

OSKA®

User Guide

Series6 OneSurface™ Mattress



Version 6: 17.11.2022



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Please read the following instructions carefully and observe the warning instructions before using the system.



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Know your symbols

This manual contains different typefaces and symbols to make the content easier to read and understand:

Standard text - used for regular information. **Boldface text** - stresses a word or phrase.

NOTE: - sets apart special information or important instruction clarification.

Mattress



European conformity marking

WARNING or CAUTION



WARNING: Situations or actions that may have an effect on patient or user safety. Ignoring a warning could cause patient or user injury.

CAUTION: Points out special procedures or precautions that persons must obey to avoid equipment damage.



Non sterile



Catalogue number



Serial number



Authorized representative in the European Community



Foot end



Manufacturer



Not made with natural rubber latex



Batch code



Medical Device



UKCA marked



Quantity

Pump (This Pump is not an OSKA Product.)



European conformity marking

WARNING or CAUTION



WARNING: Situations or actions that may have an effect on patient or user safety. Ignoring a warning could cause patient or user injury.

CAUTION: Points out special procedures or precautions that persons must obey to avoid equipment damage.



See the user manual for use instructions



See user manual for use instructions for 230V system



WEEE



Type BF applied part

IP21

Protection against the ingress of fingers or similar objects and dripping water



Authorized representative in the European Community



Manufacturer

70°C max



Temperature limitation

-25°C min.



Serial number



Double insulation



Electrical shock hazard warning

About your mattress

The OSKA Series6 OneSurface™ features a proprietary system of interconnected air support cell designed to deliver outstanding pressure redistribution for those with or at risk of skin breakdown. The OSKA Series6 OneSurface™ is intended for use as a non-powered reactive therapy surface, or as a powered active therapy surface via the addition of a powered air control unit.

Description

The system consists of a foam shell with a high-density, zoned foam top layer that serves as the interface between the patient and the inner air system. The foam shell also includes a contoured Safety Edge foam bolster design, providing added patient stability and positioning. OSKA Series6 OneSurface™ also includes the unique Heel Slope® feature, designed to further reduce pressure for the vulnerable heel area. Within the foam shell is housed the inflation system, consisting of air cells running lengthwise within the mattress. The system also includes an auto firm mode to provide a firm support surface for use during patient care and to assist during patient transfer. Built-in check valves ensure an ideal therapeutic setting for non-powered pressure redistribution when the control unit is not attached.

Indications for use

The OSKA Series6 OneSurface™ model is intended as an aid in the prevention and treatment of pressure ulcers. Powered modes are intended for active wound treatment, and may be indicated for use as a preventive tool against further complications associated with critically ill patients or immobility. For patients at an elevated risk of pressure related tissue injury.



CAUTION!

The Series6 OneSurface™ is not for use by those with unstable spinal cords



WARNING!

To reduce the risk of burns, electrocution, fire or injury to persons: READ ALL INSTRUCTIONS BEFORE USING THIS UNIT.

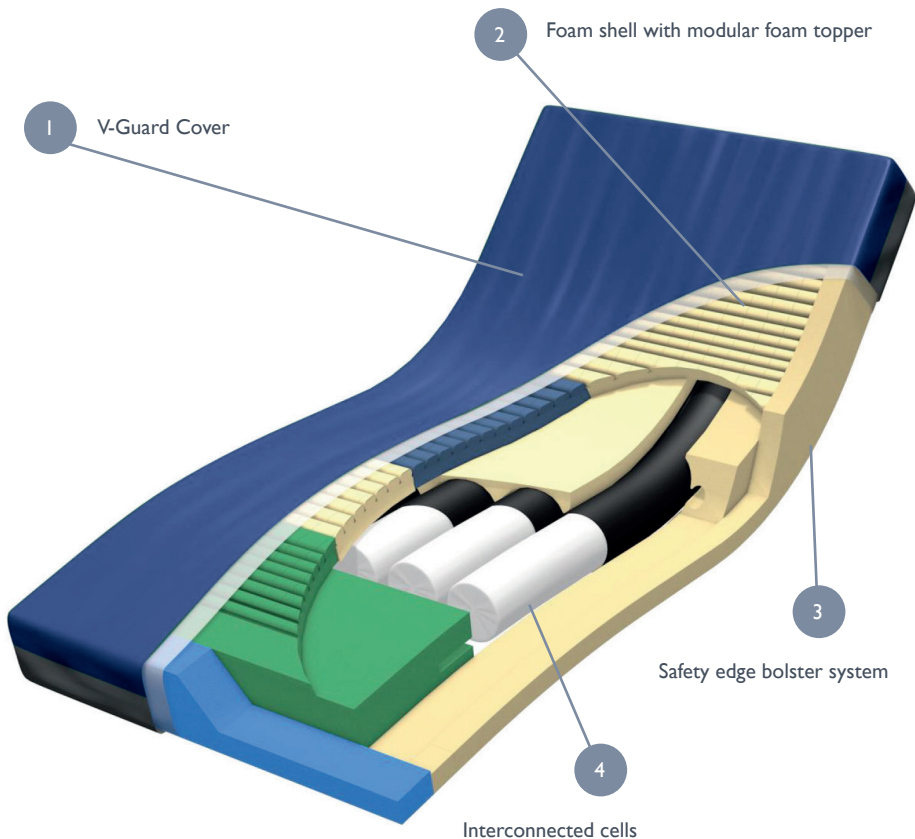


CAUTION!

