

# Cold Therapy System

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Patients and Medical Professionals should carefully read all of the following instructions and warnings before using and operating the Polar Active Ice® Cold Therapy System.

Polar Products, Inc. will not be liable for injuries that result from misuse or misapplication of this system.





### **Use Only as Prescribed**

Patients first need to be assessed by their physicians for contraindications, risk factors, and medical history, before using this product. Supervision may be necessary to ensure precautions are followed, especially with young children and the elderly. Adhere strictly to your practitioner's instructions regarding use, treatment times, treatment frequency, settings, self-assessment and best practices regarding your specific condition. See pages 9 and 10 of this instruction manual for more information on warnings, and risk factors for cold induced injury and/or contraindications.

### Warning: An insulation barrier is required. Do not allow direct contact with the skin.

Always wear an insulation barrier between the skin and the Active Ice<sup>®</sup> bladder. Failure to use an insulation barrier between the bladder pad and the skin can lead to injury.

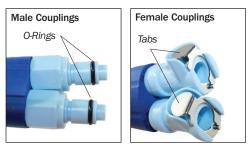
If post-surgery dressing or bandages on target therapy area do not completely cover the skin, place a piece of fabric over the bandage to ensure complete skin coverage. **CAUTION:** 

**Bladder is not sterilized, never use on broken or bleeding skin.** The insulation barrier must be dry, if moisture is present in the insulation barrier the skin may become colder than intended. If moisture is found, replace with a dry barrier immediately.

### SETUP AND USAGE

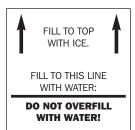
### 1. Setting Up the System

- (a) CAUTION: Always begin with power supply unplugged. Do not turn on the system until all connections are complete and the hose from the cooler to the therapy bladder is free from bends or restrictions, as this will restrict water flow through the system.
- (b) Connect the therapy bladder hose tubes to the Active Ice® System hose tubes with the quick disconnect couplings. Be sure the tab on the female coupling is pushed all the way down then insert the male couplings into the female couplings. Couplings "click" when they are properly locked together.
- (c) If the **optional** #TCV temperature and flow control was purchased, it should be connected between the system hose and the bladder using the quick disconnect couplings. Connect as described above. Turn the knob to "Coldest."
- (d) Open the reservoir and fill with clean, cold water to the water fill line in the cooling reservoir. Be sure water covers the pump in the reservoir. CAUTION: NEVER OPERATE THE UNIT WITHOUT WATER! This can cause pump failure. Do not overfill the reservoir with water.
- (e) Completely fill the reservoir with ice to the water return flow tube located near the top of the reservoir.
- (f) If the **optional** #TCD electronic temperature and flow control was purchased, it should be plugged in between the timer control and the cooling reservoir. Turn the control to #5 or "Coldest."





Temperature Control Attachment (optional)



(g) Plug the Digital Timer #DT30 into the plate on the side of the cooling reservoir, then plug the other end into the power supply. Finally, plug the power supply into a wall outlet. Ensure all connections are securely seated.



- (h) If the **optional** battery pack was purchased it should arrive fully charged and it may be connected now. This replaces the power supply. The battery has two cords, one cord is labeled "To Cooler" and the other cord is labeled "To Charger." Use the "To Cooler" cord to plug into the digital timer #DT30 and then plug the timer into the cooling reservoir. The unit will now run off of the battery pack. To charge the battery pack, plug the other cord labeled "To Charger" into the included charger and then plug the charger into a wall outlet. While the battery pack is charging the light on the charger will be red. The light will change to green when the battery pack is fully charged. Note: Do not attempt to charge the battery while it is operating the unit.
- (i) The Polar Active Ice® Cold Therapy System includes an electronic digital timer. The digital timer may be turned on by pressing the on/off button. The timer will automatically set at 30 minutes and turn the unit on. The default 30-minute setting is a safety feature as many doctors recommend 30-minute therapy sessions followed by skin inspection. If your doctor directs you to use the unit for longer periods of time, an additional 30 minutes of operation will be added to the session each time you press the "+" button. Always follow your doctor's recommendations in regards to treatment time and skin inspection. When the unit times out or is turned off, the timer will always reset to 30 minutes as the default time of operation.
- (j) Lay the bladder on a flat surface and turn on the digital timer. Water will begin circulating through the bladder and back into the cooling reservoir via the water return flow tube. Allow the unit to run several minutes before securing the bladder to the target body part. This will ensure good flow through the system. Always ensure that there is water flowing out of the return tube into the cooling reservoir.

