

## TrustFire DF50

# TrustFire DF50 Scuba Diving Light User Manual

Model: DF50

## 1. INTRODUCTION

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The TrustFire DF50 is a high-performance scuba diving light designed for underwater photography, videography, and general illumination. It features multiple LED types, including white, red, and violet (UV) lights, providing versatile lighting options for various underwater environments. This manual provides essential information for the safe and effective use of your DF50 diving light.



Image 1.1: The TrustFire DF50 Scuba Diving Light, showcasing its compact design and integrated ball joint for mounting.

## 2. PRODUCT OVERVIEW

### 2.1 Key Features

- **Super Bright Illumination:** Max 6500 Lumens from 6\*XM2 U3 white LEDs (6000K color temperature) with a 150-degree flood beam.
- **Multi-Color LED Options:**
  - 3\*XE-3535 Red LEDs (620nm wavelength) for underwater photography and red light-sensitive marine life.
  - 3\*XPE UV LEDs (395nm wavelength) for fluorescent underwater photography of fish and corals.
- **USB Rechargeable Battery Pack:** Customized rechargeable battery pack for direct charging via Type-C USB cable.
- **Durable and Waterproof:** Designed for a maximum diving depth of 70 meters.
- **Battery Indicator:** Four-level battery indicator to monitor remaining usage time.

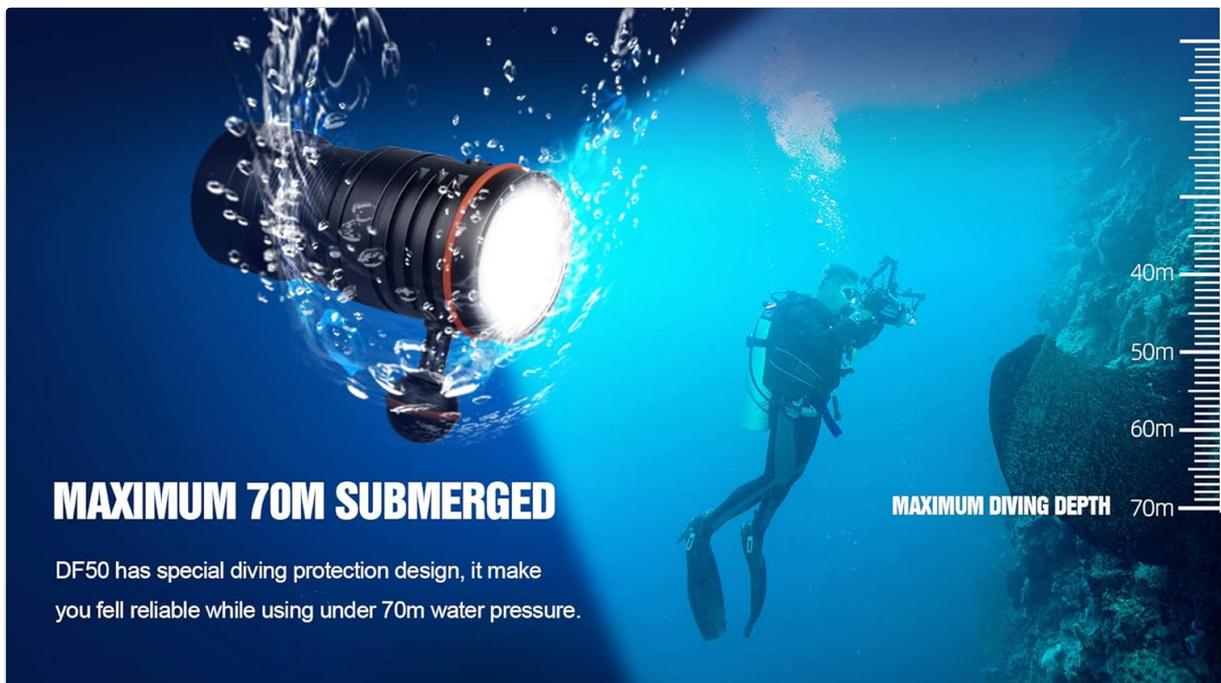


Image 2.1: The DF50 light in an underwater environment, demonstrating its illumination capabilities and depth rating.

