

Eastwood[®]

DO THE JOB RIGHT.[®]

Item #21483

LARGE VIEW AUTO DARKENING WELDING HELMET

INSTRUCTIONS



EASTWOOD 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 Large Viewing area provides additional visibility for added safety and convenience. Auto-Darkening powered by solar cells and Lithium #CR2450 batteries provide long, reliable life. Meets ANSI Z-87.1 safety standards.

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

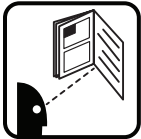
WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

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.
- If other persons or pets are in the area of welding, use welding screens to protect bystanders from sparks and harmful arc rays.



⚠ 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, your view through the lens will have a slight tint. When exposed to bright light or the flash of the welding arc, the lens will quickly darken your view.

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

SENSITIVITY

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: Turn dial clockwise to increase sensitivity; counterclockwise to decrease.



▲ NOTICE

For low amperage welding, for example, TIG welding below 40 amps: Sensitivity Control may need to be set to MAX to avoid lens “flickering” between normal view and auto dimming.

For Welding in bright sunlight, ambient light, or around LED lighting: Sensitivity Control may need to be reduced from max to prevent the helmet from flickering, darkening prematurely, or not returning to normal view when the arc is stopped.

Always verify the helmet still darkens with the use of a flint striker. If helmet does not darken, immediately stop use and verify helmet settings.

DELAY

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

To Adjust Delay: Turn dial Clockwise to increase delay time for helmet to return to normal view after arc is stopped. Turn Counter-Clockwise 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 darkness as Auto-darkening is automatically activated when an arc is present.

The Shade Control Knob is designed to function in 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. Move the Shade Range Switch to the left for levels 5-9; to the right for levels 9-13.

To Adjust Shade:

Consult the **SHADE GUIDE TABLE (FIG 2)** to verify that this helmet provides adequate protection for your preferred welding process before using.

If unsure of shade level required, use the following procedure 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, then continue to decrease the setting while striking an arc until it is 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
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

This helmet also has a “**GRIND**” setting 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 Set Sensitivity Control to “Grind”: Rotate the Sensitivity Control Knob past the detent fully to the “GRIND” position which will lock the viewer on full transparency.

WARNING

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

ADJUST FIT OF HELMET:

Headband – Push Knob in and Turn Clockwise to decrease 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.

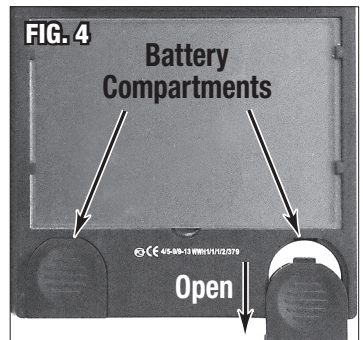
Flip-up Retention – This will allow the helmet to stay in the “flipped-up” position. Tighten or loosen knobs on either side of the helmet to increase or decrease friction.

MAINTENANCE

- The Red LED “Low-Bat” Lamp is located on the upper, inner panel above the viewing area to the right of the Control Knobs (**FIG 1**). If it is illuminated, the batteries may require a charge by exposing the face of the Welding Helmet to bright sunlight for several hours. If this fails to extinguish the light, the batteries will require replacement. If this becomes necessary, replace with two 3V type CR2450 by following the “Replace Batteries” section below.

REPLACE BATTERIES:

- Locate Thumb Screw at bottom of Lens Cartridge Hold-Down and loosen completely (**FIG 3**).
- Flip up Lens Cartridge Hold-Down. Pull out Auto Darkening Cartridge.
- Note the two Battery Compartment locations on the View Frame Panel (**FIG 4**). Press in and down on the raised ribs of the Battery Covers to unlatch and remove Covers.
- Remove Batteries.
- Replace Batteries with 3V type CR2450 with positive side facing upward (towards Battery Cover).
- Replace Battery Covers and snap back into place.
- Replace Auto Darkening Cartridge.
- Flip Lens Cartridge Hold-Down back into place and tighten Thumb Screw. Be careful not to cross thread.



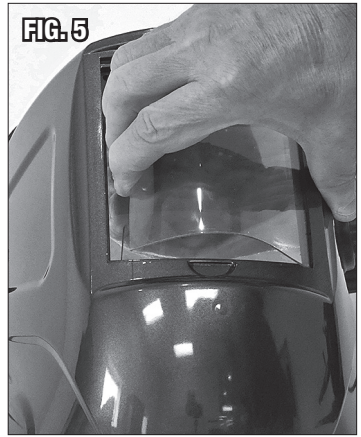
- Clean outside and inside of lens with a soft cloth and small amount of glass cleaner.
NOTE: Do not use excessive glass cleaner or allow the lens assembly to become wet or the sensitive electronics will be destroyed. Never use solvents.
- Clean headband with a cloth dampened with mild soap and water. Allow to dry thoroughly.
- Check lens assembly for damage before each use. If cracked or broken, DO NOT USE.

REPLACE OUTER SHIELD:

- Insert tip of the forefinger into the semi-circular recess at the bottom of the viewing area, pry the Lens up while curling it outward in the center, then out 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 SHIELD:

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



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.
"Low-Bat" Indicator Glows	Batteries require recharging or replacement	Replace with two CR2450 Batteries or Recharge Batteries per Battery Recharge/Replacement procedure in preceding Maintenance section.

ADDITIONAL ITEMS

#20230 Replacement Outer Lens

#20229 Replacement Inner Lens

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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