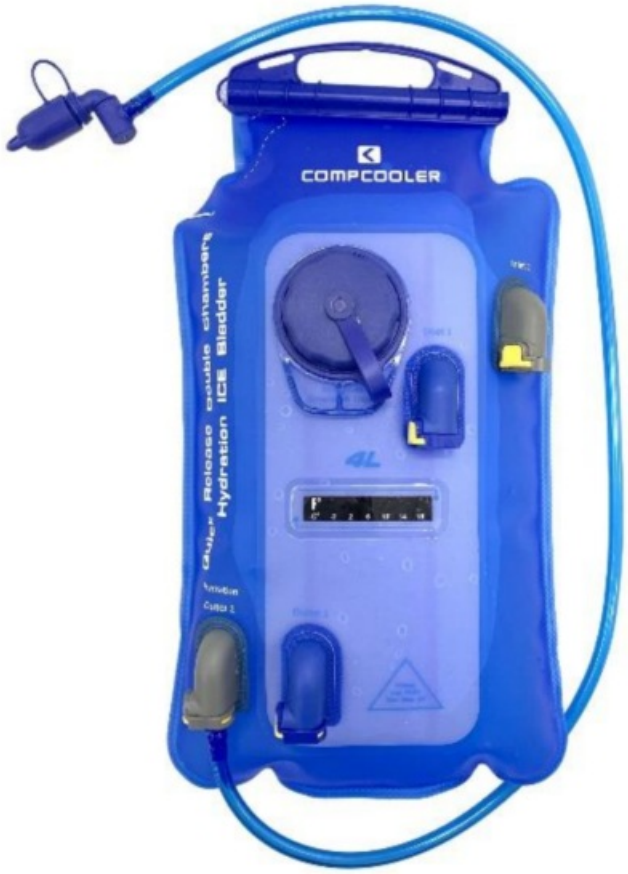
COMPCOOLER COMP-DCHB-25 Quick Release Double Chambers Hydration Bladder User Manual

COMPCOOLER

Quick Release Double Chambers
Hydration Bladder
Model: COMP-DCHB-25/40
Rev. A
Operation Manual



Compcooler Technology
Jan. 2021

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COMPCOOLER Introduction:

Compcooler Technology specializes in working on personal cooling & heating systems for harsh conditions. Compcooler has established its resume as a manufacturer of Military, Electronic, and Medical cooling equipment. The employees at Compcooler's state-of-the-art manufacturing facility have been producing liquid heating & cooling systems for over 15 years. Quality system: ISO9001 and AS9100 registered facility. Certifications for major items: CE, FCC, UL, PSE, CB, FDA.

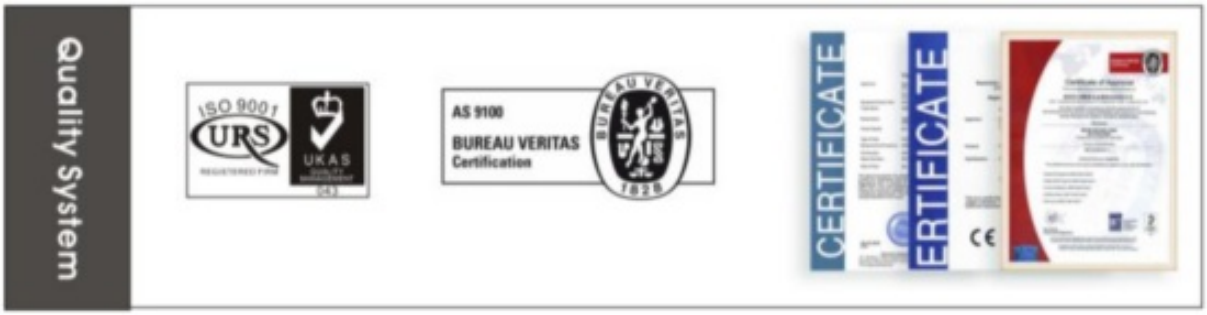
Product Categories

1. Personal ICE Water Circulation Systems
2. Micro Refrigeration Chiller Units
3. Liquid Heating & Cooling Chiller
4. Liquid Cooling & Heating Garment

5. Industrial Chiller Unit Module
6. Customized Cooling Systems

Certifications for major items

Quality System for facility



BACKGROUND OF PERSONAL COOLING SYSTEM

In conditions of extreme heat, people may be at risk of heat stress when the body is under stress from overheating. Heat stress is not only a serious condition for workers, but it can result in occupational illnesses and injuries, heat-related discomforts and illnesses include heat exhaustion, heat cramps, heat rash, or even heat stroke. Symptoms can range from profuse sweating to dizziness, cessation of sweating, and collapse. At greatest risk of heat stroke are the elderly, children, and people with medical conditions, however, even young and healthy individuals can succumb to heat if they participate in strenuous physical activities during hot weather. It will need immediate action to cool the person until help arrives.

