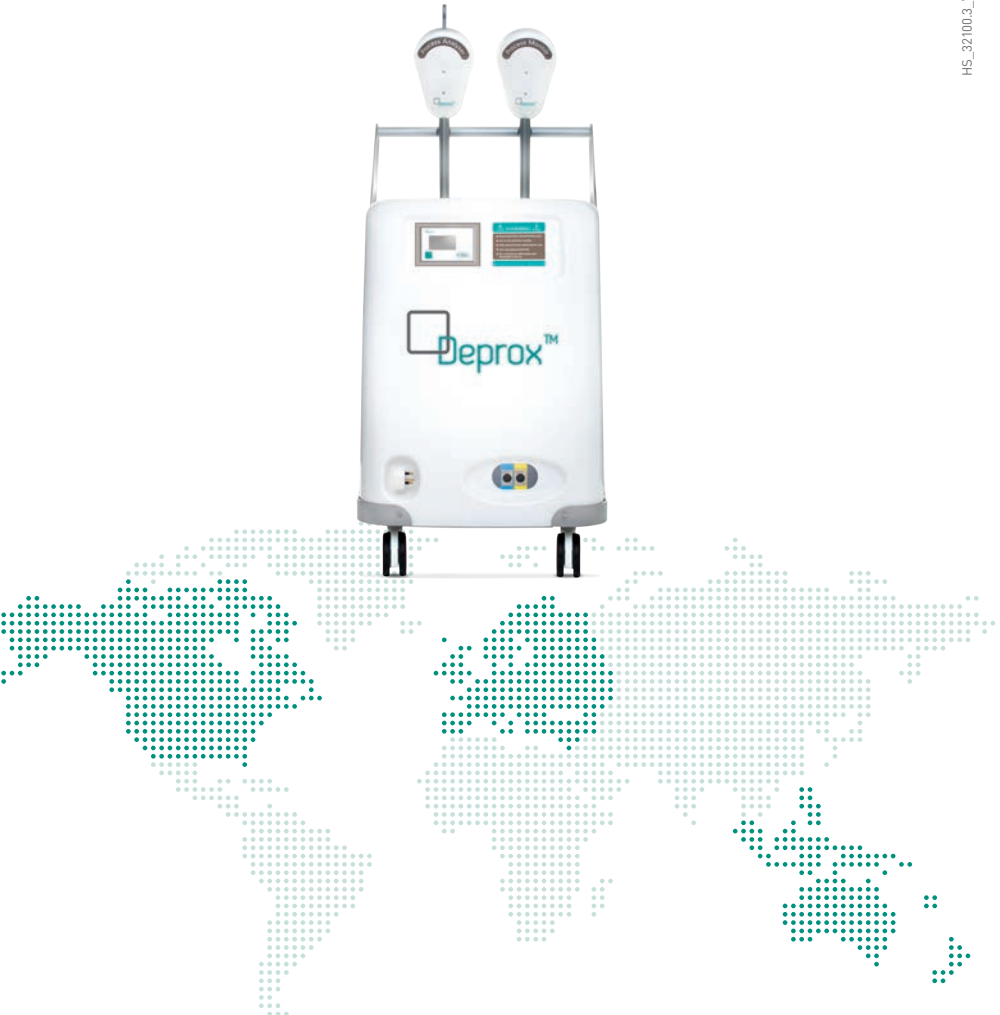


Notes

Lined area for notes.

HS_32100.3_V2.0



Deprox™


Instruction manual
V2.0



Hygiene Solutions
Integrated infection control

Contact us now for more information about what Hygiene Solutions can do for you:

 **New York 1855 372 6800**
36 Commerce Street, Springfield,
New Jersey, 07081, USA
www.hygenesolutionsus.com

 **USA Infection Emergency Helpline**
1855 372 6800

 **London 0845 270 6690**
Maple House, Hamlin Way, King's Lynn
PE30 4NG, United Kingdom
www.hygenesolutionsuk.com

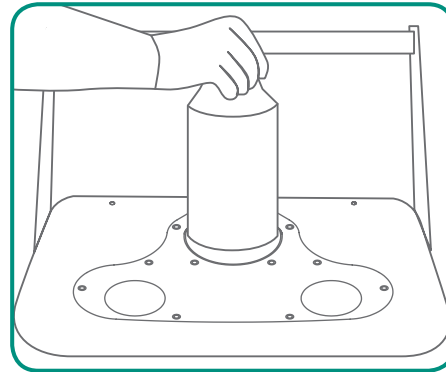
 **UK Infection Emergency Helpline**
0800 652 2689

 **Sydney 1800 689 533**
65 Atkins Road, Ermington, Sydney
NSW2115, Australia
www.hygenesolutionsau.com

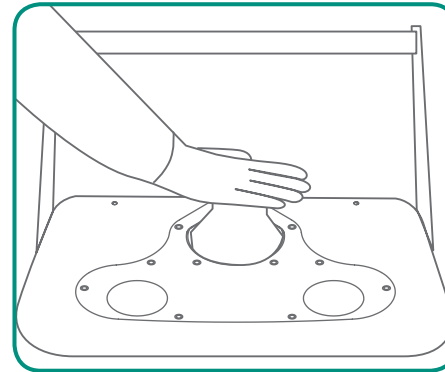
 **AUS Infection Emergency Helpline**
1800 689 533

