User guide

Aeria 8 MATTRESS REPLACEMENT

Aeria 8 mattress replacement

Code: 2150

MAX. 160kg

Contents

CUBRO

Definitions

Symbols used in this user guide and their meanings:

WARNING! Failure to heed this warning may result in damage to the product or serious injury to the operator/user.

ATTENTION! Read and understand the instructions in the user guide before using the product.

WARNING! Risk of electric shock.

WARNING! Explosion hazard.

Important information.

System overview

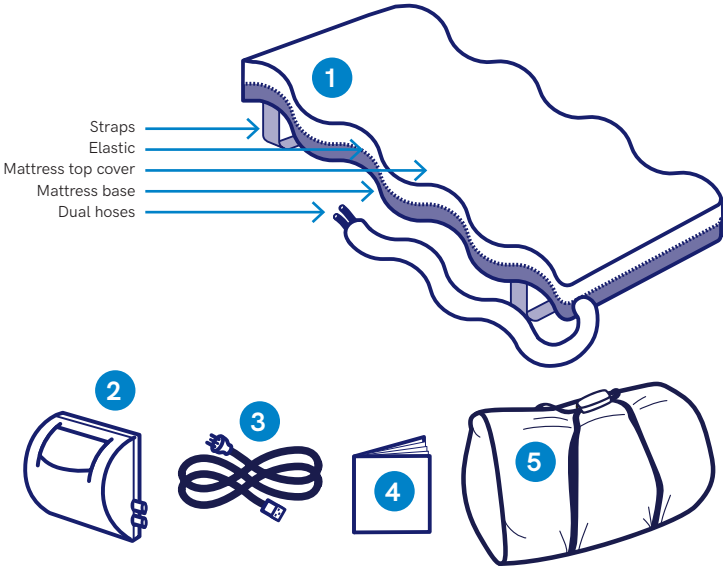
Introducing the Aeria 8 mattress replacement system.

The Aeria 8 is a great entry level, budget mattress replacement solution, offering users all the benefits of a mid to high end system while maintaining operational simplicity.

1. Dynamic mattress replacement base with dual air hoses
2. Analogue control unit
3. Power cord
4. User guide
5. Carry bag

Applied part:

The mattress is treated as an applied part.



- The Aeria 8 is indicated for the prevention and treatment of skin breakdown and pressure ulcers in patients at medium to high risk
- Constructed from 21 x 200mm transverse cells that cyclically inflate and deflate in an alternating pattern, providing gentle and dynamic support
- Cyclic alternation of pressure prevents arterial and venous capillary occlusion in the patient's surface tissue, maintaining and stimulating the flow of blood and lymphatic fluids through these tissues to provide essential oxygen and remove metabolic waste
- Suitable for use at home, in long term care, or extended care environments (application environments 3, 4 and 5)
- The system is designed to replace your existing bed mattress, for use on top of a standard bed frame or profiling bed
- Mattress cells are inflated by an electronically controled power unit, which includes a pressure sensor for monitoring mattress pressure and adjustable pressure settings to match patient weight
- The mattress replacement is connected to the control unit via dual air hoses
- Air pressure in the mattress replacement is continually monitored and a visual alarm displays in the event of mattress pressure becomes too low
- Operator controls are kept to a minimum for simplicity and ease of use

System features

Support

- 21 x 200mm high density alternating cells
- Vapor permeable, waterproof top cover prevents moisture transfer, while multi-stretch fabric minimizes friction and reduces shear
- Adjustable pressure level to match users weight and comfort needs
- Supporting users to a maximum user weight of **160 kilograms**

Simplicity

- Quick connector air hose attachments
- Replacement can be rotated 180 degrees for preferred control unit position at either end of the bed
- Control unit includes inbuilt rear hanging hooks for easy mounting and portability

Safety

- Rapid release CPR tag for emergency deflation
- Fully adjustable support straps and non-slip mat securely fastens system to any standard bed frame or profiling bed
- Static transport function for stable patient handling and transfer
- Visible and audible alarm (plus alarm mute) to warn of a pressure failure

Intended use

Indications

The Aeria 8 mattress replacement system is indicated for:

- the prevention and treatment of skin breakdown and pressure ulcers in patients at medium to high risk

