

**Lightweight Cooling Fans - Instructions**

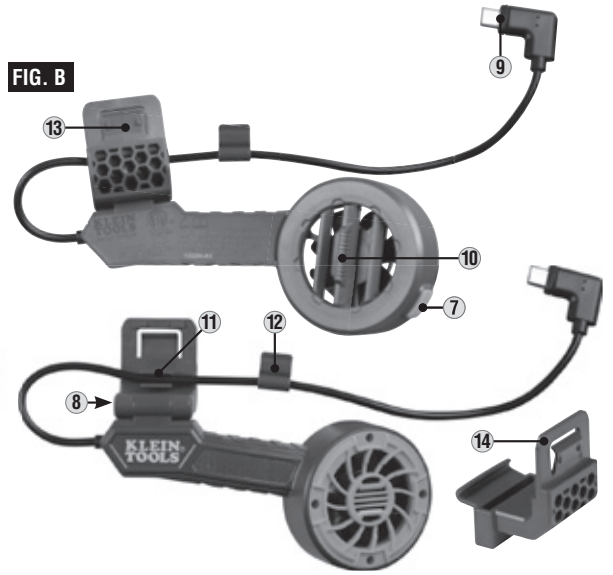
**Ventiladores de enfriamiento livianos - Instrucciones**

**Ventilateurs de refroidissement légers - instructions**

**FIG. A**



**FIG. B**

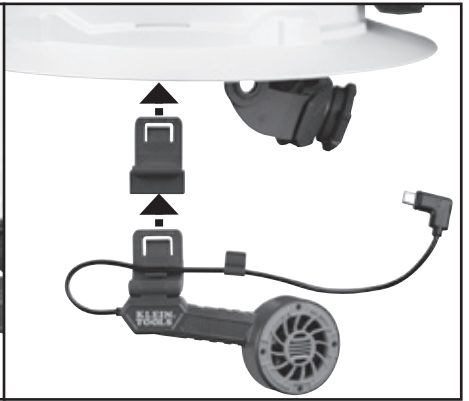


Hard hats, safety helmet, and safety visor not included.

Cascos de seguridad tipo cachucha, casco de seguridad y visera de seguridad no incluidos.

Casques de chantier, casques de sécurité et visières de sécurité non inclus.

