



Aurum⁺

Expandable Bariatric Bed



User Manual



Benmor Medical has been supporting bariatric care since 1996 and was the first company in the UK specialising in bariatric patient handling equipment.

As pioneers in the sales and rental market for bariatric equipment, Benmor Medical introduced total bariatric sales and rental solutions, allowing our customers to rent or purchase a bed, chair, hoist, commode and wheelchair as one package.

We continually strive to drive innovation and quality within the bariatric market and have established a firm reputation for excellent customer support and class leading products.

Benmor Medical supplies and rents a wide range of products which enable nurses and carers to provide the best quality care to patients.

Our extensive product portfolio includes: -

- Bariatric Beds
- Ultra Low Beds
- Community Beds
- Mattresses
- Hoists
- Riser Recliner Chairs
- Static Chairs
- Commodes
- Walking Aids
- Bariatric Wheelchairs

Our well established reputation in the UK bariatric sector has been achieved by providing excellent 24/7 customer service, supported by innovative products.

For further information, please visit our website: www.benmormedical.co.uk

Contents

1. Introduction	4
2. Identification Labels	5
3. Symbols	6
4. Bed Labelling	7
5. Delivery	7
6. Safe Use Guidelines	8/9
7. Environmental Conditions	10
8. Technical Specification	11
9. Product Description	12
10. Installation and Setup	13
10.1 Power Supply and Electrical Connection	13
11. Bed Adjustment – Supervisor Control Panel	14
11.1 Knee-break Section Adjustment (3)	15
11.2 Backrest Section Adjustment (4)	15
11.3 Fowler Position (5)	15
11.4 CPR Position (6)	15
11.5 Trendelenburg and Reverse Trendelenburg (8)	15
11.6 Bed Height Adjustment (9)	15
11.7 Auto-contour Adjustment (10)	15
11.8 Trendelenburg Anti-shock Positioning (11)	16
11.9 Locking/Unlocking Bed Movements (1,2,7)	16
12. Bed Adjustment – Patient Handset	17
12.1 Backrest Section Adjustment (1)	18
12.2 Knee Break (2)	18
12.3 Auto-contour (3)	18
12.4 Bed Height Adjustment (4)	18
12.5 Magnetic Lock Symbol (switching range) (5)	18
12.6 Functions - LED	18
12.7 Functionality Keys	18
12.8 Power on LED	18
13. Central Castor Braking	19
14. Stowable Safety Rails	19/20
15. Width Adjustment	21/22
16. Bed Extension	23
17. Integrated Linen Shelf	23
18. Optional Weighing Scales User / Service Manual	24 to 39
19. Cleaning and Decontamination	40/41
20. Troubleshooting	42/43
21. Storage and Transportation	43
22. Service and Maintenance	44
23. Recommended Accessories	45
24. Disposal	45
25. Warranty and Service	46
26. Contact Details	46

1. Introduction

This user manual contains instructions for the installation, use and maintenance of the Benmor Medical Aurum⁺ bed.

The Aurum⁺ **bariatric bed** is a hospital bed that has been designed specifically for size and strength. The width adjustment feature on this unique bariatric hospital bed means that it can be transported as a standard bed through the majority of hospital doors. It also means that it can accommodate wider patients by extending the mattress platform when in use.

The platform is fully profiling and powered by strong electric actuators which allow the safe positioning the bariatric bed to cope with maximum safe working patient weight of **440kg / 69stone / 970lbs** and a safe working load of **490kg / 77stone / 1080lbs**.

The headboard and footboard of the Aurum⁺ bariatric bed can also be extended at a push of a button. This lessens the gap between the Stowable Safety Rails and the head and footboard to minimise the risk of entrapment.

The integral weighing scales enable staff and carers to carry out accurate patient weighs up to 400kg / 63stone / 880lbs.

The bed is constructed from high quality materials and is designed to function at an elevated level in a hospital environment.

This product meets the requirements established under the directive 93/42/EEC concerning Medical Devices and the following harmonised standards where applicable: BS EN60601-1-2, BS EN 60601-2-52. The manufacturing process has been carried out in accordance with the Quality Management System under the standard ISO 13485:2016, ISO 9001:2015.



Benmor Medical shall not be liable for any damage or injury caused by failure to follow the proper instructions as described in this User Manual or by improper use of the bed.



Before using the bed, all staff must familiarise themselves thoroughly with the various parts and controls as detailed in this User Manual



Note: *All references to the position of parts are as viewed from a patient's perspective i.e. as the patient is laying on the bed.*



Note: *Benmor Medical reserves the right to modify the information in this User Manual at any time. The information in this User Manual may vary slightly with respect to the basic design of the product.*

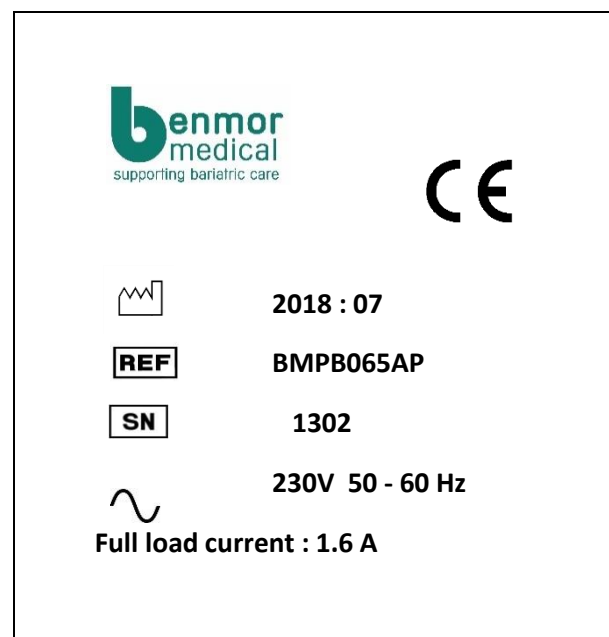
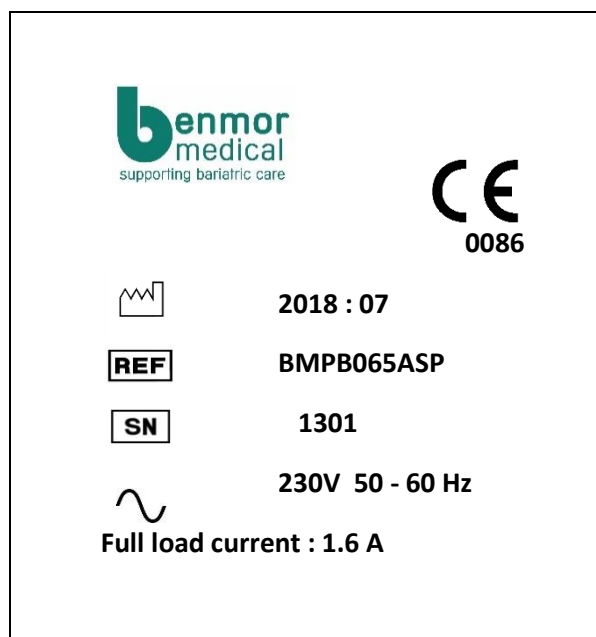
2. Identification Labels

When making contact with Benmor Medical the following information is required: -

- The correct Name or Model number of your bed.
- The correct Serial Number of your bed.

Both can be found on the identification labels which are located on the lower base frame.

Examples are shown below: -



3. Symbols

Icon	Description
	Attention, consult accompanying documents
	Consult Instructions For Use
	Type B Applied Part
	Type Number
	Serial Number
	Date of Manufacture
	Manufacturer
	General Precautions
	CE Mark relates to both Medical Device Directive 93/42/EC and RoHS Directive 2011/65/EC
	Primary Earth Connection
	Alternating Current
	Class II Equipment

4. Bed Labelling

	Stowable Safety Rail Unlock Label
	Recommended Mattress Selection Label
	Retract Head & Footboard Label.
	Aurum Head & Footboard Frame Label
	Aurum Max Patient Weight & Safeworking load label
	Stowable Safety Rail lock mechanism label
	Left hand side steer manoeuvre brake label
	Right hand side steer manoeuvre brake label
	No storage label
	Electrical Information Label

5. Delivery

The Aurum⁺ Bariatric bed is delivered fully assembled and demonstrated on delivery.

