



SHOP IRON: Built to get the job done

SOLAR POWERED AUTO DARKENING WELDING HELMETS

8 Sq. In. Viewing Area
(3.86 x 2.17 in.)



Operator's Manual

45000 Series

SAVE THIS MANUAL

When unpacking, make sure that the product is intact and undamaged. All damaged parts must be repaired or replaced as needed prior to use of this product. Failure to do so may result in serious personal injury or property damage. If any part is missing or broken, please call 1-800-386-0191 for assistance as soon as possible.

READ BEFORE USING

It is the owner and/or operator's responsibility to study all WARNINGS, operating, and maintenance instructions contained on the product label and instruction manual prior to use of this product. The owner/operator shall retain product instructions for future reference.

The owner and/or operator are responsible for maintenance, maintaining all decals or warning labels and while in use, maintaining the unit in good working order. If the owner and/or operator are not fluent in English, the product warnings and instructions shall be read and discussed with the operator's native language by the purchaser/owner or his designee. Make sure that the operator comprehends its contents. Safety information shall be emphasized and understood prior to usage. The welding helmet shall be inspected per the operating instructions. Users of this welding helmet must fully understand these instructions. Each person using this product must also be of sound mind and body and must not be under the influence of any substance that might impair their vision, dexterity, or judgment.

Protect yourself and others by observing all safety information.

Failure to comply with instructions could result in personal injury and/or property damage!

If you encounter any problems or difficulties, please contact our customer service department at: **1-800-386-0191**

NOTICE

This manual is intended for your benefit. Please read and follow the safety, maintenance and troubleshooting steps described within to ensure your safety and satisfaction. The contents of this instruction manual are based upon the latest product information available at the time of publication. The manufacturer reserves the right to make product changes at any time without notice.

IMPORTANT SAFETY INFORMATION

Protect yourself and others from injury - read, follow, and save these important safety precautions and operating instructions.

Read and understand all instructions. Failure to follow these safety precautions and operating instructions could result in severe personal injury, property damage or death.

WARNING SYMBOLS AND DEFINITIONS

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
 DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE CAUTION	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION (Continued)



FUMES AND GASES can be hazardous!

Welding and plasma cutting produce TOXIC FUMES and gases that are hazardous to your health.

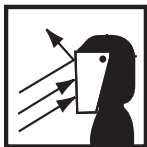
- Keep your head out of the fumes. Do not breathe the fumes.
- If inside, ventilate the area and/or use exhaust at the arc to remove welding fumes and gases.
- If ventilation is poor, use a NIOSH approved air-supplied respirator.
- Read the Material Safety Data Sheets (MSDSs) and the manufacturer's instructions for metals, consumables, coatings, cleaners, and degreasers.
- Work in a confined space only if it is well ventilated, or while wearing a NIOSH approved air-supplied respirator. Always have a trained watch person 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 if necessary, while wearing a NIOSH approved air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.



ARC RAYS can burn eyes!

Never look at arc welding without proper eye protection. Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Hot sparks fly off from the weld and can burn eyes and skin. 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).

- Use protective screens or barriers to protect others from flash and glare; warn others in the area not to watch the arc.
- Wear protective clothing made from durable, flame resistant materials, leather welding gloves and full foot protection.



FLYING METAL can injure eyes!

This helmet is not designed to protect against impact hazards such as fractured grinding wheels, cutting discs, explosive devices or corrosive agents. Machine guards and eye splash protectors must be used when these hazards are present.

- Wear ANSI approved safety glasses with side shields under your welding helmet.
- Welding, chipping, wire brushing, and grinding cause sparks and flying metal. As welds cool, they can throw off slag.
- Do not use this helmet while working with or around explosives of corrosive materials.
- Do not weld in the overhead position while using this helmet.
- Inspect the ADF lens frequently. Immediately replace any scratched, cracked, or pitted protective cover lenses or ADF lenses.

IMPORTANT SAFETY INFORMATION (Continued)



NOISE can damage hearing!

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.



California 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, and reproductive harm. Wash hands after handling.

