

**NESBIT EVANS Products Division** 

## **MINUET COMMUNITY BEDS**

# MODELS

# 100500, 100510, 100520, 100530, 100535, 100540, 100550, 100560, 100570, 100580, 100585 & 100590

## **USER MANUAL**

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## **Warnings and Cautions**

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

Notes given in this manual (indicated by  $\mathbb{R}$ ) are used to explain or amplify a procedure or condition

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

## WARNINGS

The tilt facility, if available, should only be used with the guidance of a clinically qualified person.

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

Ensure that the bed is assembled correctly in accordance with the instructions in this manual.

The bed is not designed for patient transport and should not be used for this purpose.

## 1. Introduction

This manual gives instructions for the use and maintenance of Huntleigh MINUET<sup>TM</sup> community beds with the Model Numbers listed in the table.

| Model Number→<br>Design Feature↓                                | 100500 | 100510 | 100520 | 100530 | 100535* | 100540 | 100550 | 100560 | 100570 | 100580 | 100585 | 100590 |
|---|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| Four section<br>mattress platform                               | ~      | ~      |        |        |         |        | ~      | ~      |        |        |        |        |
| Two section<br>mattress platform                                |        |        | ~      | ~      |         |        |        |        | ~      | ~      |        |        |
| Flat deck (single section) mattress platform                    |        |        |        |        | ~       | ~      |        |        |        |        | ~      | ~      |
| Electrical tilt<br>adjustment                                   | ~      |        | ~      |        | ~       |        | ~      |        | ~      |        | ~      |        |
| Electrical height adjustment                                    | ~      | ~      | ~      | ~      | ~       | ~      | ~      | ~      | ~      | ~      | ~      | ~      |
| Electrical Backrest<br>adjustment                               | ~      | ~      | ~      | ~      |         |        | ~      | ~      | ~      | ~      |        |        |
| Electrical leg elevation<br>with manual kneebreak<br>adjustment | ~      | ~      |        |        |         |        | ~      | ~      |        |        |        |        |
| Manual leg elevation (straight leg)                             |        |        | ~      | ~      |         |        |        |        |        |        |        |        |
| Built-in wooden<br>safety sides                                 |        |        |        |        |         |        | ~      | ~      | ~      | ~      | ~      | ~      |

#### **Product Range**

\*Non-standard Models.



If the model number has a "B" suffix it means that the bed has battery backup capabilities.



Model 100500 bed with lifting pole, IV pole and safety side



Model 100550 bed with built-in wooden safety sides

## 2. Clinical Applications

| Area of use            | Private, nursing and convalescent homes.   |
|------------------------|--|
| Indicators             | Use of the bed is appropriate to assist patient positioning and to reduce lifting and handling stresses for the carer.   |
|                        | The four-section deck allows the patient to be<br>moved to an upright sitting position with the knees<br>supported or legs elevated. When used in<br>conjunction with a pressure reducing or pressure-<br>relieving mattress, the contouring and added support<br>will help to reduce shear. |
| Contra-<br>Indications | Maximum safe working load 180 kg (i.e., combined weight of patient, mattress and accessories).   |
|                        | Trendelenberg and/or reverse trendelenberg tilt may<br>be contra-indicated for certain medical conditions.<br>The tilting facility should only be used on the advice<br>of a clinically qualified person after assessment of<br>the patient's condition.                                     |
|                        | The bed is intended for average sized adults and children aged 12 years and upwards.   |

## 3. Assembly, Installation and Disassembly

### WARNING

#### Heavy equipment hazard. The bed and its sub-assemblies are heavy and appropriate precautions should be taken to avoid injury when lifting or moving them.

Check that you have the following parts:

Head end assembly Foot end assembly Head end deck assembly Foot end deck assembly Control handset Six clamp screws

For Model 100550, 100560, 100570, 100580, 100585 or 100590 you should also have:

Four wooden side rails Four hanging wires Four plastic spacers Four M6 x 25 screws and washers (fitted or loose) Four buffer bushes (fitted or loose)

Make sure you have enough room to turn the bed from its side to upright when assembled. Use carpet or other suitable protection to avoid damage.

