

FENIX HM75R Dual Power Source Industrial Head Lamp



# FENIX HM75R Dual Power Source Industrial Head Lamp Instruction Manual

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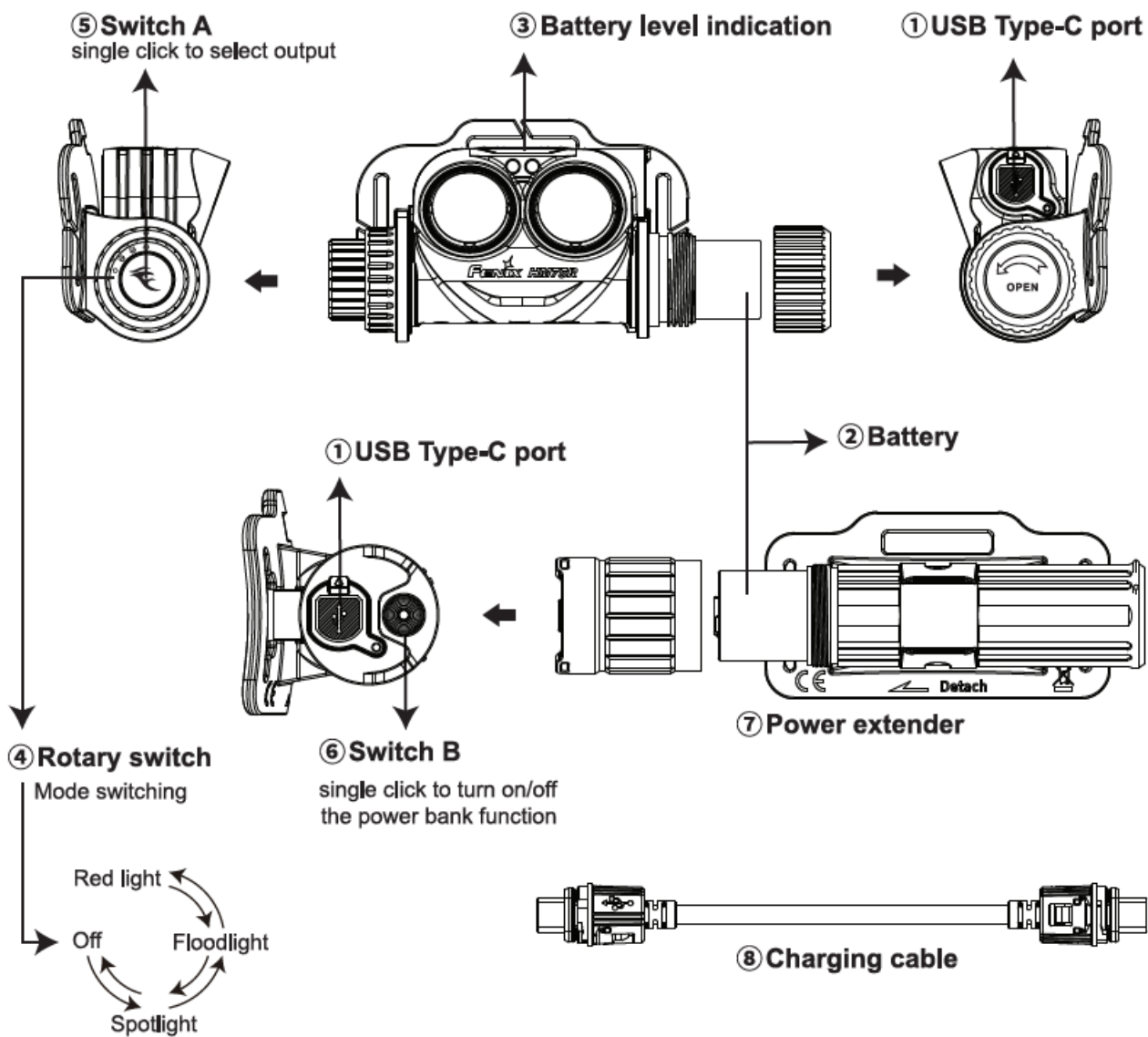
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FENIX HM75R Dual Power Source Industrial Head Lamp