- Do not use the welding helmet if the ADF lens is cracked, if the lens or sensors are dirty, or if the lens or retaining frame are loose.
- Stop welding or cutting immediately if the ADF lens does not darken upon striking an arc.
- Stop welding immediately if sections of the ADF lens are not going dark, or distinct lines separate the light and dark areas.
- Do not open or tamper with the ADF lens cartridge.
- This helmet is not suitable for overhead welding positions, laser welding, laser cutting, oxyacetylene welding and oxyacetylene cutting applications.
- Care must be taken to avoid work positions that expose unprotected areas of the body to harmful sparks or radiation, either direct or reflected.
- Impact resistant eye protection that meets current ANSI specifications must be worn at all times when using this helmet.
- Both inner and outer cover lenses must be in place at all times when using this helmet.
- Never use the welding helmet at temperatures outside its operational range 23° to 131°F (-5° to +55°C).
- Do not modify this helmet, or use for a purpose for which it was not intended.
- Keep out of reach of children.

For additional safety information, it is strongly recommended that you consult the following safety publications:

Safety in Welding, Cutting, and Allied Processes, ANSI Standard Z49.1, from American Welding Society, 550 N.W. LeJeune Rd, Miami FL 33126 (phone: 305-443-9353 or 800-443-9353, website: www.aws.org).

Recommended Practices for Plasma Arc Cutting and Gouging, American Welding Society Standard AWS C5.2, from American Welding Society, 550 N.W. LeJeune Rd, Miami, FL 33126 (phone: 305-443-9353 or 800-443-9353, website: www.aws.org).

Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping, American Welding Society Standard AWS F4.1, from American Welding Society, 550 N.W. LeJeune Rd, Miami, FL 33126 (phone: 305-443-9353 or 800-443-9353, website: www.aws.org).

IMPORTANT SAFETY INFORMATION (Continued)

Safe Practices for Welding and Cutting Containers that have Held Combustibles, American Welding Society Standard AWS A6.0, from Global Engineering Documents (phone: 1-877-413-5184, website: www.global.ihs.com).

National Electrical Code, NFPA Standard 70, from National Fire Protection Association, P.O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101 (phone: 617-770-3000, website: www.nfpa.org and www.sparky.org).

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, from Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151 (phone: 703-788-2700, website: www.cganet.com).

Safety in Welding, Cutting, and Allied Processes, CSA Standard W117.2, from Canadian Standards Association, Standards Sales, 5060 Spectrum Way, Suite 100, Ontario, Canada L4W 5NS (phone: 800-463-6727, website: www.csa-international.org).

Safe Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute, 11 West 42nd Street, New York, NY 10036-8002 (phone: 212-642-4900, website: www.ansi.org).

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B, from National Fire Protection Association, P.O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101 (phone: 617-770-3000, website: www.nfpa.org and www.sparky.org).

OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart Q, Welding Cutting and Brazing and Part 1926, Subpart J, Welding and Cutting from U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250 (there are 10 Regional Offices--phone for Region 5, Chicago, is 312-353-2220, website: www.osha.gov).

Applications Manual for the Revised NIOSH Lifting Equation, The National Institute for Occupational Safety and Health (NIOSH), 1600 Clifton Rd, Atlanta, GA 30333 (phone: 1-800-232-4636, website: www.cdc.gov/NIOSH).

Follow all local electrical and safety codes as well as in the United States, the National Electrical Codes (NEC) and the Occupational Safety and Health Act (OSHA).

All installation operation, maintenance and repair procedures must be performed only by qualified individuals.

