the edge of the head end panel as shown; this will ensure the side rail is correctly positioned on the bed.



*Position the side rail initially with it tilted towards the middle of the bed. When both brackets are correctly located on the bed frame, rotate the complete side rail assembly back to the vertical.*



Tighten the screw clamp on the head end bracket (B), ensuring that the groove in the clamp block (C) sits tightly against the lower edge of the bed frame.

Secure the foot end clamp (D) in the same way.

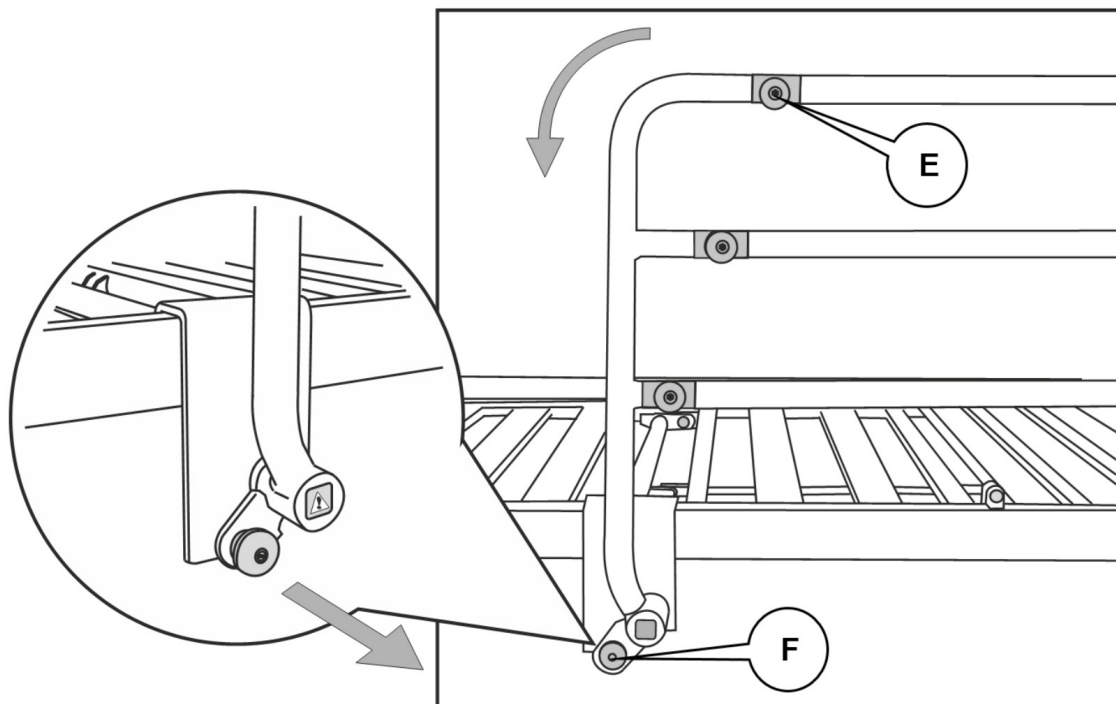
### **WARNING**

**Make sure the screw clamps are fully tightened.**

Repeat this procedure to attach the other folding side rail on the opposite side of the bed.

Check that both side rails are firmly secured before allowing a patient to use the bed.

### **Operation**





*To lower the side rail:*

Hold the top rail at the foot end of the bed, keeping your hand clear of the hinge point (E).

Pull out and hold the red release knob (F). This is located on the side rail bracket at the foot end of the bed.

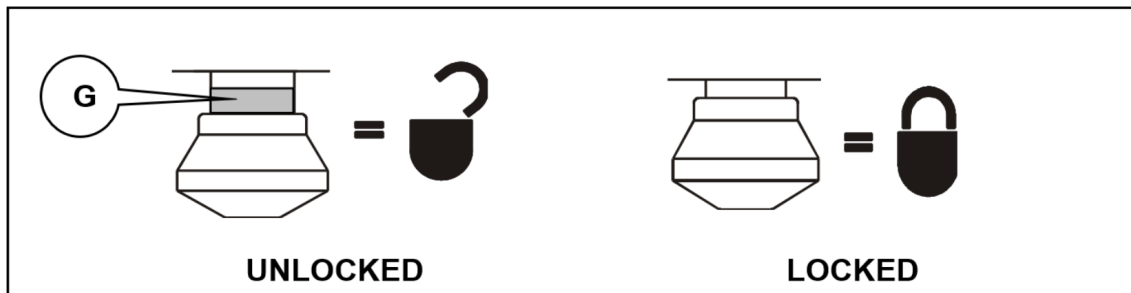
Lower the side rail towards the foot end of the bed. Let go of the release knob.

*To raise the side rail:*

Hold the top rail at the foot end of the bed, keeping your hand clear of the hinge point (E).

Pull the rail upwards until the side rail locks in the raised position.

The side rail release knob contains a yellow band (G). If the yellow band is visible it means that the side rail is NOT securely locked in the upright position.



**WARNING**

**Make sure the release knob is locked in place.**

**The yellow warning band on the release knob MUST NOT be visible when the side rail is in the fully raised and locked position.**

**Accessory weight – folding side rails (per side)**

CM-ACC06.52                      17lb. (7.7kg)

CM-ACC07.52                      20lb. (9kg)

## Pads for full length side rails CM-ACC03 & CM-ACC26

These washable pads may be used with any of the full-length side rails. They may also be used when height extensions are attached to the side rails.

The pads are easy to install, and can be removed from the bed quickly if the side rails need to be lowered in an emergency.

Model CM-ACC26 provides additional protective padding along the top rail.

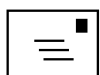
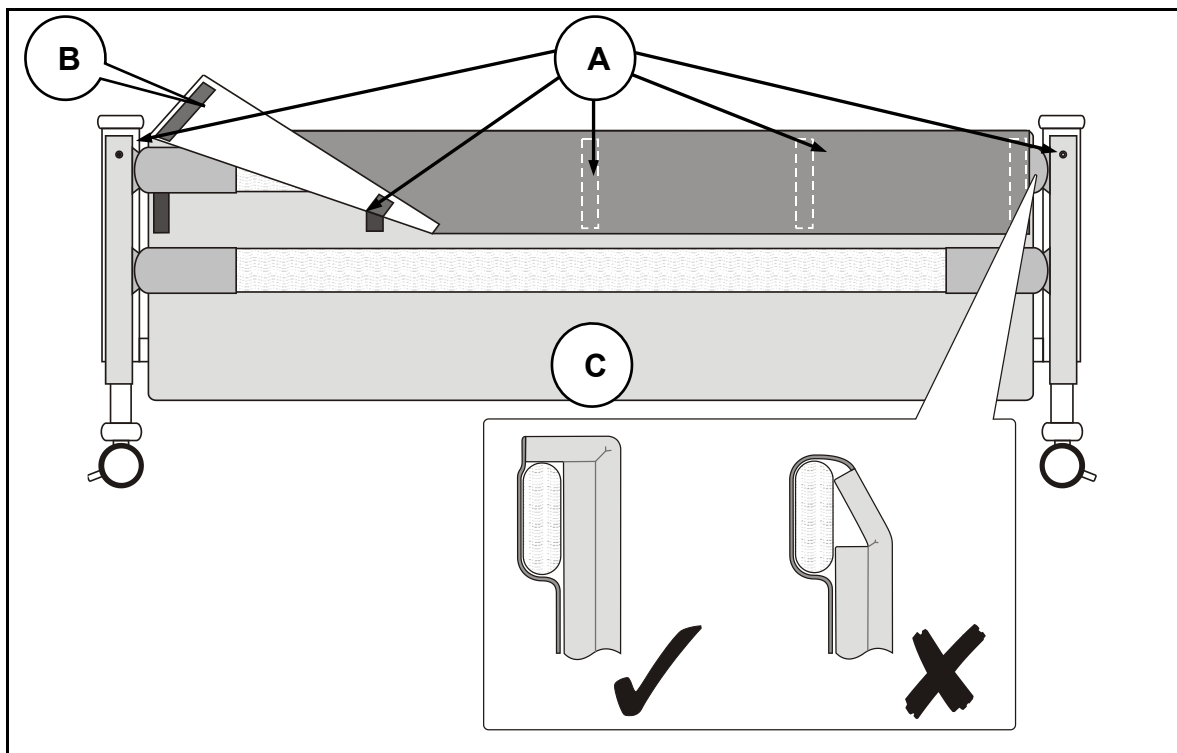
### **Installation**

Raise the side rail to its full locked height at both ends of the bed. Pull apart the five hook and loop straps (A) to release the flap (B).