Inserting a Deproxin™ refill

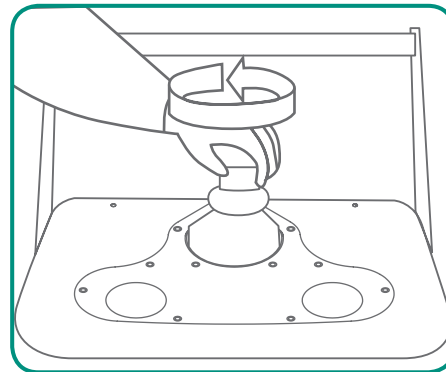
→ DIAGRAM 2



→ DIAGRAM 3

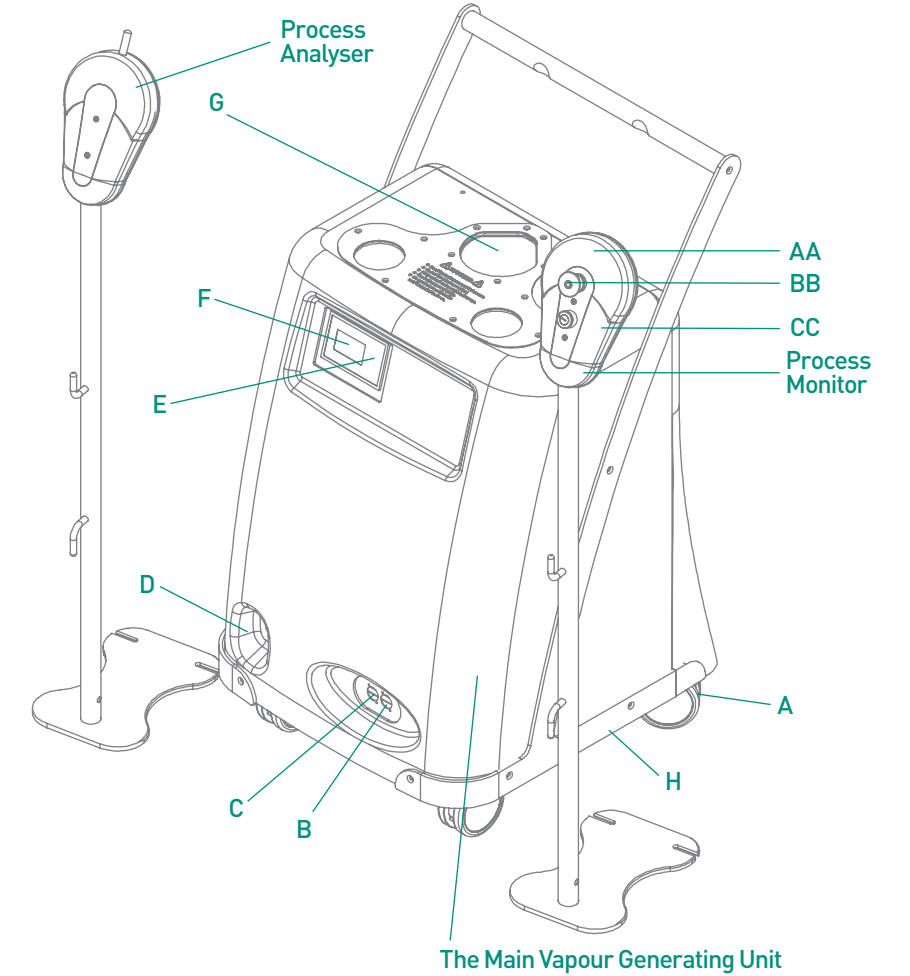


→ DIAGRAM 4



The Deprox™ unit

→ DIAGRAM 1



Hygiene Solutions is dedicated to preventing and controlling infection in healthcare settings. We are a highly specialised business, combining innovative thinking with the latest technology, to supply systems that deliver proven results and are trusted by leading hospitals around the world.



Deprox™ system instruction manual

➔ REVISION 2 • SEPTEMBER 2014



ALWAYS READ OPERATOR
INSTRUCTIONS BEFORE USE

Easy. Effective. Efficient.

Deprox™





WARNING

- Read instruction manual before use.
- Do not tilt unit from vertical.
- Fully extend mains cable before use.
- Use only approved fluids.
- Do not remove refill bottle until instructed to do so.

www.fugro-solutions.co.uk Made in the U.K.

 **Deprox™**

Welcome

Please read and understand this manual. You will then be familiarised with the individual components of the Deprox™ system and their functions. Step-by-step instructions will ensure you make use of the technical benefits the Deprox™ system has to offer.

All machines are tested in our UK manufacturing and test facility by trained technicians. In the unlikely event of a malfunction or error, you can refer here to rectify minor faults yourself. In the unlikely event your Deprox™ develops a serious fault, then please contact the relevant 24hr helpline displayed at the bottom of every other page.

Overleaf is a detailed table of contents to help you find your way around this manual quickly.

Enjoy using the Deprox™ system!

→ **IMPORTANT:** Please keep this manual in a safe place. It contains safety and operating instructions for your Deprox™ system.



Handwritten notes and a checklist are pinned to the top of the door. The checklist includes sections for 'NBM' (Nil By Mouth) and 'Normal Diet' with checkboxes for 'Yes' and 'No'.

Bay 13

Yellow sticky note

BARRIER NURSING
Please wear gloves and aprons when caring for this patient.
Visitors, please speak to the Nurse in Charge for further information.
Staff and visitors should perform hand hygiene on leaving the room.



