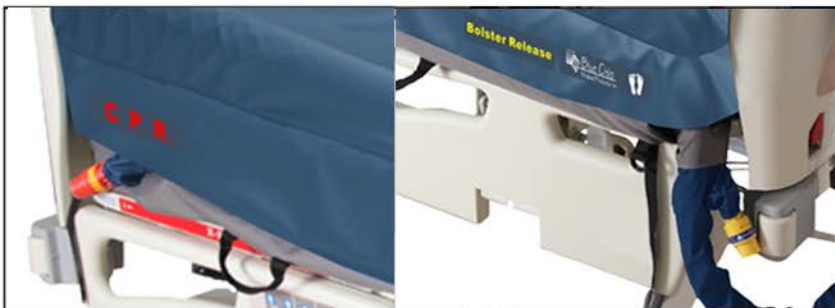# Adapt Pro Elite™ Model 9200

User Manual

Blue Chip Medical
TEL: (800) 795-6115
7-11 Suffern Pl. Suffern, NY 10901
www.bluechipmedical.com

CE

Product Symbol Description

SYMBOLS	DESCRIPTION
I	POWER ON
O	POWER OFF
⚠	ATTENTION
▣	DOUBLE ISOLATION
🧍	"BF" SYMBOL, INDICATE THIS PRODUCT IS ACCORDING TO THE DEGREE OF PROTECTION AGAINST ELECTRIC SHOCK FOR TYPE BF EQUIPMENT, APPLIED PART:MATTRESS
	CAUTION, READ THE INSTRUTION BEFORE USE
	AWAY FROM THE FLAME
IP21	WATER AND DUST PROTECTION CLASSIFICAITON
T5A 250V	FUSE SPECIFICATION
	DISPOSAL OF ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE): THIS PRODUCT SHOULD BE HANDED OVER TO AN APPLICABLE COLLECTION POINT FOR THE RECYCLING OF ELECTRICAL AND ELECTRONIC EQUIPMENT.
CLASSIFIED c(UL)us	UL CERTIFICATION LOGO (COMPLIACE WITH IEC60601-1) WITH RESPECT TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH IEC60601-1.
CB	CB CERTIFICATION LOGO
CE	CE CERTIFICATION LOGO

Contents

1. INTRODUCTION

This manual provides the information required for the initial set up and for the normal operation of the **Adapt Pro Elite™.** Before operating the **Adapt Pro Elite™**, be sure the operator has read and understood in detail the content of this manual.

2. INTENDED USE

The **Adapt Pro Elite™** is intended to help and reduce the incidence of pressure sores while optimizing patient's comfort. The **Adapt Pro Elite™** may be used in a variety of settings including, but not limited to individual home care setting and long-term care for those suffering from pressure sores, or pain management as prescribed by physician.

⚠️NOTE: Equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or nitrous oxide.

3. PRODUCT DESCRIPTION

The **Adapt Pro Elite™**is an alternating mattress replacement system used in the prevention and relief for patients with, or are vulnerable to pressure sores. The **Adapt Pro Elite™** offers patients a comfortable and relaxing support surface by using the established principles of alternating therapy, which can both prevent skin breakdown and enhance healing.

The Control Unit of the **Adapt Pro Elite™** is a Pump featuring a digital pressure adjustment function, mode selections, and audiovisual alarms. The 20 air cell mattress unit provides a unique design which keeps the lower sections of air cells constantly inflated while alternating and deflating the upper sections. The 3 head cells remain static and provides a "pillow" support for optimum comfort. The mattress has a heavy-duty polyester base sheet with a vapor permeable Nylon cover sheet.
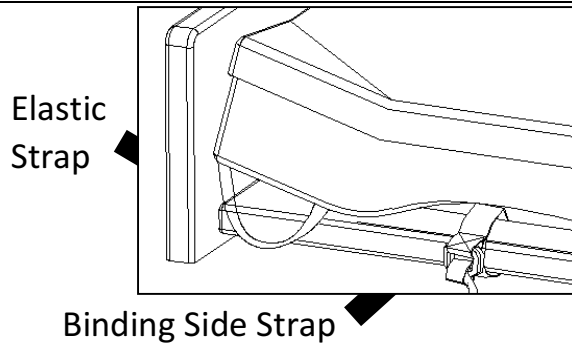
The system includes a rapid release twist CPR valve by the head section of the mattress and a BOLSTER RELEASE in the event of a cardiac arrest.
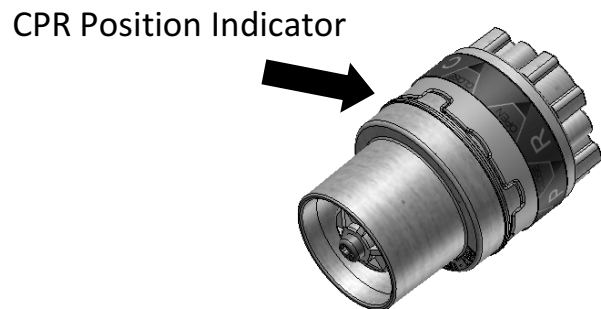
4. PRODUCT INSTALLATION GUIDE

