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# STATEMENTS & SYMBOLS

## *Note, caution, warning & danger statements*

### **NOTE**

Indicates some tips or some information users should be aware of.

### **CAUTION**

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

### **WARNING/DANGER**

Calls attention to a potential danger that requires correct procedures or practices in order to prevent personal injury.

### ***Others***

Symbols on the printed label on the outside package box are as below:



This is a functional earth and not a protective earth.



Always read the operating instructions before use.

## **DESCRIPTION**

**OLA MAJESTIC (OLA/D-30)** 4" overlay mattress system is intended for individuals assessed as being medium to high risk of developing pressure ulcers.

**OLA ELEGANT (OLA/Q2-01)** 5" overlay mattress system is intended for individuals assessed as being medium to high risk of developing pressure ulcers.

**OLA CLASSIC (OLA/Q2-02 & Q2-03)** replacement mattress system is intended for individuals assessed as being very high risk of developing pressure ulcers.

# INTRODUCTION

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

## *General*

Thank you for choosing to use one of our OLA/D-30 and Q2 series air support surfaces. You have selected a high quality and competitively priced pressure relieving mattress system suitable for medium to high and high risk pressure ulcer treatment. The systems have been specifically designed to deliver a high degree of care for the patient.

The OLA/D-30 and Q2 series systems feature a 1 in 2 cycle; CPR rapid deflation device; transport facility; security and comfort for the patient.

A cushion is available for use with each of the OLA systems to enable a 24-hour continuum of care for the patient.

Our OLA series systems will benefit from careful installation and use, providing a long and effective service life. The systems have been tested and certified to the following standards:

UL 60601-1  
CAN/CSA C22.2 No. 601.1  
EN 60601-1  
EN 60601-1-2

## *Intended Use*

The OLA series is intended for use as part of a pressure ulcer prevention programme, not solely relied upon for this purpose. The systems are designed to offer pressure relief while optimising patient comfort.

Before using the product ensure that:

- ▶ The electricity supply is of the type indicated on the power unit.
- ▶ The mains lead is free from damage and is positioned so as not to cause an obstruction.
- ▶ The system is not used in the presence of flammable anaesthetics.

DO NOT use the system near a heat source. DO NOT use with hot water bottles or electric blankets.

Although the materials used in the manufacture of the product conform to relevant fire safety regulations, we advise against smoking whilst the system is in use to prevent secondary ignition of associated items which may be flammable, such as bed linen.

## *Contraindication*

Patient conditions for which the application of pressure relieving therapy on an alternating system is contraindicated are as follows:

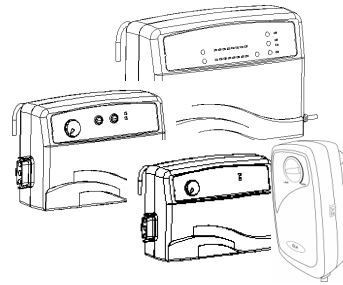
- ▶ Cervical or skeletal traction.
- ▶ Unstable spinal cord injuries.

# PACKAGE CONTENT

Check inside the packaging. If any of the following items should be missing or damaged, please contact your local dealer or service centre for replacement immediately.

## ***Pump***

Make sure the type of pump is identical to which you purchased. Functions vary from model to model.



## ***Mattress***

► For mattresses with a cell height of 8 inches or more, a foam base is not a must.



Photo to  
be attached

## ***Manual***

Always read this manual before using this product.

# PRODUCT FUNCTIONS

## *Pump*

The functions of the pump for the OLA/D-30 & Q2 series are described below. Please refer to the figures of each type.

► **Power Switch (1)**

The switch is at the right-hand side of the pump.  
Press the ON/OFF power switch and the pump will start/stop working.

► **Pressure-adjustment Knob (2)**

Turn the comfort control knob to set the systems for optimum performance.

► **Normal Pressure Indicator (3)**

A visible Indicator (green) identifies that the pressure has reached the preset level.

► **Low Pressure Indicator (4)**

A visible indicator (yellow or red) warns that the pressure is below an acceptable level.

