Operating Manual

Air-L803™ Series

Alternating Overlays and Mattress Replacement Systems

aidacare
HEALTHCARE EQUIPMENT

Congratulations on your hire or purchase of an AirLo3 or 5 alternating overlay or AirLo8 mattress replacement system. AirLo systems include a raft of design features and innovations which maximise both comfort and therapy.

Options such as the Hyperstretch coverlet can be attached to all AirLo top covers. This protects the user from cell chill, increases comfort whilst decreasing any possibility of tissue shearing under high risk patients.

Patented Cell disconnection valves on the AirLo5 and 8 allow for the complete deflation of up to 4 foot end cells. This can permanently elevate the heel which can aid in the treatment of foot ulcers.

Your overlay or mattress system has the following features.

Control Unit:

- Powerful yet quiet 10 LPM compressor with non-continuous operation
- Auto start up with choice of three modes - Static, Active and Care*
- Choice of three comfort settings (continuous comfort dial on AirLo3)
- Incline mode* for adding extra support pressure
- Simple tamper resistant control interface* with audio visual diagnostics
- Easy to reach CPR* twist valve emergency deflation system

Overlay and Mattress:

- Fully welded top cover and base for complete infection control
- Three static head cells to prevent dizziness and disorientation
- Fully welded main seams on all bases for infection control
- Pure TPU cells which stretch to minimise shearing and maximise comfort
- Internal power cord removes chance of damage underneath the bed

*These options not available on the AirLo 3

The AirLo alternating systems are provided with the following standard components.

1 Alternating Cell System with internal power cord.

2 Control Unit

3 AirLo Operating Manual

4 Carry Bag

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Indications

The AirLo alternating support systems are recommended for the following patient weights.

AirLo3: 20-120kg AirLo5: 20-150kg AirLo8: 20-200kg
These are standard weight ranges based on a patient with normal weight distribution placed in a supine, reclined position. It is recommended that if these patient specifications change, then these support recommendations should be re-evaluated.

These systems are for the prevention and for assistance in treating pressure areas.

In addition - patients suffering from low blood flow or ischemia in the extremities may also benefit from the application and release of pressure to encourage blood flow in these areas.

Contra-Indications

Patient conditions for which AirLo alternating systems would be contra-indicated would be the following.

- Non-stable spinal cord injury
- Cervical traction
- Any patient exhibiting unease or agitation on alternating surfaces
- Patients weighing under 20kg or over 200kg or otherwise too wide for a standard single (‹90cm) or king single (107cm) mattress width.

Intended Care Setting

The following care settings are recommended for the AirLo alternating mattress replacement system.

- Home Care
- Aged Care Facilities
- Palliative care
- Long term or extended rehabilitation
- General Hospital
- Intensive Care Units

Important Recommendations for General Use of System

Mattress:

✗ **Do not place any layers of material between the patient and top cover of the mattress! Doing so will compromise therapy!**
This includes the following:
i) Hospital sheets - regular or fitted
ii) Sheepskins or equivalent
iii) Incontinence sheets
iv) Slide sheets
v) Electric heating blankets
The mattress top cover is fully sealed and designed for the patient to lie directly on top. All that is required is an antibacterial wipe-down or machine wash when necessary. See Care Section for more information.

✓ Ensure the patient's clothing does not cause skin damage due to ties, buttons, creases, seams, objects in pockets and jewellery

✗ Do not place any sharp items on or near the mattress such as syringes or scalpels or any instrument that could hole the top cover

✗ Do not place any solid item/s on top of the system besides the patient

✗ Do not spill any liquids onto the control unit. If a spillage occurs then:
i) Turn off power to the control unit at the wall
ii) Disconnect the power cord from the control unit
iii) Wipe dry any excess moisture on the external casing
iv) Check that the interior of the power connector, plug and switch is dry

Failure to do the above may lead to component corrosion and or electrical safety hazards to carers and patients

✗ Do not use system in the presence of any flammable anaesthetic mixture with air, nitrous oxide or oxygen or in the presence of smoking materials or open flame - risk of explosion