## Product Overview

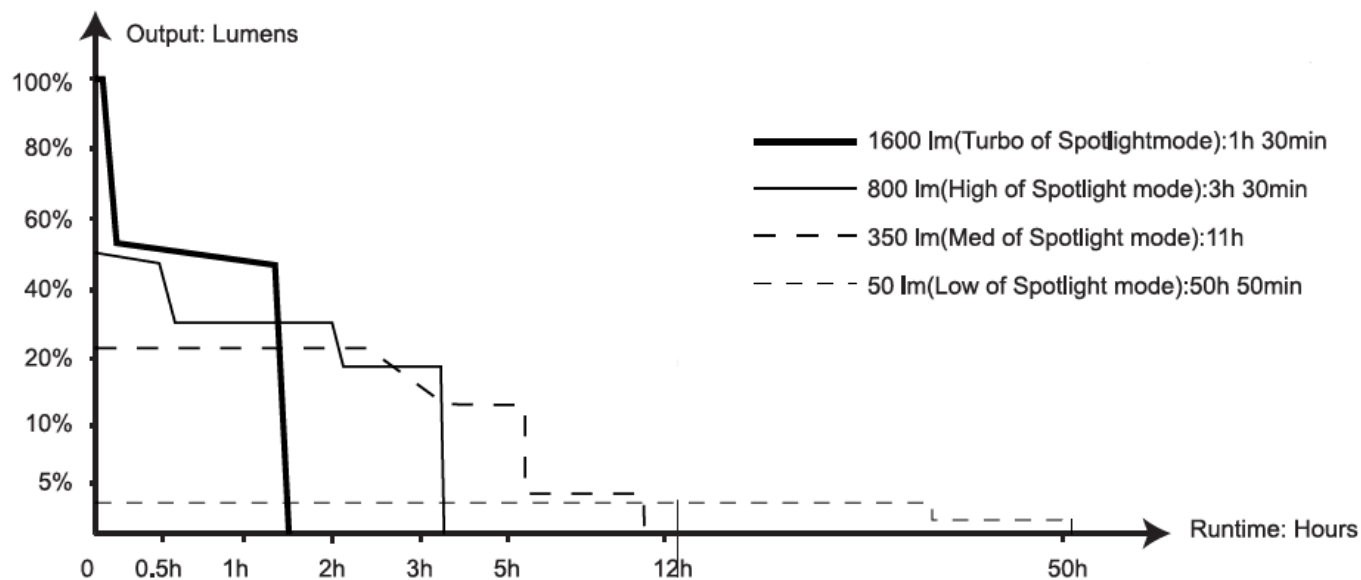


## Features

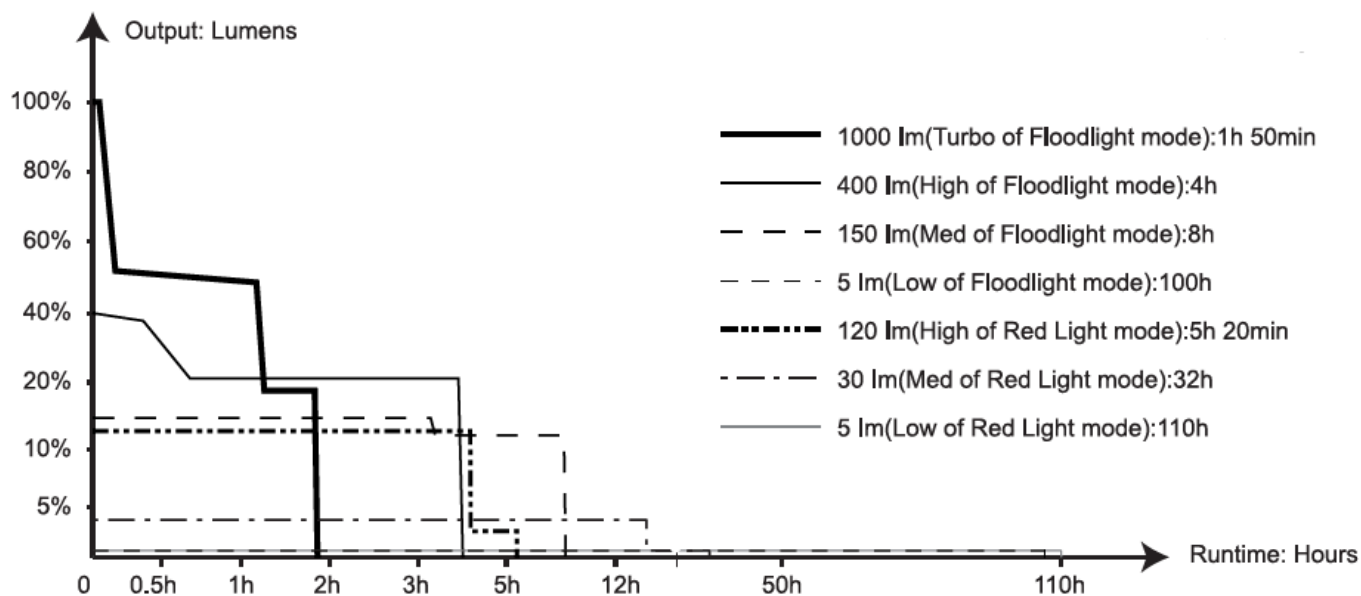
-  **OUTPUT: 1600 LUMENS MAX**
-  **RUNTIME: 234 HOURS MAX**

