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› ARCCAPTAIN HSH-G999 Auto-Darkening Welding Helmet User Manual

ARCCAPTAIN HSH-G999

ARCCAPTAIN HSH-G999 Auto-Darkening Welding Helmet User Manual

Model: HSH-G999 (Internal Model: LY800F)

1. INTRODUCTION

Thank you for choosing the ARCCAPTAIN HSH-G999 Auto-Darkening Welding Helmet. This helmet is designed to provide superior eye and face protection during various welding, grinding, and cutting operations. Featuring a wide viewing area, Real Color technology, and rapid auto-darkening, it ensures both safety and clear visibility for professional and hobbyist users. Please read this manual thoroughly before use to ensure proper operation and maintenance.



Figure 1.1: ARCCAPTAIN HSH-G999 Auto-Darkening Welding Helmet.

2. SAFETY INFORMATION

Always prioritize safety when performing welding, grinding, or cutting tasks. Failure to follow these safety guidelines can result in serious injury.

- This welding helmet is designed to protect eyes and face from sparks, spatter, and harmful radiation under normal welding conditions.
- Do not use this helmet for laser welding or overhead welding applications.
- Always wear appropriate primary eye protection (safety glasses) underneath the welding helmet.
- Inspect the helmet and lens regularly for any damage. Replace damaged parts immediately.
- Do not modify the helmet or its components. Unauthorized modifications can compromise safety.
- Ensure the auto-darkening filter (ADF) is functioning correctly before each use. Test by striking an arc or using a suitable light source.
- Keep the sensors clean and unobstructed to ensure proper darkening.
- Avoid prolonged exposure to extreme temperatures or humidity.

3. PRODUCT OVERVIEW

The ARCCAPTAIN HSH-G999 welding helmet features advanced technology for optimal performance and user comfort.

Key Features:

- **Wide Viewing Area:** 100 x 93 mm for enhanced visibility.
- **Real Color Technology:** Provides a clearer, more natural view of the workpiece.
- **Fast Auto-Darkening:** Switches from light to dark in 1/10000s (0.04ms) with 4 premium arc sensors.
- **Adjustable Shade:** DIN 4 (light state) to DIN 9-13 (dark state).
- **Versatile Modes:** Suitable for MIG, TIG, ARC welding, grinding, and plasma cutting.
- **Durable Construction:** Impact, flame, and corrosion resistant for long-lasting use.
- **Comfortable Headgear:** Adjustable, padded, and sweat-resistant for extended wear.
- **Dual Power Source:** Solar cells with a replaceable CR2450 lithium battery.



Figure 3.1: Illustration of True Color 3.0 technology for enhanced clarity.



Figure 3.2: Adjustable headgear with padded front and crown straps for comfort and stability.

4. SETUP

Before using your welding helmet, follow these steps for proper setup:

1. **Unpack the Helmet:** Carefully remove all components from the packaging.
2. **Remove Protective Films:** Peel off any protective films from both the inner and outer surfaces of the auto-darkening filter (ADF) and the helmet shell.



Figure 4.1: Example of protective films to be removed from the lens.

3. **Check Battery:** The helmet is powered by solar cells and a CR2450 lithium battery. Ensure the battery is correctly installed. A spare battery is often included.



Figure 4.2: CR2450 lithium battery, typically included and pre-installed.

4. **Adjust Headgear:** Place the helmet on your head and adjust the headgear straps for a snug, comfortable fit. The top strap and rear knob allow for precise adjustment to balance the helmet and prevent slippage. Ensure the helmet sits securely without being too tight.
5. **Test Auto-Darkening Function:** Before starting any work, test the auto-darkening function. Point the helmet towards a bright light source (e.g., a lamp) and observe if the lens darkens instantly. If it does not darken, check the battery and ensure sensors are clean.

5. OPERATING INSTRUCTIONS

The ARCCAPTAIN HSH-G999 helmet offers various adjustments to suit different welding and cutting applications.

5.1 Mode Selection

The helmet supports different modes for various tasks:

- **Weld Mode (DIN 9-13):** For MIG, TIG, and ARC welding. Adjust the shade level according to the welding current and material.
- **Cut Mode (DIN 5-9):** For plasma cutting applications.
- **Grind Mode (DIN 4):** For grinding operations. The filter remains in its light state (DIN 4) to provide clear vision while protecting against sparks and debris.