Contraindications

Patient conditions for which the application of pressure relief therapy on the Aeria 8 mattress replacement systems is contraindicated include:

- unstable spinal cord injury
- cervical traction

Intended care setting

Intended care settings for the Aeria 8 mattress replacement system are:

- **Application Environment 3:** long-term care in a medical area where medical supervision is required and monitoring is provided if necessary and ME EQUIPMENT used in medical procedures may be provided to help maintain or improve the condition of the PATIENT
  NOTE: This includes use in nursing homes and in rehabilitation and geriatric facilities
- **Application Environment 4:** care provided in a domestic area where ME EQUIPMENT is used to alleviate or compensate for an injury, disability or disease
- **Application Environment 5:** outpatient (ambulatory) care, which is provided in a hospital or other medical facility, under medical supervision where ME EQUIPMENT, is provided for the need of persons with illness, injury or disability for treatment, diagnosis or monitoring

Operating Environment

- **Temperature:** 5°C to 40°C
- **Humidity:** 15% to 93% RH
- **Pressure altitude:** 700hPa to 1060hPa

Storage and shipping conditions

- **Temperature:** 10°C to 40°C
- **Humidity:** 10% to 95% RH
- **Pressure altitude:** 700hPa to 1060hPa

Connecting the system to other devices

There are other devices necessary for normal operation.

The Aeria 8 mattress replacement can be fitted to most standard hospital or single bed bases.

The Aeria 8 control unit can be fitted to the foot or head board of most hospital or home care beds.

Alternatively, the control unit can be placed on the floor, underneath the bed or on any other stable surface.

WARNING! The Aeria 8 mattress replacement system is an aid to the prevention and management of pressure injuries. If there is no improvement in the patient's condition, clinical advice should be sought.

WARNING! The Aeria 8 should only be used in accordance with manufacturer's instructions and under the consent, supervision and management of a suitably qualified health professional.

Safety precautions

ATTENTION! This user manual must be read before using the air mattress. Severe injury or death may result if user instructions, maintenance instructions and product warnings are not followed.

General safety precautions

WARNING! A thorough risk assessment should be carried out on all patients by a qualified Health Care Professional before use of this mattress is considered

For your own safety and the safety of equipment, always take the following precautions:

- Never exceed the maximum patient weight of **160kg**
- Operators of this equipment must be fully trained and competent as guided by a Health Care Professional
- Before commencing set up or installation, ensure the power is switched off and disconnect the power cord from the control unit
- Placing layers between patient and mattress should be avoided or kept to a minimum. As part of sensible pressure care, avoid wearing clothing that may cause areas of localized damage due to creases, seams, objects in pockets, etc.
- Product top cover is not completely air permeable and may present a suffocation risk. It is the responsibility of the caregiver to ensure that the patient can use this product safely
- Avoid blocking the air intakes of the control unit, located at the rear of the unit
- Only the control unit and mattress combination as indicated by Cubro should be used, otherwise the correct function of the product cannot be guaranteed
- Use this product only for the purpose it is intended for
- Do not carry out any maintenance tasks whilst equipment is in use with a patient
- Ensure that all lines and power cables are free from possible entanglement with mechanical parts of the bed
- Ensure the use of this product does not inhibit entrapment protocols as per the risk assessment

Maximum patient weight

The maximum recommended patient weight for the Aeria 8 mattress replacement system is **160 kilograms**.

Protection against hazards

Fluids

Avoid spilling fluids on any part of the control unit. If spills do occur:

- Turn off control unit power and disconnect the unit from the main electricity supply
- Immediately clean fluids from the casing by wiping with a soft cloth

WARNING! Ensure there is no moisture in or near the power inlet, power switch and power plug before reconnecting the power supply.

WARNING! Do not position the system so that it is difficult to operate the disconnection device.

WARNING! Check the operation of controls and other components around the spill area.

WARNING! Fluid or liquid remaining on the electronic controls can cause corrosion that may cause the electronic components to fail. Component failures may cause the unit to operate erratically, possibly producing potential hazards to patient and carers.

Explosion hazard

WARNING! Equipment is not suitable for use in the presence of a flammable anaesthetic mixture with air, oxygen or nitrous oxide.