► **Alarm Reset (5)**

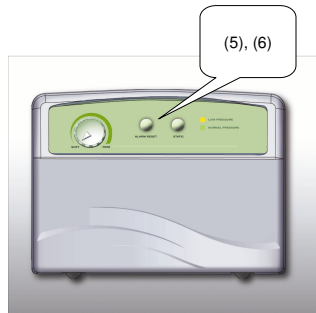
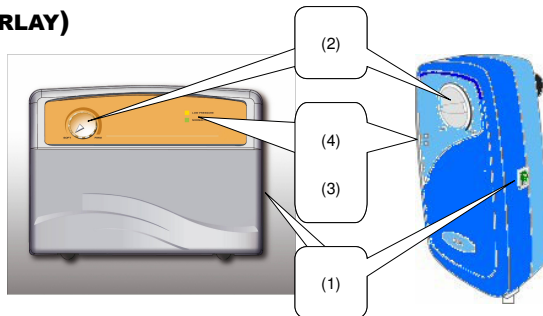
The audible/visual alarm identifies when the pressure is low.  
To mute the audible alarm, press the reset button. The visible alarm indicator will flash.  
Re-press the reset button to reactivate the alarm.

► **Static/Alternating control (6)**

Press to set the air mattress either in static mode or alternating mode.

### **OLA/D-30 & Q2-01 (OVERLAY)**

1. Power Switch
2. Pressure-adjustment Knob
3. Normal Pressure Indicator
4. Low Pressure Indicator



### **OLA/Q2-02 (REPLACEMENT)**

1. Power Switch
2. Pressure-adjustment Knob
3. Normal Pressure Indicator
4. Low Pressure Indicator
5. Alarm Reset
6. Static/Alternating Control

# PRODUCT FUNCTIONS (CONTINUED)

► **Power Switch (1)**

The switch is at the right-hand side of the pump.  
Press the ON/OFF power switch and the pump will start/stop working.

► **Easy-press Pressure Range (2)**

Seven pre-set pressure levels are available by selecting the easy press button.

► **Easy-press Cycle Time (3)**

Alternating cycle time is selectable from the panel by easy press buttons.  
The cycle time value can be either 10, 15, 20 or 25 minutes.  
A set of two visible indicators build up as the time value increases.

► **Alarm Reset (4)**

The audible/visual alarm turns on when the pressure is too low.  
To mute the audible alarm, press the reset button – the visual alarm indicator will continue to flash. Re-press the reset button to reactivate the alarm.

► **Static/Alternating Switching Mode (5)**

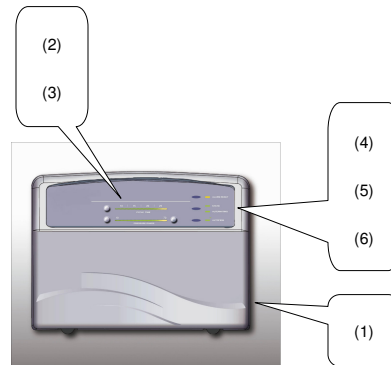
Press to set the air mattress either in static mode or alternating mode.

► **Auto Firm (6)**

Press to set the air mattress to quick inflation mode.

## OLA/Q2-03 (REPLACEMENT)

1. Power Switch
2. Easy-press Pressure Range
3. Easy-press Cycle Time
4. Alarm Reset
5. Static/Alternating Switching Mode
6. Auto Firm



## ***Mattress***

The OLA/Q2 series comes with various cell type mattresses of different materials (Nylon/PVC or PU), provided optionally with the pump.

Please refer to the Specifications section for details.

# INSTALLATION

**Step 1** ► Unpack the system and place the pump unit at the foot end of the bed.



**Step 2** ► Place the support surface on top of the existing mattress (D-30 & Q2-01) or directly on to the bed frame (Q2-02 & Q2-03) with the cells and vapour permeable cover uppermost. Check the CPR cord is securely in position.

**Step 3** ► Connect the tubes leading from the mattress to the outlet ports on the pump. Inflation tubes should be at the foot end of the bed.

**Step 4** ► Tuck the elasticated securing straps under each corner of the existing mattress.

**Step 5** ► Refer to the comfort control setting and adjust the dial according to the patient's weight.

**Step 6** ► Connect the pump to the power supply and switch on the pump. At this stage both the mains power and low pressure indicators will illuminate.

**Step 7** ► Cover the support surface with a loosely fitting sheet (mattress only).

**Step 8** ► When the low pressure indicator has extinguished and the green 'normal pressure' indicator is illuminated, the patient may be placed on the support surface.

## Transport Mode

If required, disconnect the hoses from the pump and link the 'Transport' cap and connectors together. The system will now equalise and retain pressure once the pump has been shut off.

*\*\* Use the above procedure in the event of a power cut to the electrical supply.*

## CPR

For rapid deflation, simply pull the CPR cord.

## **NOTE** □

**Make sure the air hoses are not kinked or tucked under the mattress. Also check to ensure the CPR valve is properly attached. When using the systems, backrests should be placed beneath the mattress to allow uninterrupted pressure relief.**

# OPERATION



**Always read the operating instructions before use.**

## *General*

This product is designed to provide maximum comfort and effective pressure relief. Make sure that you operate this product in a proper way to optimise its value. Here we provide some general information you should be aware of.

