ANDELI MONERAE-LED

ANDELI Welding Helmet MONERAE-LED User Manual

Model: MONERAE-LED

1. Introduction

This manual provides comprehensive instructions for the safe and effective use, setup, maintenance, and troubleshooting of your ANDELI MONERAE-LED Welding Helmet. Please read this manual thoroughly before operating the helmet to ensure proper function and personal safety.

2. Safety Information

WARNING: Welding operations produce intense light, heat, and fumes that can cause serious injury if proper precautions are not taken. Always wear appropriate personal protective equipment (PPE) in addition to this welding helmet.

- Ensure the helmet is properly fitted and adjusted before each use.
- Inspect the helmet and lenses for any damage before use. Replace damaged parts immediately.
- Do not use the helmet if the auto-darkening function is not working correctly.
- This helmet is designed for arc welding and grinding applications. Do not use for laser welding or oxy-acetylene welding/cutting without consulting specific safety guidelines.
- Protect the helmet from extreme temperatures and moisture.
- Clean the helmet and lenses regularly as instructed in the Maintenance section.

3. Setup and Adjustment

3.1 Headgear Adjustment

The helmet features an adjustable headgear designed for comfort and stability during extended use. Proper adjustment ensures the helmet sits securely and reduces pressure points.

Figure 3.1: Adjustable Headgear. The headgear can be adjusted by 130 degrees to fit various head sizes and shapes. Front and rear cushions are integrated to reduce pressure points and enhance comfort during long welding sessions.

1. Place the helmet on your head.
2. Adjust the top strap to control the helmet's height.
3. Rotate the knob at the back of the headgear to tighten or loosen the fit around your head until it is snug but comfortable.
4. Adjust the distance between the helmet and your face using the side knobs to ensure a clear field of vision and proper balance.

3.2 Lens Installation and Protection

The helmet comes with a main auto-darkening lens and includes replacement clear protective lenses. Ensure all protective films are removed before use.

Figure 3.2: Replacement Protective Lenses. The helmet includes multiple clear protective lenses to shield the auto-darkening filter from spatter and scratches. Each lens has a protective film that must be removed before installation.

1. Carefully remove the protective film from both sides of the clear protective lenses before installation.
2. Insert the clear protective lens into the designated slot on the front of the helmet, ensuring it is securely seated.
3. The main auto-darkening lens is pre-installed. Ensure its protective film is also removed if present.

3.3 Charging the Integrated Light

The helmet features an integrated LED light for improved visibility in low-light conditions. This light is rechargeable via a Type-C port.

Figure 3.3: Type-C Charging Port. The helmet's integrated LED light is charged using a standard Type-C cable (not included). A full charge provides 2 to 4 hours of continuous operation and takes approximately 3.5 hours.

1. Locate the Type-C charging port on the helmet's light module.
2. Connect a Type-C charging cable (not included) to the port and to a suitable power source.
3. Allow approximately 3.5 hours for a full charge. The LED light will provide 2 to 4 hours of continuous operation on a full charge.

4. Operating Instructions

4.1 Auto-Darkening Function

The helmet is equipped with an auto-darkening filter that automatically switches from light to dark when an arc is detected, protecting your eyes from harmful radiation.

Figure 4.1: Auto-Darkening Sensors. The helmet utilizes four premium arc sensors to detect welding arcs. It darkens within 1/25000 seconds upon arc initiation, providing rapid eye protection.

- The helmet features 2 premium sensors for reliable arc detection.
- The auto-darkening filter switches from light to dark in 1/25000 seconds.
- UV/IR protection up to Shade DIN16 is continuously active, even in the light state.

4.2 Integrated LED Light Operation

The helmet's integrated LED light offers two modes of operation: motion sensor activation and manual switch control, with adjustable brightness levels.

Figure 4.2: LED Light Controls. The helmet's LED light can be activated via a motion sensor or a manual switch. The manual switch allows toggling between high and low brightness settings.

