

LYG-L500A SERIES

AUTO-DARKENING WELDING HELMETS

Aug., 2023



OPERATOR'S MANUAL

YESWELDER®

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SECTION 1 - WELDING HELMET SAFETY PRECAUTIONS - READ BEFORE USING


 **Protect yourself and others from injury - read and follow these precautions.**

1-1. Symbol Usage

 **DANGER!** – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

 Indicates special instructions.



 Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

This group of symbols means Warning! Watch Out! ELECTRIC SHOCK, MOVING PARTS, and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid the hazards.

NOTICE – Indicates statements not related to personal injury.

1-2. Arc Welding Hazards

 **Only qualified persons should install, operate, maintain, and repair this unit.**



ARC RAYS can burn eyes and skin.

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

- Wear a welding helmet fitted with a proper shade of filter to protect your face and eyes when welding or watching (see ANSI Z49.1 and Z87.1 listed in Safety Standards). Refer to Shade and Sensitivity charts.
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash, glare, and sparks; warn others not to watch the arc.
- Wear protective clothing made from durable, flame-resistant material (leather, heavy cotton, and wool) and foot protection.
- Before welding, adjust the auto-darkening lens sensitivity setting to meet the application.
- Stop welding immediately if the auto-darkening lens does not darken when the arc is struck. See the Owner's Manual for more information.



WELDING HELMETS do not provide unlimited eye, ear and face protection.

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

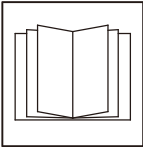
- Use impact resistant safety spectacles or goggles and ear protection at all times when using this welding helmet.
- Do not use this helmet while working with or around explosives or corrosive liquids.
- Do not weld in the overhead position while using this helmet.
- Inspect the auto-lens frequently. Immediately replace any scratched, cracked, or pitted cover lenses or auto-lenses.



NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.

- Use only genuine replacement parts from the manufacturer.
- Perform maintenance and service according to the Owner's Manuals, industry standards, and national, state, and local codes.



FUMES AND GASES can be hazardous.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- If inside, ventilate the area and/or use local forced ventilation at the arc to remove welding fumes and gases.
- If ventilation is poor, wear an approved air-supplied respirator.
- Read and understand the Material Safety Data Sheets (MSDSs) and the manufacturer's instructions for metals, consumables, coatings, cleaners, and degreasers.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have a trained watchperson nearby. Welding fumes and gases can displace air and lower the oxygen level causing injury or death. Be sure the breathing air is safe.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and while wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.

1-3. Proposition 65 Warnings

⚠ Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)

⚠ This product contains chemicals, including lead, known to the state of California to cause cancer, birth defects, or other reproductive harm. *Wash hands after use.*

SECTION 2 - SPECIFICATIONS

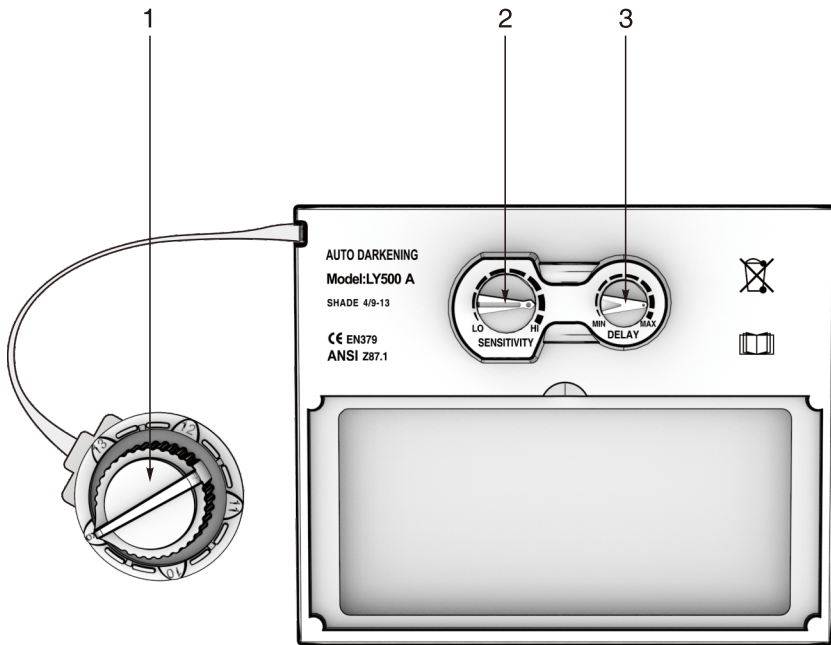
Main Viewing Field	92.5x42.5mm / 3.64x1.67 inch
Reaction Time	1/30000 sec (0.00003 sec)
Available Shades All Shades Provide Continuous UV And IR Protection.	Darkened State: No. 9-No. 13 Light State: No. 4 UV And IR Protection DIN16
Sensitivity Control	Adjusts for varying ambient light and welding arc
Delay Control	Slows lens dark-to-light state between 0.1 and 0.8 seconds
Automatic Power Off	Shuts lens Off 15-20 minutes after last arc is struck
Power Supply	Non-replaceable CR2450 Lithium Battery
Sensors	Independent(Two)
Operating Temperature	14°F to 131°F / -10°C to +55°C ☞ When stored in extremely cold temperatures, warm helmet to ambient temperature before welding.
Storage Temperature	-4°F to 158°F / -20°C to +70°C ☞ When stored in extremely cold temperatures, warm helmet to ambient temperature before welding.
Total Weight	500g (1lb 1.6oz.)
Standards	ANSI ISEA Z87.1-2015 and CSA
Warranty	1 year from date of purchase

