



Squirrel Alternating Air Products

**Operating Manual
Cleaning & Decontamination**

Squirrel 9240

Squirrel 9250

Squirrel 9260 Sapphire

Issue No.5 Rev.1 DOI 18/02/2009
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Introduction

Squirrel Medical is one of the world's foremost pressure care companies who manufacture and distribute a variety of pressure care systems to care providers throughout the world.

Their mission is simply to provide the highest levels of comfort and pressure care at an internationally affordable price and achieve this through a straightforward approach to supply, management and service.

It is important that anyone connected directly or indirectly with the use of a Squirrel Air Product reads this Operating Manual and familiarises themselves with the product and its features.



Warning: Risk of Electrical Shock, Serious Injury or Death

Electric items such as the pump, mains plug or electrical cables can be extremely dangerous if misused or become damaged. Care must be taken to ensure that the electrical cables are not stretched or strained when moving the bed.

It is important to ensure that the electrical cable is not crushed by items such as cleaning equipment, hoists, wheelchairs or bed castors. These could damage the electrical cable and cause serious harm.

Liquids must not be used or come into contact with the pump, plug or electric power cables. Only authorized Squirrel technicians may open the pump for maintenance or servicing.

The external pump fuse is designed to blow in event of an electrical power surge, in order to protect both the equipment and the patient. We advise therefore that surge protectors are used between the pump and the mains, to reduce the possibility of the pump fuse blowing. Should the pump fuse blow, it must be replaced with an identical fuse, which is supplied in the spares pack. Additional spare fuses are available from:
www.squirrelmedical.com

The mattress, cover, pump, plug and electrical power cables must not be exposed to high heat, fire or other extreme temperatures.

This mattress will often be used by vulnerable people and it is essential that all users have received suitable accredited training in the use of this equipment and prevention and treatment of pressure ulcers. Please visit:
www.judywaterlow.co.uk



User Instructions

1
Place the Squirrel mattress on the bed frame ensuring it conforms to the size of the base.

Note: If using a full replacement mattress we recommend placing an additional foam underlay beneath the mattress. 9260 Sapphire has built in underlay.

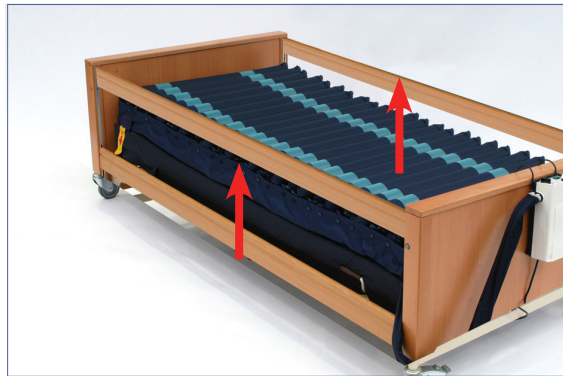
2
Loop securing straps around the bed frame if available. Do not secure the straps to the detachable head or footboards.

If the bed frame is an electric profiling frame ensure the straps are just on the moving profiling parts.





3
Ensure that the combined height of the foam base mattress and the air mattress overlay do not render any side rails ineffective or create any potentially dangerous gaps. See section headed precautions/ Side rails page 28.



4
Unfold the hooks at the back of the pump and if deemed safe to do so, hang the pump on the outside of the footboard of the bed.





User Instructions

5
Connect the push fit air hose connector (from the foot of the mattress) to the air outlet of the pump.



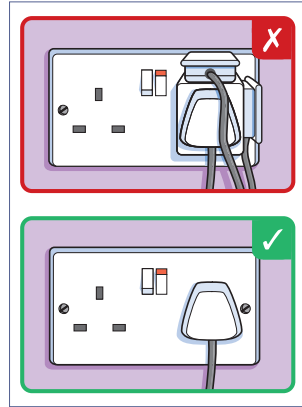
6
Plug the pump into the mains outlet.



