ANDELI RL-600LB-DBB

ANDELI OPTIM Welding Helmet RL-600LB-DBB User Manual

Model: RL-600LB-DBB

Introduction

This manual provides comprehensive instructions for the safe and effective use of your ANDELI OPTIM RL-600LB-DBB auto-darkening welding helmet. Please read this manual thoroughly before operation and retain it for future reference.

Image: The ANDELI OPTIM RL-600LB-DBB welding helmet, showcasing its design and features.

Safety Information

Welding operations involve inherent risks. Always follow safety guidelines to prevent injury. This helmet is designed to protect your eyes and face from arc flash, sparks, and harmful radiation during welding. It is not suitable for laser welding or overhead applications where falling objects are a hazard.

- **Eye Protection:** Always wear appropriate primary eye protection (safety glasses) under the welding helmet.
- **Ventilation:** Ensure adequate ventilation to avoid inhaling welding fumes.
- **Inspection:** Inspect the helmet and lens before each use for any damage. Replace damaged parts immediately.
- **Temperature:** Do not expose the helmet to extreme temperatures.

- **Cleaning:** Clean the lens with a soft cloth and mild cleaner. Do not use abrasive materials.

Package Contents

Verify that all items are present in the package:

- ANDELI OPTIM RL-600LB-DBB Welding Helmet
- User Manual (this document)
- (Optional: Replacement outer lens covers, inner lens covers, USB-C charging cable if included)

Note: The product includes one welding helmet. Additional accessories may be sold separately.

Product Features

- **180° Panoramic View:** Offers an expansive viewing area for improved situational awareness.
- **Auto-Darkening Filter (ADF):** Automatically adjusts shade level upon arc ignition.
- **Enhanced Optical Clarity:** Provides a clear and true-color view of the weld puddle.
- **Fast Response Time:** Darkens rapidly (1/30000s) to protect eyes from arc flash.
- **Adjustable Shade Range:** Wide shade range from 4/5-9/9-13 for various welding processes.
- **Dual Power Source:** Solar-powered with a rechargeable battery for extended operation.
- **Comfortable Headgear:** Features 6 contact points for weight distribution and reduced pressure.

Image: A detailed view highlighting key features such as the 180° panoramic view, digital control panel, Type-C charging, 6-point headgear, and lightweight design.

