Prius Healthcare (UK) Ltd

EFFECT 400
Mattress Overlay System

User Manual

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CHAPTER 1

IMPORTANT SAFEGUARDS READ ALL INSTRUCTIONS BEFORE USE

DANGER – To reduce the risk of electrocution:

1. Always unplug the product immediately after use.
2. Do not place or store product where it can fall or be pulled into a bath or sink
3. Do not place or drop into water or any liquid
4. Do not reach for a product that has fallen into water. Unplug immediately

Warning – To reduce the risk of burns, electrocution, fire or injury to persons

1. Use the product for its intended use as described in the manual. Do not use attachments not recommended by the manufacturer.
2. Never operate this product if it has a damaged cord or plug, if it is not working properly or if it has been dropped in water or damaged. Return the product to a service centre for examination and repair.
3. Keep the power cord away from heated surfaces.
4. Never block the air openings of this product or place it on a soft surface, such as a bed or couch, where the openings may be blocked. Keep the air opening free of lint, hair and other similar particles.
5. Never drop or insert any object into any opening or hose.
6. Always connect this product to a properly grounded outlet only.

NOTE, CAUTION AND WARNING STATEMENTS

NOTE Indicates advice.

CAUTION Indicates correct operating or maintenance procedures in order to prevent damage to or destruction of the equipment or other property.

WARNING Calls attention to potential danger that requites correct procedures or practices in order to prevent personal injury


"BF" symbol indicates this product in accordance to the degree of protecting against electric shock for type BF equipment.


Instructions should be read


Ground terminal

SUPPORT SETTING PROCEDURES

It is important to follow the correct support setting procedure to ensure the patient receives adequate support (lift) while achieving maximum pressure relief and comfort.

1. Select the correct setting as indicated below and press the appropriate button.
2. The mattress will now inflate. When the low pressure indicator has extinguished for more than 5 minutes you can position your patient on the mattress.

EFFECT 400 WEIGHT CONVERSIONS

Weight in Kg	Weight in Pounds	Weight in Stones	Pressure Setting
Up to 50 Kg	110	8	1 to 3
50 Kg to 75 Kg	110 to 165	8 to 12	3 to 5
76 Kg to 100 Kg	165 to 210	12 to 16	5 to 6
100 Kg +	210 +	16 +	7

MAXIMUM WEIGHT LIMIT 180 Kg (397 lbs – 28 Stone)

INTRODUCTION

1. **Introduction**
   This manual should be used for initial set up of the system and for reference purposes.

2. **General Information**
   The system is a high quality mattress system suitable for treatment and prevention of pressure ulcers.

The system has been tested and successfully approved to the following standards:

CE **EN 60601-1**
EN 60601-1-2

3. **Intended Use**
   This product is intended to help reduce the incidence of pressure ulcers while optimizing patient comfort.

⚠ **NOTE: This equipment is not suitable for use in the presence of a flammable aesthetic mixture with air or with oxygen or nitrous oxide.**

GENERAL SAFETY

Before you use your Effect Mattress System, please familiarize yourself with the information in this user manual.
For your safety and the efficient performance of the system the following precautions should be observed:

- **Do not expose the pump to liquids of any kind**
- **Always protect the system from open flames**
- **Avoid the use of Phenol base solutions when cleaning**
- **Store the system in a clean and dry environment**
- **Do not store in direct sunlight**

See instructions for use: ⚠ As labelled accordingly

There is a possibility of electro-magnetic interference with other devices.

WARNING
ELECTRICAL EQUIPMENT CAN BE HAZARDOUS IF MISUSED. ONLY AUTHORISED TECHNICAL PERSONNEL SHOULD REMOVE THE PUMP FOR MAINTENANCE.

WARNING
DO NOT USE THE PUMP IN THE PRESENCE OF FLAMMABLE GASES

WARNING
BOTH THE POWER FAIL AND LOW PRESSURE ALARMS CAN BE SILENCED BY PRESSING THE "ALARM SILENCE" BUTTON ON THE FRONT OF THE PUMP UNIT.

WARNING
BEFORE CLEANING THE PUMP UNIT, PLEASE ENSURE THAT THE ELECTRICAL SUPPLY HAS BEEN DISCONNECTED. PLEASE REMOVE THE PLUG FROM THE POWER SUPPLY.

CAUTION
DO NOT USE THE SYSTEM AS A MEANS FOR LIFTING THE PATIENT.

TRANSPORT & STORAGE CONDITIONS

NOT TO GO OUTSIDE THE FOLOWING RANGES IN A PERIOD NOT EXCEEDING 15 WEEKS

AN AMBIENT TEMPERATURE OF 15 deg c TO 70 deg c

A RELATIVE HUMIDITY RANGE OF 10% TO 90% INCLUDING CONDENSATION

STORAGE

1. **To store the mattress, lay the mattress out flat and upside down.**
2. **Roll the head end towards the foot end with the CPR in the open position.**

NOTE: Do not fold, crease or stack the mattress.
Avoid direct sunlight.