#### Assembly

 On both the head end and foot end assemblies, turn the castors inward toward each other and apply the brakes. (Refer to Operation Section.) Lay the head end flat on the floor with the spigots on the frame uppermost.



2. On models with adjustable backrest, temporarily tie the backrest to the deck frame with cord to prevent inadvertent movement. Assemble the head end deck assembly to the head end. (Model 100540 is illustrated).



3. Stand the assembled components on one side with the connector sockets on the backrest actuator or control box (A) uppermost.



4. Assemble the foot end deck assembly to the head end deck assembly.



5. Assemble the foot end to the deck.

When assembling the foot end on beds that have wooden safety sides, you will need the assistance of a second person to align the sections.





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6. Tighten the three clamp screws (B) beneath the side-member. Also tighten the three clamp screws beneath the other side member. Make sure that all joints are fully inserted and that all six clamp screws are fully tightened.



7. Carefully thread the head end actuator cable through the support loop (C) on the frame and connect it to socket 2 on the backrest actuator or control box. Adjust the cable coils in the loop so the cable is under tension but not strained.



Models with adjustable backrest



Models with flat deck (single section)

8. On models with electrical leg elevation, carefully thread the leg actuator cable up through the large hole in the actuator mounting bracket (D - on next page). Connect the cable to socket 4 on the backrest actuator or control box.

9. Carefully thread the foot end actuator cable through the support loop (E) on the deck frame and connect it to socket 3 on the backrest actuator or control box. Adjust the cable coils in the loop so the cable is under tension but not strained.



Models with electrical leg elevation



Models with flat deck (single section)



Models with backup battery

10.Connect the control handset cable to the socket identified by a handset symbol on the backrest actuator control box.





When fitted - Connect the backup battery plug to the socket identified by a battery symbol on the backrest actuator control box.



Socket identification label



11.Stand the bed on its castors. Make sure that all joints are correctly inserted and that their clamp screws are fully tightened.



Beds without wooden safety sides are now fully assembled. For beds with wooden safety sides, continue as follows:

> 12.Turn the bed on one side again. Remove two screws, washers and buffer bushes (if fitted) from the bottom of the guide slots in the corner posts.

13. Take one wooden rail and at each end, fit a hanging wire in the slots in the slide block.



- 14.Insert the rail sub-assembly into the guide slots in the corner posts.
- 15.Get the help of a second person to support the bottom rail in position. Fit the hanging wires into the slots in the slide blocks, with the wire ends in the location holes in the block. Position the spacers in the end of the guide slots in the corner post.



- 16.Holding the hanging wires in position, insert the rail sub-assembly into the guide slots in the corner posts.
- 17.Insert the buffer bush into the bottom of the guide slot, align with the threaded hole and fit the M6 x 25 screw and washer to retain it. Do not over tighten as this can distort the aluminium runner.



#### Caution Do NOT use the safety side rails to lift or move the bed.

- 18.Stand the bed on its castors and check that the side rails can be raised and lowered easily and that the latch functions correctly. (Refer to Section 4, Operation.)
- 19.Repeat steps 12 to 18 for the other side of the bed.
- **Installation** Connect the power supply cable to a suitable socket outlet.

#### WARNINGS

Make sure that the mains supply cable is not stretched when connected.

Make sure that the handset and mains cables cannot become entangled with moving parts of the bed.

### Disassembly

## WARNING

On beds fitted with a backup battery facility the bed will continue to operate even when the mains power is disconnected.

Before dismantling the bed, remove the backup battery plug from the backrest actuator control box.

| All Models                            | Lower the bed to minimum height and disconnect the bed from the mains power supply.   |
|---------------------------------------|---|
|                                       | On both the head end and foot end, turn the castors inward toward each other and apply the brakes.  |
| Models with<br>Wooden Safety<br>Sides | Lower the safety side rails. Turn the bed on one side and<br>remove two screws, washers and buffer bushes from the<br>guide slots.  |
|                                       | Support both side rails carefully and slide them out of the guide slots. Remove the spacers and hanging wires. Refit the two screws, washers and buffer bushes.   |
|                                       | Repeat the procedure on the other side.   |
| All Models:                           | Turn the bed on one side. Disconnect the control handset from the socket on the backrest actuator or control box.   |
|                                       | Disconnect all the remaining actuator cables from the<br>sockets on the backrest actuator or control box (including<br>the backup battery, if fitted) and remove the cables from the<br>support loops on the frame. |
|                                       | Loosen two clamp screws and remove the foot end assembly.   |
|                                       | Loosen two clamp screws and remove the foot end deck assembly.  |
|                                       | Loosen two clamp screws and remove the head end deck assembly from the head end assembly.   |

