ANDELI BY950T

ANDELI BY950T Auto-Darkening Welding Helmet Instruction Manual

Model: BY950T

1. Introduction

Thank you for choosing the ANDELI BY950T Auto-Darkening Welding Helmet. This manual provides essential information for the safe and effective use, maintenance, and troubleshooting of your welding helmet. Please read this manual thoroughly before operation and keep it for future reference.
The ANDELI BY950T features a true color lens, four arc sensors, and adjustable shade settings, making it suitable for various welding, cutting, and grinding applications. Its lightweight and comfortable design ensures extended use with reduced fatigue.

2. Safety Information

WARNING: Failure to follow these safety instructions may result in serious personal injury or property damage.

- Always wear appropriate personal protective equipment (PPE) in addition to the welding helmet.
- Ensure the helmet is properly adjusted and fits securely before beginning any work.
- Do not use the helmet if the auto-darkening filter (ADF) is damaged or not functioning correctly.
- Protect the ADF from scratches and impacts. Replace protective lenses regularly.
- Avoid direct exposure to welding arc without the helmet in place and functioning.
- Do not modify the helmet or its components. Use only genuine ANDELI replacement parts.
- Ensure adequate ventilation in your work area.

3. Product Overview and Components

The ANDELI BY950T welding helmet is designed for optimal protection and visibility. Familiarize yourself with its key components:

Figure 1: Internal view of the Auto-Darkening Filter (ADF) and controls. This image highlights the main viewing area dimensions (100mm x 95mm), the solar panel, four arc sensors, and the control knobs for Shade, Mode, Sensitivity, and Delay. The model number BY950T and certifications are also visible.

- **Auto-Darkening Filter (ADF):** The core component that automatically darkens upon arc ignition.
- **Solar Panel:** Powers the ADF and extends battery life.
- **Arc Sensors:** Four high-quality sensors detect the welding arc for rapid darkening.
- **Control Knobs:** Located on the side of the helmet for adjusting shade, mode, sensitivity, and delay.
- **Headgear:** Adjustable 4-point headgear for a comfortable and secure fit.
- **Protective Lenses:** External and internal clear lenses protect the ADF from spatter and scratches.
- **Replaceable Lithium Battery:** Provides backup power for the ADF.