## Modes

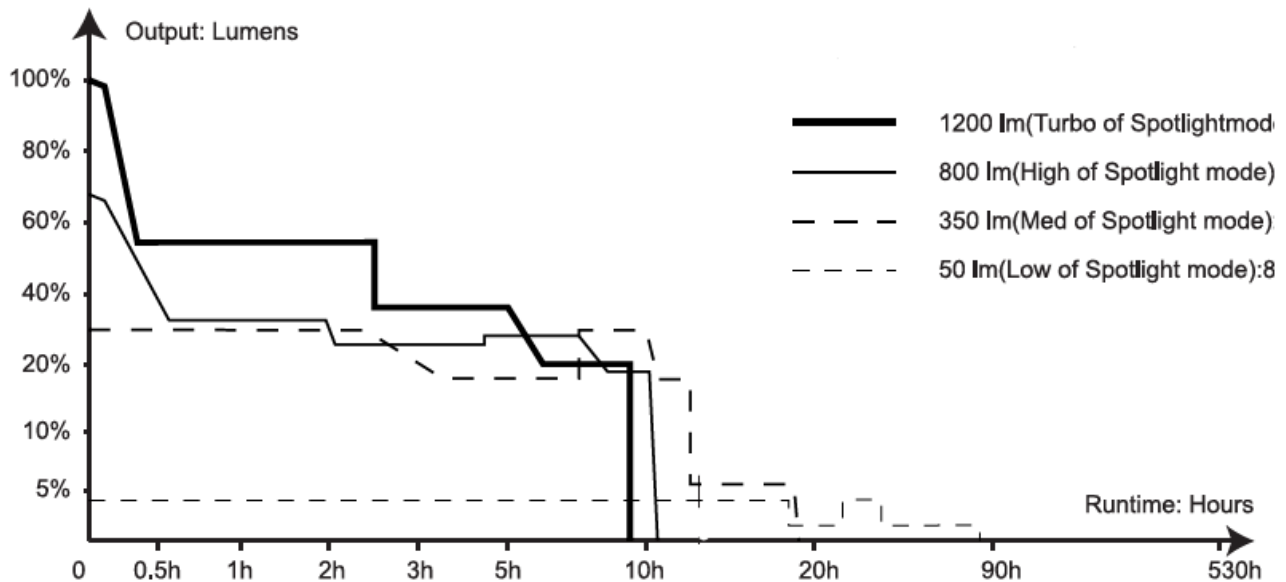
Using the ARB-L18-3400 Spotlight mode



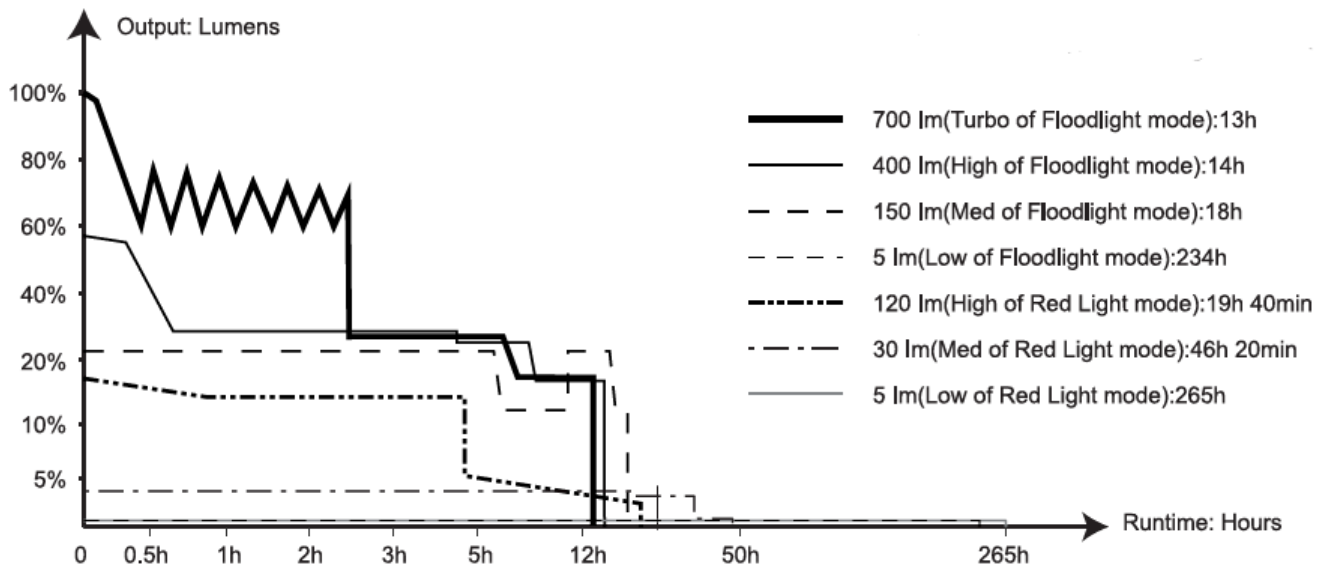
### Using the ARB-L18-3400 Flood and red light mode



### Using the ARB-L18-3400 + ARB-L21-5000 Spotlight mode



### Using the ARB-L18-3400 + ARB-L21-5000 Flood and red light mode



### WARNING







- Do place this headlamp out of the reach of children!
- Do NOT shine the headlamp directly into the eyes of anyone!
- Do NOT place light head near flammable objects, high temperatures can cause objects to overheat and become flammable/ignite!
- Do NOT use the headlamp in inappropriate ways such as holding the unit in your mouth, doing so could cause serious personal injury or death if the headlamp or internal battery fails!
- This headlamp will accumulate a significant amount of heat while operating, resulting in a high temperature of the headlamp shell. Pay close attention to avoid burns.
- Turn off the headlamp and remove the batteries to prevent accidental activation when the headlamp is placed in a closed and flammable environment such as pockets and backpacks!
- The LEDs of this headlamp are not replaceable; so the whole headlamp should be replaced when any of the

LEDs reaches the end of its lifespan.

## FENIX HM75R HEADLAMP

- 1600 lumens maximum output, 223 meters maximum beam distance.
- One Luminus SST40 cold white LED, two Luminus SST20 neutral white LEDs, and one OSRAM GR QSSPA1.23 red light LED; with a life span of 50,000 hours each.
- For ultimate convenience, the headlamp comes with two power
- **sources:** a battery for the headlamp and a power extender.
- Made of high-quality magnesium alloy material, lightweight and durable.
- Rotary switch and electronic switch for easy and fast operation.
- Spotlight, floodlight and red light combined.
- Intelligent brightness downshifting function to avoid potentially dangerous high temperature(s) at close-range lighting.
- The USB Type-C port on the power extender supports fast-discharging.
- The power extender features a quick-release structure for various wearing ways, and can be used as an emergency power bank.
- Two USB Type-C ports with inner waterproofing treatment.
- **Headlamp(including mount):** 3.59" x 1.61" x 2.11"/91.1 \* 41 x 53.5 mm.
- **Power extender:** 4.24" x 1.10" x 1.10"/107.7 x 28 x 28 mm.
- **Weight:** 11.32 oz/321 g (including power extender, batteries, and headband).