1. Unpack the box to inspect all items for any damage that may have occurred during shipping. If there is any damage, please contact your dealer immediately for assistance.
2. Place the mattress on top of the bed frame. The foot symbol on both sides of the mattress indicates location of the foot end.

Patient Head

Air Mattress

Model No.
(Inside the cover)

CPR

Foot Symbol

Pump Unit

Hose Connector
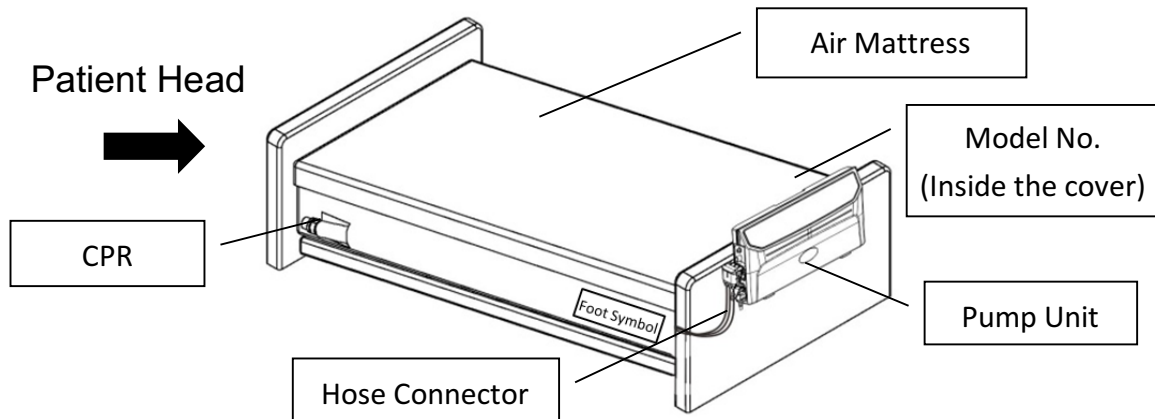
3. Secure the mattress onto the bed frame by using the elastic straps or binding side straps.	Elastic Strap Binding Side Strap
4. Ensure the CPR valve is in CLOSED position before turning on the power.	CPR Position Indicator
5. Position the Pump by its spring loaded hanger brackets over footboard of the bed. The elastic hanger brackets will self-adjust onto the footboard tightly. 6. Remove the Transport Cap of the hose connector and connect the hose connector to the Pump unit. Firmly push the hose connector into position and a "clicking" sound will secure the connection.	5 6
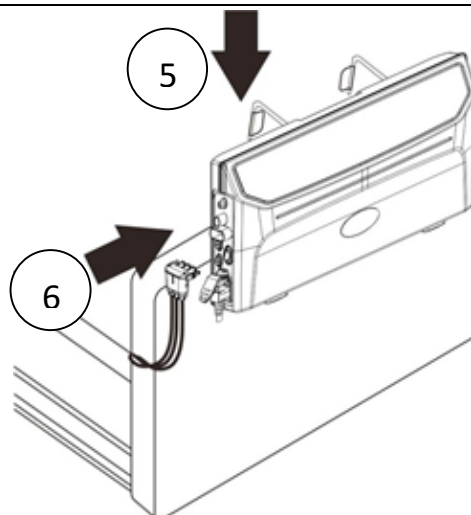
6A

Plug in Black Fowler Sensor Cable.
Be careful to ensure it clicks into place.