Control Unit

✗ Do not open the control unit as there is risk of electric shock. Control units should only be opened by approved technicians or warranty will be voided

✗ Avoid blocking the air intake filter at the rear of the control unit

✓ Ensure that the power leads are undamaged and properly connected

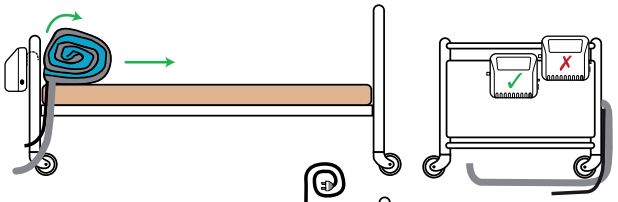
Air-LO 3

Alternating Mattress Overlay System

Quick Setup Guide

1. Remove overlay roll from carry bag and lay on bed base at the foot end.

   Try to avoid hanging the control unit in an exposed position if a lower hang point is available.

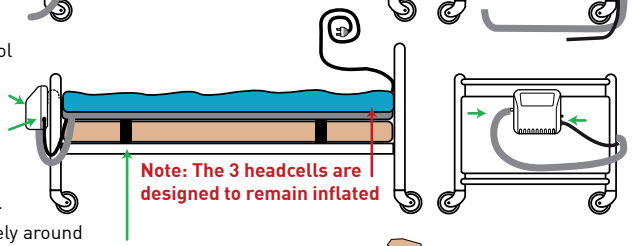


2. Connect air hose to control unit **(Note: it can connect either way around)**.

   Connect male power cord to control unit as shown.

   Check air hoses do not kink or interfere with bed.

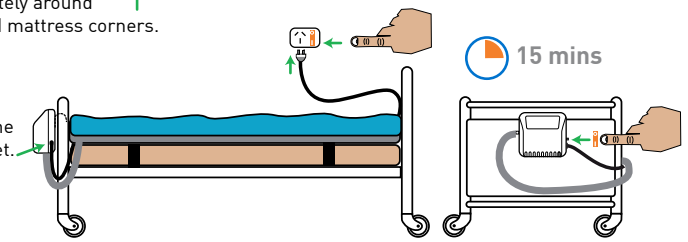
   Fit base elastics completely around mattress not just around mattress corners.



3. Connect power cord to the wall socket.

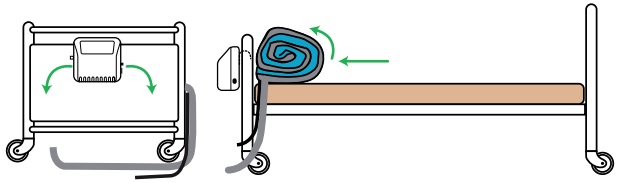
   Turn on control unit at the switch near power socket.

   Overlay will take 15 minutes to inflate.



4. **To deflate overlay for transport or storage when not in use:**

   Disconnect air hoses and power cord from the sides of the control unit



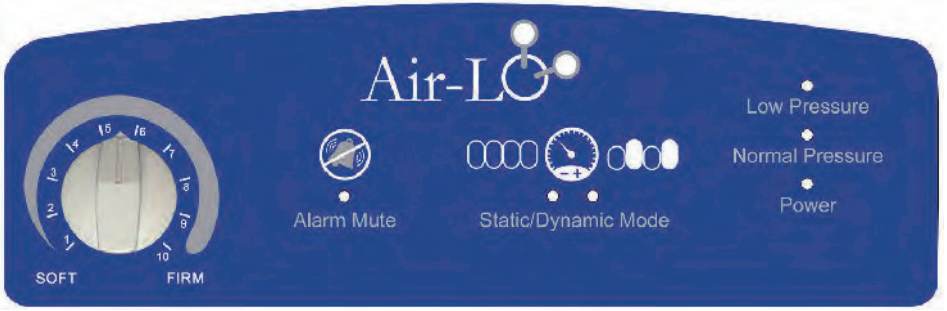
Once most of the air has been expelled from the mattress - the head cells will remain inflated. Start at the head end and roll the overlay up around the inflated head cells from the head end to the foot end.

