



---

**EXTREMEMIST**

---

Personal Cooling System (PCS)

# Instruction Manual

[ExtremeMist.com](http://ExtremeMist.com)

# User Manual

Congratulations on the purchase of your new ExtremeMist Personal Cooling System (PCS)! This important piece of gear greatly extends your summer outdoor activity time when used properly.

Use the ExtremeMist PCS in your backpack, on lounge chairs, golf carts or caddies, for fishing, biking, camping, sporting events, outdoor festivals, picnics, yard work, barbecuing, boating, or anywhere you need additional cooling.

ExtremeMist PCS is available already installed in our ExtremeMist hydration vest or as a retrofit kit, which can be retrofitted to most existing hydration bladder packs.

## Accessories and Parts

Extra battery packs for long hikes, replacement pumps, remote control fobs, multi-nozzle kits, cleaning kit, PCS case/cover and PCS waterproof bags are available for purchase at [extrememist.com](http://extrememist.com). The pump inside the ExtremeMist PCS lasts approximately 1500 hours of usage.

### WARNINGS

**Warning:** *The ExtremeMist PCS charger is designed for use only with this system. Do not use the ExtremeMist PCS charger on any other devices, as doing so may damage those devices, be harmful to the user, or create an electrical fire.*

**Warning:** *Always monitor your water supply. Do not use up your drinking supply while misting!*

Check the level of water in the bladder reservoir often. Always bring more water than you think you will need for your hike. Use the PCS sparingly on longer hikes and as needed on rest breaks. You can unclip the mist hose and direct the mist directly to your head and neck area for optimum cooling.

### ADDITIONAL WARNINGS:

- Only use fresh, clean, soft water.
- Do not submerge the PCS underwater. The PCS is not water-proof or water-resistant; do not spill water in the vent slots or battery charging port.
- The battery must be fully charged and used within the first six months of purchase or the battery life may degrade and fail to retain a charge.
- The recommended operating temperature is from -4°F to +140°F.

## Quick Start Instructions

1. To fully charge the battery, insert the charging cable into the charging port on the side of the battery case.
2. The light on the front of the charging unit changes from red to green when the battery is fully charged.
3. The battery will run for approximately 16 hours on the lowest speed and 6 hours on the highest speed after a full charge.
4. Add water; the pump is self-priming but may take a few moments to siphon.
5. If using the PCS out of the pack, slip the lanyard over objects such as a chair post and use the adjustable black button on the lanyard to secure it.
6. Insert the short hose into any clean water source.
7. Clip the long hose to any desired location and direct the nozzle for maximum cooling.
8. Use either the 0.15mm or 0.20mm mist nozzle depending on the desired concentration of mist and the availability of replacement water. The 0.20mm mist nozzle puts out a higher concentration of mist.
9. Clip the remote control to an easily accessible location on the pack and use it to change speed levels.

## Remote Control

1. The maximum line of sight range is 30 feet.
2. The remote control has a sliding cover to protect the buttons from damage or from being accidentally pressed.
3. The square icon is the ON button and the lock icon is the OFF button.
4. The UP and DOWN arrows control the speed.
5. The lower speeds put out a lower concentration of mist and are best for hiking, running and biking.
6. The higher speeds put out a considerable amount of mist and are best used when you have easy access to water supplies.

## REPLACE THE REMOTE CONTROL

If you need to replace the remote control, you must synchronize the remote control with the PCS:

1. Insert a paper clip in the reset hole located above the battery.
2. Press and hold the paper clip and simultaneously press the ON button on the new remote control for approximately six (6) seconds.
3. If unsuccessful, repeat Step 2 again.

## Usage Tips

- For hiking/running/cycling, it is best to attach the mist head to the front of your pack at approximately chest height.
- Use the 0.15mm mist nozzle for longer hikes and the 0.20mm mist nozzle for shorter hikes or when water is easily available.
- Clip the mist nozzle to one of your shoulder or chest straps so the mist head is aimed directly in front of you.
- Turn the unit to one of the lowest settings. You will then be moving directly into the mist cloud.
- As the breezes change direction, twist the mist nozzle elbow toward the breeze so the breeze pushes the mist back at you.

*Note: As you use higher speeds, the nozzle is more difficult to turn side-to-side.*

- Rotate the nozzle's L-Connector up or down for optimal directional cooling. These simple adjustments quickly become second nature.

*Note: The mist may help with "runners dry throat."*

## Battery Pack Information

The battery pack can be left on the PCS and does not need to be removed when being charged. The following steps are provided for changing battery packs.

### REMOVE THE BATTERY PACK

1. Slide the battery latch up and lift the battery compartment up slightly.
2. Firmly pull the battery pack from its cradle.

## REPLACE THE BATTERY PACK

1. Slide the battery latch up.
2. Insert the bottom of the battery pack into the cradle by angling it downward to line up the two tabs of the battery pack bottom, then push the battery pack fully into place.
3. Make sure the battery latch is slid into the closed position.

## Water Use

The table below provides an approximate mist output and usage duration using the 0.15mm mist nozzle.