Additional training can be arranged if required. If the bed appears to be damaged or any components are missing on delivery, please contact Benmor Medical immediately.

6. Safe Use Guidelines

WARNINGS AND PRECAUTIONS



- Before using the bed, it is recommended: -
 - All staff involved are familiar with the User Manual.
 - All functions are tested.
 - The bed is decontaminated and cleaned thoroughly before every use.
- The bed must be operated by personnel who have been properly trained or have suitable experience with equipment of this nature.
- The bed must only be used on clean, hard and flat horizontal surfaces.
- Never exceed the maximum load capacity of the bed, even for brief periods.
- The braking system must be locked whilst a patient is on the bed (except for patient manoeuvring).
- Check there is no risk for the patient, carer other people or accessories to become trapped when adjusting any sections activating, raising or lowering of the bed.
- If an emergency situation requires the weight capacity of the bed to be exceeded, adjust all sections of the bed to their lowest positions. This should only be done if absolutely necessary.
- To avoid exceeding the weight capacity of the bed, no person should sit on the bed, next to the patient.
- For side ingress / egress, position the patient in the middle of the bed.
- DO NOT ingress / egress the bed at the head or foot end.
- The power cable for the bed must be unplugged before moving, cleaning or maintenance activities.
- Do not position the bed so that it is difficult to disconnect the mains plug.
- There is a possibility of injury to the patient or user if: -
 - The bed is used on an inappropriate floor surface.
 - The power cable is damaged or pulled out of the power socket.
 - Two or more electric functions are operated at the same time.
 - Any maintenance or repair work is not carried out according to the manufacturer's instructions.

WARNINGS AND PRECAUTIONS

	• Benmor Medical shall not be liable for any damage or injury caused by the use of accessories provided by other companies. • In the event of any defect which may jeopardise the patient or user safety, or which may damage the bed or building contents, remove the bed and do not use it until the defect is corrected. • Any repair work must be carried out by qualified staff. • When making repairs, only original materials and components should be used. Use only the cleaning and disinfectant agents recommended in this User Manual. • The bed should be left in its lowest position when unattended to reduce risk of patient falls with the Stowable Safety Rails in the upright position. • When routing cables from other equipment on the bed, precautions shall be taken to avoid squeezing those cables between parts of the bed. • Avoid hazards caused by inappropriate handling of the power supply cord e.g. by kinking, shearing or other mechanical damages. • During transportation, transportation bolts will be tightened on to the load cells and when the bed is in use, the transportation bolts need to be loosened. • Use recommended accessories only
---	---

 When choosing bed and mattress combinations, it is important to assess the use of Stowable Safety Rails based on the clinical assessment of each individual patient and in line with local policy. Stowable Safety Rails must only be used with a mattress of the correct size and which is approved for use with the bed. The maximum recommended mattress thickness for use with Stowable Safety Rails is 220mm.

 When assessing the suitability of a mattress for use with Stowable Safety Rails, please consider that 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. All Benmor Medical mattress replacements will maintain sufficient clearance between patients and Stowable Safety Rails to preserve the function of the Stowable Safety Rails. Other makes of specialist mattress replacement must be assessed individually prior to use to verify sufficient clearance is maintained.

 *Incompatible mattresses can create entrapment hazards. Read instructions for use. Using non-approved mattress may compromise the Stowable Safety Rails and increase the chance of entrapment.*

 *Do not modify this equipment without the authorisation from Benmor Medical.*

Contraindications

The Aurum⁺ bed is not to be used as a transport bed.

Never exceed the maximum load capacity of the Aurum⁺ bed, even for brief periods.

7. Environmental Conditions

Operating

It is recommended that the bed is installed in a dry, indoor environment. The temperature and humidity ranges for optimum performance of the bed are: -

	Min	Max
Temperature (°C)	10	40
Relative Humidity (%)	30	75
Altitude (metres)		< 2000

The Aurum⁺ bed is designed for medical purposes only. Electrical installations must comply with your local electrical installation requirements. It is recommended that the bed is disconnected from the electrical mains supply during exceptional cases i.e. lightning storms etc.

Transport / Storage

	Min	Max
Temperature (°C)	-20	+50
Relative Humidity (%)	30	75
Air Pressure (hPa)	800	1060

8. Technical Specification

Bed Data

Overall Length without scales	2270mm
<i>Extended</i>	2355mm
Overall Length with scales	2425mm
<i>Extended</i>	2510mm
Overall Width	1105mm
<i>Extended</i>	1405mm
Mattress Platform Length	2015mm
<i>Extended</i>	2225mm
Mattress Platform Width	915mm
<i>Extended</i>	1220mm
Mattress Platform Height	
<i>Without scales</i>	Min 415mm - Max 835mm
<i>With scales</i>	Min 415mm - Max 835mm
Backrest – Max tilt angle	55°
Upper Leg Section – Max tilt angle	25°
Lower Leg Section – Max tilt angle	18°
Trendelenburg	21°
Reverse Trendelenburg	21°
Safety Rail Height Above Mattress Platform	460mm
Product weight without scales (approx)	190kg
Product weight with scales (approx)	215kg
Maximum Patient Weight (MPW)	440kg / 69stone / 970lbs
Maximum Safe Working Load (SWL)	490kg / 77 stone / 1080lbs
Medical Device Classification – Without Scales	Class 1
Medical Device Classification – With Scales	Class 1 Measuring

Electrical Data

Power Supply	230V~ 50-60Hz
Power Consumption	Max. 1.6A AC
Duty Rating	Intermittent 10% (2min / 18min)
Equipment Classification	Class II Type B Applied Part
Liquid Ingress Protection	IPX6

9. Product Description



Note: The above illustration is for reference purposes only. The specification of your actual Aurum⁺ bed may vary to the above illustration.

1. Removable Expandable Head Board
2. Innovative Stowable Safety Rails with locking mechanism
3. Individual Width Adjustable Mattress Sections
4. Integral bed extension
5. 4 Section Profiling Platform
6. Supervisors Control Panel
7. Removable Expandable Foot Board
8. Weighing Scales (optional)
9. Protective Bumper Wheels
10. Integral Linen Shelf
11. Central Braking Lever
12. Central Locking 150mm Castors

10. Installation and Setup

1. Remove any packaging completely.
2. Carefully check the bed for damage and any missing components.
3. All staff should carefully read the User Manual.
4. Plug the power cable into an electric socket.
5. Test all functions including:
 - Braking System
 - Fowler's position (adjustment of back and leg section).
 - Height adjustment of the mattress platform.
 - Trendelenburg and Reverse Trendelenburg.
 - Lock-out functions
 - Weighing Scales (if fitted).
6. Safely dispose of any packaging
7. Keep the User Manual in a safe accessible place.

10.1 Power Supply and Electrical Connection

The bed is delivered fully assembled and is ready to be connected to the power supply. The battery back-up safety feature allows the bed to be functional for a short time without mains power in emergency circumstances. The battery will automatically charge when the bed is connected to the power supply.

The bed should be placed as close as possible to the power supply and any excess cable safely positioned to avoid accidents.



To avoid the risk of electric shock, this equipment must only be connected to a mains supply with protective earth.



The replacement of power supply cords, fuses and other parts must be performed by a trained Benmor Medical technician.



The bed must only be used on clean, hard and flat horizontal surfaces.



Use recommended accessories only.



The Aurum⁺ bed is not to be used as a transport bed but can be used for positioning.

11. Bed Adjustment – Supervisor Control Panel

The Supervisors Control Panel is located at the foot end of the bed, connected by a flexible cable and can be conveniently stored / located on the foot board using the clip on the rear of the panel.