CHAPTER 2

PRODUCT DESCRIPTION

The Effect 400 is an alternating mattress overlay system used in the prevention and treatment of pressure ulcers. By using the established principles of alternating therapy the Effect 400 offers patients a comfortable and relaxing support surface which can both prevent breakdown and enhance healing.

The Effect 400 pump unit is a compact product featuring:
1. A visual low pressure alarm.
2. Fully adjustable pressure.

The Effect 400 mattress has the benefit of the following features:
1. 21 non vented cells.
2. Heavy duty nylon base sheet with a vapour permeable coated stretch cover.
3. Highly visible CPR facility to be used in the event of cardiac arrest.
4. Easy use transport facility for patient transfers.
5. Cable tidy sections built into the side if the cover base.
6. Fully removable / interchangeable top cover for easy cleaning / replacement.

BRIEF OPERATING PROCEDURES

EFFECT 400 ALTERNATING MATTRESS OVERLAY SYSTEM

Installation

1. Unpack the system and place the pump at the foot end of the bed.
2. place the support surface directly onto the existing mattress with the vapour permeable cover uppermost, ensuring that the inflation tubes are also at the foot end of the bed.
3. Connect the air hoses from the mattress to the three pipe connector on the side of the pump.
4. Plug the pump into a wall socket.
5. Turn the wall socket on.
6. Turn the pump unit on.
7. The pump indicators should now be illuminated and the system will now be performing the initial inflation procedure.
8. Set the required pressure of the system by turning the pressure dial until the arrow on the dial is pointing at the required pressure setting.
9. After the low pressure light has extinguished for more than 5 minutes the patient can be positioned on the mattress taking note of the foot illustrations on the mattress to ensure the patient is at the correct end of the bed. (The inflation time should not exceed 25 minutes.)

Operating Functions

a) Low Pressure Alarm

The pump unit has a visual low pressure alarm built in. The pump constantly monitors the internal pressures of the mattress to ensure that if a pressure malfunction occurs it will not go undetected.

b) CPR Requirement

If rapid deflation of the mattress is required simply twist the CPR unit to the open position. Instantly you should hear ait being released from the mattress. The system should deflate within 20 seconds. To close the CPR simply twist the CPR unit to the closed position.

c) Infection Control

Should the mattress become infected please refer to our disinfection protocol.

CHAPTER 3

CLEANING YOUR SYSTEM - DISINFECTION PROTOCOL

The following guidelines are suggested by Prius Healthcare as being suitable infection control procedures. Further information is available.

PUMPS

It is important to follow the cleaning procedures for single patient use. General cleaning may be effected by using a cloth dampened with a mild detergent and water solution. This approach may be followed either by wiping with a sodium hypochlorite solution to a dilution of 1000 ppm or by using an alcoholic wipe.

Wipe the pump unit with a damp cloth and mild detergent and keep it away from dust. If another detergent is used choose one that will have no chemical effects on the surface of the plastic case of the pump unit.

CAUTION: **Do not immerse or soak pump unit.**
Do not use hyper carbonate or phenol based cleaning solutions.
Do not use any abrasive compounds or cleaning pads.

MATTRESS

During general use the mattress and tube set may be cleaned by using a mild detergent solution. Where appropriate mattresses covers may be completely removed for laundering or sterilization. Whenever there is staining or bodily fluids on the mattress, including the cells and tubing, then a sodium hypochlorite solution to a dilution of 1000 ppm should be used following thorough cleansing with soap and water.

All mattress covers may be laundered as follows:
Pre Wash 71 deg c for 15 minutes
Main Wash 71 deg c for 15 minutes
Followed by Cold rinses and extraction

CAUTION: Do not use phenol based products for cleaning.

CAUTION: Dry the mattress on a SUNLESS capitalized area after cleaning.

CAUTION: During cleaning procedures suitable protective clothing should be worn. Ensure the mains power supply to the pump has been disconnected prior to cleaning.

NOTE: Follow the national requirements to dispose of the unit properly

ANNUAL MAINTENANCE

1. Ensure that all the hoses inside and outside the pump are kink and split free. If any splits are found replace the affected hoses.
2. Ensure the hoses inside and outside the pump are not brittle. Replace if needed.
3. Check that all indicators are working. If not the faulty indicators need to be replaced by your service provider.
4. Check the main power cord or plug for abrasions or excessive wear.
5. Check the mattress cover for signs of wear or damage. Ensure the mattress cover and hoses are connected together correctly.
6. Check the air hoses for kinks or breaks.

GUARANTEES AND WARRANTIES

1. **PUMPS**
   This pump has a guarantee for a period of 2 years from date of dispatch.
2. **MATTRESS**
   This mattress has a guarantee for a period of 2 years from date of dispatch.
3. **GUARANTEE**
   The company guarantees to repair or replace any equipment issued to its customers which is found to be faulty during the relevant guarantee or warranty period.
   The company's guarantees are subject to the following conditions:

a) That the equipment has been used for the purpose for which it was intended.
b) That the usage has been on a "fair wear and tear" basis.
c) That the company's cleaning / disinfection guidelines have been followed.
d) That the company's maintenance guidelines have been followed.
e) That the maintenance has been carried out by a suitable qualified person.