SECTION 3 - OPERATING INSTRUCTIONS

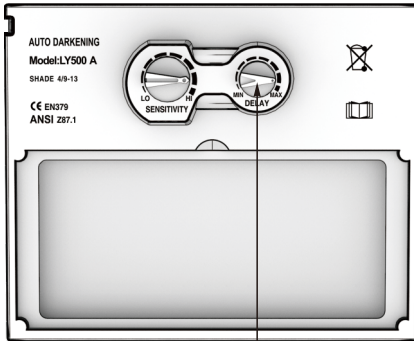
3-1. Helmet Controls



- 1 Variable Shade Control
(See Section 3-3)
- 2 Sensitivity Control
(See Section 3-5)
- 3 Lens Delay Control
(See Section 3-2)



3-2. Lens Delay Control



1

1 Lens Delay Control

The lens delay control is used to adjust the time for the lens to switch to the clear state after welding.

The delay is particularly useful in eliminating bright after-rays present in higher amperage applications where the molten puddle remains bright momentarily after welding. Lens delay adjusts from min (0.10 second) to max (0.8 second.).

3-3. Variable Shade Control (No. 9-13)

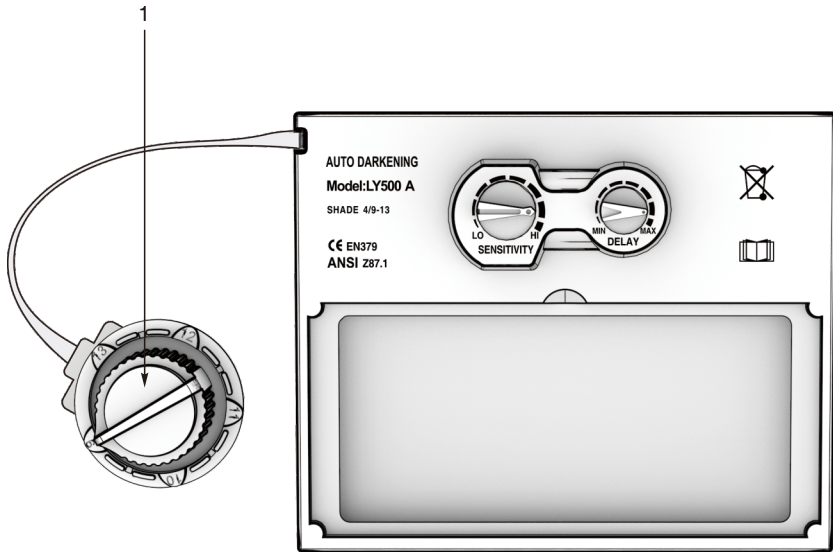


1. Variable Shade Control Lens shade can be adjusted from No. 9 – 13 on Variable Shade helmet.

Use the control to adjust the lens shade in the darkened state.

Use the table on Page 07 to select proper shade control setting based on your welding process.

Start at darkest shade and adjust lighter to suit the welding application and your personal preference.