Position the side rail pad (C) on the bed. It should be placed between the mattress and the side rail, with the flap on the outside of the side rail top rail (or the outside of the height extension rail, if used).

*CM-ACC26 only:* make sure the padded section of the flap lies over the top rail as shown (D).

Fasten the five hook and loop straps to secure the pad to the side rail.



*The diagram shows the side rail pads used with full length wooden side rails. Use a similar method when using the pads with full length steel side rails CM-ACC04.*

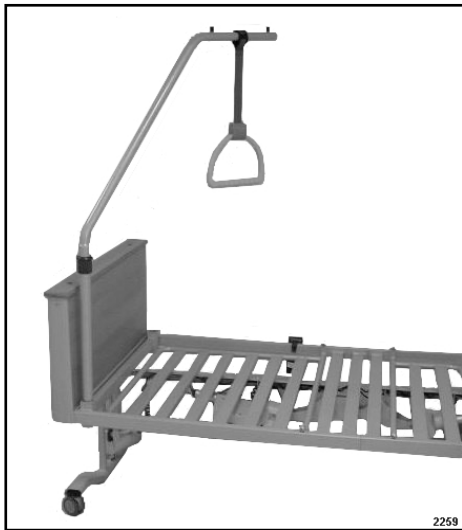
### **Cleaning**

Refer to the instruction label attached to the product.

### **Accessory Weight – pads for full length side rails (per pair)**

CM-ACC03 & CM-ACC26 8lb. (3.9kg)

## Lifting poles CM-ACC09



The lifting pole is used to assist a patient in moving or turning whilst lying on the bed.

Model CM-ACC09 is fixed in one position above the center of the bed.

The lifting pole is supplied with an adjustable strap and handle.

### WARNING

**Do not overload the lifting pole. The maximum weight it can safely support is 165lb. (75kg).**

**Do not hang other objects on the lifting pole, strap or handle.**

**The bed should not be occupied while the lifting pole is being installed.**

**Do not use the lifting pole to push or pull the bed.**

**The operational life of the strap and handle is two years when used and maintained in accordance with the manufacturer's instructions. After this time, the complete unit should be replaced.**

**Inspect the strap and handle regularly. If any sign of wear or damage is found, remove it from use immediately and replace the complete unit.**

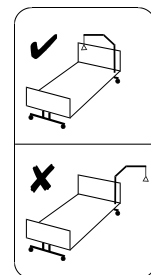
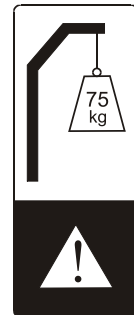
**Only use the recommended strap and handle assembly - Avitana type 04120.**

**Do not adjust the strap while a patient is holding the handle as this may damage the mechanism. After adjusting the strap, make sure it locks with an audible "click".**

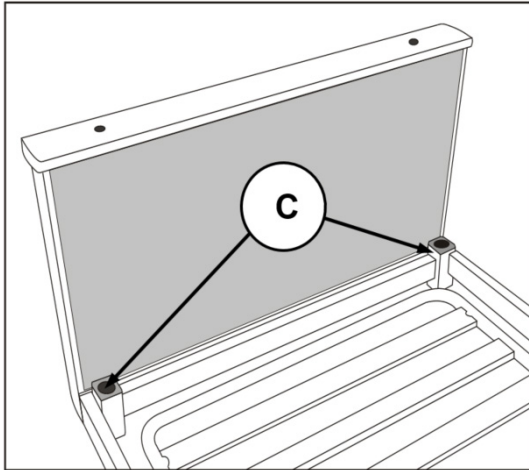
**Do not twist the strap through more than 180° as this may cause premature wear.**

**The lifting pole must be correctly positioned so that the handle hangs over the middle of the bed. Do not allow the lifting strap and handle to hang outside the perimeter of the bed.**

**Ensure that the lifting pole and handle are positioned to suit the size and medical needs of the patient.**

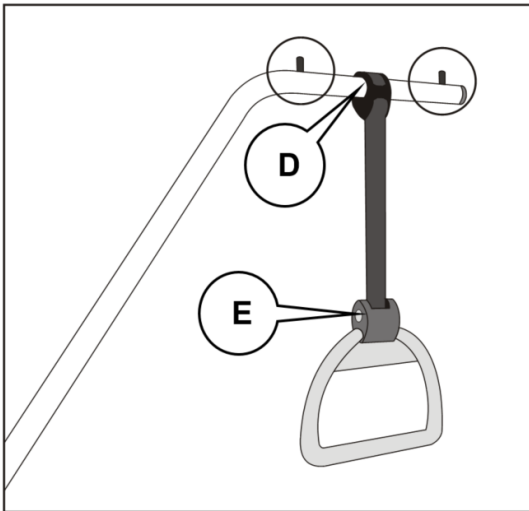


## Installation



Insert the lifting pole vertically downwards into one of the two accessory sockets (C) at the head end of the bed. Twist the pole until you feel it drop slightly in the socket.

Make sure the lifting pole cannot rotate in the socket and that the horizontal part of the pole is positioned above the center of the bed.



Place the loop of the lifting strap (D) over the horizontal part of the pole. Make sure the loop lies between the two pegs (circled) on the lifting pole.

To adjust the height of the handle above the bed, press and hold the button (E) on the side of the handle. Pull the handle down to lengthen the strap, or allow the strap to retract back into the handle to shorten it. Release the button.

## ***Cleaning***

### **WARNING**

**Remove the strap and handle from the lifting pole before cleaning.**

**Only use approved disinfectants and cleaning methods. Other products may cause degradation and possibly premature failure of the equipment.**

**Use all cleaners and disinfectants with care. Obey the manufacturer's instructions for use.**

**Do not disinfect the strap and handle in a pressure chamber, autoclave or steam cleaner as this may damage the product.**

**Before cleaning the handle, extend the strap fully and leave it extended until the handle is completely dry.**

**Lifting pole:** refer to the instructions in Chapter 7.

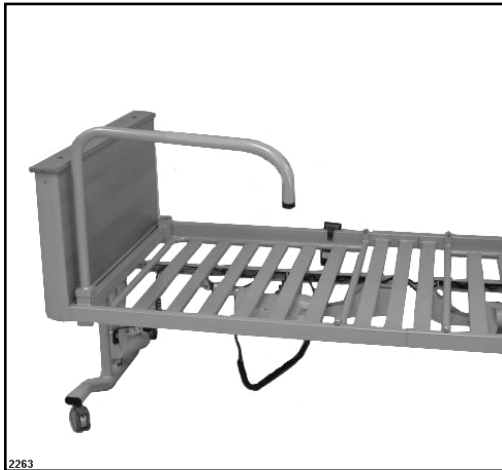
**Strap and handle:** follow the cleaning and disinfecting procedures recommended by the manufacturer (i.e. Avitana) – refer to the separate instruction leaflet supplied with the handle assembly.

### ***Accessory weights – lifting poles with strap and handle***

CM-ACC09

14lb. (6.7kg)

## Mobility support handle CM-ACC11 & CM-ACC12

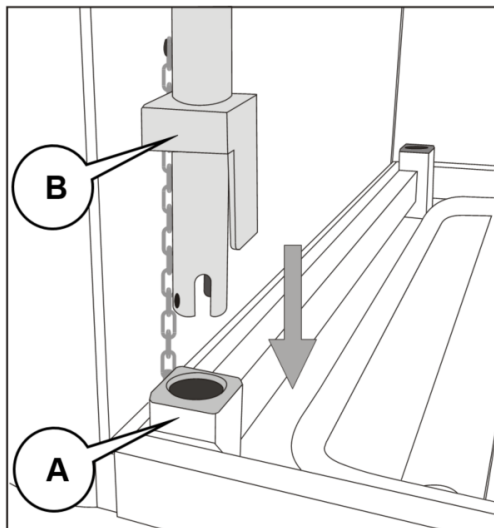


The mobility support handle is used to assist the patient in getting on or off the bed. It is installed in the accessory socket at the head end of the bed.

Two types are available: CM-ACC11 is placed on the left side of the bed (when viewed from the head end) and CM-ACC12 is placed on the right side of the bed.

The picture on the left shows CM-ACC12.

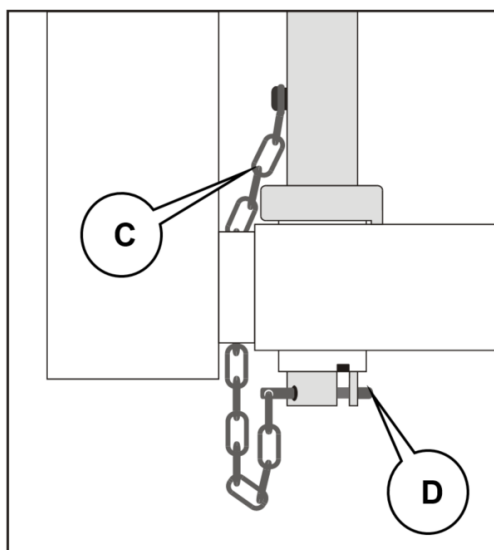
### Installation



Insert the vertical pole of the mobility support handle into the accessory socket (A) on the appropriate side of the bed.