- Do not use in the presence of smoking materials or open flame – air flowing through the mattress will support combustion.
- Do not open the control unit — risk of electrical shock. Refer servicing to qualified service personnel.

Power cable

- The system should never be operated with a worn or damaged power cable. Should the power cable be found to be worn or damaged, contact Cubro for a replacement.

Interference

- Significant risks of reciprocal interference may be posed by the presence of the system during specific investigations or treatments. Potential electromagnetic or other interference between the system and other devices may occur. If interference is suspected, move equipment from sensitive devices of contact the manufacturer.

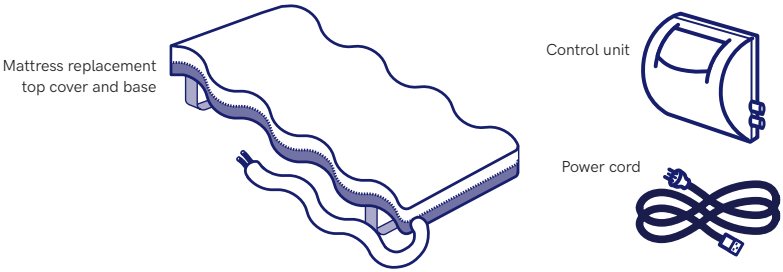
Caution

- Disconnect the power cord from mattress system before starting any installation and be sure the system is turned off.
- Replaceable fuse: Please contact component service person when changing fuses. During fuse change, use same rating fuse only. (T1AL/250V)

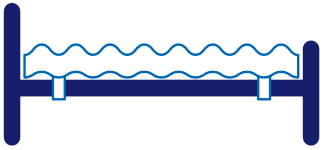
System set up

Preparing the system for use

Carefully unpack the system and locate all items shown in the picture below. Inspect each item for any damage that may have occurred during shipping. Any damage or missing components should be reported to Cubro as soon as possible.



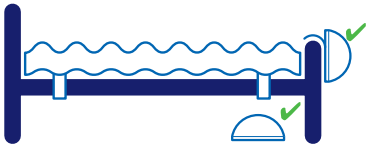
1. Remove your existing mattress and place the Aeria 8 mattress replacement on top of your bed base with the printed top cover facing upwards and air hoses towards the base of the bed.
2. Attach to the bed by securing the adjustable straps, located on the underside of the mattress base under each end of the bed. Ensure the strap buckles are securely fastened together and the straps are pulled tight.



WARNING! Do not secure mattress straps to bed side rails – straps will tear.

WARNING! Ensure that straps do not interfere with the operation of the bed, and that the mattress is properly secured. Failure to do so could result in patient injury or equipment damage.

3. Hang the control unit over the foot end of your bed, using the inbuilt hanging hooks. The control unit can also be placed on a flat surface (ie on the floor or underneath the bed).



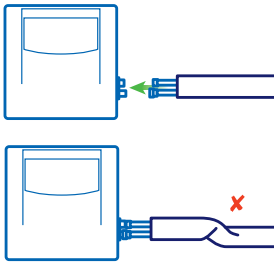
WARNING! Ensure the control unit is firmly secured to the bed. Failure to do so could result in equipment damage.

WARNING! Before attaching the control unit to the floor or the foot board of the bed, ensure they are sufficiently robust and free of damage.

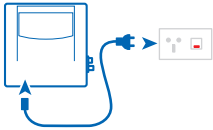
4. Locate the CPR on the umbilical cord and ensure the CPR is connected properly.

5. Attach the two air hoses to the control unit — the quick connectors simply press into place. The connectors include a press button release system for ease of use.

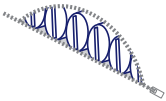
WARNING! Straighten any twists in the air hoses to ensure uninterrupted air flow between the control unit and mattress. Also ensure the hoses are not trapped between the mattress and bed. Failure to do so could result in an under inflated mattress leading to patient injury.



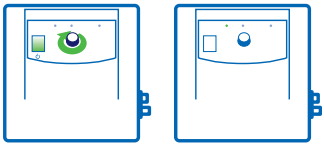
6. Insert the power cord into the base of the control unit, then plug into an appropriate electrical outlet and switch on mains power.