(k) Use the enclosed elastic belt with hook and loop tabs to hold the universal bladder comfortably on the target body part. (See "Using the Universal and Rectangular Bladder with the 3" x 44" Belt" section on page 7 in this manual for proper fit with elastic belts.) CAUTION: Always use an insulation barrier (such as Webril, Kerlix, cast padding, or elastic bandage) between the therapy bladder and the skin.

If using the optional compression wrap(s), see "Using the Universal Bladder with the Optional Compression Wraps" on page 8.

- When the water temperature has risen above the desired level, refill the reservoir with ice. (See steps 'd' and 'e'.) Drain water if necessary.
- (m) Confirm that water is flowing out of the return flow tube at the top of the cooler when the system is on.

Water Return Flow Tube



Pump

**Skin Inspection:** Inspect the skin under the universal bladder as prescribed by your doctor, typically every 30 minutes or so. Do not use this system if dressing, wrapping, bracing, or casting prevents skin checks. **CAUTION: Stop use and contact your practitioner immediately if you experience any adverse reactions, such as increased pain, burning, itching, increased swelling, blisters, increased redness, discoloration, welts, other changes in skin appearance, or any other reaction identified by your practitioner.** 

### 2. Ending the Therapy Session

Turn the unit off and disconnect the power supply. Press the tabs on the female couplings and gently pull the therapy bladder hose tubes from the system tubes. Empty the reservoir and wipe out after each use.

### **3. Care and Maintenance**

Empty and wipe out the cooling reservoir after each use. When necessary, rinse cooling reservoir and hoses with warm, antibacterial soapy water. Once every 2 weeks, pour 16 ounces of Isopropyl (Rubbing) Alcohol in the reservoir with the ice and water while system is in use. Allow the alcohol and water mixture to circulate through the system for at least 30 minutes. Periodically check the pump filter sponge and clean it or replace it. Do this by grasping the back of the pump and pulling the pump cover off. Then remove the black filter sponge. Clean and replace.



Replacement pump filter sponges may be purchased from Polar.

Part number: #Filter-AIS

1-800-763-8423 PolarProducts.com

### 4. Cleaning and Extended Storage

Note: It is not possible to remove all of the water from the bladder, system and tubing; therefore before extended storage follow these instructions.

- (a) To clean the system after you have finished all of your cold therapy treatments and prior to extended storage, fill the reservoir with water to the fill line and mix in 2 tablespoons of liquid bleach.
- (b) Connect the bladder to the system and turn the unit on.
- (c) Allow the water and bleach mixture to circulate for 5 minutes. This will help keep the system clean.
- (d) Turn unit off and unplug the power supply.
- (e) Carefully drain the water and bleach mixture out of the reservoir. Store in a cool dark place leaving the lid slightly open. (Exposure to sunlight and extreme heat may damage hoses and unit.)
- (f) When reusing the unit after extended storage, remove the filter sponge from the pump motor and clean or replace. Then fill the reservoir with clean water, connect the old bladder and turn the pump on to circulate the water through the hose and bladder and flush the remaining water mixture out of the system (use the old bladder pad for this procedure, discard the bladder pad after cleaning is completed). A new bladder pad should be purchased when using the system after extended storage. A new filter sponge and bladder pad may be purchased from Polar Products Inc. Call 800.763.8423 or order on our website at www.polarproducts.com
- (g) Dispose water and refill the reservoir with fresh ice and water. Follow the operating instructions in this manual before use.
- (h) Before you use the unit, inspect hoses and new pad for any tears or breaks. Contact Polar Products Inc. to purchase new therapy bladder pad and filter.