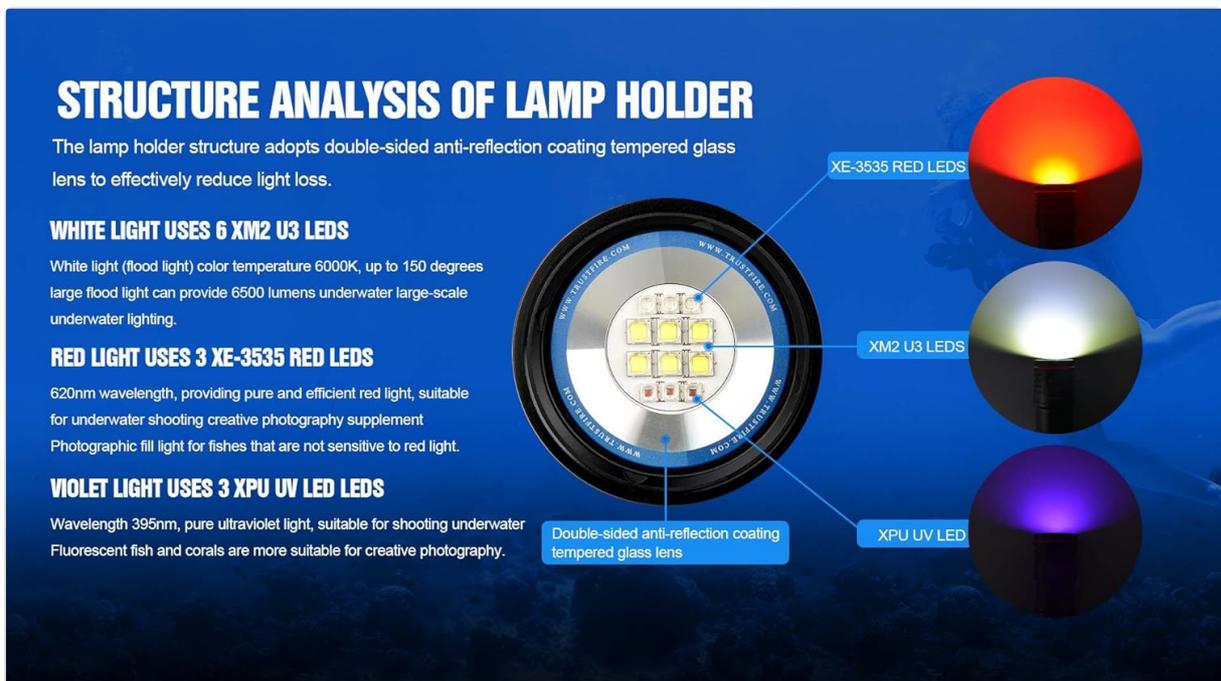


Image 2.2: Structure analysis of the lamp holder, detailing the arrangement of white, red, and violet (UV) LEDs and the double-sided anti-reflection coating tempered glass lens.

## 2.2 What's in the Box

- 1 x TrustFire DF50 Diving Flashlight
- 1 x TrustFire Battery Pack
- 1 x Type-C USB Charger Cable
- 1 x Ball Joint Mount
- 1 x Diving Gear Lanyard
- 2 x Replacement O-rings
- 1 x Operating Instructions Manual (this document)



Image 2.3: All components included in the TrustFire DF50 diving light kit.

### 3. SETUP

#### 1. Battery Installation:

Twist the light head part of the flashlight counter-clockwise to separate it from the main body. Insert the customized TrustFire battery pack into the main body, ensuring correct polarity. Reattach the light head by twisting it clockwise until securely tightened. Ensure the O-rings are properly seated and lubricated to maintain waterproof integrity.

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Video 3.1: This video demonstrates the unboxing, assembly, and initial setup of the TrustFire DF50 diving light, including battery installation and attachment of the ball joint.

#### 2. Charging:

Connect the Type-C USB charger cable to the charging port on the battery pack (accessible after separating the light head) and to a suitable USB power source. The battery indicator lights will show charging status. Charge fully before first use.

#### 3. Ball Joint Attachment:

Attach the provided ball joint to the designated mounting point on the flashlight body. This allows for flexible positioning when mounted on camera rigs or other diving equipment.

## 4. OPERATING INSTRUCTIONS

The TrustFire DF50 features a single button for all operations, located on the neck of the flashlight.

- **ON/OFF:**

From an unlocked state, long press the side button for 0.5 seconds to turn the light ON or OFF.

