Cool Flow® Cooling System Instructions

Options available for your Cool Flow® System:

Cooling vest(s) styles:

Adjustable (waist & chest) vest (#CFA)
Available in Blue or Khaki

Heavy Duty Adjustable vest (#CFA-HD) Heavier water Lines and higher flow rate.
Available in Blue or Khaki

Fitted vest (#CFF)
Available in blue

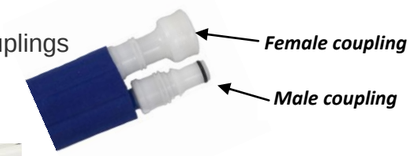
Cooling Seats

Embroider your name and title on the Adjustable vests! Call Polar for details.

Cooling reservoir size and number of systems: ***9-quart*** one (1) person system
15-quart one (1) through four (4) person system
28-quart, ***38-quart*** and ***60-quart*** systems with one (1) through six (6) person system

Four (4) ft. or eight (8) ft. Insulated cool water line extensions with couplings

Breakaway couplings



Tab couplings

Female coupling ***Male coupling***

Easy to use Lithium-ion battery pack (#BP) eliminates cords and connected adapters. Will cool for up to 6+ hours on a single charge!

Chiller System to maintain a preset cooling temperature without ice.

Available accessories and replacement parts:

#XT4 & #XT8	4 ft. and 8 ft. long hose assemblies with metal tab couplings
#XT4-B & #XT8-B	4 ft. and 8 ft. long hose assemblies with breakaway couplings
#CM-Tab	Dry, quick-disconnect male coupling with metal tab
#CF-Tab	Dry, quick-disconnect female coupling with metal tab
#CFB	Dry, high-flow, breakaway quick disconnect female coupling
#CMB	Dry, high-flow, breakaway quick disconnect male couplings
#TG	12 Volt Grounded Transformer

Polar will manufacture custom designs for unique cooling applications *(we have even manufactured special cooling units for unmanned navy vessels and special HD 3D cameras!)*

Polar Products, Inc. info@polarproducts.com 1.800.763.8423

Thank you for your purchase of the ***Cool Flow® personal cooling system!***

Polar Products, Inc. has been a leader in the design and manufacture of cooling systems for over 25 years. Our systems provide high-quality and effective personal cooling and are used by medical professionals, the military and industrial workers throughout the world.

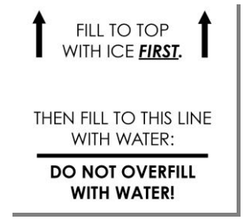
Please Note: Read all instructions and warnings before operating this system. Each Polar Cool Flow® System has been fully tested in the factory with a distilled water and alcohol solution. There will be some residual solution in the vest.

OPERATING INSTRUCTIONS

Setting Up 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 vest / wrap is free from bends or restrictions, as this will restrict water flow through the system.

b) Open the reservoir and fill with ice to the tube located near the top of the cooler. ***TIP!*** ***Fill the reservoir with large blocks of ice for an extended cooling time.***



c) **Add cold tap water to the fill line, approximately 2 to 2.5 quarts for a 15 quart cooler system, a larger cooler will require a bit more. Always assure the water covers the pump.** ***TIP!*** DO NOT OVERFILL THE RESERVOIR WITH WATER. Excess water can not only cause leaks but it can also reduce the cooling time of the unit.

d) Put on the vest or wrap and adjust for a snug fit. ***CAUTION: Do not wear directly against the body. Always use an insulating layer between the vest and the skin.***

e) Connect the couplings to the cooler's insulated water lines. Breakaway couplings are simply pushed in place. If your female couplings have a metal tab, be sure to push in this tab before connecting. Couplings "click" when they are properly locked together.

f) Connect the power supply into the unit and then plug into a wall outlet. (See power supply label for proper voltage). If using a battery pack, follow instructions with the pack.

g) Adjust the temperature control to "Coldest" and turn the power switch to the "On" position. Allow the unit to run a few minutes for the temperature to stabilize before adjusting. Always ensure that there is water flowing through the top return flow tube to the cooling reservoir.

h) Adjust the temperature control to the desired level. Always adjust this control to ensure there is a flow of water from the water return tube. When the temperature has risen above the desired temperature, drain excess water and refill the reservoir with ice and water. *(See steps 'b' and 'c'.)*

CAUTION: NEVER OPERATE THE UNIT WITHOUT WATER. This may cause pump failure.

Ending Session

i) To empty the cooler using the Drain Accessory, connect the drain accessory to the male coupling on the cooler, placing the open end of the tubing in a sink or area where water may be drained without incident/injury. Run the system until the water level is slightly above the motor intake or when the rate of draining water slows significantly. **Note: Drain Accessory will not drain all water from the system. If pump is left running too long without water circulation, the motor may burn out.**

j) Turn the power switch to the "Off" position and pour out the remaining 1 – 2 inches of water. Empty the reservoir and wipe out after each use.

k) Breakaway couplings are simply pulled apart. If your couplings have a metal tab, depress the metal tabs on the hose coupling and gently pull apart.

