

AUTO DARKENING WELDING HELMET

INSTRUCTIONS



ROCKWOOD AUTO DARKENING WELDING HELMETS are specifically designed to provide maximum eye and face protection from harmful UV and IR radiation emitted when welding, in a lightweight, comfortable housing. The Auto-Darkening feature, providing added safety and convenience, is powered by solar cells and Li-Mn batteries for long, reliable life. Meets ANSI Z-87.1, CE, CSA & AS/NZS safety standards.

INCLUDES

- (1) Auto Darkening Welding Helmet
- (1) 3-3/4" x 2" Inner Lens Shield
- (2) 4-3/8 x 3-1/2" Outer Lens Shields

SAFETY INFORMATION

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

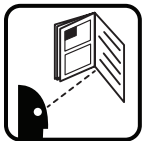
WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.



READ INSTRUCTIONS

- Thoroughly read and understand this manual before using.
- Save for future reference.



⚠ WARNING ELECTRIC SHOCK CAN CAUSE INJURY OR DEATH!

- Improper use of an electric welder and associated equipment can cause electric shock, injury and death! Read all precautions described in the specific Welder Manual to reduce the possibility of electric shock.
- The electrode and work (or ground) circuits are electrically “hot” when the welder is on. Do not allow these “hot” parts or associated equipment to come in contact with your bare skin or wet clothing.
- Separate yourself from the welding circuit by using insulating mats, protective clothing, leather welding gloves and insulated footwear to avoid being part of the welding circuit.
- Be sure that the work piece is properly supported and grounded prior to beginning an electric welding operation.



⚠ WARNING EYE INJURY HAZARD!

- If other persons or pets are in the area of welding, use welding screens to protect bystanders from sparks and harmful arc rays.
- Inadequate levels of arc ray shading can cause permanent eye injury. This helmet is capable of protection up to shade level 13 only. If your particular welding process emits arc radiation that requires a shade level higher than 13, DO NOT use this helmet and seek alternate protection.
- Eastwood welding helmets are designed to protect the user’s eyes and face from harmful radiation, sparks and spatter under normal welding conditions. They are not intended to offer protection against impact hazards, explosions or corrosive liquids.
- Wear ANSI approved impact safety goggles under welding helmet.
- Always test Auto-Darkening feature before each use by quickly subjecting the face of the Welding Helmet to sunlight or other bright light source. If the Auto-Darkening feature fails to function, permanent eye damage can occur from exposure to welding flash and radiation, DO NOT USE
- The operating temperature range of the Auto-Darkening feature is 23°F to 130°F (-5°C to 55°C). The response time may be affected beyond the described temperatures causing an unsafe condition. DO NOT USE beyond recommended operating temperature range.
- DO NOT USE this helmet for oxy-acetylene welding or cutting processes, laser welding or low amperage (less than 10 amps) TIG welding.

OPERATION

- Remove the protective film from the inside and outside surfaces of the lens.
- With normal (non-welding), ambient light viewing through the lens, the view will have a slight green tint. When exposed to bright light or the flash of the welding arc, the lens will quickly darken your view.

The Sensitivity, Delay Time and Shade Range switches are located at the upper panel of the viewing area inside of the Welding Helmet and are adjustable as follows: (FIG 1).

SENSITIVITY

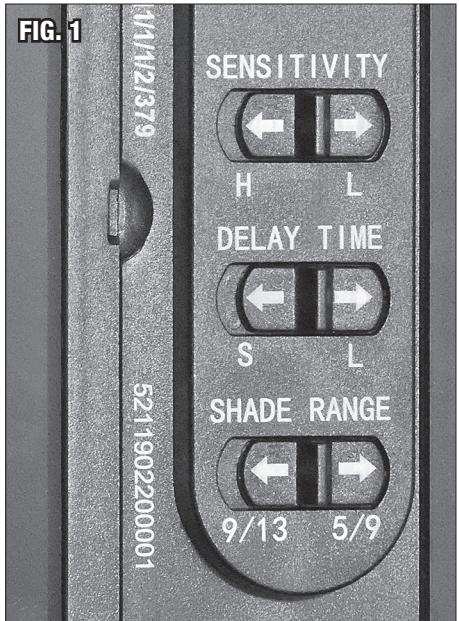
Controls the Auto-darkening response when exposed to smaller arcs such as low-amperage TIG welding and conditions like welding outside in bright sunlight.

