YESWELDER LYG-L600A

YESWELDER LYG-L600A Auto-Darkening Welding Helmet User Manual

Model: LYG-L600A

1. Introduction

Thank you for choosing the YESWELDER LYG-L600A Auto-Darkening Welding Helmet. This manual provides essential information for the safe and effective use, setup, operation, and maintenance of your welding helmet. Please read these instructions thoroughly before use and retain them for future reference.

2. Safety Information

Welding and cutting processes can be hazardous. Always follow safety precautions to prevent injury. This welding helmet is designed to protect your eyes and face from sparks, spatter, and harmful radiation under normal welding conditions. It is crucial to understand that this helmet alone does not provide complete protection against all hazards.

- Always wear appropriate safety glasses with side shields under the welding helmet.
- Ensure the helmet is properly adjusted and fits securely before starting any welding operation.
- Do not use this helmet for laser welding or overhead welding applications.
- Inspect the helmet and lens regularly for any damage. Replace damaged parts immediately.
- The helmet provides continuous UV/IR protection up to Shade DIN 16, even in the light state or if the auto-darkening function fails.
- This product complies with ANSI Z87.1, EN 379, CSA Z94.3, and EN ISO 16321 standards.

3. Product Overview and Components

The YESWELDER LYG-L600A welding helmet features a true color lens, fast auto-darkening response, and a comfortable design for various welding applications.

Key Features:

- **True Color View:** Enhanced optical clarity (1/1/1/2) for a more natural view of the weld puddle.
- **Fast Response Time:** Auto-darkening in 1/30000 seconds.
- **Adjustable Delay and Sensitivity:** Customizable settings for different welding environments.

- **Versatile Application:** Suitable for MIG, TIG, MMA, and Grind modes.
- **Durable Construction:** Made from high-quality PP material.
- **Solar Powered with Replaceable Battery:** Uses solar energy with a replaceable CR2450 lithium battery for backup.
- **Comfortable Headgear:** Lightweight (500g) with a pivot harness for superior comfort and multiple adjustments.

Included Components:

- YESWELDER LYG-L600A Welding Helmet
- Auto-Darkening Filter (ADF) Lens
- User Manual

Figure 1: Overview of the YESWELDER LYG-L600A Welding Helmet highlighting its advantages.

Figure 2: The helmet is suitable for multiple welding processes and grinding.

4. Setup

4.1 Headgear Adjustment

The headgear is designed for optimal comfort and fit. Adjust the following to ensure proper positioning:

1. **Tightness Knob:** Rotate the knob at the back of the headgear to adjust the circumference for a snug fit.
2. **Top Strap:** Adjust the top strap to position the helmet correctly on your head, ensuring the viewing area is at eye level.
3. **Angle Adjustment:** Use the side knobs to set the desired angle of the helmet when in the down position.
4. **Distance Adjustment:** Adjust the distance between the helmet and your face for optimal viewing and comfort.

Figure 3: Headgear adjustment points for a comfortable and secure fit.

4.2 Battery Installation/Replacement

The helmet is primarily solar-powered but uses a replaceable CR2450 lithium battery as a backup. A low battery indicator will illuminate when approximately 2-3 days of battery life remain.

1. Locate the battery compartment on the auto-darkening filter (ADF) lens.
2. Rotate the cover to open the compartment.
3. Remove the old CR2450 battery (if replacing).
4. Insert a new CR2450 lithium battery with the positive (+) side facing up.
5. Close the cover by rotating it until it clicks into place.

Figure 4: Battery compartment and test button on the ADF lens.

Figure 5: CR2450 battery and corrective lens slot.

5. Operating Instructions

5.1 Power On/Off

The helmet features automatic power on/off. It activates when exposed to light and deactivates after a

period of inactivity to conserve battery life.

5.2 Test Button

Before each use, press the **TEST** button on the ADF lens to verify its proper functioning. The lens should momentarily darken and then return to its clear state. If it does not darken, check the battery or consult the troubleshooting section.

5.3 Shade, Sensitivity, and Delay Adjustments

The helmet offers adjustable settings to optimize performance for different welding tasks.

- **Shade Control (DIN 4/9-13):** Use the external knob to select the appropriate shade level (DIN 9-13) for your welding process. The helmet also has a light state of DIN 4 for grinding.
- **Sensitivity Control:** Adjust the sensitivity knob to control how easily the lens reacts to welding arc light. Higher sensitivity is suitable for low amperage TIG welding, while lower sensitivity helps prevent false triggering from ambient light.
- **Delay Control:** Adjust the delay knob to set the time the lens remains dark after the welding arc stops. A shorter delay (0.1s) is suitable for tack welding, while a longer delay (0.8s) is better for high amperage welding to protect against afterglow.

Figure 6: Controls for Delay, Shade, and Sensitivity.

5.4 Grinding Mode

To activate grinding mode, set the shade control to DIN 4. In this mode, the auto-darkening function is deactivated, and the lens remains clear, providing protection against impacts while grinding. Always ensure the helmet is in the correct mode before starting any operation.

Figure 7: Different operating modes of the welding helmet.

6. Maintenance

6.1 Cleaning the Helmet

- Clean the helmet shell with a mild soap and water solution. Avoid harsh solvents.
- Wipe the auto-darkening filter (ADF) lens and cover lenses with a soft, clean cloth. Do not use abrasive materials or cleaning solutions containing alcohol or ammonia, as these can damage the lens coatings.
- Regularly check and clean the sensors on the ADF lens to ensure proper function.

6.2 Replacing Cover Lenses

The helmet uses outer and inner cover lenses to protect the ADF lens from scratches and spatter. Replace these lenses when they become scratched, pitted, or too dirty to clean effectively.

1. Carefully remove the retaining frame or clips holding the cover lens in place.
2. Remove the old cover lens.
3. Insert a new, clean cover lens, ensuring it is properly seated.
4. Reattach the retaining frame or clips.

7. Troubleshooting

Problem	Possible Cause	Solution
Lens does not darken when welding.	Low battery. Sensors are dirty or obstructed. Incorrect sensitivity setting. Helmet not positioned correctly.	Replace CR2450 battery. Clean sensors. Increase sensitivity. Adjust headgear for proper sensor alignment with arc.

Problem	Possible Cause	Solution
Poor visibility or blurry view.	Cover lenses are dirty or scratched. ADF lens is damaged.	Clean or replace cover lenses. Replace ADF lens if damaged.
Lens flickers or darkens intermittently.	Low battery. Sensors are partially obstructed. Sensitivity set too high for ambient light.	Replace CR2450 battery. Clean sensors. Decrease sensitivity.

8. Specifications

Feature	Specification
Model	LYG-L600A
Viewing Area	92.5 x 42.5 mm
Optical Class	1/1/1/2 (True Color)
Light State Shade	DIN 4
Dark State Shade	DIN 9-13 (Adjustable)
UV/IR Protection	DIN 16 (Permanent)
Switching Time	1/30,000 s
Delay Time	0.1 - 0.8 s (Adjustable)
Sensitivity	Adjustable
Arc Sensors	2
Power Supply	Solar Cell & Replaceable Lithium Battery (CR2450)
Material	High-Quality PP
Weight	500 g
Operating Temperature	Refer to product packaging for specific range.
Standards	ANSI Z87.1, EN 379, CSA Z94.3, EN ISO 16321

9. Warranty and Support

For warranty information and technical support, please refer to the warranty card included with your product or visit the official YESWELDER website. Keep your purchase receipt as proof of purchase.
Contact Information: Please visit www.yeswelder.com for the latest support resources and contact details.