Make sure the mobility support handle cannot rotate in the socket.

When correctly installed, the square base of the pole (B) should sit tightly over the top of the accessory socket.



Ensure that the mobility support handle is angled away from the bed.

Pass the chain (C) behind the accessory socket and install the retaining pin (D) through the two holes at the base of the vertical pole.

Make sure the mobility support handle cannot be lifted out of the socket when the retaining pin is installed.



*Read the important safety information on the next page.*

## WARNING

Do not overload the mobility support handle. The maximum weight it can safely support is 165lb. (75kg).



Do not hang other objects on the mobility support handle.

Always install the mobility support handle on the correct side of the bed.

Do not apply polish or other liquids to the handle as this may make it more difficult to grip.

### ***Accessory weight – mobility support handle***

CM-ACC11 and CM-ACC12      8lb. (4.0kg)

## Flexible handset holder CM-ACC13



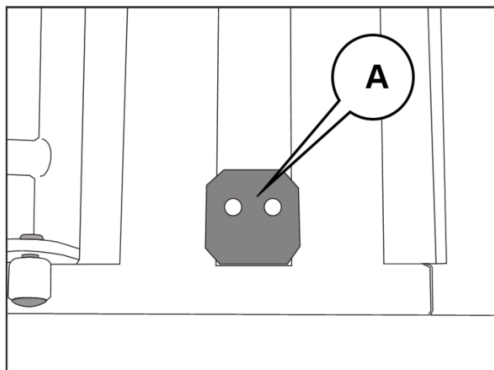
The flexible handset holder is designed to position the control handset within easy reach of the patient. It also allows the controls to be operated by a patient with limited gripping ability.

The flexible handset holder is fixed to the bed frame with a two-piece clamp and may be attached to either side of the bed. These instructions show the accessory on the right hand side of the bed, when viewed from the head end.

### WARNING

**Always use the correct 4mm Allen (hexagon key) when securing the socket head screws. Using other tools may result in the screws not being fully tightened.**

### Installation



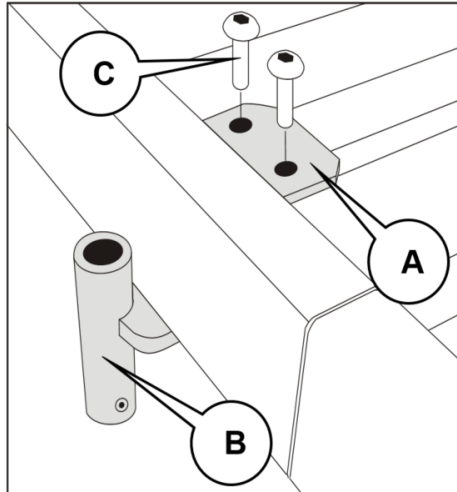
Choose which side of the bed the handset holder is to be installed.

Position the clamp plate (A) on top of the bed frame, placing it between the two central seat section bars as shown.



*The clamp plate is not symmetrical. Ensure the screw holes are correctly positioned as shown.*

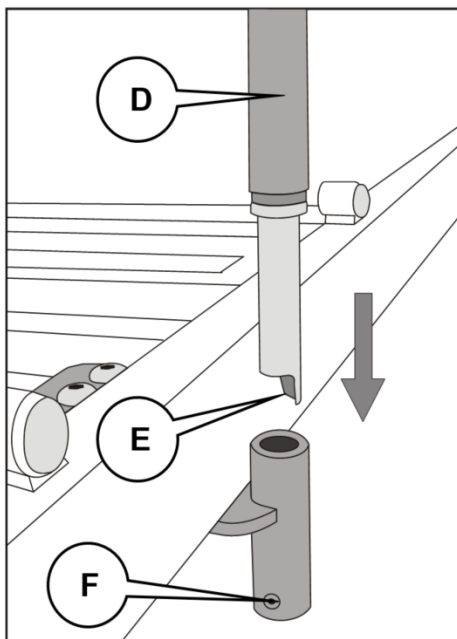




Position the lower clamp section below the bed frame, with the clamp tube (B) on the outside of the bed as shown.

Place two M6 socket head screws (C) down through the clamp plate (A) into the threaded holes in the lower clamp section (B). Make sure the screws are fully tightened.

Check that both sections of the clamp sit tightly against the side frame of the bed to prevent the clamp moving in use.



Push the handset holder pole (D) into the clamp tube (B). Make sure the notch (E) locates on the pin (F) at the bottom of the clamp tube.

Slide the control handset down into the holster with the pushbuttons facing outwards. The clip on the back of the handset will help to retain it in the holster.

Adjust the flexible arm to position the handset in the most comfortable and convenient position for the patient.

### Caution

**Do not allow the control handset cable to become trapped in the bed mechanism when the bed is operated.**

### WARNING

**This accessory must only be attached to the bed in the way described above.**

**Do not use this accessory for any purpose other than storing the control handset.**

### ***Accessory weight – flexible handset holder***

CM-ACC13

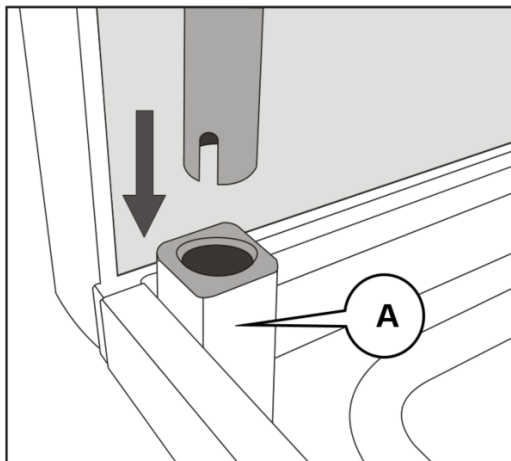
2lb. (1.1kg)

## IV pole CM-ACC14



The IV pole has a single fixed hook. It can be used to support drips, pumps and other IV equipment.

### *Installation*



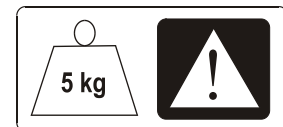
Insert the IV pole vertically downwards into one of the two accessory sockets (A) at the head end of the bed. Twist the pole until you feel it drop slightly in the socket.

Make sure the IV pole cannot rotate in the socket.

### **WARNING**

**Do not overload the IV pole hook.**

**The maximum weight it can safely support is 11lb. (5kg).**

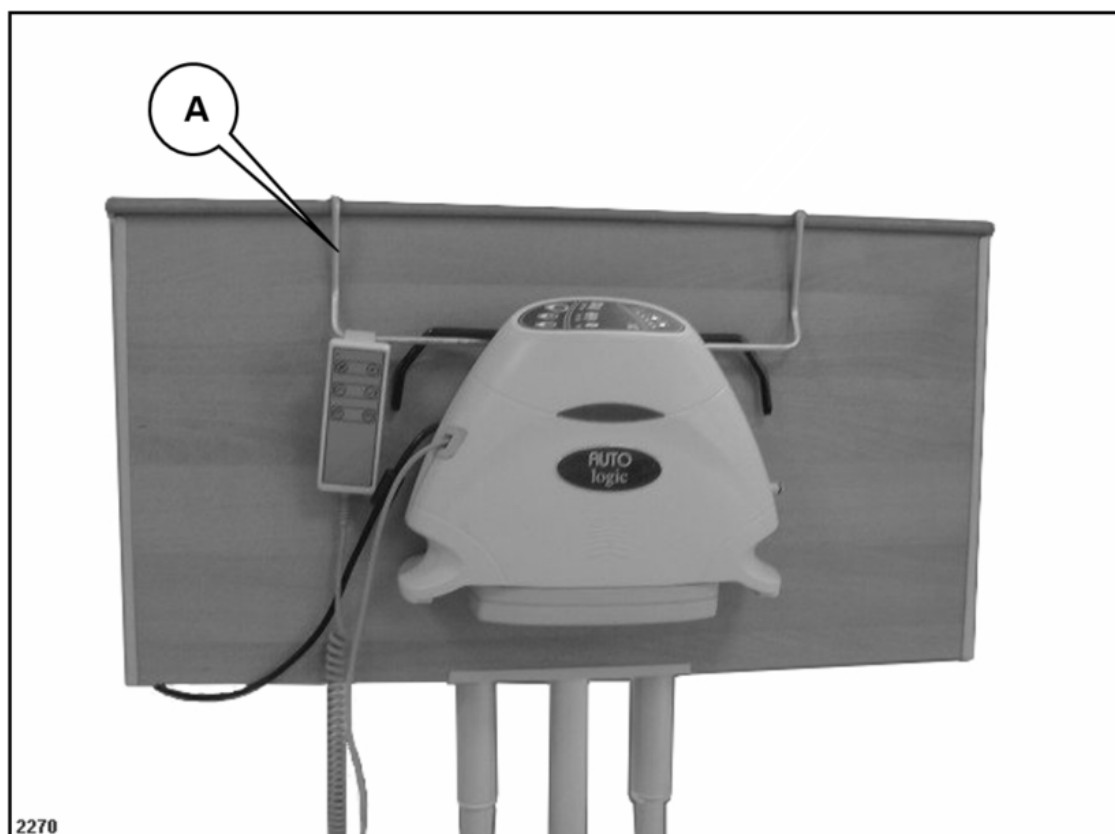


### ***Accessory weight – IV pole***

CM-ACC14

4lb. (2.0kg)

## Mattress pump bracket CM-ACC15



The pump bracket is designed to support the pump from any compatible Arjo air mattress system.