The Supervisor Control Panel operates all bed functions as shown below.

To activate the controls on the Supervisor Control Panel you will need to simultaneously press and hold an Activation Button and a Positioning Button as required. This dual action operation enhances patient safety by preventing unintentional bed positioning.



1. Knee-break Lockout Switch
2. Backrest Lockout Switch
3. Knee-break Positioning Buttons
4. Backrest Positioning Buttons
5. Fowler Positioning Button
6. Cardio Pulmonary Resuscitation (CPR) Button
7. Height and Tilt Lockout Switch
8. Mattress Platform Tilt Buttons
9. Bed Height Adjustment Buttons
10. Auto-contour Adjustment Buttons
11. Trendelenburg Anti-Shock Positioning Button

Supervisor Control Panel Symbols



Before carrying out these operations, check there are no objects on or under the lower frame which could interfere with the bed movement.

This function can be locked out by means of the Supervisor Control Panel.

11.1 Knee-break Section Adjustment (3)



To raise or lower the knee-break section of the bed press and hold the desired directional knee-break adjustment button. Movement will continue until the button is released or the limit of travel is reached.

11.2 Backrest Section Adjustment (4)



To raise or lower the backrest section of the bed press and hold the desired directional knee break adjustment button. Movement will continue until the button is released or the limit of travel is reached.

11.3 Fowler Positioning (5)



To activate Fowler positioning press and hold the Fowler positioning button. All parts of the bed will simultaneously move and continue until the button is released or the limit of travel is reached.

11.4 CPR Position (6)



The CPR position is designed for resuscitation purposes only and before using this function, ensure all three bed movements are unlocked – see 10.9 below. To activate CPR press and hold the red 'N' Button. All parts of the bed will simultaneously move to their lowest positions and the mattress platform will move to the horizontal position. The red N Button must be held until all bed movements have stopped.

11.5 Trendelenburg and Reverse Trendelenburg (8)



Head down tilt (Trendelenburg) and foot down tilt (reverse Trendelenburg) can be applied using the Supervisors Control Panel. To tilt the mattress platform press and hold desired tilt direction button until the desired tilt angle has been reached.

11.6 Bed Height Adjustment (9)



To raise or lower the mattress platform press and hold the desired directional height adjustment button. Movement will continue until the buttons are released or the limit of travel is reached.

11.7 Auto-contour Adjustment (10)



To activate the Auto-contour adjustment of the bed, press and hold the desired directional Auto-contour adjustment button. Movement will continue until the buttons are released or the limit of travel is reached.

11.8 Trendelenburg Anti-shock Positioning (11)



To activate Trendelenburg Anti-Shock Positioning press and hold the Trendelenburg Anti-Shock Positioning Button. All parts of the bed will simultaneously move to their lowest positions and the mattress platform will tilt to a maximum angle of 21°. This function cannot be locked.

11.9 Locking/Unlocking Bed Movements (1,2,7)

The Aurum⁺ bed is equipped with a safety function that disables specific individual sections by the use of Lockout Switches located on the Supervisor Control Panel. To lock/unlock specific functions: -

Locking Procedure



1. Turn Lockout Switch clockwise (to horizontal) to lock required function (Lockout Switches 1, 2, or 7).
2. When switch is in horizontal position bed function(s) will be locked from use.

Unlocking Procedure



1. Turn Lockout Switch anti-clockwise (to vertical) to unlock required function (Lockout Switches 1, 2, or 7).
2. When switch is in vertical position bed function(s) will be unlocked.



Note: When selecting individual Lockout Switches, the Supervisor Control Panel and Patient Handset will be locked out.

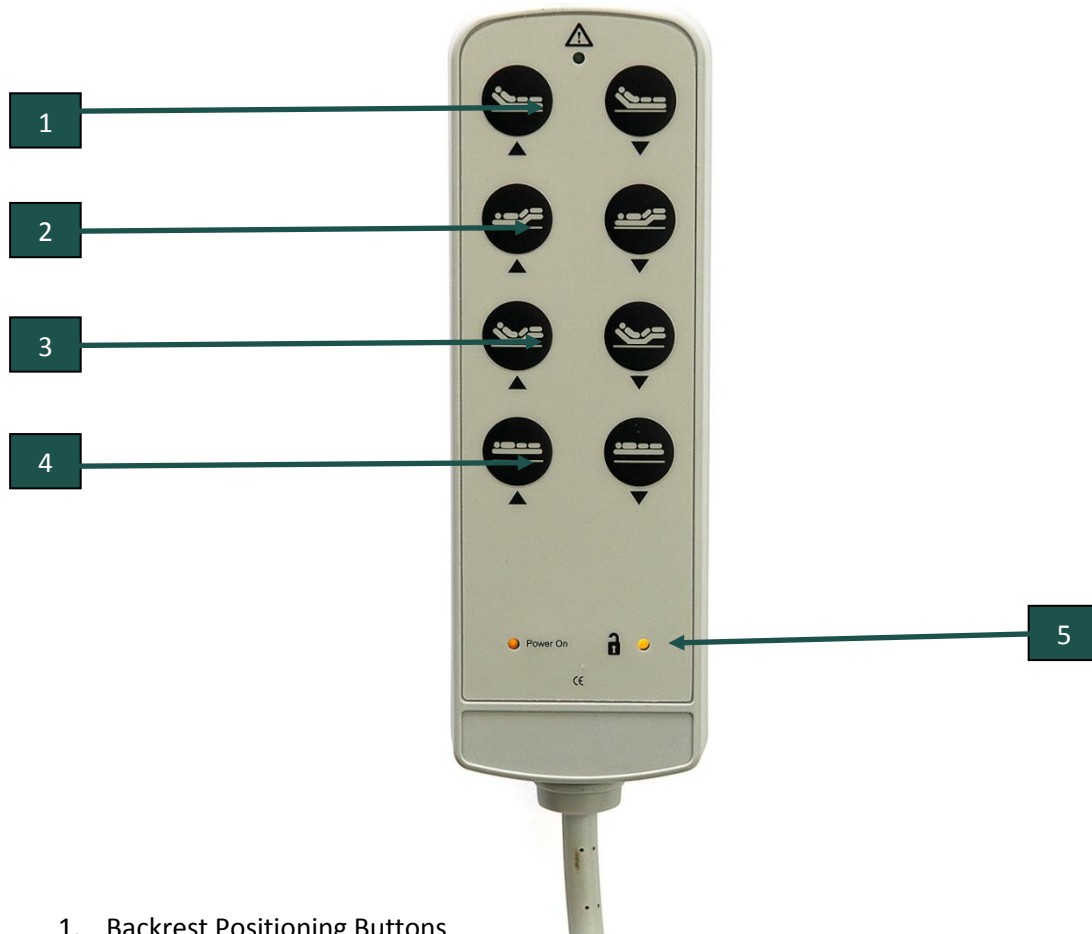
12. Bed Adjustment – Patient Handset



Before carrying out these operations check there are no objects on or under the lower frame which could interfere with the bed movement.

This function can be locked out by means of the Supervisor Control Panel.

The Patient Handset is connected by a flexible cable and can be positioned either side of the bed. It adjusts individual parts of the bed mattress platform and has limited functions opposed to the Supervisor Control Panel.



1. Backrest Positioning Buttons
2. Knee-break Positioning Buttons
3. Auto-contour Adjustment Buttons
4. Height Adjustment Buttons
5. Handset Lockout Indicator



Note: *To prevent the Patient Handset from being damaged it should always be stored, using the provided hook, on your bed Stowable Safety Rail.*

12.1 Backrest Section Adjustment (1)



To raise or lower the backrest section of the bed press and hold the desired directional knee break adjustment button. Movement will continue until the button is released or the limit of travel is reached.

12.2 Knee-break Section Adjustment (2)



To raise or lower the knee-break section of the bed press and hold the desired directional knee-break adjustment button. Movement will continue until the button is released or the limit of travel is reached.