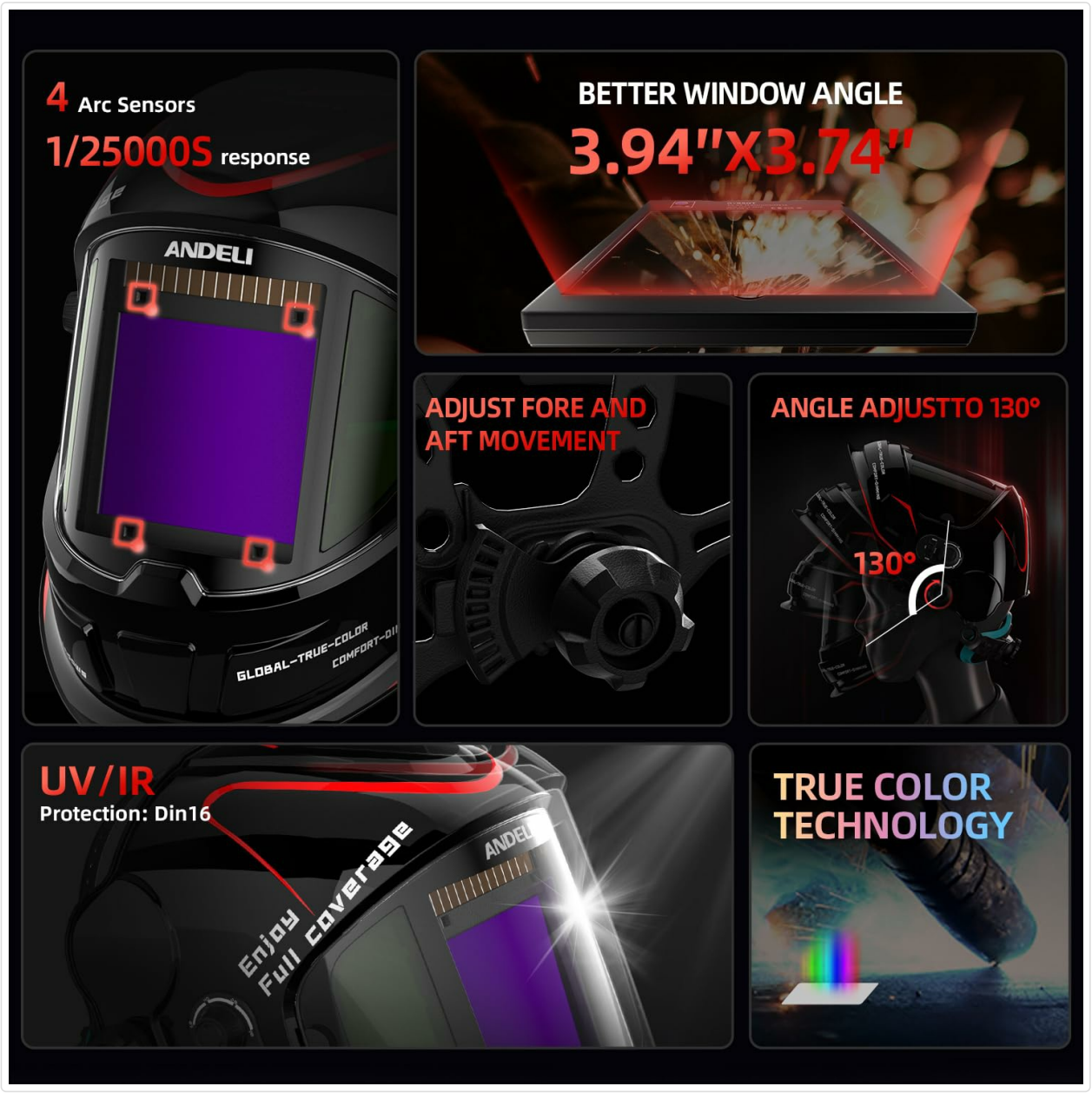

Figure 2: Key features of the ANDELI BY950T welding helmet. This composite image illustrates the four arc sensors, the wide viewing angle (3.94"x3.74"), adjustable fore and aft movement, 130° angle adjustment, DIN16 UV/IR protection, and true color technology.

4. Setup

4.1 Headgear Adjustment

The helmet features a pivotally structured 4-point headgear designed for comfort during long work periods. Proper adjustment is crucial for stability and comfort.

1. **Size Adjustment:** Rotate the knob at the back of the headgear to adjust the circumference for a snug fit.
2. **Top Strap Adjustment:** Adjust the top strap to position the helmet correctly on your head, ensuring the viewing area is at eye level.
3. **Fore and Aft Movement:** Use the side knobs to adjust the distance between your face and the ADF. This helps optimize the viewing angle and balance.
4. **Helmet Angle Adjustment:** The helmet's tilt angle can be adjusted up to 130 degrees for comfortable working positions. Adjust the side pivots to set the desired angle.

Figure 3: Comfortable headgear with multiple adjustment points for a secure and ergonomic fit.

Figure 4: The helmet's tilt angle can be adjusted up to 130 degrees, providing flexibility for various working postures and reducing neck strain.

4.2 Protective Lens Installation/Replacement

The helmet comes with external and internal protective lenses. These should be installed before use and replaced when scratched or damaged.

1. Gently remove the old protective lens by lifting its edges.
2. Clean the ADF surface if necessary.
3. Peel off any protective film from the new lens.
4. Insert the new lens into the designated slots, ensuring it sits flush and securely.

4.3 Battery Installation/Replacement

The helmet uses a combination of solar power and replaceable lithium batteries. The batteries are typically pre-installed.

1. Locate the battery compartment on the ADF unit.
2. Open the compartment cover.

3. Remove the old batteries and insert new ones, observing correct polarity.
4. Close the battery compartment cover securely.

Figure 5: Package contents, including the welding helmet, external and internal protective lenses, a convenient carrying bag, and two replaceable lithium batteries.

5. Operating Instructions

5.1 Power On/Off

The auto-darkening filter is always on and ready for use. It automatically switches to the light state when no arc is detected and darkens instantly when an arc is struck.

