

INTRODUCTION TO ZIPPKOOL®

We thank you for purchasing the ZIPPKOOL® Cooling Jacket. You are now one of the 2 million plus individuals that are currently using ZIPPKOOL® Cooling Jacket to stay cool and comfortable in hot work environments.

This Operation Manual is designed to guide you into properly installing, maintaining, and using your jacket. Please read this manual carefully before using it. Also, we ask that you keep this manual for your future use should you have questions or technical issues. You can always contact ZIPPKOOL INC. if you have any questions not answered in this manual. This manual applies to the HVN-500U Series. *Pictures shown may not entirely reflect the actual product you have.

FOR WARRANTY, TECHNICAL ISSUES, CUSTOMER SUPPORT,
PLEASE CONTACT:

ZIPPKOOL INC.

EMAIL: warranty@zippkool.com

15154 Transistor Lane, Huntington Beach, CA 92649

Hours: Mon-Fri, 9AM-6PM Pacific Time

FEATURES AND FUNCTIONS OF ZIPPKOOL®

Two motor fans are attached on both sides of the waist area of the cooling jacket. These fans each bring in fresh air from outside into the jacket to circulate air and evaporate sweat. This creates an evaporative cooling effect inside the jacket, bringing down the temperature and humidity inside the jacket by up to 30F.

Air exits from the neck/ sleeves after circulating inside the jacket.



Two small motor fans thrusts in air into the jacket

Fresh air taken in by the cooling jacket circulates throughout your upper body, while evaporating sweat, lowering your temperature and minimizing perspiration.

HVN-500U SERIES

ZIPPKOOL® High Visibility Cooling Jacket (HVN-500U Series) comes in TWO COLORS. High Visibility Orange and High Visibility Yellow. BOTH Jackets are ANSI/ISEA Class 3 compliant, with 3M Scotchlite® Reflective Tape attached around the jacket to enhance visibility. Key Features are the following:

- ANSI Class 3 Compliant**
- OSHA Compliant**
- Waterproof Fabric***
- Rip-Stop Durable Polyester Fabric**
- Body Harness Compatible**

THIS JACKET IS NOT INTENDED OR DESIGNED TO BE FIRE PROOF, FIRE RETARDENT, FLASH ARC, NOR INTRINSICALLY SAFE. IF YOUR WORK ENVIRONMENT REQUIRES SUCH PROTECTIVE GEAR, PLEASE REFRAIN FROM USING HVN-500U SERIES. ZIPPKOOL® IS CURRENTLY IN THE PROCESS OF DEVELOPING MODELS FOR THE ABOVE USE AND STAY CONNECTED WITH ZIPPKOOL FOR NEWS ON THE RELEASE OF THESE MODELS.

*While the fabric is waterproof, the battery pack/fan is not designed to be waterproof. In the case of heavy rain, we recommend that you turn the power off, place the battery pack inside the pocket to prevent from getting wet. Fan can be turned back on once rain stops.

WEARING A HARNESS

HVN-500 Series is proud to have Harness compatibility. Workers can wear a harness underneath the ZIPPKOOL High Visibility Cooling Jacket for fall protection. Simply strap the body harness as recommended by the harness manufacturer, and slip out the dorsal D-ring from the back zipper. Tighten the D-ring mouth with the draw chord to minimize air leakage. (You will require another person to properly perform these tasks. DO NOT ATTEMPT TO INSTALL ON YOUR OWN)