A notice to the user and/or patient that any serious incident that has occurred in relation to the device should be reported to the manufacturer and competent authority of the member state in which the user and/or patient is established.

01. Use this unit only for its intended use and with recognised accessories which are described in the operating instructions; use of other accessories or materials may degrade minimum safety level.
02. Never operate the product's powered control unit if it has a damaged cord or plug, is not working properly, has been dropped or damaged, or has been exposed to water. Return the unit to OSKA.
03. Keep the cord away from heated surfaces. Discontinue use if power cord is damaged or worn.
04. Never drop or insert any object into any opening or hose. Keep away from sharp objects.
05. Do not use outdoors.
06. Do not place or store product where it can fall or be pulled into a bath or sink.
07. Do not place in or drop into water or other liquid.
08. Do not reach for a product that has fallen into water. Unplug immediately.
09. Possible explosion hazard if used in the immediate proximity of flammable gases (risk of explosion).
10. Use only original spare parts and consumables.
11. Plug this product into a correctly grounded outlet only.
12. Before cleaning, unplug unit from its power source. Failure to do so could result in personal injury or equipment damage.
13. Do not use harsh cleansers, solvents, or detergents. Do not expose the unit to excessive moisture. Equipment damage could occur.

Design features



Design features

1. V-Guard cover with Shear Transfer Zones

Outer cover features a bi-directional stretch fabric designed to allow full integration of the user into the surface. Top is made from proprietary polycarbonate-fortified fabric, which provides high resistance to the damaging effects of diluted bleach and other aggressive cleaners and disinfectants. It wipes clean easily with standard, hospital-grade cleaners. It has a low moisture vapour transmission rate (MVTR). Patented "Shear Transfer Zones" incorporated beneath top fabric creates shear-minimizing bands beneath heels, sacrum and scapula. Zones help prevent these bony prominences from digging into the surface, while protecting against the damaging effects of micro shear, macro shear, and rotational (pivot-induced) shear. Design also helps "glide" the user back to their original position following Head of Bed (HOB) elevation. Exclusive split bottom design helps reduce sliding of mattress while also reducing the "gatching noise" typical of non-slip fabrics.

2. Foam shell with modular foam top surface

The clinically proven modular foam design incorporated into the top surface of the mattress is a high-density foam. The unique geometric design consists of over 800 individual cells, each of which acts individually to redistribute pressure, to reduce heat and moisture build-up on the skin, and to reduce shear to underlying tissues. This foam topper is approximately 2" in height and tapered at the foot end of the mattress. The unique Heel Slope® feature helps further reduce interface pressures on vulnerable heels.

3. Safety edge bolster system

The supportive safety edge consists of engineered inner and outer foam bolsters for added patient stability in sitting and lying down.

4. Proprietary cells

The air system consists of four interconnected cells arranged longitudinally (head-to-foot) and constructed from RF- (radio-frequency) welded urethane. The system is designed to provide and maintain low interface pressures throughout the mattress in the non-powered mode. When the powered control unit is attached, it provides active therapy in the alternating pressure mode via inflation and deflation in a fixed 10-minute cycle. The system requires no adjustment or maintenance for the five-year duration of its warranty.

How to set up your mattress

01. Place the Series6 OneSurface™ mattress on the bed frame with the airline connectors at the foot end of the bed. The mattress has a black bottom cover that should be placed directly on the bed frame, the mattress cover will have airline connectors on the bottom left corner; make sure this matches with the airline connectors on the mattress. The blue top cover should face upwards, with the foot icon at the bottom of the bed frame.



WARNING!

The fit of the mattress to the bed frame is important. Minimizing spaces or gaps between the mattress and frame will help prevent patient entrapment issues.

02. Check the bed frame is appropriate for use with the mattress, i.e. the length and width of the mattress are appropriate for the frame. Place directly on a healthcare bedframe only, never on top of another mattress.
03. The mattress is now ready for use in the non-powered mode (that is, without the powered control unit attached) by users who are within the 500 lbs. (226 kg) weight limit for the product [400 lbs. (180 kg) in powered mode].
04. The surface is designed to be used with appropriate linens in place. See page 14.

Connecting optional powered control unit:

01. Hang the control unit on the foot board at the end of the bed using fold-out hangers (Figure A). Connect airlines to control unit by pressing quick connector into port on the side of unit. "Triangle" symbol should face front. (Figure B) Audible "click" indicates secure connection.



