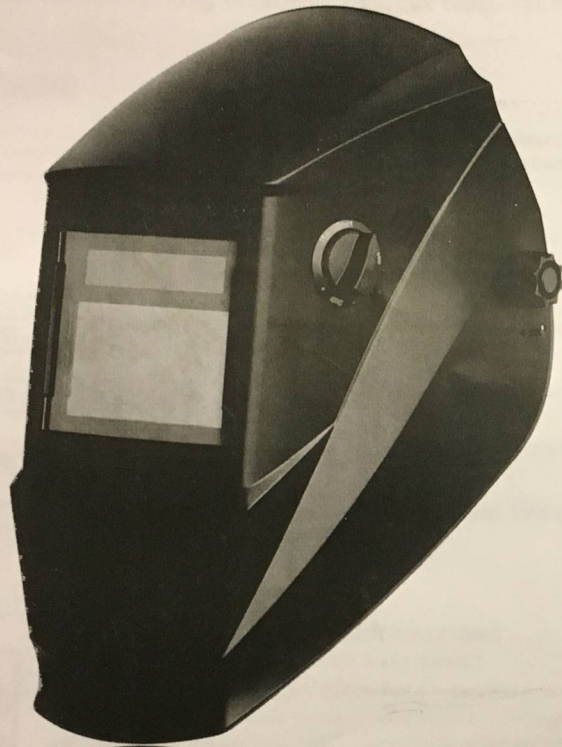


antra®



AH6000 SEREIES

X60-2D

Auto-Darkening Welding Helmet
User Manual

2018

**AH6000 SERIEIS
X60-2D
Auto-Darkening Welding Helmet User Manual
(2018)**

⚠ WARNING

Read and understand this entire instruction manual before attempting to assemble, install, operate or maintain this tool. Failure to comply with the instructions may result in serious personal injury and/or property damage!

The following signal words are used to emphasize safety warnings that must be followed when using this tool:

⚠ DANGER

Indicates an imminently hazardous situation that, if not avoided, WILL result in death or serious injury.

⚠ WARNING

Indicates a potentially hazardous situation that, if not avoided, COULD result in death or serious injury.

⚠ CAUTION

Indicates a potentially hazardous situation that, if not avoided, MAY result in minor or moderate injury.

⚠ NOTICE

Indicates important information, which if not followed, MAY cause damage to equipment.

**⚠ IMPORTANT SAFETY INSTRUCTIONS
FUMES AND GASES can be hazardous !**



Welding produces 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 an approved air-supplied respirator.
- Read 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 if necessary, while wearing an 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.

- Wear approved safety glasses with side shields under your helmet.
- 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.



WELDING can cause fire or explosion !

Welding on closed containers, such as tanks, drums, or pipes, can cause them to explode. Sparks can fly off from the welding arc. The flying sparks, hot work piece, and hot equipment can cause fires and burns. Accidental contact of electrode to metal objects can cause sparks, explosion, overheating, or fire. Check and be sure the area is safe before doing any welding.

- Always keep a fire extinguisher readily available and watch for fire.
- Protect yourself and others from flying sparks and hot metal.
- Do not weld where flying sparks can strike flammable material.
- Remove all flammable materials from the welding area. If this is not possible, tightly cover them with approved covers
- Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas.
- Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
- Do not weld on closed containers such as tanks, drums, or pipes; unless they are properly prepared according to AWS F4.1 standards.
- Connect work cable to the work as close to the welding area as practical to prevent welding current from traveling long, possibly unknown paths and causing electric shock and fire hazards.
- Never use arc welder to thaw frozen pipes.
- Remove electrode from holder when not in use.
- Wear oil-free protective garments such as leather gloves, heavy shirt, cuff-less trousers, high shoes, and a cap.
- Remove any combustibles, such as butane lighters or matches, from your person before doing any welding.



FLYING METAL can injure eyes !

- Welding, chipping, wire brushing, and grinding cause sparks and flying metal. As welds cool, they can throw off slag.
- Wear ANSI approved safety glasses with side shields under your welding helmet.



HOT PARTS can cause severe burns !

- Never touch hot parts bare handed.
- Allow adequate cooling period before touching work piece.



