FEREI W156 II

High Power Diving
LED Flashlight

USER MANUAL

INTRODUCTION

Ferei W156 II is a compact, multifunctional, and ultra-bright LED diving light with even floodlight. Adjust the brightness modes by rotating the magnetic switch left or right. Also, the super intelligent circuit system makes the operation more steady and convenient. With its waterproofness up to 150-200 meters, W156 II is the best lighting tool for diving and underwater work.

USAGE INSTRUCTIONS

1 W156 II operates on two rechargeable 18650 li-ion batteries.
2 Do recharge the 18650 battery to 100% before the first usage.
3 **How to recharge the battery:** Put the 18650 battery correctly into Ferei special designed battery holder; Insert the 3.5 DC end of Ferei charger into the hole of Ferei holder, then connect the other side of the charger with the power supply. Thus recharging begins. Recharging cycle is finished when the indicator LED turns from red to green.
4 **Battery installation:** Insert 2 x 18650 into the battery tube with the positive (+) end facing forward. Replace the tail cap ensuring it is fully tightened.
5 To turn W156 II ON and OFF, simply rotate the magnetic switch at the front of the battery tube.
6 **W156 II lighting options:**
White (Max / Med / Low / Flashing).
To turn the light on, simply rotate the magnet switch 1/4 of a turn, clockwise or anticlockwise, then light is on. Repeat the above step (within 2s), the mode changes, insequence they are Max - Mid - Min - Flashing - Off.
Note: Once stay at one mode for more than 2s, the mode is remembered. And rotate the switch again, the light shut down directly. When you turn the light on next time, it is the same mode as what it was when you shut it down.
7 **Low battery warning system:** when battery capacity reaches about 20%, the W156 II will blink periodically at once per minute. The blinking will continue for about 20-30 minutes before the light automatically turns off.
8 **Wrong polarity protection for battery:** When the battery is put in with wrong polarity, the circuit of W156 II will automatically stop working to ensure the safety of the light.

FEATURES

1 Flood Diving LED flashlight for wide lighting.
2 150 Meters Waterproof.
3 High quality dome glass lens providing smooth flood beam.
4 3 x CREE XM-L LED and 2850 lumens on MAX.
5 Hard anodized body is better scratch-resistant.
6 Rotated Magnetic switch.
7 Super intelligent circuit and temperature control design, there are battery over discharge and polarity of the wrong installation protection, high brightness heating control, effective protection and extend the service life of the light.
8 **4 Selectable brightness modes:** Max - Mid - Min - Blinking.
9 One blinking each minute for low power warning.
10 2 x 18650 Li-ion batteries rechargeable, 3 hours runtime on High.

INTELLIGENT TEMPERATURE CONTROL AND RUNTIME INSTRUCTIONS

This product is designed with a temperature control circuit. The LED is a heating device that is sensitive to temperatures, especially high levels of power and brightness. High temperatures will easily damage or shorten the life of the LED. Ferei designs its products with an intelligent temperature-control circuit. It measures the temperature within the LED filament. As the structure of the light differs, the thermal conduc tivity of the entire light is not the same. In general, the constant surface temperature of the light is 50ºC to 60ºC. When it exceeds its programmed temperature, it will automatically reduce its power to cool down, and the brightness decreases by small steps. After cooling-down (provided that battery voltage is sufficient) the power with brightness increases again. The process of improving its brightness is relatively discrete and will not produce a flashing effect.
This stepping goes cyclically to maintain the user's safety and the light's functionality. In conditions of good air-cooling the light delivers light without stepping down even in high levels brightness mode. There are no preset timers for stepping, but real-time active temperature measurements, So the actual runtime of the light base on active temperature control to faster or slower battery discharge, may be slightly longer or shorter runtime than the light of data provided.

