

ANDELI Raging Sharks

ANDELI Digital Auto-Darkening Welding Helmet

Model: Raging Sharks - User Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your ANDELI Digital Auto-Darkening Welding Helmet, Model Raging Sharks. Please read this manual thoroughly before use and retain it for future reference.

The ANDELI Raging Sharks welding helmet offers advanced protection and enhanced visibility for various welding and cutting applications. Key features include a 180° panoramic true color view, digital controls for precise adjustments, USB-C fast charging, and robust DIN16 UV/IR protection.



Figure 1: ANDELI Digital Auto-Darkening Welding Helmet, Raging Sharks model.

2. SAFETY INFORMATION

Always prioritize safety when using welding equipment. Failure to follow safety guidelines can result in serious injury or death.

- **Eye Protection:** This helmet provides protection against harmful UV/IR radiation. Ensure the auto-darkening function is working correctly before each use. Never look directly at a welding arc without proper eye protection.
- **Head Protection:** The helmet protects your face and head from sparks, spatter, and radiation.
- **Ventilation:** Always work in a well-ventilated area to avoid inhaling hazardous fumes.
- **Inspection:** Before each use, inspect the helmet for any damage, cracks, or loose parts. Replace

damaged components immediately.

- **Temperature:** Do not expose the helmet to extreme temperatures or direct sunlight for prolonged periods when not in use.

3. PRODUCT COMPONENTS

The ANDELI Raging Sharks welding helmet is designed with multiple layers of protection and user-friendly components.



Figure 2: Exploded view of the helmet's lens system, showing internal protective lens, LCD shading layer, UV/IR filter, lens frame, and outside lens cover.

- **Internal Protective Lens:** Provides an additional layer of protection for the LCD.
- **LCD Shading Layer:** The core auto-darkening component.
- **UV/IR Filter:** Permanent protection against harmful ultraviolet and infrared radiation.
- **Lens Frame:** Holds the lens components securely.
- **Outside Lens Cover:** Protects the main lens from scratches and spatter.
- **Headband:** Ergonomic 6-point adjustable headband for comfort and stability.
- **Digital Control Panel:** For adjusting shade, sensitivity, and delay.
- **Arc Sensors:** Four high-quality sensors for rapid arc detection.
- **USB-C Charging Port:** For recharging the internal lithium-polymer battery.

4. SETUP AND ADJUSTMENT

4.1 Headband Adjustment

The helmet features a 6-point adjustable headband designed for all-day comfort and a secure fit. Proper adjustment is crucial for balance and reducing neck fatigue.



Figure 3: Headband components and adjustment points.

1. **Top Headband:** Adjust the top strap to fit the crown of your head.
2. **Angle Adjustment:** Use the side knobs to set the viewing angle of the helmet relative to your face.
3. **Tension Adjustment:** Rotate the rear knob to tighten or loosen the headband for a snug fit.
4. **Padded Front and Rear:** Ensure the padded sections rest comfortably against your forehead and the back of your head.

4.2 Initial Charging

The helmet is equipped with a powerful 500mAh lithium-polymer battery, rechargeable via USB-C. It supports solar charging during operation.

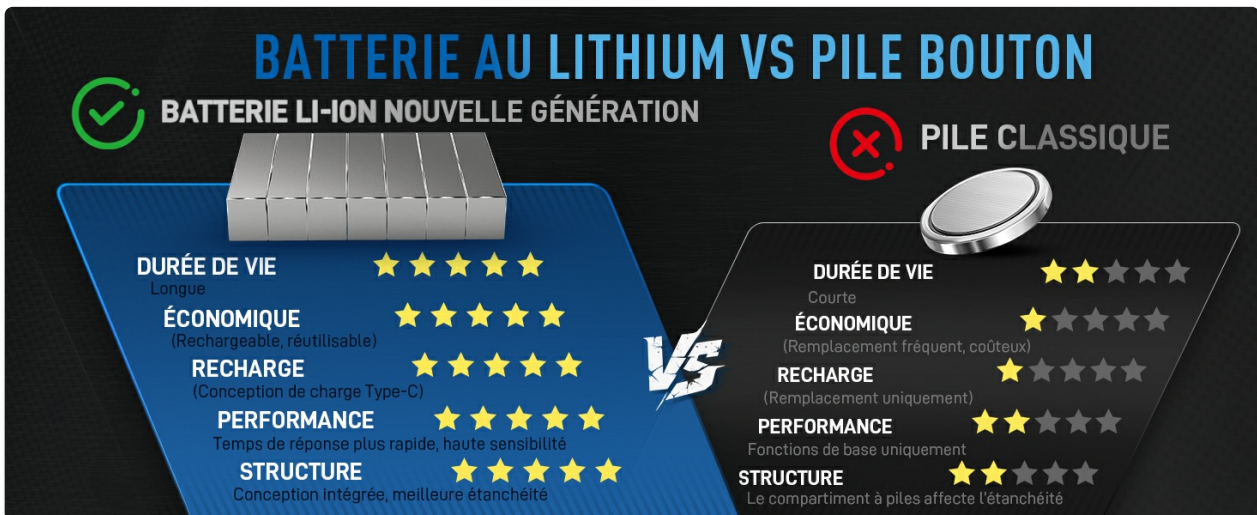


Figure 4: USB-C charging port for the internal lithium-polymer battery.