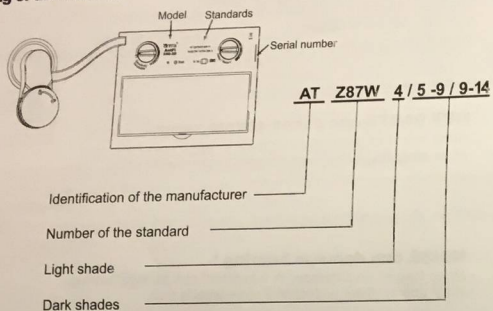
NOISE can damage hearing !

- Noise from some processes or equipment can damage hearing.
- Wear approved ear protection if noise level is high.

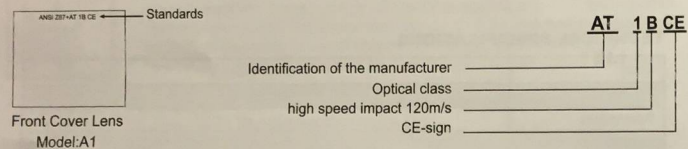
TECHNICAL SPECIFICATIONS

Model	AH600-265
ADF Model	X60-2D
Viewing Area	98 x 44 mm / 3.86" x 1.73"
Cartridge Size	110mm x 90mm x 9mm / 4.33" x 3.54" x 0.35"
Front Cover Lens Model	A1
Front Cover Lens Size	114.5X94X1mm/4.51" X3.70" X0.04"
Inside Cover Lens Model	B12
Inside Cover Lens Size	100X46X1mm/3.94"X1.81"X0.04"
Material of Cover Lens	Polycarbonate
UV/IR Protection	Permanent Shade DIN 14
Light State	Shade DIN 4
Dark State	Variable Shade 5-9/9-14
Sensors	4
Grinding	Shade DIN 4
Sensitivity Control	Knob Adjustable
Delay Control	0.1-1.0 Seconds Continuously Adjustable
TIG Rating	>2Amp
Battery Type	1x CR 2450(Replaceable)
Solar Cell	Yes
Operation Temperature	-5°C to +55°C (23° F to 131° F)
Storage Temperature	-20°C to +70°C (-4° F to 158° F)
Standards Compliance	ANSIZ87:2015 & CSA Z94.3:2015 & EN379:2009-07

Meaning of the marking



Meaning of the marking for EN 166:



NOTICE This is a sample of EN379 marking only. For the product you are using, please refer to the marking information on the filter.

GENERAL INFORMATION

Auto-Darkening Welding Helmet does not protect against severe impact hazards, such as fractured grinding wheels or abrasive discs, explosive devices or corrosive liquids. Machine guards or eye splash protection must be used when these hazards are present.

The auto-darkening welding filters are designed for Arc welding or cutting applications. The unit is suitable for all Arc welding processes such as MIG, MAG, TIG, SMAW, Plasma Arc, and Carbon Arc.

This auto-darkening welding helmet is not recommended for "overhead" welding applications, laser welding or laser cutting applications.

In the event of electronic failure, the welder remains protected against UV and IR radiation according to shade 14.

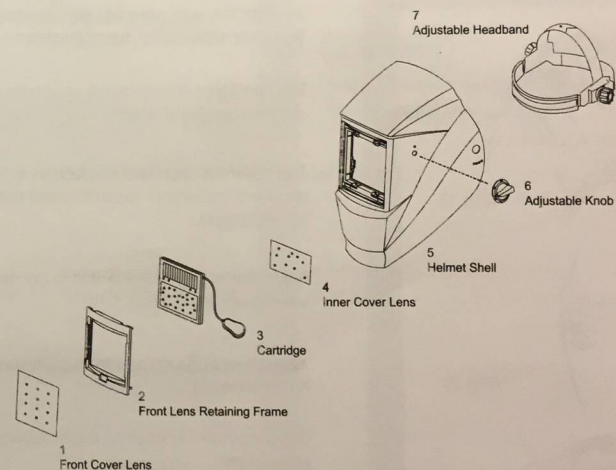
The auto-darkening welding filter should always be used with original inner and outer cover lenses.

The manufacturer is not responsible for any failure due to modifications to the welding filter or the use of the filter from any other manufacturer's helmet.