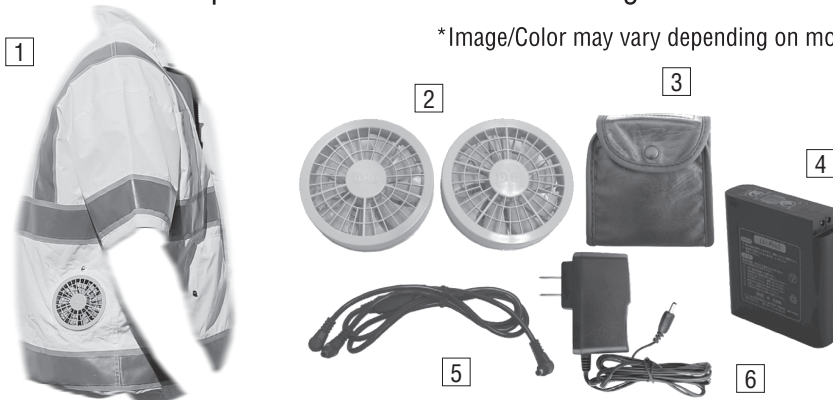
When Harness is not in use, make sure the back zipper is closed, and the harness tunnel is inside its pocket. This will allow for more air circulation.



PARTS

Below are the parts needed to assemble and operate the ZIPPKOOL® Cooling Jackets

*Image/Color may vary depending on model



1. High Visibility Jacket
2. Fan with holding rings x 2
3. Lithium Ion Battery Case
4. Lithium Ion Battery (AA Box for ZIPPKOOL® LITE models)
5. Cable
6. AC/DC Charger

HANDLING, PROPER USE AND SAFETY WARNING OF THE COOLING JACKETS

Please read following notes carefully before using the cooling jacket. Following instructions are provided for your safety and proper use of cooling jacket. Manufacturer, SFT Laboratories Co. Ltd, and ZIPPKOOL INC., will not be responsible for any cause of physical damages or damages that user of the cooling jacket may suffer if following provisions are not followed by user.

1. Do not use cooling jacket during sleep. Exposing your body under constant air flow may result in over-cooling of your body temperature.

2. Do not use cooling jacket if you are under the influence of cold or flu-like symptoms, alcohol, or any other drugs. If you feel too cold, or feel uncomfortable wearing the cooling jacket, refrain from using the jacket until your health conditions improve.

3. Keep jackets away from children. While the fan is designed with a cage to prevent fingers or other body parts from directly touching a moving fan, children's fingers may accidentally slip through or get stuck in the cage. The jacket is strictly for adult use only.

4. Do not use cooling jacket in an environment over 122F, high heat temperature entering the jackets through the fan may do more harm than good.

5. TURN OFF POWER if you feel excessive heating of the battery. It is natural for a battery to heat up in use, but if you feel it is too hot, please turn it off.

6. Do not turn on the jacket or the fans when you are not wearing the jacket.

7. WHEN WASHING YOUR JACKET, REMOVE ALL FANS, HOLDING RINGS, CABLES AND BATTERIES before washing. We recommend hand-washing the jacket in cold water. See label on jacket for details.

8. AVOID WATER from touching all electronics components of the cooling jacket. DO NOT turn POWER ON if the components are wet, TURN OFF IMMEDIATELY if you are working outside and it begins to rain or is surrounded by water.

9. Do not attempt to use air gun or high pressure air gun to remove dusts deposited on propellers of cooling fans since these fragile plastic components may break or rotate propellers at high speed which may result in shortening motor life. Use aerosol sprays (air dusters for computers) instead.

10. Handle with care, do not step on, throw, or handle it violently. It may result in breakage of parts.

11. Do not attempt to stop the fans manually. Do not insert any type of sticks or metal pieces to the fan cage while in operation for it may damage the fans or damage the battery packs.

12. Do not insert any metallic objects into the Battery pack. Metallic objects may cause a circuit to short damaging the battery and creating heat for a possible bodily injury.

13. Do not leave the cooling jacket on a dashboard of a car or near fire where it may get very hot. Plastic components may get deformed which may result in malfunction of the cooling jacket.