12.3 Auto-contour Adjustment (3)



To activate the Auto-contour adjustment of the bed, press and hold the desired directional Auto-contour adjustment button. Movement will continue until the buttons are released or the limit of travel is reached.

12.4 Bed Height Adjustment (4)



To raise or lower the mattress platform press and hold the desired directional height adjustment button. Movement will continue until the buttons are released or the limit of travel is reached.

12.5 Magnetic lock symbol (switching range) (5)12.6 Functions - LED12.7 down Functionality keys12.8 **Power On** Power on LED

13. Central Castor Braking

The Aurum⁺ bed is equipped with a Central Braking System. A bar located on the bed Undercarriage at the head end and foot end operates all four castors (central braking): -



Up – Steering mechanism – when the brake lever is pushed up to its highest position the steering feature is activated.

Centre – Neutral Position – when the brake lever is in the central position the castors move freely in all directions

Down – Brake Position – when the brake lever is pushed down in the lowest position, all four castors are fixed.



Ensure the bed is set to the 'Brake' position before placing a patient onto your bed.

14. Stowable Safety Rails

The Aurum⁺ bed has 4 Stowable Safety Rails allowing the user to store the Stowable Safety Rails within the bed frame. When in the upright position and collapsing the Stowable Safety Rails, ensure that the bed and Stowable Safety Rails are free from any obstructions. To place the Stowable Safety Rail in the upright position, use both hands on the handrail to pull the rail out from the bed frame. Rotate the Stowable Safety Rail 90° upwards and press down on the rail to ensure the lock is engaged.

Unlocking Stowable Safety Rail



1. To unlock, pull the level positioned under the Stowable Safety Rail towards you.

To Position Stowable Safety Rail in upright position



1. Unlock Stowable Safety Rail (as above) with one hand whilst pulling the Stowable Safety Rail out from the frame
2. Rotate the Stowable Safety Rail 90° upward
3. Let the Stowable Safety Rail drop into position, where it will automatically lock in position

To Position the Stowable Safety Rail in Stowable position



platform

1. To unlock, pull the level positioned under the Stowable Safety Rail towards you with one hand whilst pulling the Stowable Safety Rail up from the frame
2. Rotate the Stowable Safety Rail 90° down so it is level with the mattress platform
3. Gently push the Stowable Safety Rail into the mattress



Before adjusting the Stowable Safety Rails in either an upright or stowable position, carefully check there are no objects which may interfere with their function. Take care not to get hands or fingers caught when adjusting the Stowable Safety Rails.



The intended use of the Stowable Safety Rails is to prevent the user from falling out of bed. They are not intended to act as a form of restraint or limit the freedom of people by preventing them from intentionally leaving their beds; nor are they intended to restrain people whose condition disposes them too erratic, repetitive or violent movement.



The Stowable Safety Rails shall not be used as support or leverage for the patient, when leaving or repositioning on the bed.

15. Width Adjustment

The Aurum⁺ bed has a width adjustment feature which allows it to be used alongside standard beds during everyday use but can be expanded quickly and simply to accommodate a larger patient.



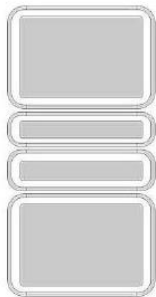
*When moving the bed, all extensions including the headboard and footboard **MUST** be retracted to enable the bed to fit through a standard wide door.*



Before adjusting the mattress platform, carefully check there are no objects which may interfere with the function. Take care not to get hands or fingers caught when adjusting the mattress platform. Always remember to check the locking pins are in place after the extendable sides have been adjusted.

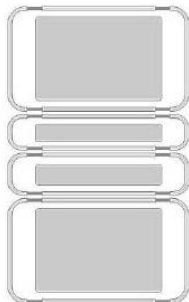


Before adjusting either the headboard frame or footboard frame, carefully check there are no objects which may interfere with the function. Take care not to get hands or fingers caught when adjusting the headboard frame and footboard frame. Always remember to check the locking pins are in place after the extendable sides have been adjusted. Always retract the headboard and footboard when manoeuvring the bed.



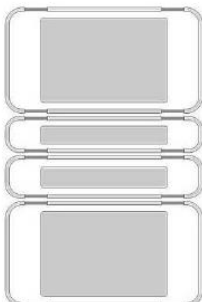
➤ 36" / 915mm width – standard hospital bed size

The bed is delivered at this size and will need to be adjusted to suit the patient before use. If there are space restriction when transporting the bed, it can be reduced back to this size to aid with getting through doors or corridors.



➤ 42" / 1066mm width – intermediate size

This setting gives the patient an extra 3" of space on both sides. The mattress in use on the bed will need to be adjustment to fill the space.



➤ 48" / 1220mm width – largest size

This setting gives the patient the most space on the bed. There may be difficulties when transporting the bed through doorways and corridors at this setting. If this is the case, reduce the size of the bed to smaller width.

Adjusting the mattress width

The width of the Aurum⁺ bed can be extended to 42" (1066mm) and 48" (1220mm). Each individual mattress section can be individually adjusted to provide flexible care options for specific patients.

The width adjustment of the mattress platform is achieved by the following: -



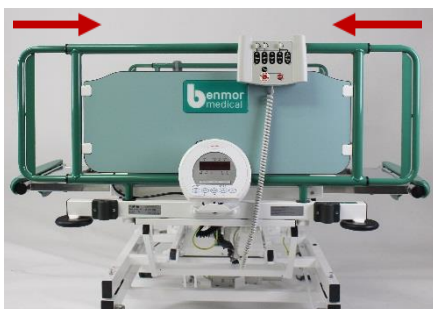
Locate locking pin underneath mattress platform.

1. Release the locking pin of the mattress section that you wish to extend.
2. Pull out the individual mattress platform section to the desired width.
3. The locking pin will relocate at the three predetermined widths.
4. Repeat this procedure for each mattress section as required.

Adjusting the headboard width

The width of the headboard on the Aurum⁺ bed can be extended from 41.5" (1054mm) to 49" (1245mm). Both sides of the headboard can be adjusted in accordance with the adjustment of the mattress width.

The width adjustment of the headboard is achieved by the following: -

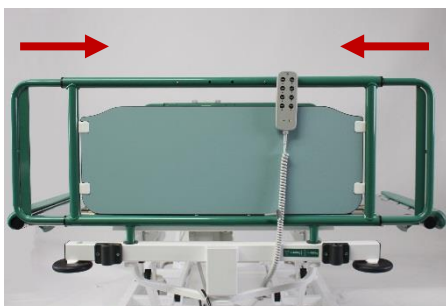


1. Locate the headboard pins in the middle of the headboard frame.
2. Push one pin in to release the side of the headboard you want to extend
3. Whilst holding the pin in, gently pull out the end of headboard frame until the pin relocates to the outer fixing.
4. Repeat this procedure for the other side of the headboard frame.

Adjusting the footboard width

The width of the footboard on the Aurum⁺ bed can be extended from 41.5" (1054mm) to 49" (1245mm). Both sides of the footboard can be adjusted in accordance with the adjustment of the mattress width.

The width adjustment of the footboard is achieved by the following: -

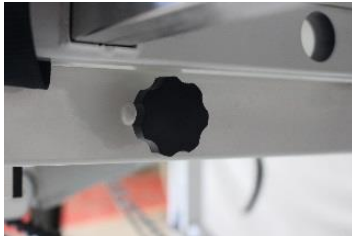


1. Locate the footboard pins in the middle of the footboard frame.
2. Push one pin in to release the side of the footboard you want to extend
3. Whilst holding the pin in, gently pull out the end of footboard frame until the pin relocates to the outer fixing.
4. Repeat this procedure for the other side of the footboard frame.

