



IQ MEDICAL DYNAMIC II PAC RANGE USER MANUAL

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General Information

A. Introduction

This iQ Medical User Manual includes information on, and instructions for, the iQ Medical DYNAMIC® PRESSURE AREA CARE (PAC) PUMP RANGE, which includes the STAR II DYNAMIC® Replacement Mattress, and the COMET II DYNAMIC® Replacement Mattress.

The DYNAMIC PAC® range provides a highly effective, reliable and durable replacement mattress system for patients at very high risk of developing pressure-related injury in Hospitals, in Community Care facilities, or at Home.

Users should familiarise themselves with the information and instructions in this manual to ensure that the replacement mattress systems are used safely and efficiently.

Indications:

The IQM STAR II Dynamic® Air Alternating Mattress System is suitable for patients assessed to be at 'very high risk' or for treatment of up to cat 4 pressure ulcers.

The IQM COMET II Dynamic® Air Alternating Mattress System is also suitable for patients assessed to be at 'very high risk' or for treatment of up to cat 4 pressure ulcers.

These PAC devices are intended to prevent and treat pressure ulcers by facilitating blood circulation and decreasing pressure at each tissue contact area.

Always consult a physician or health professional before using this mattress system.

Contraindications:

Certain patient conditions (e.g. spinal instability or fracture) are contraindicated for use with this device. Always consult a physician or health professional before using this device.

B. Symbols Reference



Follow instructions for use



Class II Equipment



Type BF Applied Part



WEEE Logo subject to WEEE Directive 2012/19/EU



Declaration of Conformity to Medical Device Directive



Catalogue number



Caution



Authorized representative in the European Community

IP21

In accordance with the acceptance conditions as required by IEC 60529_v2.2:2013



Date of manufacture



Manufacturer Name and Address

C. Safety Precautions

Installation:

Verify mattress anchor straps are attached securely to the moving parts of the bed frame to ensure proper operation. Inspect and verify air cells are upright and in place. Test all bed frame functions to verify no interference. Do not place anything on the power unit. Route power cable through cable management conduit, and verify free from potential hazard.

Bed Linens:

This device incorporates a waterproof cover that is moisture vapour permeable, therefore, it is recommended to limit bed linen to one sheet, untucked, in order to maximize the system's performance.

NOTE: Only "breathable" continence pads are recommended for use with this device.



Open Flames:

Do not expose this device to open flame, lighters, or cigarettes. This device draws room air continuously, therefore cigarette smoking is not recommended near this device. Cigarette smoke may damage internal components. Cigarettes may ignite bed linens.

CAUTION: DO NOT SMOKE CIGARETTES, PIPES, CIGARS, OR ANY OTHER RELATED PRODUCTS ON OR AROUND THIS SYSTEM. FLAMMABILITY HAZARD EXISTS.

D. Warnings



Cross Contamination:

This device should be decontaminated between patient installations. Failure to disinfect may result in cross contamination.



Weight Limitation:

Verify that the patient weight, therapeutic support surface, bed rails, etc. do not exceed weight capacity of the bed frame. Verify patient weight does not exceed the PAC devices weight capacities. Refer to table **page 13**



Entrapment:

Please ensure that the PAC replacement mattress and bed frame are compatible. When using side rails and/or assist devices, use a replacement mattress of appropriate dimensions to prevent patient entrapment between the mattress and the side rail, and falls. Failure to do so could result in serious patient injury or death. Full risk assessments and consideration should be carried out with regards to standard BS EN60601-2-52: 2010

**Patient Falls:**

Failure to use bed rails in raised position could lead to accidental patient falls. Air mattresses have soft edges that may collapse when patients roll to that edge.

**Risk of Electric Shock:**

DO NOT open back cover. This device is NOT user serviceable. This device should only be opened by qualified personnel approved by iQ Medical. Refer all service to your local iQ Medical authorized dealer.

**Oxygen Equipment:**

Explosion risk if used in the presence of flammable aesthetic .