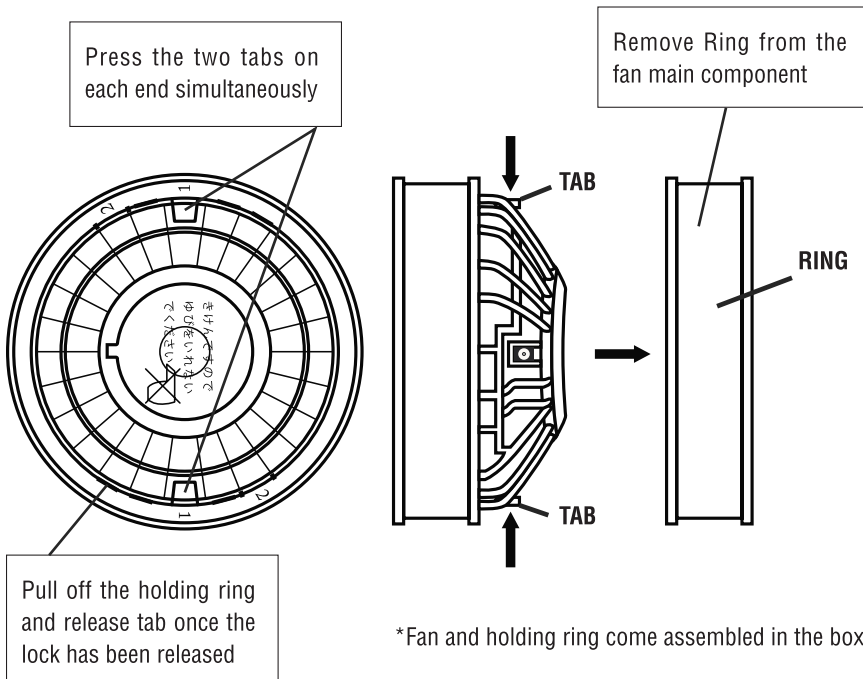
14. Disconnect Li-Ion battery pack from jacket and store it in a safe, dark and ambient temperature.

Preparation and assembly of cooling jacket

(Estimated Assembly Time: 5 minutes)

[STEP 1]

Take motor fans (quantity 2) out of the box. Remove the fan holding rings, by pressing the two tabs simultaneously to unlock the holding rings. Once unlocked, pull the holding rings off the fans. See diagram



[STEP 2]

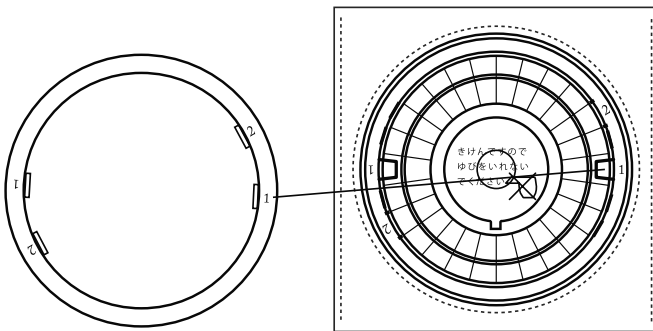
Open the jacket and lay it down on a flat surface, like the diagram shown below. Slip the fan from behind the jacket into the fan hole. The flatter surface of the fan shall face outside of the jacket, while the circular grill faces inside.



[STEP 3]

Before inserting the holding ring, rotate the fan so that the cable jack is facing downwards, and the two tabs are on the side. Once the position is right, place the holding ring by placing the tabs on correct location. You will hear a clicking noise when the holding ring has securely locked in position.

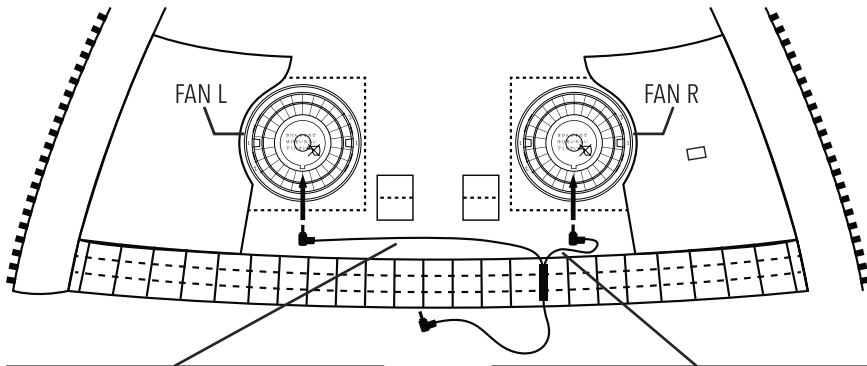
If assembled without properly locking the tabs, the fan and holding rings will come off while in use. Please make sure that the holding rings are locked securely before wearing the jacket.