7. Connect the power cord to the Pump. The power switch should remain off.
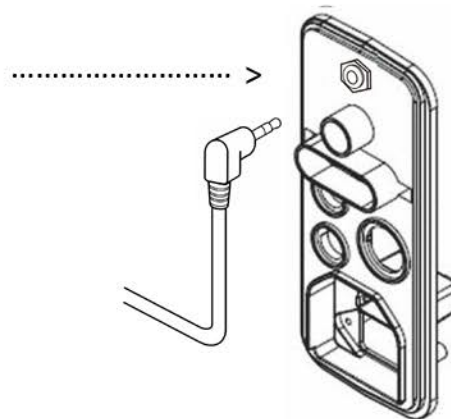
8. Press the red power cord protector downward to secure the power cord.

9. Plug the power cord into the electrical outlet.

⚠ NOTE: Check and ensure the Pump unit is suitable for the local power voltage.

⚠ CAUTION: The Pump can only be applied to the mattress recommended by the manufacturer. Do not use the Pump for any other purpose.

⚠ WARNING: Do not place the Pump unit in an area where power cord can come off easily.
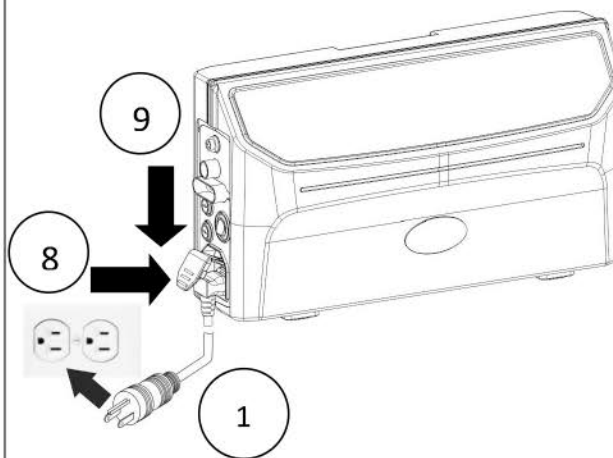
10. For patient's transportation, press "Auto-Firm" button and wait for the mattress to become completely inflated. Disconnect the hose from the Pump unit and put on the hose connector Transport Cap to keep the mattress inflated.
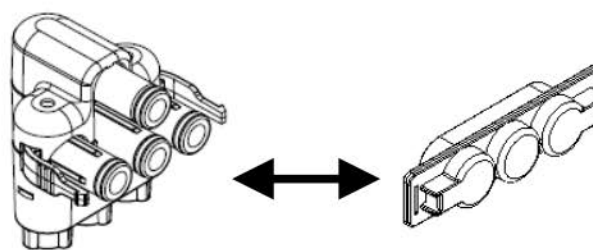
Bi-directional Transport Cap

5. PANEL DISPLAY AND OPERATION GUIDE

5.1 PANEL DISPLAY

① Alarm Mute and Alarm Indicator
- Low Pressure Alarm Indicator
- Power Failure Alarm Indicator
- Service (Malfunction) Alarm Indicator