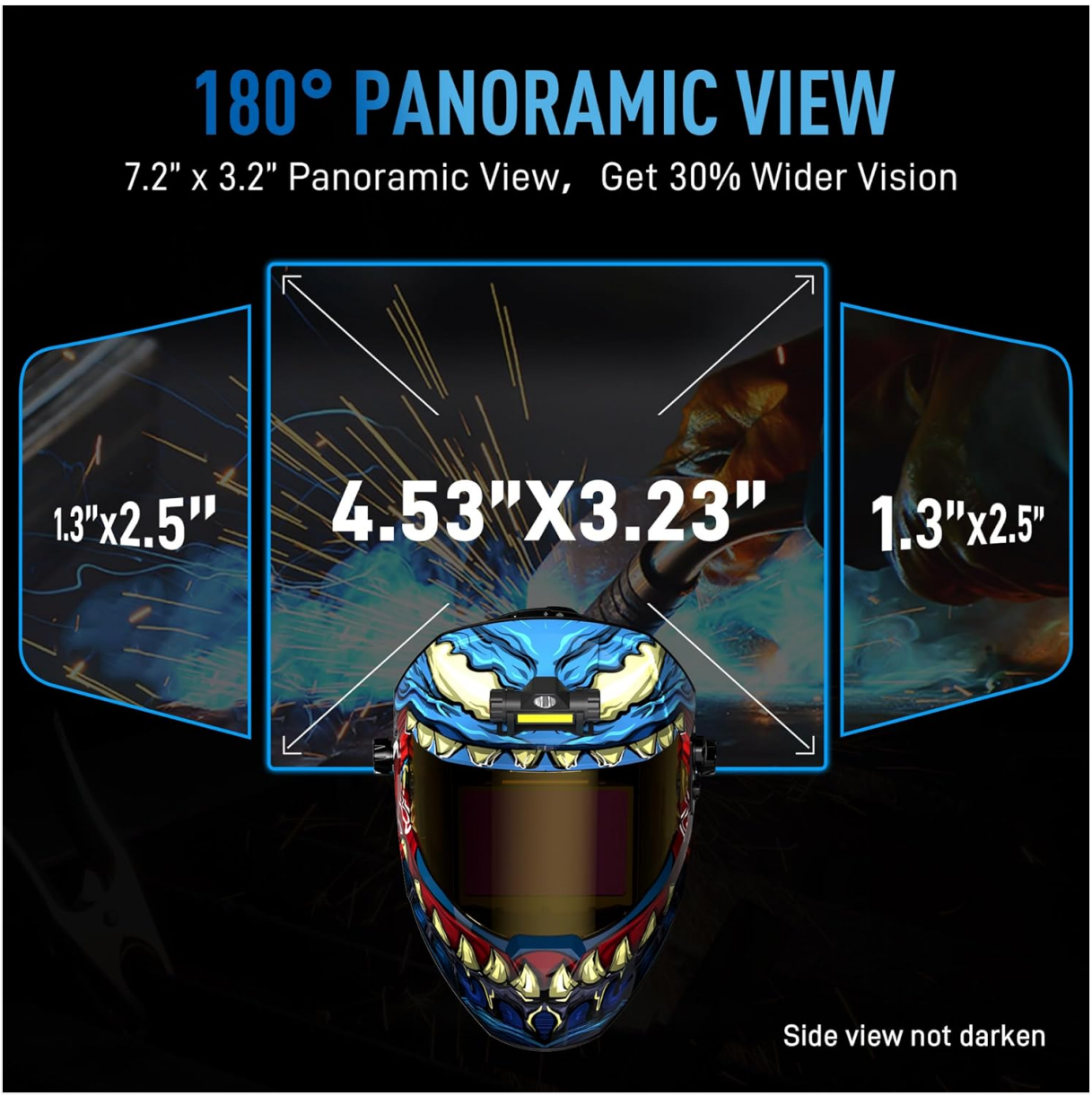

Image: Illustration of the 180° panoramic viewing area, including the main 4.53"x3.23" and side 1.3"x2.5" views.

Image: Comparison showing the upgraded true color lens clarity versus a traditional green-tinted lens.

Setup

1. **Unpack:** Carefully remove the welding helmet and all accessories from the packaging.
2. **Inspect:** Check the helmet for any signs of damage during shipping. Ensure the protective films are removed from the lenses.
3. **Charge Battery:** Connect the helmet to a USB-C power source to ensure the rechargeable battery is fully charged before first use. The solar panel will help maintain the charge during use.
4. **Adjust Headgear:**
   - Place the helmet on your head.
   - Adjust the top strap (3) to position the helmet correctly on your head.
   - Use the front/back adjustment knob (2) to move the helmet closer or further from your face.
   - Tighten the tightness adjustment knob (7) at the back to secure the headgear comfortably.
   - Ensure the helmet is stable and the viewing area is centered with your eyes.
5. **Test ADF:** Before welding, press the "TEST" button on the control panel to verify the auto-darkening function. The lens should darken momentarily and then return to its light state.