16. Bed Extension

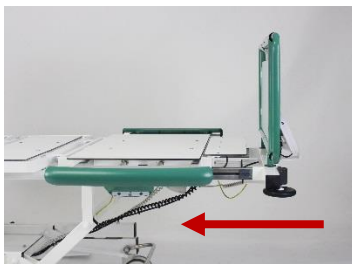
The Aurum⁺ bed can be extended by 8¼" (210mm). Adjustment is made at the foot end of the bed.

To extend the mattress platform: -



1. Loosen left and right hand wheel screws located underneath mattress platform at the Foot end of the bed.
2. Pull the extension out as far as it will go.
3. Tighten left and right hand wheel screws until they are locked in position.

To retract the mattress platform: -



1. Loosen left and right hand wheel screws located underneath mattress platform at the foot end of the bed.
2. Push the extension back in as far as it will go.
3. Tighten left and right hand wheel screws until they are locked in position.



Always install a suitable mattress extension (squab) when the bed is extended.

17. Integrated Linen Shelf

The Linen Shelf is used for supporting clean linen when the bed sheets are being changed.

To prepare the Linen Shelf for use: -



1. Pull it out from below the foot end panel.
2. After use, push the Linen Shelf back under the Foot end panel until it latches in the closed position.

18. Weighing Scales (optional)

The Aurum⁺ bed can be supplied within an optional integral weighing scale system. This is located at the foot board end of the bed and enables staff and carers to carry out accurate patient weighing in – bed up to 400kg / 63 stone / 880lbs.

Carefully read this manual before using the scale unit as it provides important information concerning OPERATING SAFETY AND MAINTENANCE.

The descriptions and illustrations supplied in this manual are not binding.

WUNDER reserves the right to modify its products as deemed convenient in order to approve them without being committed to update this publication.

Information:

The following symbols have been used in this manual:



0291 ELECTROMAGNETIC COMPATIBILITY



CERTIFICATION AND APPROVAL FOR MEDICAL USE



ACCURACY CLASS



ASSISTANCE WARRANTY CERTIFICATE

ATTENTION!



PLACED BEFORE DETERMINING PROCEDURES. COMPLIANCE FAILURE CAN DAMAGE THE PRODUCT



WARNING!

PLACED BEFORE DETERMINING PROCEDURES. COMPLIANCE FAILURE CAN HARM THE OPERATOR OR PATIENT OR DAMAGE THE PRODUCT



WASTE DISPOSAL



TYPE B PARTS SUPPLIED



BATTERY POWER



INDICATION OF WEIGHT FUNCTIONALITY /INDICATION OF STABLE WEIGHT



INTERFERENCE COULD OCCUR NEAR THE APPLIANCES



DUAL INSULATION

Safety:

Operators must read this manual carefully, comply with the instructions it contains and become familiar with the correct use and maintenance procedures of the instrument.



- Retain this manual for consultation and as a help in staff training
- Do not overload the instrument beyond its maximum capacity
- Do not apply loads abruptly.
- Do not press the keys with sharp or pointed objects
- Do not try to open the instrument.
- Do not remove seals from the instrument.
- Do not short-circuit the battery terminals
- Use only the power supply provided by Wunder. Before using it, make sure that the local mains voltage is compatible with the voltage of the adapter shown on the identification plate
- Regularly check the integrity of the instrument's power cord and make sure it does not come in contact with hot appliances
- Make sure that the power cord does not create obstruction hazards
- Unplug the instrument before cleaning it
- Do not place the instrument in water or other liquids
- Perform maintenance and subsequent metric verifications regularly

Intended use:

This device is designed to be used to check the weight of patients who find it hard to remain in an upright position for general diagnostic purposes.

Environment of use: in hospitals and medical clinics. The installation room must be equipped with an electrical system compliant with current regulations. It is recommended to use the scales in environments that are not exposed to magnetic interference.

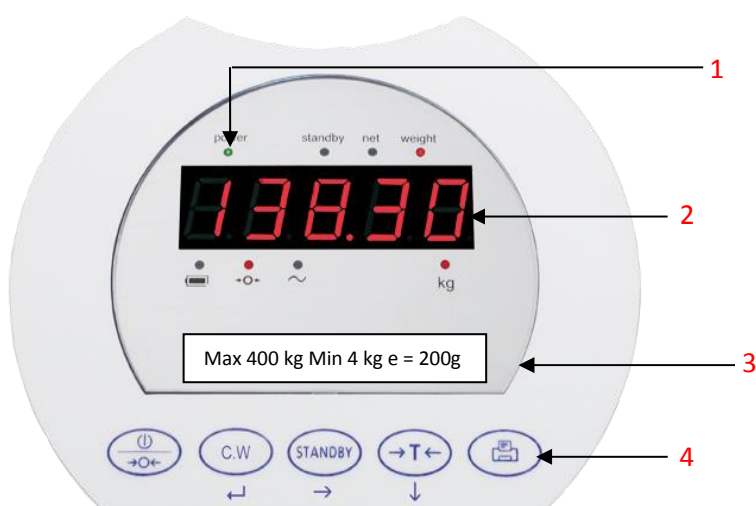
Personnel intended to use the product: healthcare professionals who are familiar with the product.

Checking and Responsibility: the medical device must be used under the supervision of a qualified healthcare professional or by a qualified person in charge of maintenance and regular inspections.

Limitations of use: this medical device can only be used as described in this manual.

SPECIFICATIONS WEIGHT INDICATOR

Max Capacity	400kg	PL-B WU150
Division	200g	
Display	1 LED 20mm 5 digit	
Display Power	Pack: Rechargeable Battery/Adapter 12 V - 2 A	
Display Weight	Approximately 2kg	
Temperature of use	+5° ~ +35°C	
Liquid Ingress Protection	IP54	

INDICATOR

1. Power Indicator
2. 1° LCD weight display
3. Indications characteristics model
4. Function Keys

Weighing Scales Function key symbols

Key	Description
	On/Off key. Pressed for 3 seconds it switches off the scale. Indication reset (within $\pm 2\%$ of the capacity)
	Activation / deactivation of the function check of the weight (Check Weighing).
	Block to add or remove stuff to/from the bed.
	Tare of unwanted weight.
	Print of data.

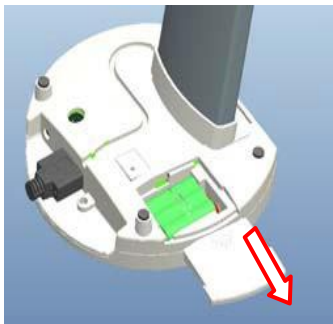
		Function Display
		Power: Signal power in progress Standby: Signal standby functions Net: Signal net weight Weight: Signal weight Indicates the necessity to recharge or replace the battery. Indicates the weight value to be zero Alternating current Signal Check kg Unit of measurement

To use the weighing scales: -

1. Ensure that the bed is placed on a flat, stable surface away from heat sources in an environment free of excessive vibrations and air currents.
2. Connect the bed to the mains socket.
3. Prior to weighing the patient, lock the wheels to steady the bed and to optimize the weight measurement.

4. Ensure the bed has mattress and bedding on without the patient before setting the scales to Zero.
 - If you do not set the scales to Zero then you will not have a correct weight for the patient.
 - You cannot set the scales to Zero with the patient on the bed.
5. Press and hold down Zero Button  and make sure the weight display shows 0.0kg.
6. Then carefully place the patient on the bed so that the weight is distributed equally.
7. The digital display will show weight in kgs or lbs depending on preference.

REPLACEMENT BATTERY PACK – REFER TO BENMOR MEDICAL TECHNICAL SUPPORT



1. Open the battery cover and take the battery out.



2. Disconnect the rechargeable battery pack then replace with a new battery. Place the battery back then arrange to orientate the connector

INSTRUCTIONS FOR CHARGING AND CONNECTING



BEFORE CHARGING THE BATTERY PACK, CONNECT THE ADAPTER AND CHARGE FOR AT LEAST 8 HOURS

If  prompt displays on the LCD, please charge the scale with exclusive adaptor.