Motion Sensor Light Function:

1. Turn on the power switch.
2. Turn on the motion sensor switch.
3. When your hand approaches the sensor (within 5cm), the LED light will automatically turn off.
4. When your hand moves away from the sensor, the LED light will automatically turn on.
5. *Note: Rapid hand motion may not trigger the sensors reliably.*

Manual Light Switch:

1. Press the light key to turn the light on.
2. Click the light key continuously to switch between high brightness and low brightness options.

4.3 Sensitivity and Delay Settings

The helmet features external controls for adjusting sensitivity and delay, allowing customization for different welding environments and applications.

Figure 4.3: External Controls. The side of the helmet features rotary knobs for adjusting the delay time (how long the lens stays dark after the arc stops) and sensitivity (how easily the sensors detect an arc). A switch for Grind/Cut mode is also present.

- **Sensitivity:** Adjust the sensitivity knob to control how easily the arc sensors detect a welding arc. Higher sensitivity is suitable for low amperage welding or when the arc is partially obstructed. Lower sensitivity helps prevent false triggers from ambient light.
- **Delay:** Adjust the delay knob to set the time the lens remains dark after the welding arc stops. A short delay is suitable for tack welding, while a longer delay is recommended for high amperage welding to protect eyes from afterglow.
- **Grind/Cut Mode:** A switch is available to select between welding and grind/cut modes. In grind/cut mode, the auto-darkening function is deactivated, and the lens remains in its light state (DIN4) for clear viewing during grinding or cutting operations.

4.4 True Color View and Large Viewing Area

The helmet provides a large viewing area with True Color technology for enhanced clarity and natural color perception.

Figure 4.4: Large Viewing Screen. The helmet offers a 180-degree viewing experience with a main screen size of 3.94 x 3.74 inches, complemented by additional side views (DIN4, non-auto-darkening) for a wider peripheral vision.

Figure 4.5: True Color Lens Technology. The auto-darkening filter provides 1/1/1/2 optical clarity, ensuring a true color view of the welding area, which improves precision and reduces eye strain.

- **Main Viewing Area:** 3.94 x 3.74 inches.
- **Side View:** Additional 3.72 x 1.76 inches (DIN4, non-auto-darkening) for expanded peripheral vision.
- **Optical Clarity:** 1/1/1/2 rating for superior visual quality and true color perception.

5. Maintenance

5.1 Cleaning the Helmet and Lenses

- Clean the helmet shell with a mild soap and water solution using a soft cloth. Avoid abrasive cleaners or solvents.
- Clean the auto-darkening filter and clear protective lenses with a soft, lint-free cloth. Use a specialized lens cleaning solution if necessary. Do not use harsh chemicals or abrasive materials that could scratch the lens surface.
- Regularly check for and remove welding spatter from the helmet and lenses.

5.2 Replacing Protective Lenses

The clear protective lenses are consumable parts and should be replaced when they become scratched, pitted, or too dirty to clean effectively.

Figure 5.1: Helmet with Replacement Lenses. The image shows the welding helmet alongside a stack of clear replacement protective lenses, indicating their availability for maintenance.

1. Carefully remove the old protective lens from its slot.
2. Ensure the new protective lens is clean and free of protective films.
3. Insert the new protective lens into the slot, ensuring it is securely seated.

6. Troubleshooting

If you encounter issues with your ANDELI MONERAE-LED Welding Helmet, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Lens does not darken when arc is struck.	• Grind/Cut mode is active. • Sensors are dirty or obstructed. • Sensitivity setting is too low. • Insufficient light from arc.	• Switch to Weld mode. • Clean sensors. • Increase sensitivity setting. • Ensure proper arc intensity.

