Fitorch

MR20
USER MANUAL

The Fitorch MR20 is a rechargeable LED flashlight that features a CREE XHP35 LED, 4 colored light filter discs to change the tint of the light, 5 illumination modes (Turbo, High, Medium, Low, & Ultralow), Strobe Function, Micro USB Recharging, and compatibility with the Fitorch gun mount and remote tail switch (MT30). The MR20 is compatible with the following batteries:

- 1x - 3.7V 18650 Rechargeable Lithium-ion Battery
- 2x - 3V CR123A Lithium Primary Batteries - High Performance in Low Temperatures

The light is designed for many uses including, but not limited to: Hunting, Law-Enforcement, Military, or Private Security

Caution

- Using "strobe" mode may cause seizures in individuals with photosensitive epilepsy.
- When the flashlight is operated for extended time, it will get uncomfortably warm. This is NORMAL and expected behavior and is not a defect.
- DO NOT use 2x - 16340 Lithium-ion batteries in the MR20 as they will damage the flashlight.
- DO NOT use the Micro USB recharging functionality when using non-rechargeable batteries in the MR20 (2x - CR123A Lithium Primary Batteries) as this could cause damage to the flashlight and/or cause injury to the operator.

Features

- 4 colored light filter discs to change the tint of the light (Red, Green, Blue & Orange)

- 3-Way tail switch to activate the Strobe and Turbo modes in one easy step
- Side switch controls 5 illumination levels (Turbo, High, Medium, Low, & Ultralow) and Strobe
- Micro USB port for recharging
- Built in power level indication LED in green, amber and red color
- High-strength aerospace aluminum body
- Mil-Spec hard anodized for extreme durability
- Coated tempered glass lens resists impact while providing high light transmittance levels
- Metal filmed reflector to create a high intensity beam
- Maximum output of 1800 Lumen and 279-meter beam distance
- IPX-8 water resistance
- 2-meter impact resistance tested.

ANSI Chart

FL 1 STANDARD	TURBO	HIGH	MEDIUM	LOW	ECO	STROBE
OUTPUT	1800LM	800LM	300LM	100LM	5LM	1800LM
RUNTIME	40min	2h	5h	18h	181h	80min
INTENSITY	21,785cd					
DISTANCE	279m(Max)					
WATERPROOF	IPX-8					
IMPACT RESISTANCE	2m					

The above run time data in the ANSI chart was obtained in controlled conditions within the Fitorch laboratory using 1x - 18650 3400 Lithium-ion rechargeable battery. When using the MR20 in various temperatures and with other batteries, actual run times may vary.

Specification

- LED: Cree XHP-35
- Power Input: DC 2.75V - 6.0V
- Light Output: Max 1,800 Lumens
- Reflector: Precision Metal Filmed
- Lens: Filmed Mineral Glass
- Body Material: Aluminum Alloy
- Body Finish: Premium Black Type-III Hard-Anodized Anti-Abrasive Finish
- Switches: Side Switch, Tail Cap Paddle Switches, & Tail Cap Center Switch
- Powered By:
  1x - 3.7V 18650 Li-ion
  2x - 3V CR123A Lithium Primary
- Physical Specifications:
  Width:
  Head: 1.16 in. / 29.5 mm
  Housing: 1.00 in. / 25.4 mm
  Length: 5.6 in. / 143 mm
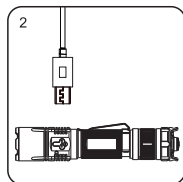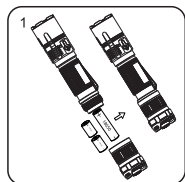 Weight: 3.7 oz./ 106 g (excluding battery)