Contents

- 8-9 Essential safety information
- 10-14 The Deprox™ system
- 15-17 Before using the Deprox™ system
- 18-25 Using the Deprox™ system
- 26-38 System error messages
- 18-30 Error messages
- 39 Deprox™ maintenance
- 40 Specification





Section 1: Essential safety information

- Only use approved Deproxin™ chemicals with the Deprox™ system.
- Always ensure that the mains cable is fully extended before use.
- Regularly check that the Deprox™ system (including its cables and accessories) are free from damage. Do not use the system if damaged, please contact Hygiene Solutions for repair.
- Do not attempt to open the Deprox™ system. There are no user serviceable parts inside. Opening the system could be dangerous, and will invalidate the warranty.
- Never tilt the Deprox™ unit more than 30 degrees from vertical, this can lead to chemical leakage.
- Never enter a space where the Deprox™ system is operating, until the deactivation cycle has completed and the solid green light is showing.
- Always wear protective gloves and eye protection whilst inserting or removing refills from the Deprox™ unit.
- It is recommended that the Deprox™ system should be connected to the mains through a 30mA RCD adaptor.
- Never insert or remove a refill from the Deprox™ unit unless instructed to do so by the system control panel. Failure to observe this requirement may lead to chemical spillage.

- ➔ Only trained operatives must use the Deprox™ system. Use by untrained personnel can lead to death or injury.
- ➔ Do not operate the Deprox™ system in wet conditions. It is normal for the outer casing of the unit to become damp after running a process, but the unit must not be used in wet conditions .
- ➔ Never operate the unit outside an enclosed area.
- ➔ Never attempt to use the Deprox™ system for any purpose other than its intended use as a decontamination system.
- ➔ Always disconnect the system from the mains supply when not in use.
- ➔ The Deprox™ system must be Earthed.
- ➔ Fully read this user manual before attempting to operate the Deprox™ system.
- ➔ Do not use harsh or abrasive chemicals to clean the Deprox™ unit or its accessories. A damp cloth only should be used, with a mild detergent such as washing up liquid.
- ➔ The Deprox™ system must be PAT (Portable Appliance Testing) tested for electrical safety every six months.



Section 2: The Deprox™ system

→ 2.1 Deprox™ system components

The Deprox™ is a bio-decontamination system that delivers vaporised Deproxin™ (Hydrogen Peroxide 4.9%) to surfaces within an enclosed space, for use in commercial and healthcare settings. The technology used by Deprox™ monitors and adjusts the process to ensure consistent results in the reduction of surface contamination

The Deprox™ is made up of three major components:

- 1** The Main Vapour Generating Unit – placed inside the sealed room and carries out the disinfection process
- 2** The Process Monitor – this is placed outside the room and informs you what stage the process is at.
- 3** The Process Analyser – this is placed inside the room and calculates the volume of vapour required to treat it without making it damp.



→ 2.2 The Deproxin™ H₂O₂ solution

Deproxin™ is the only approved chemical solution for use in the Deprox™ system and under no circumstances should it be substituted for any other substance.

Dangerous Components:

Hydrogen peroxide (H₂O₂) solution 2.5-10%

CAS: 7722-84-1

EINECS: 231-765-0



Xn

C

Silver (Ag) <0.2%

CAS; 7761-88-8

EINECS: 231-853-9



Section 2: The Deprox™ system

→ 2.2 The Deproxin™ H₂O₂ solution

Precautions

- For use in Deprox™ hydrogen peroxide vapour (HPV) systems only
- Keep locked up away from children at all times
- Keep in a cool place
- Irritating to eyes, skin and respiratory system
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- After contact with skin, wash immediately with plenty of water
- Wear suitable PPE (clothing, gloves and eye/face protection)
- In case of accident or if you feel unwell, seek medical advice immediately show label or Deproxin™ data sheet where possible)
- Keep away from combustible material
- See the Material Safety Data Sheets (MSDS) for additional information

Storing and handling

Deproxin™ is delivered in a cardboard outer of 4 units weighing approximately 8.6kg. Each box is clearly labeled and contains a Material Safety Data Sheet (MSDS). Deproxin™ cartridges should be stored upright in their sealed container until required for use, away from direct sunlight and extremes of temperature (not less than 5°C, not more than 50°C). Deproxin™ is a 4.9% hydrogen peroxide solution and has no specific legal storage requirements. However, our recommendation is that Deproxin™ should be stored in a banded area away from general public and restricted to access by trained Deprox™ operators only. Nominated storage locations should be communicated to responsible personnel within the organisation including the fire/health and safety officers.



→ 2.3 Deprox™ accessories

The Deprox™ is supported by a comprehensive range of branded accessories specifically designed to provide a more efficient method and user-friendly set up of treatment areas;

- 1 VentCap** – The ventilation restriction kit, VentCap, is a simple system for sealing ventilation grilles by a single person whilst avoiding the risks associated with working at height.
- 2 CapKit** – the smoke detector kit is a simple device for capping smoke detector heads and preventing false fire alarms as a result of the vapour activating fire detection systems. A single person operation makes the CapKit easy to use and avoids the risk of working at height.



→ 2.3 Deprox™ accessories

- 1 **DVI Sealant Tape** – our DVI sealant tapes have been validated for the effective containment of hydrogen peroxide vapour and gas during the Deprox™ decontamination cycles. Impervious to hydrogen peroxide vapour and gas, these 75mm wide tapes are designed for the easy sealing of doors, ventilation grilles etc. Available in either low or high adhesion options and with residue-free removal.
- 2 **DoorBar** – the simple DoorBar secures double doors during decontamination. Operators are able to leave the area and continue their work safe in the knowledge that the area is contained.

- 3 **Deprox™ inflatable Derby Door kit** – some areas in your organisation will be challenging to operate the Deprox™ system safely due to the absence of doors or adequate containment methods. The Deprox™ inflatable Derby Door kit is a simple and effective method for creating quickly erectable gas-tight barriers. When fully deflated, the kit fits into a handy transport bag for easy moving and storage.