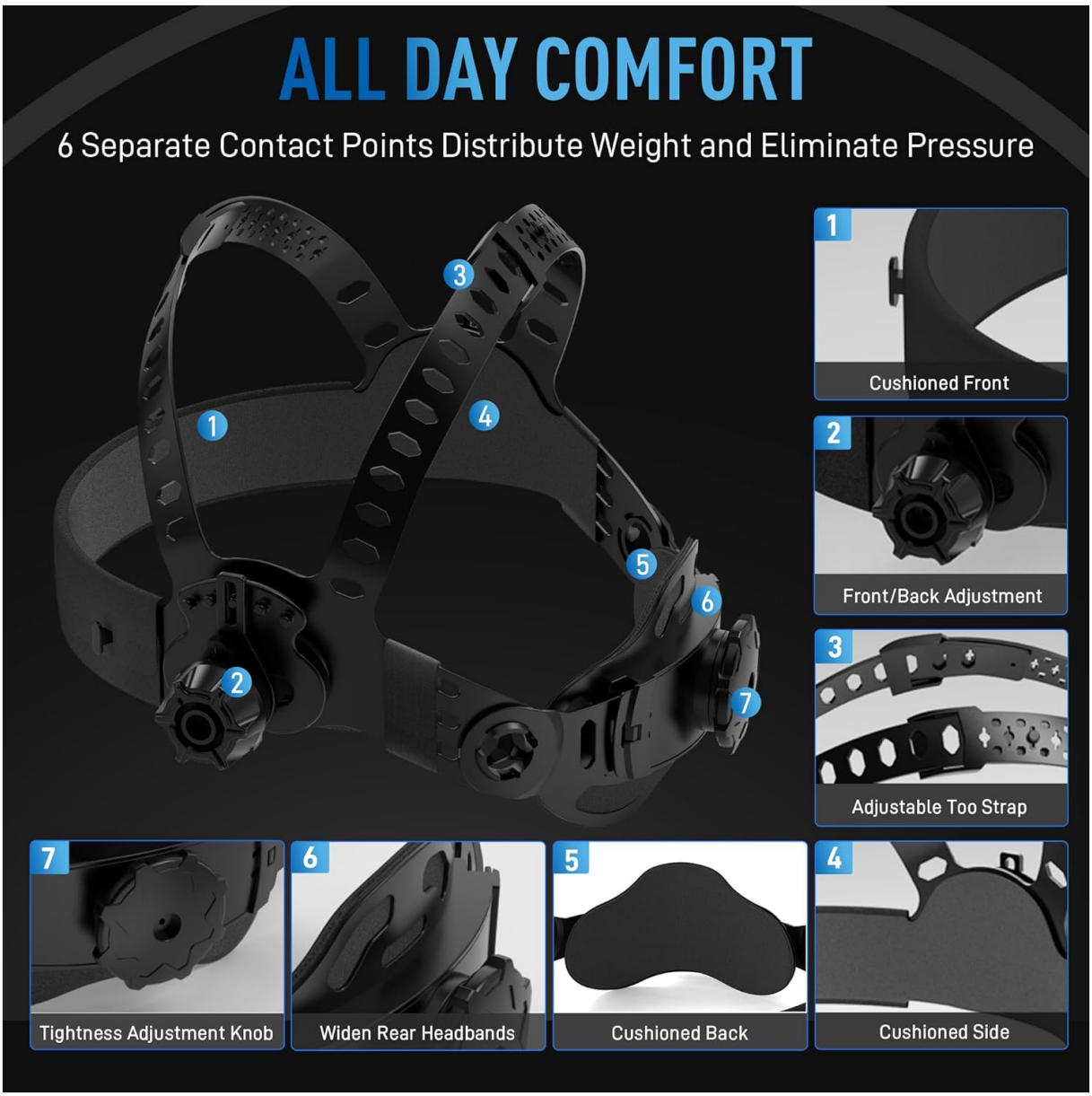

Image: Diagram illustrating the various adjustment points on the helmet's headgear for optimal comfort and fit, including cushioned front, front/back adjustment, adjustable top strap, cushioned side, cushioned back, widen rear headbands, and tightness adjustment knob.

Operating Instructions

Control Panel Overview

Image: Close-up of the digital control panel and remote, showing buttons for mode selection (grind, cut, weld), sensitivity, shade adjustment, test, lock, and delay.

- **MODE Button:** Press to select between GRIND, CUT, and WELD modes.
- **SENSITIVITY (SENSI.) Knob:** Adjusts the sensitivity of the arc sensors to detect the welding arc. Turn to accommodate different lighting conditions.
- **SHADE Adjustment (+/- Buttons):** Use these buttons to increase or decrease the shade level (4/5-9/9-13).
- **DELAY Knob:** Adjusts the time the lens remains dark after the welding arc stops. This prevents eye strain from afterglow.
- **TEST Button:** Verifies the auto-darkening function.
- **LOCK Button:** Locks the current shade setting.