*Note: Water usage increases when using the 0.20mm mist nozzle.*

### WATER USAGE WITH THE 0.15MM MIST NOZZLE

Speed Level	1 Cup Water	Approx. Usage (Cups/Hour)	Hours/Gallon
Lowest Speeds	38 minutes to 21.3 minutes	1.50 to 2.80	10.6 to 5.75
Medium Speeds	16.3 minutes to 14.5 minutes	3.70 to 4.15	4.50 to 3.90
Highest Speeds	12 minutes to 9.2 minutes	5.00 to 6.50	3.20 to 2.45

*Note: 1 cup = 237ml*

## Cleaning

Follow your hydration pack manual's instructions to clean the hoses and bladder of your hydration pack. Use the same procedures for cleaning the hoses on your ExtremeMist PCS.

A



Y-Connector

B



Y-Connector reducer

C



Elbow

D



Chest Clip

E



Mist nozzle with larger nozzle head

F



Plug

G



L-Connector

H



4x Barbed Hose Adapters  
(2-standard size, 2-large size)

I



Remote Control

J



PCS Mist hose, 36 inches

K



PCS Bladder hose, 16 inches

L



Charger

PCS Unit

M



N

Lanyard



## Assembling the ExtremeMist PCS in Your Hydration Pack

**Warning:** Completely drain the bladder before installing the ExtremeMist Personal Cooling System (PCS). Do not fill the bladder until the installation is complete.

**Note:** Your pack's bladder drink hose and bite-valve must be in good condition and must be air-tight for the PCS to work properly. Replacement hoses and bite valves can be purchased from your pack's manufacturer.

**Tip:** Cut hoses as straight as possible; otherwise, the hose may not seat properly and may leak. Visually check all connections when you first turn the unit on.

1. Charge the battery until indicator light turns green on the charger.
2. Remove the empty bladder from the pack while leaving drinking hose in place.
3. Cut the drink hose 1-2 inches above the bladder connector.
4. Insert both barbed hose adapters (H) on the newly cut ends of both hoses.  
**Note: Drinking hose inner diameter may vary in size, use either the standard size barbed adapters or large size adapters based on hose diameter.**
5. Insert barbed hose adapters' smooth end (H), that is now attached to the bladder, into the Y-Connectors' (A) single port side.
6. Remove the plug (F) from the Y-Connector (A) double port side by firmly pushing down on the gray disconnect ring to release.
7. Insert the barbed/bladder hose adapters' smooth end (H), that is now attached to the drinking hose, into the Y-Connectors' (A) double port side.
8. Insert the PCS bladder hose (K) into the Y-Connector reducer (B).
9. Insert the Y-Connector reducer (B) into the remaining Y-Connector (A) double port side.
10. Insert the the other end of the PCS bladder hose (K) into the white PCS (M) input port, indicated by a down arrow.
11. Insert the PCS mist hose (J) into the white PCS (M) output port, indicated by an up arrow.
12. Gently insert the bladder back into its compartment. **Note: Make sure the hoses are not kinked.**
13. Insert the PCS (M) either with the bladder in its bladder compartment if there is room available or into a separate compartment. **Note: Modifications may be required. See additional tips for retrofitting a pack.**
14. Route the PCS mist hose (J) through the hose stays on the opposite side of the pack from your drink hose, starting from the top of the shoulder strap.  
**Note: Cut PCS mist hose (J) to hang just below chest level, before moving on to step 15.**
15. Plug the L-Connector (G) into the elbow (C).
16. Plug the mist nozzle (E) into the L-Connector (G).
17. Insert the PCS mist hose (J) into the elbow (C).
18. Snap chest clip (D) on PCS mist hose (J) close to elbow (C). Attach clip (D) to shoulder strap at chest level.
19. At this time, you may fill the bladder with water.

## Testing and Troubleshooting

1. Power on the PCS and inspect it for any water leaks. The pump is self-priming but may take a few moments to siphon.
2. If any leaks are detected, make sure hoses are fully pushed into their seated position.
3. If a leak persists, re-trim the leaking hose.
4. As you use up water while misting and drinking, the water in the bladder may slosh around, allowing air into the PCS. The PCS pump may lose its prime for a short period. Reduce the speed to allow it to catch its prime quicker. If after a few moments the PCS does not catch its prime (vapor lock), remove nozzle, ensuring pump is on low. Allow water to flow freely. Re-insert nozzle.
5. Keep drink hose full of water to avoid air leaks at Y-Connector.

**Caution:** *Never forcibly pull the hoses out of the ports without pushing in the safety rings.*

## Additional Tips for Retrofitting A Pack

1. If you place the PCS in a separate compartment away from the bladder compartment, you may need to cut approximately a ½-inch hole in that area to run the PCS's hoses back to the bladder compartment.
2. If your pack's drink hose is too large for the ports:
  - a. Locate the two included large-diameter, barbed-hose adapters.
  - b. Insert the drink hose in one cup of boiling water for 30-60 seconds to make the hose more pliable.
  - c. Put a dab of vegetable oil on the barbed end of each adapter for lubrication.  
**Tip: A dab of liquid soap can be used in place of vegetable oil.**
  - d. Firmly insert an adapter into one end of the drink hose and one in the short piece of tube at the bladder connector.
  - e. Insert the end of the bladder connector with the adapter into the single port of the Y-Connector and the end of the drink hose with the adapter into the open port of the Y-Connector.

Video instructions at [www.extrememist.com](http://www.extrememist.com)

ExtremeMist.com | [info@ExtremeMist.com](mailto:info@ExtremeMist.com)

140 N Country Club Dr. Mesa, AZ 85201