Section 3: Before using the Deprox™ system

→ 3.1 Pre-operation checks

Check the Deprox™ system for damage after unpacking. Do not connect the electrical supply if any damage is identified. Each Deprox™ system is individually tested for full functionality before despatch. There is a small amount of machine set up required before use.

The Deprox™ system should only be used by trained operators.



Easy. Effective. Efficient.

 Deprox™



→ 3.2 Manoeuvring the Deprox™ equipment

The Deprox™ is designed to be operated by a single person. Secured on four fully steering castors, the machine can easily be turned left and right. The Deprox™ weighs around 55kg (drained of fluid) so care must be taken pushing the Deprox™ especially up gradients. Maintain an upright posture and avoid lowering your shoulders to push the machine as this can put undue pressure on the lower back area.

Never attempt to lift the Deprox™. Take particular care when manoeuvring the equipment outside.

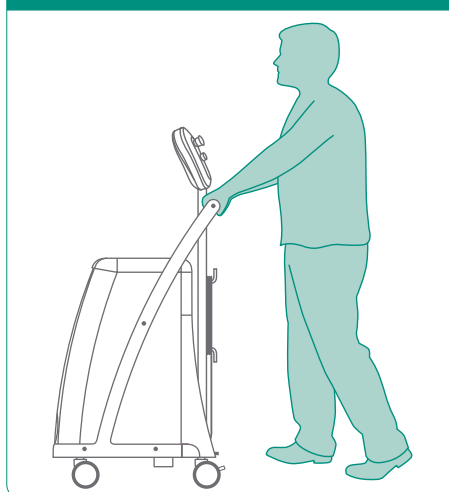
Whilst the Deprox™ has a protection bumper at the base of the machine, care should be taken to avoid sharp knocks and bumps particularly on the plastic casing. **Avoid any drops like steps and loading bays – do not attempt to wheel the Deprox™ down steps!**

Take care when disengaging the Process Analyser and Process Monitor, so as not to damage them. To aid stability these items are heavy at the base by design. Be careful not to trap toes when placing the stands on the floor.

BAD POSTURE X



GOOD POSTURE ✓



→ 3.3 Setting up the treatment area

For the Deprox™ to be effective, it is essential the area and equipment to be treated is thoroughly cleaned and free of all organic matter, dust and dirt before starting the process.

To optimise efficiency of the Deprox™ process in the treatment area, you must adhere to the following guidelines in order to ensure as many surfaces as possible are exposed to the hydrogen peroxide vapour:

- 1** Ensure the room has been manually cleaned to remove gross soiling, dust and dirt.
- 2** Ensure the infection control protocol has been followed i.e. disposables and absorbent materials such as linen and curtains have been removed since the last patient.
- 3** Switch off air conditioning (follow local protocol) and cover up the ventilation using a VentKit.
- 4** Close windows and seal any gaps in doors, ceilings etc. with DVI Tape taking special care to ensure that the sealing tape is in full contact between the surfaces. Apply by using one hand to roll the tape out and the other to press down firmly and ensure a complete seal.
- 5** Isolate/cover the smoke alarm sensor with a CapKit.
- 6** If applicable, ensure that the en-suite bathroom door is held open for the duration of the treatment cycle.
- 7** Arrange the contents of the room in preparation for the Deprox™ process. For example, ensure the bed mattresses are on their side, the locker doors and draws are open, the bin lids are open, the chair cushion is removed etc.
- 8** Once out of the room, seal the exit door with DVI Tape, use the DoorBar to lock the door and complete the door warning sign.

The room is now ready for the Deprox™ system to run.



Section 4: Using the Deprox™ system

→ 4.1 Deprox™ user instructions

IMPORTANT: The Deprox™ system should only be used by trained operators.

4.11 Close the area to be treated against general access. Place 'NO ENTRY – DECONTAMINATION IN PROGRESS' signs on any doors. Even during the set up phase, danger exists from tripping on umbilical cables, so personnel must be excluded.

4.12 Assess the space to be treated. A single Deprox™ system can effectively treat a volume of up to 300m³. This will be sufficient for side rooms, toilets, small bays etc. The space will need to be sealed, so any doors or windows will need to be sealed shut and ventilation openings will need blocking off.

If the area to be treated is open plan to an adjoining area (ie: an opening without doors) then the opening must be sealed off. This can be achieved with a 'Derby Door' inflatable barrier, or by the use of plastic sheeting and DVI tape.

4.13 Should an area larger than 300m³ require treatment (large ward, corridor etc), then two options exist. Either the area can be broken down into smaller spaces by utilising plastic sheeting etc, or multiple Deprox™ systems can be distributed around the space. If this latter option is used, a good spacing (>10 metres) should be employed between machines to prevent their environmental control systems interfering with each other.

4.14 Wheel the Deprox™ vaporising unit into the centre of the space to be treated and apply the brakes **(A)**. **From this point to the end of the treatment the Deprox™ unit must not be moved.**

4.15 Unhook the Process Analyser from the rear of the machine and unwind its umbilical cable. Plug the cable into the **yellow Process Analyser socket** on the front of the main Deprox™ unit **(B)**.

4.16 Position the Process Analyser towards the edge of the space being treated, as far away from the Deprox™ system as the cable length or room geometry will allow. Be careful not to trip over the extended cable. **Do not place the Process Analyser right against a wall or window. Leave a gap of around 1 metre to give good airflow to the sensor within.**

4.17 Unhook the Process Monitor from the rear of the machine and unwind its umbilical cable. Plug the cable into the **blue Process Monitor socket** on the front of the vaporising unit **(C)**.