## TECHNICAL PARAMETERS


ANSI/PLATO FL1		SPOTLIGHT MODE				FLOODLIGHT MODE				RED LIGHT MODE			
		TURBO	HIGH	MED	LOW	TURBO	HIGH	MED	LOW	HIGH	MED	LOW	FLASH
 OUTPUT	ARB-L18-3400	1600 lumens	800 lumens	350 lumens	50 lumens	1000 lumens	400 lumens	150 lumens	5 lumens	120 lumens	30 lumens	5 lumens	5 lumens
	ARB-L18-3400+ ARB-L21-5000 V2.0	1200 lumens				700 lumens							
 RUNTIME	ARB-L18-3400	1 hour	3 hours	11 hours	50 hours	1 hour	4 hours	8 hours	100 hours	5 hours	32 hours	110 hours	220 hours
	ARB-L18-3400+ ARB-L21-5000 V2.0	30 minutes*	30 minutes	20 minutes	40 minutes	50 minutes*	14 hours	18 hours	234 hours	20 minutes	46 hours	265 hours	530 hours
 DISTANCE	ARB-L18-3400	223 meters		101 meters	39 meters	60 meters	43 meters	25 meters	5 meters	16 meters	9 meters	4 meters	/
	ARB-L18-3400+ ARB-L21-5000 V2.0	190 meters	158 meters			48.5 meters							
 INTENSITY	ARB-L18-3400	12448 candela	6262 candela	2559 candela	383 candela	1071 candela	432 candela	163 candela	10 candela	70 candela	20 candela	4 candela	/
	ARB-L18-3400+ ARB-L21-5000 V2.0	9025 candela				588 candela							
 IMPACT RESISTANCE		2 meters											
 SUBMERSIBLE		IP68											


**Note:** According to the ANSI/PLATO FL1 standard, the above specifications are from the results produced by Fenix through its laboratory testing using the included Fenix ARB-L18-3400 battery and the included Fenix ARB-L21-5000 V2.0 battery under the temperature of 21 ±3°C and humidity of 50% – 80%. The true performance of this product may vary according to different working environments and the actual battery used.

The Turbo output is measured in total of runtime including output at reduced levels due to the built-in temperature protection mechanism in the design.

## OPERATING INSTRUCTIONS

### On/off

- **On:** With the lamp switched off, turn the rotary switch clockwise from "  " to any designated mode to turn on the lamp.

- **Off:** With the lamp switched on, turn the rotary switch counterclockwise to "  " to turn off the lamp.

## Mode switching

- Turn the rotary switch to cycle through OFF  $\longleftrightarrow$  Spotlight  $\longleftrightarrow$  Floodlight  $\longleftrightarrow$  Red light.

## Output selection

- **Spotlight mode:** With the lamp switched on, single click Switch A to cycle through Low  $\longleftrightarrow$  Med  $\longleftrightarrow$  High  $\longleftrightarrow$  Turbo.
- **Floodlight mode:** With the lamp switched on, single click switch A to cycle through Low  $\longleftrightarrow$  Med  $\longleftrightarrow$  High  $\longleftrightarrow$  Turbo.
- **Red light mode:** With the lamp switched on, single click Switch A to cycle through Low  $\longleftrightarrow$  Med  $\longleftrightarrow$  High  $\longleftrightarrow$  Flash.

## Charging cable lockout function

- **Lock:** With the charging cable plugged in, rotate the two plugs of the charging cable clockwise to lock the charging cable.
- **Unlock:** With the charging cable locked, rotate the two plugs of the charging cable counterclockwise to unlock the charging cable.

## Turning on/off the power bank function of the power extender

- Single click Switch B to turn on/off the power bank function of the power extender.
- While using other power sources to charge the Fenix HM75R headlamp, the actual brightness of the Turbo output and the High output in Spotlight mode and Floodlight mode will depend on the actual charging voltage.

## Intelligent Memory Circuit

- The headlamp automatically memorizes the last selected output of each mode. When turned on again the previously used output of the last selected mode will be recalled.
- The lamp will enter High output if it was previously switched off in Turbo mode.