LIQUID CIRCULATION COOLING SYSTEM

A liquid circulation cooling system is an active cooling solution, it can cool the body temperature fast to decrease the incidence of thermal stress and heat stroke while increasing comfort, safety, focus, and endurance. A liquid circulation system includes a liquid circulation unit and a cooling garment. Mini a pump circulates cold water from the chiller or ICE bladder to cooling channels embedded on the cooling garment and continuously flows around the body, it will keep the user's body temperature at a comfortable and safety range.

BENEFITS OF LIQUID COOLING SYSTEM

Reduction in body core temperature increased duration. Reduction in skin temperature, decrease in hydration needs Reduction in heart rate, improve mental acuity Reduction in sweat rate, maintain physical performance

COMPCOOLER Personal ICE Water Circulation Cooling System (PICS)

PICS includes a liquid circulation unit and liquid cooling garment. A mini pump circulates the cold ICE water from the bladder to a micro-tubing cooling channel embedded on the liner of the garment, it continuously flows around the body to reduce body core temperature and keep the user at a comfortable cool range in hot conditions.

Detachable Bladder: 1.5L, 2.0L, 3.0L, and 4.0L (Hydration)
Cooler Unit: 6L, 25L Cooler
Pump Control Unit:
ON/OFF mode: cold water circulation only

Flow control mode: 3 levels of water flow control
Temp control mode: precise temp control for circulation of liquid

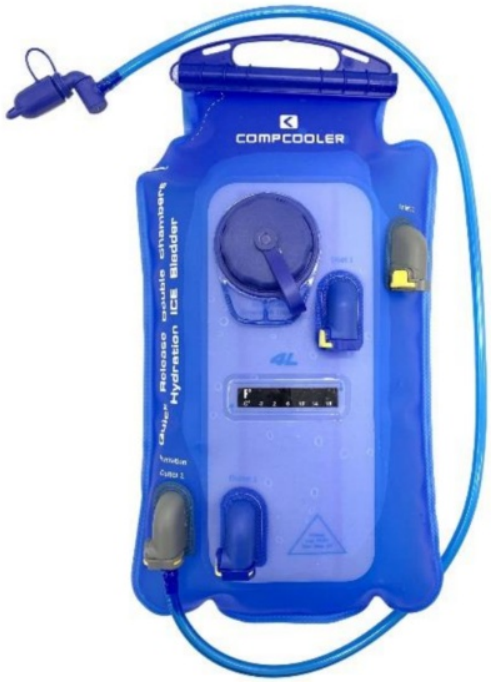
Liquid Temperature range: 2°C-10°C (36 °F -50 °F) Cooling time:
1-3 hours for 1.5L frozen bladder
3-6 hours for 3.0L frozen bladder
4-8 hours for 6L ICE Cooler
8-12 hours for 25L ICE Cooler
Operation Ambient: 10°C-65°C (36 °F -148 °F)

Quick Release Double Chambers Hydration Bladder

Model: COMP-DCHB-25/40

Introduction:

COMPCOOLER double chambers ICE Bladder was designed for personal ICE water cooling systems, it includes two chambers, the main chamber with a roll-top is for water freeze, and the other chamber with a screw-top is for cool water circulation.



Bladder Size and Applications

- 2.5L Hydration Bladder: Backpack Single Compartment and UniVest
- 4.0L Hydration Bladder: Backpack Single and double compartments

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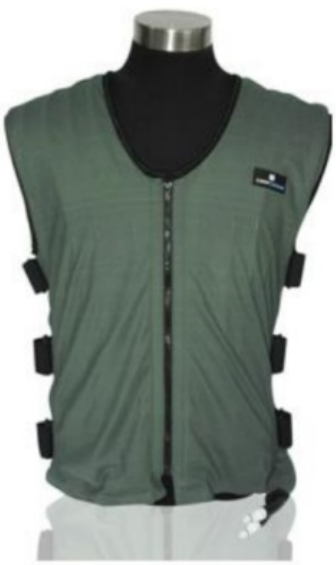
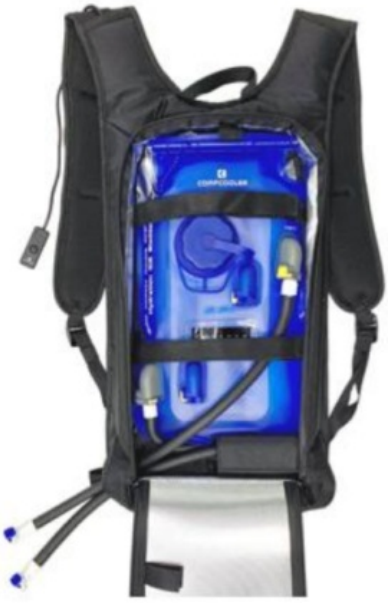
COMPCOOLER, PERSONAL THERMAL TECHNOLOGY