4.18 Lead the Process Monitor cable under the door (or temporary barrier) of the space being treated, and place the Process Monitor immediately outside. Ensure that its positioning does not cause a trip hazard or obstruction outside the door, but that good access is possible to the controls and indicators on the Process Monitor. Be careful not to trip over the extended cable or cause damage by closing it in a door.

4.19 Fully extend the mains cable of the vaporising unit by grasping the mains plug **(D)** on the front panel and pulling. Plug the mains cable into a convenient socket, using an extension lead if necessary. If significant risk is identified, it is recommended that the main Deprox™ unit is plugged in outside the room being treated with the power lead being run under the door. This allows the unit to be fully powered down in the event of a building fire or emergency. If an extension lead is used, this must be an approved CE marked 13A extension lead, and must be fully unwound, not left in a coil.

4.110 Press the 'Start Cycle' button on the Deprox™ control panel **(E)**. The Deprox™ system will light the indicators on the Process Analyser, to test that they are working correctly. **Verify that BOTH the red and green lights are illuminated (AA) on the Process Monitor. If one or both of the indicators fail to light, DO NOT use the Deprox™ system and refer to your engineer for service.** Assuming all is well and both indicators are illuminated, press the 'Process Stop' button **(BB)** on the Process Monitor to confirm operation of the lights. This is part of the automatic System Functionality Test. If the Deprox™ system does not move past the lamp test stage after pressing Process Stop, then the Process Stop system is faulty and the machine cannot be used. Refer to engineer for service.



Section 4: Using the Deprox™ system

4.111 If prompted by the Deprox™ system control panel, insert a Deproxin™ refill. **You should wear suitable PPE (gloves and eye protection) whilst inserting or removing refills.**

To insert the refill, remove the empty Deproxin™ refill from the main unit fill port **(G)**, line up the new refill bottle with the fill hopper and lower into the fill port **(Diagram 2)**. When the bottle is fully lowered into the fill port, firmly push down the top of the bottle **(Diagram 3)** to pierce the bottom of the Deproxin™ refill and drain the fluid into the unit. Once the Deproxin™ refill is pierced, loosen the bottle cap **(Diagram 4)** to allow air intake. This will prevent a vacuum being formed as the fluid drains from the bottle.

Failure to remove the cap may result in the Deproxin™ refill not draining into the main unit, and the Deprox™ system giving a 'FILL ERROR' message.

4.112 When the system has taken in the entire refill, it may ask for another. When removing empty Deproxin™ refills, first secure the Deproxin™ refill lid **(Diagram 4)**, then withdraw the empty container carefully from the port **(G)**, as some residual fluid may remain and drip from the bottom of the refill. When the system is full, it will move on to the pump phase of the process where the vaporisation chamber is filled. The pump will be heard to run and the LCD screen **(F)** of the Deprox™ control panel will display 'PREPARING TO RUN THE PROCESS'.

4.113 Whilst the vaporising chamber is filling, prepare the area being treated. Close any doors and windows (except the final exit door) and seal shut with tape. Block any ventilation grilles with 'VentCaps' and cap off any smoke detectors with 'CapKits'. Set up the furniture in the room to allow for optimum decontamination performance. For example open any drawers and cupboards to allow decontamination of the insides, lift mattresses to a vertical position to allow undersides to be treated. Move beds, cupboards etc. away from the wall to give air circulation space behind.

4.114 Once the vaporisation chamber is full, the control panel LCD screen (F) will show 'READY TO START CYCLE – USE KEY TO START'. At this point, take a final check to ensure that all openings are correctly sealed and that smoke detectors are covered or isolated.

4.115 Exit the space through the remaining unsealed door or temporary barrier, close the door, and seal up with DVI tape from the outside. **Ensure the warning signs are displayed at all sealed entrances to the space.**

4.116 Secure any entrances to the space by using a DoorBar.

4.117 The Process Monitor green light will be on steady and the red light will be flashing. This indicates that the process is ready to start.

4.118 Insert the starting key into the Process Monitor key switch (CC) and turn clockwise, the key will then spring return. Remove the key from the switch.

4.119 The decontamination process will now start running. The process is divided into three main stages:

1 Vapour diffusion (0-60 minutes)

– the Deprox™ generates the vapour until the required concentration is achieved. The Process Monitor (AA) displays a solid red light.

1 Surface treatment (90 minutes)

– the Deprox™ maintains hydrogen peroxide concentration to ensure sufficient dwell time and treatment of all surfaces. The Process Monitor (AA) displays a solid red light.

1 Deactivation (45 minutes)

– the Deprox™ monitors the environmental parameters until deactivation is completed. The Process Monitor (AA) displays a solid red light and a flashing green light.

4.120 At any time during the decontamination phase, vapour generation can be stopped immediately using the Process Stop (BB) button on the Process Monitor. This will stop vapour generation and the Deprox™ system will move to its deactivation mode.



Section 4: Using the Deprox™ system

4.121 Once the decontamination process is complete, the Process Monitor will show a solid green light (AA), indicating that it is safe to re-enter the space. **It is strongly recommended that a H₂O₂ gas concentration test is performed as the area is re-entered, using an H₂O₂ gas monitor with a 0-20PPM sensor.** Any level exceeding 1PPM indicates that further deactivation time should be allowed before personnel are re-admitted.

4.122 Check the LCD screen (F) on the Deprox™ system control panel (E), it should indicate 'PROCESS COMPLETED SUCCESSFULLY'. If any errors are showing then the process has failed and will need to be repeated once the cause of the fault has been remedied.

4.123 Switch off the wall socket and unplug the Deprox™ system, give a light pull on the mains cable (D) to disengage the ratchet and allow the cable to retract.

