

# DELUXE ALTERNATING PRESSURE SYSTEM USER GUIDE

NOVA Pump & Pad  
(On/Off Switch & Pressure Adjustable)

Item # APP-2001



by  
**nova**

# IMPORTANT SAFEGUARDS

When using electrical products, especially when children are present, basic safety precautions should always be followed, including the following:

**HOUSEHOLD USE ONLY**  
**READ ALL INSTRUCTIONS BEFORE USING**

## DANGER

**To reduce the risk of electric shock:**

- Always unplug this product immediately after using.
- Do not use while bathing.
- Do not place or store product where it can fall or be pulled into a tub or sink.
- Do not place in or drop into water or other liquid.
- Do not reach for a product that has fallen into water. Unplug immediately.

## WARNING

**To reduce the risk of burns, electric shock, fire, or injury:**

- This product should never be left unattended when plugged in.
- Close supervision is necessary when this product is used by, on, or near children or invalids.
- Use this product only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.
- Never operate this product if it has a damaged cord or plug, is not working properly, has been dropped or damaged, or has fallen into water. Return the product to the dealer from whom you purchased for examination and repair.
- Keep the cord away from heated surfaces.
- 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 openings free of lint, hair, and other similar particles.
- Never drop or insert any object into any opening or hose.
- Connect this product to a properly grounded outlet only. **See Grounding Instructions (page 13).**
- Do not use outdoors or operate where aerosol (spray) products are being used.

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# INTRODUCTION

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

## ➤ **General information**

The NOVA series is a high quality and affordable air mattress pad system suitable for medium and high risk pressure ulcer treatment. It has been designed for prevention of bed sores. It is an affordable solution to 24 hour pressure area care.

The NOVA series has been tested and certificated to the following standards:

UL 1431 (120V 60Hz)

FDA (120V 60Hz)

## ➤ **Intended use**

NOVA series is intended to reduce the incidence of pressure ulcers while optimizing patient comfort. It also provides the following.

- Individual home care setting and long term care.
- Pain management as prescribed by a physician.

## ➤ **Contraindication**

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

- Cervical or skeletal traction
- Unstable spinal cord injuries



**NOTE: The pump has no AP or APG protection. Please do not operate on the floor.**

## WHAT'S IN THE BOX

### ➤ Included components

a. (1) Mattress pad

b. (1) Pump

c. (1) Air supply hose

d. (1) Repair & filter kit



a.



b.



c.

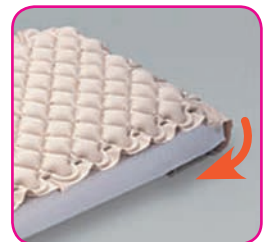


d.

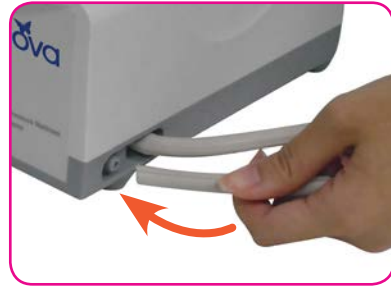
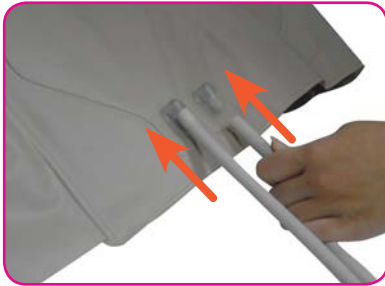
- 1 Position pump on horizontal surface, or hang it on the frame of the foot end with the hooks. Ensure the pump is stable. DO NOT operate pump on carpet.



- 2 Open mattress pad flat on the bed. Secure it by tucking end flaps under bed. Inflation nozzles must be face-up and at foot end of bed.



- 3** Connect inflation tubes to inflation nozzles on the mattress pad and pump.



- ⚠ NOTE:** Ensure the tubes are not twisted or “kinked” and are completely connected to inflation nozzles.



- 4** Plug the pump into a suitable electrical power source and switch on. The switch indicator will light up. When switched off, the indicator will turn off.



- 5** For the first inflation, to save inflating time, adjust the pressure adjust knob to “FIRM” setting. Allow 20-30 minutes for mattress pad to inflate fully. Then, adjust to the desired firmness to provide maximum patient comfort.




- ⚠ NOTE:** Please cover the mattress pad with a low friction sheet to avoid direct skin contact and shearing.

## OPERATION

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

### ➤ General operation

- Turn the power on.
- Then, the power switch indicator will light up.
- The pump begins to pump air into the mattress pad.