5.2 Mode Selection

Use the mode switch on the control panel to select the appropriate function:

- **WELD:** For all welding processes (TIG, MIG, MMA, Arc welding). The ADF will darken to the selected shade.
- **GRIND:** For grinding operations. The ADF remains in the light state (DIN 4) to provide clear vision while

protecting against impacts.

- **CUT:** For plasma cutting. The ADF will darken to the selected shade, typically a lower shade than welding.

Figure 6: The ANDELI BY950T helmet is suitable for a wide range of applications including cutting, grinding, MMA, MIG, and TIG welding.

5.3 Shade Adjustment

The helmet offers adjustable shade levels to match different welding processes and current settings.

- **Shade 5-8:** Use for plasma cutting and low-current welding.
- **Shade 9-13:** Use for most welding applications, including TIG, MIG, and Arc welding.

Rotate the SHADE knob to select the desired shade level. Always choose a shade level that provides comfortable vision and adequate protection for your specific task.

5.4 Sensitivity Adjustment

The SENSITIVITY knob controls how sensitive the arc sensors are to light. Adjust this based on ambient light conditions and the welding process.

- **High Sensitivity:** For low-current TIG welding or when the arc is partially obscured.
- **Low Sensitivity:** For high-current welding or when working in bright ambient light to prevent false triggering.

5.5 Delay Adjustment

The DELAY knob controls the time the ADF remains dark after the welding arc extinguishes. This prevents eye fatigue from sudden changes in light and protects against afterglow.

- **Short Delay:** For tack welding or short welds.
- **Long Delay:** For high-amperage welding or when the workpiece remains bright after the arc is extinguished.

5.6 ADF Test Function

Press the 'TEST' button on the ADF unit to verify its functionality. The filter should momentarily darken and then return to the light state. Perform this test before each use to ensure proper operation.

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Video 1: This video demonstrates the various features and adjustments of the ANDELI Auto-Darkening Welding Helmet, including mode selection (cut, weld), shade adjustment, and headgear comfort. It visually explains how to operate the helmet's controls for different welding and cutting tasks.

6. Maintenance

6.1 Cleaning

- **Helmet Shell:** Clean with a mild soap and water solution. Avoid harsh solvents.
- **ADF and Protective Lenses:** Wipe gently with a soft, clean cloth. Do not use abrasive cleaners or solvents that could damage the coatings.
- **Solar Panel:** Keep the solar panel clean and free of obstructions to ensure efficient charging.

6.2 Storage

Store the helmet in a dry, cool place away from direct sunlight and extreme temperatures. Use the provided cloth bag for protection when not in use.

7. Troubleshooting

Problem	Possible Cause	Solution
ADF does not darken when arc is struck.	Low battery, sensors blocked, incorrect sensitivity, helmet in GRIND mode.	Replace batteries, clean sensors, adjust sensitivity, switch to WELD/CUT mode.
Poor visibility through the ADF.	Scratched protective lenses, dirty ADF, incorrect shade setting.	Replace protective lenses, clean ADF, adjust shade to appropriate level.
Helmet feels uncomfortable or unstable.	Improper headgear adjustment.	Re-adjust headgear straps and pivots for a secure and balanced fit.

Problem	Possible Cause	Solution
ADF flickers or darkens intermittently.	Low battery, sensors partially blocked, interference from other light sources.	Replace batteries, ensure sensors are clear, adjust sensitivity, minimize external light interference.

8. Specifications

Feature	Specification
Model	BY950T
Optical Clarity	1/1/1/2
Viewing Area (Main)	100mm x 95mm (3.94" x 3.74")
Viewing Area (Side)	105mm x 35mm (non-auto-darkening)
Arc Sensors	4
Light State	DIN 4
Dark State (Adjustable)	DIN 5-8 / DIN 9-13
Switching Time	1/25000 seconds
UV/IR Protection	DIN 16 (permanent)
Power Supply	Solar cell, 2x Replaceable Lithium Batteries
Material	Lightweight PP
Headgear	4-point adjustable, pivotally structured
Certifications	CE, ANSI Z87.1-2010, CSA Z94.3

9. Warranty and Support

ANDELI products are manufactured to high-quality standards. For warranty information, technical support, or to purchase replacement parts, please contact ANDELI customer service through the retailer where you purchased the product or visit the official ANDELI website.
Please retain your proof of purchase for warranty claims.