NOTE: The latches on the holding ring are marked with two numbers 1 and 2 (See diagram). We recommend using the #2 latch for the HVN-500 Series.

[STEP 4]

Insert cable to each motor fan as shown on the diagram.



Longest cable shall be attached to FAN L (Left motor fan)

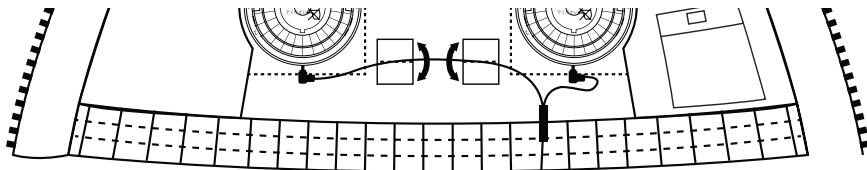
IMPORTANT: Cables have 3 jacks and while they are all compatible, please follow the above instruction

Shortest cable shall be attached to FAN R (Right motor fan)

IMPORTANT: Cables have 3 jacks and while they are all compatible, please follow the above instruction

[STEP 5]

Secure long cable by using the two Velcro belts in the center of the jacket. Secure the medium cable by using the Velcro in the very right side of the jacket.



Lithium Ion battery pack shall be clipped on your belt, placed in the outer or inner pocket when in use.



Medium cable is the cable that connects to the battery pack.

Assembly of cooling jacket is complete.

CONNECTING YOUR JACKET TO YOUR LITHIUM ION BATTERY

There are two ports on the Lithium Ion Battery Pack. Either ports will power your jacket. **HOWEVER THEY ARE NOT DESIGNED TO BE USED AT THE SAME TIME. DO NOT CHARGE WHILE USING, NOR ATTEMPT TO POWER TWO DEVICES AT ONCE.**



You may use either connector port to connect cable from cooling fan or AC/DC Charger to charge the Lithium Ion Battery

WARNING!

DO NOT CHARGE YOUR BATTERY WHILE USING YOUR COOLING JACKET. DO NOT USE TWO CONNECTOR PORTS SIMULTANEOUSLY FOR OPERATING MULTIPLE DEVICES.

TURNING ON AND ADJUSTING POWER

To turn on power, press the ON button for about 3 seconds or until you hear the fan go on. The Lithium Ion Battery will not turn on while it is unplugged to a fan. The default power level is at 3 or STANDARD.

(#) POWERL LEVEL	VOLTAGE	AIR/SEC	BATTERY LIFE
(1) TURBO	7.4V	7.8 gallons	5.5 HRS
(2) HIGH	6V	6.5 gallons	8.0 HRS
(3) STANDARD	5V	5.5 gallons	12.0 HRS
(4) LOW	3V	3.0 gallons	24.0 HRS

(#) is the number that appears on the LED Screen on the Lithium Ion Battery



You may adjust power level at any time, by pressing **UP** to **INCREASE POWER** and **DOWN** to **LOWER POWER**.

After adjusting the power level, the **BATTERY LED** will display **BATTERY LIFE** with numbers ranging from 1 to 9. A 9 means the battery is fully charged, and 1 means the battery is low.

To turn off the battery, simply press OFF for about 3 seconds, or by simply pulling the cable out of the ports.

NOTE: Charge Lithium Ion Battery Pack with the designated AC/DC Adapter which is provided. **DO NOT USE OTHER CHARGERS which may result in damaging the Li-ion battery pack!**

WARNING ON THE PROPER USE OF LITHIUM ION BATTERY

1. Charge it after your daily use. Charging from Empty to Full takes about 6 Hours. Leaving the battery empty for a long-period of time will shorten the battery life.