LENS SHADE SELECTION

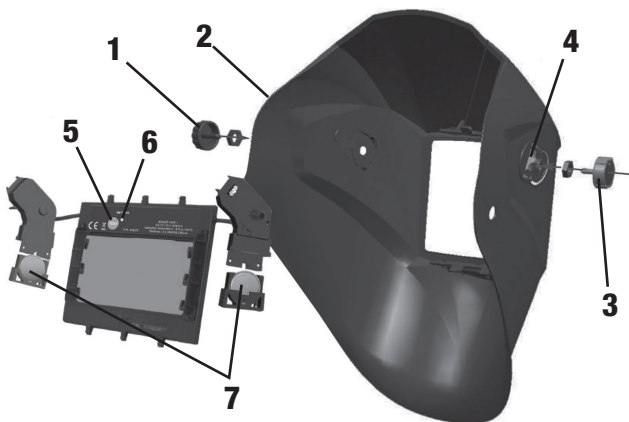
Process	Electrode Size in. (mm)	Arc Current (Amperes)	Minimum Protective Shade No.	Suggested Shade No. (Comfort)*
Shielded Metal Arc Welding (SMAW)	Less than 3/32 (2.4)	Less than 60	7	--
	3/32–5/32 (2.4–4.0)	60–160	8	10
	5/32–1/4 (4.0–6.4)	160–250	10	12
	More than 1/4 (6.4)	250–550	11	14
Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW)		Less than 60	7	--
		60–160	10	11
		160–250	10	12
		250–500	10	14
Gas Tungsten Arc Welding (GTAW)		Less than 50	8	10
		50–150	8	12
		150–500	10	14
Air Carbon (Light) Arc Cutting (CAC-A) (Heavy)		Less than 500	10	12
		500–1000	11	14
Plasma Arc Welding (PAW)		Less than 20	6	6–8
		20–100	8	10
		100–400	10	12
		400–800	11	14
Plasma Arc Cutting (PAC)		Less than 20	4	4
		20–40	5	5
		40–60	6	6
		60–80	8	8
		80–300	8	9
		300–400	9	12
		400–800	10	14

SPECIFICATIONS

Specification	Solar Powered Auto Darkening Welding Helmet
Viewing Field	3.86 x 2.17 in. (98 x 55 mm)
Magnifying Lens Capable	Yes
Cartridge Dimensions	4.33 x 3.54 x 0.35 in. (110 x 90 x 9 mm)
Operating Modes	Two Modes: Weld and Grind
Reaction Time - Light to Dark	1/30,000 sec. (-5 C 0.0008 Sec.)
Reaction Time - Dark to Light	0.25 ~ 0.80 sec. (short ~ middle ~ long)
UV/IR Protection	Up to Shade DIN 16 at all times
Arc Sensors	4
Light Shade	DIN 4
Variable Welding Shades	DIN 9 to 13
Shade Control	Dial Knob - Variable adjustment
TIG Rating	DC > 3 Amps, AC > 3 Amps
Power Supply	Solar Cells with (2) CR2450 lithium back-up batteries
Power On/Off	Fully automatic
Low Battery Warning	Red LED Illuminates To Indicate 2–3 Days Remaining Battery Life.
Operating Temperature	23 F to 131 F / -5 C to +55 C
Storage Temperature	-4 F to 158 F / -20 C to +70 C
WARNING	When Stored In Extremely Cold Temperatures, Warm Helmet To Ambient Temperature Before Welding.
Total Weight	16.6 oz. (470 g)
Standards Compliance	ANSI/ISEA Z87.1-2010, CSA Z94.3, DIN EN379 and EN 175
Warranty	1-Year Limited Warranty

OPERATING INSTRUCTIONS

1. Variable Shade Control
2. Delay Control Switch
3. Sensitivity Control
4. Weld/Grind Control Switch
5. Test Button
6. Low Battery Indicator
7. Battery Compartments



HELMET CONTROLS:

Low Battery Indicator:

The ADF lens turns on (darkens) automatically when welding begins and turns off 15 – 20 minutes after welding stops.

The low battery indicator lights when 2–3 days of battery life remain.

If battery power is low, install new CR2450 lithium batteries.

Weld/Grind Control Switch:

Do not weld in the Grind mode, the lens will not darken. For welding applications, move the switch to the Weld (down) position. For grinding applications, move the switch to the Grind (up) position.

Lens Delay Control:

The lens delay control switch (Short-Medium-Long settings) 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 (0.25 second) to max (0.80 second).



OPERATING INSTRUCTIONS (Continued)

Variable Shade Control (DIN 9 – 13):



Use the variable shade control knob to adjust the lens shade in the darkened state. Use the Lens Shade Selection table to select proper shade control setting based on your welding process. Start at shade 12 or 13 and adjust lighter to suit the welding application and your personal preference.