- **Switching Working Modes:**

When the flashlight is ON, click the side button to cycle through the modes in the following order: Violet Light → Red Light → High White Light → Medium White Light → Low White Light.

- **SOS Mode:**

When the flashlight is OFF, long press the button for 2 seconds to enter SOS mode. Click the button again to return to the last working mode.

- **Memory Function:**

The flashlight will automatically memorize the last used working mode. It will turn on in this mode the next time it is activated.

- **Accidental Touch Prevention (Lock/Unlock):**

- **Lock:** When the flashlight is OFF, double-click the power button quickly to enter lock mode. The light will flash twice in low light to indicate it is locked.
- **Unlock:** When the flashlight is in lock mode, double-click the power button quickly to unlock and switch into the last working mode.



Image 4.1: Detailed instructions for the single-button operation of the DF50, including ON/OFF, mode switching, SOS, memory, and lock/unlock functions.

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Video 4.2: This video demonstrates the various light modes (white, violet, red) of the TrustFire DF50 diving light in an underwater setting, highlighting its versatility.

## 5. MAINTENANCE

- **Post-Dive Care:**

After each use in seawater, thoroughly wash the surface of the flashlight with clean fresh water. Pay attention to crevices to remove any silt or salt residue. Wipe off all water from the surface.

- **O-Ring Inspection and Lubrication:**

Regularly inspect the O-rings for any signs of damage, cracks, or wear. If damaged, replace them promptly with the provided spare O-rings to maintain waterproof performance. Lubricate O-rings with silicone grease before each dive to ensure a proper seal.

- **Storage:**

If the flashlight will not be used for an extended period, remove the battery pack. Store the flashlight and battery in a cool, dry environment, away from dampness. This prevents potential battery leakage and damage to both the battery and the flashlight.

- **Tightening Connections:**

Always ensure all connections of the flashlight, especially the light head, are securely tightened before entering the water. If tightening is difficult, apply a small amount of silicone oil to the threads.



Image 5.1: Visual guide for proper tightening of the flashlight head and important maintenance tips.

## 6. SAFETY INFORMATION

- Always ensure the flashlight is properly assembled and all seals are intact before submerging.
- Do not look directly into the light beam, especially at high settings, as it can cause temporary vision impairment.
- Keep the flashlight and its components out of reach of children.
- Use only the specified TrustFire battery pack and charging cable.
- Avoid exposing the battery to extreme temperatures or direct sunlight.
- If the flashlight shows any signs of damage or malfunction, discontinue use immediately.
- Dispose of batteries according to local regulations.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Light does not turn on.	Battery is depleted, incorrectly installed, or light is in lock mode.	Charge the battery. Ensure battery is installed with correct polarity. Double-click the power button to unlock the light.
Light flickers or dims unexpectedly.	Low battery, loose connection, or dirty contacts.	Recharge the battery. Ensure the light head is securely tightened. Clean battery contacts with a dry cloth.
Water ingress (leaking).	Damaged or improperly seated O-rings, loose light head.	Immediately remove from water. Disassemble, dry thoroughly. Inspect and replace O-rings if damaged. Ensure light head is securely tightened and O-rings are lubricated.
Charging not working.	Faulty cable, power source, or battery.	Try a different Type-C USB cable and power adapter. Ensure the charging port is clean.

## 8. SPECIFICATIONS

- **Model:** TrustFire DF50
- **Light Output (White):** Max 6500 Lumens
- **Light Source:** 6\*XM2 U3 White LEDs, 3\*XE-3535 Red LEDs, 3\*XPE UV LEDs
- **Color Temperature (White):** 6000K
- **Red Light Wavelength:** 620nm
- **UV Light Wavelength:** 395nm
- **Power Source:** Rechargeable Lithium Ion Battery Pack (included)
- **Water Resistance Level:** Waterproof, up to 70 meters depth
- **Material:** Plastic or Rubber (body components)
- **Dimensions:** Approximately 10.83 x 8.62 x 3.19 inches
- **Item Weight:** Approximately 10.4 ounces
- **Special Feature:** USB Rechargeable

## 9. WARRANTY AND SUPPORT

TrustFire products are manufactured to high-quality standards. For warranty information or technical support, please refer to the contact details provided with your purchase documentation or visit the official TrustFire website. Keep your proof of purchase for warranty claims.