3-4. Shade Selection Chart

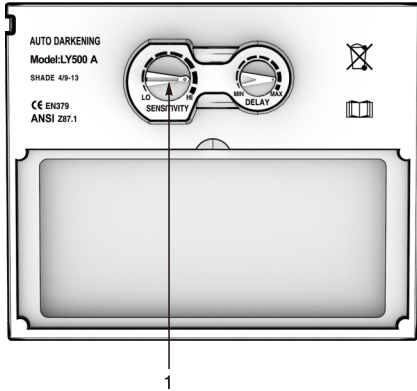


Application Welding	Arc Current in Amperes	Protective Shade No.
Stick Electrodes	Less than 40	9
	40-80	10
	80-175	11
	175-300	12
	300-500	13
MIG	Less than 100	10
	100-175	11
	175-300	12
	300-500	13
Gas Tungsten Arc Welding(TIG)	Less than 50	10
	50-100	11
	100-200	12
	200-400	13
Air Carbon	Less than 500	12
	500-700	13
Plasma Arc Cutting	60-150	11
	150-250	12
	250-400	13
Plasma Arc Welding	Less than 50	9
	50-200	10
	200-400	12

Reference: ANSI Z49.1:2015

* Start with a shade that is too dark to see the weld zone. Then, go to a lighter shade which gives a sufficient view of the weld zone without going below the minimum.

3-5. Sensitivity Control



1 Sensitivity Control

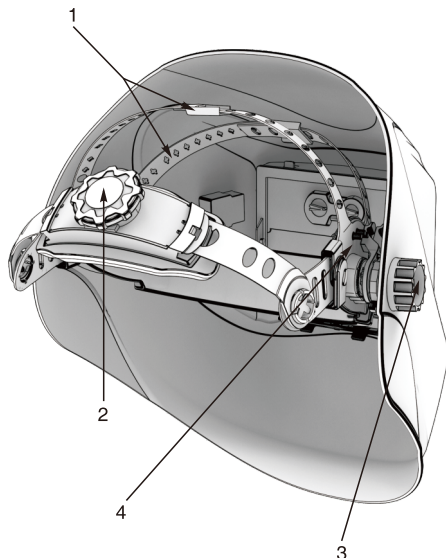
Use control to make the lens more responsive to different light levels in various welding/Cutting processes. **Use a Mid-Range or 30-50% sensitivity setting for most applications.**

It may be necessary to adjust helmet sensitivity to accommodate different lighting conditions or if lens is flashing On and Off.

Recommended Sensitivity Settings

Stick Electrode	Mid-Range
Short Circuiting (MIG)	Low/Mid-Range
Pulsed & Spray (MIG)	Mid-Range
Gas Tungsten Arc (TIG)	Mid/High-Range
Plasma Arc Cutting/Welding	Low/Mid-Range

SECTION 4 – ADJUSTING HEADGEAR



☞ *There are four headgear adjustments: headgear top, tightness, angle adjustment, and distance adjustment.*

1 Headgear Top

Adjusts headgear for proper depth on the head to ensure correct balance and stability.

2 Headgear Tightness

To adjust, push in the adjusting knob located on the back of the headgear and turn left or right to desired tightness.

☞ *If adjustment is limited, it may be necessary to remove the comfort cushion.*

3 Distance Adjustment

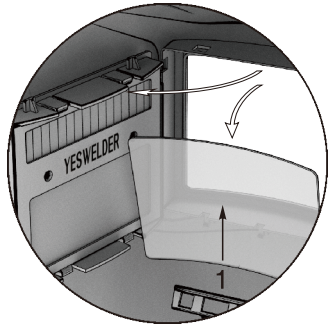
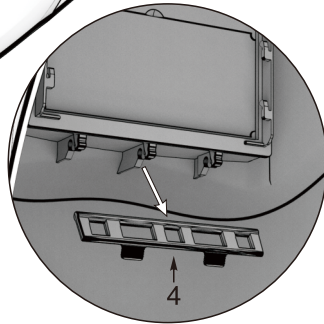
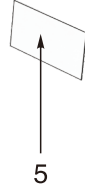
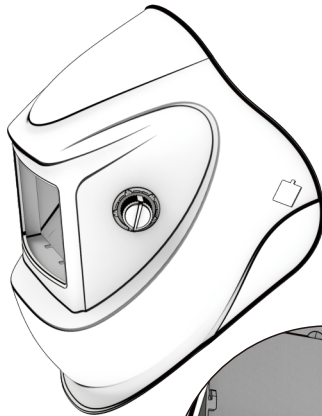
Adjusts the distance between the face and the lens. To adjust, loosen both outside tension knobs and press inward to free from adjustment slots. Move forward or back to desired position and retighten. (Both sides must be equally positioned for proper vision.)