7. Before inflating, pull back the top cover to ensure the cells are straight and the cell straps are not twisted. Refit the top cover, ensuring both air hoses are fitted through the custom opening in the base of the cover.



8. On the control unit, turn the pressure setting to maximum and then switch on (the power switch illuminates to indicate the system is operational and inflating). For rapid inflation, ensure the system is in Static mode.
   Allow up to 50 minutes for complete inflation. The green Ready LED illuminates when the system is ready for use.



9. Once the mattress is fully inflated, bedding can be replaced. Sheets should be loose and not fitted so they do not interfere with cell alternation.

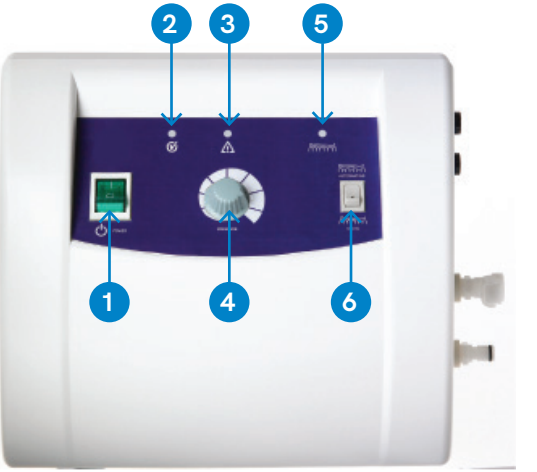
Dismantling the system

1. Switch off the control unit.
2. Switch off mains power and unplug the power cable from the mains outlet.
3. Disconnect both the air hoses from the control unit. This will allow deflation of all cells except three static head cells.
4. To deflate the head cells, firmly pull the CPR tag to disconnect the sealing connectors from the air hoses.
5. Return all items to the carry bag for safe keeping.

WARNING! Do not store the system in direct sunlight.

Operation

Control unit layout



1. **Power button**
   Press the Power button for at least two seconds to turn on the control unit.
2. **Ready LED**
   Indicates the system has reached operational pressure. Further adjustment may be required once the patient is positioned on the mattress.
3. **Alarm LED**
   Indicates the control unit or mattress pressure has failed. This red light will illuminate when pressure drops below the accepted minimum level. Any intentional action to the Aeria 8 system, which generates pressure loss, will also cause the alarm LED to illuminate until the pressure is restored.
4. **Pressure adjust dial**
   Adjusts mattress pressure from low to high, in line with patient weight and comfort requirements.
5. **Static LED**
6. **Static/Dynamic switch**
   Switches between Static and Dynamic (alternating) mode. The orange Static LED illuminates when the mattress is operating in Static Mode (all cells fully inflated with no dynamic alternation). When this LED is not illuminated, the mattress is in Dynamic mode (alternate cells cyclically inflating and deflating).

Patient set up

1. Prepare the system for use as described in **System set up**. The green Ready LED will illuminate once the mattress is ready for use.
2. Cover loosely with a sheet before placing patient on the mattress.

WARNING! The patient should not lie on the system during inflation.

3. When the patient is lying comfortably, turn the pressure adjust dial to reach the desired setting for effective patient comfort and support. When adjusting or lowering the pressure, ensure the system is working effectively by performing a 'bottoming out' test (a test to ensure the patient is adequately suspended away from the base).

CPR/Re-inflation

The CPR tag located at the mattress head should be used in the event that patient CPR or emergency treatment is required. Pulling this tag will rapidly deflate the entire system.

If emergency treatment is required, firmly pull the CPR tag ensuring both sealing connectors are fully disconnected from the mattress air hoses. For maximum deflation rate, also disconnect both air hoses from the control unit.

To re-inflate the system after the CPR tag has been pulled, restore all disconnected air hoses to the mattress and wait for the mattress to gain optimal pressure for patient use (the Ready LED illuminates to indicate the mattress is ready for use).

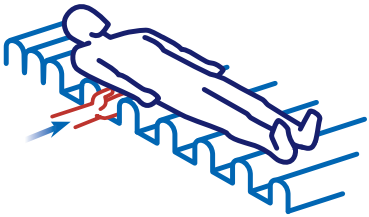
Transport mode

When transporting a patient on the Aeria 8 system, disconnect both air hoses from the control unit and snap ends together (connect the air hoses to each other) to retain air in the mattress.