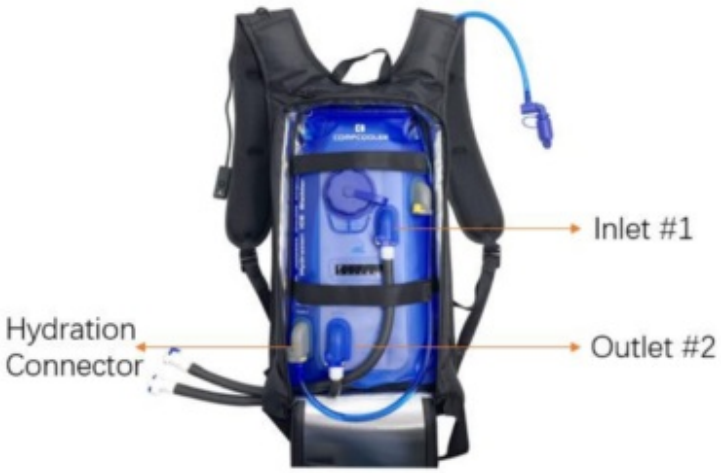
Preparation: Unit Connection and Primary Circulation





Bladder Connection:
Fill water into Roll-Top, connect the bladder Outlet/Inlet #2 grey quick fitting with backpack unit.
Checking: bladder no leaks, quick fittings connection is fine,
Vest Connection:
Connect backpack unit with cooling vest, once you hear a click, it's in position.
Checking: Vest no leaks, quick fittings connection is fine.

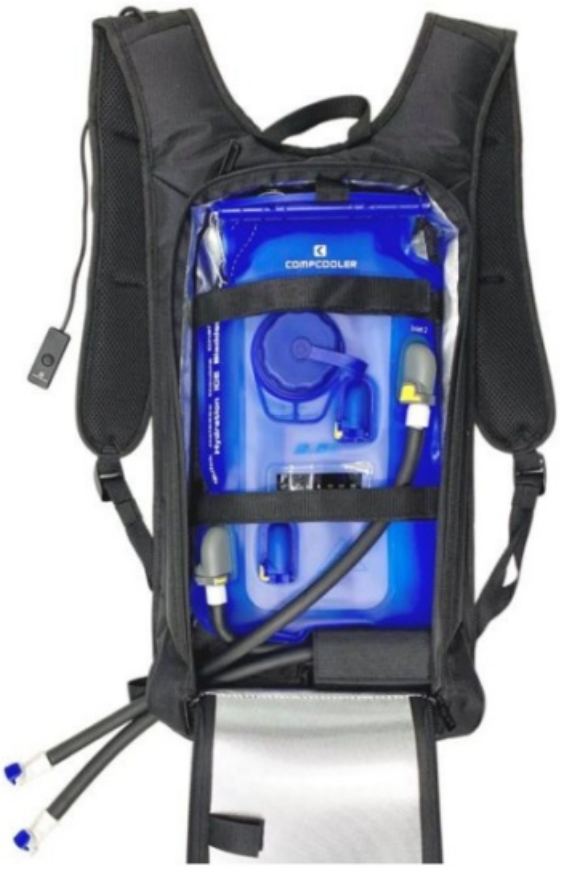
Start circulation:
Press the On/Off switch, Pump circulates water from the bladder into the micro tubing cooling channels of the cooling vest, then return to the bladder. The user may see the water flow back to the bladder from Inlet #2 Grey fitting.
Checking: Battery works fine, the pump works fine.
Mode A
Cool Water Circulation and Hydration
Temp Range: 15℃ -20℃ (59℉-68℉) Frozen Bladder



Step I Bladder Freeze
Fill water from the Roll-Top to the fill line. No water into Screw Tap before the freeze.
Step II: Circulation Water
Fill circulation water from Screw-top

Step III: Bladder Connection
Connect the frozen bladder Outlet/Inlet #1 Blue quick fitting with backpack unit
Step IV: Start circulation Press On/Off Switch, and the pump starts to circulation, and the user may feel the cooling in 2-3 minutes