5. ## Control Unit Operation

- **Comfort Set:** Turn the comfort control dial to select higher or lower pressures for comfort and or support.
- **Dynamic:** Default active alternation therapy mode.
- **Static Mode:** Pressing button once will inflate all cells to the selected comfort setting. This will revert back to Dynamic mode after 1 hour.

Status Lights:

- **L-Pressure:** Pressure in cells is lower than settings. Pump will adjust or alarm if there is a leak.
- **N-Pressure:** Pressure in cells is normal



Operation of the AirLo3 Control Unit

The AirLo3 control panel has been designed for complete ease of use. There are only two active controls - the Comfort Dial on the left and the Static/Dynamic Mode selection near the middle of the panel.

Comfort Control Dial

The best way to use the comfort control dial most effectively on the AirLo3 is to initially rotate it to the maximum setting.

Once the patient has been positioned on the mattress and they are lucid, ask if they are comfortable. If they say "yes" then keep it on the maximum setting. This is the most effective treatment setting for a cell system of this height. If they are not comfortable, then reduce the pressure by one numerical value, wait 10 minutes for the system to reset and then try to slide your hand under a deflated cell under that part of the body with the maximum weight (usually lower back) If your hand cannot slide under body easily then increase the pressure again.

Mode Selection Button

The system, on start up will default to Dynamic Mode (right LED) Press the Static/Dynamic Mode Button if you want all the cells to inflate for maximum support (Static Mode - Left LED) This mode will be active for 60 minutes before automatically reverting back to Dynamic Mode.

Alarm Mute

A simple Alarm Mute button to the right of the Comfort Dial enables the user to mute any alarms. However, if the issue is not resolved, the audio alarm will reactivate after 20 minutes.

Air-LO 5

Alternating Mattress Overlay System

Auto Quick Setup Guide

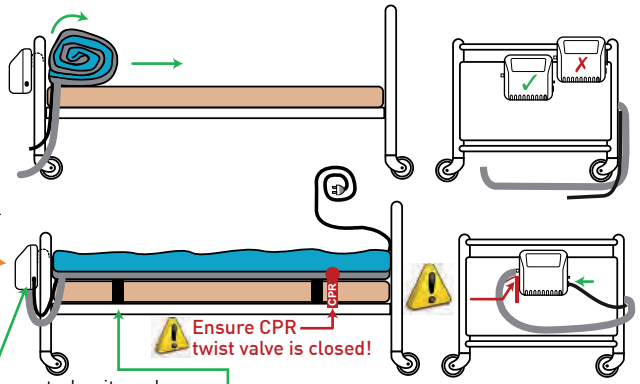
1. Remove overlay roll from carry bag and lay on bed base at the foot end.

   Try to avoid hanging the control unit in an exposed position if a lower hang point is available.

2. Connect air hose to control unit **(Connector can attach either way around)**

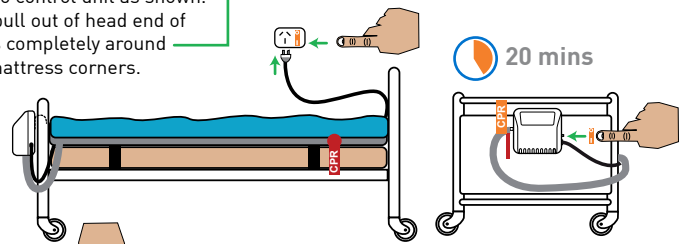
   Connect Sensor Jack to its port above the air hoses. **(Control Unit will NOT operate without sensor!)**

   Connect male power cord to control unit as shown. If more length is required pull out of head end of mattress. Fit base elastics completely around mattress not just around mattress corners.