## 4. Operation

- Always use a mattress of the correct size and type. A range of suitable pressure reducing and pressure relieving mattresses is available from Huntleigh Healthcare.
  - Before operating the bed, ensure that no children, pets or obstacles such as bed-side furniture are in its path.
  - Before operating the bed, ensure that the patient is positioned correctly to avoid entrapment or imbalance.
  - Periodically check the six main clamp screws (A and B). Make sure that the joints they are securing are fully inserted and that the clamp screws are tight.



- Always apply the brakes when the bed is stationary. When operating the bed in tilt mode, apply the brakes at one end only.
- Do not expose the equipment, especially the mattress, to naked flames such as cigarettes etc..
- Use only Huntleigh Healthcare accessories designed or approved for use with the bed.
- Keep these instructions handy for reference.



**Safety Sides** Some beds have built-in wooden safety side rails.

To raise the sides: Lift the top rail until the latch engages at both ends.

To lower the sides: Lift the top rail slightly, press the release button in the corner post and lower each end in turn.

PowerWhen a handset push button is pressed, the<br/>appropriate bed function will operate until the button<br/>is released.



#### Leg Elevation

Model 100500,100510100 550 and 100560 Using the control handset, the legs are elevated by increasing the angle of the upper-leg section. When the legs are raised, the kneebreak angle can be manually adjusted by raising or lowering the foot end, which is supported by two self locking ratchet struts (1). Each strut has several latch positions.

To adjust, hold the mattress retention rail (2) and lift the foot end slightly to disengage the latch. Continue to lift until the kneebreak is at the desired angle, then lower it down to the nearest latch position. To lower the foot end, first lift to disengage the latch, then lower.



#### Foot end mattress retention rail and support strut

| Model 100520,<br>100530100570 and<br>100580 | The legs can be manually elevated by raising the foot end of the mattress platform.                                |
|---|--|
|   | To adjust, hold the mattress retention rail and lift the<br>foot end slightly to disengage the latch then raise or |
|   | lower it, reversing the movement a little to   |

#### **Batteries**

Beds with letter "B" suffixed model numbers have an emergency backup battery. It is automatically switched on if the bed is disconnected from the mains power supply.

re-engage the latch at the required position.

The battery provides emergency power operation for short periods of time, such as when moving the bed.

Make sure that the battery is always fully charged by keeping the bed connected to the mains power supply at all times during normal use.

### Mechanical procedures to flatten the bed sleeping surface.

In the event of power loss to the backrest / upper-leg section actuators, or the actuators failing in operation, the mattress platform can still be put into a flat position.

The following procedure assumes a worst case situation with the patient remaining in the bed.

Three people are required to carry out this activity.

## WARNING

Only remove clips and retaining pins from the mattress platform section being lowered when two other people are supporting it.

Only remove the upper-leg section clip and retaining pin from beneath the bed. Do not attempt to access these items between the profiling frame and the mattress frame.

When manually lowering the backrest and upper-leg sections, make sure that hands and fingers are kept clear of moving parts.



*Refer to the Warranty and Service section of this manual should you require contact information and further guidance.* 

Disconnect the bed from the power supply.

Pull the bed away from any wall to gain all round access.

Remove anything from underneath the bed that may obstruct access to pins and retaining clips.

One person should stand either side of the bed and support the backrest by holding the tubular part of the frame where indicated.



Backrest, showing where to support

A third person should remove the clip and retaining pin securing the actuator to the backrest.



Backrest clip and retaining pin

As soon as the retaining pin is removed the actuator should be allowed to pivot to the floor.