### ***Installation***

Hang the bracket (A) over the foot end panel with the pump holder on the outside of the bed.

### ***Operation***

Install the mattress pump on the pump bracket.

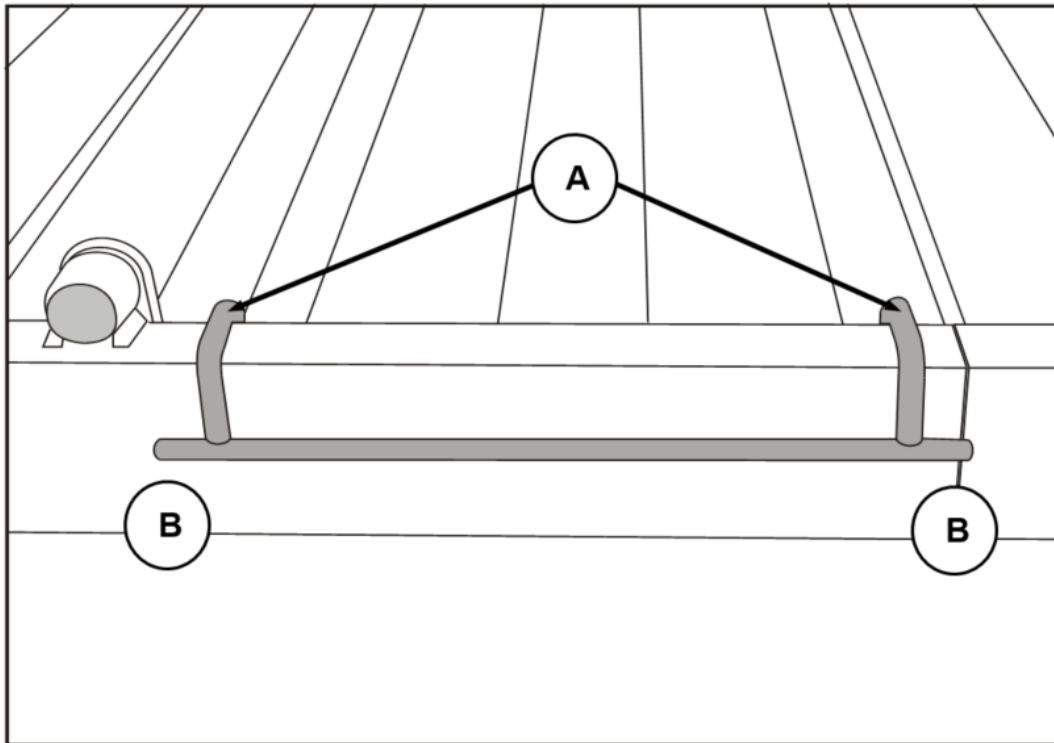
Refer to the instructions for use provided with the air mattress system for guidance on how to operate the pump.

### ***Accessory weight – mattress pump bracket***

CM-ACC15

1lb. (0.5kg)

## Urine bag holder CM-ACC17



The urine bag holder is designed to support a single urine or drainage bag. It can be attached to either the left or right-hand side of the bed as required.

### ***Installation***

Position the arms (A) of the urine bag holder over the outer frame of the bed (see illustration). When installing the urine bag holder, make sure the bag supporting lugs (B) are on the outside of the bed frame.

### ***Operation***

Hang a suitable urine or drainage bag on the two supporting lugs (B).

### ***Accessory weight – urine bag holder***

CM-ACC17

0.22lb. (0.1kg)

## Egress assist rail

### WARNING

The clinically qualified person responsible should consider the size, age and condition of the patient before allowing the use of egress assist rails.

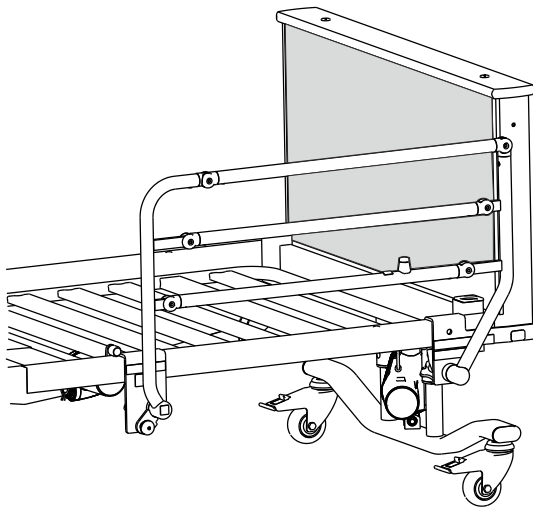
Do not use the egress assist rails like side rails panels due to the short length of the accessory.



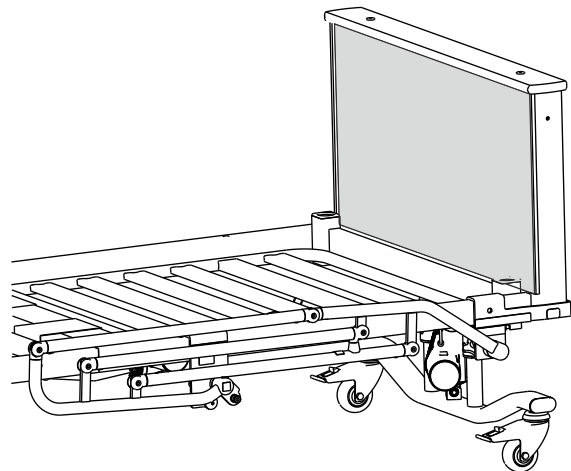
*These instructions show the fitting of egress assist rails model CM-ACC22-1.52. Extra height egress assist rails CM-ACC23-1.52 are fitted and used in the same way. Extra height egress assist rails should be used when the mattress thickness is between 5.9in. (15cm) and 6.8in. (17.2cm). Refer to page 12.*

Egress assist rails are supplied as a matching pair to suit the right and left hand sides of the bed; these instructions show an egress assist rail on the patient's left-hand side.

Once installed, this accessory can be placed in two positions. In the raised position, it can be used to aid a patient in rising from the bed. When lowered, it provides additional security for patients in cases where the use of longer side rails is not desirable.