## INTELLIGENT BRIGHTNESS DOWNSHIFTING FUNCTION

### Turning on/off Intelligent Brightness Downshifting Function

- **On:** With the light switched off, press and hold Switch A for 6 seconds, and the headlamp will flash twice at the Low output of Floodlight mode, indicating that the function is enabled.
- **Off:** With the light switched off, press and hold Switch A for 6 seconds, and the headlamp will flash eight times at the Low output of Floodlight mode, indicating that the function is disabled.

## Intelligent Brightness Downshifting

When the lamp head is close to an illuminated object (about 2.36"/60 mm) for more than 1.5 seconds, the headlamp will automatically downshift the brightness level to Low output to avoid potential burns caused by high temperature(s). When the lamp head is moved away from the illuminated object for more than 0.8 seconds, the headlamp will automatically recall the previously used output level.

## BATTERIES SPECIFICATIONS

### Headlamp

Type	Dimensions	Nominal voltage	Usability	
Fenix ARB-L18 Series	18650*	3.6 V	Recommended	√√
Non-rechargeable Battery (Li-ion)	CR123A	3.0 V	Usable	√
Rechargeable Battery (Li-ion)	18650	3.6 V	Caution*	!
Rechargeable Battery (Li-ion)	16340	3.6 V	Banned	×

18650 Li-ion batteries are powerful cells designed for commercial applications and must be treated with caution and handled with care. Only the use of quality batteries with circuit protection will reduce the potential for combustion or explosion. Cell damage or short circuiting is considered user induced damage and is not covered by any Fenix warranty or liability. Only using the Fenix ARB-L18 Series battery is recommended.

### Power extender

Type	Dimensions	Nominal voltage	Usability	
Fenix ARB-L21 Series	21700	3.6 V	Recommended	√√
Rechargeable Battery (Li-ion)	21700	3.6 V	Caution*	!
Rechargeable Battery (Li-ion)	18650	3.6 V	Banned	×

21700 rechargeable Li-ion batteries are powerful cells designed for commercial applications and must be treated with caution and handled with care. Only the use of quality batteries with circuit protection will reduce the potential for combustion or explosion. Cell damage or short circuiting is considered user induced damage and is not covered by any Fenix warranty or liability. Only using the Fenix ARB-L21 Series battery is recommended.

## BATTERY REPLACEMENT

- Unscrew the battery cover counterclockwise to insert the battery in accordance with the polarity marks, then screw the battery cover back on.

## CHARGING/POWER BANK FUNCTION

### Charging of Headlamp



1. Uncover the anti-dust cap and plug the USB Type-C side of the charging cable into the charging port of the lamp.
2. When charging, the LED indicators will flash from left to right to display the charging status. The four indicators will be constant-on after charging is completed.
3. With the headlamp switched off, the normal charging time of using a Fenix ARB-L18-3400 battery is about 4 hours from depleted to fully charged with a 5 V/2.5 A or above charging adapter.

**Note:**

1. The headlamp can be operated while charging. The brightness of the Turbo output is 1200 lumens in Spotlight mode and 700 lumens in Floodlight mode at a 9 V charging voltage. Only the Low output and the Med output in each mode can be operated at a 5 V charging voltage.
2. For the first use after connecting to a power resource, the headlamp will flash twice(at a 5 V charging voltage) or four times(at a 9 V charging voltage) at the Low output in the last selected mode before it recalls the previously used output.

\*The above two descriptions still apply when the headlamp is charged by the power extender, even if the headlamp battery is inserted backward or not inserted at all.

**Charging of power extender**

1. Open the anti-dust cap to reveal the USB Type-C port and connect the USB Type-C plug of the charging cable to the USB Type-C port of the power extender.
2. While charging, the indicator in Switch B will display red while charging and will turn green when fully charged.
3. Once charging is completed, be sure to close the anti-dust cap to maintain the dustproof and waterproof capabilities.