WARNING! The length of time the system remains inflated during transport will depend on the weight and height of the patient, and will vary on a case by case basis.

WARNING! During transport, regularly perform a 'bottoming out' test to ensure the patient is adequately suspended on the mattress. Failure to do so could cause patient injury.

'Bottoming out' test



- With the patient lying in the supine or side position, unzip one side of the top cover, just past the sacral region (lower spine).
- Slide your hand underneath the patient and feel for a deflated cell under the patient's lower spine. Remember that the inner static cell will remain inflated however your hand should easily slide between patient and base.
- If the patient is adequately suspended, the pressure setting can be lowered. After approximately 12 minutes, reassess system function and patient comfort. If pressure fails for any reason the red alarm indicator will display and an audible alert will sound – immediately increase pressure to the maximum pressure setting.

WARNING! After lowering the pressure setting, always check the system is working effectively. Failure to do so could cause patient injury.

WARNING! Wait at least 10 – 12 minutes between any pressure adjustment or patient assessment as the system may take a full cycle to adjust to the new pressure setting.

Operation (cont.)

Alarm

The Alarm LED indicates the control unit or mattress pressure has failed. This red light will illuminate when pressure drops below the accepted minimum level, irrespective of the setting. The LED will remain illuminated until appropriate pressure is restored.

If the Alarm LED is illuminated, and the system fails to inflate or loses pressure:

- Check the air hoses are securely connected to the control unit
- Check the CPR tag is intact, ensuring both sealing connectors are fully fitted to the mattress air hoses
- Check all mattress air cells are securely connected to the air pipes
- Check all cells, pipes and hoses for any air leakage
- Check that the air filter cover is correctly secured
- Check the air filter is clean

WARNING! If the problem persists, contact Cubro for further advice about repair. Do not try to open the control unit. Opening the unit could cause personal injury or equipment damage.

Care and maintenance

WARNING! The mattress is not protected against excessive amounts of water. Disconnect power supply before cleaning. Failure to do so could result in equipment damage or electric shock.

WARNING! Switch off and disconnect the control unit from mains power supply before cleaning. Do not immerse the control unit in water.

Base cleaning

Should the base require cleaning, deflate the mattress and disconnect the air cells from the base by unfastening the press studs at each side and unhooking the cell package. The base and cells can be swabbed with a solution of sodium hypoclorite or similar (up to 10,000ppm available chlorine). The base can also be machine washed at 70°C.

Dry thoroughly before refastening.

Top cover cleaning

Remove the top cover from the base before washing. For basic care and cleaning, wipe down with warm water containing detergent. The top cover can also be machine washed at 70°C.

For infection control, swab with a solution of sodium hypoclorite or similar (up to 10,000ppm available chlorine).

Do not use Phenol based cleaning agents.

Dry thoroughly before use.

WARNING! Do not use system without top cover.

Control unit external cleaning

Disconnect control unit from mains power before cleaning. Gently wipe down the external case, including handle, with a soft cloth.

Soak the cloth in warm water containing detergent, and twist dry any excess water before use. Repeat the process with a dry cloth to remove excess moisture.

WARNING! Ensure the control unit is disconnected from mains electricity before cleaning.

Disinfection

To prevent cross contamination, the mattress should be examined and disinfected between patient use.

The mattress, top cover and control unit may be decontaminated by using ETO (Ethylene Oxide).

WARNING! Clean the mattress in accordance with local infection control policy and government relegations for blood borne pathogens. Failure to do so could cause patient or personal injury.

WARNING! Do not use high temperature autoclave steam cleaning devices or phenolic-based products for cleaning. This could result in damage to the equipment and loss of waterproof qualities of the top cover.

Care and maintenance (cont.)

WARNING! Care should be taken to avoid the risk of electric shock when changing the air filter and fuse.