WARNING

- When stored in extremely cold temperature, the helmet should be warmed up to ambient temperature before welding.
- Inspect all parts for signs of wear or damage. Any scratched or cracked parts should be replaced prior to use.
- SKIN CONTACT ALLERGIC ALERT! Extra protections must be taken if individuals are allergic to plastic or other materials that his/her skin may be in contact with when using this product.
- NEVER place the helmet on a hot surface.
- NEVER open or tamper with the filter cartridge.
- If the symbols of the marking are not common to different parts of the protection equipment, the lower protection level shall be assigned to the complete protection equipment

PARTS LIST



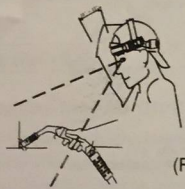
Accessories list : 6 front cover lens +1 inner cover lens +1 user manual +1 headgear assembly quick guide

MEANING OF THE MARKING FOR EN 175

Identification of the manufacturer
Number of the standard
AT EN175 CE

- NEVER place the helmet on a hot surface.
- NEVER open or tamper with the filter cartridge.
- Protectors which exhibit broken parts, distortion, or excessive scratches on the lens, are unsuitable for use and shall not be worn.
- Employees shall make a visual inspection of their protector prior to each use.
- Eye and face protectors that have been subject to an impact shall not be used and shall be discarded and replaced.

1. OPERATION



(Fig.1)



(Fig.2)



(Fig.3)

ADJUST THE WELDING HELMET ACCORDING TO YOUR INDIVIDUAL REQUIREMENTS.

The headband should be adjusted both in circumference and height.

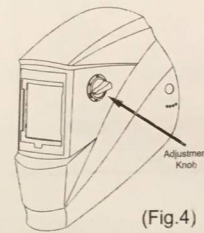
The angle between face and helmet should also be adjusted and recommended to be 10°-12°(Fig.1).

Adjust helmet's headband stop to get desired viewing angle(Fig.2).

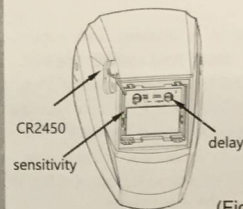
ADJUST HEADBAND AS PER INDIVIDUAL'S PREFERENCES.

Use the ratcheting knob on the headband to adjust width.

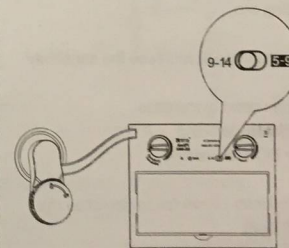
Loosen or tighten the top strap to adjust headband height, Make sure the helmet is firmly fit on the head (Fig.3).



(Fig.4)



(Fig.5)



(Fig.6)

ON/OFF

The solar unit automatically switches ON when exposed to light.

2. SELECT THE SHADE NUMBER

1) Welding control

Two ranges of shade numbers, "5-9" and "9-14" are available in the dark state(Fig.6).

⚠ WARNING

Make sure that the adjustment knob is on the "5-9" or "9-14" position before starting to weld.

2) Grinding control

The arrow on the knob indicates the shade setting. Set the adjustable knob to "Grind" position for grinding application.

⚠ WARNING

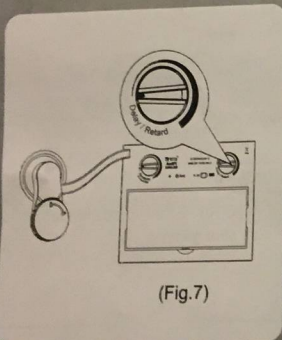
MAKE SURE TO RESET the knob back to "5-9" or "9-14" position after grinding.

RECOMMENDED SETTINGS

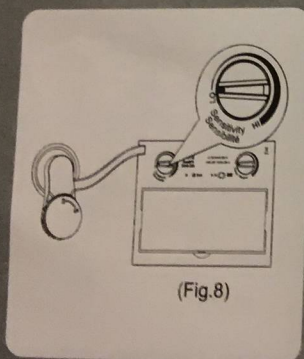
WELDING PROCESS	CURRENT AMPERES																									
	5	7	9	10	15	20	30	40	50	60	70	80	90	100	125	150	175	200	225	250	275	300	350	400	450	500
Covered Electrode																										
MIG Pulse Welding																										
MIG Shield Metal																										
TIG																										
MAG																										
Arc Gouging																										
Plasma Cutting																										
Plasma Welding																										

Shade numbers are given as a guide only and may be varied to suit individual needs.

3. DELAY TIME



(Fig.7)



(Fig.8)

- This welding helmet is featured with continuously adjustable delay time control. The lens will lighten in 0.1 to 1.0 seconds upon ambient temperature and shade setting. By turning the DELAY knob (Fig.7) clockwise, the delay time will increase from 0.1 seconds to 1.0 seconds. Turn Knob counter-clockwise for tack welding or production welding with short welds.
- Turn Knob clockwise for welding at high amperage where there is an after glow from the welding.