3. Connect power cord to the wall socket. Turn on control unit at switch near power socket.

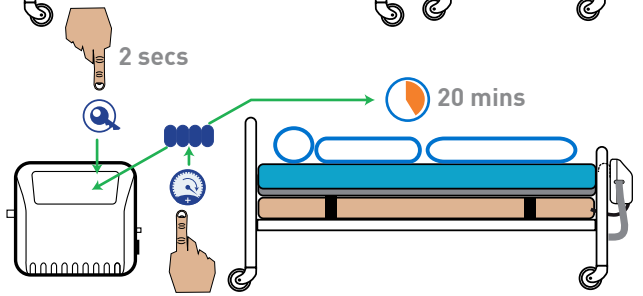
   Overlay will take 20 minutes to inflate.



4. **Press and hold Unlock button for 2 seconds to activate control panel.**

   Engage Care Mode for patient transfer onto mattress.

   Care Mode will auto disengage after 20 mins.



5 Control Unit Operation

The AirLo5 Automatic Sensor System is designed to automatically adjust to patient weight, position & profile

Press the pressure setting button at left
All 6 lights will flash. The system takes 8 minutes to adjust to the patient's weight

Locked Mode: Press for 2 seconds to unlock all controls

Active Mode: Default Mode for active alternation therapy

Transfer Mode: Maximum pressure for patient transfers
Will default to Active Mode after 20 minutes

Static Mode: Engage for transport or meals for comfort
Will change back to alternation after 1 hour

Air-LO 8

Alternating Mattress Replacement System

Quick Setup Guide

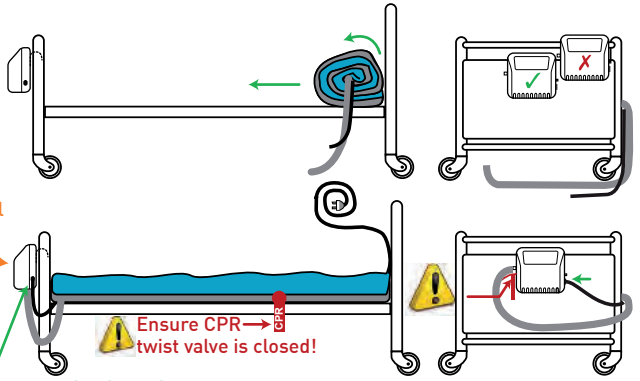
1. Remove mattress roll from carry bag and lay on bed base at head end - unroll to foot end.

   Try to avoid hanging the control unit in an exposed position.

2. Connect air hose to control unit (Connector can attach either way around)

   Connect Sensor Jack to its port above the air hoses. (Control Unit will NOT operate without sensor!)

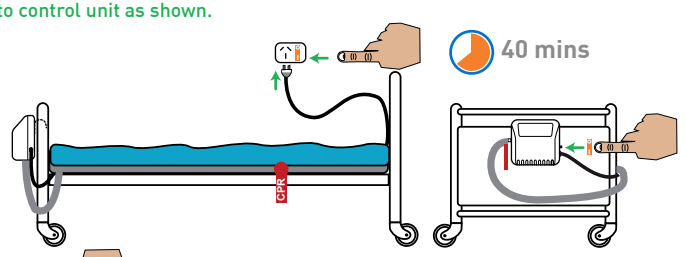
   Connect male power cord to control unit as shown.



3. Connect power cord to wall socket.

   Turn on control unit at switch near power socket.

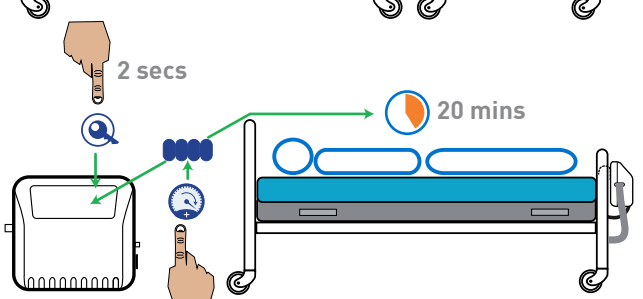
   Mattress will take up to 40 minutes to inflate.



4. **Press and hold Unlock button for 2 seconds to activate control panel.**

   Engage Transfer Mode for patient transfer onto mattress.

   Transfer Mode will auto disengage after 20 mins.