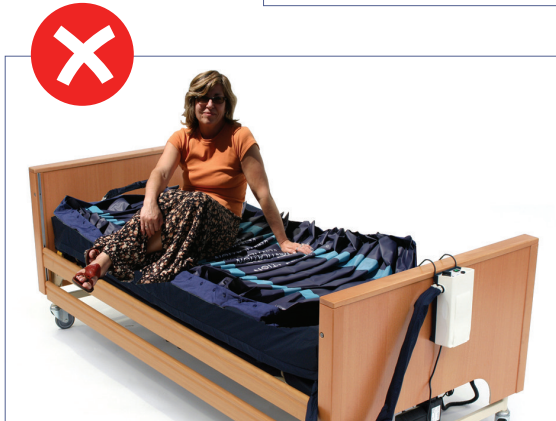


7
Ensure that electrical cables are safe and tidy and not caught in the bed mechanism or trailing on the floor.

The power cable must be routinely inspected to ensure that no one is in danger of tripping over it, that hoists, beds or other items are not rolled over it, that it is not under strain and that no splits or cracks have occurred to it.



8
Ensure that no weight is placed on the mattress and that no one is sitting or laying on it.





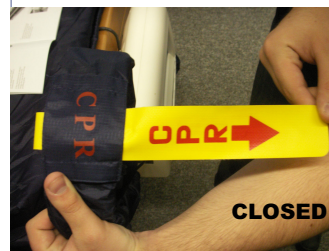
User Instructions

9

The mattress includes a Cardio Pulmonary Resuscitation (CPR) valve situated on one side, this can be deflated in the event of an emergency situation such as cardiac arrest.

Please ensure that the CPR valve is closed prior to inflation and that all authorised users are trained to use the CPR valve in case of emergency. This is one of the first things to check if a mattress deflates, ensure it has not been accidentally opened.

In the event of cardiac arrest: push the valve to the CPR position which will set of the low pressure alarm and immediately begin to deflate the mattress.





10
Turn the power on at the
mains.



11
Turn the power switch on at
the pump.





User Instructions

12

The low pressure light will illuminate and the mattress will gently inflate all cells.



13

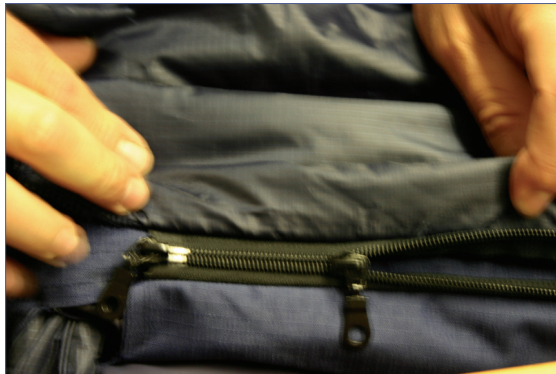
After approximately 30 minutes the mattress should be fully inflated and the low pressure light will turn itself off.

If the low pressure light is still on after 40 minutes, please check CPR valve is shut and pump is connected to the mattress.





14
Check mattress cover is
zipped to mattress base.



15
Adjust the comfort control
setting to increase or
decrease the firmness of the
mattress. Set to static (light
off) or alternating (light on).





User Instructions

16

Ensure that all authorised users are trained in the prevention of pressure ulcers and are aware of the features of this mattress.



17

Squirrel Medical air mattresses are built to a durable high standard - however due to the importance of an air mattress, consideration must be given to a contingency plan, if a problem occurs.

This should include keeping a spare mattress and pump on site for such an eventuality and a group strategy in the care of mattresses.





Brief Considerations

Suggested by:

Judy Waterlow SRN RCNT
www.judy-waterlow.co.uk

Nurses should be fully qualified.

Have the patients/clients been correctly assessed and their 'risk status' determined, Care Plan drawn up and actions taken in accordance with the Care Plan?

If assessment has been delegated to senior healthcare assistants, have they been properly trained to undertake this task, and are their assessments monitored?