Polar Products, Inc. www.polarproducts.com 1.800.763.8423

Cool Flow® Cooling System Instructions

VEST CARE AND MAINTENANCE

The following procedures will keep your vest working like new!

- **Cleaning the vest:** Should the vest become soiled, hand wash with a mild detergent and air-dry, being careful not to bend the tubing. The vest may also be spot cleaned with warm soapy water or washed on delicate cycle in a laundry bag. Always air-dry.
- **Proper handling:** The vest should never be roughly handled, bent, folded, crushed or treated harshly. ***Always hang the vest when not in use!***
- **Proper fit:** The vest should fit comfortably on the body and not be over-strained or pulled.
- **Proper vest storage:** Be sure the vest is always stored on a large hanger in a clean, dry environment.
- **Care of system:** Once every 2 weeks, and prior to extended storage, pour 16 ounces (one pint) of Isopropyl Alcohol (rubbing alcohol) in the cooling unit with the ice and water while the unit is being used. This will keep the vest water lines, pump and hoses clear of the buildup that occurs in water-circulation systems. Wipe out the cooling unit after each use.
- **As needed:** Wipe cooling unit and hoses with warm soapy water (preferably antibacterial).

CAUTIONS AND WARNINGS

1) **Prior to using this or any body cooling or therapy product for a medical condition or injury, always consult a licensed healthcare practitioner.**
2) **Always wear the vest over a T-shirt or other clothing; do not wear directly on the skin.**
3) Be sure the unit is unplugged prior to filling with water and ice.
4) Refer servicing to qualified personnel at Polar Products Inc.

WARRANTY AND SERVICE

Polar Products, Inc. warrants that the Cool Flow® 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 12 months 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 Cool Flow® System, please call Polar's Customer Service Department 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: Couplings are a wear item and may need to be replaced. They are available for individual purchase.

SYSTEM SPECIFICATIONS

All electrical components (pump and 110-volt adaptor) have CE mark and are UL approved.

Power Required: 12-volt DC, 3A to the cooler unit

WARNING: Prior to using this or any body cooling product for a medical condition, always consult a licensed healthcare practitioner. Read all instructions and warnings before operating this system. Polar Products, Inc. will not be liable for injuries that result from misuse or misapplication of this system.

Cool Flow® Cooling System Instructions

TROUBLESHOOTING GUIDE

If the solutions suggested below do not address your question or issue, please call our Customer Service department at 1.800.763.8423 and we will do everything possible to help.

IF THE PUMP IS NOT RUNNING:

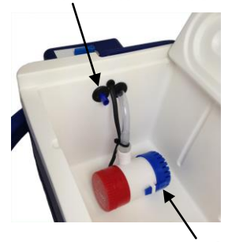
Confirm that the transformer is properly plugged into the unit and the wall outlet. A small green light (located on the transformer box) should be on if the transformer has power.

IF THE VEST IS NOT GETTING COLD:

FIRST: Is water flowing out of the top water return tube in the cooler?
If water is NOT flowing out of the top return flow tube:

- **Check the temperature control knob.** Ensure that the temperature control knob located on the top of the blue box is turned to maximum cold ("COLDEST"). Always adjust this control to ensure there is a flow of water from the water return tube.
- **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 or pinches in the hoses, tubing or vest.
- **Adjust the vest.** Ensure that the vest fits snugly to the body but not so tight that flow is impeded.
- **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 pump intake.
- **Check the couplings.** Confirm that the vest couplings are properly seated. (Tab couplings should "click" when locked). Reseat connectors between the hose and the vest. Turn off the unit, disconnect couplings and reconnect. When connecting tab couplings be sure the metal tab on the female coupling is pushed in before trying to connect.
- **Check the pump.** Occasionally an air bubble can get lodged in the pump intake. Turn the pump motor, located in the reservoir, vertically to horizontally to dislodge any air bubble.

Water Return Tube



Pump Intake

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 hoses over a sink and turn the system on. If water flows freely, the obstruction is in the couplings, tubing or bladder. **Couplings can become blocked with minerals, hair etc. Clear the blockage.** A new coupling or vest 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 of the top return flow tube:

- Ensure that the reservoir is ***filled*** with ice.
- Adjust temperature control to "COLDEST" *(see picture above).*

Female & Male Tab Couplings

Male (top) & Female Breakaway Couplings

IF THE UNIT IS LEAKING AT THE CONNECTIONS:

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

TROUBLESHOOTING TIP! To replace the couplings simply cut off the coupling just above where the coupling barbs extend into the tube. Trim the blue insulation if necessary and push in the new coupling. Always push the new coupling into trimmed tubing.