Figure A



Figure B

NOTE: The hanger lock strip (included, item # PI0064, Fig. C) can be used to help hold control unit more snugly in place on thin foot boards such as those often found on home health care beds. To use, place the strip in position around the hanger hooks as shown in Figure D.



WARNING!

To avoid potential for injury to patient's foot, the control unit should be positioned such the hangers remain flush to the foot board and do not extend on to the sleep surface. This may require use of the hanger lock strip. See NOTE above.



Figure C



Figure D

02. Connect the ends of the air lines with two right angle male connectors (Figure E) to the ports on the side of the mattress (Figure F). Ports are located beneath a fabric flap near the left corner at the foot of the mattress. Ensure that the air lines are not kinked or twisted. Press connectors into ports until you hear an audible "click" for each. Press flap closed.



CAUTION!

Do not cut air lines to increase separation. If additional separation is needed to connect air lines to the mattress, gently pull air lines away from one another to lengthen the split.



Figure E



Figure F

03. Ensure that green On/Off switch at side of control unit is "Off". Plug power cord into wall outlet. Press On/Off switch "ON".



CAUTION!

Never thread air line through mechanical parts of the bed or bed rails where normal bed movement may damage the air lines or the air control unit itself. Check to be sure the motion of the bed does not interfere with the air lines.



WARNING!

Always plug the power cable securely into the wall outlet. Make sure the wall-mounted outlet will accommodate a heavy duty or hospital-grade plug and that the outlet is in good working order. The plug of the power cord should fit tightly into the wall outlet. The plug body, the wall outlet, and the wall plate should not be cracked or chipped. The plug blades should be securely retained in the plug body. The ground pin of the plug should be intact and secure.



Do not connect the power cord to an extension cord or to a multiple outlet strip. If the use of extension cords or multiple outlet strips cannot be avoided, use only heavy duty or hospital-grade connectors that are approved by the facility. Multiple outlet strips should be mounted on a fixed object to reduce the risk of liquid spills and physical damage. In addition, if multiple-receptacle outlet boxes are used, they also should be protected from the risk of liquid spills and physical damage. All extension cords and multiple outlet strips should be tagged and inspected routinely.



Do not cover the power cord with a rug or carpet. Rugs or carpets can prevent normal air flow, which can lead to greater heat built-up. Place the cord in a low or no traffic area. Check to be sure the motion of the bed does not interfere with the bed's power cord or plug.

04. When power switch is turned to ON, the unit will power up in "Auto Firm" mode and begin performing a system check. This fills the air system completely, in order to confirm the proper connection and function of both the mattress and the control unit prior to a patient being placed on the surface. If the mattress is completely empty of air, this can take as long as 20 minutes. You must leave the mattress for a full 20 minutes to fully inflate before using or trying to change the comfort level setting.
05. System will remain in "Auto Firm" mode until this process is complete. "Low Pressure" indicator light and audible alarm will remain on as well. Audible Alarm can be disengaged during this process by pressing the Audible Alarm On/Off button.
06. When system check is complete, the control unit will revert to previous comfort setting and "Alternate" mode. Low Pressure indicator light will turn off. System is now ready to be set for the next user.

NOTE: If "Low Pressure" remains on after 30 minutes, call for service.

Directions for powered use



Weight level selection



Use the +/- buttons to set according to the patient's weight. Use the chart on the front of the pump to select the right setting.

Mode selection

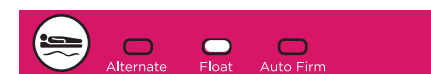
Mode Selection: Press button to select "Alternate", "Float", or "Auto Firm".

Alternate mode:



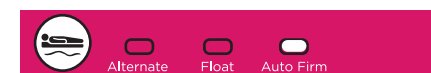
Creates an "A-B" sequence of inflation and deflation of the mattress's four air cylinders designed to change loading across the surface in a 10-minute cycle. In this mode, air cylinders 1 and 3 inflate while 2 and 4 deflate. After approximately 5 minutes, the pattern reverses.

Float (powered flotation therapy) mode:



Suspends cyclical inflation/deflation of the air cylinders and instead provides powered flotation therapy. In this mode, all four air cylinders are evenly inflated, and the system maintains ideal pressure management by adjusting in response to any repositioning of the user on the surface.

Auto firm mode:



Suspends cyclical inflation/deflation and sets system to firmest inflation level for 20 minutes to facilitate user transfer; feeding, dressing changes, and other activities of daily living (ADLs), and CPR. After 20 minutes, system will revert to previous comfort setting and "Alternate" mode.

Power Failure and Low Pressure Alarms:



Audible Alarm On/Off

When indicator light is on, an audible alarm will sound if either the Low Pressure or Power Failure indicator light is on. Press button to silence the alarm. Alarm can also be toggled off in advance if audible alarm is not desired for low pressure conditions.

Power Failure

During power failure situation or upon power down, the Power Failure indicator light will come on and the audible alarm will sound. Press the mute button to silence the alarm. (See "Power Interruption", below.)