② Cycle Time Select 10 - 30 minutes

③ Operating or Standby

④ Auto-Firm

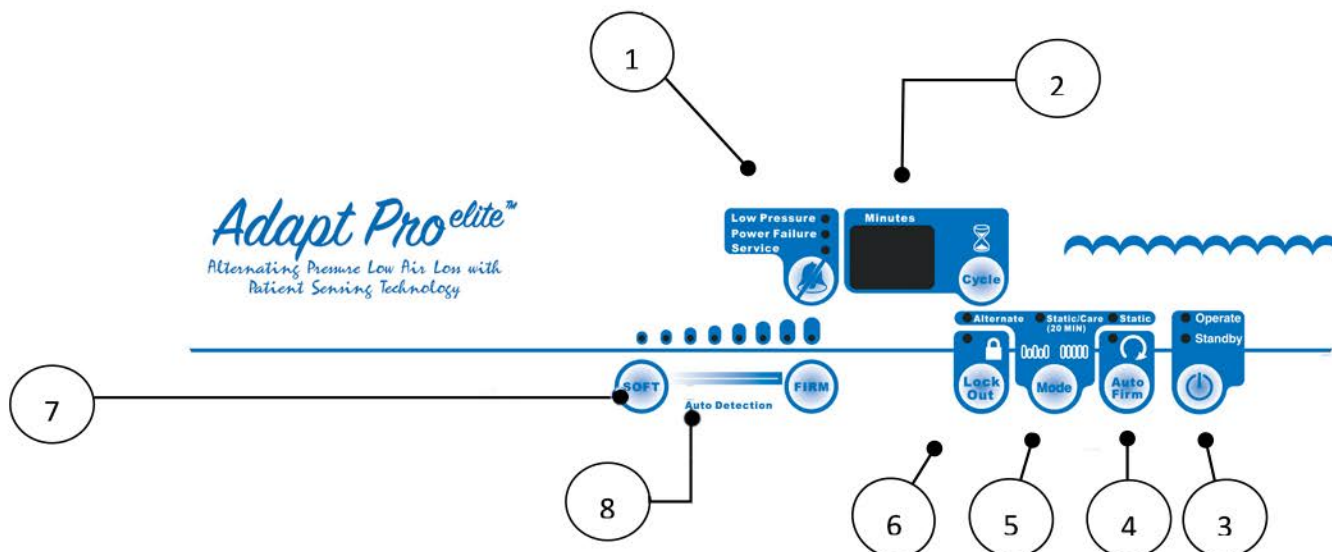⑤ Function Mode Selection (Alternate/Static Care/Static)

⑥ Panel Lock-out

⑦ Comfort Control

⑧ Auto Detection, PST Patient Sensing Technology

5.1.1 Alarm Mute

Press the alarm mute button to suspend temporarily alarms. Should the situation not be resolved and faulty conditions continue, the alarm will resume notifying the patient and caregiver.

5.1.2 Alternate Time Display

Alternate cycle time can be selected from 10-30 minutes by pressing the Cycle button.

5.1.3 Operate or Standby

Press this button to start operating or go into standby mode.

5.1.4 Auto-Firm

The Pump will go into the inflation mode (LED lights flashing) every time the operate mode is triggered. This insures the mattress will be able to reach its maximum operating pressure. Once the max pressure level is reached, the Pump will automatically switch into the previous selected mode and comfort level. User can also use this function as full mattress inflation during patient sit-up or ingress/egress for better support.

5.1.5 Function Mode Switch

- Alternate – the air cells of the mattress will be proportionally deflated to reduce the surface pressure. The Alternation will continue at the selected cycle time until another mode is selected.
- Static Care - the mattress maintains the selected pressure. The pump will automatically fallback to the Alternate mode in 20 minutes
- Static - Remains in Static until settings are changed.

5.1.6 Panel Lock-Out

Press the Lock-Out button to lock the panel. If you want to lock a function, press the lock-out button to engage the feature. At that point, the panel settings cannot be changed. To unlock the panel, hold the lock-out button down until the light disappears.

5.1.7 Comfort Level

Comfort level controls the air pressure output level. Press the Firm button and the output pressure will increase and higher pressure output will support heavier weighted patients.

For decreasing air pressure reverse the procedure. Check to see if the suitable pressure is selected by sliding one hand between a deflated air cell and the patient's buttocks area, there should be minimum contact. Always leave at least 1 inch space between a deflated air cell and patient's buttocks area to prevent "bottoming-out". Refer to *Table 1 Weight and Comfort Level Reference* for weight and comfort level suggestion.

5.1.8 Auto Detection Patient Sensing Technology

Pressing both Soft and Firm button together will activate Auto-Detection and Auto-Detection will automatically set the appropriate pressure output for the patient. When activated, the Auto-Detection light will flash to indicate the pump is detecting the comfort level for the patient. Once the pump has completed the Auto-Detection sensing, the light will stop flashing. It could take 10 – 15 minutes to occur. The unit will automatically sense the patient every two hours. The mattress pressure can be adjusted manually by pressing Soft or Firm button if the patient desires to change the comfort level. When the Fowler mode is triggered, the display will indicate LL for a 25º incline and LH for a 45º degree incline. In LL the pump increases internal pressure by 10mmHg, in LH the pump will increase an additional 5mmHg (15mmhg total).

5.2 OPERATION GUIDE

5.2.1 General Operation:

⚠*NOTE: The power switch is located on the side of the Pump.*

- Press to turn on the unit. LED indicators on the control panel will light up accompanied with a beep for 2 seconds (check for indicator failure if any), and the indicator of Standby on the control panel will light up. If the Pump was previously shut off in operate mode then the Pump will enter operate mode directly.