Locate adaptor plug on the rear side of indicator. The battery should be recharged at least every 3 months regardless if it is used or not. After a long period in storage, e.g. over 3 months, the battery should run a full cycle (charge/discharge) to allow it to restore to full capacity.

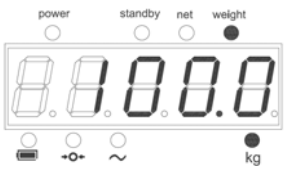
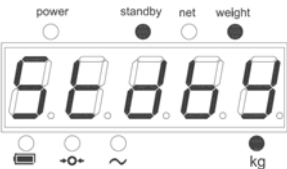
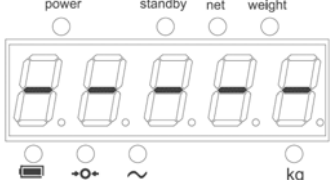


WEIGHING

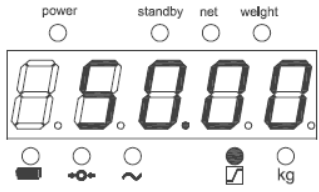
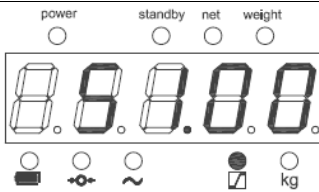
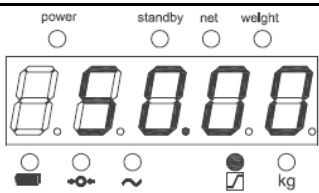
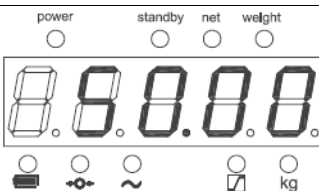
Switch the scale on using the key . The instrument runs a self-test and displays the installed software version. The display shows "0,00 kg" and the scale is ready for use.

Note: If the display does not show 0.0kg, press the key  to reset the indication.

STANDBY FUNCTION

From the weighing mode, press the STANDBY button before you add/remove one or more objects to/from the bed.	
When the display shows "stdby", you can add or remove one or more objects.	
Press the STANDBY button again to confirm the operation and return to the weighing mode. The weight displayed before and after the operation will be the same.	
In standby mode, when "----" is displayed it indicates a negative value.	
By pressing the STANDBY button for 3 seconds, you can return to the weighing mode.	

Weight Management function

Press the CW key for 3 seconds to set the weight control.	
Inserting an upper limit. Use the TARE key to decrease the value and the STANDBY key to move to the next digit. Press the ON/ZERO/OFF button to confirm and move to the lower limit.	
Insert a lower limit. Use the TARE key to decrease the value and the STANDBY key to move to the next digit.	
Press the CW key to confirm and return to weighing mode.	
Use the CW button to activate/deactivate the weight control function.	

TARE Function

The tare function allows you to cancel the weight of objects or clothing in order to detect the actual weight (net) of the patient.

Switch the instrument on by pressing the key



When the zero is displayed  and the terminal emits a double beep, apply the object/clothes making up the tare load on the load receptor. When the weight is steady press

the key



The weight indicator displays zero



Position the patient to be weighed (without removing the tare weight). The weight displayed is the net weight of the patient.

To delete the cancelled tare weight, remove all the objects from the load receptor and

press the key again



SETTING SETUP

Switch ON the scale and long press  key for 3 seconds, first "SETUP" and then "A.OFF" will display successively.

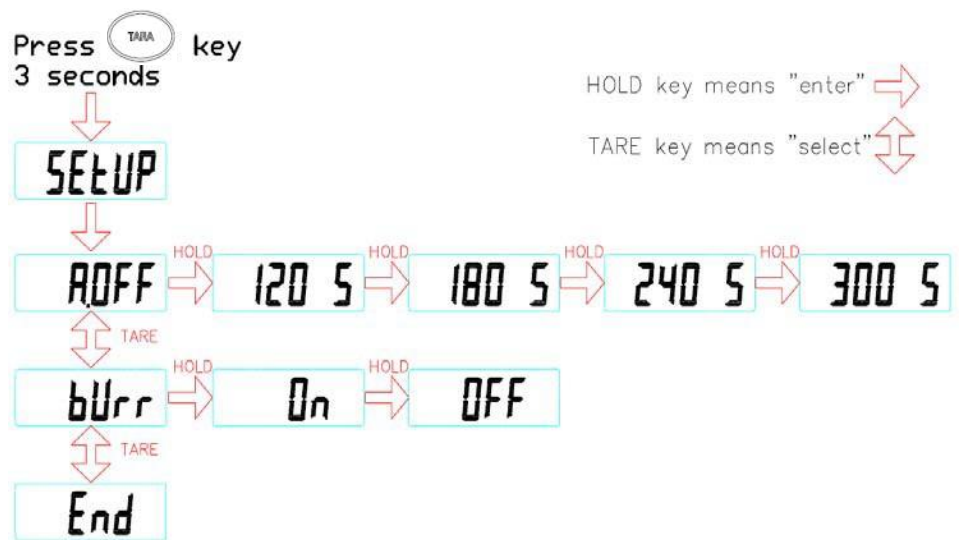
When the instrument is turned on, press the button for three . The display shows in sequence the "SETUP" and the first menu item "A.OFF". AUTO-OFF TIME SETUP: This function allows you to set the sleep time (120 sec /180 sec /240 sec /300 sec /off)

BUZZER ON/OFF: This function allows you to set the beep sound (ON / OFF).

Diagram setup

HOLD → (ENTER)

TARE → (SELECTION)



Note: To confirm the settings, please press  when **End** Shows on the display.

ERROR MESSAGE

ERROR MESSAGE	REASON	ACTION
	Low Battery: This warning shows that the voltage of battery is too low to be used.	Please replace a new battery or plug the AC adaptor for operation.
	Overload: the total load exceeds the maximum capacity of scale	Please reduce the loading and try again.
	Counting error (high): Indicates that the signal from the load cell is too high.	Error normally caused by a failure of the scale (cell or wiring). Contact technical support.
	Counting error (low): Indicates that the signal from the load cell is too low.	Error normally caused by a failure of the scale (cell or wiring). Contact technical support.
	Zero over the calibration: Zero Range over 10% during the initialization process.	Please recalibrate the instrument.
	Zero under the calibration: Zero Range over 10% during the initialization process.	Please recalibrate the instrument.
	Error EEPROM: Breakdown balance software.	Error normally caused by a failure of the scale (cell or wiring). Contact technical support.

MAINTENANCE AND ASSISTANCE

For better and longer duration of the product it should receive thorough general cleaning periodically.

The scale unit must be cleaned with a soft cloth moistened with water or neutral detergent, without using solvents or abrasive substances. If the instrument remains idle for a long period, remove the batteries from the terminal.

During shipping, make sure not to subject the instrument to blows or excessive mechanical stress.

In case of repairs or assistance, contact your dealer or an authorised service centre contacting info@benmormedical.co.uk

IDENTIFICATION LABELS



On the metrological label is indicated the year of manufacture ex: 13 = 2013

WUNDER SA.BI. srl  13 0291  PL-B (WU150) DK 0199.336 Matr. 0081 Max 400 kg e= 200 g T= -400 kg 5° / 35°C	PL-B VANO BATTERIE Per la sostituzione della batteria (modello ricaricabile tipo :RETC 7,2 V 2000 mAh vedere il manuale di istruzioni) To replace the battery (rechargeable sealed type :RETC 7,2 V 2000 mAh see the manual)
--	--

SCRAPPING AND WASTE DISPOSAL

If set aside for a long period, protect those parts which could be damaged due to dust build-up

SCRAPPING

When you decide to no longer use this item, we recommend making it unusable. We also recommend making those parts which could be sources of danger harmless.