WARM TIPS

In order to avoid accidents, please pay attention to the following tips:
1 Never use damaged, discoloured or leaking batteries.
2 Never use batteries with a damaged sleeve or foil covering.
3 Always use 18650 batteries with safety certificates.
4 If the light gets unusually hot when in use, turn it off and check battery appearance.
5 Never store the battery into the battery holder.
6 Recharging is finished when the LED indicator turns to green.
7 The battery remains at a normal temperature during recharging. If it gets unusual hot, stop recharging and take the battery out.
8 Do not dissemble the charger kit by yourself if the battery couldn't be recharged.
9 The battery can be used at any time once being recharged. If it is left unused for long periods, it should be recharged for 4 hours every three months. After being charged they should be slightly discharged for 10-20 minutes before storage.
10 Make sure the battery is recharged at safety environment and is looked after by certain people while recharging.

MAINTENANCE

1 Using a soft cloth clean the glass lens and tail cap thread periodically.
2 Every 6 months lubricate the tail cap thread with a light application of silicon grease.
3 After every 3rd use in water, apply a light application of silicon oil to the magnetic switch, turning it on and off several times to work the oil into switch's friction points.
4 Be sure to rinse the light thoroughly with fresh water after every use in saltwater.
5 Replace the damaged O-rings in time to ensure its waterproofness.
Note: Never dissemble the head or touch the inside of the reflector .Do not use general purpose oil for lubricating the switch as it may damage the silicone O-ring.

PRECAUTIONS AND WARNINGS

- It is a lighting tool, not a toy. Keep it away from children.
- The W156 II has a highly intense beam and should not be aimed directly at the eyes of humans or animals.
- Do not place the light face / lens down when turned on as this may cause it to overheat and void warranty.
- The surface of the flashlight may become hot during extended use.
- Do not dismantle or dissemble any part of the light as this will void warranty and affect the waterproof seal.
- Rinse the lights surface with fresh water and dry with soft cloth after exposure to salt water or any corrosive substance.
- Always remove batteries during long periods of inactivity.
- Two batteries must be charged and discharged at the same time. Make sure the battery power and voltage are the same to avoid the battery be damaged.
- Ferei reserves the right of interpretation of this manual.

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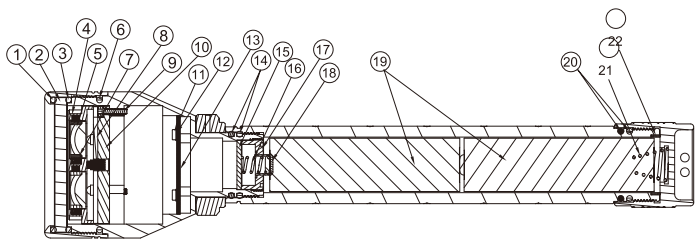
SPECIFICATIONS				
MODEL NAME	W156 II			
LED	3 X CREE XML2			
ANSI/FSC	MAX	MID	LOW	FLASHING
BRIGHTNESS PERCENTAGE	100%	50%	20%	100%
OUTPUT	2850 LM	1425 LM	570 ML	2850 LM
RUNTIME (HOUR) (indoor static testing at 28°C)	3	4.5	6.5	>3
BEAM DISTANCE	121.5 (MAX)			
LIGHT INTENSITY	14762 CD (WIDE ANGLE)			
WATERPROOOF GRADE	IPX8 (150 M)			
DROP HEIGHT	1 M			
DIMENSION	50 (HEAD) X 26.5 X 222 MM			
BATTERY TYPE	2 X 18650 BATTERIES			
WEIGHT	278 G			
UNDERWATER RUNTIME(AT MAX. OUTPUT)	1.10HOURS			

PRODUCT SCHEMATIC



1. O-RING 2. GLASS LENS 3. O-RING 4. LENS FIXING PLATE 5. LENS 6. O-RING	7. LENS LOCKING RING 8. ALUMINUM BASE 9. HEXAGON SCREW 10. LED SOCKET 11. SCREW M2X4 12. CONTACTING CHIP	13. DRIVER BOARD 14. O-RING 15. POSITIVE PCB BOARD 16. SPRING POSITIVE POLE 17. POSITIVE PRESSING RING 18. POSITIVE SPRING CAP	19. 18650 BATTERY WITH THE CAP 20. O-RING 21. NEGATIVE SPRING. 22. CONTACTING RING

Runtime declaration: The data-based on the test that is done in the land at room and not in the water. If the light used in underwater or cool condition, the runtime about 1 to 5 times less than instruction.