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> TOOLIOM Large Viewing Welding Helmet User Manual

TOOLIOM TL-M800D

TOOLIOM Large Viewing Welding Helmet User Manual

Model: TL-M800D

INTRODUCTION

Thank you for choosing the TOOLIOM Large Viewing Welding Helmet. This auto-darkening welding helmet is designed to provide superior protection and clarity for various welding and cutting applications. Featuring a large viewing area, true color technology, and multiple modes, it ensures comfort and safety for professional and hobbyist welders alike. Please read this manual thoroughly before use to ensure proper operation and maintenance.



Image: Front view of the TOOLIOM Large Viewing Welding Helmet, showcasing its sleek black design and large auto-darkening lens.

SAFETY INFORMATION

Always prioritize safety when welding or cutting. This helmet is designed to protect your eyes and face from harmful radiation, sparks, and spatter. However, it is essential to follow all safety guidelines:

- Ensure the helmet is properly fitted and adjusted before each use.
- Verify the auto-darkening function is working correctly by performing the "Test" function.
- Do not use the helmet if the lens is cracked or damaged. Replace immediately.
- Always wear appropriate personal protective equipment (PPE) in addition to the welding helmet, including welding gloves and protective clothing.
- Avoid direct exposure to welding arc without proper eye protection.
- This helmet is certified to ANSI Z87.1 standards.

PRODUCT OVERVIEW AND COMPONENTS

The TOOLIOM welding helmet consists of several key components designed for optimal performance and user comfort.