4 Angle Adjustment

Four pins on the right side of the headband top provide adjustment for the forward tilt of the helmet. To adjust, loosen the right outside tension adjustment knob then lift on the control arm tab and move it to the desired position. Retighten tension adjustment knob.

☞ *When using the back distance adjustment positions, only the back three angle adjustment pins can be used.*

SECTION 5 – REPLACING THE LENS COVERS



⚠ Never use the auto-darkening lens without the inside and outside lens covers properly installed. Welding spatter will damage the auto-darkening lens and void the warranty.

1. Outside Lens Cover
2. Lens Assembly
3. Lens Frame
4. Lens Frame Snap
5. Inside Lens Cover

Rotate the frame clockwise to take it out. Remove the outside lens cover by pushing it into the helmet and reinstall outside lens cover.

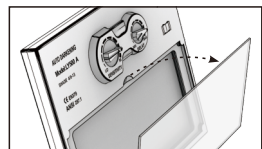
Outside Lens Cover

Push down the snap on the bottom of the lens frame.

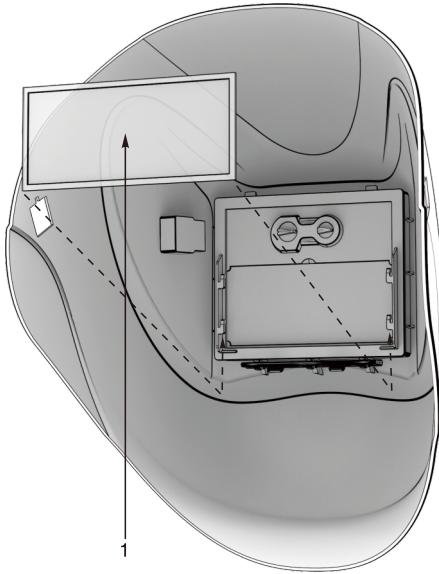
☞ There is a cable connecting the battery and the lens. Please be careful not to break it.

Inside Lens Cover

Remove the inside lens cover by prying the cover from the groove in the gasket and reinstall a new one.




SECTION 6 – INSTALLING OPTIONAL MAGNIFYING LENS



1 Optional Magnifying Lens

Starting at the bottom, slide magnifying lens into the helmet retaining brackets. Align the magnifying lens with the auto-darkening lens assembly.

- Position lens holder with magnifying lens holding tabs facing toward you. From the bottom up, slide magnifying lens into position. (Slide magnifying lens up or down slightly as desired.)

 To prevent lens fogging, install flat side of magnifying lens toward auto-darkening lens.

SECTION 7 – MAINTENANCE


NOTICE – Never use solvents or abrasive cleaning detergents.

NOTICE – Do not immerse the lens assembly in water.

The helmet requires little maintenance. However, for best performance clean after each use. Using a soft cloth dampened with a mild soap and water solution, wipe the cover lenses clean. Allow to air dry. Occasionally, the filter lens and sensors should be cleaned by gently wiping with a soft, dry cloth.