**Egress assist rail - raised**

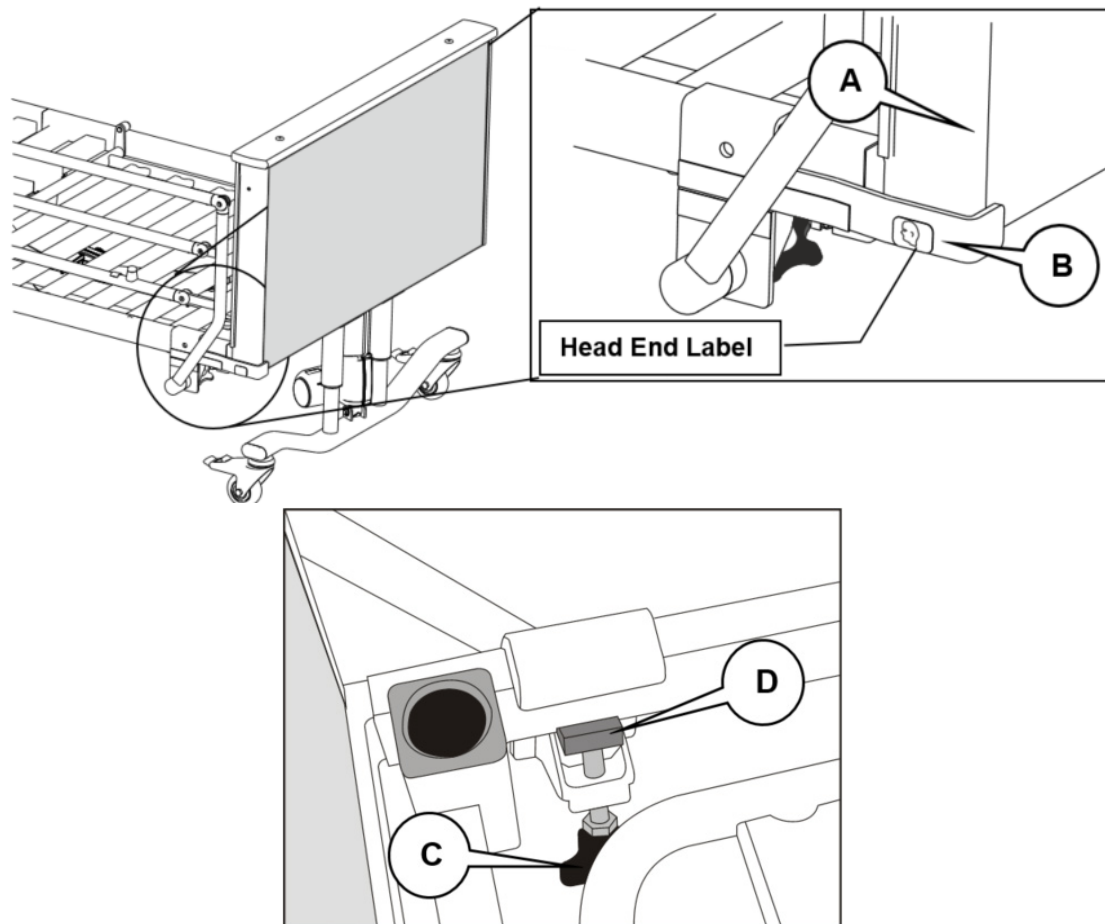


**Egress assist rail - lowered**



*The egress assist rail is not compatible with these accessories:  
Full length side rails CM-ACC00-1, CM-ACC01-1, CM-ACC04-1,  
Folding side rails CM-ACC06-1 and CM-ACC07-1.*

## Installation



The bed should be unoccupied; if this is not possible, take care not to disturb the patient during installation.

Make sure the mattress platform is flat and level. It is not necessary to remove the mattress.

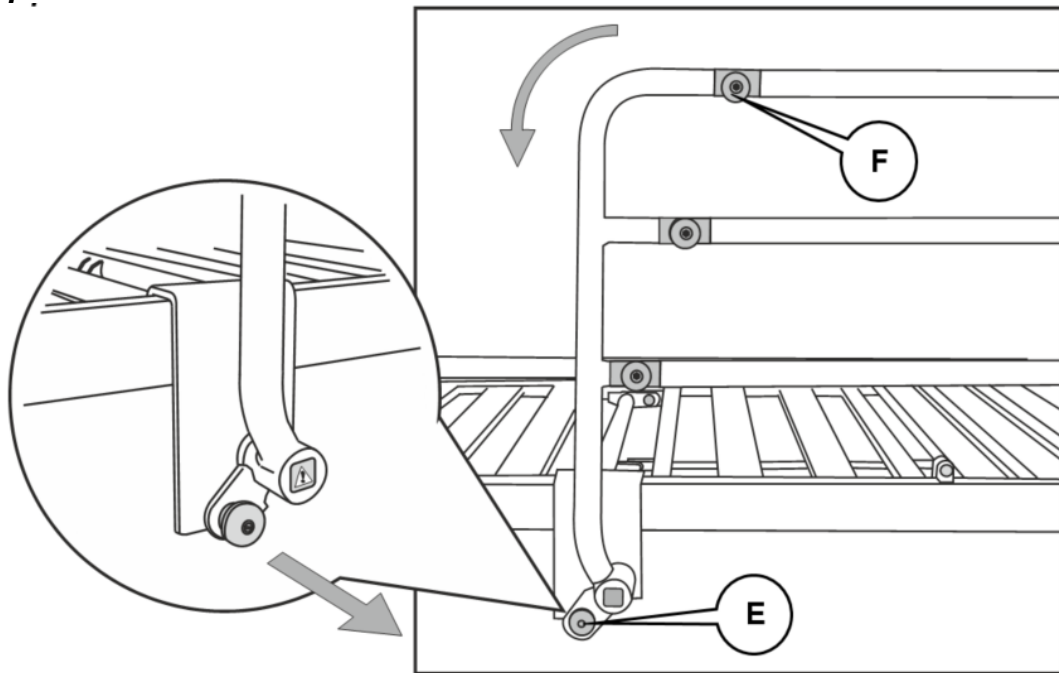
Fully undo the fixing clamp screw (C). Position the Egress Assist Rail, in its lowered position, on the side frame of the bed. Hook the fixing bracket over the top of the bed frame.

The spacer bar (B) must fit behind the edge of the head end panel (A) as shown. This will make sure the Egress Assist Rail is correctly positioned on the bed.

Tighten the fixing clamp screw (C) and make sure the groove in the clamp block (D) sits against the inner bottom edge of the bed frame.

Repeat this procedure to attach the other Egress Assist Rail on the opposite side of the bed. Make sure both fixing clamp screws are fully tightened.

## Operation



### **To lower the egress assist rail**

Hold the rail on the bend (F). Pull out and hold the release knob (E). Rotate the Egress Assist Rail towards the foot end of the bed.

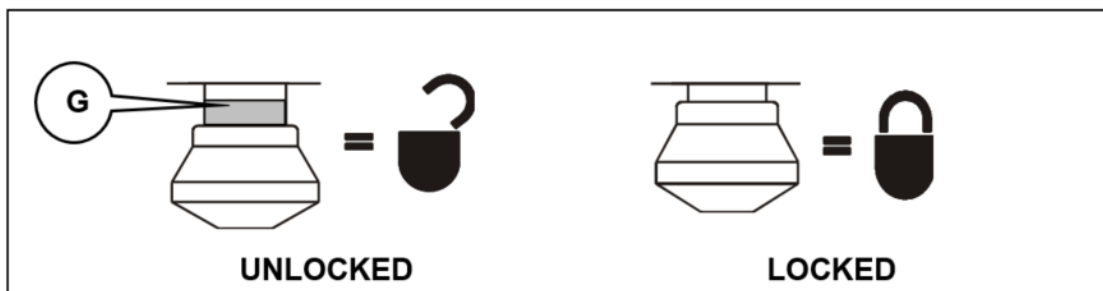
### **To raise the egress assist rail**

Hold the rail on the bend (F). Pull out and hold the release knob (E). Rotate the Egress Assist Rail towards the head end of the bed until it locks in position.

## WARNING

**Take care not to trap the patient's limbs when adjusting the Egress Assist Rails.**

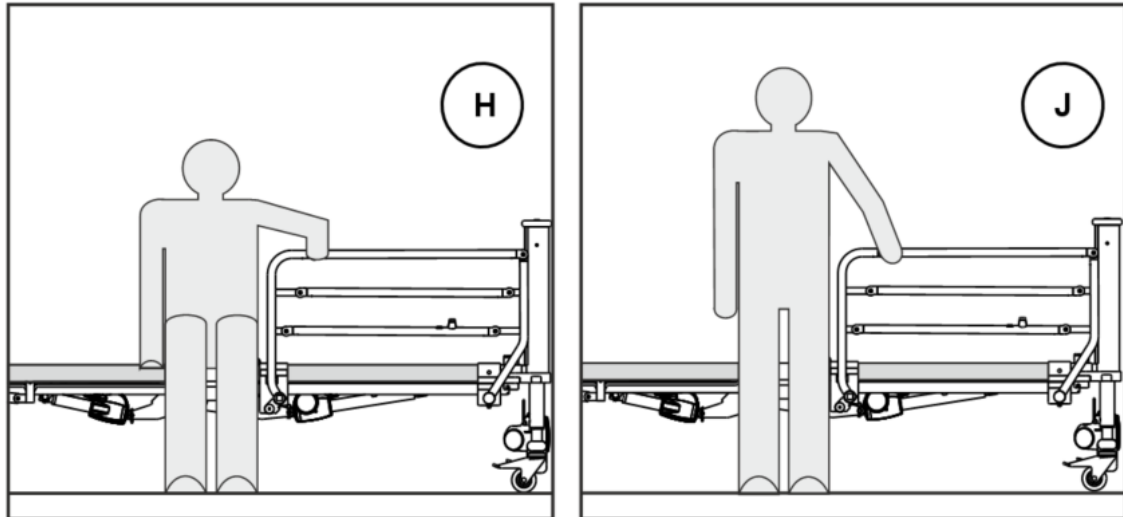
When the Egress Assist Rail is in the raised position, a yellow band (G) behind the operating knob must NOT be visible when viewed from above:



## WARNING

The locking bolt must not be visible when the egress assist rail is in the raised position.