Unplug the Process Monitor and Process Analyser, re-wind the cables onto the hooks, and re-stow the devices onto the rear of the main Deprox™ unit.

4.124 Remove all VentKits and CapKits. Remove any DVI Tape around windows and ventilation grilles, as necessary.

→ 4.2 The Deprox™ Process Monitor

During the Deprox™ decontamination process, the Process Monitor placed outside the room will provide visual indication to the operator and any personnel in adjacent areas as to the current status of the process.

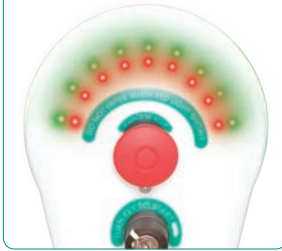
1 PRE-START

Process Monitor will show a solid GREEN light.



2 READY TO START

Process Monitor will show a solid GREEN light and flashing RED light.



3 VAPOUR DIFFUSION

Process Monitor will show a solid RED light.
DO NOT ENTER!



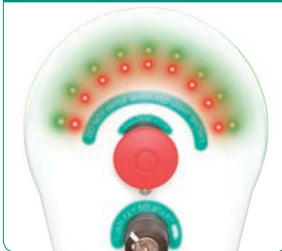
4 SURFACE TREATMENT

Process Monitor will show a solid RED light.
DO NOT ENTER!



5 DEACTIVATION

Process Monitor will show a solid RED light and flashing GREEN light.
DO NOT ENTER!



6 SYSTEM RESET

Process Monitor will show a solid GREEN light.
PROCESS COMPLETE



→ 4.3 Method summary

HYDROGEN PEROXIDE ROOM DECONTAMINATION		
TASK	SEQUENCE	DURATION
Location set up	Sealing ventilation outlets with VentKits Masking smoke detectors with CapKits Positioning of room contents for optimal decontamination performance Set up equipment Seal doors and windows using DVI Tape	Approx. 8 minutes
Vapour diffusion	Start machine cycle from outside sealed room	Up to 60 minutes
Decontamination process	N/A	90 minutes
Deactivation process	N/A	45 minutes
Post-process requirements	Unseal doors and windows Remove VentKits from ventilation outlets Remove CapKits from smoke detectors Remove Deprox™ equipment Return room to original layout	Approx. 5 minutes

→ 4.4 Should the power fail during a process

If the electrical supply to the unit fails during a decontamination process, it must be assumed that the space still contains vapour, and is dangerous to enter. At least 45 minutes must be allowed after return of the power for the deactivation cycle to complete before the space is entered.

It is strongly recommended that an H₂O₂ gas concentration test is performed as the area is re-entered, using an H₂O₂ gas monitor with a 0-20PPM sensor. Any level exceeding 1PPM indicates that further deactivation time should be allowed before personnel are re-admitted.

→ 4.5 Resetting the Deprox™ system

Should the decontamination process fail with an error, the system will need to be reset.

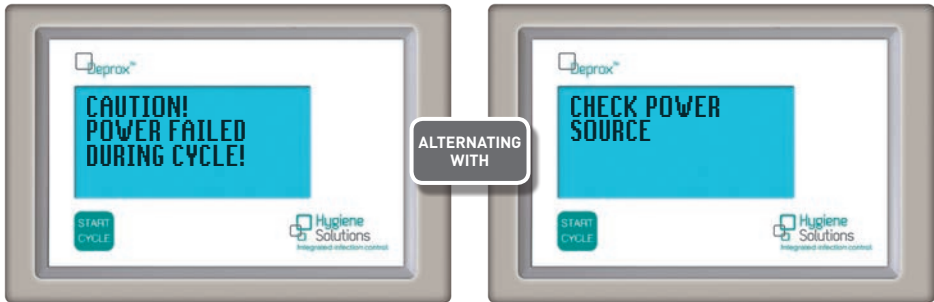
To achieve this reset, press and hold the 'Start Cycle' button (E) on the Deprox™ system control panel for 10 seconds, and then release.

This will reset the Deprox™ system to its default power up state.



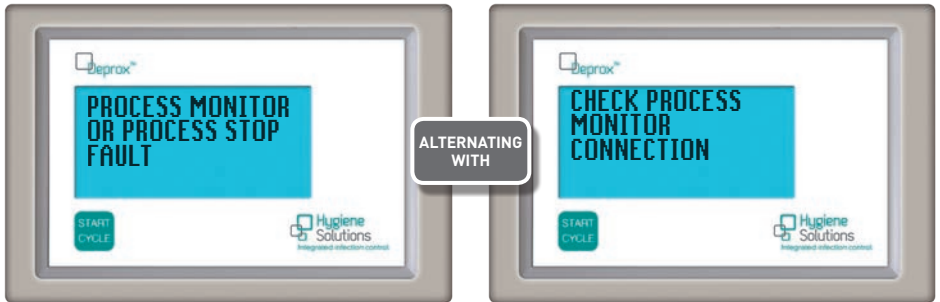
Section 5: System error messages

→ 5.1 Power failure during cycle



This message will be displayed on the Deprox™ system control panel LCD (F) when the power is restored to the unit following a power cut occurring during the decontamination process. Should this occur, the process detailed on page 25 'Should the power fail during a process' must be followed. **The system will need a reset to restore normal operation, please refer to section 4.5 'Resetting the Deprox™ system' on page 25.**