 **NOTE:** Each time when the mattress pad is first inflated, it is recommended that the pressure dial to be set to “Firm”. The user can then adjust the air mattress pad to the desired firmness afterward.


### ➤ To deflate mattress pad

To deflate mattress pad, turn off pump and unplug it from the power source. Detach inflation tubes from mattress pad, and allow pad to expel air completely.

### ➤ Pressure set up

Users can adjust the pressure of the air mattress pad to a desired firmness by themselves, or by the suggestion of a health care professional.


 **NOTE:** Please cover the mattress pad with a cotton sheet to avoid direct skin contact and for patient’s comfort. The patient may now lie on the mattress pad.

 **NOTE:** Please do not use another pump and mattress pad with different specifications from NOVA series. Also, it is dangerous to use a pump greater than 120mmHg pressure, which may cause cell-puncture.

 **NOTE:** Check to see if the suitable pressure is selected by sliding one hand between the air mattress pad and the foam base to feel the patient’s buttock. Users should be able to feel the dis-

tance between the patient's buttock and the bed. The acceptable range is approximately 25 to 40 mm (1 to 1 ½ inches).

➤ **Low pressure**

 **NOTE:** If the pressure level is consistently low, check for any leakage (tubes or connecting hoses). If necessary, replace any damaged tubes or hoses, or contact the dealer from whom you purchased for repair.

## CLEANING

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

➤ **Pump**

- Do not immerse or soak pump unit.
- Check for external damage and move the pump to the cleaning area.
- Place pump on a work surface and spray or wipe the outside of the case with quaternary ammonium solution. DO NOT spray any cleaning solution directly on the surface of the pump.
- DO NOT use a hypochlorite or phenolic based cleaning solution as this may cause damage to the case. Allow the solution to incubate for 10 minutes or accordingly as stated by the cleaning product used.
- Wipe case with a clean cloth. Make sure all areas are clean (top and bottom, both sides).
- Spray cloth with cleaning solution and clean faceplate. DO NOT allow excess cleaning solution on 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 with proper identification tag.

➤ **Mattress**



- Brush off or wipe down all surfaces with soap and water before wetting with any liquid disinfectant.
- Any obvious blood spots should be wet thoroughly with 1:9 hypochlorite solution (1 part bleach to 9 parts water) and allow to dry for at least 10 minutes. Then blot with a clean, damp cloth.
- Unbutton or unzip the top cover from the mattress pad.
- Brush or wipe down all surfaces with soap and water before applying any liquid.
- Covers are immersed and soaked in disinfectant for the required incubation time.
- After pre-soaking, the cover is rinsed through a regular cycle in a washer with no soap, then laundered with mild detergent ( wash temperature 93°F, rinse temperature 78°F or on the coldest setting).
- Covers are aerated until they are fully dry. (Drying temperature range 90-120°F or on the coldest setting).
- The air cells are unsnapped from one side and are sprayed on all sides with a disinfectant. Let it sit for the required incubation time and wipe down with a clean cloth. (Make sure to disconnect all the air cells, one by one, and spray the disinfectant on all sides, including all the connecting tubes and hoses. Let it sit for least 10 minutes).
- If there is a base after you remove all the air cells, the base has to be sprayed down with the disinfectant, inside and out. Let it sit for the required incubation time and wipe down with a cloth.
- Repeat the process with the tubing set: spray, incubate, and then wipe clean.
- The carrying bag should be turned inside out and completely wiped down using the disinfectant solution.
- Allow it to thoroughly air dry. Once the inside is dry, turn it back, wipe down the outside of the bag with disinfectant.
- Dry the mattress pad in a SUNLESS area after cleaning.

## HANDLING AND STORAGE

### ➤ Storage instructions

- Lay the mattress pad out flat and upside down.
- Roll from the foot end towards the head end and store.
- Do not crease, or stack the mattress pad.

# MAINTENANCE

## ➤ General

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



**NOTE: In case the fuse of the pump needs to be changed, use a 1-Ampere fuse.**

## ➤ Low pressure

To examine if there is air leakage between pump and mattress pad connections or from air mattress tubes:

- Check connectors between air mattress pad and pump. If they are disconnected, please reconnect them.
- Check air-connecting tubes. Ensure each single cell is not broken. Set pressure dial to firm position. Keep the tubes fully inflated and inspect for air leakage.
- Exam air leakage from cells. Ensure no leakage occurs. If any leakage occurs, please contact .