### Using the egress assist rail



Adjust the bed height so that the patient can sit on the edge of the mattress with both feet on the floor. Ensure the Egress Assist Rail is locked in the raised position.

The patient can hold the rail (H) and use it to help them into a standing position (J).

## WARNING

**Do not use the Egress Assist Rails to lift or move the bed.**  
**Do not apply polish or other liquids to the rail as this may make it more difficult to grip.**

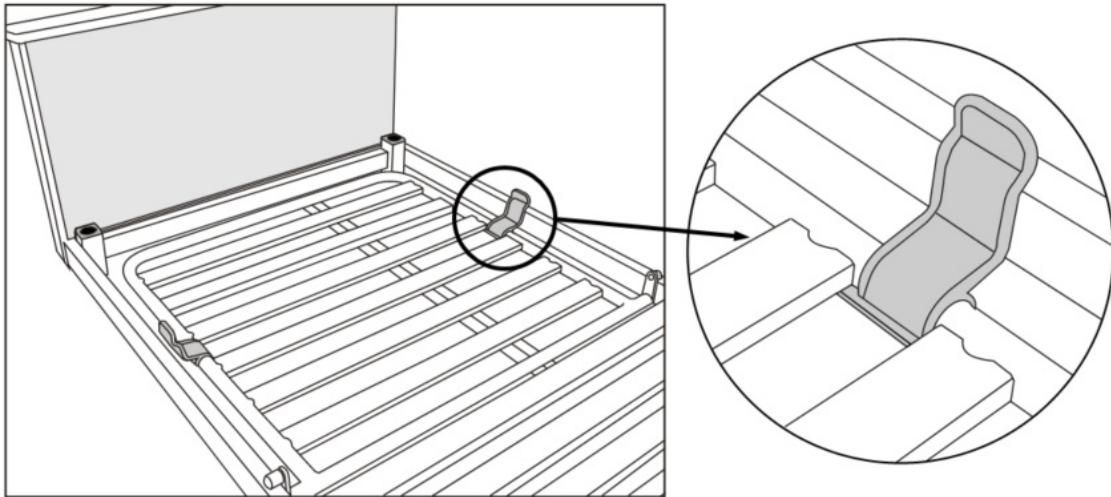
### *Accessory weight – egress assist rail*

CM-ACC22-1.52	13lb. (6kg) each
CM-ACC23-1.52	17lb. (7.3kg) each



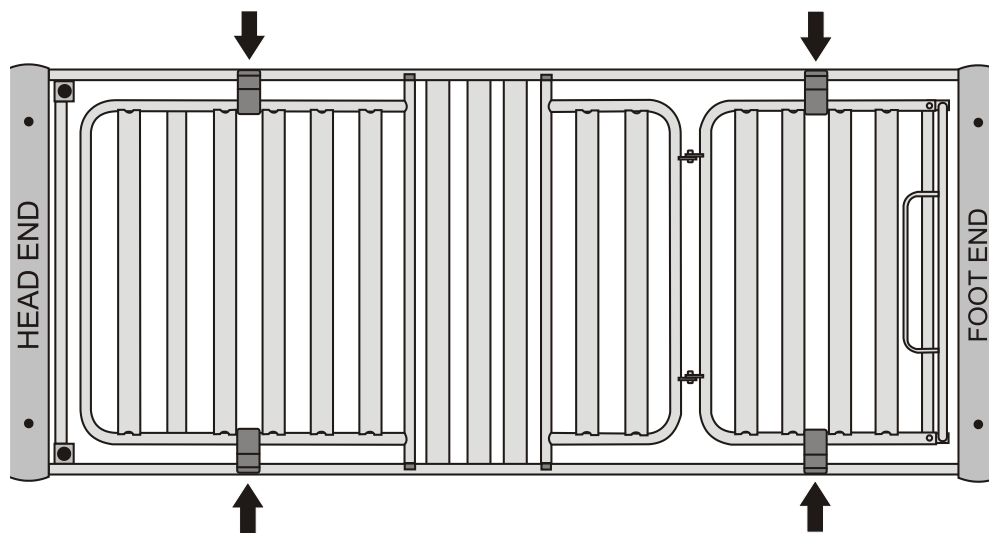
## Mattress retainers CM-ACC24

This accessory comprises four plastic mouldings that are attached to the backrest and leg sections to prevent sideways movement of the mattress.



### **Installation**

Clip the mattress retainers onto either side of the backrest and leg sections. They should be positioned on the side frame, between the mattress platform bars, with the flaps angled towards the outside of the bed. The diagram shows the correct positions for the mattress retainers.



**Mattress retainer positions**

### **WARNING**

To avoid trapping your fingers, keep your hands away from the mattress retainers when lowering the backrest or leg sections

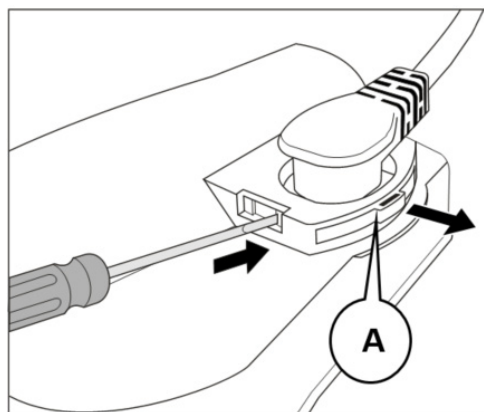
### **Accessory weight – mattress retainers (set of four)**

CM-ACC24

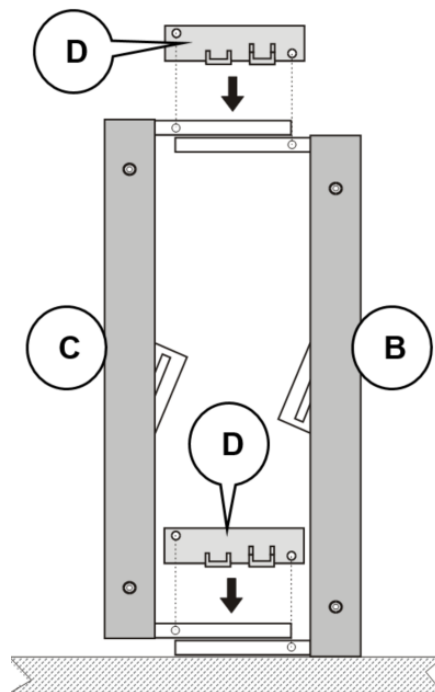
0.44lb. (0.2kg)

## 6. Dismantling the Bed

<b>1</b>	<p>Remove the mattress and all accessories installed on the bed, such as side rails, lifting pole, etc.</p> <p>Use the control handset to lower the bed to minimum height with the mattress platform horizontal. Lower the backrest and leg sections to their flat positions.</p> <p>Disconnect the bed from the electricity supply.</p> <p>Apply the brakes on all four castors.</p> <p>Attach plastic ties to secure the movable backrest and leg sections to the bed frame.</p> <p>Turn the bed onto its left side (as viewed from the head end).</p>
<b>2</b>	<p>Use a small flat-bladed screwdriver to prize open the two clips holding the retaining strip onto the control box.</p> <p>Remove the retaining strip and put to one side.</p>
<b>3</b>	<p>Unplug the control handset from the control box and put to one side.</p> <p>Unplug the actuator cable from the control box socket marked <b>4</b>.</p> <p>Unplug the actuator cable from the control box socket marked <b>2</b>.</p>
<b>4</b>	<p>Partially pull out the retaining pin from the cable channel below the head end mattress platform, adjacent to the backrest actuator.</p> <p>Identify the cables for the foot end height actuator (labeled <b>4</b>) and leg section actuator (labeled <b>2</b>). Carefully pull these cables out of the cable channel. Replace the retaining pin.</p> <p>Attach the retaining strip to the control box for safe storage.</p>
<b>5</b>	<p>Release the cable retaining clip on the head end height actuator by pushing a small screwdriver into the slot on the side of the socket and pulling out the clip (A). Disconnect the cable from the actuator.</p> <p>Repeat this procedure for the foot end height actuator.</p>
<b>6</b>	<p>Use a 5mm Allen (hexagon) key to remove the two socket head fixing screws securing the foot end panel section to the bed.</p> <p>Pull the foot end panel section away from the bed and lay it on the floor.</p>