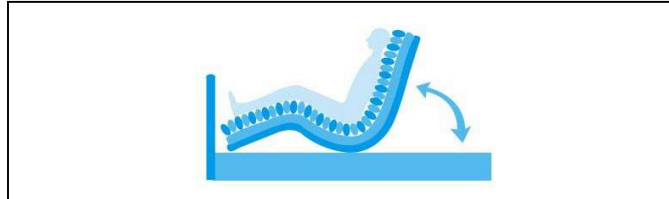
**For products:** DO NOT use another pump with different specifications or even from the OLA/Q2 series. It is dangerous to use a pump with pressure capacity greater than 120 mmHg. This may result in cell-puncture.

DO NOT change any component by yourself. If there is need for replacement or repair, always contact your local dealer or service centre.

**For patients:** When the Normal Pressure indicator (green) comes on to indicate that the pressure has been adjusted to a desired level of firmness; the patient can then lie on the mattress.

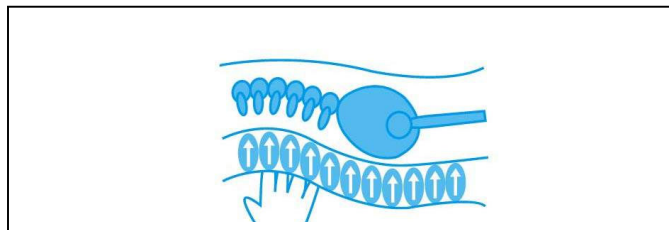
Please cover the mattress with a loosely fitting cotton sheet.

Make use of the static mode function; a firm surface will make it easier to reposition and/or transfer the patient. See figure below.



**Hand check:** To check if the pressure is adequately supporting the patient, slide one hand between the air mattress and the foam base (or bed frame if there is no foam base) to feel under the patient's bottom.

You should be able to slide the hand in between and an acceptable range is approximately 25 to 40 mm (1" to 1-1/2").







**Always read the operating instructions before use.**

Please follow instructions below for detailed operating procedure of each type.

### **OLA/D-30 & Q2-01 (OVERLAY) & OLA/Q2-02 (REPLACEMENT)**

Step 1 ► Turn on the power. The indicator of the power switch will come on.

The pump starts to inflate the mattress.

The Low Pressure indicator (yellow or red) will illuminate as inflation commences.

For OLA/Q2-02, the audible alarm is activated and the Low Pressure indicator illuminated to alert that pressure is low. Press the Alarm Reset button to mute the audible alarm and its indicator will flash.

Step 2 ► Optimum pressure is reached in approximately 30~40 minutes; the Normal Pressure indicator will come on and the Low Pressure indicator (and the audible/visual alarm for OLA/Q2-02) will turn off.

#### **NOTE** □

**If the Low Pressure indicator (and the audible/visible alarm for OLA/Q2-02) won't go off, please refer to page 14 for troubleshooting.**

Step 3 ► Adjust the Pressure-control knob to set a comfortable pressure level to suit the patient. (Pressure range: 30~80mmHg for OLA/D-30/Q2-01; 30~60 mmHg for OLA/Q2-02).

#### **NOTE** □

**For suitable pressure, please refer to page 8 for the hand check procedure.**

Step 4 ► The pump is preset in alternating mode and its cycle time is set at 12 min/50Hz.

For OLA/Q2-02, press the Static button to set it in static mode and the Static indicator will come on. The static mode will be started within approximately 6 minutes. Press the Static button again to switch back to alternating mode.

#### **NOTE** □

**Make use of the static mode function; a firm surface will make it easier to reposition and/or transfer the patient.**

Step 5 ► For OLA/Q2-02 during normal operation, the pump will monitor pressure changes.

If the pressure is below a user-defined pressure level, the pump will automatically start to inflate the mattress. Accompanying the Low Pressure indicator the audible alarm will beep and its indicator will come on to bring attention to a low pressure condition. The pump will stop when the user-defined pressure level is reached.

Press the Alarm Reset button to mute the alarm; its indicator will flash.

Press the Alarm Reset button again to have the audible alarm and its indicator on.



**Always read the operating instructions before use.**

### **OLA/Q2-03 (REPLACEMENT)**

Step 1 ► Turn on the power. A beep sound will begin the operation.

Step 2 ► The pump will enter static mode initially when the power is turned on.  
First it will inflate the mattress to 15mm Hg and then enter alternating mode.