To Adjust Sensitivity: Slide Sensitivity Switch to the High “H” position to increase sensitivity for low amperage welding. Slide Sensitivity Switch to the Low “L” position when welding in sunlight or bright ambient light.

DELAY TIME

Delay controls the time interval for the Auto-darkening to return to normal view once arc is stopped.

To Adjust Delay Time: Slide Delay Switch to the Long “L” position to increase the time for the Helmet to return to normal view after arc is stopped. Slide Delay Switch to the Short “S” position to minimize the time for the helmet to return to normal view.



⚠ WARNING EYE INJURY HAZARD!

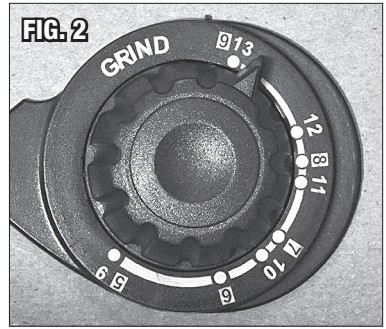
Inadequate levels of arc ray shading can cause permanent eye injury. This helmet is capable of protection up to shade level 13 only. If your particular welding process emits arc radiation at levels higher than 13, DO NOT use this helmet and seek alternate protection. Do not use this helmet for oxy-acetylene welding or cutting processes, laser welding or low amperage (less than 10 amps) TIG welding.

SHADE

Shade is used to control the level of viewer darkening as Auto-darkening is automatically activated when an arc is present.

This Helmet relies on 2 controls to adjust shade:

The Shade Control Knob (**FIG 2**) is designed to function by raising or lowering the amount of shade after using the Range Switch (**FIG 1**) to select between 2 separate ranges; one for shade levels 5 through 9 and one for shade levels 9 through 13.



Shade 5 is lightest while shade 13 is darkest.

This helmet also has a “GRIND” setting switch which turns off the Auto-Shade feature and keeps the viewer on base transparency to allow use of the Helmet for grinding and other non-welding uses.

To Adjust Shade:

Consult the **SHADE GUIDE TABLE (FIG 3)** to verify that this helmet provides adequate protection for your preferred welding process before using, then use the Guide to choose the correct setting.

If unsure of shade level required, the following procedure may be used to find the correct shade level:

- Set the Range Switch to the “9-13” position, set Knob to 13 and try viewing with an expected arc. This is the darkest possible setting and no arc may be viable
- Continue to incrementally decrease the setting while striking an arc until it becomes visible with Auto-Darkening.
- This is the correct setting.

Welding Process	Arc Current (Amperes)																								
	0.5	1	2.5	5	10	15	20	30	40	60	80	100	125	150	175	200	225	250	275	300	350	400	450	500	
SMAW								9	10				11					12					13		14
MIG (heavy)												10	11					12					13		14
MIG (light)												10	11				12		13				14		15
TIG, GTAW						9	10		11				12				13						14		
MAG/C02									10	11		12					13					14		15	
SAW													10	11	12	13	14	15							
PAC													11		12							13			
PAW				8	9	10	11	12						13								14		15	

SMAW – Shielded Metal Arc Welding

MAG/C02 – Metal Active Gas

MIG (heavy) – MIG on Heavy Metals

SAW – Shielded Semi-Automatic Arc Welding

MIG (light) – MIG on Light Alloys

PAC – Plasma Arc Cutting

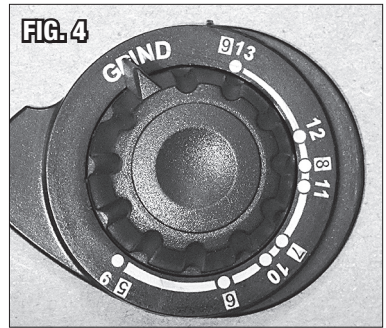
TIG, GTAW – Gas Tungsten Arc Welding

PAW – Plasma Arc Cutting

TO SET SHADE CONTROL TO “GRIND”:

Rotate the Shade Control Knob beyond the 9/13 setting and past the detent fully to the “GRIND” position (**FIG 4**) which will lock the viewer on full transparency.