### **TROUBLESHOOTING GUIDE**

If the possible solutions suggested below do not address your problem, please call our Customer Service department at 1-800-763-8423 and we will do everything possible to help.

### NOTE: Never run the pump without water flowing through the lines! This will cause pump failure.

### IF THE PUMP IS NOT RUNNING

• Check the wall outlet to assure there is power to the unit. If the battery pack option is being used, make sure the battery is fully charged. Confirm that all power cords are properly plugged in and seated.

### IF THE THERAPY BLADDER IS NOT GETTING COLD

· First: Is water flowing out of the top water return flow tube in the cooler?

### If water is NOT flowing out the top water return flow tube or it is flowing weakly:

- First: repeat steps outlined in "Setup and Usage" section (pages 1-4)
- If the optional temperature control attachment has been purchased with the system: Ensure that the temperature control knob is turned to maximum cold ("COLDEST"). Always adjust the control knob to ensure there is a flow of water from the top water return flow tube.
- · Check the filter sponge and be sure it is clean and unobstructed. See instructions on page 4.

- Check the water level in the cooler. Confirm that the pump is completely submerged in the water.
- Check for kinks. Ensure there are no kinks in the hoses. insulated tubing or therapy pad.
- Adjust the belt. Ensure that the belt(s) holding the therapy bladder to the body are not too tight and impeding flow.
- Check for obstructions. Turn the system off. Disconnect couplings to ensure there is not an obstruction. Remove anything lodged in the coupling or tubing. Also ensure there are no obstructions at the bottom pump intake in the reservoir.
- Check the couplings. Confirm that the bladder is properly connected. (Couplings should "click" when locked) Reseat Pump couplings between the hose and the bladder. Turn the system off, disconnect couplings and reconnect. When connecting the couplings, be sure the metal tab on the female coupling is pushed down before trying to connect.
- Check the pump. Occasionally an air bubble can get lodged in the pump intake. The pump is held to the bottom of the reservoir with suction cups. Pull the pump off the bottom and turn the pump motor vertically to horizontally to dislodge any air bubble.
- Remove the bladder from the body and run the system with the bladder on a flat surface. If there is flow, put on the target body part while running.

### TROUBLESHOOTING TIP

A good way to isolate the problem is to remove the couplings from the insulated tubing attached to the reservoir. To do this simply turn off the unit, pull off (or cut off) the couplings, place the end of the tubes over a sink and then turn the system on. If water flows freely, there is an obstruction in the coupling, bladder or bladder tubing. Couplings can become blocked with minerals, hair, etc. Use a paper clip to clear the blockage. A new coupling may be necessary. To reattach the couplings, simply cut the tubing back to unused tubing and push the coupling back into the tube.

### If water is flowing out the top water return flow tube:

- Make sure the reservoir is filled with ice. Note the line inside the cooler.
- If the optional temperature control attachment has been purchased with the system: Ensure that the temperature control is turned to maximum cold ("COLDEST")

### If the unit is leaking at the couplings:

If a leak exists, turn off the unit. Disconnect and reconnect the couplings, make sure both sides are clicked in properly. When connecting the couplings ensure that the silver tab platform on the female coupling is pressed down prior to insertion. NOTE: Couplings have rubber "0" rings that can become worn and dysfunctional. Replacement couplings may need to be purchased from Polar Products.

### If the unit is still not working:

Contact Polar Products Customer Service at 800,763,8423 for additional assistance. Be sure to have the original invoice number, approximate date of purchase, and who the unit was purchased from. Please note our warranty on page 10.





Female Couplings

Turn knob to "Coldest"

Water Return Flow Tube



Male Couplings

# Using the Universal and Rectangular Bladder with the $3" \times 44"$ Belt

NOTE: For use only with the Active Ice® System manufactured by Polar Products, Inc.