- Connect the provided USB-C cable to the charging port on the helmet.
- Plug the other end into a compatible USB power source (e.g., wall adapter, computer USB port).
- A full charge typically takes 2.5 to 3 hours. The charging indicator will show the status.
- The helmet can operate for up to 1000 hours on a single charge and has a standby time of 16,000 hours.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off and Auto-Test

The helmet automatically powers on when exposed to light. To perform an auto-test:

- Press the 'TEST' button on the digital control panel. The lens will momentarily darken and then return to its clear state, indicating the auto-darkening function is operational.

5.2 Mode Selection

The helmet supports four distinct operating modes: Welding, Grinding, Cutting, and Lock.



Figure 5: Operating modes and their respective DIN shades.

- **Welding Mode (DIN 9-13):** For MIG/MAG, TIG, and E-Hand welding.
- **Grinding Mode (DIN 4):** For grinding operations, keeping the lens in a light state.
- **Cutting Mode (DIN 5-9):** For plasma cutting and similar applications.
- **Lock Mode (DIN 5-13):** Maintains a stable dark shade for repetitive tasks, preventing accidental lightening.

Switch between modes using the 'MODE' button on the digital control panel. A short press cycles through modes. A long press activates/deactivates grinding mode.

5.3 Digital Controls

The digital interface allows for precise adjustment of shade level, sensitivity, and delay settings.



Figure 6: Digital control panel for shade, sensitivity, and delay adjustments.

- **Shade Control:** Use the '+' and '-' buttons to adjust the shade level (DIN 5-13 for welding/cutting, DIN 4 for grinding).
- **Sensitivity Control:** Adjust the 'SENSI.' setting to control how easily the sensors detect the arc. Higher sensitivity is suitable for low amperage TIG welding (down to 5A).
- **Delay Control:** Adjust the 'DELAY' setting to control how long the lens remains darkened after the arc stops. This prevents eye strain from afterglow.

5.4 Panoramic True Color View

Experience an expansive and natural view with the 180° panoramic lens system and True Color technology.



Figure 7: The 180° panoramic view, combining a main lens (4.53"x3.23") with two side lenses (1.3"x2.5" each).



Figure 8: True Color technology provides enhanced visual clarity and natural color reproduction compared to traditional green-tinted lenses.

The helmet's four high-quality arc sensors ensure rapid darkening in 1/30,000 seconds, providing superior eye protection.

PHOTOSENSIBILITÉ ACCRUE

Détecte les arcs de soudage TIG de 5A pour offrir une protection oculaire supérieure



4

Capteurs D'arc



1/30000_S

Contrôle à sensibilité élevée



Figure 9: High photosensitivity allows detection of TIG arcs down to 5A.

6. MAINTENANCE

6.1 Cleaning

- Clean the helmet shell with mild soap and water. Avoid harsh solvents.
- Clean the inner and outer protective lenses with a soft, lint-free cloth. Do not use abrasive cleaners.
- Keep the arc sensors clean and free from obstructions to ensure proper function.

6.2 Lens Replacement

The helmet includes replacement outer and inner protective covers. Replace them when they become scratched or damaged to maintain optimal visibility and protection.

- Carefully remove the old protective cover by unclipping or sliding it out of its frame.
- Insert the new protective cover, ensuring it is securely seated.

6.3 Battery Care

- Recharge the battery regularly, especially if the helmet will be stored for an extended period.
- Avoid fully discharging the battery frequently to prolong its lifespan.

7. TROUBLESHOOTING

If you encounter issues with your welding helmet, refer to the following common solutions:

- **Helmet does not darken:**
 - Ensure the battery is charged.
 - Check that the arc sensors are clean and unobstructed.
 - Adjust the sensitivity setting to a higher level.
 - Perform the 'TEST' function to verify the auto-darkening circuit.
- **Poor visibility:**
 - Clean the inner and outer protective lenses.

- Replace scratched or damaged protective lenses.
- **Helmet feels uncomfortable or loose:**
 - Adjust the headband using the tension and angle adjustment knobs.

8. SPECIFICATIONS

Detailed technical specifications for the ANDELI Digital Auto-Darkening Welding Helmet, Model Raging Sharks.

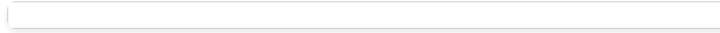


Figure 10: Overview of product specifications and package contents.

Feature	Specification
Manufacturer	Andeli
Package Dimensions	34 x 34 x 26 cm
Weight	600 grams
Model Reference	Raging Sharks
Color	Raging Sharks
Style	OPTIM-600LB-RSB
Material	Plastic
Battery Type	Lithium-polymer (1 included)
Viewing Area Size	4.53" x 3.23" (main) + 2 side views
Optical Clarity	1/1/1/2
Light State	DIN 3.0
Dark State	DIN 5-9 / 9-13
Auto-Darkening Time	0.00 ms (light to dark) / 1/30,000 seconds
Delay Time	0.1-1.0 s (dark to light)
UV/IR Protection	Up to DIN 16 permanently
Operating Temperature	-5°C to +55°C / 23°F to 131°F
Included Components	Welding helmet, 1 outer protective cover, 1 inner protective cover, USB-C charging cable, storage bag, user manual

9. OFFICIAL PRODUCT VIDEO

Watch the official product video for a visual guide on the features and operation of the ANDELI Digital Auto-Darkening Welding Helmet.

Your browser does not support the video tag.

Video: This video demonstrates the various features of the ANDELI OPTIM series welding helmets, including the digital control panel, USB-C charging, lightweight design, multi-layer protection, True Color technology, auto-test function, mode switching (grinding, cutting, welding, lock), and adjustments for delay and sensitivity. It also highlights the ergonomic headband adjustments.

10. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the product packaging or contact ANDELI customer service directly. Contact details can typically be found on the manufacturer's official website or through your point of purchase.