Sensitivity Control:



Use the sensitivity control knob to make the lens more responsive to different light levels in various welding 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. Adjust helmet sensitivity as follows:

Adjust helmet sensitivity to suit lighting conditions helmet will be used in.

Turn sensitivity control to lowest setting. Face the helmet in the direction of use, exposing it to the surrounding light conditions. Gradually turn sensitivity setting clockwise until the ADF lens darkens, then turn sensitivity control counterclockwise until slightly past setting where lens clears. Helmet is ready for use. Slight readjustment may be necessary for certain applications or if ADF 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

OPERATING INSTRUCTIONS (Continued)



ADJUSTING HEADGEAR:

There are four headgear adjustments: top headband, distance of harness from ADF lens, back headband, and incline angle adjustment.

1. Top Headband

Adjusts headgear for proper depth on the head according to the user's head shape to ensure correct balance and stability.

2. Distance Adjustment

Adjusts the distance between the welder's eyes and the ADF lens. To adjust, pull tabs (found on each side) to release positioning pins. Move forward or back to desired position and release tabs, making sure positioning pins are secured in corresponding locking holes. (Both sides must be symmetrically positioned for proper vision.)

3. Back of Headband (tightness)

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

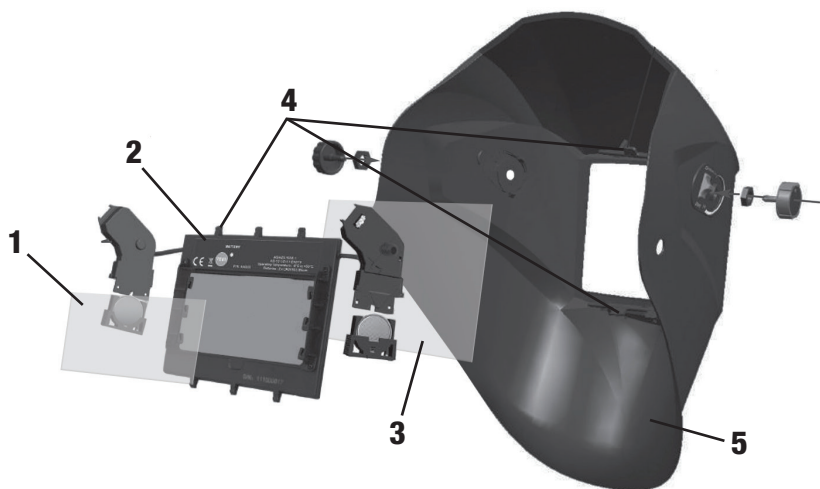
If adjustment is limited, it may be necessary to remove the comfort cushion sweatband.

4. Incline Angle Adjustment

Used to adjust the incline angle of helmet relative to the welder's face, and adjust the height of welder's eyes relative to ADF lens. Two angle adjustment control arms (one on each side of helmet pivot) provide adjustment for the forward tilt of the helmet. To adjust, loosen outside tension adjustment knobs then lift on the control arm tab and move it to the desired position. Retighten outside tension adjustment knobs.

Order Part No. 45002 - Replacement Headgear for 45000 Series Welding Helmets

OPERATING INSTRUCTIONS (Continued)



1. Inside Protective Lens Cover (Clear)
2. ADF Lens Cartridge
3. Outside Protective Lens (Clear)
4. ADF Lens Cartridge Retainer Clips
5. Helmet Shell

REPLACING THE ADF LENS COVERS:

Replacing Outside Protective Lens

Never use the ADF lens without the inside and outside protective lens covers properly installed. Welding spatter will damage the ADF lens and void the warranty.

Place helmet upside down on a flat surface. Adjust or remove headgear to improve access to ADF lens cartridge assembly. Gently release the top and bottom ADF lens cartridge retainer clips located inside the helmet. Carefully lift ADF lens cartridge assembly away from outside protective lens (be sure to avoid damaging connecting wires). Hold assembly and press outer surface of outside protective lens inward to free from helmet shell. (Outside protective lens comes out through the back of the helmet.) Replace clear outside protective lens with new lens. Reinstall ADF lens cartridge securely using top and bottom retainer clips.