Does the documentation leave a clear audit trail covering the assessment, Care Plan proposals and subsequent actions?

Managers

Do they really appreciate the cost benefits of prevention as opposed to treatment?

Do they accept that it is only by education that ulcers will be prevented? This may range from the setting up of training study days down to the acquisition of suitable inexpensive written material by experts, such as the Judy Waterlow Pressure Ulcer Prevention Manual?

**Buyers**

Do they understand the difference between the most cost effective and the cheapest?

Do they realise the enormous cost of treating and healing a Grade 5 pressure ulcer, both in nursing, dressing and bed occupancy cost.

Do they understand that terms such as suitable for 'high risk' and 'very high risk' are meaningless unless associated with an accepted risk assessment scoring system such as 'Waterlow' which research has shown to be used in 88% of Acute Hospitals covered by the survey in the U.K. As yet no Government standard, or testing house exists to give information which would allow pressure relieving products to be compared – Waterlow does give guidance on the types of products which conform to the risk categories used in that system.

Do they monitor the performance of the products they buy with the people who 'day by day' use the product?

Judy Waterlow SRN RCNT
www.judy-waterlow.co.uk

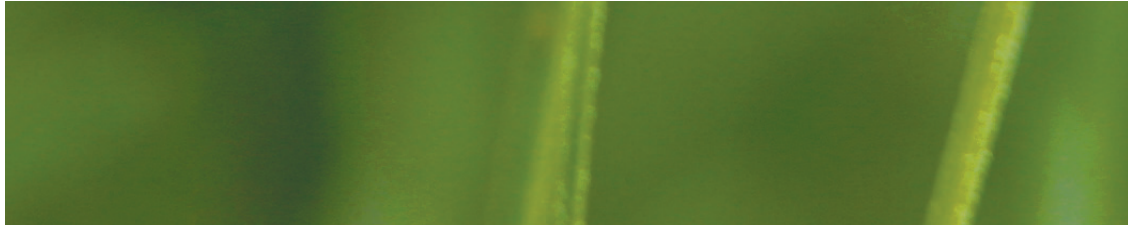


Chart for Troubleshooting

No lights on Unit	<p>Check pump is connected to the mains power supply and that the unit is switched on.</p> <p>Check quick blow fuse on the Pump Unit or mains plug fuse.</p>
Low pressure alert	<p>Check main power to the pump and that the plug is switched.</p> <p>Check mattress air supply connector is connected to the pump unit correctly.</p> <p>Check CPR Connector is closed properly.</p> <p>Under the mattress cover check all "T" & "L" connectors are connected to the air tubes.</p> <p>Check the connector tubes for kinks, crimps or damage.</p>
Patient's body is sagging in the middle/bottoming out	<p>Increase the value of the comfort the setting. Wait a couple of minutes so pressure can stabilise before making another change.</p>
Control lock up or "freeze"	<p>Turn pump off and unplug the pump. Wait a few minutes and plug the pump back in. Turn on the pump.</p>



Squirrel Medical Full Replacement Warranty

This product has a Full Replacement Warranty which is valid for a period of 12 months from the original date of purchase, and thereafter on an optional monthly basis in return for a nominal monthly fee.

A new pump or mattress will be sent **free of charge** so long as:

1. The faulty item is posted back to us within 7 days complete with original packing.
2. That there is a genuine manufacturing fault with the product – rather than user error.
3. That the fault did not occur due to negligence or misuse.

A high proportion of all air mattress repairs are due to accident, misuse or user error and therefore chargeable by most manufacturers. These include:

- i. Electrical Power Cables, Air Tubes and Connectors which have been entrapped by bed mechanisms, caught in side rails, run over or excessively strained by beds, hoists, etc.
- ii. Air Cells & Tubes which have been cut, torn, split or punctured.
- iii. Pressure Control, Pump attachments, Fixing Straps and CPR valves that have been lost, jammed or pulled off.