Once the third person is clear, the two people standing either side of the bed supporting the backrest can then gently lower it to the horizontal position.



#### Lowering the backrest to the horizontal position

Similarly, two people should then support the upper-leg section of the bed where indicated.



Position for supporting the upper-leg section

A third person should lie on the floor beside the bed and remove the clip and retaining pin securing the actuator to the upper-leg section.



Upper-leg section actuator clip and retaining pin.

As soon as the retaining pin is removed the actuator should be allowed to pivot to the floor.

Once the third person is clear, the two people standing either side of the bed supporting the upperleg section can gently lower it to the horizontal position.

When power to the bed is resumed, or the fault is rectified, use the handset to "lower" the backrest and upper-leg section actuators to their minimum setting. Re-connect the backrest and upper-leg section retaining pins and clips.

## WARNING

Do not operate the bed until the actuators are mechanically reconnected.

Check all bed functions are operating normally before continuing use.

## 5. Cleaning

## WARNINGS

Before cleaning, disconnect the bed from the mains power supply.

# Gloves and protective clothing should always be worn when carrying out cleaning procedures.

All surfaces can be cleaned by wiping with a soft cloth moistened with hot water and a mild detergent. Avoid splashing the actuators and handset.

Rinse with a cloth moistened with clean water and dry with paper towels.

To remove potentially infectious material such as body fluids, or when used by a client with a known infection, clean afterwards with NaDCC (e.g. Presept, Actichlor) at 10,000 ppm of available chlorine. Rinse and dry.

Allow cleaned parts to dry thoroughly before replacing the mattress.

Any proprietary furniture polish may be used on the head panel and foot panel.

#### CAUTION

Do not use hypocarbonate or phenol based cleaning agents.

Do not use abrasive compounds or pads.

## 6. Maintenance

#### WARNING

# Before commencing any maintenance work, disconnect the bed from the power supply.

The following preventive maintenance checks should be carried out at intervals of six months.

#### CAUTION

# Disposal of product and components should be compliant with local regulations

For full servicing or repair, contact Huntleigh Healthcare.

**General** Examine the bed for obvious signs of damage. Make sure that all nuts, bolts, clamp screws and other fastenings are tight and not missing.

Examine the flexible cables for cuts, abrasions, kinking or other deterioration. Ensure that the power supply connector plug is securely attached and not damaged. If appropriate, check that the plug fuse is of the correct type (BS 1362 5amp).

#### **Castors and Brakes**

If the castors pick up fluff or threads, these should be removed. Make sure that castors swivel and rotate freely. Check the brakes for efficient operation. If castors are unsatisfactory they should be replaced.

**Batteries** Check the battery condition every six months using the following procedure:

- 1. Make sure that the bed has been connected to the mains supply for 24 hours.
- 2. Disconnect the bed from the mains supply.
- 3. Apply an 80kg load (12st person) to the mattress platform.
- 4. Raise and lower the mattress platform, from minimum to maximum height, three times.
- 5. If the bed does not operate satisfactorily in step 4, perform steps 1 to 4 again.

If the bed again fails to operate satisfactorily the batteries should be replaced. Contact Huntleigh Healthcare.

## 7. Accessories

**Lifting Pole** The lifting pole Model 100503 is supplied complete with strap and polypropylene handle.

#### WARNING Maximum safe working load 65kg.



Installation

Install the pole on either side of the bed in the tubular socket in the head end frame.



| × |
|---|

- Adjustment The pole can be located with the horizontal bar over the bed or, when not in use, over the headboard. The position of the handle can be altered by adjusting the length of the strap and by moving the strap along the horizontal bar.
- MaintenancePeriodically examine the handle and strap for signs<br/>of damage, fraying or loose stitching. Replace the<br/>handle and strap if found.