## ➤ Changing air filters

It is recommended to change the air filter on the pump every 6 months of continued use. Please contact the dealer from whom you purchased for replacement filters.

Follow the instructions below to change your air filter.



- 1** Turn over pump and gently lay top of pump on a flat surface. Locate the black, circle filter cap.
- 2** Using a small, flathead screwdriver, gently pry up on the edge of the filter cap.
- 3** Remove dirty filter, and insert a clean filter into the filter cap. Place filter cap into pump.

## TECHNICAL DESCRIPTION


NOVA pump & mattress pad is designed and manufactured to meet the most demanding environment. The specifications are listed below:

➤ **America, Canada**


Equipment fulfills the requirement of the standard UL 1431.

## ➤ Specifications

Item	Specification
Power supply	AC 120V/60Hz, 5.8W
Pressure range	40mmHg - 100mmHG (± 10)
Cycle time	10 min.
Dimension	22.4cm x 10.8cm x 10.3cm
Weight	1.4 kg

 **Due to continued development of these products, specifications may be changed without prior notice.**

Item	Specification
Environment/ Temperature/Humidity	Operation: 50°F ~ 95°F Storage: 59°F ~ 122°F Shipping: 59°F ~ 158°F Operation: 20% ~ 80% non-condensing Storage: 10% ~ 90% non-condensing

 **NOTE: The specifications also apply to those areas operating with the same power supply.**

## TROUBLESHOOTING

### ➤ Troubleshooting steps

Problems	Solutions
When pump doesn't work	Check if plug is correctly inserted. Turn switch "ON". If the unit cannot be restarted even when switched on, call the dealer from whom you purchased immediately.

Problems	Solutions
Incomplete inflation (low pressure)	<p>Check to see if tubes are connected with pump, twisted, or leaking. Keep tubes straight. Change tubes if there is a leak.</p> <p>Check and adjust the pressure to the firm position.</p> <p>Ensure every single cell is not broken.</p> <p>If any leakage occurs, please contact the dealer from whom you purchased.</p>
Filter cleaning	<p>Please check the air filter on the back of pump unit every month.</p> <p>Wash the filter with mild detergent to keep it clean. A dirty filter may decrease the air flow.</p>

## GROUNDING INSTRUCTIONS

### ➤ Grounding Instructions

This product should be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.

 **NOTE: Improper use of the grounding plug can result in a risk of electric shock.**

If repair or replacement of the cord or plug is necessary, do not connect the grounding wire to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripe is the grounding wire.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded.

This product is factory equipped with a specific electric cord and plug to permit connection to a proper electric circuit. Make sure that the

product is connected to an outlet having the same configuration as the plug. No adapter should be used with this product. Do not modify the plug provided—if it will not fit the outlet, have the proper outlet installed by a qualified electrician. If the product must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel.

➤ **Extension Cords**

If it is necessary to use an extension cord, use only a three wire extension cord that has a three-blade grounding plug, and a three-slot receptacle that will accept the plug on the product. Replace or repair if damaged.

## WARRANTY INFORMATION

NOVA stands firm on our commitment to providing the highest quality products, as well as exceptional service. This product was built to precise standards and thoroughly inspected prior to shipment. This warranty represents our confidence in the materials and workmanship of our product.

NOVA extends this warranty only to the original purchaser of this product. The warranty does not extend to any subsequent purchaser or owner. The warranty is void upon any sale or transfer of ownership or use by other person. NOVA warrants its products are free from defects in material and workmanship under NORMAL use for the period commencing upon the date of purchase and continuing for the following specified period of time after that date:

Pump Unit	<b>One Year Limited Warranty</b>
Mattress Pad	<b>Three Month Limited Warranty</b>

This warranty does not cover problems due to user negligence, misuse of the product, failure to adhere to product instructions, or normal wear and tear. Items that have been subject to negligent abuse, modified without prior written authorization are not covered within this warranty.

For warranty service, please contact the dealer from whom you purchased your NOVA product. In the event that you do not receive satisfactory service, please call us directly at the number on the bottom front of this sheet. Be prepared to indicate, the nature of the defect, the product serial number, and the name and location of where you purchased the product. You will also be required to provide a receipt of your purchase. Do not return any products to our office without prior consent.

Repair or replacement is the only remedy under this limited warranty. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of product.

**THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES, IMPLIED WARRANTIES, IF ANY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NOVA SHALL NOT BE LIABLE FOR ANY SEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.**

### IMPORTANT WARNING

**FOLLOW ALL DIRECTIONS CAREFULLY BEFORE USE. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY.**

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