This wastes a huge amount of your valuable care time, often renders the mattress unusable and costs a great deal of money in breakdown costs. We therefore advise requesting the Platinum Plan, which includes accidental damage.

**Platinum Plan**

The platinum plan means that irrespective of cause – when a mattress or pump breaks down, we will simply send you a new one – in return for a small monthly fee. The benefits include.

1. No more lengthy repair times
2. No more costly repairs
3. Fast next working day delivery of new item.
4. Peace of mind.
5. Includes Accidental Damage

Please call 01752 764861 or Visit www.squirrelmedical.com for details.



Cleaning Procedures

1. General guide

Users of pressure relieving equipment are often some of the most vulnerable people, and are being protected by that equipment against what could easily become an open wound. It is very important to have a strict cross infection policy, as it is all too easy to transfer a contaminated mattress from one person to another. This is a very important matter, and one where we advise further study. (www.squirrelmedical.com).

A huge array of decontaminates, chemicals, soaps and wipes are now available to clean and decontaminate equipment, however, all too often these are simply not used as often or as thoroughly as they should be. In fact, some of the cleanest and healthiest care homes use nothing more than warm soapy water coupled with a strict and thorough cleaning regime.

It is very important that mattresses and special cushions are regularly cleaned and decontaminated when soiled and/ or between users, and prior to being despatched for repair or servicing

Clean with detergent and water (see approved list page 22.)

Do not use anti bacterial wipes on mattress cover or base.

Do not use alcohol based solutions on mattress covers as it will damage the material.

Check covers regularly to ensure that they are waterproof, replace if leaking.

Clean after each user and if soiled.

Cover can be detached and laundered.

Spare covers available from Squirrel Medical 01752 764861.

Contact Squirrel Medical for any further information.



**Squirrel Pressure Relieving Systems:
9000, 9100, Dormir, 9200, 9240, 9250, Sapphire & 5200/500.**

Cleaning & Decontamination:

All equipment should be regularly cleaned, the mattress, tubing and pump should be cleaned weekly or whenever they become obviously soiled.

Whilst in operation: Pump, mains lead and mattress tubing can be wiped down using anti bacterial wipes. (i.e. Bioguard disinfectant wipes).

Cover can be removed and laundered.



Cleaning Procedures

2. Disinfection of Squirrel Mattresses and Pumps

Washing Instructions

Pump: Wearing gloves and aprons, wipe down the pump, tubing and mains lead using anti bacterial wipes.

Cover:

- i. Unzip and remove the cover.
- ii. Launder using an Industrial Washing Cycle (not tunnel washer).
Break wash Cold for 10 minutes
Main wash 65 degrees centigrade for 10 minutes
Main wash 80 degrees centigrade for 4 minutes
Spin 2 minutes
3 cold rinses
Spin 5 minutes
- iii. Suspend or hang loosely allowing to dry naturally in a well ventilated, clean area.
DO NOT TUMBLE DRY



Base:

- i. Wearing gloves and apron, clean the cells, side areas and base of mattress with detergent and water followed by Sanichlor 1000ppm, ensuring that all parts of the mattress are cleaned.
- ii. Dry well.
- iii. Place mattress in a clean area until cover has been laundered and returned.
- iv. Discard gloves and apron and wash hands.
- v. Reassemble and check system.

Continued use of these standards will help to reduce cross infection and are an essential first step in developing a satisfactory Pressure Sore Prevention Plan.

Squirrel Medical offer a full decontamination process.