LENS SPECIFICATIONS

1 Test Knob

2 Low battery

3 Mode

4 Sensitivity

5 Delay

6 Solar Cell

7 Arc Sensor

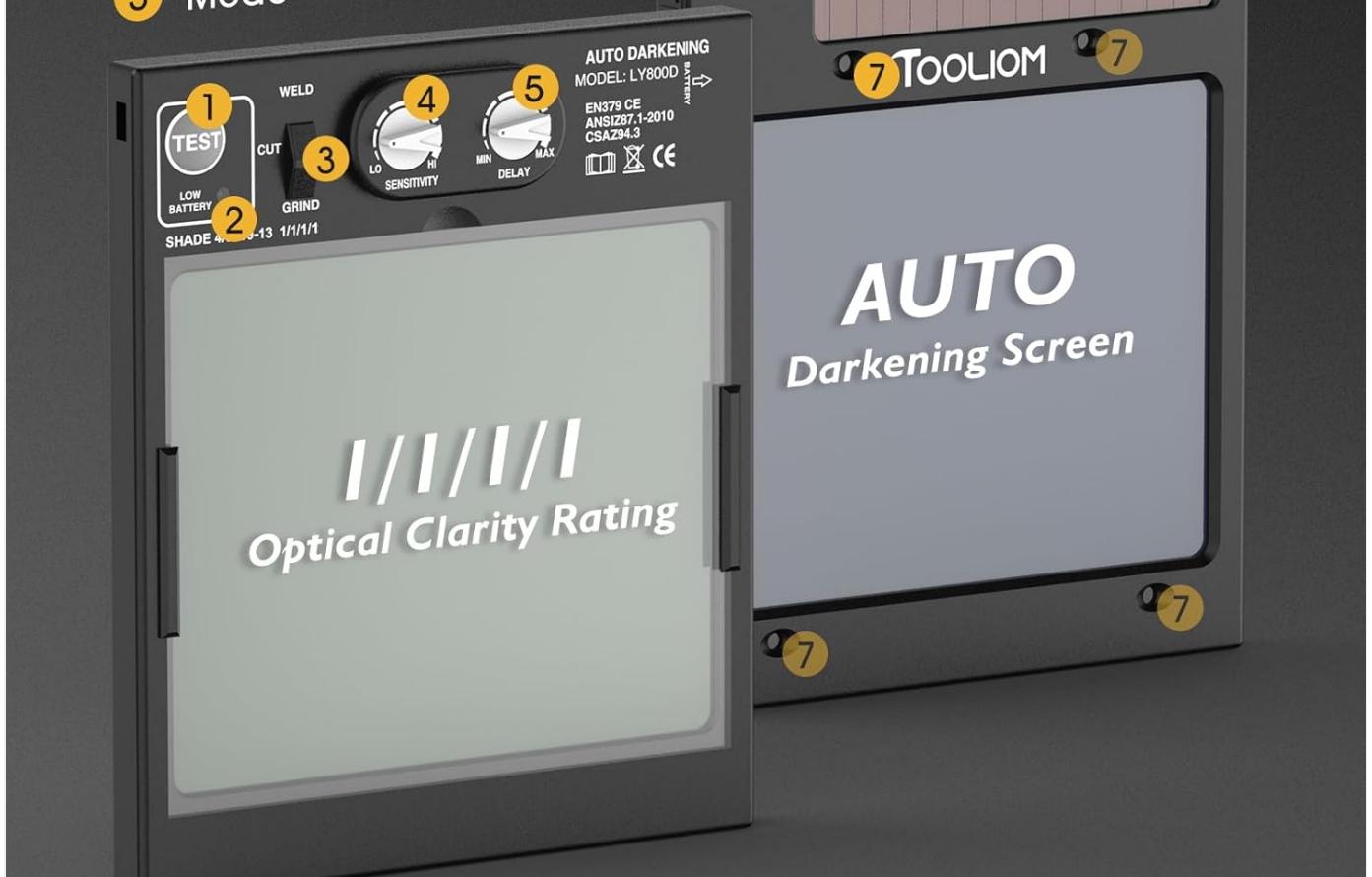


Image: Detailed diagram of the auto-darkening lens, highlighting key features such as the Test Knob, Low Battery indicator, Mode selector, Sensitivity adjustment, Delay adjustment, Solar Cell, and Arc Sensors.

Key Components:

- **Auto-Darkening Filter (ADF):** The core component that automatically darkens upon arc ignition.
- **Headgear:** Adjustable for a secure and comfortable fit.
- **Outer and Inner Protective Lenses:** Shield the ADF from spatter and scratches.
- **Control Knobs:** For adjusting sensitivity, delay, and mode selection.
- **Solar Cell:** Powers the ADF and charges the internal battery.
- **Arc Sensors:** Detect the welding arc to trigger darkening.
- **Battery:** CR2450 Lithium Ion battery (included).



Soft
Sponge



Adjust
The Angle



Easy
To Adjust



High Quality
Plastic



Image: Illustration of the adjustable headgear, showing points for angle adjustment and overall comfort features like soft sponge padding and high-quality plastic construction.

SETUP

1. Headgear Adjustment:

Adjust the headgear to ensure a snug and comfortable fit. The helmet should sit securely on your head without being too tight or loose. Use the adjustment knobs on the sides and back of the headgear to customize the fit and viewing angle.

2. Battery Installation/Check:

The helmet comes with a CR2450 Lithium Ion battery pre-installed. Before first use, ensure the battery is properly seated. If the low battery indicator illuminates, replace the battery as described in the Maintenance section.

3. Initial Function Test:

Press the "Test" button on the auto-darkening filter. The lens should momentarily darken and then return to its clear state.

This confirms the ADF is functioning correctly. If it does not darken, check the battery or contact support.

OPERATING INSTRUCTIONS

The TOOLIOM welding helmet offers Weld, Grind, and Cut modes for versatile application.



Image: Visual representation of the three operating modes: Grind Mode (DIN 4), Cut Mode (DIN 5-9), and Weld Mode (DIN 9-13), showing typical applications for each.

Mode Selection:

- **Weld Mode (Shade 9-13):** Use for TIG, MIG, and Stick welding. Adjust the shade level according to the welding process and amperage.
- **Cut Mode (Shade 5-9):** Suitable for plasma cutting applications.
- **Grind Mode (Shade 4):** For grinding operations. In this mode, the auto-darkening function is deactivated, and the lens remains in a light shade, providing eye protection from sparks and debris.