Order Part No. 45001 - Clear Replacement Lenses for 45000 Series Welding Helmets

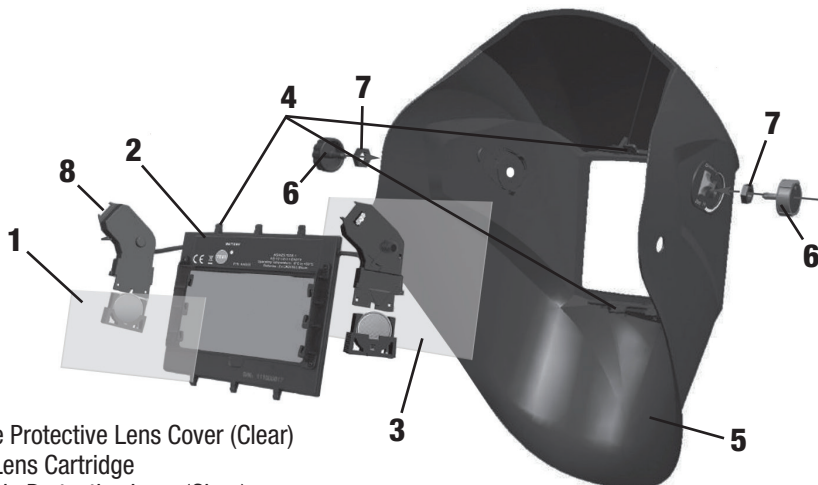
OPERATING INSTRUCTIONS (Continued)

Replacing Inside Protective Lens

Never use the ADF lens without the inside and outside lens covers properly installed. Welding spatter will damage the ADF lens and void the warranty.

Place helmet upside down on a flat surface. Adjust or remove headgear to improve access to ADF lens cartridge assembly. Gently release the top and bottom ADF lens cartridge retainer clips located inside the helmet. Carefully lift ADF lens cartridge assembly away from outside protective lens (be sure to avoid damaging connecting wires). Hold assembly and remove inside protective lens at the marked locations and replace with new lens. Reinstall ADF lens cartridge securely using top and bottom retainer clips.

Order Part No. 45001 - Clear Replacement Lenses for 45000 Series Welding Helmets



1. Inside Protective Lens Cover (Clear)
2. ADF Lens Cartridge
3. Outside Protective Lens (Clear)
4. ADF Lens Cartridge Retainer Clips
5. Helmet Shell
6. Shade/Sensitivity Control Knobs
7. Shade/Sensitivity Control Retention Nuts
8. Shade/Sensitivity Box

Removing ADF Lens Cartridge Assembly

Never use the ADF lens without the inside and outside lens covers properly installed. Welding spatter will damage the ADF lens and void the warranty.

First remove the shade/sensitivity control knobs - hold helmet securely in the area near the knob to be removed and grasping the control knob firmly with your fingers and pull it straight out. Using a 12mm wrench, gently remove the polymer retention nut to release the shade/sensitivity box from the inside of the helmet shell. Repeat these steps for knob on opposite side of helmet. Place helmet upside down on a flat surface. Adjust or remove headgear to improve access to ADF lens cartridge assembly. Gently release the top and bottom ADF lens retainers located inside the helmet. Carefully lift out ADF lens cartridge assembly. Reinstall ADF lens cartridge assembly in reverse order of removal.

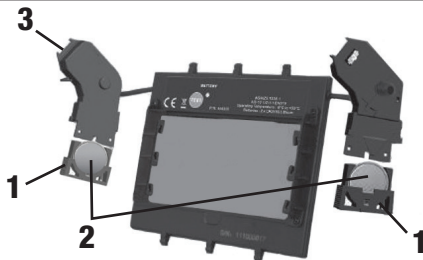
Order Part No. 45003 - Replacement ADF Lens Cartridge for 45000 Series Welding Helmets

OPERATING INSTRUCTIONS (Continued)

REPLACING THE BATTERIES

Never use the ADF lens without the inside and outside lens covers properly installed. Welding spatter will damage the ADF lens and void the warranty.