Welding Operation

1. **Select Mode:** Choose the appropriate mode (WELD, GRIND, or CUT) using the MODE button. For welding, select WELD.
2. **Adjust Shade:** Set the shade level according to your welding process and amperage. Start with a higher shade and reduce if visibility is poor. Refer to standard welding shade charts for guidance.

3. **Adjust Sensitivity:** Set the sensitivity to ensure the helmet darkens reliably when the arc is struck. Higher sensitivity is needed for low amperage TIG welding.
4. **Adjust Delay:** Set the delay time to prevent eye fatigue. A longer delay is often preferred for high amperage welding or when tack welding.
5. **Begin Welding:** Once all settings are configured and tested, you can begin your welding task. The lens will automatically darken when the arc is struck and lighten when the arc stops, based on your delay setting.

Image: Illustrates the helmet's fast photosensitivity with 4 arc sensors and 1/30000s response time, detecting 5Amp TIG welding arcs to provide superior eye protection.

Maintenance

- **Cleaning:**
  - Clean the helmet shell with mild soap and water. Avoid harsh solvents.
  - Clean the outer and inner protective lenses with a soft, clean cloth and a specialized lens cleaning solution. Do not use abrasive materials or paper towels, as they can scratch the lens.
  - Regularly check the auto-darkening filter (ADF) for dust or debris and clean gently if necessary.
- **Lens Replacement:**

- Replace scratched or damaged outer and inner protective lenses immediately to maintain optical clarity and protection.
- Refer to the helmet's design for specific instructions on how to remove and install replacement lenses. Typically, outer lenses clip into place, and inner lenses slide into a frame.

- **Battery Care:**
  - Ensure the solar panel is clean and unobstructed to maximize charging efficiency.
  - Charge the internal rechargeable battery regularly via the USB-C port, especially if the helmet is stored for extended periods or used in low-light conditions.
- **Storage:** Store the helmet in a dry, clean environment away from direct sunlight and extreme temperatures.

Image: Exploded view showing the different layers of the welding helmet's lens assembly, including the internal protective lens, LCD shading layer, UV/IR filter, lens frame, side view, and outside lens cover.

TROUBLESHOOTING

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Lens does not darken.	• Low battery. • Sensors obstructed or dirty. • Sensitivity set too low. • Helmet not in WELD mode. • ADF malfunction.	• Charge the battery via USB-C. • Clean sensors. • Increase sensitivity. • Select WELD mode. • Contact support if issue persists after checking other points.
Lens remains dark after welding.	• Delay setting too high. • Low battery.	• Decrease delay setting. • Charge the battery.
Poor visibility through lens.	• Protective lenses scratched or dirty. • Shade level too high.	• Clean or replace protective lenses. • Decrease shade level.
Helmet feels uncomfortable.	• Headgear not properly adjusted.	• Re-adjust headgear for a secure and balanced fit.

Specifications

Feature	Detail
Brand	ANDELI
Model Number	RL-600LB-DBB
Material	Plastic
Optical Clarity	1/1/1/2
Viewing Area	Main: 4.53" x 3.23" (11.4 x 9.5 cm), Side: 1.3" x 2.5"
Shade Range	Light State: Shade 4/5, Dark State: Shade 9-13 (Adjustable)
Response Time	1/30000s
Arc Sensors	4
Power Supply	Solar Cell & Rechargeable Battery (USB-C)
Weight	Approx. 560g (1.1 lbs)

Image: Comparison table highlighting the advantages of the digital lens assembly, including adjustability, memory, battery level display, faster response time, microprocessor control, and consistent performance, compared to a traditional lens.

Warranty and Support

This ANDELI OPTIM welding helmet comes with a**1-year warranty** from the date of purchase, covering manufacturing defects. Please retain your proof of purchase for warranty claims.
For technical support, warranty service, or to purchase replacement parts, please contact ANDELI customer service through the retailer where the product was purchased or visit the official ANDELI website.
Manufacturer: andeli