SECTION 8 –TROUBLESHOOTING GUIDE

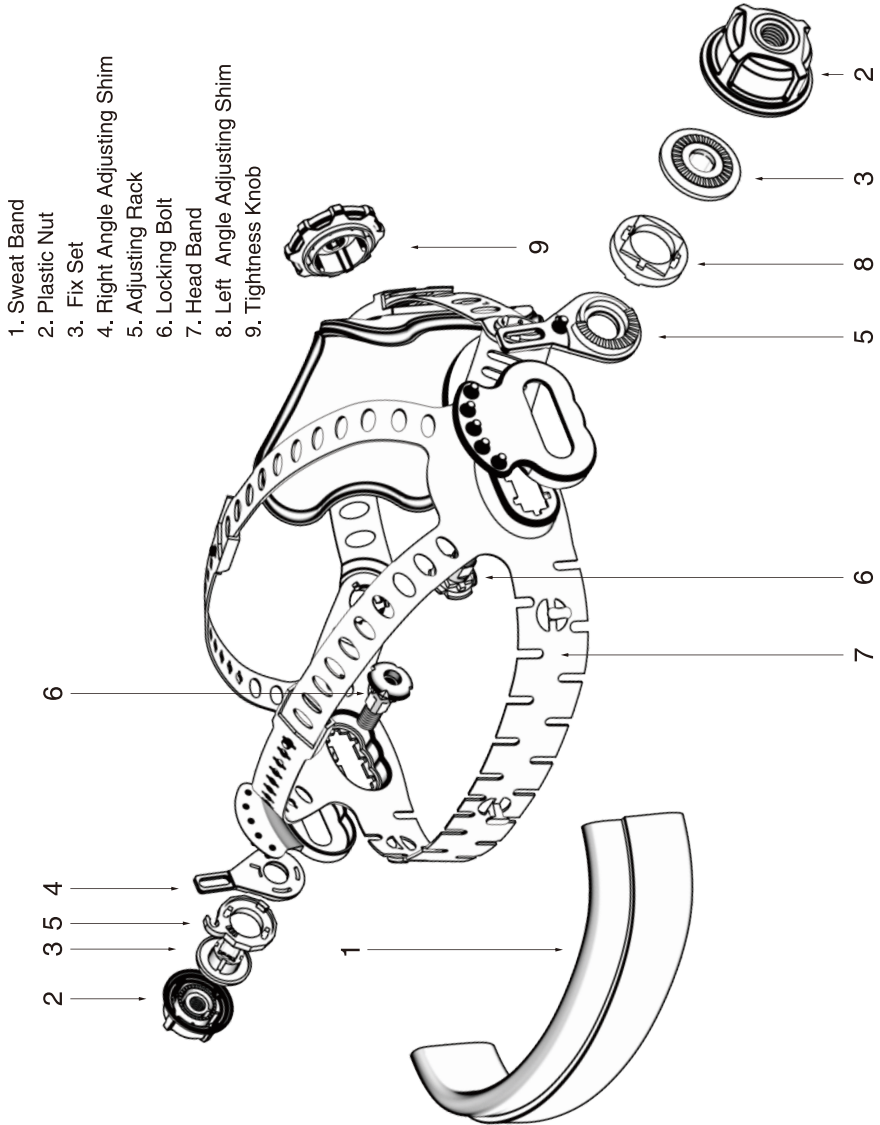


PROBLEM	POSSIBLE CAUSE	SOLUTION
Difficult to see through filter	Front cover lens dirty	Clean or replace front cover lens.
	Cartridge dirty	Clean the Auto-Darkening cartridge with soapy water solution and soft cloth.
Filter does not darken when arc is struck	Sensitivity is set too low	Adjust sensitivity to required level.
	Front cover lens dirty	Clean or replace front cover lens.
	Front cover lens is damaged	Check for cracked or pitted front cover lens and replace as required.
	Sensors are blocked or Solar panel is blocked	Make sure you are not blocking the sensors or solar panels with your arm or other obstacle while welding. Adjust your position so that the sensors can see the weld arc.
Filter darkening without arc being struck	Sensitivity set too high	Adjust sensitivity to required level.
Filter remains dark after completing a weld	Delay time set too high	Adjust delay time to required level.
⚠ WARNING		
	ADF is cracked	Cease (STOP) using this product if this problem exists. UV/IR protection may be compromised resulting in burns to the eyes and skin.
	Weld spatter is damaging the filter	Missing, damaged, broken, cracked or distorted front cover lens

SECTION 9 – HEADBAND INSTALLATION

Description of Headband Installation

Take out the headband, and disassemble it according to the exploded view below:



SECTION 10 – LIMITED WARRANTY

LIMITED WARRANTY – Subject to the terms and conditions below. YESWELDER, warrants to its original retail purchaser that the new YESWELDER equipment sold after the effective date of this limited warranty is free of defects in material and workmanship at the time it is shipped by YESWELDER. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OR MERCHANTABILITY AND FITNESS.

YESWELDER auto-darkening lens helmets are warranted for 1 years from the date of purchase. Proof of purchase is required for warranty transactions so it is imperative that a copy of the original invoice or sales receipt be retained.

For warranty transactions, contact your YESWELDER Distributor.

Effective January 1, 2020

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