→ 5.2 Process Monitor fault

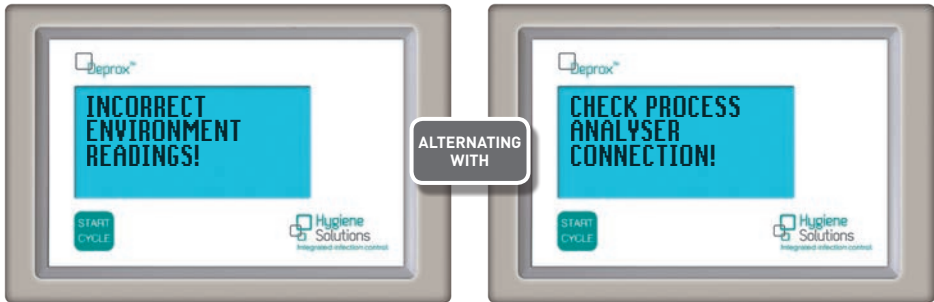


This error message is triggered during Deprox™ system start up by a missing or faulty Process Monitor, or by the 'Process Stop' button being stuck in during the system self-test. If this error is displayed, ensure that the Process Monitor is securely plugged into the Deprox™ system, and that the 'Process Stop' button is not depressed. Otherwise, the Process Monitor has developed a fault, and will need returning to Hygiene Solutions for repair. **The system will need a reset to restore normal operation, please refer to section 4.5 'Resetting the Deprox™ system' on page 25.**



Section 5: System error messages

→ 5.3 Process Analyser fault



This error message is triggered during Deprox™ system start up by a missing or faulty Process Analyser during the system self-test. If the error is displayed, ensure that the Process Analyser is securely plugged into the Deprox™ system, and that the sensor on the top of the Process Analyser is not wet or broken. Otherwise, the Process Analyser has developed a fault, and will need returning to Hygiene Solutions for repair. The system will need a reset to restore normal operation, please refer to section 4.5 'Resetting the Deprox™ system' on page 25.

→ 5.4 Ambient humidity too high



This error message is triggered at start up of a during a decontamination process by an excessive ambient relative humidity level in the room being decontaminated. The error will occur if the relative humidity in the room is higher than 71% at the start of the cycle. If the error is displayed, the humidity level in the room will need to be reduced, either by ventilating the space or by use of a dehumidifier. As the humidity level is reduced, the current level is displayed on the Deprox™ system control panel LCD (F). **When the level reduces below 71%, the system can be reset, and the cycle re-started (page 25).**



Section 5: System error messages

→ 5.5 Ambient temperature too high



This error message is triggered at the start of a decontamination process by an excessive ambient temperature in the room being decontaminated. The error will occur if the temperature in the room is higher than 35°C at the start of the cycle. If the error is displayed, the temperature in the room will need to be reduced, either by ventilating the space or by use of a portable air conditioner. As the temperature level is reduced, the current level is displayed on the Deprox™ system control panel LCD (F). When the level reduces below 35°C the Deprox™ system can be reset, and the cycle re-started (page 25).

→ 5.6 Refill error (non-fatal)

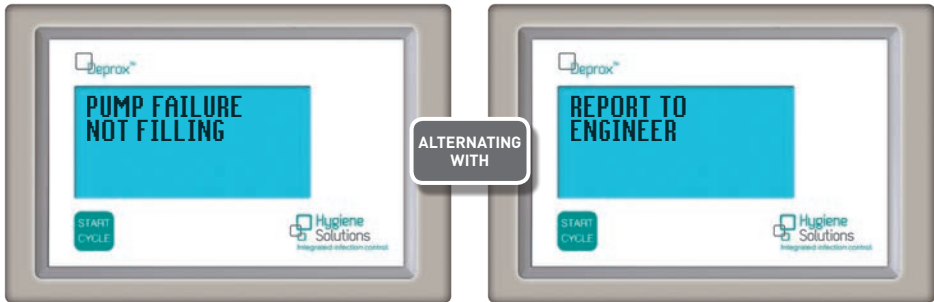


This error message is triggered during a process set up, if the fluid level in the Deprox™ system internal reservoir tank is not rising when a refill is inserted. It generally indicates that the refill is empty and a new Deproxin™ refill must be inserted. Check the existing bottle is empty visually before attempting to remove – the lid may need to be loosened to allow airflow. The error should automatically clear when a new Deproxin™ refill is inserted and the reservoir tank begins to fill. **Should this error not clear and the bottle fails to drain into the system, then there is probably a fault on the fill valve and the Deprox™ system should be repaired by Hygiene Solutions.**



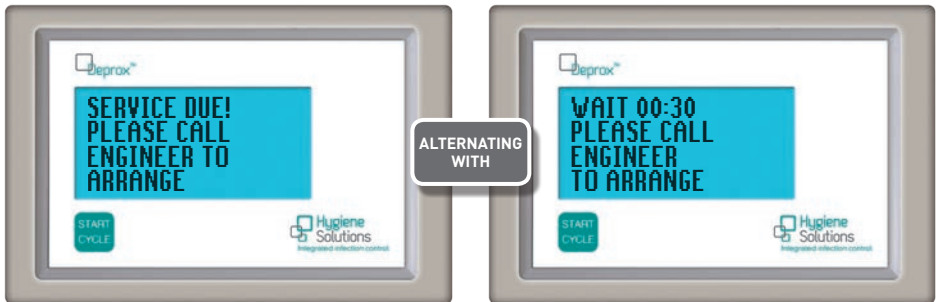
Section 5: System error messages

→ 5.7 Pump error



This error message is triggered during process set up, if the fluid level in the atomisation chamber does not rise when the Deprox™ system is attempting to pump fluid into it. It generally indicates that either the pump or the pump tubing has failed, or that there is a blockage in the internal plumbing. The Deprox™ system will need to be returned to Hygiene Solutions for repair.