The air cells will retain their pressure only temporarily. Air slowly seeps out through the pump and is lost. This can take anywhere from 30 minutes to 2 hours depending on what "firmness" setting the product was in, and where in its cycle it was interrupted.

Low Pressure

If "Low Pressure" indicator light comes on after initial set-up or when moving mattress or control unit, first check that all air lines are properly connected and that they are not kinked. If light is still on after 30 minutes, call for service.

Power interruption

The OSKA Series6 OneSurface™ is designed to eliminate concerns related to loss of power. In the event of a power interruption during powered use, the system will maintain a safe level of patient support. **However, to maximise patient support and comfort during power interruptions, simply disconnect the mattress air lines at the control unit, or at the mattress port.** In either case, the air

system in the mattress will reset to its ideal non-powered inflation level.

Patient transport

The OSKA Series6 OneSurface™ is designed to facilitate patient transport. For transport when the powered control unit is in use, simply disconnect the air lines from the control unit and reconnect when patient has reached destination. In the non-powered mode, no action is required.

NOTE: Transport cap is **not** intended for use with OSKA Series6 OneSurface™



WARNING!

DO NOT MOVE USER ON MATTRESS ONLY. Mattress should not be used alone for user/patient transport.

Head-of-bed elevation

All support surfaces using air as a support medium are designed for distributing pressures over the body in a flat, horizontal position. Bending the support surface and the body at the midpoint when elevating the HOB concentrates the body weight over the centre of the surface, stressing that small area. This extreme change in dynamics creates a challenge for all air support surfaces. Maximum pressure management benefits are realized between zero and 30° HOB elevation. Beyond 30°, the amplitude of the changes in the air cylinders begins to decrease in proportion to the increased elevation of the HOB. Although the mattress will maintain its support and therapeutic capabilities up to and including 70° HOB, for maximum benefit we recommend that any pressure management surface be used with the head of the bed elevated as little as possible, and for limited periods at a time.

Electromagnetic or other interference

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving device.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer for help.

Troubleshooting/patient complaints

Occasionally a patient may complain of feeling as if he/she is "sinking into a hole".

01. This may occur when the head of the bed is elevated and the mattress is in alternating pressure mode. This sensation is a combination of the deflation of the cylinders during their cycle and the increased weight of the patient on the sacrum and pelvis when the head of the bed is elevated. This demonstrates the need to minimize elevation of the head of the bed, or to select alternating pressure mode if HOB elevation is necessary.
02. A patient may complain when he/she is supine or side-lying and are not used to the changing pressures within the air system. Reassure the patient that this is normal functioning, as the cylinders alternately inflate and vent. The vented tubes are not fully deflated. Some air is always maintained in them to prevent bottoming out. After reassurance, patients typically become acclimated to the changing pressures.

Directions for non- powered use

The OSKA Series6 OneSurface™ mattress can operate in a powered and non-powered mode and is able to treat, up to and including, category 2 pressure ulcers.

Removing control unit

To ensure effective non-powered performance, DO NOT leave the control unit attached to the OSKA Series6 OneSurface™ mattress when powered operation is no longer desired. Instead, disconnect the control unit from the air ports at the mattress. This will allow the air system to reset to its ideal, non-powered inflation level.

General directions

Bed linens

Seven-inch deep fitted sheets are recommended. Multiple layering of linens or underpads beneath the patient should be avoided for the prevention and treatment of pressure ulcers.

Bed rails

Due to concerns over the possibility of patient entrapment, OSKA recognises that the use of rails of any length is a matter currently addressed by individual facility protocol. It is the responsibility of the facility to be in compliance with current best practice, which typically require that decisions on the use of bed rails of any type are based on assessment of the physical and mental status of each patient individually. If bed-rails are needed by the patient to prevent fall-related injury, as determined by this facility assessment, we recommend that the bed-rails be locked in the up position at all times. We do not require use of bed-rails unless the patient is deemed to be safer with them than



CAUTION!

Be careful not to puncture the mattress with needles or sharp instruments. This may result in loss of integrity of the cover or internal air system. Regularly inspect the mattress cover for cuts, rips, cracks or tears.

Do not use the mattress if the cover is damaged.

CPR

To deflate the mattress for CPR, simply detach the mattress from the pump by unplugging the airlines from the pump (see Figure B).

Storage and transportation

Store the mattresses in a clean, dry place. Once the mattress is removed from the box, store in a flat position if possible. Protect from damage. Avoid temperature extremes (below freezing or above 120° F/50° C). Allow to acclimatise to room temperature before use. Do not stack more than 10 high. Do not stack other equipment on top of the mattresses.

Store and transport control units in a clean, dry place, protected from accidental damage or falls. Avoid temperature extremes (below freezing or above 120° F/50° C); suggested storage and transportation temperature 60° to 120° F (15~50° C), humidity 40%~80%. Do not stack other equipment on top of the control unit. For transportation, secure to prevent damage or falls. For shipment, use box and packaging as provided by the manufacturer.