Air filter replacement

1. Switch off power supply to the control unit and disconnect the air hoses and power cord.
2. Place the control unit face down on a soft, flat surface with back panel uppermost (use a soft cloth to prevent scratches).
3. Use a small screwdriver to carefully remove the air filter cover. Clean the dust from the filter or discard and replace with a new filter.
4. Refit the air filter cover to the control unit before use

WARNING! It is recommended that the air filter be replaced each year. Replacement air filters are available from Cubro.

Fuse replacement

1. Switch off power supply to the control unit and remove the power cord from the socket in the base of the unit.
2. Insert a small screwdriver into the groove and turn anti-clockwise (quarter turn).
3. Remove the 'blown' fuse from the fuse holder clip and discard.
4. Insert a new fuse into the plug. Push against the force of the spring and turn clockwise with the screwdriver (quarter turn).

WARNING! When changing the replaceable fuse, use same rating fuse only (T1AL/250V). Preventive inspections and calibration are not required.

Servicing

For any servicing, maintenance and troubleshooting queries, please contact the Cubro Service Department:

0800 656 527 +64 7 578 7228
sales@cubro.co.nz

149 Taurikura Drive, Tauriko, Tauranga, NZ

For additional copies of this user guide or for a different format, please contact Cubro.

Disposal

Products that can no longer be used are to be disposed of separately from household rubbish. This must be done according to the local and national regulations for environmental protection and raw material recycling. Please look at your local council's website for further information on the correct disposal.

WARNING! Do not make any changes or modifications to this product without consultation from Cubro.

Troubleshooting

If the problem cannot be resolved, please contact Cubro for further support.

Problem	Cause	Solution
Control unit does not operate	**The control unit may not be attached to a power source or a fuse may need replacing**	1. Check the control unit is connected to an electrical power outlet. 2. Check the control unit is switched on. 3. Check the mains plug fuse (3 AMP) and both control unit fuses (1 AMP). Fuses can be released using a screwdriver.
Control unit operational but red Alarm LED illuminates Mattress replacement fails to inflate	**The alarm illuminates when mattress replacement pressure fails to reach or drops below the accepted minimum level, this can be an indication of an air leak in the system.**	1. Check both air hoses are properly attached to the control unit. 2. Check all hoses along the inside of the replacement — each should be firmly connected. 3. Check each air cell is securely attached to the connecting air pipe. 4. Check all cells, pipes and hoses for any air leakage. 5. Check that the air filter cover is correctly secured and the air filter is clean. **WARNING! Do not try to open the control unit. Opening the unit could cause personal injury or equipment damage.**
Patient is sinking or 'bottoming out' while lying flat on the mattress	**The pressure may be set too low for the patient's weight**	1. Increase pressure — usually an incremental increase is sufficient however wait 10–12 minutes (one full cycle) before checking the increase was sufficient. 2. Check effective system performance by conducting a 'bottoming out' test as described on page 11.

Technical specifications

Classification

Equipment not suitable for use in the presence of a flammable anaesthetic mixture with air, oxygen or nitrous oxide.

Non-continuous operation	Type BF Equipment Class II Equipment Ordinary Equipment
Maximum recommended patient weight	160kg
Risk category	Medium to high

Control unit

Type	Analogue
Dimensions	290 x 140 x 270mm
Weight	2.9kg
Rated voltage	AC230V 50Hz 0.2A
Rated input power	20va
Protection class	Class 2
Cable length	5m
Air output (Lpm)	7
Cycle time (min)	10 – 12 minutes

Mattress replacement

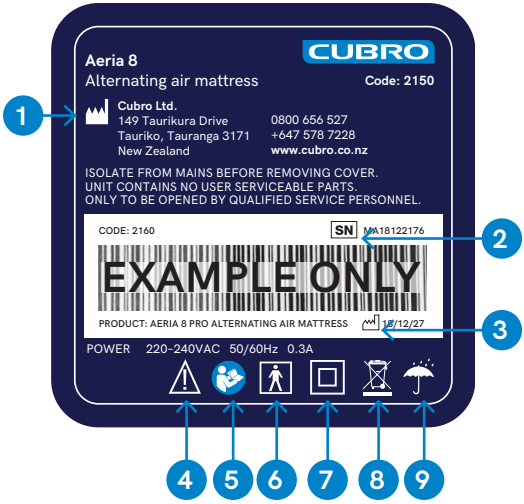
Dimensions (inflated)	2000 x 880 x 220mm
Weight	9.2kg
Number of cells	21
Cell height	220mm
Alternation type	1 in 2
Cell material	TPU coated nylon
Base material	PU coated nylon
Top cover material	PU coated two-way stretch nylon
Cover attachment	Elasticated
Skirt seams	Sewn

Safety labels

Symbols on the product.