Quick User Guide for Star II® and Comet II® Dynamic PAC System

1



Place mattress on bed frame and fasten to the moving parts of bed frame using 6 securing straps.

2



Connect CPC connectors to pump.

3



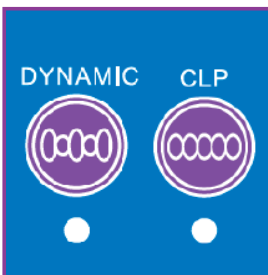
Connect power cable to pump. Run the power cable down the cable management conduit and plug into mains socket. Switch the pump on via the on/off switch at side.

4



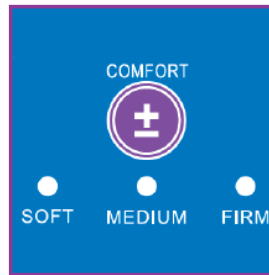
Mattress will take 18 minutes to inflate. DYNAMIC light will stop flashing when fully inflated.

5



Select the appropriate therapy mode: DYNAMIC or CLP. A green LED will indicate which mode is selected. Pump automatically defaults to DYNAMIC.

6



Set comfort based on patient preference. Pump defaults to MEDIUM.

7



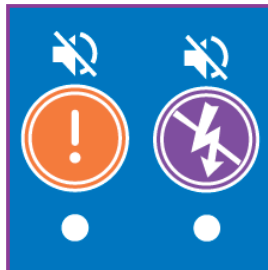
For nursing procedures select MAX INFLATE. This will default back to DYNAMIC and MEDIUM after 20 minutes.

8



To unlock panel, hold UNLOCK Button for 3 seconds and LED will turn off. Control panel will automatically re-lock after 3 minutes.

9



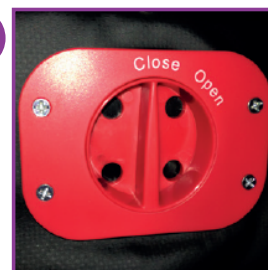
In case of power failure or fault, these audible and visual alarms will be activated. Press corresponding buttons to mute.

10



For transport mode or in case of extended power failure connect male and female CPC connectors.

11



To deflate entire mattress, rotate CPR release clockwise (next to patient's left hand shoulder) & disconnect hoses from pump.

12



Roll the mattress from the head end to deflate. For Star II, use transportation straps to secure.