Environmental conditions for use

- Indoor Use
- Altitude up to 6,500' (2,000 meters)
- Temperature 40°F to 95°F (5°C to 35°C)

- Maximum relative humidity 80% for temperatures up to 87° F (31° C), decreasing linearly by 50 percent relative humidity at 104° F (40° C)

- Mains Supply Voltage Fluctuation up to 10 +/-% of the nominal voltage

- Over-voltage Category II

- Pollution Degree 2

Warranty

The OSKA Series6 OneSurface™ is guaranteed against failure due to manufacturing defects under normal use for 18 months for the control unit and 5 years for the mattress. See page 28.

Use in wound care

Use of the OSKA Series6 OneSurface™ is only one element of care in the prevention and treatment of pressure ulcers. Frequent repositioning, proper care, routine skin assessment, wound treatment and proper nutrition are but a few of the elements required in the prevention and treatment of pressure ulcers. As there are many factors that may influence the development of a pressure ulcer for each individual, the ultimate responsibility in the prevention and treatment of pressure ulcers is with the health care professional.

Evacuation base

The Series6 OneSurface™ comes with evacuation straps within its base.

It is very important that the safety equipment, as well as the evacuation procedures, are well planned and known in advance.

These covers can significantly help you be prepared in the case of a fire or other emergency when a less mobile patient will need to be evacuated.

Handles appear on all 4 sides of the cover and the velcro fire evacuation straps are housed securely in pockets on the 2 longer sides with their ends sticking out for easy access. These straps are used in the case of an emergency to secure the patient to the mattress before transporting them to safe area.

Evacuation instructions

- Let the patient know what is about to happen.
- Lower and lock the bed in position.
- Pull the velcro evacuation straps out of the base and fasten.
- Using the outer handles at the foot end of the mattress, turn it outwards from the bed.
- Carefully drag the mattress and patient down on to the floor.
- Use the outer handles at the foot end of the mattress. The working position should be a little bit leaning back.



Down the stairs

- Walking backwards, continue until the main part of the mattress slides pass the top stair.
- Turn your back towards the patient and look in the direction you are moving.
- Holding one hand on the stair rail and the other hand on the middle handle of the mattress, begin to pull.
- Walk down the stairs maintaining speed, without running, is important.



WARNING!

It is imperative that anyone performing an evacuation must have acquired the necessary training. Before commencing any evacuation always check the equipment, cover and mattress to ensure the evacuation can be carried out safely.

Ensuring the mattress is safe to use for evacuation is the user's responsibility.

Training/practise

To bear in mind when training.



Pulling down from the bed:

- Make sure the patient in the bed is not at the very top of the mattress. If they are, it increases the risk of hitting their head on the bed when pulling down.

Pulling on the stairs:

- Practice this technique by pulling an empty mattress down the stairs.
- When training with a person on the mattress, fasten a string or rope onto the handles at the head end. This enables another person to then walk behind the mattress and help out.
- Practicing on the stairs where an evacuation may be necessary is advisable.

General:

- The purpose of the training is not to carry it out at high speed, but to grasp the correct technique.

Training covers:

- When the equipment is used to evacuate, heavy strain is put on the seams and handles. Always check the seams and handles at the end of training. It is advisable to mark any equipment used for training as 'Training equipment' and use it only for this purpose

Explanations

- Always use the velcro straps when evacuating a patient to prevent the patient sliding/rolling down from the mattress.
- Pulling at the foot end reduces the strain on the puller, which means faster and safer evacuation is possible.
- Pulling the mattress on the stairs is the hardest part of the evacuation and should therefore be practised carefully.

Keep the patients arms inside the velcro straps. This prevents the user grabbing hold of something out of fear.

Cleaning

V-Guard Cleaning and aftercare guidelines.

OSKA V-Guard technology covers are durable but need treating with great care. The surface is vapour permeable so it is waterproof, but breathable to reduce sweating of patient. This outer barrier must not be penetrated. Even the smallest breach of this barrier may cause fluid to penetrate the mattress.

There are specific cleaning and care instructions that need to be strictly adhered to prolong the life of the product.

1. General directives

- 1.1 Abrasive cleaning agents should NOT be used.
- 1.2 In addition, due to the range of cleaning chemicals and conditioners being used, customers should ascertain that any fabric performs as expected, without any adverse effect.
- 1.3 Some surface wrinkling may result from cleaning procedures. This should have no adverse effect on the fabric's properties.
- 1.4 If customers have their own particular cleaning methods that must be used and that are not covered in this article, they should consult OSKA for further direction and guidance.

2. Washing and disinfection

- 2.1 All polyurethane coatings need to be treated with care when cleaning the surface. Many industrial cleaning agents are extremely harsh on the coating and can cause it to break down.
- 2.2 For superficial dirt use a disposable wipe and a warm solution of neutral detergent. Do not use abrasive cleaners.
- 2.3 Disinfect in situ using 0.1% sodium hypochlorite solution (1000ppm available chlorine). Wipe off any residue with clean water. V-Guard covers can tolerate 10,000ppm chlorine but using a weaker solution of 1,000 ppm will reduce the risk of a high concentrate being left on the surface.