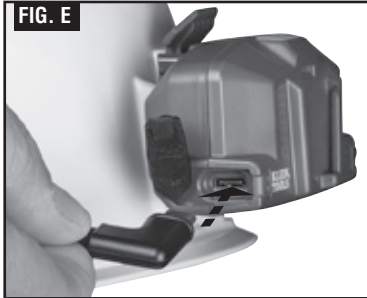
**FIG. C**



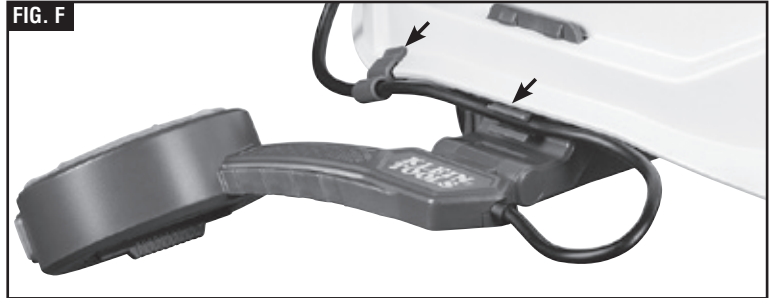
**FIG. D**



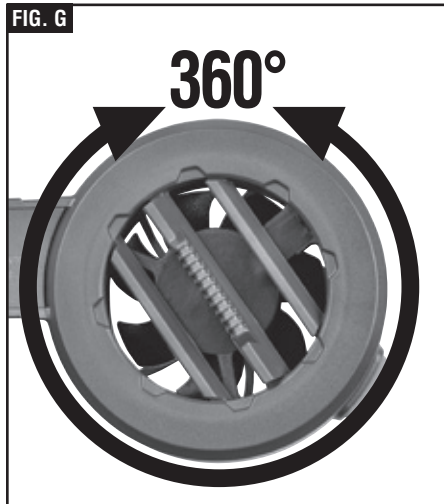
**FIG. E**



**FIG. F**



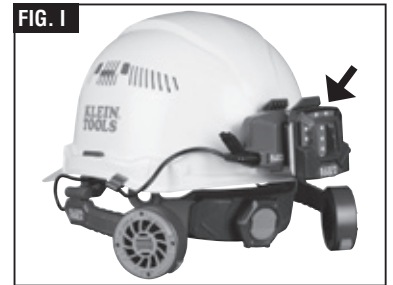
**FIG. G**



**FIG. H**



**FIG. I**



**FIG. J**



**CUSTOMER SERVICE / SERVICIO AL CLIENTE / SERVICE À LA CLIENTÈLE**

**KLEIN TOOLS, INC.**

450 Bond Street, Lincolnshire, IL 60069 1-800-553-4676  
 customerservice@kleintools.com www.kleintools.com

The 60523 Lightweight Cooling Fans are designed to fit Klein Tools Hard Hats (Cap-Style and Full Brim) and Safety Helmets to primarily focus airflow in the neck area. The independent dual-fan design provides a great combination of adjustment, airflow, weight, and balance for all-day comfort. The fans attach to the side accessory slots of the hard hat and flip up out of the way when not in use. The Lightweight Cooling Fans are powered by a separate rechargeable modular battery (Cat. No. 29025) that can also be used to charge and/or power other Klein Tools devices, as well as charge some other portable electronic devices. The modular battery can be swapped out with a spare for extended runtime.

**CONTENTS**

- Left and right lightweight cooling fans
- Modular rechargeable Li-ion battery (3350mAh / 12.06Wh)
- USB-A to USB-C charging cable
- This Instruction Sheet

**GENERAL SPECIFICATIONS**

**FANS**

- **Configuration:** Axial fans (Left and Right)
- **Dimensions (each):** 5.2" x 3.9" x 0.9" (130.9 x 99.7 x 22 mm)
- **Weight (each):** 2.36 oz. (67 g)
- **Runtime (fully-charged battery, both fans, continuous use):** High: 8 hours Low: 16 hours
- **Drop Protection:** 6.6' (2 m)
- **Ingress Protection (IP) Rating:** IPX4

**MODULAR BATTERY**

- **Dimensions:** 3.5" x 1.7" x 2.1" (88.9 x 43.2 x 53.3 mm)
- **Weight (battery only):** 4.06 oz. (115 g)
- **Cell Type:** 18650 Lithium-Ion
- **Capacity:** 3350mAh (12.06Wh)
- **Input USB-C (each):** 5V DC, 1.2A
- **Input USB-C (total):** 5V DC, 1.2A
- **Output USB-C (each):** 5V DC, 1.0A (1800 mAh) up to 2A Max
- **Output USB-C (total):** 5V DC, 1.0A (1800 mAh) up to 2A Max
- **Total Output Power:** 10 W Max.
- **Full Charge:** Approx. 4 hours, based on charger output
- **Shelf Life:** Charge every 3 months
- **Charging Requirements:** 5V DC, 2A recommended at 77°F (25°C)
- **Operating Temperature:** 14° to 122°F (-10° to 50°C)
- **Charging Temperature:** 41° to 104°F (5° to 40°C)
- **Storage Temperature (up to 3 months):** 14° to 104°F (-10° to 40°C)
- **Relative Humidity:** <60% non-condensing
- **Drop Protection:** 6.6' (2 m)
- **Ingress Protection (IP) Rating:** IP54
- **Standards:** UN38.3, DOE/CEC, NRCAN

**ETL** **UL** **CSA**

Conforms To  
UL STD. 2054, 1642, 62368-1,  
UL STD. 507, UL SUBJECT 2056

Certified To  
CSA STD. C22.2 NO. 62368-1,  
CSA STD. C22.2 NO. 60335-1, 60335-2-80

**Intertek**  
5017951

Specifications subject to change.