  P.S. To test the battery, press to turn off the power and the power failure alarm should be triggered. Refer to *5.2.3 Audiovisual Alarm* if the alarm is not triggered.

- Press the Operate button and the system will begin to inflate and the "Auto-Firm" indicator will be flashing.

- The mattress should be fully inflated within 60 minutes, and automatically enter the previous operating mode, otherwise the low pressure alarm with warning code "⎵F" will be triggered.

⚠ Note: Do not proceed to other settings before inflation is completed.

- After initial inflation is completed. Press Auto-Firm button (Auto Firm) for moving the patient onto the mattress. The mattress will be in a static mode in approximately 5 minutes. Move the patient onto the mattress and press Auto-Firm button (Auto Firm) again to cancel Auto-Firm mode and select the appropriate mode.
- According to the weight of the patient, adjust the pressure setting to the most suitable level without "bottoming-out". User can determine an appropriate pressure by adjusting the Comfort Level.

- In operate mode, press operate/standby button ⏻ for the system to enter standby mode. The system should be in standby mode before shut down. Switch the power switch ⦵ to off and the warning code "5d" will appear on the display to shut off the system.

⚠ Note: For reminding purpose, power failure alarm will be triggered if the power is switched off in operating mode (refer to **5.2.3 Audiovisual Alarm**). Press power switch ⬤ to restart the system, or press Alarm Mute ⦸ to turn off the system (refer **5.2.4 Alarm Mute**).

Table 1 Weight and Comfort Level Reference

Comfort Control (Indicators)	Patient Weight								
	80	110	132	165	198	253	319	396	(lb)
	40	50	60	75	90	115	145	180	(kg)
●○○○○○○○	▓	▓							
●●○○○○○○	▓	▓	▓						
●●●○○○○○		▓	▓	▓					
●●●●○○○○				▓	▓				
●●●●●○○○				▓	▓	▓			
●●●●●●○○					▓	▓	▓		
●●●●●●●○						▓	▓		
●●●●●●●●							▓	▓	▓

5.2.2 CPR

- When CPR needs to be performed, quickly rotate the CPR & BOLSTER RELEASE valves to "OPEN" position, at the same time, turn the power off or disconnect the hose from the pump to speed up the air release.

5.2.3 Audiovisual Alarm

- Power Failure – When an electrical shortage occurs or power cord is unpluged without turning off the Pump or is pressed (intentionally or unintentionally), the "Power Failure" indicator will light up along with buzzer and will last 20 minutes.

⚠ *NOTE: When the Pump has not been used for more than 3 months, the Pump may need 6 hours or more of operating time for the alarms to function properly.*

- Low Pressure –When an abnormal low pressure occurs in body section for 2.5 minutes after the pressure is below the abnormal pressure threshold, the "Low Pressure" indicator will flash and beep. Should the situation not resolved and fault conditions continue, the alarm will resume.

- Service (Malfunction) –When fault conditions occur, the "Service" indicator will light up along with buzzer.

⚠ *Note: Refer to **Table 2 for Warning Code Reference Table** if error code appears on the display or refer to **10. TROUBLESHOOTING**.*

5.2.4 Alarm Mute

- When alarms are triggered, both LED light and buzzer will turn on to warn the patient and caregiver. By pressing the button, it will temporarily mute the buzzer so the caregiver may check for possible causes. Should the situation not resolved and fault conditions continue, the alarm will resume. Refer to **10. TROUBLESHOOTING** for diagnosis.
- During "power failure", pressing "alarm mute" will cease all buzzers and indicators and turn off the system.
- During "low pressure alarm" if the pressure resumes back to normal then the low pressure alarm will stop.
- When more than one alarm is triggered, the alarm will be performed according to priority level. Refer to **Table 2 Warning Code Reference Table** for priority level.