If 15mmHg cannot be reached within 30 minutes the pump will stay in static mode and keep inflating. If 15mmHg still cannot be reached within another 15 minutes, the audible alarm will beep and the Alarm Reset indicator will come on.

Press the Alarm Reset button to mute the alarm; its indicator will flash.  
Press the Alarm Reset button again to have the audible alarm and its indicator on.

#### **NOTE** □

**If the audible/visible alarm will not go off after restarting, please refer to page 14 for troubleshooting.**

Step 3 ► The alternating cycle time and pressure level are preset with moderate values.  
Press to select from the panel a desired cycle time and pressure level.

#### **NOTE** □

**For suitable pressure, please refer to page 8 for the hand check procedure.**

Step 4 ► For switching to static mode, press the Static/Alternating button and its indicator will come on. Press the button again to switch back to alternating mode.

#### **NOTE** □

**Make use of the static mode function; a firm surface will make it easier to reposition and/or transfer the patient.**

Step 5 ► During normal operation, the pump will monitor pressure changes.  
If the pressure is below a user-defined pressure level, the pump will automatically start to inflate the mattress. The pump will stop when the user-defined pressure level is reached.

If the pressure is consistently low, the audible alarm will beep and its indicator will come on to bring attention to a low pressure condition.

If there should be obvious leakage, for example caused by loose connection of tubes, the audible/visible alarm will be activated.

Press the Alarm Reset button to mute the alarm; its indicator will flash.  
Press the Alarm Reset button again to have the audible alarm and its indicator on.

Step 6 ► Press the Auto Firm button to automatically inflate the mattress to the maximum level (above 70 mmHg) for about 30 minutes. The pressure will return to a previously user-defined level after 30 minutes.

In case there is a bad connection of tubing or any air leakage from the mattress, it will result in a low pressure condition and the audible/visual alarm will be activated.



**Always read the operating instructions before use.**

### ***CPR function***

When there is an emergency to perform CPR on the patient, pull the CPR strap immediately to release the air quickly from the mattress.

The CPR strap is located at the front right-hand side of the mattress.

### ***Pressure set up***

Users can manually adjust the pressure setting of the air mattress to provide optimum support to suit the patient.

### ***Low pressure warning***

When abnormal pressure occurs, the Low Pressure indicator will come on. For OLA/Q2-02 and OLA/Q2-03, the audible alarm will be activated to bring attention to a low pressure condition.

Check if the connections are secure and correctly installed according to the relevant instructions. Also, check that the CPR strap is securely in place.

#### **NOTE**

**If the pressure is consistently low, check for any leakage (in air cells or connecting hoses). If necessary, contact your local dealer to replace any damaged air cells or hoses.**



# CLEANING

In this section, we describe the procedures to clean and decontaminate the pump. It is important to follow these procedures before using the system on patients.

Cleaning of the system is required regularly between patients to prevent cross infection.

The cover may be removed and will withstand thermal disinfection washing procedures described in the Department of Health Service Guidelines HSG(95)18.

## ***Pump***

- ▶ DO NOT immerse or soak the pump.
- ▶ Check for external damage and move the pump to the cleaning area.
- ▶ Place the pump on a work surface and spray or wipe the outside of the case with a prepared sodium hypochlorite solution 1000 ppm.
- ▶ DO NOT spray any cleaning solution directly on the surface of the pump.
- ▶ DO NOT use Phenol based cleaning solutions as this may cause damage to the case.
- ▶ Wipe the pump case making sure all areas are clean (top, bottom & both sides) and not forgetting the mains cable.
- ▶ Wipe the faceplate. DO NOT allow excess cleaning solution on to the faceplate or control panel. (If solution gets inside, damage will occur.) Allow surface to thoroughly dry after cleaning.
- ▶ After the pump is thoroughly cleaned and dried, proceed to plug in the pump and test to see if it runs normally.
- ▶ Unplug the pump and store in a sealed polythene bag with a suitable identification tag.

## ***Mattress***

- ▶ For daily cleaning wipe down all surfaces of the cover sheet with soap and water.
- ▶ DO NOT use solvents or alcohol-based cleansers e.g. Phenicol, Hibiscrub, Clearsol, Stericol or Hycoline as these will destroy the mattress materials. DO NOT autoclave.
- ▶ For thorough decontamination the mattress should be carefully cleaned with 1000ppm prepared solution of sodium hypochlorite and allowed to dry completely.
- ▶ Unzip the top cover from the mattress.
- ▶ The outer cover can be machine washed at temperatures not exceeding 75 °C and tumble dried on a cool setting.
- ▶ The air cells are unsnapped from one side and are carefully cleaned with 1000ppm prepared solution of sodium hypochlorite and allowed to dry. (Make sure to disconnect all the air cells, one by one, and spray the cleaning solution on all sides, including all the connecting tubes and hoses).
- ▶ Re-assemble the mattress and lay the mattress out flat; roll from the foot end towards the head end.
- ▶ Store in a sealed polythene bag with a suitable identification tag.