This welding helmet is featured with continuously adjustable sensitivity control knob. Sensitivity is a setting of how sensitive this helmet is responding to the welding arc.

Turn knob clockwise to increase the sensitivity (Fig.8).

Scenario may need to increase:

- 1) Low amperage welding
- 2) Used for DC TIG welding

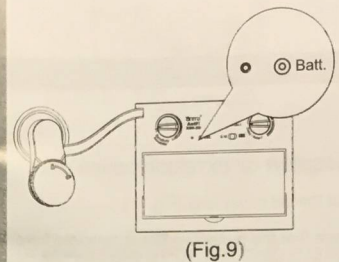
Turn knob counter-clockwise to decrease the sensitivity (Fig.8).

Scenario may need to decrease:

- 1) High ambient light
- 2) Interference exists

Adjust sensitivity setting to properly condition according to the application and the environment.

4. PRE-WELDING CHECK & BATTERY TESTING



(Fig.9)

The following procedures should be followed to perform this testing:

- 1) Make sure there is enough ambient light to trigger the auto darkening lens on.
- 2) Make sure that the adjustment knob is on the "5-9/9-14" position.
- 3) Press and hold on the "Batt" button (Fig.9) for 1-2 seconds:

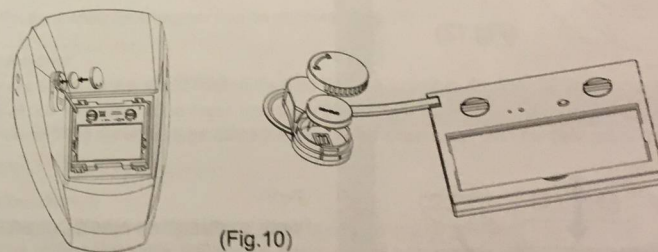
If the LED (Fig.9) is ON, and the lens is darkened as per shade setting, the helmet is functioning properly.

If the LED is NOT ON when procedures above are followed, battery replacement is required.

If the LED is ON and LCD is not darkening as per shade setting, the auto darkening lens may be Defective

CAUTION Always test the auto darkening lens before welding.

5. MAINTENANCE



(Fig.10)

REPLACEMENT OF BATTERIES

- 1) Open the back cover counterclockwise,
- 2) Gently press one end of the battery to lift the other end of the battery, then remove it.
- 3) Put the new battery in,
- 4) Tighten the back cover clockwise.



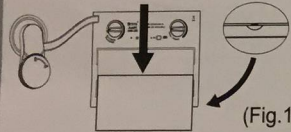
NEVER put used batteries into house hold waste.
Please always have used batteries recycle properly.



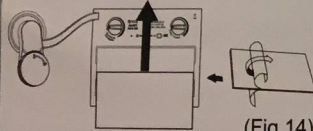
(Fig.11)



(Fig.12)



(Fig.13)



(Fig.14)

REPLACEMENT OF EXTERIOR COVER LENS

Take out the old cover lens (Fig.11).

Make sure that the protective film is removed from the new cover lens.

Place the new cover lens in the recess at the front of the helmet (Fig.12).

WARNING

Ensure the front cover lens is mounted before using and the protective film on the lens cover is removed.

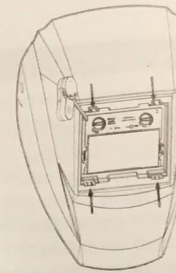
Ensure that the lens is clean and there is no dirt or spatter covering the 4 sensors at the front of the filter cartridge.

REPLACEMENT OF INNER COVER LENS

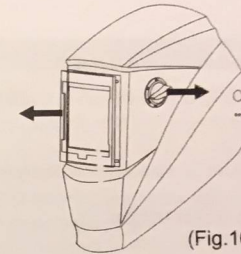
1) Lift the cover lens from the groove of the inner frame with your hand or hard object, so that the cover lens pops out of the inner frame and then push it out(Fig.13).

2) Remove the protective film from the new cover lens(Fig.14).

3)Push the new cover lens in the recess along the card slots on both sides of the ADF carefully.



(Fig.15)



(Fig.16)

REPLACEMENT OF WELDING FILTER

1. Front cover lens retainer removal

There are 4 lugs on the front cover lens retainers, locked into the 4 slots on the shield. Use a tool like ball pen will make it much easier to loose these lugs.