The following accessories are also available from Huntleigh Healthcare:

| DESCRIPTION                 | PART NO.         | DOCUMENTATION REFERENCE |
|-----------------------------|------------------|-------------------------|
| Mattress<br>(200x900x125mm) | 100501           | 609901EN                |
| Mattress (Pentaflex)        | 100502           | 609901EN                |
| Urine Bottle Holder         | 99983            | 746-56                  |
| Cot Side Pads (Pair)        | 99901            | 746-60                  |
| Bed Cradle                  | 93613            | 746-57                  |
| Storage Stand               | 100504           | 746-130                 |
| Safety Sides                | 100506<br>100507 | 746-132                 |
| Grab Handle                 | C400/ACC3        | 746-163                 |
|                             |                  |                         |
|                             |                  |                         |
|                             |                  |                         |

Details will be provided on request. (Refer to Section 8.)

## 8. Warranty and Service

Huntleigh Healthcare 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.

For service, maintenance and any questions regarding this, or any other Huntleigh Healthcare product, please contact:

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## 9. Dimensions and Data

wooden safety sides.

Dimensions (in centimetres)

|                              | Overall                                     | length<br>width                                  |  | 220<br>92  |  |
|------------------------------|---|--|--|--|--|
|                              | Height to m                                 | attress deck                                     | Min.<br>Max.   | 33<br>73   |  |
|                              | Backrest ang                                | gle  |  | to 70°   |  |
|                              | Leg elevation                               |  | el 100500/ 100510/<br>50/ 100560   | to 18°   |  |
|                              |   | Mode   | 1 100520/ 100530<br>70/ 100580   | to 15°   |  |
|                              | Tilt  | Mode   | el 100500/ 100520  | 10° head up to<br>10° head down                    |  |
|                              | Mattress siz                                | e  |  | 200 x 90 x 12.5                                    |  |
| Product weight (approximate) |   |  |  |  |  |
| 11000                        | ici weigni (af                              | pproximate)                                      |  |  |  |
|                              | Foot end ass                                | -  | Standard   | 22 kg  |  |
|                              | •   | sembly   | With corner posts Standard   | 24 kg<br>19 kg                                     |  |
|                              | Foot end ass<br>Head end as                 | sembly   | With corner posts  | 24 kg<br>19 kg<br>21 kg<br>17 kg                   |  |
|                              | Foot end ass<br>Head end as<br>Foot end dee | sembly<br>ssembly<br>ck assembly                 | With corner posts<br>Standard<br>With corner posts<br>With leg elevation                                     | 24 kg<br>19 kg<br>21 kg                            |  |
| Maxi                         | Foot end ass<br>Head end as<br>Foot end dee | sembly<br>ssembly<br>ck assembly<br>eck assembly | With corner posts<br>Standard<br>With corner posts<br>With leg elevation<br>Flat deck<br>Adjustable backrest | 24 kg<br>19 kg<br>21 kg<br>17 kg<br>13 kg<br>21 kg |  |



## Electrical data

| Power input<br>Power output<br>Electrical Safety Standards | 1A max. at 230V a.c.50/60Hz.<br>24V d.c. Max. 70VA.<br>Complies with EN 60601-1<br>(BS 5724: Part 1, IEC 601-1) |
|--|---|
| Electrical shock protection                                | Class II  |
| Degree of shock protection                                 | Type B  |
| EMC<br>Liquid ingress protection                           | Complies with BS EN 60601-1-2<br>IP54 Duty rating<br>Intermittent 10% (6min./hour)                              |
| Batteries  | 2 x 12V series connected<br>sealed, rechargeable<br>lead/acid gel 1.2 amp hrs.                                  |

## **10.** Transportation and Storage

Handle with care. Do not drop. Avoid shock or violent impact.

The equipment should be stored in a clean, dry and well-ventilated area.

The following limits apply during transport and for a storage period of up to 15 weeks:

| Ambient temperature | $-25^{\circ}$ C to $+70^{\circ}$ C |
|---------------------|------------------------------------|
| Relative humidity   | 10% to 75%                         |
| Air pressure        | 50kPa to 106 kPa                   |

The following limits apply to operating conditions or longer periods of storage:

| Ambient temperature | $+10^{\circ}$ C to $+40^{\circ}$ C |
|---------------------|------------------------------------|
| Relative humidity   | 30% to 75%                         |
| Air pressure        | 70kPa to 106 kPa                   |



The CE mark on this product demonstrates conformity with the requirements of the EC directive (93 / 42 / EEC) for Medical Devices