**Fenix HM70R Headlamp**

**Technical Parameters**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ANSI/PLATO FL1** | **General Mode** | | | | **Functional Mode** | | | |
| **Turbo** | **High** | **Med** | **Low** | **Red** | **Med** | **High** | **Red Flash** |
| **图标-亮度128x128**  **Output** | 1600  lumens | 500  lumens | 150  lumens | 30  lumens | 5  lumens | 70  lumens | 400  lumens | 5  lumens |
| **图标-续航128x128**  **Runtime** | 2hours \* | 6hours | 30hours | 100hours | 400hours | 48hours | 8hours | 800hours |
| **图标-射程128x128**  **Distance** | 186  meters | 105  meters | 53  meters | 26  meters | 5  meters | 16  meters | 38  meters | 5  meters |
| **图标-光强128x128**  **Intensity** | 8667  candela | 2752  candela | 690  candela | 170  candela | 8  candela | 68  candela | 352  candela | 8  candela |
| **图标-跌落128x128**  **Impact Resistance** | 2meters | | | | | | | |
| **图标-防水128x128**  **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 one Fenix ARB-L21-5000 Li-ion 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 a total of runtime including output at reduced levels due to temperature or protection mechanism in the design.

**Product Features**

* 1600 lumens maximum output; 100 hours ultra-long maximum runtime.
* A Luminus SST40 white light LED, an XP-G2 HE neutral white LED and two 2835 red light LEDs.
* Included a 21700 Li-ion battery, a 18650 Li-ion battery can be used as well (together with an ALF-18 battery holder).
* White, neutral white and red lights combined.
* Toughened ultra-clear glass lens with an anti-reflective coating.
* Hidden USB Type-C charging port supports 2A charging current.
* Large thumb-sized switch for easy and fast operation.
* Digitally regulated circuit for maintaining a stable output.
* Size: 3.72'' x 2.01'' x 1.81'' / 94.5 x 51x 46 mm.
* Weight: 7.27 oz / 206 grams (including battery and headband).

**Operating Instruction**

**On/off**

Press and hold the switch for 0.5 seconds to turn on/off the lamp.

**Mode Switching**

With the lamp switched off, single click the switch for 0.5 seconds to enter General mode, and double click the switch to enter Functional mode.

Press and hold the switch for 1.2 seconds to enter the other mode.

**Output Selection**

In General mode, single click the switch to cycle through Low→Med→High→Turbo.

In Functional mode, single click the switch to cycle through Red→Med→High→Red Flash.

**Lock/Unlock**

**Lock:** when the lamp is switched off, press and hold the switch for 3 seconds, the lamp will blink red three times to indicate locked status.

**Unlock:** when the lamp is locked, press and hold the switch for 3 seconds, the lamp will be activated with 3 one-second red blinks and activated on Red Light mode.

In locked status, clicking the switch will activate 3 one-second red blinks to indicate locked status.

**Intelligent Memory Circuit**

The headlamp memorizes the last selected output. When turned on again the previously used output will be recalled.

**Battery Specifications**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type** | **Dimensions** | **Nominal Voltage** | **Usability** |  |
| Fenix ARB-L21 Series | 21700 | 3.6V | Recommended | **√√** |
| Fenix ARB-L18 Series | 18650 | 3.6V | Usable (with ALF-18 battery holder) | **√** |
| Rechargeable Battery (Li-ion) | 16340 | 3.6V | Banned | **×** |
| Rechargeable Battery (Li-ion) | 18650 | 3.6V | Banned | **×** |
| Rechargeable Battery (LiFePO4) | 16340 | 3.2V | Banned | **×** |
| Rechargeable Battery (LiFePO4) | 18650 | 3.2V | Banned | **×** |

Warning: \*21700 Li-ion batteries are powerful cells designed for commercial applications and must be treated with caution and handled with care. Only use quality batteries with circuit protection will reduce the potential for combustion or explosion; but cell damage or short circuiting are potential risks the user assumes.

**Battery Replacement**

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

**Charging**

**Indication:** The indicator on the battery case will display red while charging, and will turn to green when fully charged.

\* This only works with Fenix ARB-L21-5000 battery.

**Note:**

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. The normal charging time of the included Fenix ARB-L21-5000is about 4 hours with the lamp being switched off.
3. When charging is complete, replace the anti-dust cap to ensure the waterproof and dustproof ability.
4. Recharge a stored headlamp every four months to maintain optimal Li-ion battery performance.
5. When charging, the Med output level of General mode can be used. The headlamp will not automatically power on after full charging.

**Battery Level Indication**

With the lamp switched off, single click the switch to check the battery status, the indicator will last for 3 seconds.

Green light on: saturated 100% - 85%

Green light flashes: sufficient 85% - 50%

Red light on: poor 50% - 25%

Red light flashes: critical 25% - 1%

Note: This only works with Fenix ARB-L21-5000 battery.

**Intelligent Overheat Protection**

The lamp will accumulate a lot of heat when used at relatively high output levels for extended periods. When the lamp reaches a temperature of 65°C or above, the lamp will automatically step down a few lumens to reduce the temperature. When the temperature drops below 65°C, it will then allow the user for the reselection of the modes.

**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 mode, the battery level indicator blinks to remind you to timely recharge or replace the battery.

Note: This only works with Fenix ARB-L21-5000 battery.

**Headband Assembly**

1. The headband is factory assembled by default.

2. 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 an excellent quality Fenix battery.
* If the lamp will not be used for an extended period, remove the battery, or the lamp could be damaged by electrolyte leakage.
* Loosen the cap or take out the battery to prevent accidental activation during storage or transportation.
* 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: The battery needs replacing.

Solution: Replace the battery (Ensure battery is inserted according to the manufacturer’s specifications).

B: The contact point or contact of the battery or headlamp is 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 HM70R headlamp, ARB-L21-5000 Li-ion battery, USB Type-C charging cable, Spare O-ring, User manual, Warranty card

**Warning**

* The headlamp is a high-intensity lighting device capable of causing eye damage to the user or others. Avoid shining the lamp directly into anyone’s eyes.
* This headlamp will accumulate a lot of heat when used for extended periods, resulting in a high temperature of the headlamp shell. Pay attention to safe use to avoid scalding.
* The LED of this headlamp is not replaceable; so the entire lamp should be replaced when the LED reaches the end of its life.
* All information provided in this manual is subject to change without prior notice.