**WARNINGS**

- **Read, understand, and follow these instructions to ensure safe operation. Failure to observe these warnings can result in risk of fire and burns, electric shock, serious injury and/or property damage. Always check with your site safety supervisor before use of this product. Local regulations may not permit use. Keep this user manual and comply with the instructions provided for this product.**
- This product is ONLY intended for use with Klein Tools hard hats and safety helmets with accessory slots and accessory mounts designed to secure the fans and battery provided.
- Before each use, inspect components for damage. Secure and keep any loose hair away from the fans.
- **DO NOT** use a damaged or modified battery. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- Risk of fire and burns. Do not open, crush, heat above 140°F (60°C), or incinerate. Follow all manufacturer's instructions. Prolonged exposure to direct sunlight can result in elevated temperatures.
- **DO NOT** use any other cables or batteries not designed for use with this device. Refer to the user manual for proper charging instructions. Replace ONLY with Klein Tools replacement parts.
- **DO NOT** immerse in water or other liquids
- Properly seal the USB port cover to achieve specified water & foreign object ingress protection. Keep seal free of dirt, oil, sand, or other material that interferes with proper sealing. Failure to do so can result in risk of fire or electric shock.
- **DO NOT** open the USB port cover if wet or in a wet environment. Thoroughly dry the unit and the seal around water-resistant cover completely before opening water resistant cover
- **DO NOT** subject to vibration, impacts, or drops greater than 6.6' (2m). The housing may not show signs of damage, but internal components may have been compromised. It is advisable to replace the unit if any such severe events occur.
- Keep away from high voltage devices.
- **DO NOT** attempt to repair the battery, fans, or charging cable. There are no user-serviceable parts.

**COMPLIANCE**

**FCC & IC COMPLIANCE**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- The equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**NOTE:** The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Canada ICES-003 (B) / NMB-003 (B)

**SYMBOLS ON PRODUCT**

- Warning or Caution**
- Risk of Electrical Shock**
- Read Instructions**
- Recyclable**
- Independently tested by Intertek and meets applicable standards.**
- Energy Efficiency Verified**

**FEATURE DETAILS (FIG. A)**

**MODULAR BATTERY**

- 1 Battery Status Button
  - 2 Battery Release Tab
  - 3 Battery Status LED Indicator
  - 4 USB-C Input/Output Ports (x2)
  - 5 Accessory Mount For Headlamp
  - 6 USB-A to USB-C charging cable
- COOLING FANS**
- 7 Power / Mode Button(s)
  - 8 Hinge(s)
  - 9 Integrated USB-C Power Cable(s) with O-ring(s)
  - 10 Adjustable Vents
  - 11 Fixed Cable Management Clip(s)
  - 12 Adjustable Cable Management Clip(s)
  - 13 Attachment Bracket(s)
  - 14 Full-Brim Hard Hat Attachment Bracket Adapters (x2)

**OPERATING INSTRUCTIONS**

**CHARGING THE MODULAR BATTERY**

The Modular battery should be charged fully prior to use. A full charge takes approx. 4 hours, depending on the charger's output.

**Avoid leaving the battery connected to the charger for prolonged periods when it is not being charged. Always disconnect the battery from the charger upon complete charge. Observe the input and output ports for receiving and providing power on the battery to ensure correct use. Refer to both the battery and charging source manual for proper charging instructions and requirements prior to charging.**

**CAUTION: The battery is equipped with USB-C ports. To avoid damaging the ports, DO NOT attempt to insert other connector types.**

- Disconnect the cooling fans or any other device(s) from the battery ports before charging.
- Connect the included USB-A to USB-C cable (6) to either USB-C port (4) then connect the other end to the charging source's USB-A port.
- The Battery Status Indicator LEDs (3) will indicate the charging status (see TABLE 1.)
- Press the Battery Status Button (1) to check battery level (see TABLE 2). Battery Status Indicator LEDs (3) will turn on, and will automatically turn off after 5 seconds if the Battery Status Button is not pressed again, or if no device is connected for charging.