Waste disposal  EU 2002/96/EC

This product complies with the EU Directive 2002/96/EC. The symbol of the crossed-out waste bin on the appliance indicates that the product, needing to be treated separately from household waste, at the end of its useful life must be completed in a separate collection facility for electric and electronic appliances or returned to the dealer upon purchase of a new equivalent appliance. The user is responsible for bringing the appliance to an appropriate collection structure at the end of its life. Appropriate separate collection and sending the appliance for recycling, treatment and environmentally compatible waste disposal contributes to avoid possible negative effects on the environment and health and favours the recycling of the materials the product is made of.

For more detailed information regarding available collection systems, contact your local waste disposal service or the shop where the product was purchased.

As consumers, you are obliged by law to return used or dead batteries. You may deposit old batteries at public collection spots in your town or else with any battery dealer who has placed specific collectors for this purpose. Even when scrapping electric and electronic appliances, they must be removed and deposited in specific collectors.

NOTE: The following symbols indicate the presence of harmful substances:

Pb Pb = batteries containing Lead

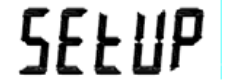
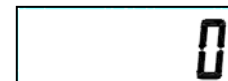
Cd Cd = batteries containing Cadmium

Hg Hg = Batteries containing Mercury



Do not throw electric parts and used batteries away with household waste. Dispose of the batteries by means of your closest collection centres.

CALIBRATION PROCEDURE

Operation	Display
Turn ON the scale using ON/ZERO/OFF key.	
Press the calibration pin once, which is provided at the bottom of the indicator. First the display will show SETUP and then will change to UNIT symbol.	 
Press the TARE key until the “CAL ib” displays on the screen.	
Press the STANDBY key twice, the “CAL 0” symbol is displayed.	
Press the TARE key once, the display will show the present ZERO Count value (5000 – 200000). Then press the ON/ZERO/OFF key.	 
Press the STANDBY key.	
Press the TARE key. Enter the required calibration weight value using (STANDBY and TARE) keys. For Example: 200 kg.	
Confirm by pressing the ON/ZERO/OFF key.	

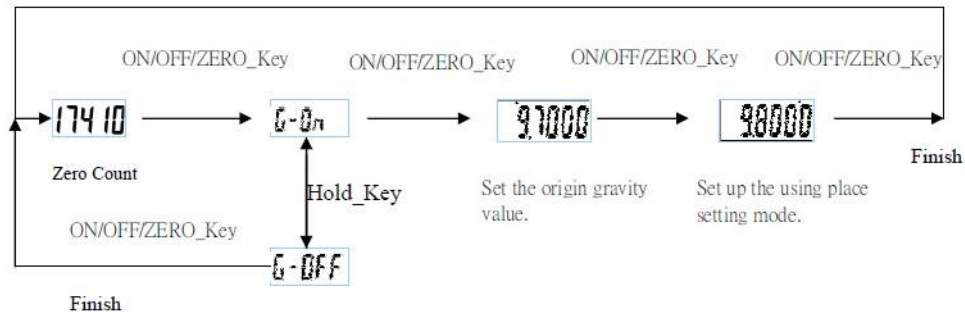
Place the calibration weight carefully in the centre of the scale plate and the display will show SPAN Count value (10000 – 250000). Press the STANDBY key after the span stabilizes. The adjustment process will start. Press the ON/ZERO/OFF key.	
After the adjustment is finished successfully, the scale will automatically change to the weighing mode again and the calibration weight value will be displayed. Remove the calibration weight and turn-OFF the scale unit. Procedure completed.	

TEST pin is at the bottom of indicator.



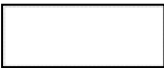
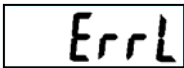
GRAVITY COMPENSATION PROCEDURE

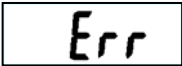
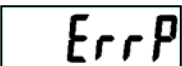
If the scale has been moved (transported to another city/ state/ country) from the place where it has been calibrated, the user needs to calibrate the Gravity Compensation Procedure. Please follow the procedure below:

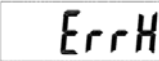


- Step.1- Turn on the scale using **ON/ZERO/OFF** key.
- Step.2- When the scale is ready to weigh, press **TEST PIN** twice which is at the bottom of the indicator to enter Test mode.
- Step.3- Zero count will display on the screen.
- Step.4- Press **ON/ZERO/OFF** key to enter Gravity compensation mode. G-On will display on the screen. Note; if display shows G-Off, press **STANDBY** key to choose G-On and then continue following procedure.
- Step.5- Press **ON/ZERO/OFF** key, the last origin gravity will display and the top arrow on left hand side will also appear. Setting gravity value: Press **STANDBY** to move to next digit and press **TARE** to change value.
- Step.6- After setting the origin gravity presses ON/ZERO/OFF key.
- Step.7- The top right hand side arrow will appear. Setting gravity value: Press HOLD/BMI to move to next digit and press TARE to change value.
- Step.8- After setting the gravity presses ON/ZERO/OFF key. The scale will return to zero count display.
- Step.9- Turn OFF the scale using ON/ZERO/OFF key and then turn ON again.

ERROR MESSAGE

Error Message	Description	Solution
	Nothing appears on the display after pushing ON/OFF key.	Check display. Disassemble indicator. Check wires and control panel.
	Can't switch on scale using AA battery.	Battery housing wires are disconnected or broken.
	Can't switch on scale using AC adaptor.	AC adaptor damaged. →Replace adaptor. AC jack wires are disconnected.
	Low battery indication.	Check battery voltage (>6V) and if needed replace new battery for operation. If the problem still persists inspect soldering of controller PCB or replace the controller PCB.
	Scale zeroed under its initial balance.	Check the load cell and its wiring. Replace load cell, then re-calibrate the scale.

Error Message	Description	Solution
	Scales zeroed exceed its initial balance.	Remove the weight from scale. Check the load cells resistance. If you change the load cell, please re-calibrate the scale.
	Overload	Remove the weight from scale. Overload: Maximum capacity + 9d
	EEPROM data incorrect.	Check IC4 is soldered or not. Replace controller PCB. Re-calibrate the scale.
	No weighing.	Check the load cell wires are well and connected to the correct points. Check resistances of load cell. If you change the load cell, please re-calibrate the scale.

Error Message	Description	Solution
	The scale shows non-complete segments when power on.	Check LCD pin.
	No Current.	Check parameters of RS232 interface and pin out. RS232 wire is disconnected.
	Count error (too high)	Check the load cell wires are well and connected to the correct points. Check load cell for proper bridge resistances. Replace load cell, then re-calibration the scale.
	Zero count is more than calibration range (i.e. 10%) while power on.	Make sure that the scale platform doesn't have any kind of weight on it. Check the load cell wires are well connected to the correct points. Re-calibrate the scale.
	Zero count is less than calibration range (i.e. 10%) while power on.	Make sure that there is no blocking object (like paper/plastic sheet or heavy layer of dirt/dust) between upper platform of the scale and the platform on which load cell is fitted. Check the load cell wires are well connected to the correct points. Re-calibrate the scale.

19. Cleaning and Decontamination



Disconnect the Aurum⁺ bed from the electricity supply before carrying out decontamination procedures.

Basic cleaning information



Only use disinfectants designed for cleaning healthcare equipment i.e. Sodium Dichloroisocyanurate (NaDCC), Sodium Hypochlorite (NaOCL) or similar (up to 10,000 ppm available chlorine).



Do not use alkaline or acid chemical products. Do not use abrasives (scouring powder), scourers or other materials / agents which could damage the bed coating. Do not use caustic or corrosive substances to clean the bed. Do not use chemical substances which may affect the finish of the bed, such as acetone, petroleum etc.



It is recommended that only CE marked cleansers & disinfectants are used to clean the beds. Benmor Medical shall not be liable for any damages caused by the use of inappropriate detergents or disinfectants.



Do not use phenol based disinfectants.