Power Unit

A. Part Identification Overview

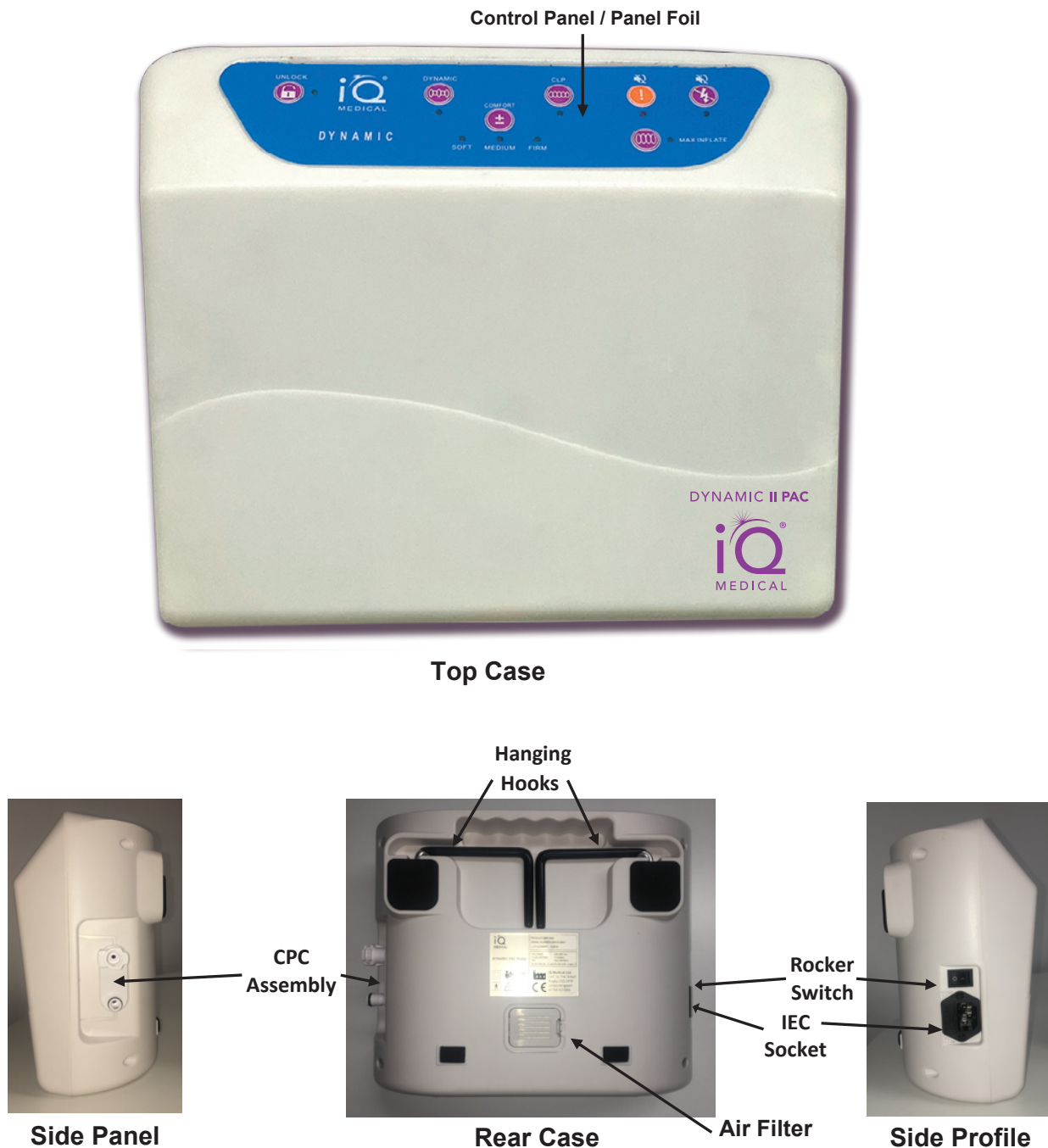
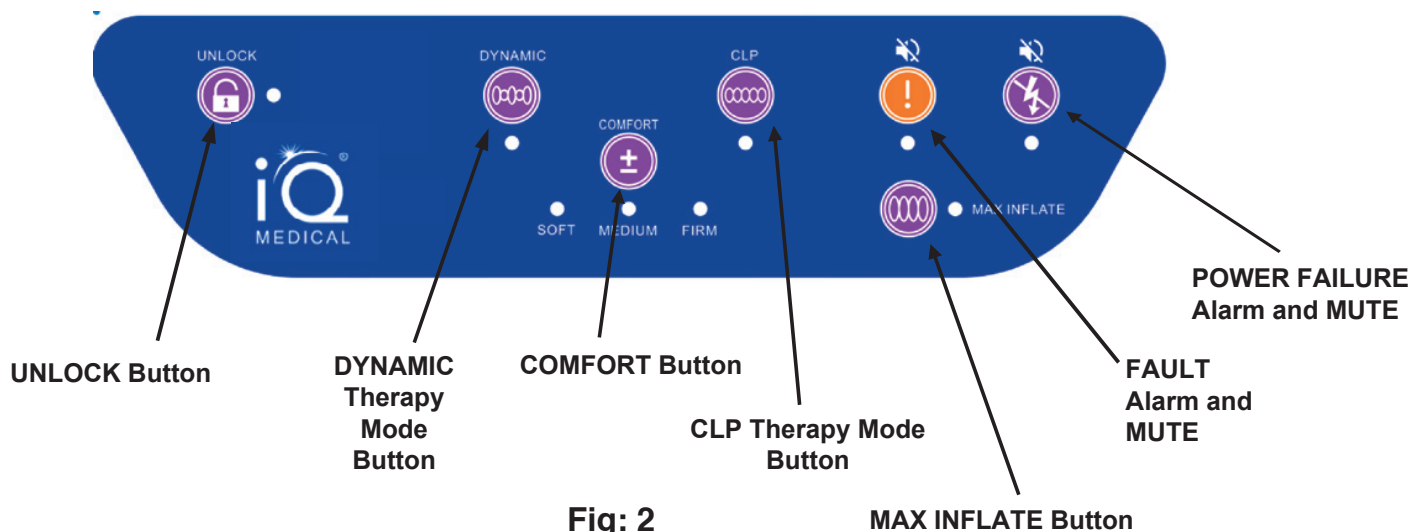