**Power bank function of power extender**

1. Open the anti-dust cap to reveal the USB Type-C port and connect the USB Type-C end of the cable to the USB Type-C port of the power extender.
2. Single click the Switch B to start discharging.
3. With the battery re-inserted, the power extender will automatically begin discharging when connected to the headlamp.
4. Compatible fast-discharging protocols: PD3.0/PD2.0, QC3.0/QC2.0, FCP, SFCP, PE2.0/PE1.1

**LIGHT LOAD DETECTION FUNCTION**

**Turning on/off the light load detection function of power extender**

- **On:** With the power bank function switched on, press and hold Switch B for 3 seconds, the battery level indicator in the switch will blink red three times, indicating that the function is enabled.
- **Off:** With the power bank function switched on, press and hold Switch B for 3 seconds, the battery level indicator in the switch will blink red eight times, indicating that the function is disabled.

This function is off by default. With this function switched off, you can use the power extender to charge low-current digital products such as a fitness tracker.

**Note:**

1. With the light load detection function switched on, the power extender will automatically stop discharging when the headlamp is fully charged. Re-insert the Type-C plug and click the Switch B or re-insert the battery to restart discharging.
2. With the light load detection function switched off, turn off the power bank function of the power extender when the headlamp is fully charged to prevent unnecessary battery consumption of the power extender.

**Battery Level Indication of Power Bank Function**

- With the light load detection function switched off: The battery level indicator in the switch blinks green once a second. If the battery voltage is under 3.2 V, the battery level indicator will blink red.
- With the light load detection function switched on: The battery level indicator in the switch blinks green once every 4 seconds. If the battery voltage is under 3.2 V, the battery level indicator will blink red.

\*The power extender will stop discharging if the battery voltage is under 3.0 V.

**BATTERY LEVEL INDICATION**

**Headlamp**

With the light switched off, single click Switch A to check the battery status, the indicators) on the headlamp will last for 3 seconds.

- **Four lights on:** 100% – 80%
- **Three lights on:** 80% – 60%
- **Two lights on:** 60% – 40%
- **One light on:** 40% – 20%
- **One light flashes:** 20% – 1%

When the headlamp is turned on during charging, the battery level indicators will not function.

**Power extender**

With the power bank function switched off, single click Switch B to check the battery status. Single click Switch B once again and the indicator in Switch B will go out immediately, or without any operation it will last for 3 seconds.

- **Green light on:** 100% – 85%
- **Green light flashes:** 85% – 50%
- **Red light on:** 50% – 25%
- **Red light flashes:** 25% – 1%

**Note**

- This only works with the Fenix ARB-L21 Series battery.

## INTELLIGENT OVERHEAT PROTECTION

The lamp will accumulate a lot of heat when used at high output levels for extended periods. When the lamp reaches a temperature of 60°C/140°F or above, it will automatically step down a few lumens to reduce the temperature. When the temperature drops below 60°C/140°F, the lamp will gradually recall the preset output level.

## LOW-VOLTAGE WARNING

- When the voltage level drops below the preset level, the headlamp is programmed to downshift to a lower brightness level until Low output is reached.
- When this happens in Low output, one of the battery level indicators blinks to remind you to recharge or replace the battery.

## HEADBAND ASSEMBLY

- **Notice:** The headband is factory assembled by default.
- Adjust the headband by sliding the buckle to the required length.

## USAGE AND MAINTENANCE

- Disassembling the sealed head can cause damage to the lamp and will void the warranty.
- Fenix recommends using excellent quality batteries.
- If the lamp will not be used for an extended period, remove the batteries, or the lamp could be damaged by electrolyte leakage.
- Turn off the lamp and take out the batteries to prevent accidental activation during storage or transportation.
- Long-term use can result in O-ring wear. To maintain a proper water seal, replace the ring with an approved spare.
- Periodic cleaning of the battery contacts improves the lamp's performance as dirty contacts may cause the lamp to flicker, shine intermittently or even fail to illuminate for the following reasons:
  - **A:** Low battery.
    - **Solution:** Recharge or replace the batteries (Ensure batteries are inserted according to the manufacturer's specifications).
  - **B:** The threads, PCB board contact or other contacts are dirty.
    - **Solution:** Clean the contact points with a cotton swab soaked in rubbing alcohol.
    - If the above methods don't work, please contact the distributor.

## INCLUDED

- Fenix HM75R headlamp, ARB-L18-3400 battery, ARB-L21-5000 V2.0 battery, 1 meter extension cable, 2 x Spare O-rings, User manual, Warranty card

## Contact

## FENIXLIGHT LIMITED

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## References

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