- 1) Put the helmet on one hand, holding the lens cover retainer, with the interior side of helmet facing up. Use the ball pen to push the lug inwards to the center of the filter, the lug will sag a bit into the slot(Unlocked from the slot on the shield),
- 2) then press the lug downwards (completely unlocked from the shield). (Fig.15)
- 3) Repeat 1)-2) for all 4 lugs.

2. Front cover lens retainer removal

Now the front cover lens retainer can be removed. (Fig.16)

3. Filter removal

There are 4 lugs on the shield holding the filter firmly. To remove the filter, lift TOP lugs using thumb of one hand and at the mean time push the TOP part of filter with the other hand, the Filter will be lifted out of the lugs. Once it is completely popped up, take the filter out of the shield carefully.

4. Filter installation

- 1) Position the filter, make sure the solar panel is outside and up position.
- 2) Slide the bottom of the filter first into the shield, with all bottom edge sitting correctly into bottom lugs.
- 3) Lift the TOP lugs from inside while pushing the UP edge of the filter into the TOP lugs, once both of the TOP lugs are on the UP edge of the filter, push the filter slightly and the lugs will lock the filter in position.

5. Front cover installation

Position the lens retainer correctly, push and lock the lens retainer in the shield properly.

6.INSPECTION

1. Carefully inspect your Auto-Darkening Welding Filter regularly.
2. Cracked, pitted or scratched filter glass or cover lenses reduced vision will seriously impair protection.
3. Worn parts should be replaced immediately to avoid injury to the eyes.

CLEANING AND DISINFECTION

Clean the helmet with mild soap and lukewarm water.
Clean the welding filter with a clean lint-free tissue or cloth.
DO NOT immerse in water.
DO NOT use solvents.

TROUBLE SHOOTING

AUTO DARKENING FILTER DOES NOT DARKEN OR FLICKER

- Check the lens cover for dirt and spatter that may be blocking the arc sensors.
- The sensors are dirty, wipe them clean with a soft lint-free cloth.
- Check the sensitivity setting recommendations and increase the sensitivity if possible.
- Increasing lens delay 0.1-0.3 second may also reduce flickering.
- Check batteries and verify that they are in good condition and installed properly.
- Battery terminals and the contact surface of the filter are dirty or oxidized(clean both) .
- Shade adjustment knob is on "GRIND" position, set helmet on "WELD" and/or proper shade from "5-13".

THE LENS STAYS DARK AFTER THE WELD ARC IS EXTINGUISHED, OR THE AUTO-LENS STAYS DARK WHEN NO ARC IS PRESENT.

- Fine-tune the sensitivity setting in small increments. In extreme light conditions, it may be necessary to reduce the surrounding light levels.

SLOW SWITCHING

- The operating temperature is too low, don't use at temperatures of below -5 °C (+23°F) .

POOR VISION

- The cover lens and the filter cartridge is dirty or damaged, clean the dirty components and replace the damaged ones.
- Ensure ambient light is not too low.
- Ensure the shade number is correct and adjust accordingly.

IRREGULAR DARKENING

- Headband has been set unevenly so the distance between the eyes and the lens is different from the left to the right side.

WARNING

If the described malfunctions cannot be solved, stop using the helmet immediately and contact the nearest distributor.

1. Please do not operated if the temperature below -5 °C (+: 3°F) .
2. This product should not be used for over-head position welding. If this product is used for over-head welding, molten metal could drop and cause welder injury.
3. This product has certain heat resistant and flame retardant qualities, but in case of open flame or access to high temperature object, the helmet may burn or melt. Please properly store and use in order to reduce such risks.
4. Please keep the filter dry and clean, for it is an electronic product and not waterproof.
5. Please inspect the filter before each use. Do not use if there are any visible signs of damage.

WARRANTY

We warrant to the purchaser that the product will be free from defects in material and workmanship for the period of one year from the date of purchase. Our sole obligation under this warranty is limited to replacement or repairs.

This warranty does not cover product malfunctions or damages, which result from the product being tampered, misused or abused. We are not responsible for any indirect damages or injury, which arises out of the use of the product.

We recommend a use for a period of 3 years, but no longer than 5 years. The duration of use depends on various factors such as use, cleaning, storage and maintenance. Frequently inspections and replacement if it is damaged are recommended.

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