Problem	Possible Cause	Solution
Lens flickers or darkens intermittently.	• Sensitivity setting is too high. • Interference from ambient light. • Arc is unstable or too weak.	• Decrease sensitivity setting. • Adjust working position to minimize ambient light interference. • Ensure stable arc.
Integrated LED light not working.	• Battery is depleted. • Power switch is off. • Motion sensor switch is off or obstructed.	• Recharge the light battery via Type-C port. • Ensure power switch is on. • Ensure motion sensor switch is on and not obstructed.
Poor visibility through the lens.	• Protective lenses are dirty or scratched. • Protective film not removed.	• Clean or replace protective lenses. • Remove all protective films from lenses.

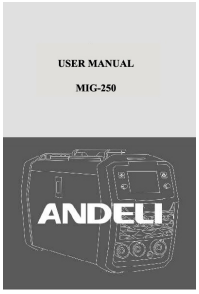
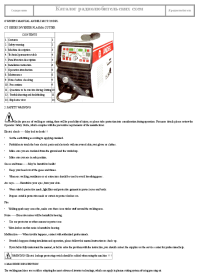
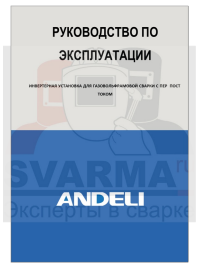
7. Specifications

Feature	Specification
Brand	ANDELI
Model	MONERAE-LED
Optical Clarity	1/1/1/2
UV/IR Protection	Up to Shade DIN16 (constant)
Main Viewing Area	3.94 x 3.74 inches
Side View Area	3.72 x 1.76 inches (DIN4, non-auto-darkening)
Auto-Darkening Speed	1/25000 seconds
Arc Sensors	2 Premium Sensors
Integrated LED Light	4 LEDs, up to 400 lumens
LED Light Battery Life	2 to 4 hours (continuous operation)
LED Light Charging Port	Type-C
Headgear Adjustability	130 degrees

8. Warranty and Support

For warranty information and customer support, please refer to the documentation included with your product packaging or visit the official ANDELI website. Specific warranty terms and conditions may vary.

Related Documents - MONERAE-LED

	TIG-250GPLC Intelligent Precision Multifunction Argon Arc Welding Machine User Manual This user manual provides comprehensive information for the ANDELI TIG-250GPLC Intelligent Precision Multifunction Argon Arc Welding Machine. It covers safety precautions, product overview, technical specifications, panel controls, installation, operation methods for various welding modes (argon arc, continuous pulse spot, single spot cold welding), troubleshooting, and maintenance.
	ANDELI MIG-250 User Manual: Welding Machine Operation and Safety Comprehensive user manual for the ANDELI MIG-250 welding machine, covering usage, safety precautions, technical specifications, installation, operation, and maintenance. Learn how to safely and effectively operate your MIG-250 welder.
	ANDELI MCT-520DPL Inverter Plasma Cutter Owner's Manual and Technical Specifications Comprehensive owner's manual and technical guide for the ANDELI MCT-520DPL Inverter Plasma Cutter, covering safety, operation, maintenance, and troubleshooting.
	ANDELI TIG-250PL AC/DC Inverter TIG Welding Machine User Manual Comprehensive user manual for the ANDELI TIG-250PL AC/DC inverter welding machine. This guide covers essential safety precautions, installation and setup procedures, detailed operation instructions, maintenance schedules, troubleshooting tips, and technical specifications for gas tungsten arc welding.
	ANDELI MIG Welding Machine Operating Manual Comprehensive operating manual for ANDELI MIG welding machines (MIG-200, 250, 315, 350, 500) covering safety, specifications, installation, operation, and troubleshooting.

	ANDELI TIG Welder Instruction Manual: TIG-250GC/GLC/MGC/MPLC Instruction manual for ANDELI TIG welders (TIG-250GC, TIG-250GLC, TIG-250MGC, TIG-250MPLC). Covers features, installation, operation, safety, and maintenance for these multi-function inverter welding machines.