WARNING: Read and follow ALL Instructions, Cautions and Warnings provided with the Active Ice<sup>®</sup> System before using this bladder or operating the therapy system. This product must be used in accordance with all instructions provided with the system. Polar Products, Inc. will not be liable for injuries that result from misuse or misapplication of this system.

CAUTION: Always wear a protective layer of fabric between the universal bladder and the skin.

Use an additional insulation barrier over a sterile dressing that does not completely protect the skin. Never use this non-sterile universal bladder directly on the skin.

Position the bladder on the target body part with the clear side toward the body. Attach one side of the belt to the bladder, then wrap the belt around the bladder and body part "Ace Bandage" style and then attach the other side of the belt to the bladder or the belt. The belt and the bladder are loop compatible and the hook tab will attach. Adjust the belt for comfort.



### CAUTION: Do not over-tighten the elastic belt(s) or pinch the tubes or bladder.

Be sure the hoses are not restricted or bent, as this will restrict water flow through the entire system.



### **COMPRESSION WRAP USAGE**

# Using the Universal Bladder with the Optional Compression Wraps\*

If the optional compression wrap is being used, place the bladder in the compression wrap and secure the bladder to the wrap using the hook tabs sewn into the wrap.

### **POSITIONING THE COMPRESSION WRAP ON THE BODY:**

### **Knee Compression Wrap**

Position wrap on the knee with tube extending toward the foot. Adjust elastic bands for comfort.





### Back and Hip Compression Wrap

Position wrap on the back or hip with tube extending down and secure with the attached hook & loop tabs. Adjust lumbar wrap compression for comfort.





### **Shoulder Compression Wrap**

Position wrap on the shoulder with tube extending down. The short, black elastic band secures the wrap to the arm, and the long, black strap goes around the chest. Adjust for comfort.





### CAUTION: Do not over-tighten the elastic belt(s) or pinch the tubes or bladder.

\*The optional compression wraps and other accessories may be purchased from our website or by calling us! **1-800-763-8423 / PolarProducts.com** 

### **CAUTIONS AND WARNINGS**

# CAUTION: To reduce the risk of adverse reactions and malfunction, the Active Ice<sup>®</sup> System must be used in accordance with all instructions. Read and follow ALL included instructions.

#### Use only under the direction and supervision of a licensed healthcare practitioner.

Patients first need to be assessed by and discuss treatment with their physicians for contraindications, risk factors, and medical history before using this product. If used improperly, use of the Active Ice® System could result in serious injury. Supervision may be necessary to ensure precautions are followed, especially with young children and the elderly. Adhere strictly to your doctor's instructions regarding use, treatment times, treatment frequency, settings, self-assessment and best practices regarding your specific condition.

### Contraindications – The Polar Active Ice® System should not be used on patients with the following conditions, including but not limited to:

- · History of cold injury, frostbite, or adverse reactions to cold application
- · History of injury or adverse reactions to treatment
- Special care monitoring must be provided for children, patients on prolonged therapy, unconscious or incapacitated patients, patients with diabetes, and those with poor circulation
- · Application areas with compromised local circulation
- · Potential wound healing problems, including those from multiple surgical procedures
- Circulatory syndromes such as Raynaud's disease, Buerger's disease, peripheral vascular disease, vasospastic disorders, sickle cell anemia, and hypercoagulable clotting disorders
- · Local tissue infection
- · Hand/wrist or feet/ankle surgery with polyneuropathy
- · Unconsciousness or incoherence due to any reason.
- · Polyneuropathy or other nerve damage

#### Risk Factors for Cold-Induced Injury – Including but not limited to:

- · Pathological sensitivity to cold
- · Young children and the elderly
- Behaviors that negatively affect circulation, such as poor nutritional habits, using tobacco, caffeine abuse, and alcohol abuse
- · Cognitive impairment and use of medications that negatively impact mental capacity
- Patients with diabetes
- · Application area desensitization due to local anesthesia or regional nerve blocks
- Medications that have a negative effect on peripheral vascular circulation: beta adrenergic blockers and localized epinephrine
- Excessive moisture at the application site
- Hand/wrist or feet/ankle surgery
- · Communication barriers that would cause improper use of the system