**OPERATING INSTRUCTIONS**

LEGEND			
○ Not Illuminated	○ Solid Green	● Solid Red	⊖ <Blinking
<b>TABLE 1 - CHARGING STATUS</b>		<b>TABLE 2 - CHARGE REMAINING</b>	
LED	% Charged	LED	Remaining Charge
○ ○ ○ ○ ○	0% to 10% charged	● ● ● ● ●	76% to 100% charge remaining
○ ○ ○ ○ ⊖	11% to 25% charged	● ● ● ● ○	51% to 75% charge remaining
○ ○ ○ ⊖ ⊖	26% to 50% charged	● ● ● ○ ○	26% to 50% charge remaining
○ ○ ⊖ ⊖ ⊖	51% to 75% charged	● ● ○ ○ ○	11% to 25% charge remaining
○ ⊖ ⊖ ⊖ ⊖	76% to 99% charged	● ○ ○ ○ ○	1% to 10% charge remaining
○ ⊖ ⊖ ⊖ ⊖	100% charged	○ ○ ○ ○ ○	0% charge remaining

**Inspect and familiarize yourself with the components that need to be assembled onto the hard hat or safety helmet, then follow the instructions below to install and use the fans. DO NOT try to rework or substitute missing or damaged components.**

**INSTALLATION**

**NOTE: It is highly recommended that a chinstrap be used, even for hard hat models that do not include one, especially on jobs at-height or requiring constant head motion. The optional Klein Tools Chinstrap (Catalog no. KHHSTRP) is available for Klein Tools hard hats that do not include one with purchase. The chinstrap is included with Klein Tools Safety Helmet models.**

1. Install left or right fan first by inserting the Attachment Bracket (13) into the hard hat's universal accessory slot from the bottom until the two retention tabs clear the slot and click into place (FIG. C). Repeat the process for the other fan. **NOTE: If installing fans onto a Full-Brim hard hat, you may first insert the Full-Brim Hard Hat Attachment Bracket Adapters (14) into the universal accessory slots on the hard hat, then insert the fans into the corresponding slots on the Attachment Bracket Adapters.**
  2. Attach the battery to accessory mount on the back or front of the hard hat, as per your preference (FIG. D).
  3. Attach the Integrated USB-C Power Cable (9) on each fan to the corresponding USB-C Input/Output Port (4) on the battery (FIG. E).
  4. To prevent the cables from snagging, dress the Integrated USB-C Power Cables (9) through the Fixed Cable Management Clips (11), then attach the Adjustable Cable Management Clips (12) to the brim of the hard hat (FIG. F).
- The fans are now ready to be used.

**OPERATION**

The Power / Mode Button (7) on each fan cycles through Low Mode, High Mode, and off:

1. Power on the fans by single-pressing the Power / Mode Button (7) on each fan. The fans default to Low Mode upon powering on. Single-press the Power / Mode Button (7) on each fan to switch to High Mode.
2. Adjust the direction of the airflow by rotating the Adjustable Vents (10) on each fan (FIG. G).
3. Power off the fans by single-pressing the Power/Mode button(s) (7) from High Mode, or double-pressing the Power/Mode button(s) (7) from Low Mode.

**NOTE: It could take 10-15 seconds (or more) to feel effects of proper air circulation, especially in a very hot environment.**

**NOISE LEVELS**

The fans emit noise below 85db while in use. Klein Tools recommends wearing earplugs if you experience discomfort.

**BATTERY INTERNAL TEMPERATURE PROTECTION INDICATION**

The bottom LED of the Battery Status LED Indicator (3) will rapidly blink red, and battery will shut down and stop charging or discharging if temperature conditions in Table 1 below are detected. The battery will resume normal operation after the internal battery temperatures return to normal operating ranges shown in Table 2 below.

TABLE 1 PROTECTION	TEMPERATURE	
	CHARGING	DISCHARGING (IN USE)
High Temperature Shut-Down:	Above 114°F (46°C)	Above 136°F (58°C)
Low Temperature Shut-Down:	Below 33°F (1°C)	Below -2°F (-19°C)

TABLE 2 RECOVERY	TEMPERATURE	
	CHARGING	DISCHARGING (IN USE)
After a high-temperature or low-temperature shut-down, the battery's internal temperature must return to within these ranges to resume normal operation:	41°F to 104°F (5°C to 40°C)	14°F to 122°F (-10°C to 50°C)

**MOUNTING ADDITIONAL ACCESSORIES (FIG. I)**

Accessories can be mounted to the battery via Klein Tools' patented accessory mount. A headlamp or safety lamp can be attached to the accessory mount of the battery. For more information, see the REPLACEMENT PARTS AND ACCESSORIES section.