1. Lithium Battery Holder (2)
2. Lithium Battery (2) CR2450
3. Shade/Sensitivity Box



Place helmet upside down on a flat surface. Hold helmet securely in the area near the battery holder to be removed and grasp the serrated surfaces of the battery holder firmly between your thumb and index finger. Pull the battery holder out in a downward direction. Repeat for remaining battery holder. Remove old batteries from holders and replace with new CR2450 lithium batteries. Insert battery holders back into the shade/sensitivity boxes.

Be sure the Positive (+) side of the new batteries face toward the inside of the helmet when reinstalled.

CARE AND 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.

1. Regularly inspect the helmet and lens filter. Scratches or foreign matter on the protective lenses can impair vision and should be cleaned or replaced as necessary before using. Replacement protective lenses are available - Part number 45001.
2. The lens filter may be cleaned with a soft, dry lint free cloth or tissue.

NOTICE

DO NOT TOUCH LENS FILTER WITH YOUR HANDS

3. Never place the helmet on or near hot surfaces. Do not store helmet in moist or humid environments.
4. The helmet shell may be cleaned with a soft cloth moistened with mild soap and lukewarm water.

NOTICE

NEVER IMMERSE IN WATER.

NOTICE

NEVER USE SOLVENTS OR ABRASIVE CLEANING PRODUCTS.

5. Occasionally remove the sweatband and allow it to air out and dry.

TROUBLESHOOTING

Symptom	Possible Solution
ADF (Auto Darkening Filter) lens will not turn ON momentarily when TEST button is pressed.	Check batteries and verify they are installed properly. Make sure that correct batteries are being used (2) CR2450. Try replacing both batteries with fresh batteries, then check the Low Battery indicator. Check battery surfaces and contacts, clean if necessary. Check battery for proper contact and gently adjust contact points if necessary. This is important if the helmet has been dropped. Verify that both left and right battery trays are installed correctly.
ADF lens does not darken when arc is struck.	Stop welding or cutting immediately: Make sure the mode settings are correct. Also review sensitivity recommendations and adjust sensitivity if possible. Clean lens cover and sensors of any obstructions. Make sure the sensors are facing the arc; angles of 45° or more may not allow the arc light to reach the sensors.
Inconsistent or lighter ADF lens shading in the dark-state, noticeable on the outside edges and corners.	Referred to as an angle of view effect, ADF lenses have an optimum viewing angle. The optimum viewing angle is perpendicular or 90° to the surface of the ADF lens. When that angle of view varies in the dark-state, welders may notice slightly lighter areas at the outside edges and the corners of the lens. This is normal and does not represent any health or safety hazard. This effect may also be more noticeable in applications where magnifying lenses are used.
ADF lens does not darken reliably or turns light intermittently (flickers) while welding.	Check that the protective film has been removed from both sides (if applicable) of the outer protection plate. Verify that the sensors or solar panel on the front of the ADF are not blocked by arm, hand, or other obstacle while welding. Ensure that the ADF protection plate is clean of dirt and spatter. If not, wipe clean with a soft, lint-free cloth or replace with a new protection plate. Review the sensitivity adjustment instructions and confirm that you are using the appropriate setting for your type of welding process. Increasing lens delay 0.1 – 0.3 second may also reduce switching.
ADF lens remains dark without arc being struck.	Reduce sensitivity setting to required level. In extreme light conditions, it may be necessary to reduce the surrounding light levels.
ADF lens remains dark after completing a weld.	Delay setting too high. Adjust sensitivity to required level.
ADF lens turns dark when others are welding nearby.	Reduce sensitivity. If this is still occurring at setting 1, use curtains or other methods to block light from other welder's arcs.
ADF steadily pulsing light/dark with no arc present.	Check surrounding area for process or safety strobe lights. Strobe lights can trigger ADFs from a long distance or by reflecting off ceilings. Reflected light from strobes not visible to the eye may be strong enough to trigger the ADF.
WARNING	
Sections of the ADF lens are not going dark, distinct lines separate the light and dark areas.	Stop welding or cutting immediately: The ADF lens may be cracked which can be caused by the impact of dropping the helmet. Weld spatter on the ADF lens may also cause cracking. (The lens may need to be replaced; most cracked lenses are not covered by warranty).
ADF has spatter bonded to the outside and/or inside glass surface	ADF lens is permanently damaged and not covered by warranty. Always use protection plates.