→ 5.8 Service due (reminder)



This warning message is triggered at start up, if the Deprox™ system has run for 500 hours or more without a service. It is still possible to use the Deprox™ system, however it will be necessary to wait for the 30 second countdown before starting. **It is strongly recommended that the Deprox™ system is serviced every 500 hours (apprx. 200 processes),** since there are consumable parts inside, and performance will begin to deteriorate after 500 hours of running.



Section 5: System error messages

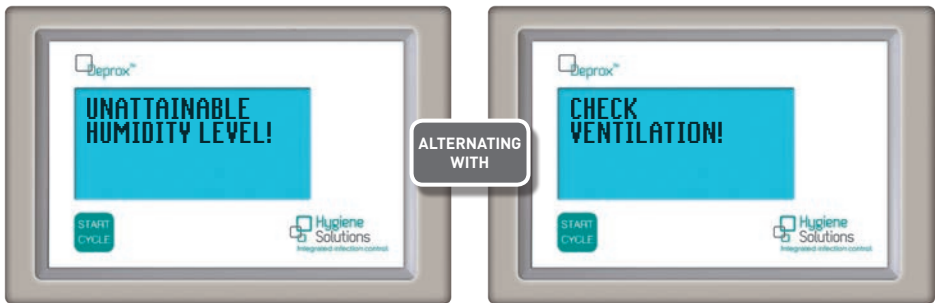
→ 5.9 Refill error (fatal)



This error message is triggered during a process set up, if the fluid level in the Deprox™ system internal reservoir tank is repeatedly not rising when a Deproxin™ refill is inserted.

It indicates a problem with the fill valve or control system, or a possible blockage. The Deprox™ system will need to be returned to Hygiene Solutions for repair.

→ 5.10 Vaporising error



This error occurs during the decontamination process if the required increase in relative humidity cannot be achieved in 60 minutes. The error is usually attributable to attempting to decontaminate a room volume larger than 300m³, or an area which has not been effectively sealed. The system will need a reset to restore normal operation, please refer to section 4.5 'Resetting the Deprox™ system' on page 25.

→ 5.11 Fluid depletion



This error message is triggered during a decontamination process, if the Deprox™ system runs out of fluid before the process ends. It is normally caused by failure to correctly seal up ventilation in the space being decontaminated, which leads to excessive fluid consumption to maintain the required relative humidity level. **The system will need a reset to restore normal operation, please refer to section 4.5 'Resetting the Deprox™ system' on page 25.**

→ 5.12 Overflow error



This error message is displayed if the Deprox™ system detects that the fluid level is too high and at risk of overflowing. It is usually caused by attempting to insert a Deproxin™ refill when not prompted to do so by the system. **Should this error be displayed, there is a risk of fluid spillage from the Deprox™ system – the machine should not be moved, and Hygiene Solutions should be contacted for assistance. Do not use the Deprox™ system if this error is displayed.**



Section 5: System error messages

→ 5.13 Manual stop error



This error occurs during the decontamination process if the 'Process Stop' button is pressed on the Process Monitor before the process finishes. Pressing this stop button immediately moves the Deprox™ system from the decontamination (fogging) process to the deactivation phase. The system will need a reset to restore normal operation, please refer to section 4.5 'Resetting the Deprox™ system' on page 25.

Section 6: Deprox™ maintenance

→ 6.1 Regular care

After each decontamination process, wipe down the case of the Deprox™ unit, Process Monitor and the Process Analyser with a dry cloth to remove any residual condensation. Never use any cleaner stronger than a mild detergent (eg washing up liquid) to clean the plastic parts of the system. **Never attempt to clean the sensor probe on the Process Analyser with any wet substance – this may permanently damage the sensor probe.**

Once a week, check the mains lead and the Process Monitor and Process Analyser leads for damage, paying particular

attention to the points where they emerge from the connectors. The Deprox™ system must be PAT (Portable Appliance Testing) tested for electrical safety every six months. The wheels of the Deprox™ system should be periodically cleaned.

The fan grille (H) on the base of the Deprox™ unit should be cleaned every 3 months. **DO NOT TIP the unit to achieve this, as fluid spill may result.** Simply reach underneath the vaporising unit with a damp cloth and wipe the dust accumulation from the grille.

→ 6.2 Machine servicing

The Deprox™ system should be serviced every 500 hours (approx 200 processes) by Hygiene Solutions. The system will flash up a warning message for 30 seconds at power up when this service is due.

The ultrasonic devices, which atomise the fluid into vapour, begin to deteriorate after

approximately 500 hours service, and will therefore require periodic replacement.

Failure to have the unit serviced every 500 hours may lead to poor decontamination and frequent process failures.

→ 6.3 Draining the system

It may be necessary to drain the fluid stored in the Deprox™ system, for example when the vaporising unit is to be disposed of at end of life, or to transport the Deprox™ system by air freight.

The fluid will need to be pumped out and since this will require removal of the covers, handling and disposal of the hazardous fluid, **it is not a user operation and will require a service visit by a Hygiene Solutions engineer to perform the task.**



Section 7: Specifications

External dimensions (mm)

1120 H x 580 W x 630 D without analyser and monitor attached
 1320 H x 580 W x 630 D with analyser and monitor attached

Weight (drained of fluid)	approx 65Kg
Storage temperature range	0–50°C
Operational temperature range	0–5°C
Operational humidity range	0–71% RH
Fluid storage capacity	10 litres (full), 13 litres (max)
Ultrasonic frequency	approx 1.7 MHz
Atomised droplet size	<1µm
Power consumption	600W
Supply voltage range	220–240V AC
Supply frequency	50Hz
Plug fuse	5A BS1363
Airflow	120m ³ /hr
Operational SPL	<70dB(A)