5 Control Unit Operation

The AirLo8 Automatic Sensor System is designed to automatically adjust to patient weight, position & profile

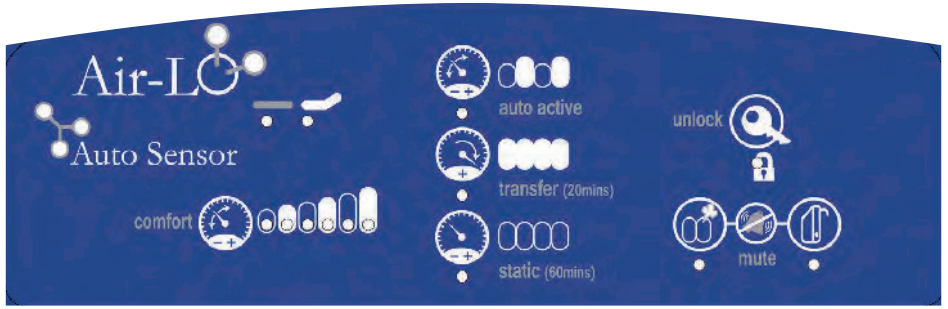
Press the pressure setting button at left
All 6 lights will flash. The system takes 8 minutes to adjust to the patient's weight

Locked Mode: Press for 2 seconds to unlock all controls

Active Mode: Default Mode for active alternation therapy

Transfer Mode: Maximum pressure for patient transfers
Will default to Active Mode after 20 minutes

Static Mode: Engage for transport or meals for comfort
Will change back to alternation after 1 hour



Unlocking the system

After start up, or after 5 minutes without user input, the system will automatically lock to prevent tampering. The Unlock LED will light up to indicate this. To change any settings, simply press **AND HOLD** the Unlock Button for **2 seconds** then release to activate controls.

Positioning or transferring patient on bed

To position the patient on the mattress or to generally manoeuvre or transfer the patient, press the transfer button. This will inflate the mattress to maximum pressure and provide a stable surface. The system will automatically revert to the previous mode after 20 minutes.

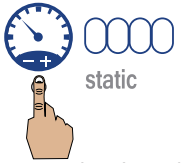
Auto Patient Profiling

The system is programmed to automatically sense the profile of the patient - when the sensor in the head end of the mattress detects more than 20 degrees incline then it will switch to incline mode and automatically add more pressure into the mattress. Note: only provide the minimum incline necessary for intubation or feeding - excessive inclines can limit the effectiveness of the mattress.

Auto Sensor Adjustment

After initial inflation, the system will automatically enter a weight detect mode. During this 7 minute period, all comfort lights will flash on and off. If a patient is on the mattress at this time, then the system will auto calculate the correct pressure setting. This auto detect mode can be used at any time by pressing the comfort button once only. It is best if the system is in static mode and the patient is totally reclined for more accuracy. The auto setting can be overridden at any time by pressing and holding the comfort button and then manually selecting.

Static Mode



Static mode can be selected to cease any alternation whilst remaining at the programmed or selected comfort setting. This can be beneficial for meal breaks when the bed is inclined for back support. It gives a stable surface and a break from therapy. Static Mode will automatically revert back to Active Mode after 1 hour.

Alarms and Diagnostics:

The control unit features an audio visual alarm diagnostic which will activate if there is a malfunction.

If the left button flashes and alarms, it indicates that there is a problem with the mattress or an air leak inside the control unit. If the right button flashes and alarms, it indicates that there is an electrical or mechanical malfunction within the control unit itself.

Both these audio alarms can be silenced by pressing the mute button. This will mute the alarm for 20 minutes. If the malfunction has not been resolved however, the alarm will re-activate.

For more information on alarms and faults with the system, please see the Troubleshooting section of this manual.

CPR Operation - AirLo3

The CPR operation of this system is located at the Control Unit. It is designed to be easy to find and activate quickly in the event of a CPR emergency.

Step 1: Squeeze side levers.

Step 2: Whilst both side levers are still squeezed, pull out to detach.