The Aurum⁺ bed should be cleaned and disinfected as per the 'Cleaning Regimes' table below or in line with local infection control policy: -

Cleaning Regimes

Level of cleaning	Areas to be cleaned
1. Daily Cleaning	All exposed surfaces of the bed: - ➤ Head and foot boards ➤ All areas of Stowable Safety Rails ➤ Exposed areas of mattress platform ➤ Accessories (handsets, lifting pole etc)
2. Clean before every use	Bed parts stated in (1) and also: - ➤ All the areas of the mattress platform. The upper parts of the undercarriage. ➤ Connecting conduits between mattress platform and undercarriage. ➤ Freely accessible metal parts of the mattress platform. ➤ Bumper wheels (x4). ➤ Central braking system levers.
3. Complete Cleaning and Disinfection	All parts of the bed stated in (1) and (2), and also: - ➤ All the metalwork under the mattress platform. ➤ All areas under the mattress platform.

Cleaning

Wearing suitable protective clothing, clean all surfaces with a disposable cloth soaked in a neutral detergent and hand hot water, being careful with the beds electrical parts. Start by cleaning the upper sections of the bed and work along all horizontal surfaces. Work methodically towards the lower sections of the bed and clean the wheels last.

Take extra care to clean areas that may trap dust or dirt. Rinse with clean water and dry with disposable paper towels. Allow the cleaned parts to dry before replacing the mattress.

Disinfecting

After cleaning the bed as described above, wipe all surfaces with *Sodium Dichloroisocyanurate (NaDCC)*, *Sodium Hypochlorite (NaOCL)* or similar at a concentration of 1,000 parts per million (0.1%) of available chlorine. Wipe dry with a clean dry cloth. In the case of pooling body fluids, e.g. blood, the concentration of NaDCC or NaOCL should be increased to 10,000 parts per million (1%) of available chlorine. Wipe dry with a clean dry cloth.

20. Troubleshooting

Operating issues that can arise with the bed can usually be solved by following these simple steps: -

Problem	Possible Cause	Solution
None of the electric operating system is functioning	➤ Mains power supply failure. ➤ Control box or Supervisor Control Panel are in locked or off position. ➤ Loose electrical connections. ➤ Electrical unit failure.	➤ Is the power lead plugged in and switched on? ➤ Check that the orange power light on the Handset is on. ➤ Switch the keys into the open position. ➤ Check all connections between the actuators and the control unit. ➤ Contact your technical service provider.
Any individual electric functions are not responding	➤ Loose electrical connections. ➤ Unit failure.	➤ Check the individual connections to the control unit. ➤ Contact your technical service provider.
Bed is vibrating		➤ Contact your technical service provider.
Castor(s)	➤ The castor brake system may be worn out.	➤ Change castor – contact your technical service provider.
The castor(s) do not swivel correctly.	➤ The castors may be dirty.	➤ Clean the castors.



Note: *If any function of the bed becomes compromising or dangerous to the patient in anyway, discontinue use immediately and report to your service provider.*



Never try to repair an electrical fault if you are unqualified or have not been officially trained by Benmor Medical.



Do not attempt to open any of the electrical control boxes. You may get an electric shock. This will also invalidate your warranty

21. Storage and Transportation

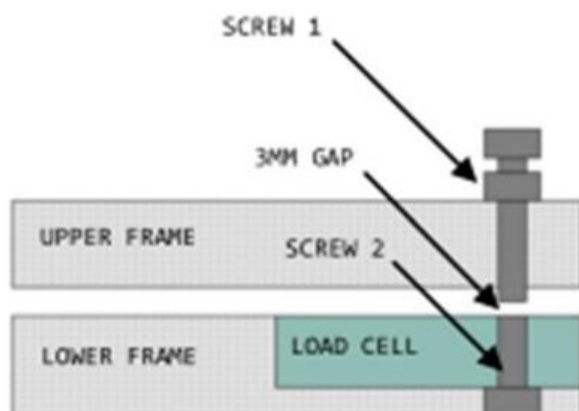
When storing the bed: -

- Unplug the power cable from the cable power supply.
- Remove all accessories (lifting poles, etc.)
- Wrap or cover the bed and its accessories to prevent dust contamination and protect them in a manner which will prevent damage.
- Store the bed in an environmentally safe place.



The storage conditions, see section 5. Ensure the bed is well wrapped or packed and that no heavy loads are placed on it before transportation.

Security screw: -



Each load cell for the integral weighing system has an incorporated 'security screw'. This feature is designed to protect the load cells during transportation or in an event of overloading on the bed.

During transportation, Screw 1 will be tightened so that it touches Screw 2. When the bed is in use, the screw needs to be loosened (backed off) to allow the load cell to operate. A 3mm gap is required between the two screws.

22. Service and Maintenance

The bed is designed to have the minimum amount of maintenance throughout its lifetime. Cleaning and disinfecting of the bed may result in damage to some parts. Therefore it is advisable the functions of the bed are checked for any signs of deterioration or reduction of function at 12 monthly intervals by a suitably trained person.

- All moving joints and pivot pins must be checked and adjusted/replaced as required i.e. Backrest, Knee-break, Stowable Safety Rails, Width adjustments, Bed Extension, Brake linkages and Castors - Wipe and lubricate with silicon oil as required.
- Stowable Safety Rails safety lock and bed extension latches – check operation and security.
- Inspect all the wiring for damage including the curly hand set cables and if damaged, do not use the bed until the cable wiring is replaced.
- Check the articulation of the bed including Trendelenburg positions.
- For the scale bed, check the function of the scales.
- Visually examine all bed accessories – check wipe and clean.

All service and repair activities must be carried out by suitably qualified and trained personnel approved by Benmor Medical.

A maintenance program is available which involves an annual visit from a trained Benmor Medical technician and covers minor repairs and general testing. Please contact Benmor Medical for more details.



In the event of a major defect or any issues which may compromise patient safety, do not use the bed, but contact Benmor Medical immediately.



The Aurum⁺ bed should be fully serviced every 12 months at minimum.



Do not modify the Aurum⁺ bed without the authorisation from Benmor Medical.

23. Recommended Accessories

Description	Product Code
Dynamic Air Mattress including pump and inserts for width adjustment. 400kg / 63st safe working load.	BMPBNDDBFC
Medium Risk Foam Mattress including inserts for width adjustment. 413kg / 65st.	BMPB065FP
Low Air Loss Turning Mattress. 450kg / 71st	BMPB07TM

24. Disposal

This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general waste.

Disposing of this product correctly will save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. If you are unsure of your national requirements with respect to disposal please contact your local authority, dealer or supplier for further information.

Penalties may be applicable for incorrect disposal of waste, in accordance with national legislation.



The above information is based on the European waste electrical and electronic equipment directive 2002/96/EC,

Please note the Aurum⁺ bed contains a lead gel battery pack which will require a replacement battery every three years.

25. Warranty and Service

Benmor Medical grants a warranty which covers the product for a period of one year from the date of purchase.

During the warranty period, any defect affecting the operation of the equipment due to faulty manufacture or parts will be repaired or replaced free of charge.

Benmor Medical reserves the right to examine the product before repair in order to determine the nature and cause of the defect and whether it is covered by the warranty.

Exclusions to the Warranty

The warranty does not cover the installation, start-up, cleaning, replacement or supply of any type of accessories. Other areas not covered are 'acts of God', improper installation, degradable environments, smoke, fire, neglect, improper maintenance and storage / operation in extreme environments.

Benmor Medical shall not be liable for any damage, injury or loss caused by misuse of the product.

26. Contact Details

Benmor Medical (UK) Ltd



The Aurum Centre,
Ham Barn Business Park,
Farnham Road,
Liss,
Hampshire,
GU33 6LB
United Kingdom

Email: info@benmormedical.co.uk

Web: www.benmormedical.co.uk

Tel: 0333 800 9000

Fax: 0333 800 9001



Standard Aurum⁺ bed



0086

Aurum⁺ bed with measuring function



www.benmormedical.co.uk