Sensitivity Adjustment:

The sensitivity knob controls how easily the arc sensors detect the welding arc and trigger the darkening function. Adjust to a higher sensitivity in low-amperage TIG welding or when the arc is partially obscured. Lower sensitivity can prevent false triggering from ambient light.

Delay Adjustment:

The delay knob controls the time it takes for the lens to return to its clear state after the welding arc extinguishes. A shorter delay is suitable for tack welding, while a longer delay is recommended for high-amperage welding to protect against afterglow.

DIN 4 GRIND MODE



DIN 5-9 CUT MODE



DIN 9-13 WELD MODE



Image: Comparison showing the lens in light state "Before" welding, darkening to 1/30000s "Change Light to Dark" during welding, and returning to light state "After" welding, demonstrating the rapid auto-darkening feature.

MAINTENANCE

Cleaning:

- Clean the helmet shell with a soft, damp cloth. Avoid harsh chemicals or abrasive cleaners.
- Clean the outer and inner protective lenses regularly with a soft, lint-free cloth and a mild lens cleaning solution. Do not use abrasive materials that could scratch the lens.
- Keep the arc sensors clean and free from obstructions to ensure proper operation.

Lens Replacement:

Replace the outer and inner protective lenses when they become scratched, pitted, or otherwise damaged to maintain optical clarity and protection.



Image: Step-by-step guide for replacing the protective lenses: 1. Open clips under the welding lens. 2. Remove the welding lens. 3. Remove the protective lens. 4. Place the new protective lens.

Battery Replacement:

When the low battery indicator lights up, replace the CR2450 Lithium Ion battery. The solar cell helps extend battery life

but does not fully power the unit without the battery.



Image: Step-by-step guide for replacing the battery: 1. Open clips under the welding lens. 2. Remove the welding lens. 3. Remove the battery cover. 4. Place new batteries (CR2450).

TROUBLESHOOTING

Problem	Possible Cause	Solution
Lens does not darken.	Low battery; Arc sensors dirty/blocked; Incorrect mode; ADF malfunction.	Replace battery; Clean sensors; Switch to Weld/Cut mode; Contact support.
Lens flickers during welding.	Sensitivity too low; Arc sensors partially blocked; Low battery.	Increase sensitivity; Clean sensors; Replace battery.
Poor visibility.	Protective lenses dirty/scratched; Incorrect shade setting.	Clean or replace lenses; Adjust shade level.
Helmet uncomfortable.	Headgear not properly adjusted.	Re-adjust headgear for a secure and balanced fit.

SPECIFICATIONS

- **Model:** TL-M800D
- **Viewing Area:** 3.94" x 3.27" (12.9 sq. inch)
- **Optical Classification:** 1/1/1/1
- **Arc Sensors:** 4
- **Light State:** Shade 4
- **Dark State:** Weld Mode: Shade 9-13 (Adjustable); Cut Mode: Shade 5-9 (Adjustable)
- **UV/IR Protection:** DIN16 at all times
- **Switching Time:** 1/30,000s (Light to Dark)
- **Delay Control:** Adjustable (Short to Long)
- **Sensitivity Control:** Adjustable (Low to High)
- **Power Supply:** Solar Cell & Replaceable Lithium Battery (CR2450)

- **Material:** High-quality Plastic
- **Weight:** Approximately 1.3 pounds
- **Certifications:** ANSI Z87.1
- **Included Components:** 1 Welding Helmet, 1 Replaceable Battery, 2 Replacement Outer Lenses, 1 Replacement Inner Lens, 1 User Manual.



Image: Visual display of the items included with the welding helmet: the helmet itself, a CR2450 battery, two outer protective lenses, and one inner protective lens.

WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official TOOLIOM website. Keep your purchase receipt as proof of purchase for warranty claims.

For further assistance, you may visit the [TOOLIOM Store on Amazon](#).