CPR Operation - AirLo5/AirLo8

The CPR operation for these systems is located along the right hand side of the mattress near the head end. A red location tag indicates its position.

Step 1: Locate the tag and lift the flap to expose the CPR twist valve.

Step 2: Twist right to "CPR" position

On-Site Cleaning

The AirLo alternating systems feature fully welded outer surfaces. When necessary the top cover and base can be cleaned and disinfected on site once the patient has been removed from the mattress.

The following on-site cleaning procedure is recommended for top cover and control unit. Note that a summary of the below is printed at the foot end flap of the top cover. Do not immerse the control unit in water!

1. Ensure gloves are worn and all disinfection and occupational health and safety protocols of the facility are adhered to.
2. Wipe down with a clean cloth using a disinfectant solution comprising of hand hot water and a neutral detergent or with a sodium hypochlorite solution (0.1% or 1000 parts per million available chlorine. Proprietary disinfectants may be used provided manufacturer's instructions are followed.
3. All cleaning agents and disinfectants must be thoroughly rinsed off and the surface dried before storage or re-use. Failure to do this may result in the accumulation of reagent that could damage the polyurethane coating, react with the bed frame or negate the bio-compatibility results of the fabric.

Machine Washing

The system is designed such that the outer cover can be easily unzipped and Machine washed. To machine wash the base - all cells and hoses must be removed;

Wash at a temperature up to 71°C (160°F), using normal detergents

In washing machines, it may be difficult to wet out full covers. Correspondingly, spinning and tumbling may not remove water trapped between layers. It may be helpful to interrupt the washing or drying cycles to alleviate this.

Machine Drying:

Drying may be achieved by hanging out, spinning or tumbling at temperatures up to 30°C - Do not mangle.

Coverlet Cleaning

The AirLo Hyperstretch coverlet is designed to provide insulation, comfort and therapy to the patient. It is made intentionally from high stretch light colour materials so that it will indicate any dirt or contamination. This coverlet can be machine washed and dried if dirty or contaminated.

Coverlet Removal and Replacement

The coverlet can easily be removed by unzipping it from the top cover.

Coverlet constructed from Micromesh Polyester and Foam
Made in Australia

To Remove the System from the Bed

Take the following steps to remove the system from the bed.

1. Ensure gloves are worn and all disinfection and occupational health and safety protocols of the facility are adhered to.
2. If necessary clean and disinfect following instructions in previous section.
3. Turn off the power switch on the side of the control unit and turn the power off at the wall plug
4. Disconnect electrical cords from control unit and wall outlet. Also disconnect the power cord from the head end of the mattress and store in the bag.
5. Twist CPR on mattress to open position and allow the system to deflate. It may be necessary to roll mattress from head end to squeeze out any remaining air. Note that the AirLo3 CPR deflation is from the control unit hose connector and the head cells are designed to remain inflated.
6. Once most air is removed, roll up mattress from head end to foot end ensuring hose tube and electrical cord is tucked into the last roll.

   If unit is being sent by courier or being transported generally, it is recommended that the control unit be placed at the head end and the mattress rolled around the control unit to protect it. Ensure that the system is UNROLLED CAREFULLY if this is done so the control unit does not fall onto the floor!
7. Once rolled up - fit the mattress into the main compartment of the bag.
8. Lastly, remove the control unit from the foot board and place in the bag. Ensure CPR twist module is closed and hose ends are capped off.

Storage

Store the system in its wheeled bag in a cool, dry area. Ensure that no heavy items are placed on top of the bag during storage.

Service Schedule

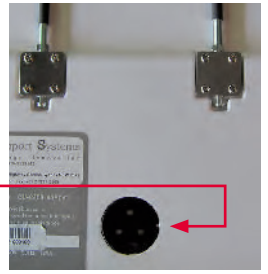
All AirLo Systems have been designed for easy maintenance and service. The following schedule should be used as a guide for maintaining the optimal performance of the system.