Cooling Performance :
Cooling time: 3-4 hours by 2.5L Bladder 5-6 hours by 4.0L Bladder
Temp Range: 15℃ -20℃ (59℉-68℉)
Hydration: ICE melts more than 60%
Mode B
Cold Water Circulation Temp Range: 2℃ -5℃ (36℉-41℉) Frozen Bladder



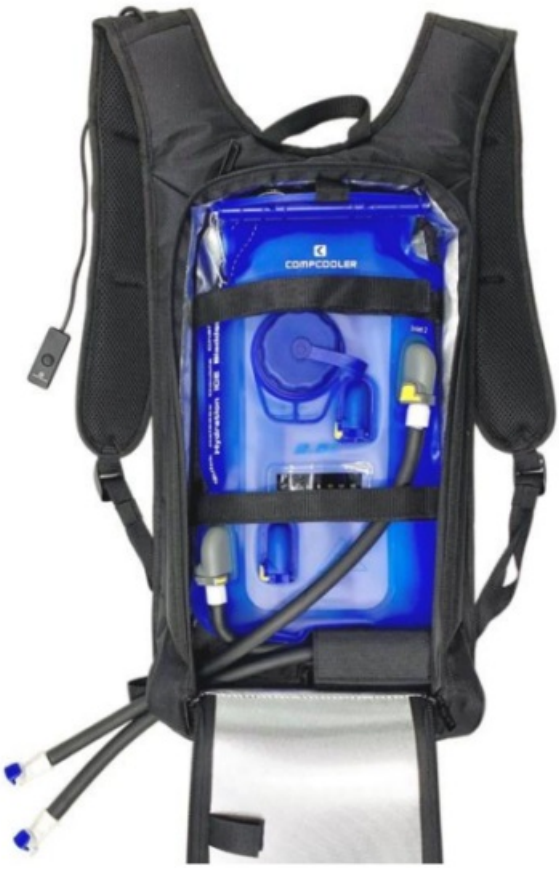
Step I Bladder Freeze
Fill water into the Roll-Top to fill the line.
Step II: Circulation Water
Fill a small amount of circulation water from Roll-Top Waiting for 5-8 minutes till Outlet/Inlet#2 fitting melt, then go to the next step.

Step III: Bladder Connection
Connect the frozen bladder Outlet/Inlet #2 Grey quick fitting with backpack unit
Step IV: Start circulation
Press On/Off Switch, the pump starts to circulation, the user may feel the cooling in 60 seconds

Cooling Performance

Cooling time: 2-3 hours by 2.5L Bladder
4-5 hours by 4.0L Bladder
Temp Range: 2℃ -5℃ (36℉-41℉)
Hydration: Not Available

Mode C
Quick Cold Water Circulation
Temp Range: 4°C -6°C (39°F-43°F)
ICE Cubes



Step I Bladder Freeze
Fill ICE Cubes from Roll-Top.
Step II: Circulation Water
Fill a small amount of circulation water from Roll-Top

Step III: Bladder Connection
Connect the frozen bladder Outlet/Inlet #2 Grey quick fitting with backpack unit
Step IV: Start circulation
Press On/Off Switch, the pump starts to circulation, the user may feel the cooling in 60 seconds
Cooling Performance
Cooling time: 1-2 hours by 2.5L Bladder 2-3 hours by 4.0L Bladder
Temp Range: 4℃ -6℃ (39℉-43℉)
Hydration: Not Available

Safety:

It is important to become thoroughly familiar with the manual and operating characteristics of the unit. It is the owner's responsibility to assure proper operator training, installation, operation and maintenance of the unit. Observe all warnings can result in injury to the operator and severe mechanical damage to the unit.

Warranty:

Compcooler Warrants to the Original Purchaser that products sold shall be free from defects material and workmanship for warranty period not exceed one year from the date
of shipment. Compcooler agrees to correct the original user of this product, either by repair or at the manufacturer's election by replacement. This warranty shall not apply if the defect or malfunction was caused by accident, neglect, unreasonable use, improper service, or other causes not arising out of defects in material or workmanship. The manufacturer's sole obligation under this warranty is limited to the repair or replacement of a defective product and shall not, in any event, be liable for any incidental or consequential damages of any kind resulting from the use or possession of this product.

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Documents / Resources

	COMPCOOLER COMP-DCHB-25 Quick Release Double Chambers Hydration Bladder [pdf] User Manual COMP-DCHB-25, Quick Release Double Chambers Hydration Bladder