2.4 The fabrics are able to be washed in warm soap water at up to 95°C.

2.5 All cleaning agents and disinfectants must be thoroughly rinsed off and the item dried before storage.

3. Drying

3.1 Spin and tumble dry on a low setting (not more than 130°C. The fabric surface may wrinkle but this will not impede function). The operator ensures it is removed as soon as all moisture is removed. The fabric must not be left sitting on the heated bowl of the drier when drying is complete.

3.2 Do not mangle.

3.3 Do not iron.

4. Storage

4.1 Store in a cool dry area.

4.2 Avoid excessive pressure and always thoroughly dry fabric before re-use or storage. Do not fold away wet or store in damp conditions.

4.3 Keep away from sharp objects.

5. Damage and replacement

5.1 Regularly check the inside of the cover for any signs of leakage

5.2 If the cover leaks then the waterproof barrier has been broken and a new cover should be purchased from OSKA.

General guidelines

Do not puncture the mattress with needles or sharp instruments. This may result in loss of integrity of the mattress air system and will void the warranty. Inspect the covers and zipper area for signs of damage, puncture, or wear that could result in fluid pass-through. If the cover is stained, soiled, or torn, inspect the internal components for signs of contamination. If contamination is evident, quarantine the mattress and remove from service

following infection control procedures.

The air control unit should be dusted every 30 days and cleaned with a damp cloth and mild detergent

Air filter preventive maintenance

The air filter for the Control Unit should be checked routinely for signs of dirt or contamination.

The frequency for cleaning depends on the air quality. The air filter is accessible from the backside of the Control Unit. As the filter is white, the need to clean is obvious. Simply turn the controller off and remove the plastic cover; remove the filter, and hand wash using warm water and mild detergent. Rinse thoroughly and allow to air dry. Replace the filter and the plastic cover.

Delamination

Delamination is when the layers within the structure of the mattress cover separate. This can be caused by using incorrect chemicals or too high a concentrate of cleaning chemicals on the surface.

How to prevent delamination

OSKA V-Guard Technology covers incorporate a special layering system to make them much more resistant to delamination than many other mattress covers. However, to help prevent delamination:

01. Always abide by the cleaning instructions
02. Avoid using chemicals with too high concentration.
03. Ensure cleaning chemicals are always thoroughly rinsed off before allowing to dry
04. The V-Guard covers can tolerate up to 10,000ppm chlorine but using a weaker solution of 1,000ppm will reduce the risk of a high concentrate being left on the surface
05. Ensure the covers are thoroughly dry before using or storing the mattress

Strikethrough

Strikethrough occurs when the fibres in the mattress covers start to break down. Small cracks develop, which on inspection, may not be visible. This means fluids and other contaminants can pass

through the cover and contaminate the core of the mattress.

How to prevent strikethrough

Covers are most susceptible to strikethrough damage when they are wet. During cleaning, extra care should be taken to avoid abrasion of the surface. OSKA V-Guard Technology covers incorporate a special layering system to make them much more durable than many other mattress covers. However, to help prevent strikethrough:

1. Always abide by the cleaning instructions
2. Avoid using chemicals with too high concentration.
3. Ensure cleaning chemicals are always thoroughly rinsed off before allowing to dry
4. The V-Guard covers can tolerate up to 10,000ppm chlorine but using a weaker solution of 1,000ppm will reduce the risk of a high concentrate being left on the surface
5. Ensure the covers are thoroughly dry before using or storing the mattress

Routine inspection of power cords and safety tips to prevent fires



01. Assure that the electrical resistance of the safety ground conductor and the level of leakage current (line conductor-to-safety ground and neutral conductor-to-safety ground) meet applicable standards for resistivity and leakage current. Protection afforded by the ground pin is negated if the receptacle is not properly grounded. If you have questions about the adequacy of your facility's building wiring, contact a qualified electrician or consult the code authority in your jurisdiction.
02. Check all electrical outlets, including accessory outlets for cleanliness, physical integrity and functionality. The IEEE standard 602-1996, section 4.2.2 advises that hospital-grade outlets be used and that they should be mounted with

the ground pin or neutral blade up to assure that any metal that may drop between the plug and the wall will most likely contact an unenergized blade.

03. Check the power cord to assure that contact pins are straight and secure
04. Routinely inspect the power cord for damage sustained from crushing, pinching, shearing, cutting, or from being worn through. They can be damaged by bed movement, deterioration from use or aging, or human or equipment traffic. The cord's insulation should be intact and there should be no evidence of bulging, stretching, crimping, cracking, or discoloration, especially at the ends, where the cord is attached to the plug body and the control unit.
05. Regularly inspect all parts of the bed frame, motor, mattress and controller, and the floor beneath and near the bed for build-up of dust and lint.
06. Inspect the cover of the control panel to assure that the covering is not cracked or damaged, allowing liquids or other conductive material to penetrate to the switches.
07. Report any unusual sounds, burning odours, or anything unusual to maintenance personnel. Discontinue use of the power cord immediately and contact OSKA for replacement.