Table 2 Warning Code Reference

PRIORITY HIHG ↓ LOW	WARNING CODE	INDICATOR LED	AUDIBLE OUTPUT MODE	CONDITION OF OUTPUT	WARNING DESCRIPTION	REMARKS
0	N/A	N/A	ONCE	Not in System Shutdown	Key Tone	Key Tone from Functional Button
1	Sd	Power Failure	ONCE	POWER-OFF	System Shutdown	**S**hut**d**own
2	88	ALL LED	ONCE	OPERATE OR STANDBY	Power-On	All Indicators Light On
3	N/A	N/A	ONCE	OPERATE OR STANDBY	State/Mode Switching	No Display
4	IE	Auto Firm	ONCE	OPERATE	Mattress Inflation Completion	Inflation Ended
5	RE	Auto Firm	ONCE	OPERATE	Auto-Firm Completion	Auto-Firm Ended
6	SE	Static	ONCE	OPERATE	Static Completion	Static Ended
7	N/A	Power Failure	REPEAT (Cycle 4 sec.)	POWER-OFF	Power Failure Alarm	No Display
8	IF	Low Pressure	REPEAT (Cycle 4 sec.)	OPERATE OR STANDBY	Power-On Inflation Failure Alarm	**I**nflate **F**ailure
9	RF	Low Pressure	REPEAT (Cycle 4 sec.)	OPERATE OR STANDBY	Auto-Firm Failure Alarm	**A**uto-Firm **F**ailure
10	LP	Low Pressure	REPEAT (Cycle 4 sec.)	OPERATE OR STANDBY	Low Pressure Overtime Alarm	**L**ow **P**ressure
11	HP	Service	REPEAT (Cycle 4.5 sec.)	OPERATE OR STANDBY	High Pressure Overtime Alarm	**H**igh **P**ressure
12	Ht	Service	REPEAT (Cycle 4.5 sec.)	OPERATE OR STANDBY	High Ambient Temperature Alarm	**H**igh **T**emperature
13	uI	Service	REPEAT (Cycle 4.5 sec.)	OPERATE OR STANDBY	Air Valve 1 Positioning Failure Alarm	Air Valve 1 failure
14	Lb	Service	REPEAT (Cycle 15 sec.)	OPERATE OR STANDBY	Battery Low Alarm	Battery would need to be replaced
15	Cu	NONE	NONE	FACTORY CALIBRATION MODE	Calibration Not Completed	**C**alibration **U**nfinished
16	CC	NONE	NONE	FACTORY CALIBRATION MODE	Calibration Completed	**C**alibration **C**ompleted

6. CLEANING

Wipe the Pump unit with a damp cloth pre-soaked with a mild detergent, and keep the Pump unit away from dust. If other detergent is used, choose one that will have no chemical effects on the surface of the plastics case of the Pump unit.

- Roll from the head end towards the foot end.
- Packing strap can be stretched around the rolled mattress to prevent unrolling.
- Wrap power cord around the Pump bumper or disconnect for storage.

⚠ *CAUTION: Do not immerse or soak the Pump unit.*

Clean the mattress cover by using single use wipes with a solution of neutral detergent and hand hot water. Rinse thoroughly with clean water and damp dry the mattress using single use wipes.

Disinfecting the cover

If the cover is heavily soiled or has been exposed to bodily fluids such as blood, it will require a more thorough cleaning procedure.

Use single use wipes with a 0.1% chlorine solution (1,000ppm) and cold water to wipe the cover. Rinse thoroughly with clean water and damp dry using single use wipes. Ensure the cover is completely dried before refitting to the mattress.

Frequent or prolonged exposure to higher concentration disinfectant solutions may prematurely age the fabric cover of mattresses. Cover surfaces should be protected during use, rinsed and dried thoroughly after disinfected.

Laundering
- Before laundering, mattress cover should be completely removed.
- Mattress covers can be laundered as following:

    - Prewash 140ºF + 15 minutes

    - Main wash 140ºF + 15 minutes

- This should be followed by a cold rinse and extraction.

Drying

Mattress covers should be hung from a line or bar and drip dried in a clean indoor environment. Covers must be completely dried before refitting to the mattress.

Mattress covers can be tumble dried on a low heat setting for 90 minutes. Drying temperature must not exceed 40°C. Exceeding the temperature can cause significant damage to the mattress cover.

⚠ *CAUTION: Do not use phenolic-based product for cleaning.*

⚠ *CAUTION: After cleaning, dry the mattress without direct exposure of sunlight.*

7. STORAGE
- To quickly vacuum air out from mattress for storage, rotate the CPR valve to OPEN position and disconnect the hose connector to release the air.
- Lay the mattress out flat and upside down.