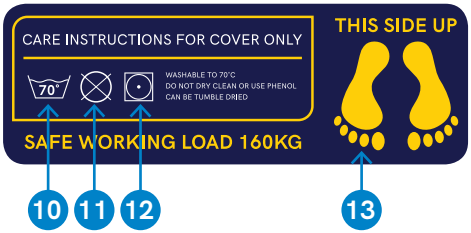
Control unit

1.		Manufacturer details
2.	SN	Serial number
3.		Manufacturing date
4.		Warning
5.		Refer to user guide
6.		Type BF Applied Part
7.		Class II equipment
8.		Disposal: Do not dispose of this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
9.		Keep dry



Mattress

10.	70°	Washable to 70°C
11.		Do not dry clean or use Phenol
12.		Can be tumble dried
13.		Foot end
		Refer to user guide



Limited warranty

1. This warranty applies only to the original purchaser of CUBRO LTD's product (who must be a purchaser who is resident or carrying on business in New Zealand and who has purchased the product directly from CUBRO LTD, or from a CUBRO LTD authorized distributor or reseller in New Zealand) and it is not transferable to any other person or entity.
2. This warranty replaces all conditions, warranties or guarantees that might be implied by law in favour of any person, which are excluded to the fullest extent permissible by law. Where the Consumer Guarantees Act would apply but the purchaser acquires or holds themselves out as acquiring any product for business purposes, the guarantees provided under the Consumer Guarantees Act are excluded in relation to that product.
3. CUBRO LTD warrants the product to be free from defects in materials and workmanship from date of purchase for a period of one year (12 months). This warranty does not cover any damage, defect, expense or loss of any kind caused by accident, misuse, abuse, neglect, negligence, alteration or modification (which includes the use of unauthorised parts or attachments), improper service, repair by other than authorized personnel or any defects not related to materials or workmanship. Wear of components in normal operation and failures resulting therefrom are excluded from this warranty.
4. CUBRO LTD has no obligation to the purchaser and is not obligated to honour all or any part of this warranty unless the following procedure is followed by the purchaser:

a. Before making a warranty claim, the purchaser should ensure that the product is defective by following standard 'trouble shooting' procedures and be able to attribute the fault to a defect in materials and/or workmanship of CUBRO LTD;

b. If CUBRO LTD determines that the product is not defective, or that the warranty claim is otherwise invalid, CUBRO LTD shall charge the purchaser a handling and servicing fee as well as any freights costs.

c. Upon receiving notice from the purchaser of an alleged defect in a product (which defect should be reported to CUBRO LTD immediately), CUBRO LTD will issue a serialized return management authorization (RMA). The purchaser must then return the entire unit or remove, at the purchaser's cost, the defective component part(s) identified, pack the unit or the component part(s) in a manner to avoid shipping damage and to ship the unit or the component part(s) to either CUBRO LTD, or a service centre as specified by CUBRO LTD, within 30 days of the date of the serialized return authorization date.

d. If CUBRO LTD require additional information relating to the use of the product by the purchaser or any other relevant information, the purchaser will supply such information as soon as practically possible and in such a manner as CUBRO LTD may reasonably require.

e. If CUBRO LTD access the purchaser's claim, it will either repair or replace the product, or repair or replace the defect in workmanship, as it may determine in its sole discretion.

5. Proper selection of a specific product for a specific application and operating environment, and its compatibility with other equipment is the purchaser's responsibility. CUBRO LTD does not warrant the performance of its products or their suitability for a particular purpose.
6. CUBRO LTD shall not be liable under any heading (whether in contract, negligence, or otherwise) for any consequential, indirect or incidental loss or damages of any kind and the maximum aggregate liability of CUBRO LTD (under any one or more headings) shall be the purchase price of the product.

Get in touch

0800 656 527
sales@cubro.co.nz
cubro.co.nz

CUBRO