Mattress

Inspect the covers and zipper area for signs of damage, puncture, or wear that could result in fluid pass-through. If the cover is stained, soiled, or torn, inspect the internal components for signs of contamination. If contamination is evident, quarantine the mattress and remove from service following infection control procedures.

You may use the Preventive Maintenance Log provided on page 28-29 of this manual to monitor and document regular inspection and maintenance of your OSKA Surfaces.

EMC

Electric devices may interact due to electromagnetic radiation. We recommend a safety distance of at least one meter, especially for sensitive equipment.

Guidance and Manufacturer's Declaration- Electromagnetic Emissions:

This device is intended for use in the electromagnetic environment specified below. The user of this device should make sure it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment-Guidance
RF emissions CISPR 11	Group 1	The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC61000-3-2	Class A	
Voltage fluctuations / Flicker emissions IEC61000-3-3	Complies	The device is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network.



WARNING!

01. The device should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the device should be observed to verify normal operation in the configuration in which it will be used.
02. Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
03. Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the [ME EQUIPMENT or ME SYSTEM], including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Immunity Test	IEC60601 test level		Compliance	Electromagnetic environment-guidance
Basic EMC standard	Immunity Test Levels			
	Professional healthcare facility environment	Home healthcare environment		
Electrostatic Discharge (ESD) IEC61000-4-2	±8kV contact ±15kV air		±8kV contact ±15kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/ burst IEC61000-4-4	±2kV for power supply line ±1kV for input/out line		±2kV for power supply line ±1kV for input/out line	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s)	±1 kV line(s) to line(s)	Mains power quality should be that of atypical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC61000-4-11	Voltage Dips: i) 100% reduction for 0.5 period, ii) 100% reduction for 1 period, iii) 30% reduction for 25/30 period, Voltage Interruptions: 100% reduction for 250/300 period		240V	Mains power quality should be that of a typical commercial or hospital environment. If the user of this device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC61000-4-8	3 A/m	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Radiated RF EM Fields IEC61000-4-3	3 V/m 80 MHz to 2.7 GHz 80 % AM at 1 kHz	10 V/m 80 MHz to 2.7 GHz 80 % AM at 1 kHz	10V/m	Recommended separation distance $d = \sqrt{P}$ 150kHz to 80MHz $d = 0.6\sqrt{P}$ 80MHz to 800MHz $d = 1.2\sqrt{P}$ 800 MHz to 2.7G MHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).b Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency ranged. Interference may occur in the vicinity of equipment marked with the following symbol: 
	385-6000 MHz, 9-28V/m, 80% AM(1 kHz) pulse mode and other modulation	385-6000 MHz, 9-28V/m, 80% AM(1 kHz) pulse mode and other modulation		

NOTE 1: UT is the a.c. mains voltage prior to the application of the test level

NOTE 2: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 3: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people

a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the device.

b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 10 V/m.

Recommended separation distances between portable and mobile RF communications equipment and this device:

This device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of this device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and this device as recommended below, according to the maximum output power of the communications equipment

Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d=\sqrt{P}$	80 MHz to 800 MHz $d=0.6\sqrt{P}$	800 MHz to 2.7 GHz $d=1.2\sqrt{P}$
0.01	0.1	0.06	0.12
0.1	0.31	0.19	0.38
1	1	0.6	1.2
10	3.1	1.9	3.8
100	10	6	12

For transmitters rated at a maximum output power not listed above, the recommended separation distance using the equation applicable to the frequency of the transmitter; where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer:

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Technical description

Item		Specification
Power Supply (NOTE: See rating label on the product)		AC 220-240V 50 Hz, 0.08A (for 230V system)
Fuse Rating		T1A1 250V for 230V system
Cycle time		Fixed
Environment	Temperature	Operation: 10° C to 40° C (50° F to 104° F) Storage: -15° C to 50° C (5° F to 122° F) Shipping: -15° C to 70° C (5° F to 158° F)
	Humidity	Operation: 10% to 90% non-condensing Storage: 10% to 90% non-condensing Shipping: 10 % to 90% non-condensing
	Atmospheric Pressure	Operation: 70 – 106 kPa Storage: 50 – 106 kPa Shipping: 50 – 106 kPa
Classification		Class II, Type BF, IP21 for 230V system, Applied Part: Air Mattress. Not suitable for use in the presence of a flammable anaesthetic mixture (No AP or APG protection)

Specifications

Cover

Bacteriostatic, flame resistant, fluid-proof, tear resistant

Foam

High-density open-cell polyurethane.
Conforms to NFPA 101 small scale and Cal TB# 117

Air cylinders

Urethane

Electrical

3200CEG: 220-240 VAC/50Hz., 0.08A

For 240V system

CE marked in line with Medical Devices Directive or Medical Device Regulations (93/42/EEC)

Control unit

3200CEG (UK)
Classification: Class II, Type BF
No AP or APG protection
Weight: 2.1 kg
29.21 cm x 17.78 cm x 11.43 cm

Mattress Weight

Approximately 9kg. (standard model and Safety Supreme)

Weight Limit

180kg (pumped)
226kg (pumpless)

Cycle time

10 minutes (digital control unit)

Placement

All mattresses can be placed directly on a healthcare bed frame.