Fig: 1

B. Setting Up and Switching On the Power Unit

1. Unfold the mattress onto the bed frame and secure to the articulating parts of the bed frame using the six securing straps.
2. Ensure CPR is firmly closed.
3. Hang the pump from the foot end of the bed frame using the adjustable hanging bracket.
4. Connect the mattress to the pump by connecting the male and female CPC connectors ensuring a positive click is heard.
5. Plug the mains cable into the side of the pump and connect the opposite end into a mains socket. Use cable management feature to prevent damage to mains cable.
6. Switch the pump on at the on/off switch on the side of the pump above the mains cable .
7. Pump will light up and automatically default to DYNAMIC Mode and MEDIUM Comfort. The DYNAMIC LED will flash green whilst mattress is inflating.
8. Mattress will take between approximately 15-18 minutes to fully inflate and then the DYNAMIC LED will stop flashing and become constant.
9. The product is now ready for the patient.



Modes

- CLP Therapy: Continuous low pressure; all cells on low pressure
- DYNAMIC Therapy: Alternating cells for full pressure relief
- MAX INFLATE: Continuous high pressure; all cells fully inflated for procedures, or transfers, or for easier access in and out of bed

Comfort

The Comfort Control is designed to allow some adjustment to the internal cell pressures to provide a surface that can be adapted according to individual patients' to optimise their comfort.

Cleaning Instructions

The following guidelines are the recommended cleaning and decontamination instructions for IQ Medical's Dynamic PAC Mattress and Seating Systems.

Note: Before undertaking cleaning, we recommend that you wear suitable protective clothing. Always ensure that the mains power supply to the pump unit has been disconnected from the mains electricity supply before cleaning begins.

Mattresses/Cushions

Remove mattress or cushion cover and check for signs of physical damage and delamination.

If no signs of physical damage or delamination, cover may be wiped down with a disposable soft cloth moistened with a pH neutral detergent diluted in warm water (40°C).

For decontamination purposes, the cover may be wiped down with a solution of Sodium Hypochlorite or similar (minimum 1000ppm up to 10,000ppm Chlorine). Wipe down again with cold water and dry thoroughly before use.

Alternatively, cover may be laundered at a recommended temperature of minimum 71°C (local policies may apply). They can then be tumble dried on a low setting.

The mattress and internal air cells may be wiped down using a soft cloth moistened with pH neutral detergent diluted in warm water.

For decontamination purposes, wipe down with a solution of Sodium Hypochlorite or similar (minimum 1000ppm up to 10,000ppm Chlorine). Wipe down again with cold water and dry thoroughly before use.

Additional infection control and routine cleaning must be carried out in accordance with your local infection control policy.

Pumps

The pump may be wiped using a cloth moistened with pH neutral detergent and warm water.

For decontamination, follow this procedure by wiping with a cloth impregnated with a solution of sodium hypochlorite diluted to 1000 PPM, or equivalent, disinfectant.

DO NOT USE Phenol based cleaning agents (e.g. Stericol, Hycoline, Clearsol etc.), Abrasive Compounds or Cleaning Pads when cleaning mattresses or pumps. If the above washing instructions are not followed the warranty will be invalidated.