<p><b>7</b></p>	<p>Remove the two socket head fixing screws securing the foot end mattress platform section to the bed.</p> <p>Pull the foot end mattress platform section away from the bed, taking care not to trap or pinch the actuator cables, and lay it on the floor.</p>
<p><b>8</b></p>	<p>Remove the two socket head fixing screws securing the head end mattress platform section to the head end panel section.</p> <p>Pull the two sections apart, taking care not to trap or pinch the actuator cables, and lay both sections on the floor.</p> <p>Coil up all the actuator cables neatly and secure with suitable plastic ties.</p> <p>Coil the power cord around the control box and the slot in the head end mattress platform section.</p>
<p><b>9</b></p>	<p>Lie the head end panel section (B) on its side.</p> <p>Position the foot end panel (C) section, also on its side, so that both fixing arms overlap as shown in the diagram.</p> <p>Place the transit brackets (D) down over the fixing arms. Both transit brackets must be positioned with their open sides pointing towards the floor.</p> <p>Line up the holes in each transit bracket with the holes in the end panel section fixing arms.</p>
<p><b>10</b></p>	<p>Use four M8 socket head screws to secure the both end panel sections onto the transit brackets. Fasten the screws finger tight at first, then tighten them fully using a 5mm Allen (hexagon) key once all four screws are in place.</p>



<p><b>11</b></p>	<p>Stand the end panel sections, assembled onto the transit brackets, upright on their castors.</p> <p>Slide the <b>head end</b> mattress platform section (E) down onto the <b>short</b> uprights (F) on the transit brackets.</p> <p>Slide the <b>foot end</b> mattress platform section (G) down on to the <b>tall</b> uprights (H) on the transit brackets.</p>	<p>The diagram illustrates the assembly process for the mattress platform sections. It shows two vertical uprights, labeled H (tall) and F (short), which are part of the transit brackets. At the bottom, there are castors. A cardboard packing block (J) is placed between the two mattress platform sections, E (head end) and G (foot end). A plastic cable tie (K) is used to secure the packing block and the mattress sections together. Arrows indicate the downward movement of sections E and G onto the uprights.</p>
<p><b>12</b></p>	<p>Place the cardboard packing block (J) between the two mattress platform sections.</p> <p>Fasten a plastic cable tie (K) around the packing block and mattress platform sections to hold them together.</p> <p>Check that no cables are trapped between the bed sections and/or the transit brackets.</p>	
<p><b>13</b></p>	<p>Replace the remaining two M8 socket head screws in the threaded holes in the head end mattress platform section for safe storage.</p> <p>Wrap the control handset and all accessories in suitable protective packaging. The bed is now ready to be transported.</p>	

## 7. Cleaning

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### WARNING

**Disconnect the bed from the electricity supply before cleaning.**

**The bed should be cleaned and disinfected before it is used by a new patient.**



*These instructions also apply to accessories but not to lifting straps and handles, mattresses or side rail pads.*

### **Cleaning**

Wearing suitable protective clothing, clean all surfaces with a disposable cloth soaked in a neutral detergent and hand hot water.

Start by cleaning the upper parts of the bed and clean along all horizontal surfaces. Work methodically towards the lower sections of the bed and clean the castors last.

Take extra care with areas that may trap dust or dirt.

Rinse with clean water and dry with disposable paper towels.

Allow the cleaned parts to dry completely before returning the equipment to use.

### **Disinfecting**

After cleaning the bed, wipe all surfaces with sodium dichloroisocyanurate (NaDCC) at a concentration of 1,000 parts per million (0.1%) of available chlorine.

In the case of pooling body fluids, e.g. blood, increase the concentration of NaDCC to 10,000 parts per million (1%) of available chlorine.

### Caution

**Do not use abrasive compounds or pads as these may damage the finish.**

**Do not use phenol-based disinfectant solutions.**

**Avoid splashing the actuators, control box and control handset.**

## 8. Care and Preventive Maintenance

### Preventive maintenance

This product is subject to wear and tear during use. To ensure that it continues to perform within its original specification, preventive maintenance procedures should be carried out at the intervals shown.

#### WARNING

**This list indicates the minimum level of preventive maintenance recommended by the manufacturer. More frequent inspections should be carried out when the product is subjected to heavy use or aggressive environments, or where required by local regulations.**

**Failure to carry out these checks, or continuing to use the product if a fault is found, may compromise the safety of both the patient and carer/user. Preventive maintenance can help to prevent accidents.**

**Disconnect the bed from the electricity supply before starting any maintenance activity. To isolate the bed from the electricity supply, disconnect the electrical power cable from the socket outlet. The bed will still operate on battery power if handset buttons are pressed. A description of how to completely disconnecting all electrical power can be found in the Service Manual.**

#### NOTE

Product cannot be maintained and serviced while in use with the patient.

<i>Actions to be done by carer/user</i>	<i>Daily</i>	<i>Weekly</i>
Cleaning and disinfection	✓	
Examine lifting pole strap and handle	✓	
Check patient handset and cable		✓
Visually check castors		✓
Visually check power cord and plug		✓
Inspect mattress and side rail pads for tears, splits, staining, etc.		✓
Check operation of side rail		✓
Check the screw clamps are fully tightened when using CM-ACC06.52 and CM-ACC07.52 (side rails).		✓
Check the screw clamps are fully tightened when using CM-ACC22.52 and CM-ACC23.52 (egress assist rails).		✓

If the result of any of these tests is unsatisfactory, contact Arjo or an approved service agent.

## WARNING

The procedures below must be carried out by suitably trained and qualified personnel. Failure to do so may result in injury or an unsafe product.

<i>Actions to be done by qualified personnel</i>	<i>Yearly</i>
Carry out a full test of all electrical bed positioning functions (backrest, height, etc.)	✓
Check that the bed operates correctly when using battery power—see below	✓
Check operation of castors, paying special attention to brake function	✓
Examine the power cord and plug - replace the complete assembly if damaged. Do not use a rewirable plug	✓
Examine all accessible flexible cables for damage and deterioration	✓
Check all nuts, bolts and other fasteners are present and correctly tightened	✓
Check all bed accessories, paying particular attention to fasteners and moving parts	✓

### ***Battery test***

Check the condition of the backup battery by carrying out the following test:

1. Make sure that the bed has been connected to the electricity supply for at least 24 hours. Use the control handset to lower the bed to minimum height.
2. Disconnect the bed from the electricity supply.
3. Place a suitable mattress on the bed and apply a load of 80kg (i.e. a person who weighs 12 stones) to the mattress platform.
4. Use the control handset to raise and lower the mattress platform, from minimum to maximum height and back again.
5. If the bed does not operate satisfactorily in Step 4, perform Steps 1 to 4 again.

If the bed continues to operate unsatisfactorily, it may indicate that the backup battery needs replacing.

## Troubleshooting guide

If the equipment fails to operate correctly, the table below suggests some simple checks and corrective actions. If these steps fail to resolve the problem, contact Arjo or an approved service agent.

<b>Symptom</b>	<b>Possible Cause</b>	<b>Action</b>
None of the actuators work	Power cord disconnected	Check the power cord is plugged in and the electricity supply is OK
	Fuse blown	Check fuse in power plug (where installed)
	Control handset disconnected	Check handset is plugged into the control box
One actuator does not work	Actuator cable disconnected	Check actuator cable is plugged into both the actuator and control box
Castor does not rotate or swivel	Brake applied	Release brake



## 9. Warranty and Service

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Arjo standard terms and conditions apply to all sales. A copy is available on request. These contain full details of warranty terms and do not limit the statutory rights of the consumer.

If you experience difficulties operating this equipment or it fails to perform as expected, and for all service and maintenance, please contact your local Arjo office or authorised distributor. A list of Arjo offices can be found at the back of these instructions.

A full technical description of the *Minuet 2* can be found in the Service Manual, part number 746-397, available from your local Arjo sales office.

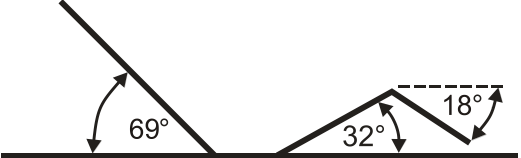
Arjo will make available on request service manuals, component parts lists and other information necessary for Arjo trained personnel to repair the system.

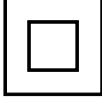

### ***Product lifetime***










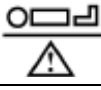

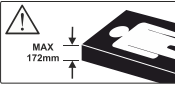



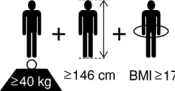
The lifetime of this product is typically ten (10) years. This also applies to accessories (except lifting strap and handle assemblies, which should be replaced after two years).