WARNING: To avoid serious and permanent eye damage, NEVER attempt to weld with the Shade Control set to “GRIND”.



ADJUST FIT OF HELMET

Headband: Push Knob in and Turn Clockwise for decreasing size (tighten) or rotate Counter-Clockwise to increase size (loosen).

Width/Height: Push in rectangular latch on the two overhead bands, slide bands in to shorten band or pull out to lengthen bands. Snap button into the nearest available rectangular holes.

Flip-up Retention: This will allow the helmet to stay in the “flipped-up” position. Tighten or loosen knobs on either side of the helmet to increase or decrease friction.

MAINTENANCE

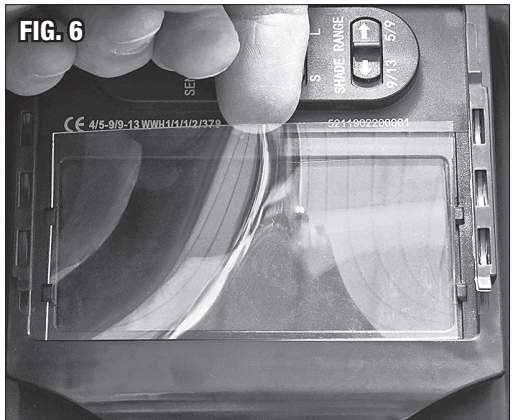
- This Welding Helmet is powered fully by solar rechargeable batteries that will provide a minimum of 5,000 hours of protection. With only occasional use, the batteries may require a charge by exposing the face of the Welding Helmet to bright sunlight for several hours.
- Clean outside and inside of lens with a soft cloth and small amount of glass cleaner.
NOTE: Do not use excessive glass cleaner or allow the lens assembly to become wet or the sensitive electronics will be destroyed. Never use solvents.
- Clean headband with a cloth dampened with mild soap and water. Allow to dry thoroughly.
- Check lens assembly for damage before each use. If cracked or broken, DO NOT USE.

Replace Outer Lens Shield

- Insert tip of the forefinger into the semi-circular recess at the bottom of the viewing area, pry the Lens outward while curling it outward in the center then upward and away from Helmet (FIG 5).
- Reverse to install by squeezing sides to curl the center outward then insert edges into channels around frame of opening (FIG 5).

Replace Inner Lens Shield

- Insert tip of the forefinger into the semi-circular recess at the top of the viewing area; pry the Lens outward while curling it inward in the center then away from under retaining tabs (FIG 6).
- Reverse to install by squeezing sides to curl the center inward then insert edges under the retaining tabs (FIG 6).



TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Auto-Dimming Does Not Function (will not darken)	Dirt may be blocking sensors located at upper area of the lens assembly	Clean lens assembly.
	Batteries may be low	Expose the solar cells to bright light source to recharge.
	Dirt may be blocking solar cells at upper portion of viewer area	Clean lens assembly.
Slow Response for Darkening	Operating temperature too low	Do not use below 23°F (-5°C).
	Sensitivity setting may need adjustment	Follow "Sensitivity" section in instructions for adjustment procedure.
Poor Vision Through Lens	Dirt or excessive pitting may be blocking view	Clean lens assembly.
Helmet Slips During Use	Helmet fit not adjusted properly	Follow fit adjustment steps in instructions.

ADDITIONAL ITEMS

- #32083 Replacement Outer Lens Shield
- #32084 Replacement Inner Lens Shield
- #21520 Replacement Head Gear

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.343.9353 >> email: tech@eastwood.com

PDF version of this manual is available at eastwood.com

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