NOTES

1-YEAR LIMITED WARRANTY

Star Asia-USA, LLC (hereinafter "seller") warrants to the original purchaser only, that this product will be free from defects in material or workmanship for a period of one year from date of purchase.

Warranty Performance

Warranty coverage is conditioned upon purchaser furnishing seller or its authorized service center with adequate written proof of the original purchase date. Products returned, freight prepaid and insured, to our factory or to an Authorized Service Center will be inspected and repaired or replaced, at seller's option, free of charge if found to be defective and subject to warranty. Defective parts not subject to normal wear and tear will be repaired or replaced, at our option during the above stated warranty periods. In any event, reimbursement is limited to the purchase price paid. Other than the postage and insurance requirement, no charge will be made for repairs or replacements covered by this warranty. Under no circumstances shall the manufacturer bear any responsibility for loss of the unit, loss of time or rental, inconvenience, commercial loss or consequential damages. There are no warranties which extend beyond the description of the face hereof.

Exclusions

This warranty does not cover parts damaged due to normal wear, abnormal conditions, misapplication, misuse, abuse, accidents, operation at other than recommended pressures or temperatures, improper storage or freight damage. Parts damaged or worn by operation in dusty environments are not warranted. Failure to follow recommended operating and maintenance procedures also voids warranty. Additional items not covered under this warranty: product failure caused by rain, excessive humidity, corrosive environments or other contaminants; cosmetic defects that do not interfere with product's functionality. This warranty shall not apply when: the product has been used for commercial or rental purposes; defects in materials or workmanship or damages result from repairs or alterations which have been made or attempted by others or the unauthorized use of nonconforming parts; this damage is due to abuse, improper maintenance, neglect or accident; or the damage is due to use of the product after partial failure or use with improper accessories. Seller will not be liable for: labor charges, loss or damage resulting from improper operation, maintenance or repairs made by persons other than a Star Asia-USA, LLC Authorized Service Center. The use of other than genuine Star Asia-USA, LLC Repair Parts will void warranty.

Warranty Disclaimers

NO WARRANTY, ORAL OR WRITTEN, OTHER THAN THE ABOVE WARRANTY IS MADE WITH REGARD TO THIS PRODUCT, ANY IMPLIED WARRANTIES OF SELLER REGARDING THIS PRODUCT INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED. BUYER'S OR USER'S REMEDIES ARE SOLELY AND EXCLUSIVELY AS STATED ABOVE. STAR ASIA-USA, LLC SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, OR SPECIAL DAMAGES. IN NO EVENT, WHETHER AS A RESULT OF A BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, SHALL SELLER'S LIABILITY EXCEED THE PRICE OF THE PRODUCT WHICH HAS GIVEN RISE TO THE CLAIM OR LIABILITY. ANY LIABILITY CONNECTED WITH THE USE OF THIS PRODUCT SHALL TERMINATE UPON THE EXPIRATION OF THE WARRANTY PERIODS SPECIFIED ABOVE.

Limitations on Warranty Disclaimers

Any implied warranties shall be limited in duration to one year from the date of purchase. In some states of the U.S.A. and in some provinces of Canada there is no limitation for how long an implied warranty is valid, so the aforementioned limitation may not apply to you.

In no event shall seller be liable for any incidental or consequential damages (including but not limited to liability for loss of profits) arising from the sale or use of this product. In some states of the U.S.A. and in some provinces of Canada the exclusion or limitation of incidental or consequential damages is not allowed, so the aforementioned limitation or exclusion may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state in the U.S.A., Canada and the Commonwealth of Puerto Rico. For warranty coverage within other countries, contact your local Star Asia-USA, LLC dealer or importer.