Manual

- **Battery Load**: Insert the 1x - 18650 or 2x - CR123A batteries as illustrated.
- **Turning the MR20 On and Off**
  Constant On: Fully depress and release the center tail cap switch to turn the light on. Fully depress and release again to turn the light off.
  Momentary Access to Turbo: Half press the center tail cap switch to activate Turbo mode. Unless the light is locked out, it provides instant access to the Turbo mode. Release the switch to turn off.
- **Tail Cap Tactical Switch Lock/Unlock:**
  Twist the outer ring of the tail cap to align the mark of 🔒 with the dot to lock the tail cap switch. Twist the outer ring backwards until the dot aligns with mark of 🔓, to unlock the tail cap switch.
- **Changing Illumination Modes**: With the light turned on, short press the side switch. The light will cycle through the illumination modes in the following order: Turbo – High – Medium – Low – Ultralow – Low – Medium – High – Turbo
- **Activating Strobe Mode**:
  Side Switch: With the light on, long press the side switch to activate Strobe mode. Release the button to exit strobe mode and go back to the normal mode.
  Tail Switch: When the light is off, long press and release the one of the paddle switches on the tail cap. Press again to turn off.
- **Micro USB Recharging**: Lift the protective black rubber cap and connect the included Micro USB cable to the port to the light then insert another end to a USB outlet per below.

Please note when flashlight is recharging via the Micro USB cable, the indicating lamp will blink green and finally switch to solid green when full charged. The green lamp may turn off after an extended amount of time left on the charger.

- **Charging Note**: If the flashlight is turned on when you connect the Micro USB cable to charge the light, the MR20 will function normally. If the flashlight is turned off when you connect the Micro USB cable to charge the light, the MR20 will not function at all. This is normal behavior
- **Changing the Colored Light Filter Discs**
  Unscrew the silver bezel from the flashlight head. Place filter disc in the circular groove on the bezel. Reinstall and tighten the silver bezel on the flashlight head.
- **Please Note**: There is a protective film on the colored filter discs that should be removed before use.

Power Tips

- Low power warning, when battery voltage is less than 3.4V, the indicating LED next to the Micro USB port will illuminate amber and blink slowly. When battery voltage is less than 3.0V, the indicating will illuminate red and blink rapidly.
- The MR26 also has a low power detection feature. If the battery capacity is less than 10% remaining, the light will automatically change to the lower brightness modes to avoid the battery being over discharged.

Accessories

Included: 1x 2600 mAh Lithium-Ion Rechargeable Battery, 4 colored light discs, Micro USB Cable, Removable Pocket Clip, Wrist Lanyard, Holster, Spare Waterproof O-ring, & Spare Center Mounted Tail Cap Cover

Optional: External Battery Charger, Fitorch gun mount and remote tail switch (MT30)

Storage and Maintenance

- Disassembling the sealed flashlight head will damage the light and void the warranty.
- High quality batteries are recommended.
- O-rings will wear out after long-term use. If you observe wear on the O-rings, change them with the included spare O-rings to maintain IPX-8 waterproof rating.
- Remove and securely store the batteries if the flashlight will not be used for a long period of time.
- Store and keep the flashlight away fire, extreme heat, static electricity, direct steam, and humid environments.
- Clean the body and lens with a soft fabric cloth.
- Lubricate threads and O-rings with silicone grease every 6 months.
- Periodic cleaning of battery contacts within the flashlight can maintain optimal flashlight performance. If the contacts become dirty, you may experience poor light performance or even failure to turn on. Clean the springs or contacts on the flashlight with a cotton swap soaked in isopropyl alcohol (rubbing alcohol). If after contacts are clean and you are experiencing performance issues with the light, the battery may be required to be replace per the compatible battery listing.

Warranty

- If you have any issues during the first 15 days of ownership, your local distributor or dealer will replace the malfunctioning light with a new one.
- If you experience issues after the initial 15 days, Fitorch will provide 60 months (5-years) of warranty service for free.
- If you experience issues after 60 months (5-years), Fitorch will provide you with repair service and only collect payment for the cost of replacement parts.

Unwarrantable Damages

- Damage or disassembly of sealed flashlight head.
- Physical modifications to the flashlight.
- Destruction of the flashlight caused improper use.
- Damage to the flashlight caused by battery leakage.

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