### **CAUTIONS AND WARNINGS**

#### WARNING:

- · The Active Ice® System can seriously injure skin if used improperly
- · Follow ALL instructions to ensure product safety for patients and medical professionals
- · If you are pregnant, please consult your healthcare practitioner prior to use
- · If you have sensitive skin, or skin sensitivity, please consult your healthcare practitioner
- · Active Ice® System should be kept out of reach of infants and children
- Do not use while asleep
- The Active Ice<sup>®</sup> System should not be used by an invalid, unconscious person or a person with low blood circulation without supervision
- · Do not leave system unattended when operating
- · Discontinue use if you experience persistent discomfort or a rash
- Monitor patients skin condition during therapy (every 30 minutes)
- The system should not be applied to cancerous lesions, wounds, infected areas or open sores
- Never unplug by pulling on the connecting cords
- Turn off when not in use
- Patients should use extreme caution when using unit and should monitor skin conditions underneath pad every 30 minutes. It is recommended to take rest time from treatments. Always follow your healthcare practitioner's directions.

### WARRANTY AND SERVICE

# Polar Products, Inc. warrants that the Active Ice<sup>®</sup> System is fit for use under the normal use for which it is intended and free of any defects in materials and/or workmanship for 180 days from the date of initial purchase.

Polar's obligation under this warranty is limited to the replacement or repair of any defective part(s) of this product. If you encounter a problem with your Active Ice® System, please call our Customer Service at 1-800-763-8423 to obtain a Returned Goods Authorization number (RGA.) To obtain warranty service on your system, please return the system, dated sales receipt (or packing list, as proof of purchase) and RGA number to: **Polar Products, Inc. 3380 Cavalier Trail, Stow, OH 44224**.

Please include your phone number, any correspondence, and an explanation of the problem. Upon receipt, Polar's Service Department will determine the cause of failure and, if determined to be an issue covered by the warranty, will repair (or replace, as necessary) your system and return it to you, postage paid.

Please note: Health regulations prohibit us from accepting returns on cold therapy systems unless there is a problem with its operation (as covered by the warranty.) If the unit is within its 180 day warranty period, it will be repaired or replaced with a new unit. Couplings are a wear item and may need to be replaced. They are available for individual purchase.

### ACCESSORIES

### Easy to use Lithium-ion battery pack (BPL) for portable use of our Active Ice<sup>®</sup> System.

- Includes 1.5A charger.
- · Operates up to 6+ hours on a single charge!
- · Compact, lightweight and easily transportable.
- Easily added to existing units with included hook and loop attachments.

### The Active Ice<sup>®</sup> Double Universal Therapy System

offers convenient cold therapy to two parts of the body simultaneously. Convert your existing AIS unit or buy a new system. Call for details.

### The Cool Flow<sup>®</sup> Head Cap

has a comfortable, snug fit and provides effective cold therapy to the head. Will work with a standard AIS system! Provides cooling relief to the head by continuously circulating cool water throughout the cap. Ease the pain of migraines with cold therapy!

### Power take off adapter #PTOA

works with standard car power outlets and plugs right into the AIS unit.

Replacement couplings: The O-ring can wear over time and cause leaking. These are easy and economical to replace.



Male #CM



Female #CF

### **Temperature Flow Control**

Mechanical Valve #TCV connects into the insulated water lines. Electronic Control #TCD connects into the power supply line.













#DT30





WARNING: Possible Cold Related Injuries: The Active Ice<sup>®</sup> Cold Therapy System can seriously injure skin if improperly used. Follow all instructions to ensure patient safety. Use only under the direction and supervision of a licensed healthcare practitioner.

NOTE: Due to health and hygiene regulations, all Active Ice<sup>®</sup> Cold Therapy products and parts are non-returnable.

## **POLAR** PRODUCTS

3380 Cavalier Trail · Stow, OH 44224 · 800-763-8423 · polarproducts.com