2. If you do not expect to use the cooling jacket or a while, please fully charge the battery before storing it. **Unused battery will last about 6 months, and recharge after 6 months. PLEASE STORE BATTERY IN A DARK COOL PLACE** and avoid the sun/heat.

FCC Verification

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FREQUENTLY ASKED QUESTIONS

Q: The fans do not turn on.

A: Please make sure the battery is charged. Without connecting any cables, press the ON button of the battery and if the number that shows on the screen is 9, it means it is fully charged. 1 means it is very low on battery.

Q: I do not feel any or enough air when I turn on the power.

A: Please make sure both of the fans are on by putting your hands near the outside of the fan. If you do not feel any air, turn off the power, take off your jacket and make sure that all of the cables are plugged in. If all parts are assembled properly and your fans are not working, please contact ZIPPKOOL INC.

Q: The fans fall out when I wear the jacket.

A: Fans must be secured via holding ring so that the fans do not fall out of the fan hole. Double check the assembly instructions to make sure holding rings are attached properly to the fan.

Q: I don't feel the air circulating around my body.

A: Make sure that the waist sleeves are tight against your body. In order to adjust, use the draw chords on each side of the jacket to tighten up the waist sleeve. The only air outlet should be the sleeves and the neck portion.

Q: How do I wash the jacket?

A: Remove all parts, cables, fans, holding rings, battery from jacket before hand-washing.

Q: How do I clean the fans?

A: Do not use liquid to clean the fans. Use air dusters used for cleaning PCs. Do not attempt to disassemble fan or battery parts.

Q: What should I wear underneath the jacket?

A: Wear a T-shirt or any sleeved shirt that is not too thick or loose. Do not wear a flannel. The undershirt will absorb sweat, in which the air from the ZIPPKOOL jacket will dry your skin and shirt at the same time, creating a cooling effect.

Q: There are two jack holes on the battery, which one do I use?

A: Of the two, you may use either of the holes. There are two holes for backup purposes, if one should fail to work. **DO NOT USE TWO HOLES SIMULTANOUSLY.** Do not charge and use the jacket at the same time, do not attempt to power two jackets with one battery.

WARNING REGARDING LITHIUM ION BATTERIES

- a)** Do not dismantle, open or shred secondary cells or batteries in the LI-PRO1U battery pack.
- b)** Do not expose cells or batteries to heat or fire. Avoid leaving Battery inside cars that may heat up under the sun.
- c)** Do not short circuit batteries. Do not store batteries haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.
- d)** Do not subject battery to mechanical shock.
- e)** In the event of cell leaking, do not allow the liquid to contact skin or eyes. If exposed to liquid, wash the affected area with copious amount of water and seek for medical advice.
- f)** Do not use any cells or batteries that are not designed for use with ZIPPKOOL®.
- g)** Do not use any other charger other than the one specifically provided to charge Battery.
- h)** Use of Lithium Ion Battery by children shall be strictly avoided.
- i)** Do not attempt to use Battery that is not ZIPPKOOL® Branded or manufactured by SFT Laboratory Co., Ltd.
- j)** Keep battery pack clean and dry after usage.
- k)** Wipe the battery terminals with a clean dry cloth if exposed to dust or dirt.
- l)** Batteries must be charged before use. Always use the correct charger supplied by ZIPPKOOL INC. and refer to the operation manual for proper charging.
- m)** Do not leave battery on prolonged charge when not in use.
- n)** Charge battery at least once every 6 months to maintain proper battery life.
- o)** Retain the original operations manual, proof of purchase with date and place where it was purchased for future reference.
- p)** Only use the battery for applications which it was intended.
- q)** Remove the battery pack from ZIPPKOOL® fans when not in use.
- r)** Dispose Lithium-ion battery properly according to state law.