# MAINTENANCE

## *General*

- ▶ Check the power cord and plug to see if there are abrasions or excessive wear.
- ▶ Check the mattress cover for signs of wear or damage. Ensure the mattress cover and tubes are connected together correctly.
- ▶ Plug in the pump and check the airflow from the hose connection port. The airflow should alternate between ports every half-cycle time.
- ▶ Check the air hoses to see if there are kinks or breaks. For replacement, please contact your local agent or dealer.
- ▶ Make sure the mattress tube is well connected.
- ▶ Check the pump and make sure both power and power indicator are off when the switch is turned off.

## *Low pressure*

Examine if there is air leakage between the pump and the mattress connections or from the air mattress tubes


- ▶ Check connectors between the air mattress and pump. If there is any disconnection, please reconnect it.
- ▶ Check the CPR valves. Ensure their outlets are sealed.
- ▶ Check the air-connecting tubes. Ensure each single air cell is not broken.
- ▶ Turn the Pressure-adjustment knob to Firm. Keep the air cells fully inflated and inspect for air leakage.
- ▶ Check if there is any air leakage from cells. If any leakage occurs, please contact your local agent or dealer.

# TROUBLESHOOTING

Problems	Solutions
The pump doesn't work	<ol style="list-style-type: none"><li>1. Check if the plug is inserted firmly into the outlet.</li><li>2. Turn on the power switch again.</li></ol> <ul style="list-style-type: none"><li>▶ If the power indicator is ON and the pump still doesn't work, contact your local dealer immediately.</li><li>▶ If the power indicator is OFF, there may be a faulty outlet. Try to connect the power cord to another outlet. If the power indicator is still OFF, contact a qualified electrician for mains power check.</li></ul>
Incomplete inflation (Low Pressure)	<ol style="list-style-type: none"><li>1. For a quick check, adjust the pressure to Firm.</li><li>2. Check to see if the tubes connected to the pump are twisted or there is any leakage occurring.</li></ol> <ul style="list-style-type: none"><li>▶ Avoid kinking the tubing set.</li><li>▶ Change cells if there is any leakage.</li><li>▶ Ensure the CPR valves are closed. Ensure every single cell is not damaged.</li></ul>
Slow air flow	<ol style="list-style-type: none"><li>1. A dirty filter may decrease the air flow.</li><li>2. Replace or wash the filter with mild detergent to keep it clean.</li></ol> <ul style="list-style-type: none"><li>▶ Check the air filter at the back of the pump at least once a month.</li></ul>

# SPECIFICATIONS

## System

Item	Specifications
Classification	Class I; IPX0; AP/APG NO; Type BF 
Applied Part	Mattress
Input Rating	230V 50Hz; 12W, 1A
Fuse Rating	250V, T1A
Pressure Range	30 ~ 80 mmHg for OLA/D-30 30 ~ 80 mmHg for OLA/Q2-01 30 ~ 60 mmHg for OLA/Q2-02 10 ~ 70 mmHg for OLA/Q2-03
Cycle Time	12 min/50Hz for OLA/D-30, OLA/Q2-01 and OLA/Q2-02 10, 15, 20, 25 min. selectable for OLA/Q2-03
Dimensions (Pump)	280 x 100 x 205 mm
Weight (Pump: Q2-03)	2.6 kg
Dimensions (mattress)	2000 x 915 x 200mm CLASSIC 2000 x 915 x 125mm ELEGANT 2000 x 900 x 102mm MAJESTIC
Environment Requirements	<b>Temperature:</b> Operation: 10~35℃ Storage: -15~50℃ Shipping: -15~70℃ <b>Humidity:</b> Operation: 20%~80% non-condensing Storage: 10%~90% non-condensing
Safety Standards	UL, c-UL, CE

\* Due to the continual development of the above products, specifications are subject to change without prior notice.

## NOTE

The above specifications are also applicable to those areas operating with the same power supply range.

AP/APG NO indicates the device is NOT suitable for use in the presence of flammable anesthetic mixture with air or with oxygen or nitrous oxide.

Type BF symbol indicates the degree of protection against electric shock.

Instructions or reference information for repair of equipment parts are provided by the manufacturer, please contact local dealer for further information.