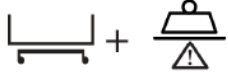



“Lifetime” is defined as the period during which the product will maintain the specified performance and safety, provided it has been maintained and operated in conditions of normal use in accordance with the requirements in these instructions.

## 10. Technical Data

<b>General</b>	
Safe working load (SWL)	396lb. (180kg)
Maximum patient weight	319lb. (145kg)
Operating conditions	
Temperature	41°F to 104°F (5°C to 40°C)
Relative humidity	20% to 90% non-condensing
Atmospheric pressure	800 to 1060hPa
Audible noise	52dB typical
Product weight (without mattress or accessories)	
Head and foot end panel sections	50lb. (22.8kg) each
Head end mattress platform section	52lb. (23.5kg)
Foot end mattress platform section	44lb. (19.8kg)
Total	196lb. (88.9kg)
<b>Dimensions</b>	<i>All dimensions are subject to normal manufacturing tolerances</i>
Overall length	88.6in. (225cm)
Extended	94in. (239cm)
Overall width	37in. (94cm)
With side rails installed	41.3in. (105cm)
Height of mattress platform	9.8 to 26in. (25 to 66cm)
Mattress platform angles (max.)	 <p>The diagram illustrates the maximum angles for the mattress platform. It shows a horizontal base line with three angled sections. The first section on the left is inclined upwards at an angle of 69°. The second section is inclined downwards at an angle of 32°. The third section is inclined upwards at an angle of 18°. Dashed lines and arrows indicate the measurement of these angles.</p>
Mattress Size (standard side rails)	78 x 33.8 x 5in. – 5.9in. (198 x 86 x 12.5cm – 15cm)

<b>Electrical data</b>	
Power input	1.7A max. 120V a.c. 60Hz
Duty rating	Intermittent 10% (2 min. on, 18 min. off)
Electric shock protection	Class II  Type B 
Backup battery	12V, 1.2Ah sealed rechargeable lead/acid gel
Typical lifetime	4 years max.
Backup duration	6 full lift / lower cycles with SWL
Liquid ingress protection	IP24 (2-Protection against solid particle ingress larger than 12.5mm – fingers or similar objects. 4-Protection against liquid ingress – water splashing against the enclosure from any direction shall have no harmful effect).
<b>End of Life Disposal</b>	
<p>Equipment that has electrical and electronic components should be disassembled and recycled per Waste of Electrical and Electronic Equipment (WEEE) or in accordance with local or national regulation.</p> <p>All batteries in the product must be recycled separately. Batteries are to be disposed in accordance with national or local regulations.</p> <p>Components that are primarily made up of different kinds of metal (containing more than 90% metal by weight) for example bed frame, should be recycled as metals.</p>	
<b>Transportation and storage</b>	
Handle with care. Do not drop. Avoid shock or violent impact. This equipment should be stored in a clean, dry and well-ventilated area which meets the following conditions:	
Temperature	-13°F to 158°F (-10°C to 50°C)
Relative humidity	20% to 90% non-condensing
Air pressure	800 to 1060hPa
<b>Caution</b>	
<b>If the bed is stored for a long time, every three months it should be connected to the electricity supply for 24 hours to recharge the backup battery. Failure to do this may reduce the life of the battery.</b>	

Symbols	
	Caution - refer to instructions for use
	Class II equipment
	Type B applied part. Includes all parts of the medical bed that are within reach of the patient, even if they are underneath the mattress support surface.
	Serial number
	Model number
	Date of manufacture / name of manufacturer
	CE marking indicating conformity with European Community harmonised legislation
	Indicates the product is a Medical Device according to EU Medical Device Regulation 2017/745
	Safe working load (SWL)
	Maximum recommended patient weight
	Recommended mattress size
	Recommended mattress size displayed on accessory
	Refer to instructions for use
	(On detachable side rails) Ensure that the side rails are compatible with the bed before installing them
	Compliant with IEC 60601-2-52 standard
	Recommended patient size

	<p>Total weight of the equipment including its Safe Working Load</p>
	<p>Waste Electrical and Electronic Equipment (WEEE) – do not dispose of this equipment in general household or commercial waste</p>
	<p>Unique Device Identifier</p>
	<p>AS TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY  Certified by UL according to standards:</p> <p>ANSI/AAMI ES60601-1:2005 + AMD1:2012  CAN/CSA-C22.2 No. 60601-1:14  IEC 60601-1:2005 + AMD1:2012  IEC 60601-1-6:2010 + AMD1:2013  IEC 60601-1-11:2015  IEC 60601-2-52:2009 + AMD1:2015</p>

## 11. Electromagnetic Compatibility (EMC)

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Product has been tested for compliance with current regulatory standards regarding its capacity to block EMI (electromagnetic interference) from external sources.

Some procedures can help reduce electromagnetic interferences:

- Use only Arjo cables and spare parts to avoid increased emissions or decreased immunity which can compromise the correct functioning of the equipment.
- Ensure that other devices in patient-monitoring and/or life-support areas comply to accepted emissions standards.



### **WARNING**

**Wireless communications equipment such as wireless computer network devices, mobile phones, cordless telephones and their base stations, walkie-talkies, etc. can affect this equipment and should be kept at least 1.5 m away from the equipment.**

Intended Environment: Home Healthcare Environment and Professional Healthcare facility environment.


Exceptions: HF Surgical Equipment and the RF Shielded room of an ME SYSTEM for magnetic resonance imaging.



### **WARNING**

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

<b>Guidance and manufacturer's declaration – electromagnetic emission</b>		
<b>Emission test</b>	<b>Compliance</b>	<b>Guidance</b>
RF emissions CISPR 11	Group 1	<p>This equipment uses RF energy only for its internal functions. Therefore its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.</p> <p>This equipment 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.</p>
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Class B	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

<b>Guidance and manufacturer's declaration – electromagnetic immunity</b>			
<b>Immunity test</b>	<b>IEC 60601-1-2 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment - guidance</b>
Electrostatic discharge (ESD) EN 61000-4-2	±2kV, ±4kV, ±8kV, ±15kV air  ±8kV contact	±2kV, ±4kV, ±8kV, ±15kV air  ±8kV contact	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material the relative humidity level should be at least 30%.
Conducted disturbances induced by RF fields EN 61000-4-6	3V in 0,15 MHz to 80 MHz  6V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80% AM at 1 kHz	3V in 0,15 MHz to 80 MHz  6V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80% AM at 1 kHz	<p>Portable and mobile RF communications equipment should be used no closer to any part of the product, including cables, than 1.0m, if the transmitter's output power rating exceeds 1W<sup>a</sup>. Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range<sup>b</sup>. Interference may occur in the vicinity of equipment marked with this symbol:</p> 
Radiated RF electromagnetic field EN 61000-4-3	Home Healthcare environment 10 V/m 80 MHz to 2,7 GHz 80% AM at 1 kHz	Home Healthcare environment 10 V/m  80 MHz to 2,7 GHz 80% AM at 1 kHz	
Proximity fields from RF wireless communications equipment EN 61000-4-3	385 MHz - 27 V/m 450 MHz - 28 V/m 710, 745, 780 MHz - 9V/m 810, 870, 930 MHz - 28 V/m 1720, 1845, 1970, 2450 MHz - 28 V/m 5240,5500, 5785 MHz - 9V/m	385 MHz - 27 V/m 450 MHz - 28 V/m 710, 745, 780 MHz - 9V/m 810, 870, 930 MHz - 28 V/m 1720, 1845, 1970, 2450 MHz - 28 V/m 5240,5500, 5785 MHz - 9V/m	
Electrical fast transient/burst EN 61000-4-4	±1kV SIP/SOP ports ±2kV AC port 100kHz repetition frequency	±1kV SIP/SOP ports ±2kV AC port 100kHz repetition frequency	
Power frequency Magnetic field EN 61000-4-8	30A/m 50 Hz or 60 Hz	30A/m 50 Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.



Guidance and manufacturer's declaration – electromagnetic immunity			
Immunity test	IEC 60601-1-2 test level	Compliance level	Electromagnetic environment - guidance
Surge IEC 61000-4-5	±0,5kV ±1kV; ±2 kV, AC Mains, Line to Ground ±0,5kV ±1kV, AC Mains, Line to Line	±0,5kV ±1kV; ±2 kV, AC Mains, Line to Ground ±0,5kV ±1kV, AC Mains, Line to Line	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % UT; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0°  0 % UT; 250/300 cycle	0 % UT; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0°  0 % UT; 250/300 cycle	

NOTE:  $U_T$  is the AC mains voltage prior to application of the test level.

<p><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 product is used exceeds the applicable RF compliance level above, the product should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary.</p>
<p><sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 1 V/m.</p>

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