Cleaning Procedures

3. Chemical dilution and approved list for use with all Squirrel Medical products

Compatible Disinfectants:

H.A.C.	<p>Hospital antiseptic concentrate</p> <p>Formula: Cetrimonii bromid. 150 mg - chlorhexidin. digluconas 15 mg - ethanol - methanol- isopropanol - terminolen - terpineol - benzyl benzoas - E 102 - E 122 - D-Gluconolacton - Aqua ad 1 ml. Dillution: 10 ml/l water</p> <p>Supplier: Zeneca - Schaessestraat 15 - 9070 Destelbergen</p>
REOCID	<p>Cleaning product</p> <p>Contains: Alcohol, Citric acid, polyacylate, parfum, pigment.</p> <p>Dillution: 10 - 20 ml / 10 l water</p> <p>Supplier: Alpheios - Wetrok</p>
DETTOL	<p>Antisepticum - disinfectants</p> <p>Formula: Chloroxylenol 4.9 g - Excip. qs. pro 100 ml.</p> <p>Dillution: 50 ml / l water</p> <p>Supplier: Reckitt & Colman - 1070 Brussel – Belgium</p>



LYORTHOL	Cleaning product + disinfectants Contains: 4-Chlor-2benzylfenol 35 g/l + o-fenylfenol 32g/l Dillution: 10 ml / l water Supplier: Medica bv - 's Hertogenbosch - The Netherlands
INDUR DES	Cleaning product + disinfectants Contains: glyoxaal 96.4 g/l + glutaaraldehyd 49.5 g/l Dillution: 10 ml/ l water Supplier: Henkel Hygiene - Doornveld 1 geb 7 - 1731 Zellik-Asse
PRESEPT	Effervescent disinfectant tablets Contains: sodium dichloroisocyanurate (NaDCC) Dillution: 4 tablets / 5 l water for general disinfection 7 tablets / l water for strong disinfection (e.g. bloodspillage) Supplier: Johnson & Johnson - Coronation Road - Ascot - Berks
HYCOLIN	Disinfectant Contains: synthetic phenolic derivatives Dillution: 0.5% --> 5.0 % Supplier: Wiliam Pearson limited - Liantwit Fardre - Pontypridd-Mid Gianmorgan CF 38 2 SN - United Kingdom. Tel. 0443-205311 Fax.: 0443-207746
CLEAR SOL	Disinfectant detergent Contains: chlorophenol Dillution: 1:200 --> 1:45



Cleaning Procedures

4. Summary

Disinfectants must be used at the correct concentration recommended in this document. Using disinfectants at concentrations lower than those stated will reduce their effectiveness. Used at higher concentrations is wasteful, may leave residues, exposes the user to greater risk of sensitisation, in some circumstances reduces effectiveness and could be damaging to equipment. See list of compatible disinfectants page 22.

CLEAR SOLUABLE PHENOLICS e.g. Stericol®, Hycolin® and Clearsol®

These have a wide range of activity against bacteria but poor activity against bacterial spores, good activity against tuberculosis and fungi but limited activity against viruses. Phenolics are provided at their in-use dilution of 2 %. They are suitable for environmental decontamination.

HYPOCHLORITES AND DICHLOROISOCYANURATES Haz-Tab®, Actichlor®, Presept®, Milton®, Chloros®.

These have a wide range of activity against bacteria, fungi and viruses, including bacterial spores. These are the disinfectants of choice for use against viruses and environmental decontamination where blood is involved. They are however readily inactivated by organic matter, lose their activity on storage, are corrosive to metals and should be used on clean surfaces. They are supplied as liquids, tablets or powder for use on blood spillages. It is important that the correct concentrations in parts per million (ppm) are used for specific situations. Care must be taken when making up the solutions or when diluting them because of their corrosive nature.



User Servicing

If you have any questions on the correct operation or servicing of this unit please contact: Squirrel Medical 01752 764861.

To assist you in identifying your system when calling please quote serial numbers this can be found on the label on the rear of the pump unit.

Classification:
Class 1

Mode of operation:
Continuous

Fuse rating:
500mA

Noise:
<30dB

EMC:
EN 60601-1-1:2001

Symbols used

(O) Power OFF

(|) Power ON



Double insulated
appliance.



Complies with 93/42/
EEC



Refer to manual



Serial number



Date of manufacture



Medical devices have to be compliant to the WEEE directive Squirrel Medical Ltd recycle as much as possible. First by building quality pumps then reconditioning old pumps reducing the impact on the environment.