**FREQUENTLY ASKED QUESTIONS (FAQs)**

- **IN WHAT WAYS CAN THE MODULAR BATTERY BE USED?**  
With two USB output-capable ports, the modular battery can simultaneously power or charge two Klein Tools devices, such as safety lamps (FIG. I) and headlamps (FIG. J), as well as charge some other portable devices.  
**NOTE: Some devices may not operate while being charged. Some non-Klein Tools devices may not be compatible with the modular battery and therefore may not charge. Check device specifications to determine compatibility.**

**CLEANING**

**LIGHTWEIGHT FANS:** Prior to cleaning, be sure fans are disconnected from the battery. Use clean, dry, soft lint-free cloth to wipe down. If any debris is stuck in the fan blades or vents, gently free any objects using a blunt wooden pick. **DO NOT** use harsh cleaning chemicals, sharp metal picks, abrasive brushes, and/or pressurized air to dislodge stuck debris from the fan blades. The debris may become dislodged inside the fans and permanently damage the fans and their electronics.

Wipe down the cables with soft, clean, dry cloth. Inspect for tears, cuts, cracks, corrosion, bent connectors, discoloration and other such damage. **DO NOT** attempt to repair.

**BATTERY:** Prior to cleaning, be sure battery is disconnected from the fans, any power source, or other devices. Use clean, dry, soft-lint-free cloth to wipe down. **DO NOT** use abrasive cleaners or solvents. **DO NOT** use sharp metal objects to clean USB ports. Reinstall all port covers on unused ports.

Recharge as needed. There are no pre-designated intervals at which to recharge as long as you are using regularly. Avoid discharging completely on a regular basis, as this can impact overall life. Regularly inspect ports and charging cable for any debris, dirt, damage, and corrosion. **DO NOT** attempt to repair. Replace battery or cables as needed.

**STORAGE**

**DAILY STORAGE:**

Fold the fans upwards while attached to hard hat or safety helmet, so that the fans rest flat or out of the way. Place on a flat, so clean surface, to reduce potential for damage to the fans (FIG. H).

**LONG-TERM STORAGE:**

Be sure battery and lightweight fans are disconnected from one another and any other power sources or devices. Store components in a cool, dry place away from direct sunlight when not in use. If storing for prolonged periods, the battery should be periodically charged in order to maintain battery life, once every 3 months is recommended.

**NOTE: It is highly recommended to remove the fans and battery from the hard hat or safety helmet prior to placing in storage.**

**DO NOT** leave inside a vehicle or other confined spaces in temperature extremes, or in corrosive or unsanitary environments that can lead to decrease in service life, overheating, or fire. After taking out of storage, visually inspect fan, battery and all accessories for any damage. Replace any damaged parts as needed. It is recommended to clean each component prior to use (See CLEANING section above).

Allow all components to return to ambient conditions before recharging battery and/or operating.

**REPLACEMENT PARTS AND ACCESSORIES**

- 29025 – Replacement Modular Battery
- 56048 – Rechargeable Headlamp, 400 Lumens, Auto-Off Sensor
- 56049 – Rechargeable Light Array Headlamp, 260 Lumens
- 56060 – Headlamp Bracket with Fabric Strap
- 56062 – Rechargeable Headlamp/Worklight, 300 Lumens
- 56063 – Safety Lamp
- 56414 – Rechargeable 2-Color LED Headlamp
- 60156 – Intrinsically Safe LED Headlamp

**DISPOSAL / RECYCLE**



Do not place equipment and its accessories in the trash. Items must be properly disposed of in accordance with local regulations. See [www.epa.gov/recycle](http://www.epa.gov/recycle) for additional information.