WARNING! Always unplug the power unit before cleaning. Routine cleaning of power unit can be done by wiping down with damp cloth using disinfectant and water or mild neutral detergent.

Never spray liquids directly on the unit itself.

Additional Information

IQ DYNAMIC PUMP SPECIFICATION	
System Order Code	IQM-1301
Inflation Cycle	1 In 2 (10 minutes)
Multiple Mode (*)	✓
Comfort Control	✓
Pump Lockout	✓
Power Failure Alarm	✓
Low Pressure Alarm	✓
Pump Failure Alarm	✓
Easy troubleshooting	✓
Rapid Inflation	✓
IPS	✓
Product Weight	4kg
3 YEAR WARRANTY	Yes

IQ STAR® II MATTRESS SPECIFICATION	
Risk Category	Very High Cat ≤4
Max Patient Weight	200kg
Cells	19
Foam Underlay	✓
Width (mm)	900
Length (mm)	2000
Depth (mm)	210
Cable Management	✓
Ease of Transport Mode	✓
Easy Roll Transportation Straps	✓
Easy-Wipe Base Sheet & Straps	✓
Easy Release CPR	✓
Product Weight	15kg
3 YEAR WARRANTY	Yes

IQ COMET® II MATTRESS SPECIFICATION	
Risk Category	Very High Cat ≤4
Max Patient Weight	200kg
Cells	19
Foam Underlay	×
Width (mm)	900
Length (mm)	2000
Depth (mm)	210
Cable Management	✓
Ease of Transport Mode	✓
Easy Roll Transportation Straps	×
Easy-Wipe Base Sheet & Straps	×
Easy Release CPR	✓
Product Weight	7kg
3 YEAR WARRANTY	Yes

(1) Multiple Mode = Dynamic, Constant Low Pressure, and Maximum Inflate

Troubleshooting

Problem	Inspection Procedure	Possible Solutions
1. Power unit does not function or POWER FAILURE LED lit during operation (red).	Check if mains cable is firmly plugged into mains socket.	Secure mains cable into wall outlet.
	Check if power switch is in ON position.	Turn power switch to ON position.
	Check if mains cable is connected into IEC socket on pump.	Secure mains cable into IEC socket.
	Make sure there is no power failure or power cut.	
	Power unit does not respond to possible solutions.	Please contact IQ Medical for assistance.
2. FAULT LED is constantly lit during operation with a long audible beeping sound. Indicates Low Pressure.	Verify that CPC connectors are connected properly.	Connect CPC connectors to pump.
	Verify that CPR is fully closed.	Twist CPR to closed position.
	Check if there is leakage in air tubes* or air cells.	Please contact IQ Medical for assistance.
	System does not respond to possible solutions.	Please contact IQ Medical for assistance.
3. FAULT LED is flashing during operation with a short audible beeping sound.	Indicates System Fault.	Please contact IQ Medical for assistance.

<p>3. Mattress not inflating.</p> <p>Patient leaves a deep indentation at the contact area which does not return back to its original shape.</p>	Check if mattress' air hose CPCs are properly connected to power unit quick release connectors.	Secure air hose couplers firmly into place.
	Verify that comfort level setting is correct.	Adjust the comfort level setting until appropriate pressure is reached.
	Inspect air filter for dust or dirt.	Clean or replace air filter.
	Unzip mattress cover and inspect air cells. Check all connected correctly.	Make sure all air cells are properly linked to air supply.
	Unzip mattress cover and inspect. Check if air tubes are kinked or obstructed.	Check and adjust air tubes' positions. Contact IQ Medical for further assistance.
	Check if air cells are punctured or split.	Please contact IQ Medical for assistance.
4. Alternating or static setting is not available.	Possible control failure.	Please contact IQ Medical for assistance.
5. Patient is not getting pressure relief due to system failure.		Contact your physician and/or nursing service immediately.

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