When a pump can no longer be recycled by ourselves we send to a registered recycling centre.

Squirrel pump works on A/B Alternation 10 minute cycle time.

Squirrel pump's and mattresses are not interchangeable. The correct model pump must be used with the correct mattress.



Precautions

Side Rails

Use or non-use of restraints, including side rails, can be critical to patient safety. **WARNING:** Serious injury or death can result from the use (potential entrapment) or non-use (potential patient falls) of side rails or other restraints. For further information please read: MHRA Device Bulletin DB 2006(06) Safe Use of Bed Rails.

Patient Migration

As with all speciality bed products that are designed to reduce shear and pressure on the patient's skin, the risk of gradual movement and/or sinking into hazardous positions of entrapment and/or inadvertent bed exit may be increased.

Alarm functions

The Squirrel 9240, 9250, Sapphire pumps systems have visual indicators to alert the user if there is a fault with the system and audible power failure alert.

Alternating/ Static Mode

Prolonged use of static mode could cause pressure ulcers. Ensure mattress is switched back to alternating mode after static mode has been used.

Profiling Bed Frames

When using profiling bed frames be aware that when a patient changes position from prone to a raised seated position the pressure adjustment will have to be increased as more weight will be supported by a smaller surface. Increase the comfort selector to ensure patient does not bottom out.



Disconnection and storage

1. Switch off power from main and unplug.
2. Straps which secured the mattress to the frame can be removed and the air connection to the pump can also be disconnected.
3. Allow time for air to escape from mattress. The Mattress can now be gently rolled up for safe storage and place within the Squirrel Medical bag supplied.
4. Ensure mattress is 100% dry before storing.
5. Avoid excessive temperatures in storage.

Fire Retardation

1. Flammability of materials complies with BS 7175 1989 Section 3, Ignition Source 5 (Crib 5)
2. Do not smoke or use naked flame devices near the products.

Servicing of Product

All products come with a spares kit. Full repair procedures are available from our web site and our staff are happy to talk you through minor repairs.

Weight Limits

Caution: Do not use product above maximum weight; using the product over the recommended weight limit will have a negative impact on pressure care

9240 Max weight limit 160KG 25ST
9250 Max weight limit 170KG 27ST
Sapphire Max weight limit 170KG 27ST



Disclaimer

There is as yet no internationally recognized standard or testing house which would allow all pressure relieving products to be compared against an agreed set of criteria with regards to their being high risk or very high risk. Squirrel Medical therefore uses a combination of clinical evidence supported by independent nursing studies. Our usage of words such as high risk is based on our internal research coupled with independent nursing studies undertaken by our customers, often in comparison to other industry standard products.

Squirrel Medical's alternating air products are designed as an aid to assist trained nurses in their efforts to improve nursing care and therefore to prevent the formation of ulcers. Squirrel Medical's products must not be used as a substitute for care, but as an extra facility to be used, if necessary as an aid to administer professional nursing care. Squirrel Alternating air products must be used in conjunction with recommended nursing practices such as a turning regime. All nursing or care staff must be suitably trained in the methodology of pressure ulcer prevention.



Squirrel Medical is unable to guarantee that the use of any of their products will, by themselves prevent or heal ulcer formation. An ulcer may sometimes develop as a result of prior events, such as a fall, which resulted in the person being admitted to hospital. Prevention and treatment of pressure ulcers relies on a combination of a nurses professional judgment in assessing risk provision of suitable care and if necessary the use of appropriate pressure relieving equipment.

Squirrel Medical cannot be held responsible for any damage caused to our products (by foreign objects, needles, etc) Other than normal wear and tear as defined in the Squirrel Medical product warranty. Squirrel Medical will not be held responsible for improper use of equipment such as cot sides profiling or any other mechanical or electrical device used in conjunction with this product.



www.squirrelmedical.com



Model Number:
Pump Serial Number:
Mattress Serial Number:
Lot Number:

Purchaser to fill out and keep safe.

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