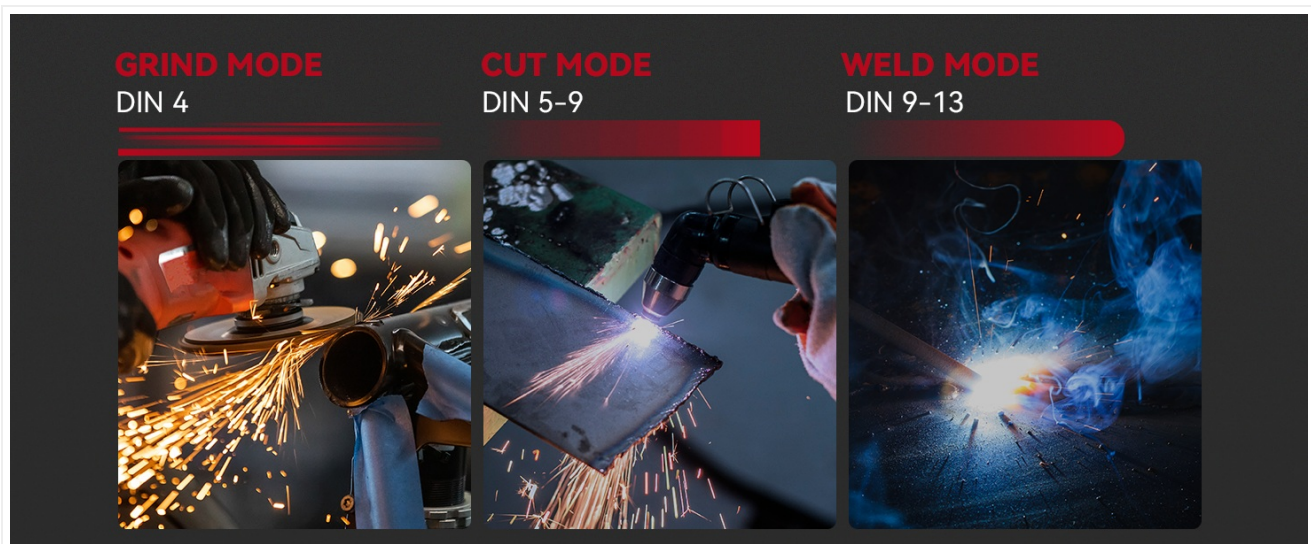


Figure 5.1: The helmet is suitable for Stick, MIG, TIG welding, and cutting applications.

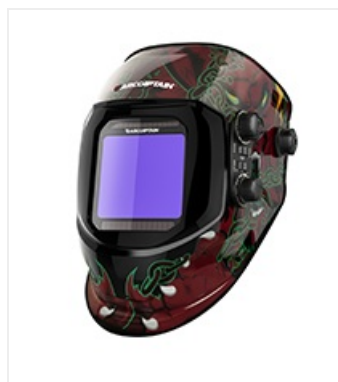


Figure 5.2: Visual representation of Grind, Cut, and Weld modes with corresponding DIN shades.

5.2 Shade Adjustment

Use the external knob to select the appropriate shade level (DIN 9-13) for welding. Refer to welding shade charts for guidance based on your specific process and amperage.

5.3 Sensitivity Adjustment

The sensitivity control adjusts how much light is required to trigger the auto-darkening filter. Adjust it to prevent accidental darkening from ambient light or to ensure darkening in low-amperage TIG welding.

5.4 Delay Adjustment

The delay control determines how long the filter remains dark after the welding arc stops. A shorter delay is suitable for tack welding, while a longer delay helps protect eyes from afterglow and reduces eye strain during continuous welding.



Figure 5.3: External controls for shade, sensitivity, and delay adjustments.

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your welding helmet.

- **Cleaning the Helmet:** Clean the helmet shell with a mild soap and water solution. Avoid harsh chemicals or solvents.
- **Cleaning the Lens:** Gently wipe the auto-darkening filter and cover lenses with a soft, clean cloth. Do not use abrasive materials or cleaners that could scratch the surface.
- **Battery Replacement:** When the low battery indicator appears or the auto-darkening function becomes unreliable, replace the CR2450 lithium battery. Refer to the battery compartment for instructions.
- **Inspect Regularly:** Periodically check all parts for wear, cracks, or damage. Replace damaged cover lenses, headgear, or the ADF unit if necessary.
- **Storage:** Store the helmet in a clean, dry place away from direct sunlight and extreme temperatures. Use the provided storage bag for protection.



Figure 6.1: Use the provided storage bag to protect your helmet when not in use.

7. TROUBLESHOOTING

If you encounter issues with your welding helmet, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Filter does not darken when arc is struck.	Battery low or dead. Sensors dirty or obstructed. Sensitivity set too low. Helmet not facing the arc.	Replace battery. Clean sensors. Increase sensitivity setting. Adjust helmet position.
Filter remains dark after arc stops.	Delay setting too high. Low ambient light.	Decrease delay setting. Move to a brighter area.
Poor visibility or blurry view.	Cover lenses dirty or scratched. ADF unit damaged.	Clean or replace cover lenses. Contact support for ADF replacement.
Helmet feels uncomfortable or slips.	Headgear not properly adjusted. Headgear worn or damaged.	Re-adjust headgear for a snug fit. Replace headgear if damaged.

8. SPECIFICATIONS

Feature	Specification
Model Number	HSH-G999 (Internal: LY800F)
Viewing Area	100 x 93 mm
Optical Class	1/1/1/2
Light State	DIN 4
Dark State	DIN 9-13 (Adjustable)
Switching Time	1/10000s (0.04ms)
Delay Time	Adjustable
Sensitivity	Adjustable
Arc Sensors	4
UV/IR Protection	DIN 16 at all times
Power Supply	Solar cell + 1x CR2450 Lithium battery (included)
Weight	1.01 Kilograms
Dimensions	34.2 x 24.6 x 19.5 cm

9. WARRANTY AND SUPPORT

ARCCAPTAIN stands behind the quality of its products.

9.1 Warranty Information

This ARCCAPTAIN HSH-G999 Auto-Darkening Welding Helmet comes with a **2-year warranty** from the date of purchase, covering manufacturing defects and material faults under normal use. This warranty does not cover damage caused by misuse, unauthorized modifications, accidents, or normal wear and tear.



Figure 9.1: The product includes a 2-year warranty.

9.2 Customer Support

For technical assistance, warranty claims, or any questions regarding your ARCCAPTAIN welding helmet, please contact ARCCAPTAIN customer support through the retailer where the product was purchased or visit the official ARCCAPTAIN website for contact information.