8. MAINTENANCE

General
- Check power cord and plug to make sure there are abrasions or excessive wear.
- Check mattress cover for signs of wear or damage.
- Check the air hoses for any kink or break. For replacement, please contact Blue Chip

Fuse replacement
- Disconnect the plug when a blown fuse is suspected.
- Remove the cover of the fuse holder with a small screwdriver.
- Insert a new fuse of the correct rating in, and replace the cover of the fuse holder.

Air Filter Replacement
After checking *9. TROUBLESHOOTING*, if the air filter needs to be replaced:
- Replace the air filter located at the back of the Pump.
- The filter is reusable and can be washed gently with a mild detergent and water. Dry the filter before use.
- Check and replace air filter regularly if environment is dirty.

9. TROUBLESHOOTING

PROBLEM	SOLUTION
The mattress is not able to connect with the Pump	• Check the mattress model (model no. located inside the cover by the foot end) Make sure that connector hoses line up with the pump. If not, please contact Blue Chip. • Check if the Transport Cap is removed and make sure the connector is not broken.
The Pump is showing no indications of working	• Check if plug is locked into pump and plugged into power outlet • Check if the power switch is switched to ON position (press ⬤). • Check if there is any blown fuse.
Power failure alarm failed	• If the Pump is in operation but failed to trigger the power failure alarm during power off. Charge the Pump for 6 hours or more of operating time and if the power failure still not works then please contact the dealer or agent for further investigation.
The low pressure light is constantly flashing and the alarm is sounded	• Check if the CPR is at CLOSE position • Check if the connection between air tubes to Pump unit is tightly secured. • Check if all coupling connections along mattress are secured. • If the power supply is normal please remove the connector from the pump to check if there is air coming out. If not, turn off pump and contact Blue Chip for further investigation. • If all of above steps have been checked. Press "Alarm Mute" for system to be verified again.
The Pump is on but the mattress is not alternated	• Ensure the mattress inflation is completed. • Check the Pump control panel the indicator of "Alternate" should be lighted on, if not, switch it to "Alternate." • Check if "Service" alarm indicator is on with buzzer, if yes, contact please contact Blue Chip.
Service (Malfunction) Alarm is on	• Press "alarm mute" for system to be verified again. If the alarm is still on, please contact Blue Chip.
The Pump is operating noisily	• Ensure Pump is on a solid surface or attached to footboard of bed • If the noise is getting louder, please contact Blue Chip.
Patient is bottoming out (without alarm triggered)	• Pressure setting might be inadequate for the patient, adjust comfort level to FIRM (refer to *Table 1 Weight and Comfort Level Reference Table*) and wait for a few minutes for better comfort. • Follow the procedures "The low pressure light is constantly flashing and the alarm is sounded" for inspection.

If the above information does not solve the problem, please contact Blue Chip for further support.

10. TECHNICAL DATA

10.1 Product Specification

PUMP UNIT		AIR MATTRESS	
MODEL	9200	MODEL	8" Mattress
DIMENSION(in)	16.5 (W) x 9 (H) 5 (D)	DIMENSION(in)	80 (L) x 35 (W) x 8 (H)
WEIGHT(lb)	10	WEIGHT(lb)	18
CYCLE TIME	10/15/20/25/30minutes	CELL MATERIAL	Nylon-TPU
STATIC CARE	20 mins. Fall back to alternate	NO. OF AIR CELL	20 Cells
AUTO FIRM TIME	20 minutes	COVER MATERIAL	Nylon Moisture Vapor Permeable
PUMP OUTPUT FLOW RANGE (Liter)	9 + 9 = 18 LPM Note: The flow rate may be varied because of the fluctuation of input voltage	BOTTOM MATERIAL	Polyester-PU
		MAX WEIGHT	400 lbs.
PUMP OUTPUT PRESSURE RANGE (mmHg)	25 to 60 (±5) Internal Pressure		
POWER	AC120 V 60Hz		
CURRENT	$0.43A_{MAX}$ (@132V~)		
FUSE RATING	T1A 250VAC		
FREQUENCY	60 Hz (120V)		
CLASSIFICATION	Class II		
	Type BF		
WARRANTY	1 year	WARRANTY	1 year