When Necessary and Between Patient Use

- **On site clean and disinfection of top cover**, base and control unit casing. see previous cleaning and disinfection instructions.
  Do not use system without top cover attached.
- **Inspection of top cover and base** for any strike through or damage.
- **Inspection of coverlet** for soiling or contamination - clean or replace.
- **Inspection of electrical cords** for proper connection, damage and any possible interference with moving bed parts
- **Inspection of elastics - AirLo3 & 5.** Between patient use or every 6 months -turn mattress over and inspect the condition and attachment of the elastics. If any are are frayed or corrugated at the edges, return to Patient Support Systems or their authorised agent for repair.

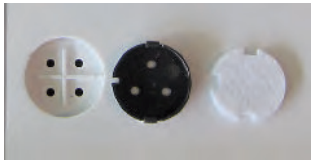
Air Filter Replacement

To maintain optimal performance of the control unit, it is recommended that the air filter, located at the rear of the unit be checked, cleaned or replaced every 6 to 12 months depending on the air quality where the system is being used.



1. Using a paperclip wire or similar insert in the edge notch and flip the cover off the filter casing.

2. Remove the cover and turn upside down and inspect - clean if discoloured.



3. To clean, remove the foam filter from inside the cover. This filter can either be washed or air cleaned and re-inserted after dry or otherwise replaced.

Problem	Cause	Solution
Control Unit does not operate or fault light flashes & alarm sounds 	There may be a disconnection in the power supply	1. Ensure all cord connections from wall plug, breakaway connection at head end and pump connector are properly seated in their sockets. 2. Check Control Unit fuse under power socket - flick open with small flat head screwdriver and replace fuse if necessary. Only use fuse type 10Amp 250Volt
The fault light below flashes and alarm sounds 	There is a leak somewhere in the cell or air hose connection system	1. Ensure that the CPR module is closed and the connector is properly attached to the side of the control unit. 2. Ensure that the sensor cable is properly attached to the side of the control unit under the hoses. 3. Select Care Mode for maximum pressure and check for any air "hiss" from the cell section. If you still cannot hear - wet the back of your hand and run your hand upside down along the top of the cells to find any air leak. Also look for any deformed cells as these may have internal weld failures leading to leaks of air between separate internal chambers. Once the faulty cell is found - remove and replace with the same type. 4. Look for any disconnection between hoses and their T or L connectors. Don't forget to also check whether the air hoses are correctly connected to each of the cells.
Cell or Cells rising up above adjoining cells	A cell end press stud has disconnected.	1. Open top cover and check along the sides of the inside base section. It is easy to see immediately if any of the external press studs have become disconnected. If the studs are faulty -then replace.

Air-L3

specifications

Control Unit:

Dimensions:	W 27 x H 21 x D 10cm
Weight	2.5kg
Mode of Operation	Non-Continuous
Power Rating	240V 50Hz 12VA
Transport Function	Hose End Cap
Air Flow	10 Litres per Minute
Auto Startup	✓
Comfort Control Manual Dial	✓
Self Diagnostics	✓
Audible/Visual alarm	✓
Mute Function	✓
Static Mode	Timeout - 60 minutes
CE Certification and C-Tick Listed N27882	✓

Warranty
2 Years

ARTG: 175810

Mattress Overlay

Dimensions	L 200 x W 90 x H 10cm
Alternating Cell Type	Single Chamber
Overall Cells Count	22
Static Head Cells (included)	3
Cell Material	TPU
Top Cover	Plastibert 2 way stretch - welded
Base/s	Nylon TPU welded
Cell Cycle	1 in 2
Alternating Mode	14 minutes per cycle*
Infection Control	Welded Top Cover, Zip and Base
Mattress Attachment	Multi-fit Elastic Straps

Optional Hyperstretch Coverlet

Dimensions	L 200 x W 90 x H 1cm
Attachment	Top Cover Zip
Cover Material	High Performance Microfibre
Foam	Dunlop Marathon Hypersoft HS18-35 with Ultrafresh

Air-LO 5
specifications

Control Unit:

Dimensions:	W 27 x H 21 x D 10cm
Weight	2.5kg
Mode of Operation	Non-Continuous
Power Rating	240V 50Hz 12VA
Transport Function	Hose End Cap
Air Flow	10 Litres per Minute
Auto Startup	✓
Auto Sensor for Patient Weight Profile and Position	✓
Comfort Override Control	✓
Self Diagnostics	✓
Audible/Visual Alarm	✓
Mute Function	✓
Static Mode	Timeout - 60 minutes
Care Mode	Timeout - 20 minutes
Incline mode with auto tilt sensor	✓
Auto Anti Tamper - 2 Second Unlock Function	✓
CE Certification and C-Tick Listed N27882	✓

Warranty
2 Years

ARTG: 175810

Mattress Overlay

Dimensions	L 200 x W 90 x H 13cm
Alternating Cell Type	Single Chamber
Overall Cells Count	18
Static Head Cells (included)	3
Quick release valves for last foot zone cells	4
Cell Material	Pure TPU
Top Cover	Dahlia Bi-Elastic 2 way stretch - welded
Base/s	Nylon TPU welded
Cell Cycle	1 in 2
Alternating Mode	7 minutes per alternation
Infection Control	Welded Top Cover, Zip and Base
Mattress Attachment	Multi-fit Elastic Straps

Optional Hyperstretch Coverlet

Dimensions	L 200 x W 90 x H 1cm
Attachment	Top Cover Zip
Cover Material	High Performance Micromesh
Foam	Dunlop Marathon Hypersoft HS18-35 with Ultrafresh

Air-LO 8
Specifications

Control Unit:

Dimensions:	W 27 x H 21 x D 10cm
Weight	2.5kg
Mode of Operation	Non-Continuous
Power Rating	240V 50Hz 12VA
Transport Function	Hose End Cap
Air Flow	10 Litres per minute
Auto Startup	✓
Auto Sensor for Patient Weight Profile and Position	✓
Comfort Override Control	✓
Self Diagnostics	✓
Audible/Visual Alarm	✓
Mute Function	✓
Static Mode	Timeout - 60 minutes
Care Mode	Timeout - 20 minutes
Incline mode with Auto Tilt Sensor	✓
Auto Anti Tamper - 2 Second Unlock Function	✓
CE Certification and C-Tick Listed N27882	✓

Warranty
2 Years

ARTG: 175810

Mattress Replacement

Dimensions	L 200 x W 90 x H 23cm *
Alternating Cell Type	Safety Cell in Cell
Overall Cells Count	20 - (3 static Head Cells included)
Quick release valves for last foot zone cells	4
Cell Material	Pure TPU
Top Cover	Dahlia Bi-Elastic 2 way stretch - welded
Base/s	Nylon TPU welded
Cell Cycle	1 in 2
Alternating Mode	7 minutes per alternation
Infection Control	Welded Top Cover
Positioning Handles	2 aside
Base Attachment	Side Straps

Optional Hyperstretch Coverlet

Dimensions	L 200 x W 107 x H 1cm
Attachment	Base Surround Zip
Cover Material	High Performance Micromesh
Foam	Dunlop Marathon Hypersoft HS18-35 with Ultrafresh

* AirLo8 King 200x107x21cm

Warranty Limitations

1. Patient Support Systems Pty Ltd, its distributors, dealers, officers, directors, employees or agents shall have no liability or responsibility to any customer, other person or entity with respect to any liability, loss or damage caused directly or indirectly by use or performance of the Product or arising out of any breach of this Warranty, including but not limited to any damages resulting from inconvenience, personal injury, loss of time, property, revenue or profit or any indirect, special, incidental or consequential damages, even if Patient Support Systems Pty Ltd or its authorized dealers have been advised of the possibility of such damages.
2. The sole remedy for breach of the limited warranty granted herein shall be repair or replacement of the Patient Support Systems Pty Ltd products.
3. Some states in the United States and countries elsewhere do not allow the limitation on how long an implied warranty lasts or the exclusion of incidental or inconsequential damages, so the above limitations on exclusions may not apply.
4. This limited Warranty gives you specific legal rights and you may also have other legal rights, which vary from state to state or country to country.

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