Troubleshooting guide

Problem	Possible Cause	Solution
System will not power up. Note: Always plug power supply into properly earthed receptacle.	The system is not plugged in.	Plug power cord into wall
	There is no power at outlet.	Restore power
	Power chord is damaged.	Call for service
	Blown fuse	Call for service
Patient not turning/alternating properly.	System is not turned ON	Plug power cord into wall
	Patient not centred on mattress	Reposition patient
	Head of bed is elevated, or knees are gatched	The degree of patient turn achieved is reduced with elevation of the head of bed or gatching of the knees. Adjust each as necessary to meet patient needs while maximizing turn angle
	Defective control unit	Call for service
	Patient exceeds weight limit	Call OSKA for alternative products
Mattress not inflating or patient reports a sinking feeling.	Control unit is not turned on	Turn control unit on
	Airlines not connected	Ensure secure connection of airlines at control unit and mattress
	Airlines or quick disconnect connectors are damaged	Call for replacement
	Head of bed elevated	Lower head of bed and allow air to equalise. Return head of bed to elevated position that is comfortable for patient.
	Defective control unit (mattress fills without patient, sinks with patient weight)	Call for service

Troubleshooting guide

Problem	Possible Cause	Solution
Low pressure indicator illuminated.	Air lines not connected.	Disconnect and reconnect air lines to verify they have all locked into place.
	Air lines or quick disconnect connectors are damaged.	Call for replacement.
	Defective Control Unit.	Call for service.
	Leaking inflation system.	Call for replacement. To replace, turn mattress upside down and unzip cover. Remove inflation system, install new system, zip cover and restore mattress to upright position.
Interference produced to electronic equipment/devices in surrounding area.	Electromagnetic interference caused by the unintentional emission of electromagnetic waves of energy. These waves are transmitted through the air at various frequencies which may produce interference such as abnormal functioning to nearby electronic equipment.	Determine if emissions are causing the interference by turning the equipment off and on. If the interference in the affected device subsides when control unit is off, proceed with the following steps. a) Reorient or relocate the affected device. b) Increase the distance between the equipment. c) Connect the equipment into an outlet on a circuit different than that of the affected device. d) Consult the field service technician or manufacturer of the affected device.
Technical service: 02394 318 318		

Warranty

Foam and cells - 5 years

OSKA (the "Company"), warrants to the original purchaser that the Series6 OneSurface™ therapeutic support surface will be free from defects in materials and workmanship for a period of 5 years from the date of purchase. During the warranty period, the Company will repair, or replace, with a new product which is identical or reasonably equivalent to the warranted product shown to be defective in materials or workmanship. During the full 5 years of the warranty period, such repair or replacement will be made without charge to the original purchaser.

All claims must be submitted in writing and must be accompanied by the Company's original sewn-in label and by the original invoice for the product or a copy of the original invoice. All transportation and handling costs incurred in returning the system or any component at any time throughout the warranty period will be paid by the Company when accompanied by a return authorisation number.

Control Units: 18 Months

OSKA (the "Company"), warrants to the original purchaser that the Series6 OneSurface™ control unit will be free from defects in materials and workmanship for a period of 18 months from the date of purchase. During the warranty period applicable to the control unit for Series6 OneSurface™ the Company will repair, or replace, with a new product which is identical or reasonably equivalent to the warranted product shown to be defective in materials or workmanship. During the full 18 months of the warranty period, such repair or replacement will be made without charge to the original purchaser.

All claims must be submitted in writing and must be accompanied by the product's serial number and by the original invoice for the product or a

copy of the original invoice. All transportation and handling costs incurred in returning the unit or any component at any time throughout the warranty period will be paid by the Company when accompanied by a return authorization number:

This warranty specifically excludes liability for defects caused by improper use of the system and use of the system without the cover or otherwise contrary to the approved instructions provided by the Company.

Other than the warranties set out above, the Company makes no other warranties of any kind, expressed or implied, as to merchantability, fitness for any particular purpose, or any other matter with respect to the goods.

In no event, including, but not limited to, cases of claims of negligence or strict liability, shall the Company be liable for indirect, incidental, special or consequential damages, nor shall the Company, in any event, be liable for damages in excess of the purchase price of the products claimed to be defective.

With regard to questions relating to the WARRANTY, contact OSKA

V-Guard Cover - 4 years pro rata:

Year 1 - 100%

Year 2 - 75%

Year 3 - 50%

Year 4 - 25%



Series6 OneSurface™ preventive maintenance and repair log

Date	Air filter	Power cord	Mattress	Repair
Manufacturer: OSKA Date Purchased:				C=Cleaned OK=Okay R=Repaired/Replaced

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