4. **WARRANTY**
   Extended warranties can be purchased from Prius Healthcare, for more information contact customer services on 01226 770225
5. **CLAIMS RELATING TO GUARANTEE OR WARRANTY**
   In the event of a fault being discovered within the period, the customer shall notify the company at the earliest opportunity. If upon inspection, the company accepts liability then the equipment shall be repaired or replaced immediately. If the company does not accept liability it shall inform the customer of its reasons and provide the customer with an estimate of either repair or replacement costs.

THE COMPANY RESERVES THE RIGHT TO ALTER OR AMEND THIS DOCUMENT WITHOUT NOTICE.

CHAPTER 4

EFFECT RANGE TROUBLESHOOTING PROCEDURES

FAULT DESCRIPTION	THINGS TO CHECK	SOLUTION TO THE PROBLEM	IF STILL NOT WORKING
THE PUMP IS SHOWING NO INDICATIONS IT IS WORKING	MAINS IS PLUGGED IN MAINS IS TURNED ON FRONT SWITCH IS ON FUSE IN THE PLUG OR PUMP HAS BLOWN	PLUG IN TURN ON TURN ON REPLACE ALL FUSES (2xT1A 1x5A)	RETURN PUMP TO YOUR SERVICE PROVIDER
THE LOW PRESSURE LIGHT IS CONSTANTLY ON AND THE ALARM	THE HOSES ARE ALL CONNECTED THE CPR IS IN CLOSED POSITION THERE ARE NO LEAKS IN THE MATTRESS SYSTEM	RECONNECT HOSES TURN THE CPR TO THE CLOSED POSITION RETURN THE MATTRESS TO YOUR SERVICE PROVIDER	RETURN PUMP TO YOUR SERVICE PROVIDER
THE PUMP IS ON BUT NOT INFLATING THE MATTRESS	DISCONNECT THE HOSES FROM THE PUMP TO SEE IF AIR IS COMING OUT THE HOSES ARE ALL CONNECTED THE CPR IS IN THE CLOSED POSITION THERE ARE NO OBVIOUS LEAKS IN THE MATTRESS CHECK THE PRESSURE IS AT THE CORRECT SETTING FOR YOUR PATIENTS WEIGHT THERE ARE NO KINKS IN THE TUBING RUNNING DOWN THE SIDE OF THE MATTRESS	RETURN PUMP TO YOUR SERVICE PROVIDER RECONNECT HOSES RETURN THE CPR TO THE CLOSED POSITION RETURN MATTRESS TO YOUR SERVICE PROVIDER ADJUST THE PRESSURE TO THE CORRECT SETTING UNTWIST ANY KINKS FOUND	RETURN PUMP TO YOUR SERVICE PROVIDER
THE SYSTEM DOES NOT APPEAR TO BE ALTERNATING	THERE ARE NO KINKS IN THE TUBING RUNNING DOWN THE SIDE OF THE MATTRESS	UNTWIST ANY KINKS FOUND	RETURN SYSTEM TO YOUR SERVICE PROVIDER
THE PUMP IS OPERATING NOISILY	THE PUMP IS NOT RSTING AGAINST A SOLID SURFACE	REPOSITION PUMP	RETURN PUMP TO YOUR SERVICE PROVIDER

TECHNICAL DESCRIPTION

The system is designed and manufactured to meet the most demanding environment. Its specifications are listed below:

Specifications:

PUMP	SPECIFICATION
Model	PEP400
Power Supply	AC230V, 50Hz, 0.25A, 230V System
Fuse Rating	1A, 250V
Cycle Time	10 min
Dimensions	9.8”x4.5”x3.3” (L x W x H)
Weight	2 Kg
Environment (Temperature)	Operation: 10 deg c to 40 deg c Storage: -15 deg c to 50 deg c Shipping: -15 deg c to 70 deg c
Environment (Humidity)	Operation: 10% to 90% non-condensing Storage: 10% to 90% non-condensing Shipping: 10% to 90% non-condensing
Classification	Class 1, Type BF, IPX0, No AP/APG Protection, Continuous. Applied Part: Air Mattress

MATTRESS	SPECIFICATION
Model	PEM400
Dimensions	36”x80”x4” (L x W x H)
Weight	6 Kg
Pressure Range	20-60 mmHg

Our Company Profile

Prius Healthcare is based on exemplary Customer Care, and with that in mind we have a specially dedicated direct telephone care line which is available to all customers 24 hours a day 365 days a year.

Prius Healthcare have offices in USA, Japan, Taiwan, Australia and France along with our UK base we can offer a very high standard of customer care with the support expected from our customers professionally delivered without fail.

Our specially chosen backbone of distributors nationwide work in partnership with ourselves and this way, we are able to support contracts anywhere within the UK, Ireland and the Chanel Islands.

Prius Healthcare holds BSEN ISO9001 accreditation. All our products strictly conform to European Directives and are CE marked, quality tested and trialled within the UK.

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